

Parts Manual



See "General Information"
for New Parts Manual
Features.

3406E Marine Engine

9WR1-Up (Engine)

Product and Dealer Information

Note: For product identification plate locations, see the section "Product Identification Information" in the Operation and Maintenance Manual.

Delivery Date: _____

Product Information

Model: _____

Product Identification Number: _____

Engine Serial Number: _____

Transmission Serial Number: _____

Generator Serial Number: _____

Attachment Serial Numbers: _____

Attachment Information: _____

Customer Equipment Number: _____

Dealer Equipment Number: _____

Dealer Information

Name: _____ Branch: _____

Address: _____

Dealer Contact

Phone Number

Hours

Sales: _____

Parts: _____

Service: _____

Informations produit et concessionnaire

Nota: Voir l'emplacement de la plaque signalétique du produit au chapitre "Informations produit" du guide d'utilisation et d'entretien.

Date de livraison: _____

Informations produit

Modèle: _____

Numéro d'identification produit: _____

Numéro de série du moteur: _____

Numéro de série de la boîte de vitesses: _____

Numéro de série de l'alternateur: _____

Numéros de série d'équipement: _____

Informations sur l'équipement: _____

Numéro matériel client: _____

Numéro matériel concessionnaire: _____

Informations concessionnaire

Nom: _____ Agence: _____

Adresse: _____

Contact concessionnaire

Numéro de téléphone

Heures

Ventes: _____

Pièces: _____

Service: _____

Información del Producto/Distribuidor

Nota: Para saber la ubicación de las placas de identificación del producto, ver la sección “Información sobre identificación del producto” en el Manual de Operación y Mantenimiento.

Fecha de entrega: _____

Información del producto

Modelo: _____

Número de identificación del producto: _____

Número de serie del motor: _____

Número de serie de la transmisión: _____

Número de serie del generador: _____

Números de serie de los accesorios: _____

Información sobre los accesorios: _____

Número del equipo del cliente: _____

Número del equipo del distribuidor: _____

Información del distribuidor

Nombre: _____ Sucursal: _____

Dirección: _____

Comunicación con el distribuidor

Número de teléfono

Horas

Ventas: _____

Piezas: _____

Servicio: _____

Informações Sobre Produto e Revendedor

Nota: Para localizações da placa de identificação do produto, consulte a seção, “Informações Sobre Identificação do Produto” no Manual de Operação e Manutenção.

Data de Entrega: _____

Informações Sobre o Produto

Modelo: _____

Número de Identificação do Produto: _____

Número de Série do Motor: _____

Número de Série da Transmissão: _____

Número de Série do Gerador: _____

Números de Série de Acessórios: _____

Informações Sobre Acessórios: _____

Número do Equipamento do Cliente: _____

Número do Equipamento do Revendedor: _____

Informações Sobre o Revendedor

Nome: _____ Filial: _____

Endereço: _____

Contato do Revendedor

Telefone

Horas

Vendas: _____

Peças: _____

Serviço: _____

Produkt- und Händlerinformation

Anmerkung: Für die Lage der Produkt-Identnummer und Seriennummern siehe Abschnitt "Produkt-Identinformation" im Betriebs- und Wartungshandbuch.

Lieferdatum: _____

Produkt-Identinformation

Modell: _____

Produkt-Identnummer: _____

Seriennummer des Motors: _____

Seriennummer des Getriebes: _____

Seriennummer des Generators: _____

Seriennummern der Arbeitsgeräte: _____

Arbeitsgeräteinformation: _____

Kundennummer: _____

Händlernummer: _____

Händlerinformation

Name: _____ Niederlassung: _____

Adresse: _____

Kontaktperson beim Händler

Telefon

Dienststunden

Verkauf: _____

Ersatzteile: _____

Service: _____

MEMORANDA

TABLE OF CONTENTS

Name	Page	Name	Page
GENERAL INFORMATION	A13	FILLER GP-ENGINE OIL	112
REPAIR ALTERNATIVES	A23	FILTER & LINES GP-ENGINE OIL	116
SUPPLEMENTAL COOLANT ADDITIVES	A28	FILTER GP-ENGINE OIL	122
MAINTENANCE PARTS	A33	GAUGE GP-OIL LEVEL (DIPSTICK)	126
INDEX	A48	HOSE AS	128
ENGINE ARRANGEMENT	1	LINES GP-ENGINE OIL	130
ENGINE AR-CORE	1	LINES GP-TURBOCHARGER OIL	134
BASIC ENGINE	11	PUMP GP-ENGINE OIL	135
ADAPTER GP-PUMP DRIVE	11	PUMP GP-SUMP	138
BASE GP-VALVE COVER & INJ HARN	12	COOLING SYSTEM	144
CAMSHAFT GP	13	COOLER GP-ENGINE OIL	144
CLUTCH GP	14	COOLER GP-MARINE TMSN OIL	146
COVER GP-CYLINDER BLOCK	16	COOLER GP-TRANSMISSION OIL	148
COVER GP-FLYWHEEL HOUSING	21	COVER GP-WATER LINES	149
COVER GP-FRONT HOUSING	23	FITTING GP-WATER LINES	150
COVER GP-VALVE MECHANISM	26	FOOT VALVE & STRAINER AS	151
CRANKSHAFT GP	38	HEAT EXCHANGER GP	152
CYLINDER BLOCK AS	39	HOUSING & REGULATOR GP	156
CYLINDER BLOCK GP	42	LINES GP-AUXILIARY	160
CYLINDER HEAD AS	50	LINES GP-WATER	162
CYLINDER HEAD GP	54	PLATE GP-HEAT EXCHANGER	168
DAMPER & PULLEY GP	62	PLUG GP-WATER LINES	170
DAMPER GP	65	PUMP AS-BILGE	171
DRIVE GP-PUMP	66	PUMP GP-AUXILIARY	172
FASTENER GP-FRONT HOUSING	67	PUMP GP-AUXILIARY SEA WATER	178
FITTING GP-OIL PAN	69	PUMP GP-BILGE	182
FLYWHEEL GP	72	PUMP GP-WATER	183
GEAR GP-FRONT	74	RECOVERY GP-COOLANT	195
GUARD GP-DAMPER	76	REGULATOR GP-TEMPERATURE	196
HOUSING GP-FLYWHEEL	80	AIR INLET AND EXHAUST SYSTEM	198
HOUSING GP-FRONT	82	AFTERCOOLER GP	198
LIFTING GP-ENGINE	84	AIR CLEANER GP	202
MECHANISM GP-FUEL PUMP & VALVE	86	CAP AS-RAIN	210
MOUNTING GP-ALTERNATOR	90	ELBOW GP-EXHAUST	211
MOUNTING GP-ENGINE	98	ELBOW-EXHAUST	213
MOUNTING GP-PUMP DRIVE	99	FASTENER GP-AIR CLEANER	214
PAN GP-OIL	100	FASTENER GP-EXHAUST MANIFOLD	215
PISTON & ROD GP	102	FITTING GP-EXHAUST	216
PLUG GP-CYLINDER HEAD	103	FLANGE GP-EXHAUST	217
POWER TAKE-OFF GP-FRONT	104	LINES GP-AFTERCOOLER DRAIN	219
ROCKER ARM GP	105	LINES GP-AIR	221
SLEEVE GP-INJECTOR	108	MANIFOLD GP-WATER COOLED EXH	222
SUPPORT GP-ENGINE	109	PIPE GP-EXHAUST	223
LUBRICATION SYSTEM	111	TURBOCHARGER GP	224
FASTENER GP-OIL PUMP	111	FUEL SYSTEM	228
MOUNTING	111	COOLER GP-FUEL	228
		FILTER GP-FUEL	229
		FITTING GP-FUEL LINES	232
		FITTING GP-FUEL RETURN	233
		LINES GP-FLEXIBLE FUEL	234
		LINES GP-FUEL	236
		PUMP & MTG GP-FUEL TRANSFER	244

TABLE OF CONTENTS

Name	Page	Name	Page
PUMP GP-FUEL INJECTION	245	SERVICE EQUIPMENT AND SUPPLIES	406
PUMP GP-FUEL PRIMING	247	CHART-PLATE & FILM	406
PUMP GP-FUEL TRANSFER	248	GREASE GUN GP	407
VALVE GP-CHECK	249	KIT-CRUISE	409
VALVE GP-PRESSURE CONTROL	250	KIT-FUEL LINES	412
		TOOL GP-HAND	414
ELECTRICAL AND STARTING SYSTEM	251	PART NUMBER INDEX	B1
ADAPTER GP-SENSOR	251		
ALTERNATOR GP-CHARGING	252		
BATTERY CHARGER	263		
BATTERY GP	264		
CABLE AS-EXTENSION	270		
CIRCUIT BREAKER GP	271		
CONNECTION GP-ELECTRICAL	276		
CONTROL & MTG GP-ENGINE ELEK	277		
CONTROL GP-AUTO START/STOP	280		
CONTROL GP-ENGINE ELECTRONIC	286		
CONTROL GP-ENGINE VISION	293		
CONTROL GP-START/STOP	296		
DIODE AS	298		
HARNESS AS	299		
HARNESS AS-WIRING	304		
HEATER GP-JACKET WATER	305		
LUBRICATOR GP-AIR MOTOR	307		
MAGNETIC PICKUP GP	308		
MOUNTING GP-CIRCUIT BREAKER	309		
MOUNTING GP-CONTROL	311		
SENSOR & MTG GP-PRESSURE	314		
SENSOR GP-COOLANT LEVEL	315		
SENSOR GP-POSITION	316		
SENSOR GP-PRESSURE	318		
SENSOR GP-SPEED	324		
SENSOR GP-TEMPERATURE	325		
STARTING MOTOR GP-AIR	326		
STARTING MOTOR GP-ELECTRIC	330		
SWITCH GP-REMOTE STARTING	369		
SWITCH GP-START	370		
VALVE GP-AIR STARTING	371		
WIRING GP	372		
WIRING GP-ENGINE	376		
WIRING GP-INSTRUMENT	377		
WIRING GP-PANEL	378		
OPERATOR STATION	379		
CONTROL GP-ENGINE MONITORING	379		
CONTROL GP-MONITOR	381		
CONVERTER GP-ELECTRICAL	383		
DISPLAY GP-ENGINE VISION	384		
MODULE GP-QUAD GAUGE	389		
MODULE GP-SPEEDOMETER & TACH	394		
MODULE GP-SYSTEM COMMUNICATION	400		
MOUNTING GP-TACHOMETER	404		
TACHOMETER GP-ELECTRIC	405		

TABLE DES MATIÈRES

Désignation	Page	Désignation	Page
GÉNÉRALITÉS	A15	MONTAGE D'ENTRAÎNEMENT DE POMPE (ENS)	99
OPTIONS DE RÉPARATION	A24	HUILE MOTEUR - CARTER (ASS)	100
ADDITIFS POUR LIQUIDE DE REFROIDISSEMENT	A29	PISTON ET BIELLE (ASS)	102
PIÈCES DE RECHANGE	A36	BOUCHON - CULASSE (ASS)	103
INDEX	A54	PRISE DE FORCE AVANT (ASS)	104
MOTEUR COMPLET	1	AXE DE CULBUTEUR (ASS)	105
MOTEUR - PARTIE CENTRALE (VERSION)	1	MANCHON D'INJECTEUR (ASS)	108
MOTEUR	11	SUPPORT DE MOTEUR (ASS)	109
ADAPTATEUR - ENTRAÎNEMENT DE POMPE (ASS)	11	CIRCUIT DE GRAISSAGE	111
SUPPORT DE CACHE-SOUPAPE ET FAISC. DE CABL. D'IN.	12	BOULONNERIE DE MONTAGE DE LA POMPE A HUILE (ASS)	111
ARBRE A CAMES (ASS)	13	BOUCHON DE REMPLISSAGE D'HUILE MOTEUR (ASS)	112
EMBRAYAGE (ASS)	14	FILTRE ET CANALISATIONS D'HUILE MOTEUR (ASS)	116
BLOC-CYLINDRES - COUVERCLE (ASS)	16	FILTRE À HUILE MOTEUR (ASS)	122
COUVERCLE DE CARTER DE VOLANT (ASS)	21	JAUGE D'HUILE MOTEUR (BAIONNETTE) (ASS)	126
COUVERCLE DE CARTER AV (ASS)	23	FLEXIBLE (ENS)	128
CACHE-SOUPAPES (ASS)	26	CANALISATIONS D'HUILE MOTEUR (ASS)	130
VILEBREQUIN (ASS)	38	CANALISATIONS D'HUILE DE TURBOCOMPRESSEUR (ASS)	134
BLOC-CYLINDRES (ENS)	39	POMPE A HUILE MOTEUR (ASS)	135
BLOC-CYLINDRES (ASS)	42	POMPE DE CARTER	138
CULASSE (ENS)	50	CIRCUIT DE REFROIDISSEMENT	144
CULASSE (ASS)	54	REFROIDISSEUR D'HUILE MOTEUR (ASS)	144
AMORTISSEUR DE VIBRATIONS ET POULIE (ASS)	62	REFROIDISSEUR D'HUILE DE REDUCTEUR MARIN (ASS)	146
AMORTISSEUR DE VIBRATIONS (ASS)	65	REFROIDISSEUR D'HUILE DE BOÎTE (ASS)	148
ENTRAÎNEMENT DE POMPE (ASS)	66	COUVERCLE DES CANALISATIONS D'EAU	149
BOULONNERIE DE CARTER AV (ASS)	67	RACCORD DE CANALISATIONS D'EAU (ASS)	150
RACCORD DE CARTER D'HUILE (ASS)	69	PIED DE SOUPAPE ET TAMIS (ENS)	151
VOLANT MOTEUR (ASS)	72	ÉCHANGEUR DE CHALEUR (ASS)	152
PIGNONNERIE AV (ASS)	74	THERMOSTAT ET BOITIER (ASS)	156
AMORTISSEUR DE VIBRATIONS - PROTECTION (ASS)	76	CANALISATIONS AUXILIAIRES (ASS)	160
CARTER DE VOLANT (ASS)	80	CANALISATIONS D'EAU (ASS)	162
CARTER AV (ASS)	82	PLAQUE (ASS)	168
OEILLETONS DE LEVAGE MOTEUR (ASS)	84	BOUCHON DES CANALISATIONS D'EAU (ASS)	170
CULBUTERIE ET POMPE A CARBURANT (ASS)	86	POMPE A EAU DE CALE	171
MONTAGE D'ALTERNATEUR (ASS)	90	POMPE AUXILIAIRE (ASS)	172
MONTAGE DE MOTEUR (ASS)	98	POMPE AUXILIAIRE D'EAU DE MER (ASS)	178
		POMPE À EAU DE CALE (ASS)	182
		POMPE A EAU (ASS)	183
		VASE D'EXPANSION POUR LIQUIDE RÉFRIGÉRANT	195

TABLE DES MATIÈRES

Désignation	Page	Désignation	Page
RÉGULATEUR DE TEMPÉRATURE (ASS)	196	BRANCHEMENT ÉLECTRIQUE (ASS)	276
SYSTEME D'ÉCHAPPEMENT ET D'ADMISSION D'AIR	198	COMMANDE ET MONTAGE - MOTEUR	277
REFROIDISSEUR D'ADMISSION (ASS)	198	COMMANDE DE DÉMARRAGE/ARRÊT AUTOMATIQUE	280
FILTRE A AIR (ASS)	202	COMMANDE ELECTRONIQUE DE MOTEUR (ASS)	286
DÉFLECTEUR DE PLUIE (ENS)	210	COMMANDE DE VISION MOTEUR (ASS)	293
COUDE D'ÉCHAPPEMENT (ASS)	211	COMMANDE DE DÉMARRAGE/ARRÊT (ASS)	296
COUDE D'ÉCHAPPEMENT	213	DIODE (ENS)	298
BOULONNERIE (ASS)	214	FAISCEAU DE CABLES (ENS)	299
BOULONNERIE DU COLLECTEUR D'ÉCHAPPEMENT (ASS)	215	EAU DES CHEMISES - RECHAUFFEUR (ASS)	305
RACCORD D'ÉCHAPPEMENT (ASS)	216	MOTEUR PNEUMATIQUE - GRAISSAGE (ASS)	307
BRIDE D'ÉCHAPPEMENT (ASS)	217	CAPTEUR MAGNÉTIQUE (ASS)	308
CANALISATIONS DE VIDANGE DU REFROIDISSEUR D'ADMISSION	219	MONTAGE DE DISJONCTEUR (ASS)	309
CANALISATIONS D'AIR (ASS)	221	MONTAGE DE GROUPE DE COMMANDE	311
COLLECTEUR D'ÉCHAPPEMENT REFROIDI PAR EAU	222	CAPTEUR DE PRESSION ET MONTAGE	314
ECHAPPEMENT - TUYAU (ASS)	223	CAPTEUR (ASS)-NIVEAU DE LIQUIDE DE REFROIDISSEMENT	315
TURBOCOMPRESSEUR (ASS)	224	SONDE - CIRCUIT DE CARBURANT	316
CIRCUIT DE CARBURANT	228	CAPTEUR DE PRESSION (ASS)	318
REFROIDISSEUR DE CARBURANT	228	CAPTEUR DE VITESSE (ASS)	324
FILTRE A CARBURANT (ASS)	229	CAPTEUR DE TEMPERATURE (ASS)	325
RACCORD - CANALISATIONS DE CARBURANT (ASS)	232	DEMARREUR PNEUMATIQUE (ASS)	326
RACCORD DE RETOUR DU CARBURANT (ASS)	233	DÉMARREUR ÉLECTRIQUE (ASS)	330
TUYAUX FLEXIBLES DE CARBURANT (ASS)	234	INTERRUPTEUR DE DÉMARRAGE À DISTANCE (ASS)	369
CANALISATIONS DE CARBURANT (ASS)	236	INTERRUPTEUR DE DÉMARRAGE (ASS)	370
POMPE D'ALIMENTATION ET MONTAGE (ASS)	244	SOUPAPE DE DÉMARREUR PNEUMATIQUE (ASS)	371
POMPE D'INJECTION DE CARBURANT (ASS)	245	CÂBLAGE (ASS)	372
POMPE D'AMORÇAGE DE CARBURANT (ASS)	247	CABLAGE DE MOTEUR (ASS)	376
POMPE D'ALIMENTATION EN CARBURANT (ASS)	248	CABLAGE DES INSTRUMENTS (ASS)	377
CLAPET DE RETENUE (ENS)	249	CÂBLAGE DE PANNEAU (ASS)	378
DISTRIBUTEUR DE PRESSION (ASS)	250	POSTE DE CONDUITE	379
CIRCUIT ELECTRIQUE ET DE DEMARRAGE	251	COMMANDE DE SURVEILLANCE DE MOTEUR (ASS)	379
ADAPTATEUR DE CAPTEUR	251	GROUPE DE CONTROLE	381
ALTERNATEUR DE CHARGE (ASS)	252	TRANSFORMATION ELECTRIQUE (ASS)	383
CHARGEUR DE BATTERIE	263	AFFICHAGE-VISION MOTEUR (ASS)	384
BATTERIE (ASS)	264	MODULE - QUATRE INSTRUMENTS (ASS)	389
CÂBLE - RALLONGE (ENS)	270	MODULE D'INDICATEUR DE VITESSE ET COMPTE-TOURS (ASS)	394
DISJONCTEUR (ASS)	271	MODULE - SYSTÈME DE COMMUNICATION (ASS)	400

TABLE DES MATIÈRES

Désignation	Page	Désignation	Page
MONTAGE DE COMPTE-TOURS (ASS)	404		
COMPTE-TOURS ÉLECTRIQUE (ASS)	405		
MATÉRIEL ET FOURNITURES			
D'ENTRETIEN	406		
TABLEAU - PLAQUE ET AUTOCOLLANT	406		
GRAISSEUR À MAIN (ASS)	407		
KIT DE REPARATION DU MOTEUR EN CROISIERE	409		
KIT DE CANALISATIONS DE CARBURANT	412		
OUTILS (ASS)	414		
INDEX DE NUMÉROS DE PIÈCES	B1		

CONTENIDO

Nombre	Página	Nombre	Página
INFORMACIÓN GENERAL	A17	PISTÓN Y BIELA (GR)	102
ALTERNATIVAS DE REPARACIÓN	A25	TAPÓN DE CULATA (GR)	103
ADITIVOS DE REFRIGERANTE SUPLEMENTARIOS	A30	TOMA DE FUERZA DELANTERA (GR)	104
PIEZAS DE MANTENIMIENTO	A39	BALANCÍN (GR)	105
INDICE	A61	MANGUITO DE INJECTOR (GR)	108
CONFIGURACIÓN DE MOTOR	1	MOTOR - SOPORTE DEL (GR)	109
MOTOR - NÚCLEO (CONFIG)	1	SISTEMA DE LUBRICACIÓN	111
MOTOR BÁSICO	11	TORNILLERÍA DE MONT. DE LA BOMBA DE ACEITE (GR)	111
ADAPTADOR DEL MANDO DE LA BOMBA	11	TUBO DE LLENADO DE ACEITE (GR)	112
BASE DE LA TAPA DE VÁLVULAS Y MAZO DE CABLES DE INJECTOR (GR)	12	FILTRO Y TUBERIAS DE ACEITE DE MOTOR (GR)	116
ÁRBOL DE LEVAS (GR)	13	FILTRO DE ACEITE DEL MOTOR (GR)	122
EMBRAGUE (GR)	14	INDICADOR DEL NIVEL DE ACEITE (VARILLA) (GR)	126
TAPA DEL BLOQUE MOTOR (GR)	16	TUBO DE GOMA	128
TAPA DE LA CAJA DE VOLANTE (GR)	21	TUBERÍAS DE ACEITE DEL MOTOR (GR)	130
TAPA DE LA CAJA DELANTERA (GR)	23	TURBOCOMPRESOR - TUBERÍAS DE ACEITE DEL (GR)	134
TAPA DEL MECANISMO DE VÁLVULAS (GR)	26	BOMBA DE ACEITE DEL MOTOR (GR)	135
CIGÜEÑAL (GR)	38	BOMBA DE SUMIDERO (GR)	138
BLOQUE MOTOR (CONJ)	39	SISTEMA DE ENFRIAMIENTO	144
BLOQUE MOTOR (GR)	42	ENFRIADOR DE ACEITE DEL MOTOR (GR)	144
CULATA DE CILINDROS (CONJ)	50	ENFRIADOR DE ACEITE DE LA TRANSMISIÓN MARINA (GR)	146
CULATA DE CILINDROS (GR)	54	ENFRIADOR DE ACEITE DE LA TRANSMISIÓN (GR)	148
AMORTIGUADOR Y POLEA (GR)	62	TAPA DE LAS TUBERÍAS DE AGUA (GR)	149
AMORTIGUADOR DE VIBRACIONES (GR)	65	CONEXIÓN DE LAS TUBERÍAS DE AGUA	150
MANDO DE BOMBA (GR)	66	CONJUNTO DE COLADOR Y VALVULA DE PEDAL	151
CAJA DELANTERA - TORNILLERÍA DE LA (GR)	67	INTERCAMBIADOR DE CALOR (GR)	152
CONEXION DEL COLECTOR DE ACEITE (GR)	69	REGULADOR Y CAJA (GR)	156
VOLANTE (GR)	72	TUBERÍAS AUXILIARES (GR)	160
ENGRANAJE DELANTERO (GR)	74	TUBERÍAS DEL AGUA (GR)	162
PROTECTOR DEL AMORTIGUADOR DE VIBRACIONES (GR)	76	PLACA DEL INTERCAMBIADOR DE CALOR (GR)	168
VOLANTE - CAJA DE (GR)	80	TAPÓN DE LAS TUBERÍAS DE AGUA (GR)	170
CAJA DELANTERA (GR)	82	BOMBA DE SENTINA (CONJ)	171
CÁNCAMOS DE LEVANTAMIENTO DEL MOTOR (GR)	84	BOMBA AUXILIAR (GR)	172
BOMBA DE COMBUSTIBLE Y MECANISMO DE VÁLVULAS (GR)	86	BOMBA AUXILIAR DE AGUA DE MAR (GR)	178
MONTAJE DEL ALTERNADOR (GR)	90	BOMBA DE SENTINA (GR)	182
MONTAJE DEL MOTOR (GR)	98	BOMBA DE AGUA (GR)	183
MONTAJE DEL MANDO DE LA BOMBA (GR)	99	RECUPERACIÓN DEL REFRIGERANTE (GR)	195
CÁRTER - COLECTOR DEL (GR)	100	TEMPERATURA - REGULADOR DE (GR)	196

CONTENIDO

Nombre	Página	Nombre	Página
SISTEMA DE ADMISION DE AIRE Y ESCAPE		CONTROL AUTOMÁTICO DE ARRANQUE Y PARADA	
ESCAPE	198	PARADA	280
POSENFRIADOR (GR)	198	CONTROL ELECTRÓNICO DEL MOTOR (GR)	286
FILTRO DE AIRE (GR)	202	CONTROL DEL MÓDULO DE COMUNICACIÓN DEL CLIENTE (GR)	293
TAPA CONTRA LA LLUVIA (CONJ)	210	CONTROL DE ARRANQUE/PARADA (GR)	296
CODO DE ESCAPE (GR)	211	DIODO	298
CODO DE ESCAPE	213	MAZO DE CABLES	299
SUJETADOR DEL LIMPIADOR DE AIRE (GR)	214	MAZO DE CABLES (CONJ)	304
TORNILLERÍA DEL MÚLTIPLE DE ESCAPE (GR)	215	AGUA DE LAS CAMISAS - CALENTADOR DEL (GR)	305
CONEXIÓN DE ESCAPE (GR)	216	MOTOR DE ARRANQUE POR AIRE - LUBRICACIÓN DEL (GR)	307
BRIDA DE ESCAPE (GR)	217	DETECTOR MAGNÉTICO (GR)	308
TUBERIAS DE DRENAJE DE POSENFRIADOR (GR)	219	MONTAJE DEL DISYUNTOR (GR)	309
AIRE - TUBERÍAS DE (GR)	221	MONTAJE DE CONTROL (GR)	311
MÚLTIPLE DE ESCAPE ENFRIADO POR AGUA (GR)	222	SENSOR DE PRESIÓN Y MONTAJE (GR)	314
TUBO DE ESCAPE (GR)	223	SENSOR DE NIVEL DE REFRIGERANTE (GR)	315
TURBOCOMPRESOR (GR)	224	DETECTOR DE POSICIÓN (SISTEMA DE COMBUST.) (GR)	316
SISTEMA DE COMBUSTIBLE	228	SENSOR DE PRESIÓN (GR)	318
ENFRIADOR DEL COMBUSTIBLE (GR)	228	SENSOR DE VELOCIDAD (GR)	324
FILTRO DE COMBUSTIBLE (GR)	229	SENSOR DE TEMPERATURA (GR)	325
CONEXIÓN DE ENGRASE DE LAS TUBERÍAS DE COMBUSTIBLE	232	ARRANQUE POR AIRE - MOTOR DE (GR)	326
CONEXION DE RETORNO DE COMBUSTIBLE (GR)	233	MOTOR DE ARRANQUE ELÉCTRICO (GR)	330
COMBUSTIBLE - TUBERIAS FLEXIBLES DE	234	INTERRUPTOR DE ARRANQUE REMOTO (GR)	369
TUBERÍAS DE COMBUSTIBLE (GR)	236	ARRANQUE - INTERRUPTOR DE (GR)	370
BOMBA DE TRANSFERENCIA DE COMBUSTIBLE Y MONTAJE (GR)	244	VALVULA PARA MOTOR DE ARRANQUE POR AIRE (GR)	371
BOMBA DE INYECCIÓN DE COMBUSTIBLE (GR)	245	CABLES (GR)	372
BOMBA DE CEBADO DE COMBUSTIBLE (GR)	247	CABLES DEL MOTOR (GR)	376
BOMBA DE TRANSFERENCIA DE COMBUSTIBLE (GR)	248	CABLES DE LOS INSTRUMENTOS (GR)	377
VÁLVULA DE RETENCIÓN (GR)	249	CABLES DEL TABLERO (GR)	378
PRESIÓN - VÁLVULA DE CONTROL DE (GR)	250	PUESTO DEL OPERADOR	379
SISTEMA ELECTRICO Y DE ARRANQUE	251	CONTROL ELECTRÓNICO DE MONITOREO DEL MOTOR (GR)	379
ADAPTADOR DE SENSOR (GR)	251	CONTROL DE MONITOR (GR)	381
CARGA - ALTERNADOR DE (GR)	252	CONVERTIDOR ELÉCTRICO (GR)	383
CARGADOR DE BATERÍA	263	PANTALLA DE VISUALIZACION DEL MOTOR (GR)	384
BATERÍA (GR)	264	MODULO ELECTRÓNICO DE CUATRO INDICADORES (GR)	389
CABLE DE LA EXTENSIÓN (CONJ)	270	MÓDULO DEL TACÓMETRO Y DEL VELOCÍMETRO (GR)	394
DISYUNTOR DE CIRCUITO (GR)	271		
CONEXIÓN ELÉCTRICA (GR)	276		
CONTROL ELECTRÓNICO DEL MOTOR Y MONTAJE	277		

CONTENIDO

Nombre	Página	Nombre	Página
MODULO DEL SISTEMA DE COMUNICACION (GR)	400		
MONTAJE DEL TACOMETRO(GR)	404		
TACOMETRO ELECTRICO (GR)	405		
EQUIPO DE SERVICIO Y SUMINISTROS	406		
TABLA DE LOCALIZACIÓN DE LAS PLACAS Y CALCOMANÍAS	406		
PISTOLA DE ENGRASE (GR)	407		
JUEGO DE REPARACION DURANTE LA TRAVESIA	409		
JUEGO DE TUBERIAS DE COMBUSTIBLE	412		
HERRAMIENTAS (GR)	414		
INDICE DE NUMEROS DE PIEZA	B1		

ÍNDICE

Designação	Página	Designação	Página
INFORMAÇÃO GERAL	A19	SISTEMA DE LUBRIFICAÇÃO	111
ALTERNATIVAS DE REPARO	A26	FIXADORES - BOMBA DE ÓLEO DO MOTOR	111
ADITIVOS SUPLEMENTARES DO LÍQUIDO ARREFECEDOR	A31	BOCAL DE ENCHIMENTO DE ÓLEO DO MOTOR	112
PEÇAS DE MANUTENÇÃO	A42	FILTRO DO ÓLEO DO MOTOR E TUBOS	116
ÍNDICE	A68	FILTRO - ÓLEO DO MOTOR	122
ARRANJO DO MOTOR	1	INDICADOR - NÍVEL DO ÓLEO (VARETA)	126
MOTOR - NÚCLEO	1	MANGUEIRA	128
MOTOR BÁSICO	11	TUBOS - ÓLEO DO MOTOR	130
ADAPTADOR DO COMANDO DA BOMBA	11	TUBOS - ÓLEO DO TURBOALIMENTADOR	134
GR. BÁSICO - TAMPA DAS VÁLVULAS E CHICOTE DE INJEÇÃO	12	BOMBA DE ÓLEO - MOTOR	135
EIXO-COMANDO DE VÁLVULA	13	BOMBA MANUAL DO CÂRTER	138
EMBREAGEM	14	SISTEMA DE ARREFECIMENTO	144
TAMPA - BLOCO DO MOTOR	16	ARREFECEDOR - ÓLEO DO MOTOR	144
TAMPA - CAIXA DO VOLANTE	21	ARREFECEDOR DO ÓLEO DA TRANSMISSÃO MARÍTIMA	146
TAMPA - CAIXA DIANTEIRA	23	ARREFECEDOR DE ÓLEO DA TRANSMISSÃO	148
TAMPA - MECANISMO DAS VÁLVULAS	26	TAMPA - TUBOS D'ÁGUA	149
VIRABREQUIM	38	CONEXÃO - TUBOS DE ÁGUA	150
BLOCO DO MOTOR	39	VÁLVULA DE PÉ E PENEIRA	151
CABEÇOTE DO MOTOR	50	PERMUTADOR DE CALOR	152
AMORTECEDOR DE VIBRAÇÕES E POLIA	62	TERMOSTATO / REGULADOR DE TEMPERATURA	156
AMORTECEDOR	65	TUBOS - AUXILIARES	160
COMANDO DA BOMBA	66	TUBOS - ÁGUA	162
FIXADORES - CAIXA DIANTEIRA	67	PLACA - PERMUTADOR DE CALOR	168
CONEXÃO - CÂRTER	69	BUJÃO - TUBULAÇÕES DE ÁGUA	170
VOLANTE DO MOTOR	72	BOMBA DE ESGOTAMENTO DE PORÃO	171
ENGRENAGENS DE DISTRIBUIÇÃO	74	BOMBA AUXILIAR	172
PROTETOR - AMORTECEDOR	76	BOMBA AUXILIAR DE ÁGUA DO MAR	178
CAIXA DO VOLANTE DO MOTOR	80	BOMBA DE ESGOTAMENTO DE PORÃO	182
CAIXA DIANTEIRA	82	BOMBA DE ÁGUA	183
LEVANTAMENTO DO MOTOR	84	RECUPERAÇÃO DE LÍQUIDO ARREFECEDOR	195
MECANISMO DAS VÁLVULAS E BOMBA DE COMBUSTÍVEL	86	TERMOSTATO	196
MONTAGEM - ALTERNADOR	90	SISTEMA DE ADMISSÃO E ESCAPE	198
MONTAGEM - MOTOR	98	PÓS-ARREFECEDOR	198
MONTAGEM - COMANDO DA BOMBA	99	PURIFICADOR DE AR	202
CÂRTER DO ÓLEO DO MOTOR	100	PROTETOR CONTRA CHUVA	210
PISTÃO E BIELA	102	COTOVELO DE ESCAPE	211
BUJÃO - CABEÇA DO CILINDRO	103	FIXADORES - PURIFICADOR DE AR	214
TOMADA DE FORÇA DIANTEIRA	104	FIXADORES - COLETOR DE ESCAPE	215
BALANCIM	105	CONEXÃO DE ESCAPE	216
LUVA INJETORA	108	FLANGE DE ESCAPE	217
SUORTE DO MOTOR	109	TUBULAÇÕES - DRENAGEM DO PÓS-ARREFECEDOR	219

ÍNDICE

Designação	Página	Designação	Página
TUBOS - AR	221	SENSOR - NÍVEL DO LÍQUIDO	
COLETOR DE ESCAPE - ARREFECIDO POR		ARREFECEDOR	315
ÁGUA	222	EMISSOR - POSIÇÃO	316
CANO DE ESCAPE	223	SENSOR - PRESSÃO	318
TURBOALIMENTADOR	224	SENSOR DE VELOCIDADE	324
SISTEMA DE COMBUSTÍVEL	228	SENSOR - TEMPERATURA	325
ARREFECEDOR DO COMBUSTÍVEL	228	MOTOR DE PARTIDA A AR	326
FILTRO - COMBUSTÍVEL	229	MOTOR ELÉTRICO DE PARTIDA	330
CONEXÃO - TUBOS DE		INTERRUPTOR DE PARTIDA -	
COMBUSTÍVEL	232	REMOTO	369
CONEXÃO - RETORNO DO		INTERRUPTOR - PARTIDA	370
COMBUSTÍVEL	233	VÁLVULA DE PARTIDA A AR	371
TUBOS - FLEXÍVEIS DO		CABOS/FIOS ELÉTRICOS	372
COMBUSTÍVEL	234	CABOS/FIOS ELÉTRICOS - MOTOR	376
TUBOS - COMBUSTÍVEL	236	CABOS/FIOS ELÉTRICOS -	
BOMBA E MONTAGEM - TRANSFERÊNCIA		INSTRUMENTOS	377
DE COMBUSTÍVEL	244	CABOS/FIOS ELÉTRICOS - PAINEL	378
BOMBA DE INJEÇÃO DO		POSTO DO OPERADOR	379
COMBUSTÍVEL	245	CONTROLE - MONITORIZAÇÃO DO	
BOMBA DE ESCORVA DO		MOTOR	379
COMBUSTÍVEL	247	CONTROLE DO PAINEL MONITOR	381
BOMBA DE TRANSFERÊNCIA DO		CONVERSOR ELÉTRICO	383
COMBUSTÍVEL	248	VISOR DO MOTOR	384
VÁLVULA DE RETENÇÃO	249	MÓDULO ELETRÔNICO DE QUATRO	
VÁLVULA DE CONTROLE DE		INDICADORES	389
PRESSÃO	250	MÓDULO - VELOCÍMETRO E	
SISTEMA ELÉTRICO E DE PARTIDA	251	TACÔMETRO	394
ADAPTADOR - SENSOR	251	MÓDULO DE COMUNICAÇÃO DO	
ALTERNADOR DE CORRENTE	252	SISTEMA	400
BATERIA - CARREGADOR	263	MONTAGEM - TACÔMETRO	404
BATERIA	264	TACÔMETRO - ELÉTRICO	405
CABO - EXTENSÃO	270	EQUIPAMENTOS DE SERVIÇO E	
INTERRUPTOR - CIRCUITO	271	SUPRIMENTOS	406
CONEXÃO - ELÉTRICA	276	TABELA - PLACA E DECALQUE	406
CONTROLE ELETRÔNICO E MONTAGEM -		BOMBA MANUAL DE LUBRIFICAÇÃO	407
MOTOR	277	JOGO DE REPARO PARA USO NO	
CONTROLE AUTOMÁTICO - DAR		CAMPO	409
PARTIDA/PARAR	280	JOGO DE TUBULAÇÕES DE	
CONTROLE ELETRÔNICO - MOTOR	286	COMBUSTÍVEL	412
CONTROLE - VISÃO DO MOTOR	293	FERRAMENTAS	414
CONTROLE - PARTIDA/PARADA	296	ÍNDICE DE NÚMERO DE PEÇA	B1
DIÔDO	298		
CHICOTE	299		
CHICOTE - CABOS ELÉTRICOS	304		
AQUECEDOR DA ÁGUA DO MOTOR	305		
LUBRIFICADOR DO MOTOR DE PARTIDA A			
AR	307		
SENSOR MAGNÉTICO	308		
MONTAGEM - DISJUNTOR ELÉTRICO			
AUTOMÁTICO	309		
MONTAGEM - CONTROLE	311		
SENSOR DE PRESSÃO E			
MONTAGEM	314		

INHALTSVERZEICHNIS

Bezeichnung	Seite	Bezeichnung	Seite
ALLGEMEINE HINWEISE	A21	ÖLFILTER	122
REPARaturalTERNativen	A27	ÖLMESSTAB	126
KÜHLMITTELZUSATZ	A32	SCHLAUCH	128
WARTUNGSTEILE	A45	MOTORÖLLEITUNGEN	130
STICHWORTVERZEICHNIS	A74	TURBOLADERÖLLEITUNGEN	134
MOTOR	1	SCHMIERPUMPE	135
MOTORKÜHLERBLOCK	1	RÜCKSPÜLPUMPE	138
MOTOR (GRUNDAUSFÜHRUNG)	11	KÜHLSYSTEM	144
PUMPENANTRIEBSADAPTER	11	MOTORÖLKÜHLER	144
SOCKEL FÜR VENTILDECKEL U.		SCHIFFSGETRIEBEÖLKÜHLER	146
EINSPRITZKABELBAUM	12	GETRIEBEÖLKÜHLER	148
NOCKENWELLE	13	KÜHLWASSERLEITUNGSDECKEL	149
KUPPLUNG	14	WASSERLEITUNGSANSCHLUSS	150
MOTORBLOCKDECKEL	16	FUSSVENTIL UND SIEBENSATZ	151
SCHWUNGRADGEHÄUSEDECKEL	21	WÄRMETAUSCHER	152
STIRNRADGEHÄUSEDECKEL	23	KÜHLWASSER-TEMPERATURREGLER UND	
VENTILDECKEL	26	GEHÄUSE	156
KURBELWELLE	38	ZUSATZLEITUNGEN	160
MOTORBLOCK	39	KÜHLWASSERLEITUNGEN	162
ZYLINDERKOPF	50	WÄRMETAUSCHER-PLATTE	168
DÄMPFER UND RIEMENSCHIBE	62	WASSERLEITUNGSSTOPFEN	170
DÄMPFER	65	LENZPUMPE	171
PUMPENANTRIEB	66	ZUSATZPUMPE	172
STIRNRADGEHÄUSE-HALTETEILE	67	ZUSATZSEEWASSERPUMPE	178
ÖLWANNE - ANSCHLUSSSTÜCK	69	LENZPUMPE	182
SCHWUNGRAD	72	KÜHLWASSERPUMPE	183
STIRNRAD	74	KÜHLMITTELÜBERLAUFBEHÄLTER	195
DÄMPFERVERKLEIDUNG	76	TEMPERATURREGLER	196
SCHWUNGRADGEHÄUSE	80	LUFTANSAUG- UND ABGASSYSTEM	198
STIRNRADGEHÄUSE	82	LADELÜFTKÜHLER	198
MOTORHUBÖSE	84	LUFTREINIGER	202
KRAFTOFFPUMPE UND VENTILSTEU-		REGENKAPPE	210
RUNG	86	AUSPUFFBOGEN	211
DREHSTROMGENERATOR -		LUFTREINIGER-BEFESTIGUNSSATZ	214
BEFESTIGUNG	90	AUSPUFFKRÜMMER-HALTETEILE	215
MOTORAUFLAGER	98	AUSPUFFANSCHLUSS	216
PUMPENANTRIEB - BEFESTIGUNG	99	AUSPUFFFLANSCH	217
ÖLWANNE	100	LADELÜFTKÜHLER-ABLASSLEITUN-	
PLEUELSTANGE UND KOLBEN	102	GEN	219
ZYLINDERKOPFSTOPFEN	103	DRUCKLUFTLEITUNGEN	221
FRONTZAPFWELLE	104	AUSPUFFKRÜMMER, WASSERGE-	
VENTILKIPPHEBEL	105	KÜHLT	222
EINSPRITZDÜSENBUCHSE	108	AUSPUFFROHR	223
MOTORAUFHÄNGUNG	109	TURBOLADER	224
SCHMIERSYSTEM	111	KRAFTSTOFFSYSTEM	228
ÖLPUMPEN-BEFESTIGUNGSTEILE	111	KRAFTSTOFFKÜHLER	228
MOTORÖLEINFÜLLSTUTZEN	112	KRAFTSTOFFFILTER	229
MOTORÖLFILTER U. -LEITUNGEN	116	ANSCHLUSSSTÜCK (KRAFTSTOFFLEITUN-	
		GEN)	232
		KRAFTSTOFFRÜCKFÜHRFITTING	233
		KRAFTSTOFFLEITUNGEN, ELAST.	234
		KRAFTSTOFFLEITUNGEN	236

INHALTSVERZEICHNIS

Bezeichnung	Seite	Bezeichnung	Seite
KRAFTSTOFFFÖRDERPUMPE UND BEFESTIGUNGSTEILE	244	ELEKTR. UMFORMER	383
KRAFTSTOFFEINSPRITZPUMPE	245	MOTORSICHTANZEIGE	384
KRAFTSTOFF-ENTLÜFTUNGSPUMPE	247	MODUL - VIER ELEKTRON. ANZEIGEN	389
KRAFTSTOFFFÖRDERPUMPE	248	GESCHWINDIGKEITS- U. DREHZAHLMES- SERMODUL	394
SPERRVENTIL	249	SYSTEMKOMMUNIKATIONSMODUL	400
DRUCKSTEUERVENTIL	250	DREHZAHLMESSERBEFESTIGUNG	404
		DREHZAHLMESSER, ELEKTR.	405
ELEKTRISCHE ANLAGE UND STARTSYSTEM	251	WARTUNGSAUSRÜSTUNG UND -ZUBEHÖR	406
SENSORADAPTER	251	TABELLE - SCHILD U. AUFKLEBER	406
DREHSTROMGENERATOR	252	FETTPRESSE	407
BATTERIELADEGERÄT	263	FAHRTREGLER-EINBAUSATZ	409
BATTERIE	264	KRAFTSTOFFLEITUNGSEINBAU- SATZ	412
VERLÄNGERUNGSKABEL	270	HANDWERKZEUGE	414
UNTERBRECHER	271		
ANSCHLUSS, ELEKTR.	276	ERSATZTEILNUMMERNINDEX	B1
STEUERUNGSEINHEIT, ELEKTRON. FÜR MOTOR UND BEFEST.	277		
AUTOMATIKSTEUERUNG (STARTEN/ ABSTELLEN)	280		
MOTORSTEUERUNG, ELEKTRON.	286		
KUNDENKOMMUNIKATIONSMODUL	293		
START/STOP - STEUERUNG	296		
DIODENSATZ	298		
KABELSTRANG	299		
VERDRAHTUNGSKABELBAUM	304		
UMLAUFKÜHLWASSERHEIZUNG	305		
SCHMIERANLAGE (DRUCKLUFTSTARTER- MOTOR)	307		
AUSSCHALTER, MAGN.	308		
UNTERBRECHER-ANBAUSATZ	309		
GESTÄNGE UND ANBAUSATZ	311		
DRUCKSENSOR UND BEFESTIGUNGSTEI- LE	314		
KÜHLMITTELSTANDSENSOR	315		
STELLUNGSSENSOR	316		
DRUCKSENSOR	318		
DREHZAHLSSENSOR	324		
TEMPERATURSENSOR	325		
DRUCKLUFTSTARTANLAGE	326		
STARTERMOTOR	330		
FERNSTARTSCHALTER	369		
STARTSCHALTER	370		
DRUCKLUFTSTARTERVENTIL	371		
VERDRAHTUNG	372		
MOTORVERDRAHTUNG	376		
INSTRUMENTENVERDRAHTUNG	377		
TAFELVERDRAHTUNG	378		
BEDIENUNGSSTAND	379		
MOTORÜBERWACHUNGSSTEUERUNG	379		
MONITORSTEUERUNG	381		

GENERAL INFORMATION

1. ENGINE IDENTIFICATION

Caterpillar engines are identified with Serial Numbers and Arrangement Numbers. In some cases, Modification Numbers are also used. The serial number plate which shows these numbers is mounted on the engine.

Caterpillar dealers need this information to determine which components were included on the engine when it was assembled at the factory. This permits accurate identification of replacement part numbers.

2. ORDERING PARTS

WARNING

When replacement parts are required for this product Caterpillar recommends using Caterpillar replacement parts or parts with equivalent specifications including, but not limited to, physical dimensions, type, strength and material.

Failure to heed this warning can lead to premature failures, product damage, personal injury or death.

Quality Caterpillar replacement parts are available from Caterpillar dealers throughout the world. Their parts inventories are up to date and include all parts normally required to protect your investment in Caterpillar Engines. Dealers may offer repair kits or remanufactured parts to allow selection of the most effective repair alternative for a particular situation. When ordering parts, your order should specify the quantity, part number, part name, and the serial number/product identification number of the engine for which the parts are needed.

3. PARTS MANUAL ORGANIZATION

Product information in this manual is presented as "information elements" that represent all of the components for the specific model. An Engine Arrangement is an example of an information element. The information elements are organized alphabetically by part name and secondarily by part number within each major section of the manual.

4. TABLE OF CONTENTS

New Feature

A table of contents (TOC) is found at the beginning of the manual. The TOC lists each section of the manual with a complete list of all information elements organized as they appear in the manual. Page numbers are provided for quick reference to detailed parts identification illustrations and serviceable consist lists.

5. MAINTENANCE PARTS INDEX

The Maintenance Parts Index, located near the beginning of the manual, references most frequently used maintenance part numbers, providing description, quantity, usage and page number. This information is organized alphabetically by part description.

6. INDEX

The index located near the front of the manual is an alphabetical listing of all information elements included in the manual. Page numbers are provided for quick reference to detailed parts identification illustrations and serviceable consist lists.

7. PART NUMBER INDEX

A numerical index listing all part numbers and the corresponding page number(s) appears at the back of the manual.

8. CAPTIONS

Captions located at the top of each page of an information element identify the part number and part name along with additional descriptive information. S/N information found in each caption should be used to select correct information for a specific engine. Field replacement options, identification of optional attachment components, and where used ("part of") information is also provided.

New Feature

The first line of a caption is shown in larger type font to indicate the beginning of an information element. Captions for additional pages that may be required to illustrate an information element will be shown in standard type font and will include the term (*contd.*)

GENERAL INFORMATION

9. NON-SERVICED PARTS

New Feature

In some instances it is necessary to display non-serviced parts that are a link to lower level serviceable consist lists. These non-serviced part numbers are shown in *italic* type indicating that they are not available. All consist lists have not been converted to reflect this enhancement.

NOTE:

Continuing improvement and advancement of product design may cause changes to your engine which may not be included in this publication. Whenever a question arises regarding your Caterpillar product or this publication, please consult your Caterpillar dealer for the latest available information.

10. PARTS LIST REFERENCE NUMBERS

New Feature

Numbers shown in the Ref No column correspond to numbers used in the associated graphic(s). An alphabetic suffix may be added to a reference number to identify lower level consist items. Numbers shown in the Graphic Ref column refer to the graphic number identifier displayed in the lower left corner of each illustration. The Graphic Ref number may be used in combination with the item Ref No to determine the correct part number. There may be intentional omission of a Ref No in a consist list as information is updated to reflect the latest serviceable part numbers.

11. INDENTED PART NAMES

When a part name is indented in a parts list, it is part of (included in) the group or assembly under which it is indented.

12. ILLUSTRATION REFERENCE LETTERS

When necessary, illustrations contain reference letters (A, B, C etc.) that are intended to track lines and harnesses from one point to another. They are also used to show where to reconnect illustrations that have been separated.

13. ABBREVIATIONS AND SYMBOLS

O.D. – Outside Diameter
I.D. – Inside Diameter
A – Not Part Of This Group
B – Use As Required
C – Change From Previous Type
D – Order By The Meter
E – Order By The Centimeter
F – Not Shown
G – Order By The Inch
I – See Hose Fabrication Guide
M – Metric Part
R – Remfg Part May Be Available
Y – Separate Illustration
Z – Not Serviced Separately

GÉNÉRALITÉS

1. IDENTIFICATION DU MOTEUR

Les moteurs Caterpillar portent des numéros de série et des numéros de version. Dans certains cas, des numéros de modification sont aussi utilisés. Ces numéros figurent sur la plaque de numéro de série qui se trouve sur le moteur.

Les concessionnaires Caterpillar ont besoin de ces renseignements pour déterminer les composants inclus sur le moteur lors de l'assemblage à l'usine. Cela permet d'identifier les numéros de pièces de rechange avec précision.

2. COMMANDE DE PIÈCES



Lorsqu'il faut remplacer des pièces de rechange pour ce produit Caterpillar recommande d'utiliser les pièces de rechange Caterpillar ou les pièces qui ont des spécifications équivalentes dont les dimensions physiques, le type, la force et le matériau. Ces équivalences ne se limitent pas à l'énoncé précédent.

L'observation de cette mise en garde peut entraîner des défaillances prématurées, des dommages au produit, des blessures ou même la mort.

Les concessionnaires Caterpillar fournissent dans le monde entier des pièces de rechange de qualité Caterpillar. Leurs stocks de pièces sont constamment réapprovisionnés et comptent toutes les pièces nécessaires pour assurer la bonne marche de vos moteurs Caterpillar. Certains concessionnaires proposent également des kits de réparation ou des pièces rénovées, ce qui permet de choisir la solution la plus économique dans une situation donnée. Lors des commandes de pièces, mentionner la quantité, le numéro de pièce et la désignation des pièces ainsi que le numéro de série/numéro d'identification (PIN) du moteur pour lequel ces pièces sont requises.

3. ORGANISATION DU CATALOGUE DE PIÈCES

Les renseignements sur les produits sont présentés sous forme de "Information élément" (élément d'information) représentant tous les composants d'un modèle donné. "Engine Arrangement" (version de moteur) est un exemple d'un élément d'information. Les éléments d'information sont classés par ordre alphabétique par la désignation standard des pièces et par numéros de pièces dans chaque partie importante du manuel.

4. TABLE DES MATIÈRES



Nouvelle Caractéristique

La table des matières se trouve au début du manuel. La table des matières fournit la liste de tous les chapitres du manuel avec une liste complète de tous les éléments d'information classés par ordre d'apparition dans le manuel. Les numéros de page sont fournis afin que l'utilisateur puisse trouver rapidement les illustrations détaillées concernant l'identification des pièces et les listes des pièces d'entretien.

5. INDEX DES PIÈCES D'ENTRETIEN

La rubrique "Index des pièces d'entretien" qui se trouve au début du manuel renvoie aux pièces d'entretien les plus fréquemment utilisées en précisant la désignation, la quantité, là où la pièce est utilisée et le numéro de page. Ces pièces sont classés par ordre alphabétique.

6. INDEX

L'index qui se trouve vers le début du manuel est une liste alphabétique de tous les éléments d'information du manuel. Les numéros de page sont fournis afin que l'utilisateur puisse trouver rapidement les illustrations détaillées concernant l'identification des pièces et les listes des pièces d'entretien.

7. INDEX DES NUMÉROS DE PIÈCES

Une liste numérique de tous les numéros de pièces et des pages correspondantes se trouve à la fin du manuel.

8. LÉGENDES

Les légendes qui se trouvent en haut de chaque page de chaque élément d'information fournissent le numéro de pièce, la désignation ainsi que des renseignements supplémentaires sur les pièces. Les renseignements concernant les numéros de série (S/N) qui se trouvent dans chaque légende doivent être utilisés pour sélectionner les informations correctes pour un moteur donné. Les informations concernant les options de remplacement sur le chantier, l'identification des composants des équipements offerts en option et les lieux d'application sont aussi fournies.

GÉNÉRALITÉS



Nouvelle Caractéristique

Les lettres de la première ligne d'une légende sont présentées en police plus grande afin d'indiquer le début d'une unité d'information. Les légendes qui pourraient être requises pour des pages supplémentaires afin d'illustrer une unité d'information seront présentées en police standard et comprendront le terme (à suivre).

9. PIÈCES NON FOURNIES



Nouvelle Caractéristique

Dans certains cas, il est nécessaire d'indiquer les pièces non fournies qui sont en aval de la liste des pièces d'entretien. Les numéros des pièces non fournies dans la liste des pièces et les légendes seront en italique pour signaler qu'ils ne sont pas disponibles.

10. NUMÉROS DE RÉFÉRENCE DE LA LISTE DES PIÈCES



Nouvelle Caractéristique

Les numéros indiqués dans la colonne des numéros de références correspondent aux numéros utilisés dans les illustrations auxquelles ils sont associés. Un suffixe alphabétique peut être ajouté à un numéro de référence pour identifier la liste des articles en aval. Les numéros indiqués dans la colonne de référence de l'illustration renvoient à l'identification du numéro affiché dans le coin inférieur gauche de chaque illustration. Le numéro de référence de l'illustration pourrait être utilisé avec le numéro de référence de l'article pour déterminer le numéro de pièce correct. Il peut y avoir une omission intentionnelle d'un numéro de référence dans une liste de pièces suite à la mise à jour des informations en vue de refléter les numéros de pièces les plus récentes.

11. DÉSIGNATIONS DE PIÈCES EN RETRAIT

Lorsqu'une désignation de pièce est en retrait, cela veut dire que l'article en regard fait partie de l'ensemble sous lequel il figure.

12. LETTRES DE RÉFÉRENCE DES ILLUSTRATIONS

Quand cela est nécessaire, les illustrations comportent des lettres de référence (A, B, C, etc.) pour montrer le trajet des canalisations et faisceaux de câbles d'un point à l'autre. Elles sont utilisées également pour indiquer où relier les illustrations séparées auparavant.

13. ABRÉVIATIONS ET SYMBOLES

- O.D. – Diamètre extérieur
- I.D. – Diamètre intérieur
- A – Ne fait pas partie de ce groupe
- B – Utiliser selon besoin
- C – Modification
- D – Commander par mètre
- E – Commander par centimètre
- F – Non représenté
- G – Commander par pouce
- I – Voir "Hose Fabrication Guide"
- M – Pièce métrique
- R – Pièce rénovée éventuellement disponible
- Y – Illustration séparée
- Z – Non fourni séparément

NOTA:

En raison du progrès technique et des améliorations continues apportées au matériel, votre moteur comporte peut-être des modifications qui n'apparaissent pas dans la présente publication. En cas de doute sur un détail de votre moteur Caterpillar ou sur le texte de la présente publication, adressez-vous à votre concessionnaire Caterpillar.

INFORMACIÓN GENERAL

1. IDENTIFICACIÓN DEL MOTOR

Los motores Caterpillar se identifican con Números de Identificación del Producto (PIN). El motor se identifica además con Números de Configuración y en algunos casos, Números de Modificación. Estos números están en las placas de identificación que se encuentran montadas en el motor.

Los distribuidores Caterpillar necesitan esta información para determinar que componentes fueron incluidos en el motor cuando lo ensamblaron en la fábrica. Estos números permiten identificar con exactitud los números de piezas de repuesto.

2. COMO PEDIR REPUESTOS

ADVERTENCIA

Cuando se necesiten piezas de repuesto para este producto, Caterpillar recomienda usar piezas de repuesto Caterpillar o piezas que tengan especificaciones equivalentes incluyendo, pero sin estar limitadas a, dimensiones físicas, tipo, fortaleza y material.

El no hacer caso de esta advertencia puede llevar a fallas prematuras, daños al producto y lesiones graves o mortales.

Las piezas de repuesto Caterpillar de calidad están disponibles de los distribuidores Caterpillar en todo el mundo. Sus existencias actualizadas incluyen todas las piezas normalmente requeridas para proteger su inversión en motores Caterpillar. Los distribuidores pueden tener juegos de reparación o piezas remanufacturadas para permitir la selección de la mejor alternativa de reparación en un caso en particular. Al pedir piezas de repuesto, especifique en su pedido la cantidad, el número de pieza, el nombre de la pieza y el número de serie/número de identificación del producto del motor para la cual se necesitan estas piezas.

3. ORGANIZACION DEL MANUAL DE PIEZAS

La información sobre el producto, se presenta en este manual, como "elementos de información" que representan todos los componentes de un modelo específico. Las configuraciones de motores es un ejemplo de un elemento de información. Los elementos de información están organizados primeramente por nombres de piezas en orden alfabético y en segundo lugar, por el número de pieza dentro de cada sección principal del manual.

4. CONTENIDO

Nueva Característica

La página de Contenido se encuentra al comienzo del manual. El Contenido indica cada sección del manual con una lista completa de todos los elementos de información organizados en el orden que aparecen en el manual. Los números de página proporcionan una referencia rápida a las ilustraciones detalladas de identificación de piezas y a las listas de componentes de repuesto de dichas piezas.

5. INDICE DE PIEZAS DE MANTENIMIENTO

Al frente de este catálogo se encuentra un índice de los números de piezas utilizadas más frecuentemente para el mantenimiento, que incluye descripción, cantidad necesaria, lugar de utilización y número de página. Esta información está organizada alfabéticamente, por descripción de la pieza.

6. ÍNDICE

El Índice, ubicado cerca frente del manual, es una lista en orden alfabético de todos los elementos de información incluidos en el manual. Los números de página proporcionan una referencia rápida a las ilustraciones detalladas de identificación de piezas y a las listas de componentes de repuesto de dichas piezas.

7. INDICE NUMÉRICO DE PIEZAS

Un índice numérico de piezas con el correspondiente número de página aparece al final de este catálogo.

8. TÍTULOS

Los títulos ubicados en la parte superior de cada página de elementos de información identifican el número y el nombre de la pieza junto con información descriptiva adicional para ayudar al usuario a seleccionar información correcta para un motor en particular. También se suministra información sobre las opciones de reparación en el campo, la identificación de componentes de accesorios optativos y el lugar de ubicación de la pieza ("es parte de").

Nueva Característica

La primera línea del título se muestra con un tipo de letra más grande para indicar el comienzo de un elemento de información. Si se requieren páginas adicionales para ilustrar un elemento de información, los títulos se muestran con un tipo de letra normal y la continuación se indica entre paréntesis.

INFORMACIÓN GENERAL

9. PIEZAS QUE NO SE SUMINISTRAN COMO REPUESTO

Nueva Característica

En algunos casos es necesario indicar piezas que no se suministran como repuesto pero que pueden estar conectadas a listas de componentes de otras piezas de repuesto. En tal caso, dichas piezas se muestran en cursiva para indicar que no son piezas disponibles.

10. NÚMEROS DE REFERENCIA

Nueva Característica

Los números en la columna de No. de Referencia corresponden a los números indicados en la ilustración que pertenece a ese número de pieza. Los números que tienen un sufijo alfabético identifican artículos de las listas de componentes de piezas. Los números en la columna de Referencia de la ilustración se identifican en la esquina inferior izquierda de cada ilustración. Para determinar el número correcto de pieza se puede utilizar tanto el No. de Referencia de la ilustración como el No. de Referencia del artículo. A medida que se actualiza la información para indicar los más recientes números de piezas de repuesto, puede omitirse intencionalmente un No. de Referencia en una lista de componentes de piezas.

11. NOMBRES DE PIEZA SANGRADOS

Cuando el nombre de una pieza está sangrado en una lista, significa que esta pieza forma parte del grupo o conjunto del renglón inmediatamente superior.

12. LETRAS DE REFERENCIA DE ILUSTRACIONES

Las ilustraciones contienen algunas veces letras de referencia (A, B, C etc.) cuyo propósito es seguir el trayecto de líneas y mazos de cables de un punto a otro. También se utilizan para mostrar dónde volver a unir ilustraciones que se habían separado.

13. ABREVIATURAS Y SIMBOLOS

O.D. – Diámetro exterior

I.D. – Diámetro interior

A – No es pieza de este grupo

B – Utilizado según la demanda

C – Indica cambio

D – Se pide por metro

E – Se pide por centímetro

F – No se muestra

G – Se pide por pulgada

I – Ver "Hose Fabrication Guide"

M – Pieza métrica

R – Puede estar disponible como pieza remanufacturada

Y – Ilustración separada

Z – No se suministra por separado

NOTA:

Las continuas mejoras y adelantos en diseño podrían originar cambios a su motor que no se incluyen en esta publicación. Cuando tenga alguna pregunta acerca de su producto Caterpillar o de esta publicación, consulte al distribuidor Caterpillar para obtener la información más reciente.

INFORMAÇÃO GERAL

1. IDENTIFICAÇÃO DO MOTOR

Os motores Caterpillar são identificadas pelos Números de Série e Números de Arranjo. Em alguns casos, Números de Modificação são também usados. A placa do número de série que exibe esses números encontra-se no motor.

Os revendedores Caterpillar necessitam destas informações para determinar que componentes foram incluídos no motor durante a montagem na fábrica. Isto facilita a identificação precisa dos números de peça de reposição.

2. COMO OBTER PEÇAS

CUIDADO

Quando peças de substituição são exigidas para este produto, a Caterpillar recomenda a utilização de peças de substituição Caterpillar ou peças com as especificações equivalentes incluindo, mas não limitadas, à dimensões físicas, tipos, resistência e materiais.

A inobservância desta advertência poderá resultar em falhas prematuras, danos ao produto, ferimentos ou morte.

As Peças de Reposição de Qualidade Caterpillar encontram-se disponíveis nos revendedores Caterpillar no mundo inteiro. Seus estoques de peças são atualizados e incluem todas as peças normalmente necessárias para proteger seu investimento em motores Caterpillar. Alguns revendedores podem oferecer jogos de reparo ou peças de troca/remanufaturadas disponíveis como uma opção da alternativa de reparo mais eficaz para uma situação específica. Ao encomendar peças, seu pedido deve especificar a quantidade, o número e o nome da peça e o número de série/número de identificação do produto referentes ao motor para o qual as peças se destinam.

3. ORGANIZAÇÃO DO MANUAL DE PEÇAS

A informação do produto neste manual é apresentada em forma de "elementos de informação" que representam todos os componentes para o modelo específico. O Arranjo de Motor é um exemplo de elemento de informação. Os elementos de informação são organizados em ordem alfabética por nome de peça ou, secundariamente, por número de peça incluído em cada seção principal do manual.

4. LISTA DE CONTEÚDOS

Novidades

A Lista de Conteúdos (TOC) se encontra no princípio do manual. A Lista de Conteúdos (TOC) relaciona em cada seção do manual uma lista completa com todos os elementos de informação organizados conforme aparecem no manual. Números de página são fornecidos para que se tenha referência rápida de ilustrações de peças detalhadas e listas de conteúdos que podem receber serviço de manutenção.

5. ÍNDICE DE PEÇAS DE MANUTENÇÃO

O Índice de Peças de Manutenção, localizado perto do princípio do manual, faz referência aos números de peça de manutenção usados com maior frequência, fornecendo uma descrição, a quantidade, o uso e o número de página. Esta informação é organizada com a descrição da peça em ordem alfabética.

6. ÍNDICE

O Índice localizado perto do princípio do manual, consiste de uma lista em ordem alfabética de todos os elementos de informação incluídos no manual. Números de página são fornecidos para que se tenha referência rápida de ilustrações de peças detalhadas e listas de conteúdos que podem receber serviço de manutenção.

7. ÍNDICE DE NÚMERO DE PEÇA

Um índice numérico relacionando todos os números de peça e a(s) página(s) correspondentes, aparece no final do manual.

8. LEGENDAS

As legendas localizadas na parte de cima de cada página de um elemento de informação identifica o número de peça e o nome da peça, juntamente com informação descritiva adicional. Informações sobre o Número de Série (S/N) encontradas em cada legenda devem ser usadas para selecionar a informação correta sobre um motor específico. Opções de substituição no campo, identificação de componentes de acessórios opcionais e informações sobre onde são utilizados ("parte de") são também fornecidas.

INFORMAÇÃO GERAL

Novidades

A primeira linha de uma legenda é indicada em tipo maior para indicar o princípio de um elemento de informação. Legendas para páginas adicionais que podem ser necessárias para ilustrar um elemento de informação serão apresentadas em tipo padrão e incluirão o termo (*continua*).

9. NÃO DISPONÍVEL SEPARADAMENTE

Novidades

Em alguns casos, é necessário mostrar peças não disponíveis separadamente que têm uma ligação com listas de conteúdos de nível inferior que podem receber serviço de manutenção. Os números de peça destes componentes não disponíveis aparecerão em *italico*, a fim de indicar que não estão disponíveis.

10. NÚMEROS DE REFERÊNCIA À LISTA DE PEÇAS

Novidades

Os números indicados na coluna Ref No (No. de Referência) correspondem-se aos números usados no(s) gráfico(s) correspondente(s). Um sufixo com letras pode ser acrescentado a um número de referência para identificar itens de conteúdo de nível inferior. Os números indicados na coluna Graphic Ref (Referência de Gráfico) referem-se ao identificador de número de gráfico presente no canto esquerdo inferior de cada ilustração. O número de Referência de Gráfico pode ser usado em combinação com o item Ref No para determinar-se o número de peça correto. Poderá haver omissão intencional de um número de referência (Ref No) de uma lista de conteúdos uma vez que as informações são atualizadas para refletir os números de peça mais recentes que podem receber serviço de manutenção.

11. NOMES DE PEÇAS DESALINHADOS

Quando um nome de peça encontra-se desalinhado numa lista de peças, significa que tal item faz parte do (está incluído no) grupo ou conjunto sob o qual está relacionado.

12. LETRAS DE REFERÊNCIA NAS ILUSTRAÇÕES

Quando necessário, as ilustrações contêm letras de referência (A, B, C, etc.) que são utilizadas para seguir tubulações e cabos elétricos de um ponto a outro. Também foram utilizadas para indicar onde se pode reconectar as ilustrações que foram separadas.

13. ABREVIÇÕES E SÍMBOLOS

O.D. – "Outside Diameter" (Diâmetro Externo)

I.D. – "Inside Diameter" (Diâmetro Interno)

A – Não faz parte deste grupo

B – Use conforme necessário

C – Indica modificação

D – Vendido por metro

E – Vendido por centímetro

F – Não ilustrado

G – Vendido por polegada

I – Consulte o seu revendedor quanto a mangueira

M – Peça métrica

R – Peça remanufaturada pode estar disponível; consulte o seu revendedor Cat

Y – Ilustração separada

Z – Não disponível separadamente

NOTA:

Os contínuos aperfeiçoamentos e avanços no projeto do produto podem ocasionar modificações em seu motor que talvez ainda não estejam incluídas nesta publicação. Sempre que surgirem dúvidas quanto a um produto Caterpillar ou quanto à presente publicação, consulte o seu revendedor Caterpillar para obter as informações mais recentes disponíveis.

ALLGEMEINE HINWEISE

1. MOTORENKENNZEICHNUNG

Caterpillar-Motoren sind mit SERIAL NUMBERS (Seriennummern) und ARRANGEMENT NUMBERS (Ausführungsnummern) gekennzeichnet. In einigen Fällen werden auch MODIFICATION NUMBERS (Änderungsnummern) erteilt. Diese Nummern befinden sich auf dem Typenschild des Motors.

Die Caterpillar-Händler benötigen diese Nummern, um festzustellen, welche Bauteile bei der Montage des Motors verwendet wurden. Dies ermöglicht das Auffinden der richtigen Ersatzteilnummern.

2. BESTELLEN VON ERSATZTEILEN

WARNUNG

Wenn für diese Maschine Ersatzteile benötigt werden, empfiehlt Caterpillar, ausschließlich Caterpillar-Ersatzteile oder solche zu verwenden, die die gleichen technischen Merkmale hinsichtlich Typ, Festigkeit, Werkzeugeigenschaften und die gleichen Maße aufweisen.

Bei Nichtbeachtung dieser Warnung besteht Verletzungs- oder sogar Lebensgefahr! Ferner kann Nichtbeachtung vorzeitige Ausfälle der Teile und Beschädigung der Maschine zur Folge haben.

Original Caterpillar-Ersatzteile können weltweit bei jedem Caterpillar-Händler bestellt werden. Die umfangreichen Händlerlager enthalten normalerweise alle Teile, die Sie für Ihren Caterpillar-Motor benötigen. Einige Händler bieten Reparatursätze, Austausch- oder werküberholte Teile an, so daß Sie eine Auswahl unter verschiedenen Reparaturmöglichkeiten treffen können. Ihre Bestellung muß folgende Angaben enthalten: Anzahl der benötigten Teile, Bestellnummer, Bezeichnung des Teils und Serien-Nr./Produkt-Ident-Nr. des Motors, für den diese Teile benötigt werden.

3. AUFBAU DES PARTS MANUAL

Die Produktinformationen für alle Komponenten eines bestimmten Modells sind in INFORMATION ELEMENTS (Informationseinheiten) gegliedert. ENGINE ARRANGEMENT (Motorausführung) ist ein Beispiel für solche Informationseinheiten. Sie sind innerhalb jeder Gruppe alphabetisch, entsprechend der Ersatzteilbezeichnung, und zusätzlich numerisch, entsprechend der Ersatzteilnummer, geordnet.

4. INHALTSVERZEICHNIS

Neu im Parts Manual

Das Inhaltsverzeichnis befindet sich am Anfang des Buches. Im Inhaltsverzeichnis werden die einzelnen Abschnitte des Buches aufgeführt. Die Abschnitte enthalten eine vollständige Aufstellung aller Informationseinheiten. Diese sind entsprechend ihrem Erscheinen im Buch geordnet. Das Inhaltsverzeichnis enthält Seitenangaben für Schnellverweise auf detaillierte Abbildungen und Teillisten.

5. INDEX FÜR WARTUNGSTEILE

Der Index für Wartungsteile vorn im Buch enthält die Bestellnummern, Seitenangaben, Mengenangaben und Informationen über den Einsatzbereich für die am häufigsten benötigten Ersatzteile. Die Angaben sind alphabetisch entsprechend der Teilebezeichnung geordnet.

6. INDEX

Der Index vorn im Buch enthält eine alphabetische Liste aller Informationseinheiten. Er enthält Seitenangaben für Schnellverweise auf detaillierte Abbildungen und Teillisten.

7. INDEX FÜR BESTELLNUMMERN

Hinten im Buch befindet sich ein numerischer Index, mit allen Bestellnummern und dem Hinweis auf die Seite, auf der sich die betreffende Abbildung befindet.

8. ÜBERSCHRIFTEN


Die Überschriften, die sich oben auf den Seiten der Informationseinheiten befinden, enthalten Bestellnummern, Ersatzteilbezeichnungen und zusätzliche beschreibende Informationen. Die Seriennummern in den Überschriften sollten zur Auswahl der richtigen Informationen für den betreffenden Motor verwendet werden. Die Überschriften enthalten außerdem Informationen über möglichen Außendienstersatz, mögliche Baugerätekomponenten und die Baugruppe, zu der das Teil gehört.

Neu im Parts Manual

Die erste Zeile einer Überschrift erscheint in einer größeren Schriftart, um den Anfang einer Informationseinheit zu kennzeichnen. Überschriften für zusätzliche Seiten, die zur Erläuterung einer Informationseinheit notwendig sind, erscheinen in normaler Schriftart und enthalten den Begriff "(contd.)".


ALLGEMEINE HINWEISE

9. NICHT EINZELN LIEFERBARE TEILE

 *Neu im Parts Manual*

In einigen Fällen ist es notwendig nicht lieferbare Teile, die selbst mit einer eigenen Teilliste im Buch vertreten sind, aufzuführen. Die Bestellnummern dieser nicht einzeln lieferbaren Teile erscheinen kursiv, wodurch angezeigt wird, daß sie nur in Verbindung mit anderen Teilen lieferbar sind.

10. REFERENZNUMMER FÜR ERSATZTEILE

 *Neu im Parts Manual*

Die Zahlen, die in der Spalte "Ref No" aufgeführt sind, stimmen mit den Zahlen in den beigegeführten Abbildungen überein. Ein Buchstaben-Suffix kann zu einer Referenznummer hinzugefügt werden, um zu kennzeichnen, daß das Teil mit einer eigenen Teilliste im Buch aufgeführt ist. Die in der Spalte "Graphic Ref" angeführten Zahlen verweisen auf die Identifikationsnummer der Abbildung, die sich in der linken unteren Ecke der Abbildung befindet. Diese Nummer kann zusammen mit der Referenznummer des Teils angegeben werden, um die richtige Ersatzteilnummer zu ermitteln. Referenznummern können absichtlich weggelassen werden, da die Nummern der lieferbaren Ersatzteile ständig aktualisiert werden.

11. EINGERÜCKTE BEZEICHNUNGEN

Wenn eine Bezeichnung eingerückt ist, wird dadurch angezeigt, daß das Teil zu einer Baugruppe gehört, unter deren Bezeichnung es eingerückt ist.

12. REFERENZBUCHSTABEN

Falls erforderlich sind in den Abbildungen Referenzbuchstaben enthalten (z.B. A, B, C, usw.), die Leitungen und Kabelbäume von einem Punkt zum anderen verfolgen. Außerdem geben sie die Stelle an, an der getrennte Abbildungen fortgesetzt werden.

13. ABKÜRZUNGEN UND SYMBOLE

O.D. – Außendurchmesser
I.D. – Innendurchmesser
A – kein Teil dieser Gruppe
B – nach Bedarf verwenden
C – Hinweis auf eine Änderung
D – in Meter-Länge bestellen
E – in Zentimeter-Länge bestellen
F – nicht gezeigt
G – in Zoll-Länge bestellen
I – siehe "Hose Fabrication Guide"
M – metrisches Teil
R – werküberholtes Teil unter Umständen lieferbar
Y – separate Abbildung
Z – nicht einzeln lieferbar

ANMERKUNG:

Ständig vorgenommene Verbesserungen und Weiterentwicklungen an Ihrem Motor können Änderungen verursachen, die in der vorliegenden Ausgabe noch nicht berücksichtigt sind. Fragen zu Ihrem Caterpillar-Motor oder diesem Ersatzteillbuch beantwortet Ihr Caterpillar-Händler.

REPAIR ALTERNATIVES

REMANUFACTURED COMPONENTS

As an option when making repairs consider Caterpillar Remanufactured Components. Components that are available through the Caterpillar Remanufactured Program are identified three ways in the parts book:

- with the letter R in the note field of the parts list
- with an R* at the beginning of the first line of the caption
- with an *R at the end of the first line of the caption

Typical components included in the Remanufacturing Program include:

ALTERNATORS
CONNECTING RODS
CRANKSHAFTS - UNDERSIZE
CRANKSHAFTS - UPGRADE TO NEW
CYLINDER HEADS
ELECTRONIC CONTROL MODULES (ECM)
ELECTRONIC SENSORS
FUEL INJECTORS
FUEL NOZZLES
FUEL PUMPS
GOVERNORS
OIL PUMPS
PISTONS
SHORT BLOCKS
STARTERS
TURBOCHARGERS - COMPLETE
TURBOCHARGER CARTRIDGES
WATER PUMPS

Caterpillar Remanufactured engines for many engine arrangements are also available.

OPTIONS DE RÉPARATION

COMPOSANTS RÉNOVÉS

Comme option de réparation, considérer les composants rénovés Caterpillar. Les composants disponibles dans le cadre du programme Caterpillar de composants rénovés sont identifiés de trois façons dans le catalogue de pièces:

- avec la lettre "R" dans l'espace note de la liste des pièces
- avec R* au début de la première ligne des légendes
- avec *R à la fin de la première ligne des légendes

Les composants suivants figurent parmi les composants typiques du programme de rénovation:

ALTERNATEURS
BIELLES
VILEBREQUINS - SOUS-DIMENSIONNÉS
VILEBREQUINS - REMIS À NEUF
CULASSES
MODULES DE COMMANDE ÉLECTRONIQUE (ECM)
CAPTEURS ÉLECTRONIQUES
INJECTEURS
TÊTES D'INJECTEURS
POMPES À CARBURANT
RÉGULATEURS
POMPES À HUILE
PISTONS
BLOCS EMBIELLÉS
DÉMARREURS
TURBOCOMPRESSEURS - COMPLETS
CARTOUCHES DE TURBOCOMPRESSEUR
POMPES À EAU

Des moteurs rénovés sont aussi disponibles pour plusieurs versions de moteur.

ALTERNATIVAS DE REPARACIÓN

COMPONENTES REMANUFACTURADOS

Al hacer reparaciones, tenga en cuenta la opción de Componentes Remanufacturados Caterpillar. Los componentes que están disponibles por medio del programa de Productos Remanufacturados Caterpillar se identifican de tres maneras en el manual de piezas:

- con la letra R en el espacio de Nota de la lista de piezas
- con una R* al comienzo de la primera línea de la leyenda
- con una *R al final de la primera línea de la leyenda

Los componentes que se incluyen típicamente en el Programa de Productos Remanufacturados son:

ALTERNADORES
BIELAS
CIGÜEÑALES - BAJOMEDIDA
CIGÜEÑALES - REMANUFACTURADOS A NUEVO
CULATAS
MÓDULOS DE CONTROL ELECTRÓNICO (ECM)
SENSORES ELECTRONICOS
INYECTORES
BOQUILLAS
BOMBAS DE COMBUSTIBLE
REGULADORES
BOMBAS DE ACEITE
PISTONES
MONOBLOQUES
MOTORES DE ARRANQUE
TURBOCOMPRESORES - COMPLETOS
NÚCLEOS DE TURBOCOMPRESOR
BOMBAS DE AGUA

También hay disponibles motores Remanufacturados Caterpillar para muchas de las configuraciones de motores.

ALTERNATIVAS DE REPARO

COMPONENTES REMANUFATURADOS

Considere o uso de Componentes Remanufaturados Caterpillar ao efetuar reparos. Os componentes disponíveis através do Programa de Remanufatura Caterpillar são identificados de três formas no manual de peças:

- com um R na área da nota da lista de peças
- com um R* no princípio da primeira linha da legenda
- com um *R no final da primeira linha da legenda

Os componentes típicos que constam no Programa de Remanufatura incluem:

ALTERNADORES
BIELAS
VIRABREQUINS - SUBMEDIDAS
VIRABREQUINS - ATUALIZAÇÃO
CABEÇOTES
MÓDULOS DE CONTROLE ELETRÔNICO (ECM)
SENSORES ELETRÔNICOS
INJETORES DE COMBUSTÍVEL
BICOS DE ABASTECIMENTO DE COMBUSTÍVEL
BOMBAS DE COMBUSTÍVEL
GOVERNADORES
BOMBAS DE ÓLEO
PISTÕES
BLOCOS BÁSICOS DO MOTOR
MOTORES DE PARTIDA
TURBOALIMENTADORES - COMPLETOS
CARTUCHOS DE TURBOALIMENTADORES
BOMBAS D'ÁGUA

Motores Remanufaturados Caterpillar também encontram-se disponíveis para diversos arranjos de motor.

REPARATURALTERNATIVEN

WERKÜBERHOLTE AT-PRODUKTE

Bei Reparaturen sollten werküberholte AT-Produkte von Caterpillar in Betracht gezogen werden. Die durch das AT-Programm von Caterpillar erhältlichen Teile sind im Parts Book auf drei verschiedene Arten gekennzeichnet:

- mit dem Buchstaben R in der Spalte NOTE der Ersatzteilliste
- mit einem R* am Anfang der ersten Zeile der Überschrift
- mit einem *R am Ende der ersten Zeile der Überschrift

Das AT-Programm umfaßt u.a. folgende Produkte:

DREHSTROMGENERATOREN
PLEUELSTANGEN
KURBELWELLEN - MIT UNTERMASSE
KURBELWELLEN - MIT ORIGINALMASSE
ZYLINDERKÖPFE
ELEKTRONISCHE STEUEREINHEITEN (EMC)
ELEKTRONISCHE SENSOREN
PUMPENDÜSEN
EINSPRITZDÜSEN
KRAFTSTOFFPUMPEN
DREHZAHGREGLER
ÖLPUMPEN
KOLBEN
TEILMOTOREN
ANLASSER
TURBOLADER - KOMPLETT
TURBOLADERLAUFZEUGE
KÜHLWASSERPUMPEN

Viele Motoren können durch werküberholte AT-Motoren von Caterpillar ersetzt werden.

SUPPLEMENTAL COOLANT ADDITIVES

CUSTOMER BENEFITS:

Protects against cavitation, foam, erosion, corrosion, and scale buildup in cooling systems.

- Provides measured coolant conditioner.

DESCRIPTION:

Additives deplete from the coolant with normal operation. For this reason, Supplemental Coolant Additives (SCA) must be added to all heavy duty coolants at regular intervals. In addition, when not using a fully formulated, pre-charged antifreeze, like Caterpillar's DEAC, an initial charge of SCA must be added to the cooling system. The amount of SCA added to the system is dependent on the capacity of the system.

The SCA for initial fill is provided as a liquid. SCA's for maintenance intervals are available in liquid form and as a spin-on element. (No Spin-on available for 3600 Family of Engines)

NOTE:

The amount of SCA added at initial fill is not the same as the amount added at maintenance intervals.

The coolant additive elements can be used with any ethylene or propylene glycol type antifreeze which meets ASTM D4985 or ASTM D5345 Specifications.

NOTE:

For use with standard heavy duty coolant only, not for use with Extended Life Coolant.

PARTS NEEDED:

Cooling System Capacity		Liquid SCA at Initial Fill	Liquid SCA at Maintenance*	Spin-on SCA Maintenance Element*
Liters	Gallons			
22-30	(6-8)	3P-2044 (1)	6V-3542 (1)	111-2370 (1)
30-38	(8-10)	3P-2044 (1) 6V-3542 (1)	111-2372 (1)	111-2369 (1)
38-49	(10-13)	3P-2044 (1) 8T-1589 (1)	111-2372 (1)	111-2369 (1)
49-64	(13-17)	3P-2044 (2)	8T-1589 (1)	9N-3368 (1)
64-83	(17-22)	3P-2044 (2) 8T-1589 (1)	111-2372 (1) 6V-3542 (1)	111-2371 (1)
83-114	(22-30)	3P-2044 (3) 8T-1589 (1)	3P-2044 (1)	9N-3718 (1)
114-163	(30-43)	3P-2044 (5)	3P-2044 (1) 6V-3542 (1)	111-2371 (2)
163-242	(43-64)	3P-2044 (8)	3P-2044 (2)	9N-3718 (2)

* Normal maintenance period is 250 hrs. See your Operation and Maintenance Manual for complete coolant maintenance instructions.

() Indicates quantity required.

ADDITIFS POUR LIQUIDE DE REFROIDISSEMENT

AVANTAGES POUR LE CLIENT

L'additif protège contre la cavitation, la mousse, l'érosion, la corrosion et l'accumulation de dépôts dans le circuit de refroidissement.

- L'additif complémentaire fournit une quantité mesurée d'additif.

DESCRIPTION:

Les additifs s'épuisent pendant l'utilisation du moteur. C'est pourquoi l'on doit ajouter de l'additif au liquide de refroidissement/antigel pour moteurs diesel à intervalles réguliers. En plus, si l'on n'utilise pas de l'antigel entièrement formulé et pré-chargé comme le liquide de refroidissement/antigel Caterpillar pour moteurs diesel, une quantité initiale d'additif doit être ajoutée au circuit de refroidissement. La quantité d'additif à ajouter au circuit dépend de la contenance du circuit.

L'additif pour le remplissage initial est fourni sous forme liquide. L'additif pour l'entretien ultérieur est disponible sous forme liquide et sous forme d'élément à visser. (Il n'y a pas d'élément à visser pour les moteurs de la famille 3600).

NOTA:

La quantité d'additif à ajouter au remplissage initial diffère de la quantité à ajouter aux intervalles d'entretien.

Les éléments d'additif peuvent être utilisés avec tout antigel de type éthylène ou propylène-glycol conforme à la norme ASTM D4985 ou ASTM D5345.

NOTA:

A utiliser uniquement avec du liquide de refroidissement pour moteurs diesel et non avec le liquide de refroidissement longue durée.

PIÈCES NÉCESSAIRES:

Contenance du circuit de refroidissement		Additif liquide au remplissage initial	Additif liquide aux intervalles d'entretien*	Élément d'additif à visser aux intervalles d'entretien*
Litres	Gallons U.S.			
22-30	(6-8)	3P-2044 (1)	6V-3542 (1)	111-2370 (1)
30-38	(8-10)	3P-2044 (1) 6V-3542 (1)	111-2372 (1)	111-2369 (1)
38-49	(10-13)	3P-2044 (1) 8T-1589 (1)	111-2372 (1)	111-2369 (1)
49-64	(13-17)	3P-2044 (2)	8T-1589 (1)	9N-3368 (1)
64-83	(17-22)	3P-2044 (2) 8T-1589 (1)	111-2372 (1) 6V-3542 (1)	111-2371 (1)
83-114	(22-30)	3P-2044 (3) 8T-1589 (1)	3P-2044 (1)	9N-3718 (1)
114-163	(30-43)	3P-2044 (5)	3P-2044 (1) 6V-3542 (1)	111-2371 (2)
163-242	(43-64)	3P-2044 (8)	3P-2044 (2)	9N-3718 (2)

* L'intervalle d'entretien normal est de 250 heures-service. Voir le Guide d'utilisation et d'entretien pour de plus amples renseignements concernant l'entretien du circuit de refroidissement.

() Indique la quantité exigée.

ADITIVOS DE REFRIGERANTE SUPLEMENTARIOS

VENTAJAS PARA EL USUARIO:

Protegen contra la cavitación, la formación de espuma, la corrosión y la acumulación de escamas en los sistemas de enfriamiento.

- Suministra un acondicionador dosificado de refrigerante.

DESCRIPCIÓN:

Los aditivos en el refrigerante se agotan con la operación normal. Por esta razón, se debe agregar Aditivo de refrigerante suplementario (SCA) a todos los refrigerantes para servicio pesado, a intervalos regulares. Además, cuando no se usa un anticongelante de precarga completo, tal como el DEAC de Caterpillar, es necesario agregar una cantidad de aditivo de refrigerante suplementario inicial al sistema de enfriamiento. La cantidad de aditivo que se debe agregar depende de la capacidad del sistema.

El SCA de llenado inicial es líquido. El que se usa para el mantenimiento está disponible tanto en líquido como en un elemento enroscable. (No hay elemento enroscable disponible para la Familia de Motores 3600).

NOTA:

La cantidad de aditivo de llenado inicial no es la misma que se agrega en los intervalos de mantenimiento.

Los elementos de aditivo de refrigerante se pueden usar con cualquier anticongelante de tipo glicol etilénico o propílico que esté de acuerdo con las especificaciones de las normas ASTM D4985 o ASTM D5345.

NOTA:

Se debe utilizar únicamente con refrigerante estándar para servicio pesado; no se debe usar con Refrigerante de Larga Duración.

PIEZAS NECESARIAS:

Capacidad del Sistema de Enfriamiento		SCA líquido de llenado inicial	SCA líquido de mantenimiento*	Elemento de mantenimiento enroscable*
litros	gal EE.UU.			
22-30	6-8	3P-2044 (1)	6V-3542 (1)	111-2370 (1)
30-38	8-10	3P-2044 (1) 6V-3542 (1)	111-2372 (1)	111-2369 (1)
38-49	10-13	3P-2044 (1) 8T-1589 (1)	111-2372 (1)	111-2369 (1)
49-64	13-17	3P-2044 (2)	8T-1589 (1)	9N-3368 (1)
64-83	17-22	3P-2044 (2) 8T-1589 (1)	111-2372 (1) 6V-3542 (1)	111-2371 (1)
83-114	22-30	3P-2044 (3) 8T-1589 (1)	3P-2044 (1)	9N-3718 (1)
114-163	30-43	3P-2044 (5)	3P-2044 (1) 6V-3542 (1)	111-2371 (2)
163-242	43-64	3P-2044 (8)	3P-2044 (2)	9N-3718 (2)

* El período normal de mantenimiento es de 250 horas. Para ver las instrucciones completas sobre el mantenimiento del refrigerante, consulte el Manual de Operación y Mantenimiento.

() Indica la cantidad necesaria.

ADITIVOS SUPLEMENTARES DO LÍQUIDO ARREFECEDOR

BENEFÍCIOS PARA O CLIENTE:

Protege contra cavitação, espuma, erosão, corrosão e acúmulo de crostas nos sistemas de arrefecimento.

- Fornece uma quantidade pré-determinada de condicionador de arrefecimento.

DESCRIÇÃO:

Com a operação normal, os aditivos se esgotam do líquido arrefecedor. Por isso, Aditivos Suplementares do Líquido Arrefecedor (SCA) devem ser acrescentados a todos os líquidos arrefecedores para serviço pesado em intervalos regulares. Além disso, quando um anticongelante pré-carregado, totalmente formulado não for usado, como o DEAC Caterpillar, uma carga inicial de SCA deve ser acrescentada ao sistema de arrefecimento. A quantidade de SCA acrescentada ao sistema depende da capacidade do sistema.

O SCA para abastecimento inicial é fornecido em forma de líquido. Os aditivos suplementares (SCA) para intervalos de manutenção estão à disposição em forma líquida e como um elemento com roscas. (Exceto os Motores da Família 3600)

NOTA:

A quantidade de SCA adicionada no abastecimento inicial não é a mesma que a acrescentada nos intervalos de manutenção.

Os elementos do aditivo do líquido arrefecedor podem ser usados com qualquer tipo de anticongelante etileno ou propileno que satisfaz as Especificações ASTM D4985 ou ASTM D5345.

NOTA:

Para uso apenas com líquido arrefecedor para serviço pesado padrão, não deve ser usado com Líquido Arrefecedor de Vida Longa.

PEÇAS NECESSÁRIAS:

Capacidade do Sistema de Arrefecimento		Líquido SCA Durante Abastecimento Inicial	Líquido SCA Durante Manutenção*	Elemento de Manutenção de SCA com Roscas*
Litros	Galões			
22-30	6-8	3P-2044 (1)	6V-3542 (1)	111-2370 (1)
30-38	8-10	3P-2044 (1) 6V-3542 (1)	111-2372 (1)	111-2369 (1)
38-49	10-13	3P-2044 (1) 8T-1589 (1)	111-2372 (1)	111-2369 (1)
49-64	13-17	3P-2044 (2)	8T-1589 (1)	9N-3368 (1)
64-83	17-22	3P-2044 (2) 8T-1589 (1)	111-2372 (1) 6V-3542 (1)	111-2371 (1)
83-114	22-30	3P-2044 (3) 8T-1589 (1)	3P-2044 (1)	9N-3718 (1)
114-163	30-43	3P-2044 (5)	3P-2044 (1) 6V-3542 (1)	111-2371 (2)
163-242	43-64	3P-2044 (8)	3P-2044 (2)	9N-3718 (2)

* O período normal de manutenção é de 250 horas. Consulte o Manual de Operação e Manutenção para obter instruções completas quanto à manutenção do líquido arrefecedor.

() Indica a quantidade exigida.

KÜHLMITTELZUSATZ

VORTEILE FÜR DEN KUNDEN:

Schutz gegen Kavitation, Schaumbildung, Erosion, Korrosion und Kesselsteinbildung in Kühlsystemen.

- Richtig dosierter Kühlmittelzusatz

BESCHREIBUNG:

Additive erschöpfen sich während des Motorbetriebs. Deshalb muß allen HD-Kühlmitteln regelmäßig Kühlmittelzusatz beigefügt werden. Wenn bei Erstfüllung kein vollwertiges Fertigmittel, wie das Frostschutz- und Kühlmittel für Dieselmotoren von Caterpillar (DEAC), verwendet wird, muß bei Erstfüllung Kühlmittelzusatz beigefügt werden. Wieviel Kühlmittelzusatz beigefügt werden muß, hängt vom Inhalt des Kühlsystems ab.

Für Erstfüllung ist Kühlmittelzusatz nur in flüssiger Form erhältlich. Für Wartungsintervalle ist Kühlmittelzusatz in flüssiger Form und als Zusatzelement erhältlich. (Für die Motorbaureihe 3600 sind keine Zusatzelemente erhältlich.)

ANMERKUNG:

Die Kühlmittelmenge bei Erstfüllung ist nicht die gleiche Menge, die bei Wartungsintervallen beigefügt werden muß.

Die Kühlmittelzusatzelemente können mit allen Frostschutzmitteln auf Ethylen- oder Propylenglykolbasis verwendet werden, die den Standards nach ASTM D4985 oder ASTM D5345 entsprechen.

ANMERKUNG:

Den Kühlmittelzusatz nicht mit Langzeitkühlmittel (ELC) von Caterpillar verwenden. Der Kühlmittelzusatz ist nur für HD-Kühlmittel bestimmt.

TEILEBEZEICHNUNG:

Kühlsysteminhalt		Kühlmittelzusatz bei Erstfüllung	Flüssiger Kühlmittelzusatz bei Wartung*	Kühlmittelzusatzelement bei Wartung*
Liter	US-Gall.			
22-30	(6-8)	3P-2044 (1)	6V-3542 (1)	111-2370 (1)
30-38	(8-10)	3P-2044 (1) 6V-3542 (1)	111-2372 (1)	111-2369 (1)
38-49	(10-13)	3P-2044 (1) 8T-1589 (1)	111-2372 (1)	111-2369 (1)
49-64	(13-17)	3P-2044 (2)	8T-1589 (1)	9N-3368 (1)
64-83	(17-22)	3P-2044 (2) 8T-1589 (1)	111-2372 (1) 6V-3542 (1)	111-2371 (1)
83-114	(22-30)	3P-2044 (3) 8T-1589 (1)	3P-2044 (1)	9N-3718 (1)
114-163	(30-43)	3P-2044 (5)	3P-2044 (1) 6V-3542 (1)	111-2371 (2)
163-242	(43-64)	3P-2044 (8)	3P-2044 (2)	9N-3718 (2)

* Der normale Wartungsintervall beträgt 250 Betriebsstunden. Für vollständige Anweisungen zur Wartung des Kühlsystems, siehe Betriebs- und Wartungshandbuch.

() Erforderliche Anzahl

MAINTENANCE PARTS

DESCRIPTION	PART NUMBER	QTY	WHERE USED	PAGE
AIR INLET AND EXHAUST SYSTEM				
FILTER-AIR	4N-0015	1	AIR CLEANER GP	203
FILTER-SOOT	4N-7808	1	AIR CLEANER GP	202
INDICATOR-AIR FILTER SERVICE	7S-0687	1	AIR CLEANER GP	202
INDICATOR-SERVICE	2N-3323	1	AIR CLEANER GP	206
		1	AIR CLEANER GP	208
BASIC ENGINE				
FITTING-GREASE (1/8-27 THD)	3B-8489	2	CLUTCH GP	14
PLUG-DRAIN	5F-0304	1	HOUSING GP-FLYWHEEL	80
	9X-6451	1	PAN GP-OIL	100
PLUG-O-RING (7/16-20 THD)	9S-4190	1	CYLINDER BLOCK GP	42
		1	CYLINDER BLOCK GP	46
		1	CYLINDER BLOCK GP	48
PLUG-PIPE (1/8-27 NPTF)	8T-6757	3	CYLINDER HEAD AS	53
SCREEN AS-BELL	4N-0913	1	PAN GP-OIL	100
COOLING SYSTEM				
CAP AS-RADIATOR	036-1865	1	HEAT EXCHANGER GP	152
CAP-VENTED	8E-8292	1	RECOVERY GP-COOLANT	195
FILTER-WATER PUMP	136-3742	1	PUMP GP-WATER	192
		1	PUMP GP-WATER	194
HOSE (7.4MM ID) (200CM)	8C-3681		RECOVERY GP-COOLANT	195
REGULATOR-WATER TEMPERATURE (92 DEG C.)	4W-4794	1	HOUSING & REGULATOR GP	156
		1	HOUSING & REGULATOR GP	158
		1	REGULATOR GP-TEMPERATURE	196

MAINTENANCE PARTS

DESCRIPTION	PART NUMBER	QTY	WHERE USED	PAGE
ELECTRICAL AND STARTING SYSTEM				
BATTERY (LOW MAINTENANCE) (12 VOLT)	115-2421	2	BATTERY GP	269
BATTERY (12 VOLT)	3T-5857	2	BATTERY GP	264
	9X-9720	2	BATTERY GP	267
BATTERY (12 VOLT) (DRY)	9G-4233	2	BATTERY GP	266
BATTERY (12 VOLT 750 AMP) (LOW MAINTENANCE)	3T-5760	2	BATTERY GP	265
BATTERY (12 VOLT/DRY)	9X-9730	2	BATTERY GP	268
CIRCUIT BREAKER AS (135 AMP)	135-7893	1	CIRCUIT BREAKER GP	272
CIRCUIT BREAKER AS (15 AMP)	3T-2662	2	CONTROL GP-AUTO START/STOP	280
		1	CONTROL GP-AUTO START/STOP	282
		1	CONTROL GP-AUTO START/STOP	284
		2	CONTROL GP-START/STOP	296
	6T-3643	1	CONTROL GP-AUTO START/STOP	280
		1	CONTROL GP-AUTO START/STOP	282
		1	CONTROL GP-AUTO START/STOP	284
		1	CONTROL GP-START/STOP	296
CIRCUIT BREAKER AS (40 AMP)	2H-1507	1	CIRCUIT BREAKER GP	275
CIRCUIT BREAKER AS (70 AMP)	135-8270	1	CIRCUIT BREAKER GP	274
ELEMENT AS-JACKET WATER HEATER	6T-3764	1	HEATER GP-JACKET WATER	306
	9G-6655	1	HEATER GP-JACKET WATER	305
HOLDER AS-BRUSH	7T-3278	1	STARTING MOTOR GP-ELECTRIC	356
		1	STARTING MOTOR GP-ELECTRIC	364
	8T-8570	1	STARTING MOTOR GP-ELECTRIC	330
		1	STARTING MOTOR GP-ELECTRIC	348
LAMP (28 VOLT)	7N-5876	3	CONTROL GP-AUTO START/STOP	280
		3	CONTROL GP-START/STOP	296
LENS-RED	2V-7088	1	CONTROL GP-START/STOP	296
SCREW-MACHINE	030-1193	2	CIRCUIT BREAKER GP	272
		2	CIRCUIT BREAKER GP	274
		2	CIRCUIT BREAKER GP	275
THERMOSTAT	7C-9008	1	HEATER GP-JACKET WATER	305
		1	HEATER GP-JACKET WATER	306
FUEL SYSTEM				
CAP-DUST	6V-0852	1	FITTING GP-FUEL LINES	232
CAP (37 DEGREE FLARED)	8S-4950	2	LINES GP-FUEL	242
ELEMENT-FILTER	129-0373	1	FILTER GP-FUEL	230
FILTER AS-FUEL	1R-0749	1	FILTER GP-FUEL	229
		1	FILTER GP-FUEL	231
		1	PUMP GP-FUEL PRIMING	247
FILTER AS-WATER SEP & FUEL	129-0372	1	FILTER GP-FUEL	230
KIT-FUEL FILTER & WATER SEP (INCLUDES SEAL & GASKET)	141-0284	1	FILTER GP-FUEL	230

MAINTENANCE PARTS

DESCRIPTION	PART NUMBER	QTY	WHERE USED	PAGE
LUBRICATION SYSTEM				
CAP-DUST	8C-3445	1	FILTER & LINES GP-ENGINE OIL	116
		1	FILTER & LINES GP-ENGINE OIL	118
		1	FILTER GP-ENGINE OIL	122
		1	FILTER GP-ENGINE OIL	124
CAP-OIL FILLER	4W-3087 9L-8439	1	FILLER GP-ENGINE OIL	114
		1	FILLER GP-ENGINE OIL	112
		1	FILLER GP-ENGINE OIL	113
FILTER AS-ENGINE OIL	1R-0716	1	FILTER & LINES GP-ENGINE OIL	116
		1	FILTER & LINES GP-ENGINE OIL	118
		1	FILTER GP-ENGINE OIL	122
		1	FILTER GP-ENGINE OIL	124
SCREEN AS-BELL	4N-0913	1	LINES GP-ENGINE OIL	132
OPERATOR STATION				
BATTERY	101-1785	1	MODULE GP-SYSTEM COMMUNICATION	400
		1	MODULE GP-SYSTEM COMMUNICATION	402
		1	MODULE GP-SYSTEM COMMUNICATION	403
SERVICE EQUIPMENT AND SUPPLIES				
FILTER AS-ENGINE OIL	1R-0716	1	KIT-CRUISE	409
		1	KIT-CRUISE	410
		1	KIT-CRUISE	411
FILTER AS-FUEL	1R-0749	1	KIT-CRUISE	409
		1	KIT-CRUISE	410
		1	KIT-CRUISE	411
REGULATOR-WATER TEMPERATURE (92 DEG C.)	4W-4794	1	KIT-CRUISE	409
		1	KIT-CRUISE	410
		1	KIT-CRUISE	411

PIÈCES DE RECHANGE

DESCRIPTION	NUMÉRO DE PIÈCES	QTÉ	DOMAINE D'APPLICATION	PAGE
CIRCUIT DE CARBURANT				
CHAPEAU (ÉVASÉ DE 37 DEGRÉS)	8S-4950	2	CANALISATIONS DE CARBURANT (ASS)	242
ÉLÉMENT DE FILTRE	129-0373	1	FILTRE A CARBURANT (ASS)	230
FILTRE - SÉPARATEUR D'EAU ET DE CARBURANT (ENS)	129-0372	1	FILTRE A CARBURANT (ASS)	230
FILTRE A CARBURANT (ENS)	1R-0749	1	FILTRE A CARBURANT (ASS)	229
		1	FILTRE A CARBURANT (ASS)	231
		1	POMPE D'AMORÇAGE DE CARBURANT (ASS)	247
KIT DE FILTRE DE SÉPARATEUR D'EAU ET DE CARBURANT (COMPREND JOINT ET JOINT PLAT)	141-0284	1	FILTRE A CARBURANT (ASS)	230
PARE-POUSSIÈRE	6V-0852	1	RACCORD - CANALISATIONS DE CARBURANT (ASS)	232
CIRCUIT DE GRAISSAGE				
BOUCHON DE GOULOTTE DE REMPLISSAGE D'HUILE	4W-3087	1	BOUCHON DE REMPLISSAGE D'HUILE MOTEUR (ASS)	114
	9L-8439	1	BOUCHON DE REMPLISSAGE D'HUILE MOTEUR (ASS)	112
		1	BOUCHON DE REMPLISSAGE D'HUILE MOTEUR (ASS)	113
FILTRE A HUILE MOTEUR (ENS)	1R-0716	1	FILTRE À HUILE MOTEUR (ASS)	122
		1	FILTRE À HUILE MOTEUR (ASS)	124
		1	FILTRE ET CANALISATIONS D'HUILE MOTEUR (ASS)	116
		1	FILTRE ET CANALISATIONS D'HUILE MOTEUR (ASS)	118
PARE-POUSSIÈRE	8C-3445	1	FILTRE À HUILE MOTEUR (ASS)	122
		1	FILTRE À HUILE MOTEUR (ASS)	124
		1	FILTRE ET CANALISATIONS D'HUILE MOTEUR (ASS)	116
		1	FILTRE ET CANALISATIONS D'HUILE MOTEUR (ASS)	118
TAMIS DE CLOCHE (ENS)	4N-0913	1	CANALISATIONS D'HUILE MOTEUR (ASS)	132
CIRCUIT DE REFROIDISSEMENT				
BOUCHON À ÉVENT	8E-8292	1	VASE D'EXPANSION POUR LIQUIDE RÉFRIGÉRANT	195
BOUCHON DE RADIATEUR (ENS)	036-1865	1	ÉCHANGEUR DE CHALEUR (ASS)	152
FILTRE DE POMPE À EAU	136-3742	1	POMPE A EAU (ASS)	192
		1	POMPE A EAU (ASS)	194
FLEXIBLE (DIA INT 7,4MM) (200CM)	8C-3681		VASE D'EXPANSION POUR LIQUIDE RÉFRIGÉRANT	195
THERMOSTAT-TEMPÉRATURE D'EAU (92 DEGRÉS C)	4W-4794	1	RÉGULATEUR DE TEMPÉRATURE (ASS)	196
		1	THERMOSTAT ET BOITIER (ASS)	156
		1	THERMOSTAT ET BOITIER (ASS)	158

PIÈCES DE RECHANGE

DESCRIPTION	NUMÉRO DE PIÈCES	QTÉ	DOMAINE D'APPLICATION	PAGE
CIRCUIT ELECTRIQUE ET DE DEMARRAGE				
AMPOULE (28 VOLTS)	7N-5876	3	COMMANDE DE DÉMARRAGE/ARRÊT (ASS)	296
		3	COMMANDE DE DÉMARRAGE/ARRÊT AUTOMATIQUE	280
BATTERIE (PEU D'ENTRETIEN)(12 VOLTS)	115-2421	2	BATTERIE (ASS)	269
BATTERIE (12 VOLTS)	3T-5857	2	BATTERIE (ASS)	264
	9X-9720	2	BATTERIE (ASS)	267
BATTERIE (12 VOLTS) (SEC)	9G-4233	2	BATTERIE (ASS)	266
BATTERIE (12 VOLTS 750A) (FAIBLE ENTRETIEN)	3T-5760	2	BATTERIE (ASS)	265
BATTERIE (12 VOLTS/SEC)	9X-9730	2	BATTERIE (ASS)	268
DISJONCTEUR (ENS) (135A)	135-7893	1	DISJONCTEUR (ASS)	272
DISJONCTEUR (ENS) (15A)	3T-2662	2	COMMANDE DE DÉMARRAGE/ARRÊT (ASS)	296
		2	COMMANDE DE DÉMARRAGE/ARRÊT AUTOMATIQUE	280
		1	COMMANDE DE DÉMARRAGE/ARRÊT AUTOMATIQUE	282
		1	COMMANDE DE DÉMARRAGE/ARRÊT AUTOMATIQUE	284
	6T-3643	1	COMMANDE DE DÉMARRAGE/ARRÊT (ASS)	296
		1	COMMANDE DE DÉMARRAGE/ARRÊT AUTOMATIQUE	280
		1	COMMANDE DE DÉMARRAGE/ARRÊT AUTOMATIQUE	282
		1	COMMANDE DE DÉMARRAGE/ARRÊT AUTOMATIQUE	284
DISJONCTEUR (ENS) (40 A)	2H-1507	1	DISJONCTEUR (ASS)	275
DISJONCTEUR (ENS) (70A)	135-8270	1	DISJONCTEUR (ASS)	274
ÉLÉMENT DU RÉCHAUFFEUR D'EAU DES CHEMISES (ENS)	6T-3764	1	EAU DES CHEMISES - RECHAUFFEUR (ASS)	306
	9G-6655	1	EAU DES CHEMISES - RECHAUFFEUR (ASS)	305
LENTILLE ROUGE	2V-7088	1	COMMANDE DE DÉMARRAGE/ARRÊT (ASS)	296
PORTE-BALAIS (ENS)	7T-3278	1	DÉMARREUR ÉLECTRIQUE (ASS)	356
		1	DÉMARREUR ÉLECTRIQUE (ASS)	364
	8T-8570	1	DÉMARREUR ÉLECTRIQUE (ASS)	330
		1	DÉMARREUR ÉLECTRIQUE (ASS)	348
THERMOSTAT	7C-9008	1	EAU DES CHEMISES - RECHAUFFEUR (ASS)	305
		1	EAU DES CHEMISES - RECHAUFFEUR (ASS)	306
VIS MECANIQUE	030-1193	2	DISJONCTEUR (ASS)	272
		2	DISJONCTEUR (ASS)	274
		2	DISJONCTEUR (ASS)	275

PIÈCES DE RECHANGE

DESCRIPTION	NUMÉRO DE PIÈCES	QTÉ	DOMAINE D'APPLICATION	PAGE
MATÉRIEL ET FOURNITURES D'ENTRETIEN				
FILTRE A CARBURANT (ENS)	1R-0749	1	KIT DE REPARATION DU MOTEUR EN CROISIERE	409
		1	KIT DE REPARATION DU MOTEUR EN CROISIERE	410
		1	KIT DE REPARATION DU MOTEUR EN CROISIERE	411
FILTRE A HUILE MOTEUR (ENS)	1R-0716	1	KIT DE REPARATION DU MOTEUR EN CROISIERE	409
		1	KIT DE REPARATION DU MOTEUR EN CROISIERE	410
		1	KIT DE REPARATION DU MOTEUR EN CROISIERE	411
THERMOSTAT-TEMPÉRATURE D'EAU (92 DEGRÉS C)	4W-4794	1	KIT DE REPARATION DU MOTEUR EN CROISIERE	409
		1	KIT DE REPARATION DU MOTEUR EN CROISIERE	410
		1	KIT DE REPARATION DU MOTEUR EN CROISIERE	411
MOTEUR				
BOUCHON DE VIDANGE	5F-0304	1	CARTER DE VOLANT (ASS)	80
	9X-6451	1	HUILE MOTEUR - CARTER (ASS)	100
BOUCHON FILETÉ (RACCORD AU PAS DU GAZ DE 1/8 - 27)	8T-6757	3	CULASSE (ENS)	53
BOUCHON-JOINT TORIQUE (FILET 7/16-20)	9S-4190	1	BLOC-CYLINDRES (ASS)	42
		1	BLOC-CYLINDRES (ASS)	46
		1	BLOC-CYLINDRES (ASS)	48
GRAISSEUR (FILET 1/8-27)	3B-8489	2	EMBAYAGE (ASS)	14
TAMIS DE CLOCHE (ENS)	4N-0913	1	HUILE MOTEUR - CARTER (ASS)	100
POSTE DE CONDUITE				
BATTERIE	101-1785	1	MODULE - SYSTÈME DE COMMUNICATION (ASS)	400
		1	MODULE - SYSTÈME DE COMMUNICATION (ASS)	402
		1	MODULE - SYSTÈME DE COMMUNICATION (ASS)	403
SYSTEME D'ÉCHAPPEMENT ET D'ADMISSION D'AIR				
FILTRE À AIR	4N-0015	1	FILTRE A AIR (ASS)	203
FILTRE A SUIE	4N-7808	1	FILTRE A AIR (ASS)	202
INDICATEUR DE COLMATAGE DE FILTRE A AIR	7S-0687	1	FILTRE A AIR (ASS)	202
INDICATEUR D'ENTRETIEN	2N-3323	1	FILTRE A AIR (ASS)	206
		1	FILTRE A AIR (ASS)	208

PIEZAS DE MANTENIMIENTO

DESCRIPCION	NUMERO DE PIEZA	CANT	SE UTILIZA EN	PAGINA
EQUIPO DE SERVICIO Y SUMINISTROS				
FILTRO DE ACEITE DEL MOTOR (CONJ)	1R-0716	1	JUEGO DE REPARACION DURANTE LA TRAVESIA	409
			JUEGO DE REPARACION DURANTE LA TRAVESIA	410
			JUEGO DE REPARACION DURANTE LA TRAVESIA	411
FILTRO DE COMBUSTIBLE (CONJ)	1R-0749	1	JUEGO DE REPARACION DURANTE LA TRAVESIA	409
			JUEGO DE REPARACION DURANTE LA TRAVESIA	410
			JUEGO DE REPARACION DURANTE LA TRAVESIA	411
REGULADOR DE TEMPERATURA DEL AGUA (92 GR C)	4W-4794	1	JUEGO DE REPARACION DURANTE LA TRAVESIA	409
			JUEGO DE REPARACION DURANTE LA TRAVESIA	410
			JUEGO DE REPARACION DURANTE LA TRAVESIA	411
MOTOR BÁSICO				
CONEXIÓN DE ENGRASE (ROSCA DE 1/8-27)	3B-8489	2	EMBRAGUE (GR)	14
REJILLA ACAMPANADA (CONJ)	4N-0913	1	CÁRTER - COLECTOR DEL (GR)	100
TAPÓN DE DRENAJE	5F-0304	1	VOLANTE - CAJA DE (GR)	80
	9X-6451	1	CÁRTER - COLECTOR DEL (GR)	100
TAPON DE TUBO (ROSCA 1/8-27 NPTF)	8T-6757	3	CULATA DE CILINDROS (CONJ)	53
TAPÓN (ROSCA 7/16-20)	9S-4190	1	BLOQUE MOTOR (GR)	42
		1	BLOQUE MOTOR (GR)	46
		1	BLOQUE MOTOR (GR)	48
PUESTO DEL OPERADOR				
BATERÍA	101-1785	1	MODULO DEL SISTEMA DE COMUNICACION (GR)	400
		1	MODULO DEL SISTEMA DE COMUNICACION (GR)	402
		1	MODULO DEL SISTEMA DE COMUNICACION (GR)	403
SISTEMA DE ADMISION DE AIRE Y ESCAPE				
FILTRO DE AIRE	4N-0015	1	FILTRO DE AIRE (GR)	203
FILTRO DE HOLLIN	4N-7808	1	FILTRO DE AIRE (GR)	202
INDICADOR DE SERVICIO	2N-3323	1	FILTRO DE AIRE (GR)	206
		1	FILTRO DE AIRE (GR)	208
INDICADOR DE SERVICIO DEL FILTRO DE AIRE	7S-0687	1	FILTRO DE AIRE (GR)	202

PIEZAS DE MANTENIMIENTO

DESCRIPCION	NUMERO DE PIEZA	CANT	SE UTILIZA EN	PAGINA
SISTEMA DE COMBUSTIBLE				
ELEMENTO DE FILTRO	129-0373	1	FILTRO DE COMBUSTIBLE (GR)	230
FILTRO DE COMBUSTIBLE (CONJ)	1R-0749	1	BOMBA DE CEBADO DE COMBUSTIBLE (GR)	247
		1	FILTRO DE COMBUSTIBLE (GR)	229
		1	FILTRO DE COMBUSTIBLE (GR)	231
FILTRO DE COMBUSTIBLE Y SEPARADOR DE AGUA (CONJ)	129-0372	1	FILTRO DE COMBUSTIBLE (GR)	230
JUEGO DE FILTRO DE COMBUSTIBLE Y SEPARADOR DE AGUA (INCLUYE SELLOS Y JUNTAS)	141-0284	1	FILTRO DE COMBUSTIBLE (GR)	230
TAPA CONTRA EL POLVO	6V-0852	1	CONEXIÓN DE ENGRASE DE LAS TUBERÍAS DE COMBUSTIBLE	232
TAPA (37 GRADOS ABOCINADA)	8S-4950	2	TUBERÍAS DE COMBUSTIBLE (GR)	242
SISTEMA DE ENFRIAMIENTO				
FILTRO DE LA BOMBA DE AGUA	136-3742	1	BOMBA DE AGUA (GR)	192
		1	BOMBA DE AGUA (GR)	194
MANGUERA (7,4MM DI) (200CM)	8C-3681		RECUPERACIÓN DEL REFRIGERANTE (GR)	195
REGULADOR DE TEMPERATURA DEL AGUA (92 GR C)	4W-4794	1	REGULADOR Y CAJA (GR)	156
		1	REGULADOR Y CAJA (GR)	158
		1	TEMPERATURA - REGULADOR DE (GR)	196
TAPA CON RESPIRADERO	8E-8292	1	RECUPERACIÓN DEL REFRIGERANTE (GR)	195
TAPA DE RADIADOR (CONJ)	036-1865	1	INTERCAMBIADOR DE CALOR (GR)	152
SISTEMA DE LUBRICACIÓN				
FILTRO DE ACEITE DEL MOTOR (CONJ)	1R-0716	1	FILTRO DE ACEITE DEL MOTOR (GR)	122
		1	FILTRO DE ACEITE DEL MOTOR (GR)	124
		1	FILTRO Y TUBERIAS DE ACEITE DE MOTOR (GR)	116
		1	FILTRO Y TUBERIAS DE ACEITE DE MOTOR (GR)	118
REJILLA ACAMPANADA (CONJ)	4N-0913	1	TUBERÍAS DE ACEITE DEL MOTOR (GR)	132
TAPA CONTRA EL POLVO	8C-3445	1	FILTRO DE ACEITE DEL MOTOR (GR)	122
		1	FILTRO DE ACEITE DEL MOTOR (GR)	124
		1	FILTRO Y TUBERIAS DE ACEITE DE MOTOR (GR)	116
		1	FILTRO Y TUBERIAS DE ACEITE DE MOTOR (GR)	118
TAPA DEL TUBO DE LLENADO DE ACEITE	4W-3087	1	TUBO DE LLENADO DE ACEITE (GR)	114
	9L-8439	1	TUBO DE LLENADO DE ACEITE (GR)	112
		1	TUBO DE LLENADO DE ACEITE (GR)	113
SISTEMA ELECTRICO Y DE ARRANQUE				
BATERÍA (BAJO MANTENIMIENTO)(12 VOLTIOS)	115-2421	2	BATERÍA (GR)	269
BATERÍA (12 VOLTIOS)	3T-5857	2	BATERÍA (GR)	264
	9X-9720	2	BATERÍA (GR)	267

PIEZAS DE MANTENIMIENTO

DESCRIPCION	NUMERO DE PIEZA	CANT	SE UTILIZA EN	PAGINA
BATERÍA (12 VOLTIOS) (DESHIDRATADOR)	9G-4233	2	BATERÍA (GR)	266
BATERÍA (12 VOLTIOS 750 AMPERIOS) (BAJO MANTENIMIENTO)	3T-5760	2	BATERÍA (GR)	265
BATERÍA (12 VOLTIOS/SECO)	9X-9730	2	BATERÍA (GR)	268
DISYUNTOR (CONJ) (135 AMP)	135-7893	1	DISYUNTOR DE CIRCUITO (GR)	272
DISYUNTOR (CONJ) (15 A)	3T-2662	2	CONTROL AUTOMÁTICO DE ARRANQUE Y PARADA	280
		1	CONTROL AUTOMÁTICO DE ARRANQUE Y PARADA	282
		1	CONTROL AUTOMÁTICO DE ARRANQUE Y PARADA	284
		2	CONTROL DE ARRANQUE/PARADA (GR)	296
	6T-3643	1	CONTROL AUTOMÁTICO DE ARRANQUE Y PARADA	280
		1	CONTROL AUTOMÁTICO DE ARRANQUE Y PARADA	282
		1	CONTROL AUTOMÁTICO DE ARRANQUE Y PARADA	284
		1	CONTROL DE ARRANQUE/PARADA (GR)	296
DISYUNTOR (CONJ) (40 A)	2H-1507	1	DISYUNTOR DE CIRCUITO (GR)	275
DISYUNTOR (CONJ) (70 AMPERIOS)	135-8270	1	DISYUNTOR DE CIRCUITO (GR)	274
ELEMENTO DEL CALENTADOR DEL AGUA DE LAS CAMISAS	6T-3764	1	AGUA DE LAS CAMISAS - CALENTADOR DEL (GR)	306
	9G-6655	1	AGUA DE LAS CAMISAS - CALENTADOR DEL (GR)	305
LÁMPARA (28 VOLTIOS)	7N-5876	3	CONTROL AUTOMÁTICO DE ARRANQUE Y PARADA	280
		3	CONTROL DE ARRANQUE/PARADA (GR)	296
LENTE-ROJO	2V-7088	1	CONTROL DE ARRANQUE/PARADA (GR)	296
PORTAESCOBILLAS (CONJ)	7T-3278	1	MOTOR DE ARRANQUE ELÉCTRICO (GR)	356
		1	MOTOR DE ARRANQUE ELÉCTRICO (GR)	364
	8T-8570	1	MOTOR DE ARRANQUE ELÉCTRICO (GR)	330
		1	MOTOR DE ARRANQUE ELÉCTRICO (GR)	348
TERMOSTATO	7C-9008	1	AGUA DE LAS CAMISAS - CALENTADOR DEL (GR)	305
		1	AGUA DE LAS CAMISAS - CALENTADOR DEL (GR)	306
TORNILLO DE MAQUINA	030-1193	2	DISYUNTOR DE CIRCUITO (GR)	272
		2	DISYUNTOR DE CIRCUITO (GR)	274
		2	DISYUNTOR DE CIRCUITO (GR)	275

PEÇAS DE MANUTENÇÃO

DESCRIÇÃO	NÚMERO DE PEÇA	QUANT	UTILIZADA EM	PÁGINA
EQUIPAMENTOS DE SERVIÇO E SUPRIMENTOS				
FILTRO - COMBUSTÍVEL	1R-0749	1	JOGO DE REPARO PARA USO NO CAMPO	409
		1	JOGO DE REPARO PARA USO NO CAMPO	410
		1	JOGO DE REPARO PARA USO NO CAMPO	411
FILTRO - ÓLEO DO MOTOR	1R-0716	1	JOGO DE REPARO PARA USO NO CAMPO	409
		1	JOGO DE REPARO PARA USO NO CAMPO	410
		1	JOGO DE REPARO PARA USO NO CAMPO	411
REGULADOR DE TEMPERATURA DA ÁGUA (92 GRAUS CENTÍGRADOS)	4W-4794	1	JOGO DE REPARO PARA USO NO CAMPO	409
		1	JOGO DE REPARO PARA USO NO CAMPO	410
		1	JOGO DE REPARO PARA USO NO CAMPO	411
MOTOR BÁSICO				
BUJÃO - ANEL O (7/16-20 THD)	9S-4190	1	BLOCO DO MOTOR	42
		1	BLOCO DO MOTOR	46
		1	BLOCO DO MOTOR	48
BUJÃO - CANO/TUBO (ROSCA DE 1/8-27 DO PADRÃO AMERICANO NPTF)	8T-6757	3	CABEÇOTE DO MOTOR	53
BUJÃO DO DRENO	5F-0304	1	CAIXA DO VOLANTE DO MOTOR	80
	9X-6451	1	CÁRTER DO ÓLEO DO MOTOR	100
GRAXEIRA (ROSCA 1/8-27 POL)	3B-8489	2	EMBREAGEM	14
	4N-0913	1	CÁRTER DO ÓLEO DO MOTOR	100
TELA				
POSTO DO OPERADOR				
BATERIA	101-1785	1	MÓDULO DE COMUNICAÇÃO DO SISTEMA	400
		1	MÓDULO DE COMUNICAÇÃO DO SISTEMA	402
		1	MÓDULO DE COMUNICAÇÃO DO SISTEMA	403
SISTEMA DE ADMISSÃO E ESCAPE				
FILTRO - AR	4N-0015	1	PURIFICADOR DE AR	203
FILTRO DE FULIGEM	4N-7808	1	PURIFICADOR DE AR	202
INDICADOR - LIMPEZA DO FILTRO DE AR	7S-0687	1	PURIFICADOR DE AR	202
INDICADOR - MANUTENÇÃO	2N-3323	1	PURIFICADOR DE AR	206
		1	PURIFICADOR DE AR	208

PEÇAS DE MANUTENÇÃO

DESCRIÇÃO	NÚMERO DE PEÇA	QUANT	UTILIZADA EM	PÁGINA
SISTEMA DE ARREFECIMENTO				
FILTRO - BOMBA DE ÁGUA	136-3742	1	BOMBA DE ÁGUA	192
		1	BOMBA DE ÁGUA	194
MANGUEIRA (DIÂMETRO INTERNO DE 7,4MM) (200CM)	8C-3681		RECUPERAÇÃO DE LÍQUIDO ARREFECEDOR	195
REGULADOR DE TEMPERATURA DA ÁGUA (92 GRAUS CENTÍGRADOS)	4W-4794	1	TERMOSTATO	196
		1	TERMOSTATO / REGULADOR DE TEMPERATURA	156
		1	TERMOSTATO / REGULADOR DE TEMPERATURA	158
TAMPA - RADIADOR	036-1865	1	PERMUTADOR DE CALOR	152
TAMPA COM RESPIRO	8E-8292	1	RECUPERAÇÃO DE LÍQUIDO ARREFECEDOR	195
SISTEMA DE COMBUSTÍVEL				
ELEMENTO - FILTRANTE	129-0373	1	FILTRO - COMBUSTÍVEL	230
FILTRO - COMBUSTÍVEL	1R-0749	1	BOMBA DE ESCORVA DO COMBUSTÍVEL	247
		1	FILTRO - COMBUSTÍVEL	229
		1	FILTRO - COMBUSTÍVEL	231
FILTRO - SEPARADOR DE ÁGUA E COMBUSTÍVEL	129-0372	1	FILTRO - COMBUSTÍVEL	230
JOGO DE FILTRO DE COMBUSTÍVEL E SEPARADOR DE ÁGUA (INCLUI VEDAÇÃO E JUNTA)	141-0284	1	FILTRO - COMBUSTÍVEL	230
TAMPA (ABERTURA DE 37 GRAUS)	8S-4950	2	TUBOS - COMBUSTÍVEL	242
TAMPA CONTRA POEIRA	6V-0852	1	CONEXÃO - TUBOS DE COMBUSTÍVEL	232
SISTEMA DE LUBRIFICAÇÃO				
FILTRO - ÓLEO DO MOTOR	1R-0716	1	FILTRO - ÓLEO DO MOTOR	122
		1	FILTRO - ÓLEO DO MOTOR	124
		1	FILTRO DO ÓLEO DO MOTOR E TUBOS	116
		1	FILTRO DO ÓLEO DO MOTOR E TUBOS	118
TAMPA - BOCAL DE ENCHIMENTO DE ÓLEO	4W-3087	1	BOCAL DE ENCHIMENTO DE ÓLEO DO MOTOR	114
	9L-8439	1	BOCAL DE ENCHIMENTO DE ÓLEO DO MOTOR	112
		1	BOCAL DE ENCHIMENTO DE ÓLEO DO MOTOR	113
TAMPA CONTRA POEIRA	8C-3445	1	FILTRO - ÓLEO DO MOTOR	122
		1	FILTRO - ÓLEO DO MOTOR	124
		1	FILTRO DO ÓLEO DO MOTOR E TUBOS	116
		1	FILTRO DO ÓLEO DO MOTOR E TUBOS	118
TELA	4N-0913	1	TUBOS - ÓLEO DO MOTOR	132

PEÇAS DE MANUTENÇÃO

DESCRIÇÃO	NÚMERO DE PEÇA	QUANT	UTILIZADA EM	PÁGINA
SISTEMA ELÉTRICO E DE PARTIDA				
BATERIA (BAIXA MANUTENÇÃO)(12 VOLTS)	115-2421	2	BATERIA	269
BATERIA (12 V)	3T-5857	2	BATERIA	264
	9X-9720	2	BATERIA	267
BATERIA (12 V) (SECA(O))	9G-4233	2	BATERIA	266
BATERIA (12 VOLTS, 750 AMP.) (BAIXA MANUTENÇÃO)	3T-5760	2	BATERIA	265
BATERIA (12 VOLT/SECO)	9X-9730	2	BATERIA	268
DISJUNTOR AUTOMÁTICO DE CIRCUITO (135 AMP.)	135-7893	1	INTERRUPTOR - CIRCUITO	272
DISJUNTOR AUTOMÁTICO DE CIRCUITO (15 A)	3T-2662	2	CONTROLE - PARTIDA/PARADA	296
		2	CONTROLE AUTOMÁTICO - DAR PARTIDA/PARAR	280
		1	CONTROLE AUTOMÁTICO - DAR PARTIDA/PARAR	282
		1	CONTROLE AUTOMÁTICO - DAR PARTIDA/PARAR	284
	6T-3643	1	CONTROLE - PARTIDA/PARADA	296
		1	CONTROLE AUTOMÁTICO - DAR PARTIDA/PARAR	280
		1	CONTROLE AUTOMÁTICO - DAR PARTIDA/PARAR	282
		1	CONTROLE AUTOMÁTICO - DAR PARTIDA/PARAR	284
DISJUNTOR AUTOMÁTICO DE CIRCUITO (40 A)	2H-1507	1	INTERRUPTOR - CIRCUITO	275
DISJUNTOR AUTOMÁTICO DE CIRCUITO (70 AMP)	135-8270	1	INTERRUPTOR - CIRCUITO	274
ELEMENTO - AQUECEDOR DE ÁGUA DA CAMISA	6T-3764	1	AQUECEDOR DA ÁGUA DO MOTOR	306
	9G-6655	1	AQUECEDOR DA ÁGUA DO MOTOR	305
LÂMPADA (28 V)	7N-5876	3	CONTROLE - PARTIDA/PARADA	296
		3	CONTROLE AUTOMÁTICO - DAR PARTIDA/PARAR	280
LENTE VERMELHA	2V-7088	1	CONTROLE - PARTIDA/PARADA	296
PARAFUSO DE FENDA	030-1193	2	INTERRUPTOR - CIRCUITO	272
		2	INTERRUPTOR - CIRCUITO	274
		2	INTERRUPTOR - CIRCUITO	275
SUPORTE - ESCOVA	7T-3278	1	MOTOR ELÉTRICO DE PARTIDA	356
		1	MOTOR ELÉTRICO DE PARTIDA	364
	8T-8570	1	MOTOR ELÉTRICO DE PARTIDA	330
		1	MOTOR ELÉTRICO DE PARTIDA	348
TERMOSTATO	7C-9008	1	AQUECEDOR DA ÁGUA DO MOTOR	305
		1	AQUECEDOR DA ÁGUA DO MOTOR	306

WARTUNGSTEILE

BESCHREIBUNG	ERSATZTEIL- NUMMER	MENGE	VERWENDET IN	SEITE
BEDIENUNGSSTAND				
BATTERIE	101-1785	1	SYSTEMKOMMUNIKATIONSMODUL	400
		1	SYSTEMKOMMUNIKATIONSMODUL	402
		1	SYSTEMKOMMUNIKATIONSMODUL	403
ELEKTRISCHE ANLAGE UND STARTSYSTEM				
BATTERIE (WARTUNGSARM) (12 V)	115-2421	2	BATTERIE	269
BATTERIE (12 V)	3T-5857	2	BATTERIE	264
	9X-9720	2	BATTERIE	267
BATTERIE (12 V) (TROCKEN)	9G-4233	2	BATTERIE	266
BATTERIE (12 V, 750 A) (WARTUNGSARM)	3T-5760	2	BATTERIE	265
BATTERIE (12 V/TROCKEN)	9X-9730	2	BATTERIE	268
BÜRSTENHALTER	7T-3278	1	STARTERMOTOR	356
		1	STARTERMOTOR	364
	8T-8570	1	STARTERMOTOR	330
		1	STARTERMOTOR	348
LEUCHTE (28 V)	7N-5876	3	AUTOMATIKSTEUERUNG (STARTEN/ABSTELLEN)	280
		3	START/STOP - STEUERUNG	296
LINSE - ROT	2V-7088	1	START/STOP - STEUERUNG	296
MASCHINENSCHRAUBE	030-1193	2	UNTERBRECHER	272
		2	UNTERBRECHER	274
		2	UNTERBRECHER	275
TEMPERATURREGLER	7C-9008	1	UMLAUFKÜHLWASSERHEIZUNG	305
		1	UMLAUFKÜHLWASSERHEIZUNG	306
UMLAUFKÜHLWASSERHEIZUNGS-ELE- MENT	6T-3764	1	UMLAUFKÜHLWASSERHEIZUNG	306
	9G-6655	1	UMLAUFKÜHLWASSERHEIZUNG	305
UNTERBRECHER (135 A)	135-7893	1	UNTERBRECHER	272
UNTERBRECHER (15 A)	3T-2662	2	AUTOMATIKSTEUERUNG (STARTEN/ABSTELLEN)	280
		1	AUTOMATIKSTEUERUNG (STARTEN/ABSTELLEN)	282
		1	AUTOMATIKSTEUERUNG (STARTEN/ABSTELLEN)	284
		2	START/STOP - STEUERUNG	296
	6T-3643	1	AUTOMATIKSTEUERUNG (STARTEN/ABSTELLEN)	280
		1	AUTOMATIKSTEUERUNG (STARTEN/ABSTELLEN)	282
		1	AUTOMATIKSTEUERUNG (STARTEN/ABSTELLEN)	284
		1	START/STOP - STEUERUNG	296
UNTERBRECHER (40 A)	2H-1507	1	UNTERBRECHER	275
UNTERBRECHER (70 A)	135-8270	1	UNTERBRECHER	274

WARTUNGSTEILE

BESCHREIBUNG	ERSATZTEIL- NUMMER	MENGE	VERWENDET IN	SEITE
KRAFTSTOFFSYSTEM				
EINBAUSATZ - KRAFTSTOFFFILTER UND WASSERABSCHIEDER ((EINSCHL. DICHTUNGEN))	141-0284	1	KRAFTSTOFFFILTER	230
FILTER	129-0373	1	KRAFTSTOFFFILTER	230
KAPPE (37 GRAD KONISCH)	8S-4950	2	KRAFTSTOFFLEITUNGEN	242
KRAFTSTOFFFILTER	1R-0749	1	KRAFTSTOFF-ENTLÜFTUNGSPUMPE	247
		1	KRAFTSTOFFFILTER	229
		1	KRAFTSTOFFFILTER	231
STAUBKAPPE	6V-0852	1	ANSCHLUSSSTÜCK (KRAFTSTOFFLEITUNGEN)	232
WASSERABSCHIEDER UND KRAFTSTOFFFILTER	129-0372	1	KRAFTSTOFFFILTER	230
KÜHLSYSTEM				
KAPPE MIT ENTLÜFTER	8E-8292	1	KÜHLMITTELÜBERLAUFBEHÄLTER	195
KÜHLERKAPPE	036-1865	1	WÄRMETAUSCHER	152
SCHLAUCHLEITUNG (7,4MM INNENDURCHM.) (200 CM)	8C-3681		KÜHLMITTELÜBERLAUFBEHÄLTER	195
WASSERPUMPENFILTER	136-3742	1	KÜHLWASSERPUMPE	192
		1	KÜHLWASSERPUMPE	194
WASSERTEMPERATURREGLER (92 GRAD CELSIUS)	4W-4794	1	KÜHLWASSER-TEMPERATURREGLER UND GEHÄUSE	156
		1	KÜHLWASSER-TEMPERATURREGLER UND GEHÄUSE	158
		1	TEMPERATURREGLER	196
LUFTANSAUG- UND ABGASSYSTEM				
LUFTFILTER	4N-0015	1	LUFTREINIGER	203
LUFTFILTER-WARTUNGSANZEIGE	7S-0687	1	LUFTREINIGER	202
RUSSFILTER	4N-7808	1	LUFTREINIGER	202
WARTUNGSANZEIGE	2N-3323	1	LUFTREINIGER	206
		1	LUFTREINIGER	208
MOTOR (GRUNDAUSFÜHRUNG)				
ABLASSSTOPFEN	5F-0304	1	SCHWUNGRADGEHÄUSE	80
	9X-6451	1	ÖLWANNE	100
O-RING-STOPFEN (7/16-20 GEWINDE)	9S-4190	1	MOTORBLOCK	42
		1	MOTORBLOCK	46
		1	MOTORBLOCK	48
ROHRSTOPFEN (1/8-27 GEWINDE)	8T-6757	3	ZYLINDERKOPF	53
SAUGGLOCKENSIEB	4N-0913	1	ÖLWANNE	100
SCHMIERNIPPEL (1/8-27-GEWINDE)	3B-8489	2	KUPPLUNG	14

WARTUNGSTEILE

BESCHREIBUNG	ERSATZTEIL- NUMMER	MENGE	VERWENDET IN	SEITE
SCHMIERSYSTEM				
ÖLEINFÜLLKAPPE	4W-3087	1	MOTORÖLEINFÜLLSTUTZEN	114
	9L-8439	1	MOTORÖLEINFÜLLSTUTZEN	112
		1	MOTORÖLEINFÜLLSTUTZEN	113
ÖLFILTER	1R-0716	1	MOTORÖLFILTER U. -LEITUNGEN	116
		1	MOTORÖLFILTER U. -LEITUNGEN	118
		1	ÖLFILTER	122
		1	ÖLFILTER	124
		1	MOTORÖLLEITUNGEN	132
SAUGGLOCKENSIEB	4N-0913	1	MOTORÖLLEITUNGEN	132
STAUBKAPPE	8C-3445	1	MOTORÖLFILTER U. -LEITUNGEN	116
		1	MOTORÖLFILTER U. -LEITUNGEN	118
		1	ÖLFILTER	122
		1	ÖLFILTER	124
WARTUNGSAUSRÜSTUNG UND -ZUBEHÖR				
KRAFTSTOFFFILTER	1R-0749	1	FAHRTREGLER-EINBAUSATZ	409
		1	FAHRTREGLER-EINBAUSATZ	410
		1	FAHRTREGLER-EINBAUSATZ	411
ÖLFILTER	1R-0716	1	FAHRTREGLER-EINBAUSATZ	409
		1	FAHRTREGLER-EINBAUSATZ	410
		1	FAHRTREGLER-EINBAUSATZ	411
		1	FAHRTREGLER-EINBAUSATZ	411
		1	FAHRTREGLER-EINBAUSATZ	411
WASSEITEMPERATURREGLER (92 GRAD CELSIUS)	4W-4794	1	FAHRTREGLER-EINBAUSATZ	409
		1	FAHRTREGLER-EINBAUSATZ	410
		1	FAHRTREGLER-EINBAUSATZ	411

INDEX

Name	Page	Name	Page
A			
ADAPTER GP-PUMP DRIVE	11	CIRCUIT BREAKER AS (15 AMP)	280
ADAPTER GP-SENSOR	251		282
AFTERCOOLER GP	198		284
	200	CIRCUIT BREAKER AS (40 AMP)	275
AIR CLEANER GP	202	CIRCUIT BREAKER AS (70 AMP)	274
	203	CIRCUIT BREAKER GP	271
	204		272
	206		273
	208		274
ALTERNATOR GP-CHARGING	252		275
	256	CIRCUIT BREAKER (60 AMP)	271
	258	CLUTCH AS	14
	260	CLUTCH GP	14
		CONNECTION GP-ELECTRICAL	276
		CONTROL & MTG GP-ENGINE ELEK	277
			278
		CONTROL GP-AUTO START/STOP	280
			284
		CONTROL GP-AUTO START/STOP	282
		CONTROL GP-ENGINE ELECTRONIC	286
			287
			288
			289
			290
			291
			292
		CONTROL GP-ENGINE MONITORING	379
			380
		CONTROL GP-ENGINE VISION	293
			294
		CONTROL GP-MONITOR	381
			382
		CONTROL GP-START/STOP	296
		CONVERTER GP-ELECTRICAL	383
		COOLER GP-ENGINE OIL	144
			145
		COOLER GP-FUEL	228
		COOLER GP-MARINE TMSN OIL	146
		COOLER GP-TRANSMISSION OIL	148
		COVER GP-CYLINDER BLOCK	16
			17
			18
			19
			20
		COVER GP-FLYWHEEL HOUSING	21
			22
		COVER GP-FRONT HOUSING	23
			24
			25
		COVER GP-VALVE MECHANISM	26
			27
			28
			29
			30
B			
BASE GP-VALVE COVER & INJ HARN	12		
BATTERY	400		
	402		
	403		
BATTERY CHARGER	263		
BATTERY GP	264		
	265		
	266		
	267		
	268		
	269		
BATTERY (LOW MAINTENANCE) (12 VOLT)	269		
BATTERY (12 VOLT)	264		
	267		
BATTERY (12 VOLT) (DRY)	266		
BATTERY (12 VOLT 750 AMP) (LOW MAINTENANCE)	265		
BATTERY (12 VOLT/DRY)	268		
C			
CABLE AS-EXTENSION	270		
CAMSHAFT GP	13		
CAP AS-RADIATOR	152		
CAP AS-RAIN	210		
CAP-DUST	116		
	118		
	122		
	124		
	232		
CAP-OIL FILLER	112		
	113		
	114		
CAP-VENTED	195		
CAP (37 DEGREE FLARED)	242		
CHART-PLATE & FILM	406		
CIRCUIT BREAKER AS (135 AMP)	272		

INDEX

Name	Page	Name	Page
G			357
GAUGE GP-OIL LEVEL (DIPSTICK)	126		360
	127	KIT-BRUSH (INCLUDES PARTS MARKED J) ...	337
GEAR GP-FRONT	74	KIT-BUSHING	349
GREASE GUN GP	407		353
	408		357
GUARD GP-DAMPER	76		364
	77	KIT-BUSHING	
	78	(INCLUDES PARTS MARKED P)	337
H		KIT-BUSHING (STARTING MOTOR)	331
HARNESS AS	299	KIT-CONNECTING PLUG (12 PIN)	300
	300		301
	301		302
	302	KIT-CONNECTING PLUG (3 PIN)	319
	303		320
HARNESS AS-WIRING	304		322
HEAT EXCHANGER GP	152		323
	154		324
HEATER GP-JACKET WATER	305	KIT-CONNECTING PLUG (6 PIN)	399
	306	KIT-CRUISE	409
HOLDER AS-BRUSH	330		410
	348		411
	356	KIT-FUEL FILTER & WATER SEP	
	364	(INCLUDES SEAL & GASKET)	230
HOSE AS	128	KIT-FUEL LINES	412
HOSE (7.4MM ID) (200CM)	195		413
HOUSING & REGULATOR GP	156	KIT-HARDWARE	342
	158		344
HOUSING GP-FLYWHEEL	80		346
HOUSING GP-FRONT	82		360
I		KIT-INSULATOR	349
INDICATOR-AIR FILTER SERVICE	202		353
INDICATOR-SERVICE	206		357
	208		364
INSERT-VALVE SEAT	50	KIT-INSULATOR	
K		(INCLUDES PARTS MARKED L)	337
KIT-AIR CLEANER CLAMP		KIT-INSULATOR (STARTING MOTOR)	331
(INCLUDES RIVET & CLAMP AS)	203	KIT-LEVER	344
KIT-BEARING	342		346
	344		349
	346		353
	360		357
KIT-BRUSH	331	KIT-LEVER (INCLUDES PARTS MARKED N) ...	337
	342	KIT-LEVER (STARTING MOTOR)	331
	344	KIT-PLUG	304
	346	KIT-PUMP	138
	360	KIT-PUMP REBUILD	192
	342	KIT-RECEPTACLE	304
	344	KIT-RECEPTACLE (12 PIN)	299
	346		303
	349		304
	353	KIT-RECEPTACLE (2 PIN)	409
			410

INDEX

Name	Page	Name	Page
KIT-RECEPTACLE (3 PIN)	238 315 318 321 372	LINES GP-TURBOCHARGER OIL	134 162 163 164 165 166
KIT-RECEPTACLE (4 PIN)	280 284 296	LUBRICATOR GP-AIR MOTOR	307
KIT-RECEPTACLE (6 PIN)	389 392 393 394 398 399	M	
KIT-RETAINING BOLT	291 292	MAGNETIC PICKUP GP	308
KIT-SEAL	307 344 346	MANIFOLD GP-WATER COOLED EXH	222
KIT-SERVICE METER	280 282 296	MECHANISM GP-FUEL PUMP & VALVE	86 87 88
KIT-SOLENOID	344 346	METER-SERVICE	284
KIT-STARTING MOTOR PIN	342 360	MODULE GP-QUAD GAUGE	389 390 391 392 393
KIT-STARTING MOTOR SEAL	342 360	MODULE GP-SPEEDOMETER & TACH	394 395 396 397 398 399
KIT-TERMINAL	252 260	MODULE GP-SYSTEM COMMUNICATION	400 401 402 403
KIT-VANE	326	MOUNTING GP-ALTERNATOR	90 92 94 96
KIT-WASHER	342 360	MOUNTING GP-CIRCUIT BREAKER	309 310
KIT-WATER PUMP REBUILD	187	MOUNTING GP-CONTROL	311 312 313
L		MOUNTING GP-ENGINE	98
LAMP (28 VOLT)	280 296	MOUNTING GP-PUMP DRIVE	99
LENS-RED	296	MOUNTING GP-TACHOMETER	404
LIFTING GP-ENGINE	84 85	P	
LINES GP-AFTERCOOLER DRAIN	219 220	PAN GP-OIL	100
LINES GP-AIR	221	PIPE GP-EXHAUST	223
LINES GP-AUXILIARY	160 161	PISTON & ROD GP	102
LINES GP-ENGINE OIL	130 132 133	PLATE GP-HEAT EXCHANGER	168
LINES GP-FLEXIBLE FUEL	234	PLUG-DRAIN	80 100
LINES GP-FUEL	236 238 240 242	PLUG GP-CYLINDER HEAD	103
		PLUG GP-WATER LINES	170
		PLUG-O-RING (7/16-20 THD)	42

INDEX

Name	Page	Name	Page
	46		274
	48		275
PLUG-PIPE (1/8-27 NPTF)	53	SEAL GP	187
POWER TAKE-OFF GP-FRONT	104	SENSOR & MTG GP-PRESSURE	314
PUMP & MTG GP-FUEL TRANSFER	244	SENSOR GP-COOLANT LEVEL	315
PUMP AS-BILGE-RH	171	SENSOR GP-POSITION	316
PUMP GP-AUXILIARY	172		317
	174	SENSOR GP-PRESSURE	318
	176		319
PUMP GP-AUXILIARY SEA WATER	178		320
	179		321
	180		322
PUMP GP-BILGE	182		323
PUMP GP-ENGINE OIL	135	SENSOR GP-PRESSURE (FUEL)	231
	136		247
	137	SENSOR GP-PRESSURE	
PUMP GP-FUEL INJECTION	245	(INLET MANIFOLD)	198
	246	SENSOR GP-PRESSURE (OIL)	42
PUMP GP-FUEL PRIMING	247		46
PUMP GP-FUEL TRANSFER	248		48
PUMP GP-SUMP	138	SENSOR GP-PRESSURE (OIL & FUEL)	318
	140	SENSOR GP-SPEED-	
	142	ENGINE SPEED/TIMING	324
PUMP GP-WATER	183	SENSOR GP-SPEED (PRIMARY)	82
	184	SENSOR GP-SPEED (SECONDARY)	82
	185	SENSOR GP-TEMPERATURE	325
	186	SENSOR GP-TEMPERATURE (AIR INLET)	198
	187		200
	188	SENSOR GP-TEMPERATURE	
	189	(ENGINE COOLANT)	158
	190		196
	192	SENSOR GP-TEMPERATURE (FUEL)	236
	194		238
			240
			242
		SLEEVE GP-INJECTOR	108
		SOLENOID AS	342
			352
			360
		SOLENOID AS-STARTING MOTOR	
		(STARTER 24 VOLT)	336
		SOLENOID AS-STARTING MOTOR (24 VOLT) ...	330
			348
		SOLENOID AS (24 VOLT)	356
			364
		STARTING MOTOR GP-AIR	326
			328
		STARTING MOTOR GP-ELECTRIC	330
			333
			334
			336
			339
			340
SCREEN AS-BELL	100		342
	132		344
SCREW-MACHINE	272		

R

S

INDEX

Name	Page	Name	Page
	346		240
	348		250
	352	VALVE MECHANISM	86
	356		87
	360		88
	362		
	364		
	366		
	367	W	
	368	WIRING GP	372
SUPPORT GP-ENGINE	109		374
	110	WIRING GP-ENGINE	376
SWITCH AS-MAGNETIC (STARTER MOTOR-12V)	284	WIRING GP-INSTRUMENT	377
SWITCH AS-MAGNETIC (24 VOLT) (STARTER MOTOR-24V)	296	WIRING GP-PANEL	378
SWITCH AS-PUSH (SECONDARY STOP)	296		
SWITCH AS-START	280		
	282		
	284		
SWITCH GP-MAGNETIC (STARTER MOTOR-24V)	410		
SWITCH GP-REMOTE STARTING	369		
SWITCH GP-START	296		
	369		
	370		
SWITCH (MAINTENANCE INDICATOR RESET)	280		
	282		
	284		
	296		
SWITCH-OPERATOR (STOP)	280		
	282		
	284		
T			
TACHOMETER GP-ELECTRIC	405		
THERMOSTAT	305		
	306		
TOOL GP-HAND	414		
TURBOCHARGER GP	224		
	225		
	226		
	227		
V			
VALVE-FLUID SAMPLING	116		
	118		
	122		
	124		
VALVE GP-AIR STARTING	371		
VALVE GP-CHECK	249		
VALVE GP-PRESSURE CONTROL	236		

INDEX

Désignation	Page	Désignation	Page
A			
ADAPTATEUR - ENTRAÎNEMENT DE POMPE (ASS)	11	BLOC-CYLINDRES (ASS)	44
ADAPTATEUR DE CAPTEUR	251		45
AFFICHAGE-VISION MOTEUR (ASS)	384		46
	385	BLOC-CYLINDRES (ENS)	39
	386		40
ALTERNATEUR DE CHARGE (ASS)	252		41
	256	BOUCHON - CULASSE (ASS)	103
	258	BOUCHON À ÉVENT	195
	260	BOUCHON DE GOULOTTE DE REMPLISSAGE D'HUILE	112
AMORTISSEUR DE VIBRATIONS - PROTECTION (ASS)	76		113
	77		114
	78	BOUCHON DE RADIATEUR (ENS)	152
AMORTISSEUR DE VIBRATIONS (ASS)	65	BOUCHON DE REMPLISSAGE D'HUILE MOTEUR (ASS)	112
AMORTISSEUR DE VIBRATIONS ET POULIE (ASS)	62		113
	63		114
	64	BOUCHON DE VIDANGE	80
AMPOULE (28 VOLTS)	280		100
	296	BOUCHON DES CANALISATIONS D'EAU (ASS)	170
ANNEAU	364	BOUCHON FILETÉ (RACCORD AU PAS DU GAZ DE 1/8 - 27) ...	53
ARBRE A CAMES (ASS)	13	BOUCHON-JOINT TORIQUE (FILET 7/16-20) ...	42
AXE DE CULBUTEUR (ASS)	105		46
	106		48
	107	BOULONNERIE (ASS)	214
B		BOULONNERIE DE CARTER AV (ASS)	67
BATTERIE	400		68
	402	BOULONNERIE DE MONTAGE DE LA POMPE A HUILE (ASS)	111
	403	BOULONNERIE DU COLLECTEUR D'ÉCHAPPEMENT (ASS)	215
BATTERIE (ASS)	264	BOUTON POUSSOIR (ENS) (ARRÊT AUXILIAIRE)	296
BATTERIE (ASS)	265	BRANCHEMENT ÉLECTRIQUE (ASS)	276
	266	BRIDE D'ÉCHAPPEMENT (ASS)	217
	267		218
	268	C	
	269	CÂBLAGE (ASS)	372
BATTERIE (PEU D'ENTRETIEN)(12 VOLTS)	269		374
BATTERIE (12 VOLTS)	264	CABLAGE DE MOTEUR (ASS)	376
	267	CÂBLAGE DE PANNEAU (ASS)	378
BATTERIE (12 VOLTS) (SEC)	266	CABLAGE DES INSTRUMENTS (ASS)	377
BATTERIE (12 VOLTS 750A) (FAIBLE ENTRETIEN)	265	CÂBLE - RALLONGE (ENS)	270
BATTERIE (12 VOLTS/SEC)	268	CACHE-SOUPAPES (ASS)	26
BLOC-CYLINDRES - COUVERCLE (ASS)	16		27
	17		28
	18		29
	19		30
	20		31
BLOC-CYLINDRES (ASS)	42		32

INDEX

Désignation	Page	Désignation	Page
	33		196
	34	CAPTEUR DE VITESSE (ASS)	324
	35	CAPTEUR DE VITESSE (ASS) (AUXILIAIRE) ...	82
	36	CAPTEUR DE VITESSE (ASS) (PRINCIPAL)	82
	37	CAPTEUR MAGNÉTIQUE (ASS)	308
CANALISATIONS AUXILIAIRES (ASS)	160	CARTER AV (ASS)	82
	161	CARTER DE VOLANT (ASS)	80
CANALISATIONS D'AIR (ASS)	221	CHAPEAU (ÉVASÉ DE 37 DEGRÉS)	242
CANALISATIONS DE CARBURANT (ASS)	236	CHARGEUR DE BATTERIE	263
CANALISATIONS DE CARBURANT (ASS)	238	CLAPET DE RETENUE (ENS)	249
	242	COLLECTEUR D'ÉCHAPPEMENT REFROIDI PAR EAU	222
CANALISATIONS DE CARBURANT (ASS)	240	COMMANDE DE DÉMARRAGE/ARRÊT (ASS)	296
CANALISATIONS DE VIDANGE DU REFROIDISSEUR D'ADMISSION	219	COMMANDE DE DÉMARRAGE/ARRÊT AUTOMATIQUE	280
	220		284
CANALISATIONS D'EAU (ASS)	162	COMMANDE DE DÉMARRAGE/ARRÊT AUTOMATIQUE	282
	163	COMMANDE DE SURVEILLANCE DE MOTEUR (ASS)	379
	164		380
	165	COMMANDE DE VISION MOTEUR (ASS)	293
	166		294
CANALISATIONS D'HUILE DE TURBOCOMPRESSEUR (ASS)	134	COMMANDE ELECTRONIQUE DE MOTEUR (ASS)	286
CANALISATIONS D'HUILE MOTEUR (ASS)	133		287
CANALISATIONS D'HUILE MOTEUR (ASS)	130		288
	132		289
CAPTEUR (ASS)-NIVEAU DE LIQUIDE DE REFROIDISSEMENT	315		290
CAPTEUR DE PRESSION (ASS)	320		291
	321		292
	323		299
CAPTEUR DE PRESSION (ASS)	318		291
	319		292
	322	COMMANDE ET MONTAGE - MOTEUR	277
CAPTEUR DE PRESSION (ASS) (ADMISSION-COLLECTEUR)	198		278
CAPTEUR DE PRESSION (ASS) (CARBURANT)	231	COMPTE-TOURS ÉLECTRIQUE (ASS)	405
	247	COMPTEUR D'ENTRETIEN	284
CAPTEUR DE PRESSION (ASS) (HUILE)	42	CONTACTEUR MAGNETIQUE (ASS) (MOTEUR DE LANCEMENT-24V)	410
	46	CONTACTEUR MAGNETIQUE (ENS) (DÉMARREUR-12V)	284
	48	CONTACTEUR MAGNETIQUE (ENS) (24 VOLTS) (MOTEUR DE LANCEMENT-24V)	296
CAPTEUR DE PRESSION (ASS) (HUILE ET CARBURANT)	318	COUDE D'ÉCHAPPEMENT	213
CAPTEUR DE PRESSION ET MONTAGE	314	COUDE D'ÉCHAPPEMENT (ASS)	211
CAPTEUR DE TEMPERATURE (ASS)	325		212
CAPTEUR DE TEMPERATURE (ASS) (ADMISSION D'AIR)	198	COUVERCLE DE CARTER AV (ASS)	23
	200		24
CAPTEUR DE TEMPERATURE (ASS) (CARBURANT)	236		25
	238	COUVERCLE DE CARTER DE VOLANT (ASS)	21
	240		22
	242	COUVERCLE DES CANALISATIONS D'EAU	149
CAPTEUR DE TEMPERATURE (ASS) (LIQUIDE DE REFROIDISSEMENT DU MOTEUR)	158	CULASSE (ASS)	54
			55
			56

INDEX

Désignation	Page	Désignation	Page
	57		240
	58		250
	59		
	60		
	61		
CULASSE (ENS)	50		
	51		
	52		
	53		
CULBUTERIE	86		
	87		
	88		
CULBUTERIE ET POMPE A CARBURANT (ASS)	86		
	87		
	88		
		E	
		EAU DES CHEMISES - RECHAUFFEUR (ASS)	305
		EAU DES CHEMISES - RECHAUFFEUR (ASS)	306
		ÉCHANGEUR DE CHALEUR (ASS)	152
			154
		ECHAPPEMENT - TUYAU (ASS)	223
		ÉLÉMENT DE FILTRE	230
		ÉLÉMENT DU RÉCHAUFFEUR D'EAU DES CHEMISES (ENS)	305
			306
		EMBRAYAGE (ASS)	14
		EMBRAYAGE (ENS)	14
		ENTRAÎNEMENT DE POMPE (ASS)	66
		F	
		FAISCEAU DE CABLES (ENS)	299
			300
			301
			302
			303
			304
		FILTRE - SÉPARATEUR D'EAU ET DE CARBURANT (ENS)	230
		FILTRE À AIR	203
		FILTRE A AIR (ASS)	202
			203
			204
			206
		FILTRE A AIR (ASS)	208
		FILTRE A CARBURANT (ASS)	229
			230
			231
		FILTRE A CARBURANT (ENS)	229
			231
			247
			409
			410
			411
		FILTRE À HUILE MOTEUR (ASS)	122
			124
		FILTRE A HUILE MOTEUR (ENS)	116
			118
			409
			410
			411
		FILTRE A HUILE MOTEUR (ENS)	122
			124
		FILTRE A SUIE	202

INDEX

Désignation	Page	Désignation	Page
FILTRE DE POMPE À EAU	192		353
	194		357
FILTRE ET CANALISATIONS D'HUILE MOTEUR (ASS)	116	KIT DE BAGUE (COMPREND PIÈCES MARQUÉES P)	337
	118	KIT DE BAGUE (DÉMARREUR)	331
FLEXIBLE (DIA INT 7,4MM) (200CM)	195	KIT DE BALAIS	331
FLEXIBLE (ENS)	128		342
			344
			346
			349
	407		349
	408		353
GRAISSEUR (FILET 1/8-27)	14		357
GRUPE DE CONTROLE	381		360
	382		364
		KIT DE BALAIS (COMPREND PIÈCES MARQUÉES J)	337
		KIT DE BORNE	252
			260
		KIT DE BOUCHON	304
		KIT DE BOUGIE (12 BROCHES)	300
			301
			302
		KIT DE BOUGIE (3 BROCHES)	319
			320
			322
			323
			324
	280	KIT DE BOUGIE (6 BROCHES)	399
	282	KIT DE BOULONNERIE	342
	284		344
	296		346
			360
INTERRUPTEUR - POSTE DE CONDUITE (ARRÊT)	280	KIT DE BRIDE DE FIXATION DE FILTRE A AIR (COMPREND RIVET ET COLLIER)	203
	282	KIT DE BROCHE DE DÉMARREUR	342
	284		360
INTERRUPTEUR DE DÉMARRAGE À DISTANCE (ASS)	369	KIT DE CANALISATIONS DE CARBURANT	412
	296		413
INTERRUPTEUR DE DÉMARRAGE (ASS)	369	KIT DE COMPTEUR D'ENTRETIEN	280
	370		282
INTERRUPTEUR DE DEMARRAGE (ENS)	280		296
	282	KIT DE COUSSINET	342
	284		344
			346
			360
		KIT DE FILTRE DE SÉPARATEUR D'EAU ET DE CARBURANT (COMPREND JOINT ET JOINT PLAT)	230
JAUGE D'HUILE MOTEUR (BAIONNETTE) (ASS)	126	KIT DE JOINT DE DÉMARREUR	342
	127		360
JOINT (ASS)	187	KIT DE JOINTS	307
			344
			346
		KIT DE LEVIER	344
KIT DE BAGUE	349		

INDEX

Désignation	Page	Désignation	Page
	346		
	349		
	353		
	357		
	364		
KIT DE LEVIER (COMPREND PIÈCES MARQUÉES N)	337		
KIT DE LEVIER (DÉMARREUR)	331		
KIT DE MISE AU POINT DE LA POMPE À EAU	187		
KIT DE PALETTE	326		
KIT DE POMPE	138		
KIT DE PRISE FEMELLE	304		
KIT DE PRISE FEMELLE (12 BROCHES)	299		
	303		
	304		
KIT DE PRISE FEMELLE (2 BROCHES)	409		
	410		
KIT DE PRISE FEMELLE (3 BROCHES)	238		
	315		
	318		
	321		
	372		
KIT DE PRISE FEMELLE (4 BROCHES)	280		
	284		
	296		
KIT DE PRISE FEMELLE (6 BROCHES)	389		
	392		
	393		
	394		
	398		
	399		
KIT DE RÉNOVATION DE LA POMPE À EAU ...	192		
KIT DE RÉPARATION DU MOTEUR EN CROISIERE	409		
	410		
	411		
KIT DE RONDELLE	342		
	360		
KIT DE SOLÉNOÏDE	344		
	346		
KIT DE VIS DE RETENUE	291		
	292		
KIT D'ISOLANT	349		
	353		
	357		
	364		
KIT D'ISOLANT (COMPREND PIÈCES MARQUÉES L)	337		
KIT D'ISOLANT (DÉMARREUR)	331		
		M	
		MANCHON D'INJECTEUR (ASS)	108
		MODULE - QUATRE INSTRUMENTS (ASS)	389
		MODULE - QUATRE INSTRUMENTS (ASS)	390
			391
			392
			393
		MODULE - SYSTÈME DE COMMUNICATION (ASS)	400
			401
			402
			403
		MODULE D'INDICATEUR DE VITESSE ET COMPTE-TOURS (ASS)	394
			395
			396
			397
			398
			399
		MONTAGE D'ALTERNATEUR (ASS)	90
			92
			94
			96
		MONTAGE DE COMPTE-TOURS (ASS)	404
		MONTAGE DE DISJONCTEUR (ASS)	309
			310
		MONTAGE DE GROUPE DE COMMANDE	311
			312
			313
		MONTAGE DE MOTEUR (ASS)	98
		MONTAGE D'ENTRAÎNEMENT DE POMPE (ENS)	99
		MOTEUR - PARTIE CENTRALE (VERSION) ...	1
			2
			3
			4
			5
			6
			7
			8
			9
			10
		MOTEUR PNEUMATIQUE - GRAISSAGE (ASS)	307
		O	
		OUILLETONS DE LEVAGE MOTEUR (ASS)	84
			85
		OUTILS (ASS)	414
		P	
		PARE-POUSSIÈRE	116
L			
LENTILLE ROUGE	296		

INDEX

Désignation	Page	Désignation	Page
	118		71
	122	RACCORD DE RETOUR DU CARBURANT	
	124	(ASS)	233
	232	RACCORD D'ÉCHAPPEMENT (ASS)	216
PIED DE SOUPAPE ET TAMIS (ENS)	151	REFROIDISSEUR D'ADMISSION (ASS)	200
PIGNONNERIE AV (ASS)	74	REFROIDISSEUR D'ADMISSION (ASS)	198
PISTON ET BIELLE (ASS)	102	REFROIDISSEUR DE CARBURANT	228
PLAQUE (ASS)	168	REFROIDISSEUR D'HUILE DE BOÎTE (ASS) ...	148
POMPE A EAU (ASS)	183	REFROIDISSEUR D'HUILE DE REDUCTEUR	
	184	MARIN (ASS)	146
	185	REFROIDISSEUR D'HUILE MOTEUR (ASS)	144
	186		145
	187	RÉGULATEUR DE TEMPÉRATURE (ASS)	196
	188	ROBINET-PRÉLÈVEMENT D'ÉCHANTILLON DE	
	189	LIQUIDE	116
	190		118
	192		122
	194		124
POMPE A EAU DE CALE	171		
POMPE À EAU DE CALE (ASS)	182		
POMPE A HUILE MOTEUR (ASS)	135		
	136		
	137		
POMPE AUXILIAIRE (ASS)	172	S	
	174	SIEGE RAPPORTE (SOUPAPE)	50
POMPE AUXILIAIRE D'EAU DE MER (ASS)	178	SOLÉNOÏDE DE DÉMARREUR (ENS)	
	179	(DÉMARREUR 24 V)	336
	180	SOLÉNOÏDE DE DÉMARREUR (ENS)	
		(24 VOLTS)	330
			348
		SOLÉNOÏDE (ENS)	342
			352
			360
POMPE D'ALIMENTATION EN CARBURANT		SOLÉNOÏDE (ENS) (24 VOLTS)	356
(ASS)	248		364
POMPE D'ALIMENTATION ET MONTAGE		SONDE - CIRCUIT DE CARBURANT	316
(ASS)	244		317
POMPE D'AMORÇAGE DE CARBURANT		SOUPAPE DE DÉMARREUR PNEUMATIQUE	
(ASS)	247	(ASS)	371
POMPE DE CARTER	138	SUPPORT DE CACHE-SOUPAPE ET FAISC. DE	
	140	CABL. D'IN.	12
	142	SUPPORT DE MOTEUR (ASS)	109
			110
POMPE D'INJECTION DE CARBURANT			
(ASS)	245		
	246		
PORTE-BALAIS (ENS)	330		
	348		
	356		
	364		
PRISE DE FORCE AVANT (ASS)	104		
		T	
		TABLEAU - PLAQUE ET AUTOCOLLANT	406
		TAMIS DE CLOCHE (ENS)	100
		TAMIS DE CLOCHE (ENS)	132
		THERMOSTAT	305
			306
		THERMOSTAT ET BOITIER (ASS)	158
		THERMOSTAT ET BOITIER (ASS)	156
		THERMOSTAT-TEMPÉRATURE D'EAU	
		(92 DEGRÉS C)	156
			158
			196
			409
R			
RACCORD - CANALISATIONS DE CARBURANT			
(ASS)	232		
RACCORD DE CANALISATIONS D'EAU			
(ASS)	150		
RACCORD DE CARTER D'HUILE (ASS)	69		
	70		

INDEX

Désignation	Page	Désignation	Page
	410		
	411		
TRANSFORMATION ELECTRIQUE (ASS)	383		
TURBOCOMPRESSEUR (ASS)	224		
	225		
	226		
	227		
TUYAUX FLEXIBLES DE CARBURANT (ASS) . . .	234		

V

VASE D'EXPANSION POUR LIQUIDE	
RÉFRIGÉRANT	195
VILEBREQUIN (ASS)	38
VIS MECANIQUE	272
	274
	275
VOLANT MOTEUR (ASS)	72

INDICE

Nombre	Página	Nombre	Página
A			
ADAPTADOR DE SENSOR (GR)	251		179
ADAPTADOR DEL MANDO DE LA BOMBA	11	BOMBA AUXILIAR (GR)	180
AGUA DE LAS CAMISAS - CALENTADOR DEL (GR)	305		172
AGUA DE LAS CAMISAS - CALENTADOR DEL (GR)	306	BOMBA DE ACEITE DEL MOTOR (GR)	174
AIRE - TUBERÍAS DE (GR)	221		176
AMORTIGUADOR DE VIBRACIONES (GR)	65	BOMBA DE AGUA (GR)	135
AMORTIGUADOR Y POLEA (GR)	62		136
	63		137
	64	BOMBA DE AGUA (GR)	188
ANILLO RETEN	364		189
ÁRBOL DE LEVAS (GR)	13		190
ARRANQUE - INTERRUPTOR DE (GR)	296	BOMBA DE AGUA (GR)	192
	369		194
	370	BOMBA DE AGUA (GR)	183
ARRANQUE POR AIRE - MOTOR DE (GR)	326		184
	328	BOMBA DE CEBADO DE COMBUSTIBLE (GR)	185
ASIENTO DE VÁLVULA-CASQUILLO	50	BOMBA DE COMBUSTIBLE Y MECANISMO DE VÁLVULAS (GR)	186
			187
B			
BALANCÍN (GR)	105	BOMBA DE INYECCIÓN DE COMBUSTIBLE (GR)	247
	106		86
	107		87
BASE DE LA TAPA DE VÁLVULAS Y MAZO DE CABLES DE INYECTOR (GR)	12	BOMBA DE INYECCIÓN DE COMBUSTIBLE (GR)	245
BATERÍA	400		246
	402	BOMBA DE SENTINA (CONJ)	171
	403	BOMBA DE SENTINA (GR)	182
BATERÍA		BOMBA DE SUMIDERO (GR)	138
(BAJO MANTENIMIENTO)(12 VOLTIOS)	269		140
BATERÍA (GR)	264	BOMBA DE TRANSFERENCIA DE COMBUSTIBLE (GR)	142
BATERÍA (GR)	265		248
	266	BOMBA DE TRANSFERENCIA DE COMBUSTIBLE Y MONTAJE (GR)	244
	267	BRIDA DE ESCAPE (GR)	217
	268		218
	269	C	
BATERÍA (12 VOLTIOS)	264	CABLE DE LA EXTENSIÓN (CONJ)	270
	267	CABLES DE LOS INSTRUMENTOS (GR)	377
BATERÍA (12 VOLTIOS) (DESHIDRATADOR)	266	CABLES DEL MOTOR (GR)	376
BATERÍA (12 VOLTIOS 750 AMPERIOS) (BAJO MANTENIMIENTO)	265	CABLES DEL TABLERO (GR)	378
BATERÍA (12 VOLTIOS/SECO)	268	CABLES (GR)	372
BLOQUE MOTOR (CONJ)	39		374
	40	CAJA DELANTERA - TORNILLERÍA DE LA (GR)	67
	41		68
BLOQUE MOTOR (GR)	42	CAJA DELANTERA (GR)	82
	44	CÁNCAMOS DE LEVANTAMIENTO DEL MOTOR (GR)	84
	45		85
	46	CARGA - ALTERNADOR DE (GR)	252
	48		
BOMBA AUXILIAR DE AGUA DE MAR (GR)	178		

INDICE

Nombre	Página	Nombre	Página
FILTRO DE ACEITE DEL MOTOR (GR)	122	INTERRUPTOR MAGNÉTICO (CONJ) (24 VOLTIOS) (MOTOR DE ARRANQUE-24V)	296
FILTRO DE AIRE	203	INTERRUPTOR MAGNÉTICO (GR) (MOTOR DE ARRANQUE-24V)	410
FILTRO DE AIRE (GR)	202	INTERRUPTOR MANUAL (PARADA)	280
	203		282
	204		284
	206		
	208		
FILTRO DE COMBUSTIBLE (CONJ)	229	INTERRUPTOR (REAJUSTE DEL INDICADOR DE MANTENIMIENTO)	280
	231		282
	247		284
FILTRO DE COMBUSTIBLE (CONJ)	409		296
	410		
	411		
FILTRO DE COMBUSTIBLE (GR)	229		
	230		
	231		
FILTRO DE COMBUSTIBLE Y SEPARADOR DE AGUA (CONJ)	230	J	
FILTRO DE HOLLIN	202	JUEGO (AISLADOR)	349
FILTRO DE LA BOMBA DE AGUA	192		353
	194		357
FILTRO Y TUBERIAS DE ACEITE DE MOTOR (GR)	116	JUEGO (AISLADOR) (INCLUYE PIEZAS MARCADAS CON L)	337
	118	JUEGO (AISLADOR) (MOTOR DE ARRANQUE)	331
		JUEGO DE ABRAZADERA DEL FILTRO DE AIRE (INCLUYE REMACHE Y ATENAZADOR (CONJ))	203
G		JUEGO DE ARANDELA	342
GRUPO DE SELLO	187		360
		JUEGO DE BOMBA	138
H		JUEGO DE BUJES	349
HERRAMIENTAS (GR)	414		353
			357
I			364
INDICADOR DE SERVICIO	206	JUEGO DE BUJES (INCLUYE PIEZAS MARCADAS CON P)	337
	208	JUEGO DE BUJES (MOTOR DE ARRANQUE)	331
INDICADOR DE SERVICIO DEL FILTRO DE AIRE	202	JUEGO DE COJINETES	342
INDICADOR DEL NIVEL DE ACEITE (VARILLA) (GR)	126		344
	127		346
INTERCAMBIADOR DE CALOR (GR)	152	JUEGO DE ENCHUFE (12 PASADORES)	300
INTERCAMBIADOR DE CALOR (GR)	154		301
INTERRUPTOR (CONJ) (PARADA SECUNDARIA)	296		302
INTERRUPTOR DE ARRANQUE (CONJ)	280	JUEGO DE ENCHUFE (3 CLAVIJAS)	319
	282		320
	284	JUEGO DE ENCHUFE (6 PASADORES)	399
INTERRUPTOR DE ARRANQUE REMOTO (GR)	369	JUEGO DE ESCOBILLAS	331
INTERRUPTOR MAGNÉTICO (CONJ) (MOTOR DE ARRANQUE-12V)	284		342
			344
			346
			349

INDICE

Nombre	Página	Nombre	Página
	353		410
	357		411
	360	JUEGO DE SELLO DEL MOTOR DE	
	364	ARRANQUE	342
JUEGO DE ESCOBILLAS			360
(INCLUYE PIEZAS MARCADAS CON J)	337	JUEGO DE SELLOS	307
JUEGO DE FILTRO DE COMBUSTIBLE			344
Y SEPARADOR DE AGUA			346
(INCLUYE SELLOS Y JUNTAS)	230	JUEGO DE SOLENOIDE	344
JUEGO DE MEDIDOR DE SERVICIO	280		346
	282	JUEGO DE TAPÓN	304
	296	JUEGO DE TERMINAL	252
JUEGO DE PALANCA	344		260
	346	JUEGO DE TORNILLERÍA	342
	349		344
	353		346
	357		360
	364	JUEGO DE TUBERIAS DE COMBUSTIBLE	412
JUEGO DE PALANCA			413
(INCLUYE PIEZAS MARCADAS CON N)	337		
JUEGO DE PALANCA		L	
(MOTOR DE ARRANQUE)	331	LÁMPARA (28 VOLTIOS)	280
JUEGO DE PALETA DE BOMBA	326		296
JUEGO DE PASADOR DEL MOTOR DE		LENTE-ROJO	296
ARRANQUE	342		
	360		
JUEGO DE PERNO RETENEDOR	291	M	
	292	MANDO DE BOMBA (GR)	66
JUEGO DE RECEPTÁCULO	304	MANGUERA (7,4MM DI) (200CM)	195
JUEGO DE RECEPTÁCULO		MANGUITO DE INJECTOR (GR)	108
(12 PASADORES)	299	MAZO DE CABLES	299
	303		300
	304		301
JUEGO DE RECEPTÁCULO (2 CLAVIJAS)	409		302
	410		303
JUEGO DE RECEPTÁCULO (3 CLAVIJAS)	238	MAZO DE CABLES (CONJ)	304
	315	MECANISMO DE VÁLVULA	86
	318		87
	321		88
	372	MEDIDOR DE SERVICIO	284
JUEGO DE RECEPTÁCULO (4 PASADORES) ...	280	MODULO DEL SISTEMA DE COMUNICACION	
	284	(GR)	400
	296		401
JUEGO DE RECEPTÁCULO (6 PASADORES) ...	389		402
	392		403
	393	MÓDULO DEL TACÓMETRO Y DEL	
	394	VELOCÍMETRO (GR)	394
	398		395
	399		396
JUEGO DE RECONSTRUCCIÓN DE LA			397
BOMBA	192		398
JUEGO DE RECONSTRUCCIÓN DE LA BOMBA			399
DE AGUA	187	MODULO ELECTRÓNICO DE CUATRO	
JUEGO DE REPARACION DURANTE LA		INDICADORES (GR)	390
TRAVESIA	409		

INDICE

Nombre	Página	Nombre	Página
	391		
	392		
	393		
MODULO ELECTRÓNICO DE CUATRO			
INDICADORES (GR)	389		
MONTAJE DE CONTROL (GR)	311		
	312		
	313		
MONTAJE DEL ALTERNADOR (GR)	90	PISTOLA DE ENGRASE (GR)	407
	92		408
	94	PISTÓN Y BIELA (GR)	102
	96	PLACA DEL INTERCAMBIADOR DE CALOR	
MONTAJE DEL DISYUNTOR (GR)	309	(GR)	168
	310	PORTAESCOBILLAS (CONJ)	330
MONTAJE DEL MANDO DE LA BOMBA (GR) ...	99		348
MONTAJE DEL MOTOR (GR)	98		356
MONTAJE DEL TACOMETRO (GR)	404		364
MOTOR - NÚCLEO (CONFIG)	1	POSENFRIADOR (GR)	198
	2		200
	3	PRESIÓN - VÁLVULA DE CONTROL DE (GR) ...	236
	4		240
	5		250
	6	PROTECTOR DEL AMORTIGUADOR DE	
	7	VIBRACIONES (GR)	76
	8		77
	9		78
	10		
MOTOR - SOPORTE DEL (GR)	109		
	110		
MOTOR DE ARRANQUE ELÉCTRICO (GR)	330		
	333		
	334	RECUPERACIÓN DEL REFRIGERANTE	
	336	(GR)	195
	339	REGULADOR DE TEMPERATURA DEL AGUA	
	340	(92 GR C)	156
	342		158
	344		196
	346		409
	348		410
	362		411
	364	REGULADOR Y CAJA (GR)	156
MOTOR DE ARRANQUE ELÉCTRICO (GR)	360		158
	366	REJILLA ACAMPANADA (CONJ)	100
	367		132
	368		
MOTOR DE ARRANQUE ELÉCTRICO (GR)	352		
	356		
MOTOR DE ARRANQUE POR AIRE -			
LUBRICACIÓN DEL (GR)	307		
MÚLTIPLE DE ESCAPE ENFRIADO POR AGUA			
(GR)	222		

P	

R	

S	

INDICE

Nombre	Página	Nombre	Página
SENSOR DE PRESIÓN (GR) (ACEITE Y COMBUSTIBLE)	48 318	TAPA DE RADIADOR (CONJ)	152
SENSOR DE PRESIÓN (GR) (COMBUSTIBLE)	231 247	TAPA DEL BLOQUE MOTOR (GR)	16 17 18 19 20
SENSOR DE PRESIÓN (GR) (MÚLTIPLE DE LA ADMISIÓN)	198	TAPA DEL MECANISMO DE VÁLVULAS (GR) ...	26 27
SENSOR DE PRESIÓN Y MONTAJE (GR)	314		28
SENSOR DE TEMPERATURA (GR)	325		29
SENSOR DE TEMPERATURA (GR) (ADMISIÓN DE AIRE)	198 200		30 31 32
SENSOR DE TEMPERATURA (GR) (COMBUSTIBLE)	236 238 240 242		33 34 35 36 37
SENSOR DE TEMPERATURA (GR) (REFRIGERANTE DEL MOTOR)	158 196	TAPA DEL TUBO DE LLENADO DE ACEITE	112 113 114
SENSOR DE VELOCIDAD (GR)	324	TAPA (37 GRADOS ABOCINADA)	242
SENSOR DE VELOCIDAD (GR) (PRIMARIO) ...	82	TAPÓN DE CULATA (GR)	103
SENSOR DE VELOCIDAD (GR) (SECUNDARIO(A))	82	TAPÓN DE DRENAJE	80 100
SOLENOIDE (CONJ)	342 352 360	TAPÓN DE LAS TUBERÍAS DE AGUA (GR)	170
SOLENOIDE (CONJ) (24 VOLTIOS)	356 364	TAPON DE TUBO (ROSCA 1/8-27 NPTF)	53
SOLENOIDE DEL MOTOR DE ARRANQUE (CONJ) (ARRANQUE DE 24 VOLTIOS)	336	TAPÓN (ROSCA 7/16-20)	42 46 48
SOLENOIDE DEL MOTOR DE ARRANQUE (CONJ) (24 VOLTIOS)	330 348	TEMPERATURA - REGULADOR DE (GR)	196
SUJETADOR DEL LIMPIADOR DE AIRE (GR) ...	214	TERMOSTATO	305 306
T			
TABLA DE LOCALIZACIÓN DE LAS PLACAS Y CALCOMANÍAS	406	TOMA DE FUERZA DELANTERA (GR)	104
TACOMETRO ELECTRICO (GR)	405	TORNILLERÍA DE MONT. DE LA BOMBA DE ACEITE (GR)	111
TAPA CON RESPIRADERO	195	TORNILLERÍA DEL MÚLTIPLE DE ESCAPE (GR)	215
TAPA CONTRA EL POLVO	116 118 122 124 232	TORNILLO DE MAQUINA	272 274 275
TAPA CONTRA LA LLUVIA (CONJ)	210	TUBERÍAS AUXILIARES (GR)	160 161
TAPA DE LA CAJA DE VOLANTE (GR)	21 22	TUBERÍAS DE ACEITE DEL MOTOR (GR)	130 132 133
TAPA DE LA CAJA DELANTERA (GR)	23 24 25	TUBERÍAS DE COMBUSTIBLE (GR)	236 238 240 242
TAPA DE LAS TUBERÍAS DE AGUA (GR)	149	TUBERIAS DE DRENAJE DE POSENFRIADOR (GR)	219 220
		TUBERÍAS DEL AGUA (GR)	162 163

INDICE

Nombre	Página	Nombre	Página
	164		
	165		
	166		
TUBO DE ESCAPE (GR)	223		
TUBO DE GOMA	128		
TUBO DE LLENADO DE ACEITE (GR)	112		
	113		
	114		
TURBOCOMPRESOR - TUBERÍAS DE ACEITE			
DEL (GR)	134		
TURBOCOMPRESOR (GR)	224		
	225		
	226		
	227		
 V 			
VÁLVULA DE MUESTREO	116		
	118		
	122		
	124		
VÁLVULA DE RETENCIÓN (GR)	249		
VALVULA PARA MOTOR DE ARRANQUE POR			
AIRE (GR)	371		
VOLANTE - CAJA DE (GR)	80		
VOLANTE (GR)	72		

ÍNDICE

Designação	Página	Designação	Página
A			113
ADAPTADOR - SENSOR	251	BOMBA AUXILIAR	114
ADAPTADOR DO COMANDO DA BOMBA	11	BOMBA AUXILIAR DE ÁGUA DO MAR	172
ALTERNADOR DE CORRENTE	252		174
	256		176
	258		178
	260		179
AMORTECEDOR	65		180
AMORTECEDOR DE VIBRAÇÕES E POLIA	62	BOMBA DE ÁGUA	183
	63		184
	64		185
ANEL RETENTOR	364		186
AQUECEDOR DA ÁGUA DO MOTOR	305		187
	306		188
ARREFECEDOR - ÓLEO DO MOTOR	144		189
	145		190
			192
ARREFECEDOR DE ÓLEO DA TRANSMISSÃO	148		194
ARREFECEDOR DO COMBUSTÍVEL	228	BOMBA DE ESCORVA DO COMBUSTÍVEL	247
ARREFECEDOR DO ÓLEO DA TRANSMISSÃO MARÍTIMA	146	BOMBA DE ESGOTAMENTO DE PORÃO	171
			182
		BOMBA DE INJEÇÃO DO COMBUSTÍVEL	245
			246
		BOMBA DE ÓLEO - MOTOR	135
			136
			137
B		BOMBA DE TRANSFERÊNCIA DO COMBUSTÍVEL	248
BALANCIM	105	BOMBA E MONTAGEM - TRANSFERÊNCIA DE COMBUSTÍVEL	244
	106	BOMBA MANUAL DE LUBRIFICAÇÃO	407
BATERIA	264		408
	265	BOMBA MANUAL DO CÂRTER	138
	266		140
	267		142
	268		142
	269	BUJÃO - ANEL O (7/16-20 THD)	42
	400		46
	402		48
	403	BUJÃO - CABEÇA DO CILINDRO	103
BATERIA - CARREGADOR	263	BUJÃO - CANO/TUBO (ROSCA DE 1/8-27 DO PADRÃO AMERICANO NPTF)	53
BATERIA (BAIXA MANUTENÇÃO)(12 VOLTS) ...	269	BUJÃO - TUBULAÇÕES DE ÁGUA	170
BATERIA (12 V)	264	BUJÃO DO DRENÓ	80
	267		100
BATERIA (12 V) (SECA(O))	266		
BATERIA (12 VOLTS, 750 AMP.) (BAIXA MANUTENÇÃO)	265	C	
BATERIA (12 VOLT/SECO)	268	CABEÇOTE DO MOTOR	50
BLOCO DO MOTOR	39		51
	40		52
	41		53
	42		54
	44		55
	45		56
	46		57
	48		
BOCAL DE ENCHIMENTO DE ÓLEO DO MOTOR	112		

ÍNDICE

Designação	Página	Designação	Página
FILTRO DO ÓLEO DO MOTOR E TUBOS	116		
	118		
FIXADORES - BOMBA DE ÓLEO DO MOTOR ...	111		
FIXADORES - CAIXA DIANTEIRA	67		
	68		
FIXADORES - COLETOR DE ESCAPE	215		
FIXADORES - PURIFICADOR DE AR	214		
FLANGE DE ESCAPE	217		
	218		
G			
GR. BÁSICO - TAMPA DAS VÁLVULAS E CHICOTE DE INJEÇÃO	12		
GRAXEIRA (ROSCA 1/8-27 POL)	14		
I			
INDICADOR - LIMPEZA DO FILTRO DE AR	202		
INDICADOR - MANUTENÇÃO	206		
	208		
INDICADOR - NÍVEL DO ÓLEO (VARETA)	126		
	127		
INSERTO - SEDE DE VÁLVULA	50		
INTERRUPTOR - CIRCUITO	271		
	272		
	273		
	274		
	275		
INTERRUPTOR - MAGNÉTICO (MOTOR DE PARTIDA - 12 VOLTS)	284		
INTERRUPTOR - MAGNÉTICO (MOTOR DE PARTIDA - 24V)	410		
INTERRUPTOR - MAGNÉTICO (24 V) (MOTOR DE PARTIDA - 24V)	296		
INTERRUPTOR - OPERAÇÃO (PARAR)	280		
	282		
	284		
INTERRUPTOR - PARTIDA	280		
	282		
	284		
	296		
	369		
	370		
INTERRUPTOR DE PARTIDA - REMOTO	369		
INTERRUPTOR (PARADA SECUNDÁRIA)	296		
INTERRUPTOR (REJUSTAR O INDICADOR DE MANUTENÇÃO)	280		
	282		
	284		
	296		
J			
JOGO DE ABRAÇADEIRA DO PURIFICADOR DE AR (INCLUI REBITE E ABRAÇADEIRA) ...		203	
JOGO DE ACONDICIONAMENTO - BOMBA DE ÁGUA		187	
JOGO DE ACONDICIONAMENTO DA BOMBA D'ÁGUA		192	
JOGO DE ALAVANCA		344	
		346	
		349	
		353	
		357	
		364	
JOGO DE ALAVANCA (INCLUI PEÇAS MARCADAS COM N)		337	
JOGO DE ALAVANCA (MOTOR DE PARTIDA) ...		331	
JOGO DE ARRUELA		342	
		360	
JOGO DE BOMBA		138	
JOGO DE BUCHA		349	
		353	
		357	
		364	
JOGO DE BUCHA (INCLUI PEÇAS MARCADAS COM P)		337	
JOGO DE BUCHA (MOTOR DE PARTIDA)		331	
JOGO DE BUJÃO		304	
JOGO DE ESCOVA		331	
		342	
		344	
		346	
		349	
		353	
		357	
		360	
		364	
JOGO DE ESCOVA (INCLUI PEÇAS MARCADAS COM J)		337	
JOGO DE FILTRO DE COMBUSTÍVEL E SEPARADOR DE ÁGUA (INCLUI VEDAÇÃO E JUNTA)		230	
JOGO DE FIXADORES		342	
		344	
		346	
		360	
JOGO DE ISOLADOR		349	
		353	
		357	
		364	
JOGO DE ISOLADOR (INCLUI PEÇAS MARCADAS COM L)		337	
JOGO DE ISOLADOR (MOTOR DE PARTIDA) ...		331	
JOGO DE MANCAL		342	
		344	

ÍNDICE

Designação	Página	Designação	Página
	346		413
	360		
JOGO DE MARCADOR DE HORAS DE SERVIÇO	280	L	
	282	LÂMPADA (28 V)	280
	296		296
JOGO DE PALHETA	326	LENTE VERMELHA	296
JOGO DE PARAFUSO DE RETENÇÃO	291	LEVANTAMENTO DO MOTOR	84
	292		85
JOGO DE PINO DO MOTOR DE PARTIDA	342	LUBRIFICADOR DO MOTOR DE PARTIDA A	
	360	AR	307
JOGO DE RECEPTÁCULO	304	LUVA INJETORA	108
JOGO DE RECEPTÁCULO (12 PINOS)	299		
	303	M	
	304		
JOGO DE RECEPTÁCULO (2 PINOS)	409	MANGUEIRA	128
	410	MANGUEIRA (DIÂMETRO INTERNO DE 7,4MM)	
JOGO DE RECEPTÁCULO (3 PINOS)	238	(200CM)	195
	315	MARCADOR DE HORAS DE SERVIÇO	284
	318	MECANISMO DAS VÁLVULAS	86
	321		87
	372		88
JOGO DE RECEPTÁCULO (4 PINOS)	280	MECANISMO DAS VÁLVULAS E BOMBA DE	
	284	COMBUSTÍVEL	86
	296		87
JOGO DE RECEPTÁCULO (6 PINOS)	389		88
	392	MÓDULO - VELOCÍMETRO E TACÔMETRO	394
	393		395
	394		396
	398		397
	399		398
JOGO DE REPARO PARA USO NO CAMPO	409		399
	410	MÓDULO DE COMUNICAÇÃO DO SISTEMA ...	400
	411		401
JOGO DE RETENTOR	307		402
	344		403
	346	MÓDULO ELETRÔNICO DE QUATRO	
JOGO DE RETENTOR DO MOTOR DE PARTIDA	342	INDICADORES	389
	360		390
JOGO DE SOLENÓIDE	344		391
	346		392
JOGO DE TERMINAL	252		393
	260	MONTAGEM - ALTERNADOR	90
JOGO DE TOMADA DE CONEXÃO (12 PINOS)	300		92
	301		94
	302		96
JOGO DE TOMADA DE CONEXÃO (3 PINOS) ...	319	MONTAGEM - COMANDO DA BOMBA	99
	320	MONTAGEM - CONTROLE	311
	322		312
	323		313
	324	MONTAGEM - DISJUNTOR ELÉTRICO	
JOGO DE TOMADA DE CONEXÃO (6 PINOS) ...	399	AUTOMÁTICO	309
JOGO DE TUBULAÇÕES DE COMBUSTÍVEL ...	412		310
		MONTAGEM - MOTOR	98
		MONTAGEM - TACÔMETRO	404

ÍNDICE

Designação	Página	Designação	Página
MOTOR - NÚCLEO	1	R	
	2		
	3	RECUPERAÇÃO DE LÍQUIDO	
	4	ARREFECEDOR	195
	5	REGULADOR DE TEMPERATURA DA ÁGUA	
	6	(92 GRAUS CENTÍGRADOS)	156
	7		158
	8		196
	9		409
	10		410
MOTOR DE PARTIDA A AR	326		411
	328		
MOTOR ELÉTRICO DE PARTIDA	330	S	
	333		
	334	SENSOR - NÍVEL DO LÍQUIDO	
	336	ARREFECEDOR	315
	339	SENSOR - PRESSÃO	318
	340		319
	342		320
	344		321
	346		322
	348		323
	352	SENSOR - PRESSÃO	
	356	(COLETOR DA ADMISSÃO)	198
	360	SENSOR - PRESSÃO (COMBUSTÍVEL)	231
	362		247
	364	SENSOR - PRESSÃO (ÓLEO)	42
	366		46
	367		48
	368	SENSOR - PRESSÃO	
		(ÓLEO E COMBUSTÍVEL)	318
P		SENSOR - TEMPERATURA	325
PARAFUSO DE FENDA	272	SENSOR - TEMPERATURA	
	274	(ADMISSÃO DE AR)	198
	275		200
PERMUTADOR DE CALOR	152	SENSOR - TEMPERATURA (COMBUSTÍVEL) ...	236
	154		238
PISTÃO E BIELA	102		240
PLACA - PERMUTADOR DE CALOR	168		242
PÓS-ARREFECEDOR	198	SENSOR - TEMPERATURA	
	200	(LÍQUIDO ARREFECEDOR DO MOTOR) ...	158
PROTETOR - AMORTECEDOR	76		196
	77	SENSOR DE PRESSÃO E MONTAGEM	314
	78	SENSOR DE VELOCIDADE	324
PROTETOR CONTRA CHUVA	210	SENSOR DE VELOCIDADE (PRIMÁRIO)	82
PURIFICADOR DE AR	202	SENSOR DE VELOCIDADE (SECUNDÁRIO) ...	82
	203	SENSOR MAGNÉTICO	308
	204	SOLENÓIDE	342
	206		352
	208		360
		SOLENÓIDE DO MOTOR DE ARRANQUE	
		(MOTOR DE PARTIDA - 24 V)	336
		SOLENÓIDE DO MOTOR DE ARRANQUE	
		(24 V)	330
			348

STICHWORTVERZEICHNIS

Bezeichnung	Seite	Bezeichnung	Seite
A			
ABLASSTOPFEN	80	BUCHSEN-EINBAUSATZ (EINSCHL. TEILE MIT BEZEICHNUNG P)	337
ANSCHLUSS, ELEKTR.	100	BUCHSEN-EINBAUSATZ (STARTERMOTOR) ...	331
ANSCHLUSSKLEMMENSATZ	276	BÜRSTEN-EINBAUSATZ	331
ANSCHLUSSKLEMMENSATZ	252		342
ANSCHLUSSKLEMMENSATZ	260		344
ANSCHLUSSSTÜCK (KRAFTSTOFFLEITUN- GEN)	232		346
AUSPUFFANSCHLUSS	216		349
AUSPUFFBOGEN	211		353
	212		357
	213		360
AUSPUFFKRÜMMER-HALTETEILE	215		364
AUSPUFFKRÜMMER, WASSERGEKÜHLT	222	BÜRSTEN-EINBAUSATZ (EINSCHL. TEILE MIT BEZEICHNUNG J)	337
AUSPUFFFLANSCH	217	BÜRSTENHALTER	330
	218		348
AUSPUFFFROHR	223		356
AUSSCHALTER, MAGN.	308		364
AUTOMATIKSTEUERUNG (STARTEN/ ABSTELLEN)	280	D	
AUTOMATIKSTEUERUNG (STARTEN/ ABSTELLEN)	282	DÄMPFER	65
	284	DÄMPFER UND RIEMENSCHIBE	62
B			
BATTERIE	264		63
	265		64
	266	DÄMPFERVERKLEIDUNG	76
	267		77
	268		78
	269	DICHTUNG	187
	400	DICHTUNGSSATZ	307
	402		344
	403		346
BATTERIE (WARTUNGSARM) (12 V)	269	DIODENSATZ	298
BATTERIE (12 V)	264	DREHSTROMGENERATOR	252
	267		256
	266		258
BATTERIE (12 V) (TROCKEN)	266		260
BATTERIE (12 V, 750 A) (WARTUNGSARM) ...	265	DREHSTROMGENERATOR - BEFESTIGUNG ...	90
BATTERIE (12 V/TROCKEN)	268		92
BATTERIELADEGERÄT	263		94
BEFESTIGUNGSSCHRAUBENSATZ	291		96
	292	DREHZAHLMESSER, ELEKTR.	405
BEFESTIGUNGSTEILE	342	DREHZAHLMESSERBEFESTIGUNG	404
	344	DREHZAHLSENSOR	324
	346	DREHZAHLSENSOR (*PRIMARY)	82
	360	DREHZAHLSENSOR (*SECONDARY)	82
BEILAGSCHEIBEN-SATZ	342	DRUCKLUFTLEITUNGEN	221
	360	DRUCKLUFTSTARTANLAGE	326
BETRIEBSSTUNDENZÄHLER	284		328
BUCHSEN-EINBAUSATZ	349	DRUCKLUFTSTARTERVENTIL	371
	353	DRUCKSCHALTER (NOTABSTELLUNG)	296

* ÜBERSETZUNG ZUM ZEITPUNKT DER DRUCKLEGUNG NICHT VORHANDEN

STICHWORTVERZEICHNIS

Bezeichnung	Seite	Bezeichnung	Seite
DRUCKSENSOR	318	GESTÄNGE UND ANBAUSATZ	311
	319		312
	320		313
	321	GETRIEBEÖLKÜHLER	148
	322		
	323		
DRUCKSENSOR (EINLASSKRÜMMER)	198	H	
DRUCKSENSOR (KRAFTSTOFF)	231	HALTERING	364
	247	HANDSCHALTER (ABSTELLEN)	280
DRUCKSENSOR (ÖL)	42		282
	46		284
	48	HANDWERKZEUGE	414
DRUCKSENSOR (ÖL U. KRAFTSTOFF)	318	HEBEL-EINBAUSATZ	344
DRUCKSENSOR UND BEFESTIGUNGSTEI- LE	314		346
DRUCKSTEUERVENTIL	236		349
	240		353
	250		357
E		HEBEL-EINBAUSATZ (EINSCHL. TEILE MIT BEZEICHNUNG N)	337
EINBAUSATZ - KRAFTSTOFFFILTER UND WASSERABSCHIEDER ((EINSCHL. DICHTUNGEN))	230	HEBEL-EINBAUSATZ (STARTERMOTOR)	331
EINSPRITZDÜSENBUCHSE	108		
ELEKTR. UMFORMER	383	I	
		INSTRUMENTENVERDRAHTUNG	377
		ISOLATOR-EINBAUSATZ	349
			353
			357
			364
F		ISOLATOR-EINBAUSATZ (EINSCHL. TEILE MIT BEZEICHNUNG L)	337
FAHRTREGLER-EINBAUSATZ	409	ISOLATOR-EINBAUSATZ (STARTERMOTOR) ...	331
	410		
	411		
FERNSTARTSCHALTER	369		
FETTPRESSE	407		
	408		
FILTER	230		
FLÜGELSATZ	326		
FLÜSSIGKEITSPROBEENTNAHMEVENTIL ...	116		
	118		
	122		
	124		
FRONTZAPFWELLE	104		
FUSSVENTIL UND SIEBENSATZ	151		
G		K	
GESCHWINDIGKEITS- U. DREHZAHLMESSER- MODUL	394	KABELSTRANG	299
	395		300
	396		301
	397		302
	398		303
	399	KAPPE MIT ENTLÜFTER	195
		KAPPE (37 GRAD KONISCH)	242
		KRAFTOFFPUMPE UND VENTILSTEU- RUNG	86
			87
			88
		KRAFTSTOFF-ENTLÜFTUNGSPUMPE	247
		KRAFTSTOFFEINSPRITZPUMPE	245
			246
		KRAFTSTOFFFILTER	229
			230
			231
			247

* ÜBERSETZUNG ZUM ZEITPUNKT DER DRUCKLEGUNG NICHT VORHANDEN

STICHWORTVERZEICHNIS

Bezeichnung	Seite	Bezeichnung	Seite
	409		360
	410	LENZPUMPE	171
	411		182
KRAFTSTOFFKÜHLER	228	LEUCHTE (28 V)	280
KRAFTSTOFFLEITUNGEN	236		296
	238	LINSE - ROT	296
	240	LUFTFILTER	203
	242	LUFTFILTER-WARTUNGSANZEIGE	202
KRAFTSTOFFLEITUNGEN, ELAST.	234	LUFTREINIGER	202
KRAFTSTOFFLEITUNGSEINBAUSATZ	412		203
	413		204
KRAFTSTOFFFÖRDERPUMPE	248		206
KRAFTSTOFFFÖRDERPUMPE UND			208
BEFESTIGUNGSTEILE	244	LUFTREINIGER-BEFESTIGUNSSATZ	214
KRAFTSTOFFRÜCKFÜHRFITTING	233	LUFTREINIGERKLEMMEN-EINBAUSATZ	
KÜHLERKAPPE	152	(EINSCHL. NIETE U. KLEMME)	203
KÜHLMITTELSTANDSENSOR	315		
KÜHLMITTELÜBERLAUFBEHÄLTER	195		
KÜHLWASSER-TEMPERATURREGLER UND			
GEHÄUSE	156		
	158		
KÜHLWASSERLEITUNGEN	162		
	163		
	164		
	165		
	166		
KÜHLWASSERLEITUNGSDECKEL	149		
KÜHLWASSERPUMPE	183		
	184		
	185	MAGNETSCHALTER (12V-STARTER)	284
	186	MAGNETSCHALTER (24-V-STARTERMO-	
	187	TOR)	410
	188	MAGNETSCHALTER (24 V) (24-V-	
	189	STARTERMOTOR)	296
	190	MAGNETSPULE	342
	192		352
	194		360
KÜHLWASSERPUMPEN-REGENERIERSATZ ...	187	MAGNETSPULE - ANLASSMOTOR (ELEKTR.)	
	192	(STARTER - 24 V)	336
KUNDENKOMMUNIKATIONSMODUL	293	MAGNETSPULE - ANLASSMOTOR (ELEKTR.)	
	294	(24 V)	330
KUPPLUNG	14		348
KURBELWELLE	38	MAGNETSPULE (24 V)	356
			364
		MASCHINENSCHRAUBE	272
			274
			275
		MODUL - VIER ELEKTRON. ANZEIGEN	389
			390
			391
			392
			393
		MONITORSTEUERUNG	381
			382
		MOTORAUFHÄNGUNG	109
			110
		MOTORAUFLAGER	98
		MOTORBLOCK	39
			40
			41
			42
			44
			45

M

L

* ÜBERSETZUNG ZUM ZEITPUNKT DER DRUCKLEGUNG NICHT VORHANDEN

STICHWORTVERZEICHNIS

Bezeichnung	Seite	Bezeichnung	Seite
	46		48
MOTORBLOCKDECKEL	48	ÖLEINFÜLLKAPPE	112
	16		113
	17	ÖLFILTER	114
	18		116
	19		118
MOTORHUBÖSE	20		122
	84		124
	85		409
MOTORKÜHLERBLOCK	1		410
	2	ÖLMESSSTAB	411
	3		126
	4	ÖLPUMPEN-BEFESTIGUNGSTEILE	127
	5	ÖLWANNE	111
	6	ÖLWANNE - ANSCHLUSSSTÜCK	100
	7		69
	8		70
	9		71
	10		
MOTORÖLEINFÜLLSTUTZEN	112	P	
	113	PLEUELSTANGE UND KOLBEN	102
	114	PUMPEN-EINBAUSATZ	138
MOTORÖLFILTER U. -LEITUNGEN	116	PUMPENANTRIEB	66
	118	PUMPENANTRIEB - BEFESTIGUNG	99
MOTORÖLKÜHLER	144	PUMPENANTRIEBSADAPTER	11
	145		
MOTORÖLLEITUNGEN	130	R	
	132	REGENKAPPE	210
	133	ROHRSTOPFEN (1/8-27 GEWINDE)	53
MOTORSICHTANZEIGE	384	RÜCKSPÜLPUMPE	138
	385		140
	386		142
	387		202
	388	RUSSFILTER	
MOTORSTEUERUNG, ELEKTRON.	292		
MOTORSTEUERUNG, ELEKTRON.	286	S	
	287	SAUGGLOCKENSIEB	100
	288		132
	289	SCHALTER (WARTUNGSANZEIGE	
	290	RÜCKSTELLEN)	280
	291		282
MOTORÜBERWACHUNGSSTEUERUNG	379		284
	380	SCHIFFSGETRIEBEÖLKÜHLER	296
MOTORVERDRAHTUNG	376	SCHLAUCH	128
		SCHLAUCHLEITUNG (7,4MM INNENDURCHM.)	
N		(200 CM)	195
NOCKENWELLE	13	SCHMIERANLAGE (DRUCKLUFTSTARTERMO-	
		TOR)	307
O		SCHMIERNIPPEL (1/8-27-GEWINDE)	14
O-RING-STOPFEN (7/16-20 GEWINDE)	42	SCHMIERPUMPE	135
	46		

* ÜBERSETZUNG ZUM ZEITPUNKT DER DRUCKLEGUNG NICHT VORHANDEN

STICHWORTVERZEICHNIS

Bezeichnung	Seite	Bezeichnung	Seite
	136		124
	137		232
SCHWUNGRAD	72	STECKDOSEN - EINBAUSATZ	304
SCHWUNGRADGEHÄUSE	80	STECKDOSEN - EINBAUSATZ (12POLIG)	299
SCHWUNGRADGEHÄUSEDECKEL	21		303
	22		304
SENSORADAPTER	251	STECKDOSEN - EINBAUSATZ (2POLIG)	410
SENSORANSCHLUSSSATZ (12POLIG)	300	STECKDOSEN - EINBAUSATZ (2POLIG)	409
	301	STECKDOSEN - EINBAUSATZ (3POLIG)	238
	302		315
SENSORANSCHLUSSSATZ (3POLIG)	319		372
	320	STECKDOSEN - EINBAUSATZ (3POLIG)	318
	322		321
	323	STECKDOSEN - EINBAUSATZ (4 POLIG)	280
	324		284
SENSORANSCHLUSSSATZ (6POLIG)	399		296
SOCKEL FÜR VENTILDECKEL U. EINSPRITZKABELBAUM	12	STECKDOSEN - EINBAUSATZ (6POLIG)	389
SOLENOID-EINBAUSATZ	344		392
	346		393
SPERRVENTIL	249		394
STARTERMOTOR	330		398
	333		399
	334	STELLUNGSSENSOR	316
	336		317
	339	STEUERUNGSEINHEIT, ELEKTRON. FÜR MOTOR UND BEFEST.	277
	340		278
	342	STIRNRAD	74
	344	STIRNRADGEHÄUSE	82
	346	STIRNRADGEHÄUSE-HALTETEILE	67
	348		68
	352	STIRNRADGEHÄUSEDECKEL	23
	356		24
	360		25
	362	STOPFENSATZ	304
	364	SYSTEMKOMMUNIKATIONSMODUL	400
	366		401
	367		402
	368		403
STARTERMOTOR-DICHTUNGSSATZ	342		
	360		
STARTERMOTOR-STIFTEINBAUSATZ	342		
	360		
STARTSCHALTER	280		
	282		
	284		
	296		
	369		
	370		
START/STOP - STEUERUNG	296		
STAUBKAPPE	116		
	118		
	122		

T

TABELLE - SCHILD U. AUFKLEBER	406
TAFELVERDRAHTUNG	378
TEMPERATURREGLER	196
	305
	306
TEMPERATURSENSOR	325
TEMPERATURSENSOR (KRAFTSTOFF)	236
	238
	240
	242
TEMPERATURSENSOR (LUFTEINLASS)	198

* ÜBERSETZUNG ZUM ZEITPUNKT DER DRUCKLEGUNG NICHT VORHANDEN

STICHWORTVERZEICHNIS

Bezeichnung	Seite	Bezeichnung	Seite
TEMPERATURSENSOR (MOTORKÜHLMITTEL)	200	VERDRAHTUNG	88
TURBOLADER	158	VERDRAHTUNGSKABELBAUM	372
	196	VERLÄNGERUNGSKABEL	374
	224		304
	225		270
	226		
	227	W	
TURBOLADERÖLLEITUNGEN	134	WÄRMETAUSCHER	152
			154
U		WÄRMETAUSCHER-PLATTE	168
UMLAUFKÜHLWASSERHEIZUNG	305	WARTUNGSANZEIGE	206
	306		208
UMLAUFKÜHLWASSERHEIZUNGSELEMENT	305	WARTUNGSMESSER	280
	306		282
UNTERBRECHER	271		296
	272	WASSERABSCHEIDER UND KRAFTSTOFFFILTER	230
	273	WASSERLEITUNGSANSCHLUSS	150
	274	WASSERLEITUNGSSTOPFEN	170
	275	WASSERPUMPENFILTER	192
UNTERBRECHER-ANBAUSATZ	309		194
	310	WASSERTEMPERATURREGLER (92 GRAD CELSIUS)	156
UNTERBRECHER (135 A)	272		158
UNTERBRECHER (15 A)	280		196
	282		409
	284		410
	296		411
UNTERBRECHER (40 A)	275	Z	
UNTERBRECHER (60 A)	271	ZUSATZLEITUNGEN	160
UNTERBRECHER (70 A)	274		161
V		ZUSATZPUMPE	172
VENTILDECKEL	26		174
	27		176
	28	ZUSATZSEEWASSERPUMPE	178
	29		179
	30		180
	31	ZYLINDERKOPF	50
	32		51
	33		52
	34		53
	35		54
	36		55
	37		56
VENTILKIPPHEBEL	105		57
	106		58
	107		59
VENTILSITZEINSATZ	50		60
VENTILSTEUERUNG	86		61
	87	ZYLINDERKOPFSTOPFEN	103

* ÜBERSETZUNG ZUM ZEITPUNKT DER DRUCKLEGUNG NICHT VORHANDEN

MEMORANDA

ENGINE ARRANGEMENT

131-8300 ENGINE AR-CORE

597 BRAKE KW (800 BHP) AT 2300 RPM

SMCS-1000

i01040218

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	122-1248	1	BASE GP-VALVE COVER & INJ HARN						12
Y	130-9710	1	CAMSHAFT GP						13
	133-4897	1	CONTROL GP-ENGINE ELECTRONIC						
YR	6I-1001	1	CRANKSHAFT GP						38
Y	145-8859	1	CYLINDER BLOCK GP						46
			S/N: 9WR1-488						
Y	150-8016	1	CYLINDER BLOCK GP						48
			S/N: 9WR489-UP						
Y	131-3728	1	CYLINDER HEAD GP						54
			S/N: 9WR1-473						
Y	153-5498	1	CYLINDER HEAD GP						57
			S/N: 9WR474-UP						
Y	6I-3638	1	DRIVE GP-PUMP						66
Y	4P-6846	1	FASTENER GP-FRONT HOUSING						67
Y	4N-2481	1	FASTENER GP-OIL PUMP MOUNTING						111
Y	102-8397	1	GEAR GP-FRONT						74
Y	6I-1940	1	MECHANISM GP-FUEL PUMP & VALVE						86
Y	130-8841	6	PISTON & ROD GP						102
YR	4N-8734	1	PUMP GP-ENGINE OIL						136
			S/N: 9WR1-488						
Y	161-4113	1	PUMP GP-ENGINE OIL						137
			S/N: 9WR489-UP						
Y	130-9701	6	PUMP GP-FUEL INJECTION						245
Y	130-9724	1	TURBOCHARGER GP						224

R-REMFG PART MAY BE AVAILABLE
Y-SEPARATE ILLUSTRATION

ENGINE ARRANGEMENT

131-8301 ENGINE AR-CORE

522 BRAKE KW (700 BHP) AT 2200 RPM

SMCS-1000

i01152204

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	122-1248	1	BASE GP-VALVE COVER & INJ HARN						12
Y	130-9710	1	CAMSHAFT GP						13
	133-4901	1	CONTROL GP-ENGINE ELECTRONIC						
YR	6I-1001	1	CRANKSHAFT GP						38
Y	145-8859	1	CYLINDER BLOCK GP						46
			S/N: 9WR1-488						
Y	150-8016	1	CYLINDER BLOCK GP						48
			S/N: 9WR489-UP						
Y	131-3728	1	CYLINDER HEAD GP						54
			S/N: 9WR1-473						
Y	153-5498	1	CYLINDER HEAD GP						57
			S/N: 9WR474-UP						
Y	6I-3638	1	DRIVE GP-PUMP						66
Y	4P-6846	1	FASTENER GP-FRONT HOUSING						67
Y	4N-2481	1	FASTENER GP-OIL PUMP MOUNTING						111
Y	102-8397	1	GEAR GP-FRONT						74
Y	6I-1940	1	MECHANISM GP-FUEL PUMP & VALVE						86
Y	130-8841	6	PISTON & ROD GP						102
YR	4N-8734	1	PUMP GP-ENGINE OIL						136
			S/N: 9WR1-877						
Y	161-4113	1	PUMP GP-ENGINE OIL						137
			S/N: 9WR878-UP						
Y	130-9701	6	PUMP GP-FUEL INJECTION						245
Y	130-9724	1	TURBOCHARGER GP						224

R- REMFG PART MAY BE AVAILABLE
Y- SEPARATE ILLUSTRATION

ENGINE ARRANGEMENT

131-8302 ENGINE AR-CORE

448 BRAKE KW (600 BHP) AT 2100 RPM

SMCS-1000

i01152459

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	122-1248	1	BASE GP-VALVE COVER & INJ HARN						12
Y	130-9710	1	CAMSHAFT GP						13
	133-4905	1	CONTROL GP-ENGINE ELECTRONIC						
YR	6I-1001	1	CRANKSHAFT GP						38
Y	145-8859	1	CYLINDER BLOCK GP						46
			S/N: 9WR1-488						
Y	150-8016	1	CYLINDER BLOCK GP						48
			S/N: 9WR489-UP						
Y	131-3728	1	CYLINDER HEAD GP						54
			S/N: 9WR1-473						
Y	153-5498	1	CYLINDER HEAD GP						57
			S/N: 9WR474-UP						
Y	6I-3638	1	DRIVE GP-PUMP						66
Y	4P-6846	1	FASTENER GP-FRONT HOUSING						67
Y	4N-2481	1	FASTENER GP-OIL PUMP MOUNTING						111
Y	102-8397	1	GEAR GP-FRONT						74
Y	6I-1940	1	MECHANISM GP-FUEL PUMP & VALVE						86
Y	130-8841	6	PISTON & ROD GP						102
YR	4N-0733	1	PUMP GP-ENGINE OIL						135
			S/N: 9WR1-473						
YR	4N-8734	1	PUMP GP-ENGINE OIL						136
			S/N: 9WR474-877						
Y	161-4113	1	PUMP GP-ENGINE OIL						137
			S/N: 9WR878-UP						
Y	130-9701	6	PUMP GP-FUEL INJECTION						245
Y	130-9724	1	TURBOCHARGER GP						224

R-REMG PART MAY BE AVAILABLE
Y-SEPARATE ILLUSTRATION

ENGINE ARRANGEMENT

131-8303 ENGINE AR-CORE

354/410 BRAKE KW (475/550 BHP) AT 1800/2100 RPM

SMCS-1000

i01479517

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	122-1248	1	BASE GP-VALVE COVER & INJ HARN						12
Y	130-9710	1	CAMSHAFT GP						13
	133-4909	1	CONTROL GP-ENGINE ELECTRONIC						
YR	6I-1001	1	CRANKSHAFT GP						38
YR	107-2232	1	CYLINDER BLOCK GP						42
			S/N: 9WR1-309						
Y	145-8859	1	CYLINDER BLOCK GP						46
			S/N: 9WR310-488						
Y	150-8016	1	CYLINDER BLOCK GP						48
			S/N: 9WR489-UP						
Y	131-3728	1	CYLINDER HEAD GP						54
			S/N: 9WR1-473						
Y	153-5498	1	CYLINDER HEAD GP						57
			S/N: 9WR474-UP						
Y	6I-3638	1	DRIVE GP-PUMP						66
Y	4P-6846	1	FASTENER GP-FRONT HOUSING						67
Y	4N-2481	1	FASTENER GP-OIL PUMP MOUNTING						111
Y	102-8397	1	GEAR GP-FRONT						74
Y	6I-1940	1	MECHANISM GP-FUEL PUMP & VALVE						86
Y	130-8841	6	PISTON & ROD GP						102
YR	4N-0733	1	PUMP GP-ENGINE OIL						135
			S/N: 9WR1-309						
YR	4N-8734	1	PUMP GP-ENGINE OIL						136
			S/N: 9WR310-877						
Y	161-4113	1	PUMP GP-ENGINE OIL						137
			S/N: 9WR878-UP						
Y	131-6589	6	PUMP GP-FUEL INJECTION						246
Y	132-0290	1	TURBOCHARGER GP						227

R-REMFG PART MAY BE AVAILABLE
Y-SEPARATE ILLUSTRATION

ENGINE ARRANGEMENT

131-8304 ENGINE AR-CORE

336 BRAKE KW (450 BHP) AT 1800 RPM

SMCS-1000

i01153603

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	122-1248	1	BASE GP-VALVE COVER & INJ HARN						12
Y	130-9710	1	CAMSHAFT GP						13
	133-4913	1	CONTROL GP-ENGINE ELECTRONIC						
YR	6I-1001	1	CRANKSHAFT GP						38
Y	145-8859	1	CYLINDER BLOCK GP						46
			S/N: 9WR1-488						
Y	150-8016	1	CYLINDER BLOCK GP						48
			S/N: 9WR489-UP						
Y	131-3728	1	CYLINDER HEAD GP						54
			S/N: 9WR1-473						
Y	153-5498	1	CYLINDER HEAD GP						57
			S/N: 9WR474-UP						
Y	6I-3638	1	DRIVE GP-PUMP						66
Y	4P-6846	1	FASTENER GP-FRONT HOUSING						67
Y	4N-2481	1	FASTENER GP-OIL PUMP MOUNTING						111
Y	102-8397	1	GEAR GP-FRONT						74
Y	6I-1940	1	MECHANISM GP-FUEL PUMP & VALVE						86
Y	130-8841	6	PISTON & ROD GP						102
YR	4N-0733	1	PUMP GP-ENGINE OIL						135
			S/N: 9WR1-473						
YR	4N-8734	1	PUMP GP-ENGINE OIL						136
			S/N: 9WR474-877						
Y	161-4113	1	PUMP GP-ENGINE OIL						137
			S/N: 9WR878-UP						
Y	131-6589	6	PUMP GP-FUEL INJECTION						246
Y	132-0290	1	TURBOCHARGER GP						227

R-REMG PART MAY BE AVAILABLE
Y-SEPARATE ILLUSTRATION

ENGINE ARRANGEMENT

177-4177 ENGINE AR-CORE

S/N: 9WR1145-UP

597 BRAKE KW (800 BHP) AT 2300 RPM

SMCS-1000

i01479390

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	122-1248	1	BASE GP-VALVE COVER & INJ HARN						12
Y	130-9710	1	CAMSHAFT GP						13
	133-4897	1	CONTROL GP-ENGINE ELECTRONIC						
YR	6I-1001	1	CRANKSHAFT GP						38
Y	150-8016	1	CYLINDER BLOCK GP						48
Y	153-5498	1	CYLINDER HEAD GP						57
Y	6I-3638	1	DRIVE GP-PUMP						66
Y	4P-6846	1	FASTENER GP-FRONT HOUSING						67
Y	4N-2481	1	FASTENER GP-OIL PUMP MOUNTING						111
Y	102-8397	1	GEAR GP-FRONT						74
Y	6I-1940	1	MECHANISM GP-FUEL PUMP & VALVE						86
Y	130-8841	6	PISTON & ROD GP						102
Y	161-4113	1	PUMP GP-ENGINE OIL						137
Y	130-9701	6	PUMP GP-FUEL INJECTION						245
Y	130-9724	1	TURBOCHARGER GP						224

R-REMG PART MAY BE AVAILABLE

Y-SEPARATE ILLUSTRATION

ENGINE ARRANGEMENT

177-4178 ENGINE AR-CORE

S/N: 9WR1145-UP

522 BRAKE KW (700 BHP) AT 2200 RPM

SMCS-1000

i01479409

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	122-1248	1	BASE GP-VALVE COVER & INJ HARN						12
Y	130-9710	1	CAMSHAFT GP						13
	133-4901	1	CONTROL GP-ENGINE ELECTRONIC						
YR	6I-1001	1	CRANKSHAFT GP						38
Y	150-8016	1	CYLINDER BLOCK GP						48
Y	153-5498	1	CYLINDER HEAD GP						57
Y	6I-3638	1	DRIVE GP-PUMP						66
Y	4P-6846	1	FASTENER GP-FRONT HOUSING						67
Y	4N-2481	1	FASTENER GP-OIL PUMP MOUNTING						111
Y	102-8397	1	GEAR GP-FRONT						74
Y	6I-1940	1	MECHANISM GP-FUEL PUMP & VALVE						86
Y	130-8841	6	PISTON & ROD GP						102
Y	161-4113	1	PUMP GP-ENGINE OIL						137
Y	130-9701	6	PUMP GP-FUEL INJECTION						245
Y	130-9724	1	TURBOCHARGER GP						224

R-REMG PART MAY BE AVAILABLE
Y-SEPARATE ILLUSTRATION

ENGINE ARRANGEMENT

177-4179 ENGINE AR-CORE

S/N: 9WR1145-UP

448 BRAKE KW (600 BHP) AT 2100 RPM

SMCS-1000

i01479417

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	122-1248	1	BASE GP-VALVE COVER & INJ HARN						12
Y	130-9710	1	CAMSHAFT GP						13
	133-4905	1	CONTROL GP-ENGINE ELECTRONIC						
YR	6I-1001	1	CRANKSHAFT GP						38
Y	150-8016	1	CYLINDER BLOCK GP						48
Y	153-5498	1	CYLINDER HEAD GP						57
Y	6I-3638	1	DRIVE GP-PUMP						66
Y	4P-6846	1	FASTENER GP-FRONT HOUSING						67
Y	4N-2481	1	FASTENER GP-OIL PUMP MOUNTING						111
Y	102-8397	1	GEAR GP-FRONT						74
Y	6I-1940	1	MECHANISM GP-FUEL PUMP & VALVE						86
Y	130-8841	6	PISTON & ROD GP						102
Y	161-4113	1	PUMP GP-ENGINE OIL						137
Y	130-9701	6	PUMP GP-FUEL INJECTION						245
Y	130-9724	1	TURBOCHARGER GP						224

R-REMG PART MAY BE AVAILABLE

Y-SEPARATE ILLUSTRATION

ENGINE ARRANGEMENT

177-4180 ENGINE AR-CORE

S/N: 9WR1145-UP

354 BRAKE KW (475 BHP) AT 1800 RPM OR 410 BRAKE KW (550 BHP) AT 2100 RPM

SMCS-1000

i01479506

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	122-1248	1	BASE GP-VALVE COVER & INJ HARN						12
Y	130-9710	1	CAMSHAFT GP						13
	133-4909	1	CONTROL GP-ENGINE ELECTRONIC						
YR	6I-1001	1	CRANKSHAFT GP						38
Y	150-8016	1	CYLINDER BLOCK GP						48
Y	153-5498	1	CYLINDER HEAD GP						57
Y	6I-3638	1	DRIVE GP-PUMP						66
Y	4P-6846	1	FASTENER GP-FRONT HOUSING						67
Y	4N-2481	1	FASTENER GP-OIL PUMP MOUNTING						111
Y	102-8397	1	GEAR GP-FRONT						74
Y	6I-1940	1	MECHANISM GP-FUEL PUMP & VALVE						86
Y	130-8841	6	PISTON & ROD GP						102
Y	161-4113	1	PUMP GP-ENGINE OIL						137
Y	131-6589	6	PUMP GP-FUEL INJECTION						246
Y	132-0290	1	TURBOCHARGER GP						227

R-REMG PART MAY BE AVAILABLE

Y-SEPARATE ILLUSTRATION

ENGINE ARRANGEMENT

177-4181 ENGINE AR-CORE

S/N: 9WR1145-UP

336 BRAKE KW (450 BHP) AT 1800 RPM

SMCS-1000

i01479531

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	122-1248	1	BASE GP-VALVE COVER & INJ HARN						12
Y	130-9710	1	CAMSHAFT GP						13
	133-4913	1	CONTROL GP-ENGINE ELECTRONIC						
YR	6I-1001	1	CRANKSHAFT GP						38
Y	150-8016	1	CYLINDER BLOCK GP						48
Y	153-5498	1	CYLINDER HEAD GP						57
Y	6I-3638	1	DRIVE GP-PUMP						66
Y	4P-6846	1	FASTENER GP-FRONT HOUSING						67
Y	4N-2481	1	FASTENER GP-OIL PUMP MOUNTING						111
Y	102-8397	1	GEAR GP-FRONT						74
Y	6I-1940	1	MECHANISM GP-FUEL PUMP & VALVE						86
Y	130-8841	6	PISTON & ROD GP						102
Y	161-4113	1	PUMP GP-ENGINE OIL						137
Y	131-6589	6	PUMP GP-FUEL INJECTION						246
Y	132-0290	1	TURBOCHARGER GP						227

R-REMG PART MAY BE AVAILABLE

Y-SEPARATE ILLUSTRATION

BASIC ENGINE

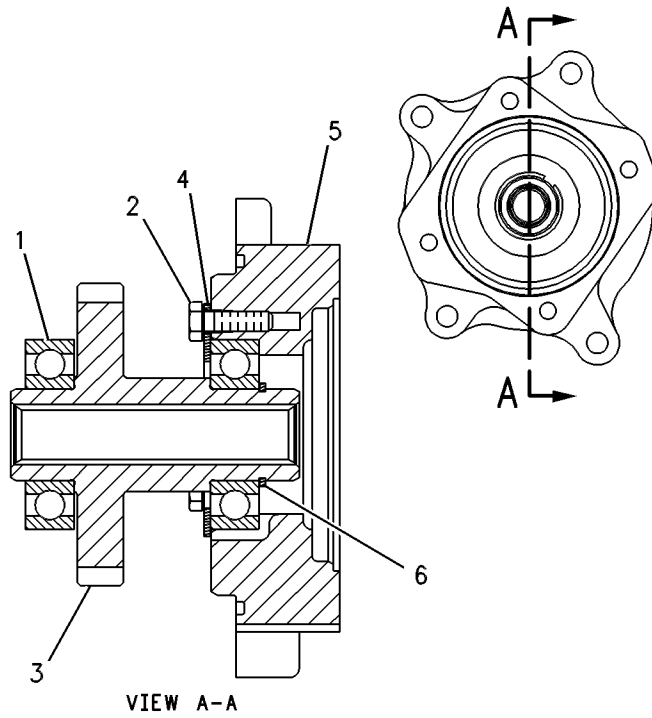
133-9907 ADAPTER GP-PUMP DRIVE

PART OF 6I-3638 DRIVE GP-PUMP

SMCS-1313, 3108

i01152889

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1B-3867	2	BALL BEARING						
	2	1	4F-7957	3	BOLT (1/4-20X.875IN)						
	3	1	6I-4575	1	GEAR (34 TEETH)						
	4	1	9X-2038	3	WASHER (2MM THK)						
	5	1	133-9906	1	ADAPTER						
	6	1	1H-8647	1	RING-SNAP						



GRAPHIC #1

g00263602

BASIC ENGINE

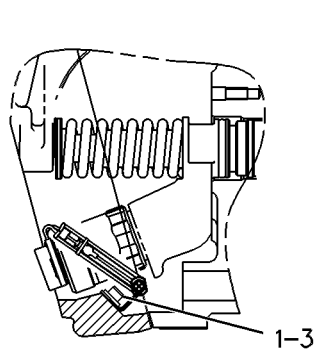
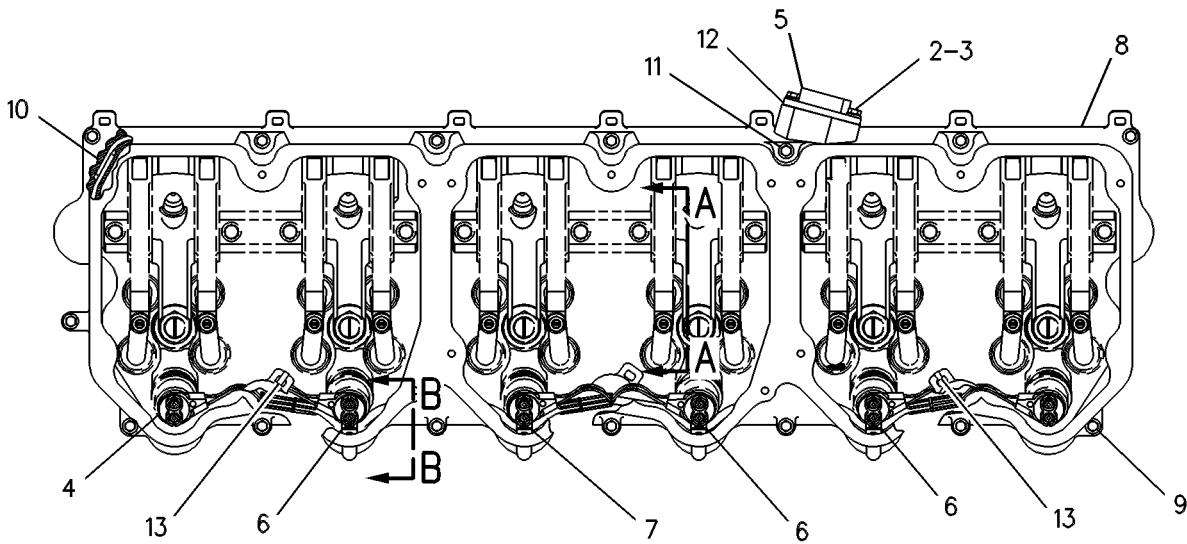
122-1248 BASE GP-VALVE COVER & INJ HARN

SMCS-1120, 1408

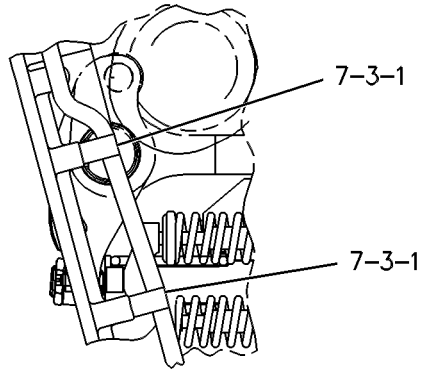
i01197208

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8H-3127	6	BOLT (1/4-20X3/4 IN)						
	2	1	4F-7957	2	BOLT (1/4-20X.875IN)						
	3	1	5P-0537	8	WASHER (2MM THK)						
	4	1	7E-6508	6	CAP AS						
	5	1	122-1486	1	HARNES AS-WIRING						
	6	1	100-5218	3	CLIP						
	7	1	100-5219	3	CLIP						
	8	1	177-4152	1	BASE-VALVE COVER						
	9	1	9L-8925	14	BOLT (5/16-18X1.25IN)						
D	10	1	5P-5678		SEAL (2.9M)						
	11	1	122-1472	1	BOLT						
	12	1	6V-0128	1	SEAL-CONNECTOR						
	13	1	123-3202	2	STRAP-CABLE						

D-ORDER BY THE METER



SECTION B-B



VIEW A-A

GRAPHIC #1

g00257337

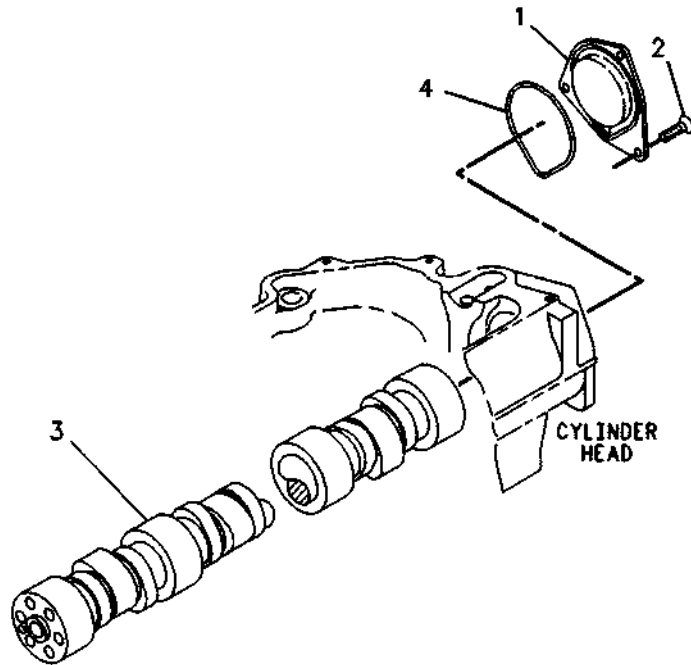
BASIC ENGINE

130-9710 CAMSHAFT GP

SMCS-1210

i00671677

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	102-9089	1	COVER						
	2	1	119-0036	3	SCREW-FLAT HEAD						
	3	1	130-9709	1	CAMSHAFT						
	4	1	6V-1197	1	SEAL-O-RING (98.02MM ID)						



GRAPHIC #1

g00231676

BASIC ENGINE

3N-7841 CLUTCH GP

POWER TAKE OFF

PART OF 136-9500 POWER TAKE-OFF GP-FRONT
AN ATTACHMENT

SMCS-1007

i00663152

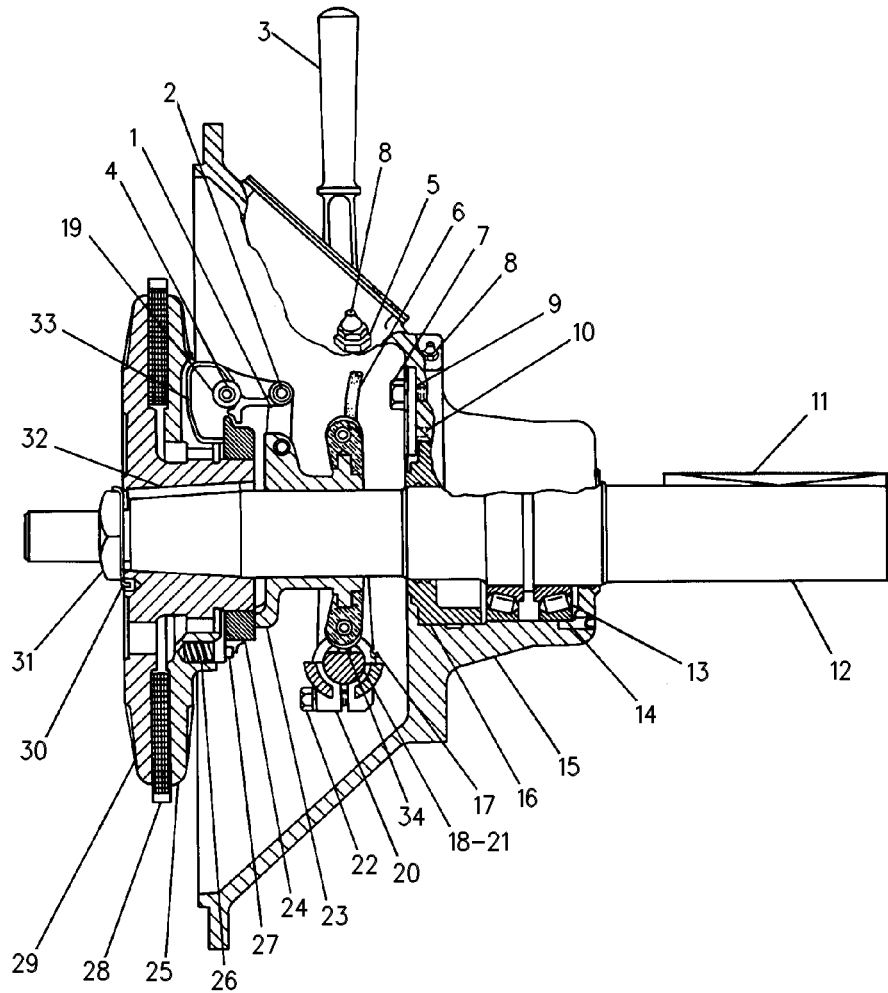
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	5B-5251	6	LINK						
	2	1	6L-3965	6	PIN						
		1	6L-3960	6	COTTER						
	3	1	4B-4787	1	LEVER AS						
		1	0S-1587	1	BOLT (1/2-13X1.75IN)						
	4	1	6L-3966	3	PIN						
		1	6L-3964	3	COTTER						
	5	1	9S-1354	1	NUT (5/8-18 THD)						
		1	6F-0253	1	LOCKWASHER						
	6	1	4B-4775	1	HOSE AS						
	7	1	1A-9136	1	BOLT						
		1	3F-9556	1	LOCKWASHER (8.4MM ID)						
	8	1	3B-8489	2	FITTING-GREASE (1/8-27 THD)						
	9	1	7L-0116	1	LOCK						
	10	1	5B-6159	1	SETSCREW-POINT						
	11	1	4L-4866	1	KEY-SQUARE						
	12	1	3N-7464	1	SHAFT-CLUTCH						
	13	1	4B-7255	2	CONE-BEARING						
	14	1	6B-3224	2	CUP-BEARING						
	15	1	5L-4202	1	HOUSING-CLUTCH						
	16	1	2N-9363	1	RETAINER-BEARING						
	17	1	8B-7121	2	FITTING-HYDRAULIC						
	18	1	4B-4756	1	SHAFT-GOVERNOR CONTROL						
	19	1	5D-2751	6	WASHER-SPRING						
	20	1	4B-4725	1	YOKE						
	21	1	6L-5151	2	KEY-WOODRUFF						
	22	1	0S-1591	2	BOLT (3/8-16X1.5IN)						
		1	9F-5644	2	LOCKWASHER (9.93MM ID)						
	23	1	2L-8260	1	SLEEVE-SLIDING						
	24	1	2L-8262	1	RING-ADJUSTMENT						
	25	1	3N-7953	1	PLATE AS						
	26	1	3N-7955	1	SPRING-LOCKPIN						
	27	1	3N-7954	1	LOCKPIN						
	28	1	3N-7952	1	PLATE-DRIVE						
	29	1	2L-8256	1	PLATE-HUB & BACK						
	30	1	4B-4771	1	LOCK						
	31	1	2L-8257	1	NUT-HUB						
	32	1	1L-9087	1	KEY						
	33	1	2L-8259	3	LEVER						
	34	1	4B-4715	1	COLLAR AS						
		1	0L-0639	2	BOLT (3/8-24X2.25IN)						
		1	2L-6267	2	LOCKNUT (3/8-24 THD)						
B		1	4B-4722	2	SHIM						
					AVAILABLE REPAIR KIT(S) :						
			5N-3789	1	CLUTCH AS						
					(INCLUDES LEVERS, PLATES, LINK, COLLAR AS., SLEEVE, PINS, COTTER PINS, RING, AND WASHERS)						

B-USE AS REQUIRED

BASIC ENGINE

3N-7841 CLUTCH GP (contd.)

i00663152



GRAPHIC #1

g00257983

BASIC ENGINE

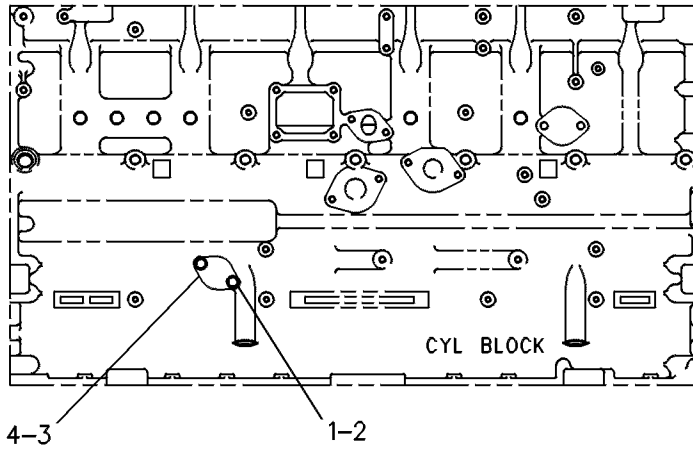
107-6736 COVER GP-CYLINDER BLOCK

FOR USE WITH MID MOUNTED TURBO AND/OR RH OIL FILL
AN ATTACHMENT

SMCS-1201

i00670739

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1594	2	BOLT (3/8-16X1IN)						
	2	1	5M-2894	2	WASHER (2.5MM THK)						
	3	1	4W-9890	1	COVER						
	4	1	4N-0699	1	GASKET						



LEFT SIDE VIEW

GRAPHIC #1

g00244599

BASIC ENGINE

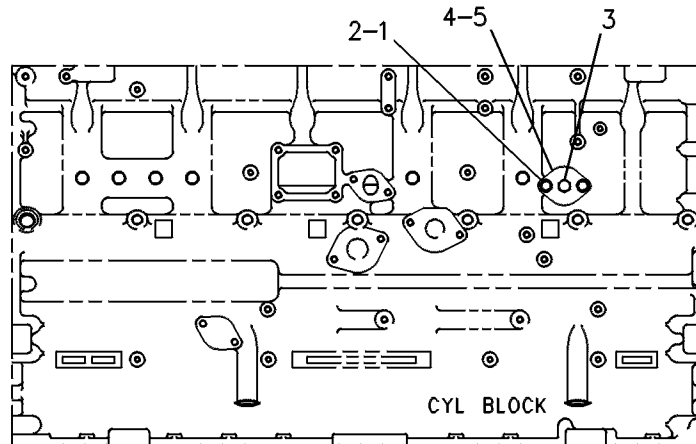
107-6737 COVER GP-CYLINDER BLOCK

CANNOT BE USED WITH RIGHT SIDE OIL FILLER
AN ATTACHMENT

SMCS-1201

i00670743

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1594	2	BOLT (3/8-16X1IN)						
	2	1	5M-2894	2	WASHER (2.5MM THK)						
	3	1	8T-6767	1	PLUG-PIPE (3/8-18 NPTF THD)						
	4	1	4N-0699	1	GASKET						
	5	1	9L-1937	1	FLANGE						



LEFT SIDE VIEW

GRAPHIC #1

g00237922

BASIC ENGINE

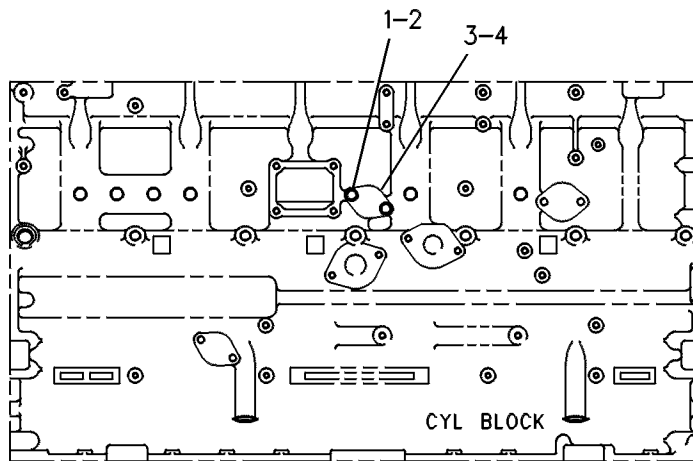
109-1223 COVER GP-CYLINDER BLOCK

FOR USE WITH LOW OR CENTER MOUNTED TURBOCHARGER
AN ATTACHMENT

SMCS-1201

i00663201

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1594	2	BOLT (3/8-16X1IN)						
	2	1	5M-2894	2	WASHER (2.5MM THK)						
	3	1	4W-9890	1	COVER						
	4	1	4N-0699	1	GASKET						



LEFT SIDE VIEW

GRAPHIC #1

g00237956

BASIC ENGINE

109-7423 COVER GP-CYLINDER BLOCK

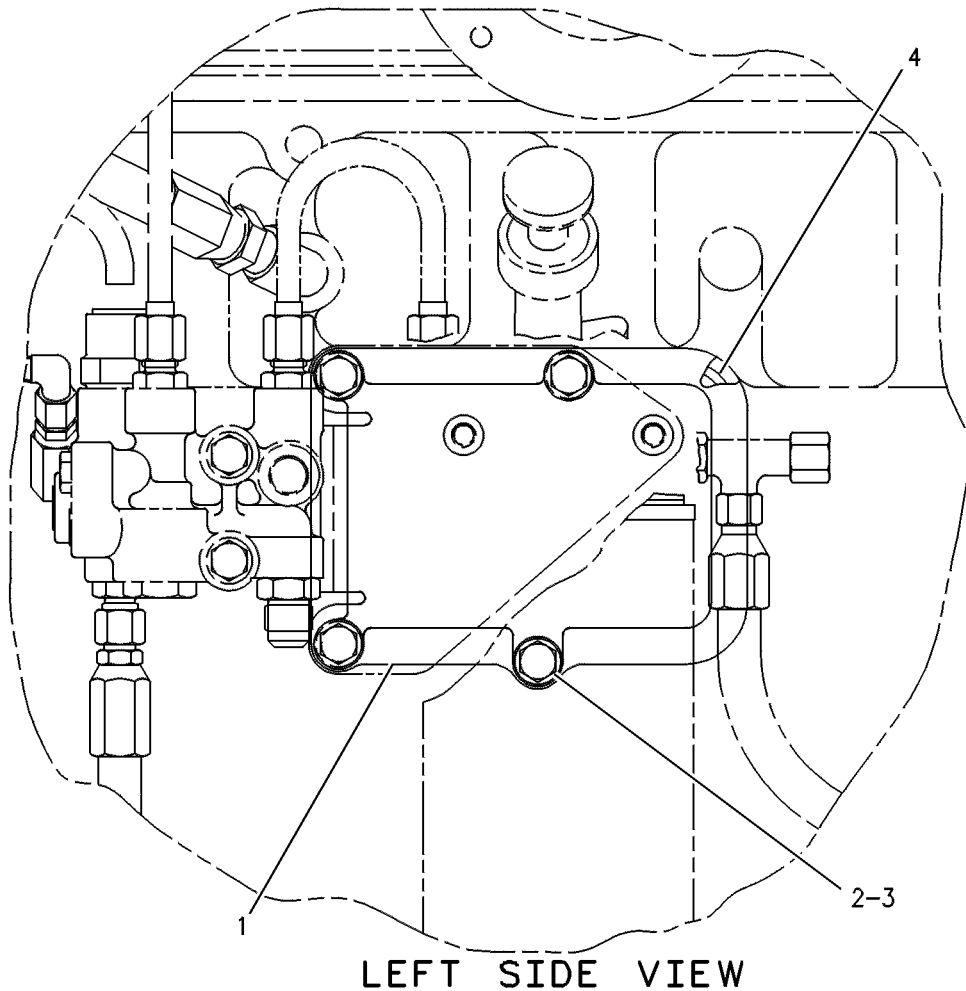
S/N: 9WR489-UP

FOR USE WITH RH SERVICE ENGINES. CANNOT BE USED WITH BLOCK MOUNTED BREATHERS
AN ATTACHMENT

SMCS-1201

i00831603

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	109-7424	1	COVER-CYLINDER BLOCK						
	2	1	5M-2894	1	WASHER (2.5MM THK)						
	3	1	0S-1591	1	BOLT (3/8-16X1.5IN)						
	4	1	109-7425	1	SEAL-COVER						



GRAPHIC #1

g00238347

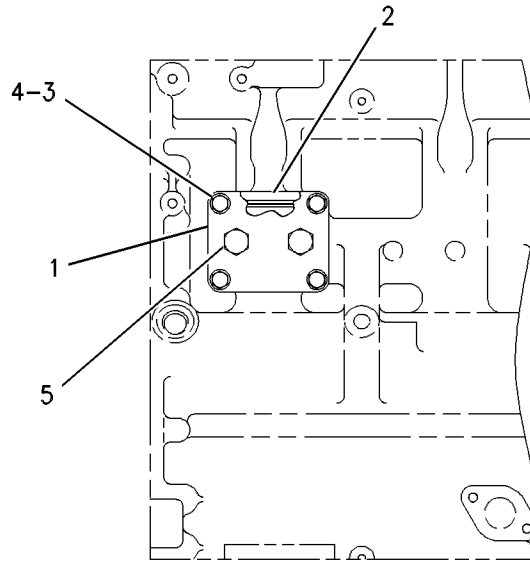
BASIC ENGINE

145-9276 COVER GP-CYLINDER BLOCK FOR WATER OPENING ON NO. SIX CYLINDER OF ENGINE BLOCK AN ATTACHMENT

SMCS-1201

i00842463

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	145-9277	1	COVER						
	2	1	126-4935	1	SEAL - INTEGRAL						
	3	1	0S-1588	4	BOLT (3/8-16X1.25IN)						
	4	1	5M-2894	4	WASHER (2.5MM THK)						
	5	1	7W-6492	2	PLUG-PIPE (1/2-14 NPTF THD)						



RIGHT SIDE VIEW

GRAPHIC #1

g00279937

BASIC ENGINE

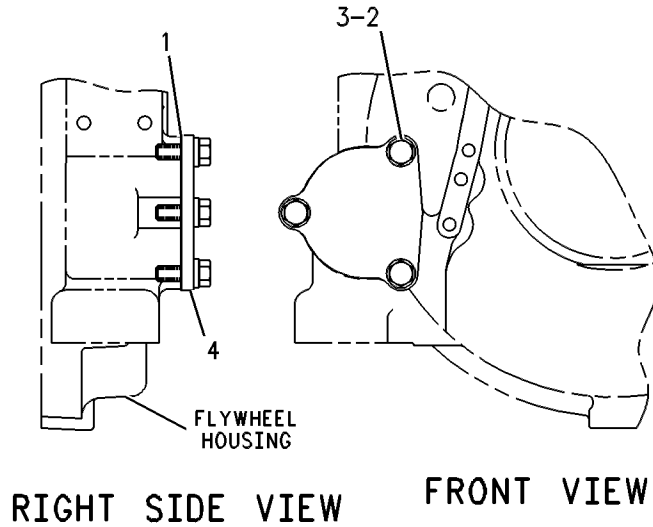
127-5728 COVER GP - FLYWHEEL HOUSING

LEFT STARTER BORE
AN ATTACHMENT

SMCS-1157

i00613200

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9Y-6089	1	GASKET						
	2	1	0S-1589	3	BOLT (5/8-11X1.75IN)						
	3	1	4D-3704	3	WASHER-HARD (5MM THK)						
	4	1	4N-1114	1	COVER						



GRAPHIC #1

g00262336

BASIC ENGINE

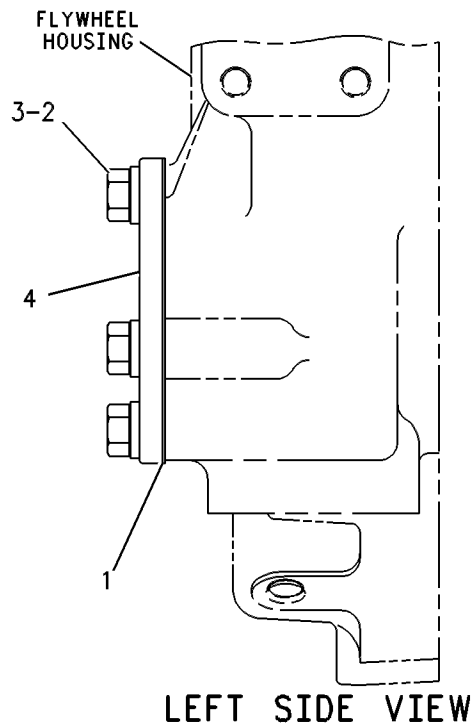
133-3089 COVER GP - FLYWHEEL HOUSING

FOR USE WITH RH MOUNTED STARTER
AN ATTACHMENT

SMCS-1157

i00640160

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9Y-6089	1	GASKET						
	2	1	0S-1589	3	BOLT (5/8-11X1.75IN)						
	3	1	4D-3704	3	WASHER-HARD (5MM THK)						
	4	1	4N-1114	1	COVER						



GRAPHIC #1

g00263620

BASIC ENGINE

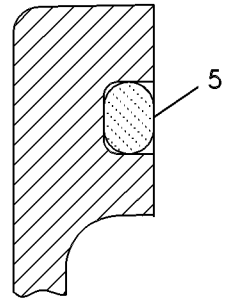
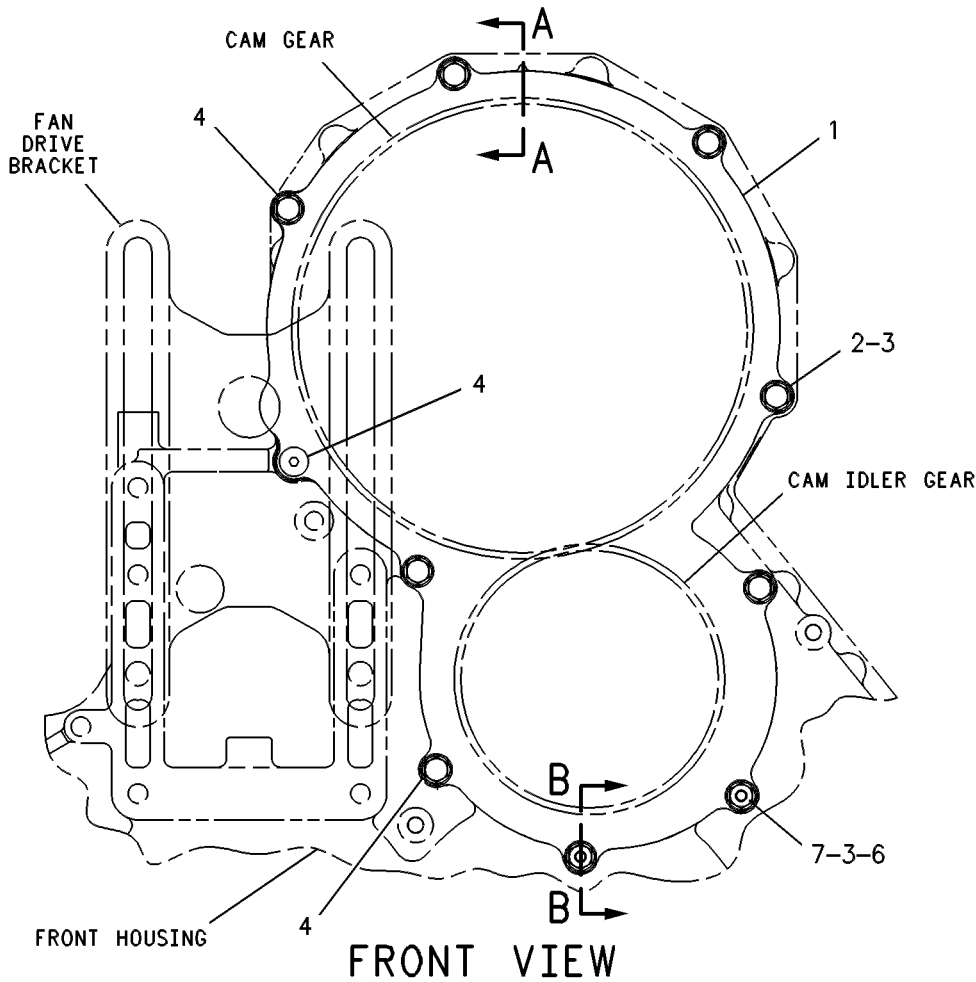
102-2235 COVER GP-FRONT HOUSING

CAM AND IDLER GEAR
CANNOT BE USED WITH FRONT SOUND COVERS
AN ATTACHMENT

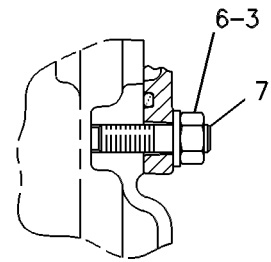
SMCS-1151, 1166

i00832056

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	146-2601	1	COVER						
	2	1	2B-2695	5	BOLT (5/16-18X.875IN)						
	3	1	9M-1974	7	WASHER-HARD (2MM THK)						
	4	1	146-8438	3	SCREW-BUTTON HEAD						
	5	1	103-6045	1	SEAL-ACCESSORY COVER						
	6	1	5S-0003	2	NUT-FULL (5/16-18 THD)						
	7	1	3K-6175	2	STUD						



SECTION A-A



SECTION B-B

GRAPHIC #1

g00257340

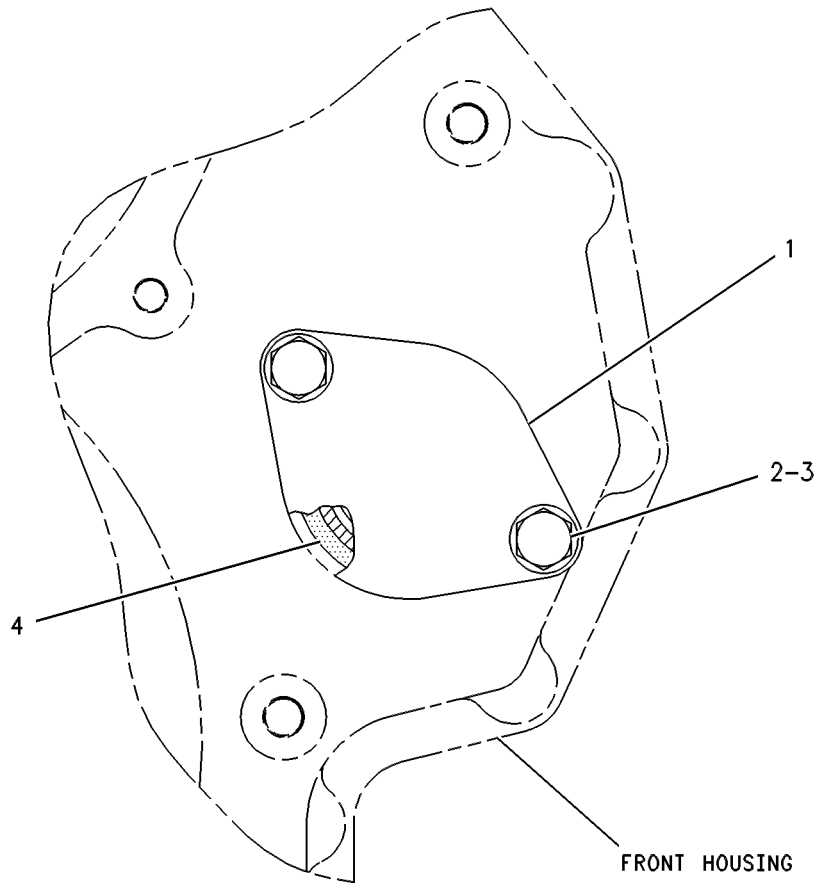
BASIC ENGINE

120-9847 COVER GP-FRONT HOUSING PROVIDES COVER FOR OIL FILLER OPENING ON FRONT HOUSING AN ATTACHMENT

SMCS-1151, 1166

i00670788

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7C-1445	1	COVER						
	2	1	2B-2695	2	BOLT (5/16-18X.875IN)						
	3	1	9M-1974	2	WASHER-HARD (2MM THK)						
	4	1	061-9455	1	SEAL-O-RING						



GRAPHIC #1

g00252251

BASIC ENGINE

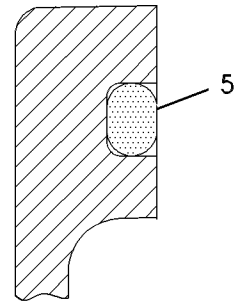
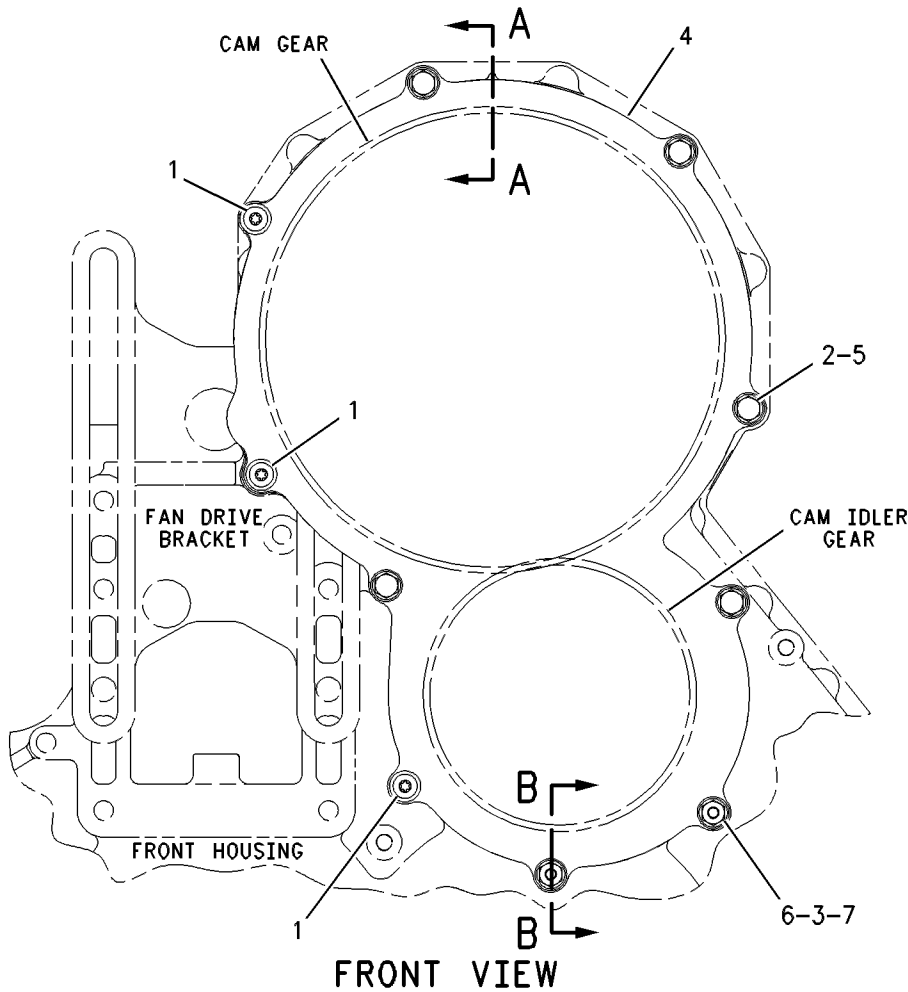
146-8924 COVER GP-FRONT HOUSING

CAM & IDLER GEAR ACCESS
AN ATTACHMENT

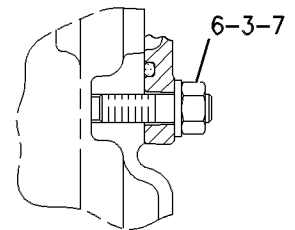
SMCS-1151, 1166

i00670561

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	146-8438	3	SCREW-BUTTON HEAD						
	2	1	2B-2695	5	BOLT (5/16-18X.875IN)						
	3	1	9M-1974	7	WASHER-HARD (2MM THK)						
	4	1	110-0005	1	COVER						
	5	1	103-6045	1	SEAL-ACCESSORY COVER						
	6	1	5S-0003	2	NUT-FULL (5/16-18 THD)						
	7	1	3K-6175	2	STUD						



SECTION A-A



SECTION B-B

GRAPHIC #1

g00288264

BASIC ENGINE

113-5251 COVER GP - VALVE MECHANISM

PART OF 131-0130 COVER GP-VALVE MECHANISM

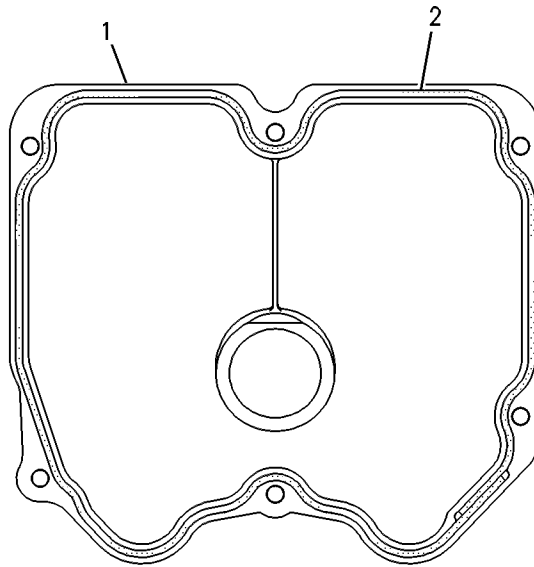
AN ATTACHMENT

SMCS-1107

i00670785

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	113-5250	1	COVER						
D	2	1	5P-5678		SEAL (1.3M)						

D-ORDER BY THE METER



GRAPHIC #1

g00257277

BASIC ENGINE

131-0130 COVER GP - VALVE MECHANISM

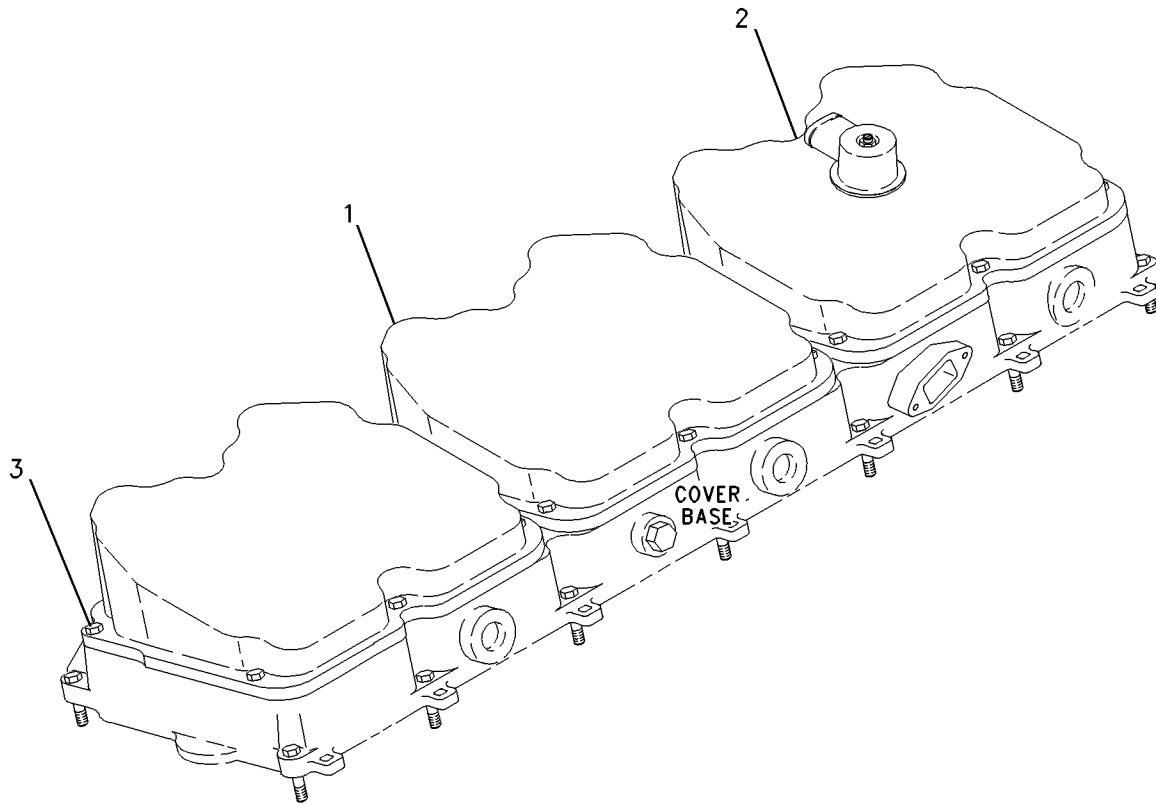
REAR FUMES
AN ATTACHMENT

SMCS-1107

i00670677

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	113-5251	2	COVER GP - VALVE MECHANISM						26
Y	2	1	136-3664	1	COVER GP - VALVE MECHANISM						28
	3	1	126-0559	18	BOLT						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00282424

BASIC ENGINE

136-3664 COVER GP - VALVE MECHANISM

PART OF 131-0130 COVER GP-VALVE MECHANISM

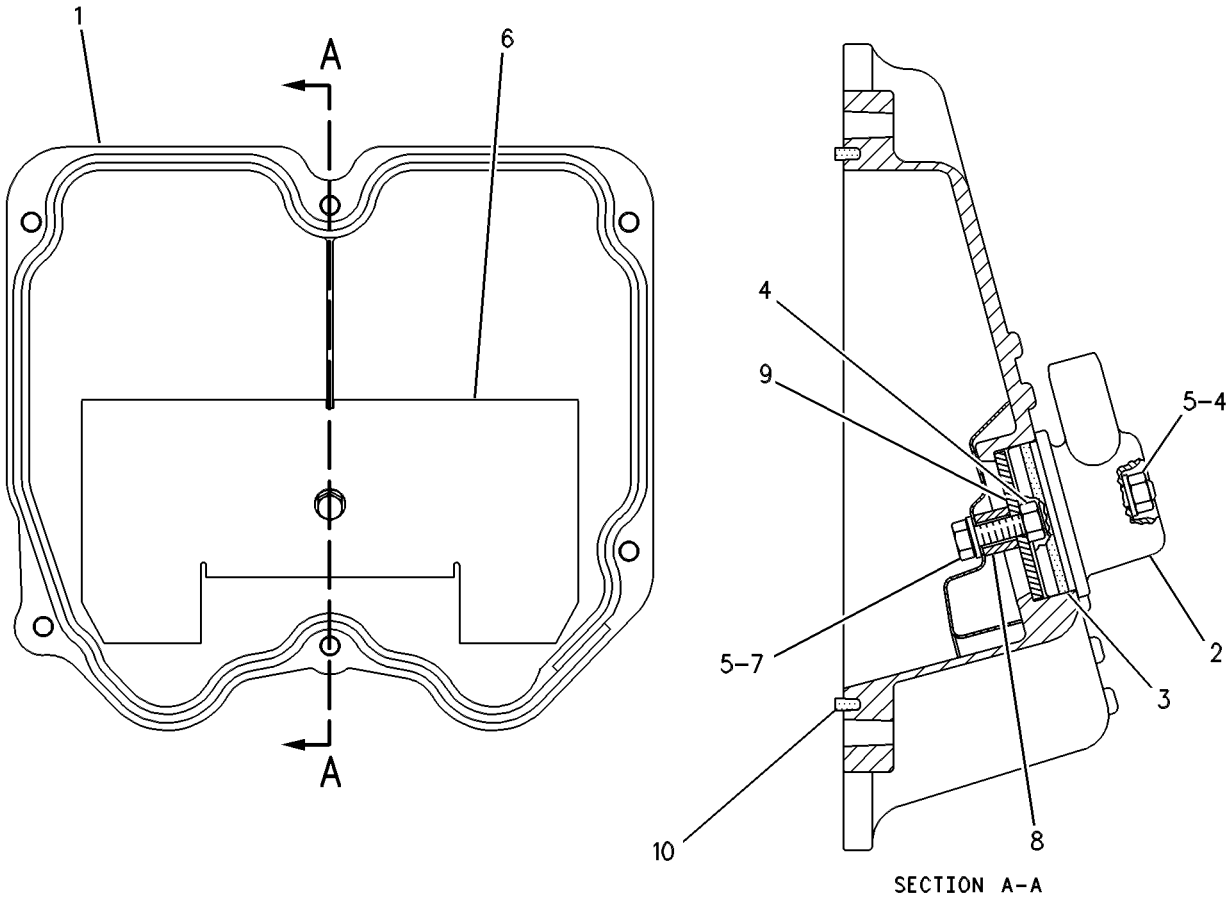
AN ATTACHMENT

SMCS-1107

i00672390

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	125-8166	1	COVER						
	2	1	125-8170	1	BREATHER						
	3	1	6V-5100	1	SEAL-O-RING (53.64MM ID)						
	4	1	6V-8189	2	NUT (5/16-18 THD)						
	5	1	9M-1974	2	WASHER-HARD (2MM THK)						
	6	1	125-1293	1	BAFFLE						
	7	1	7L-3351	1	BOLT						
	8	1	125-0995	1	SPACER						
	9	1	125-0997	1	PLATE						
D	10	1	5P-5678		SEAL (1.3M)						

D-ORDER BY THE METER



GRAPHIC #1

g00257311

BASIC ENGINE

141-8972 COVER GP - VALVE MECHANISM

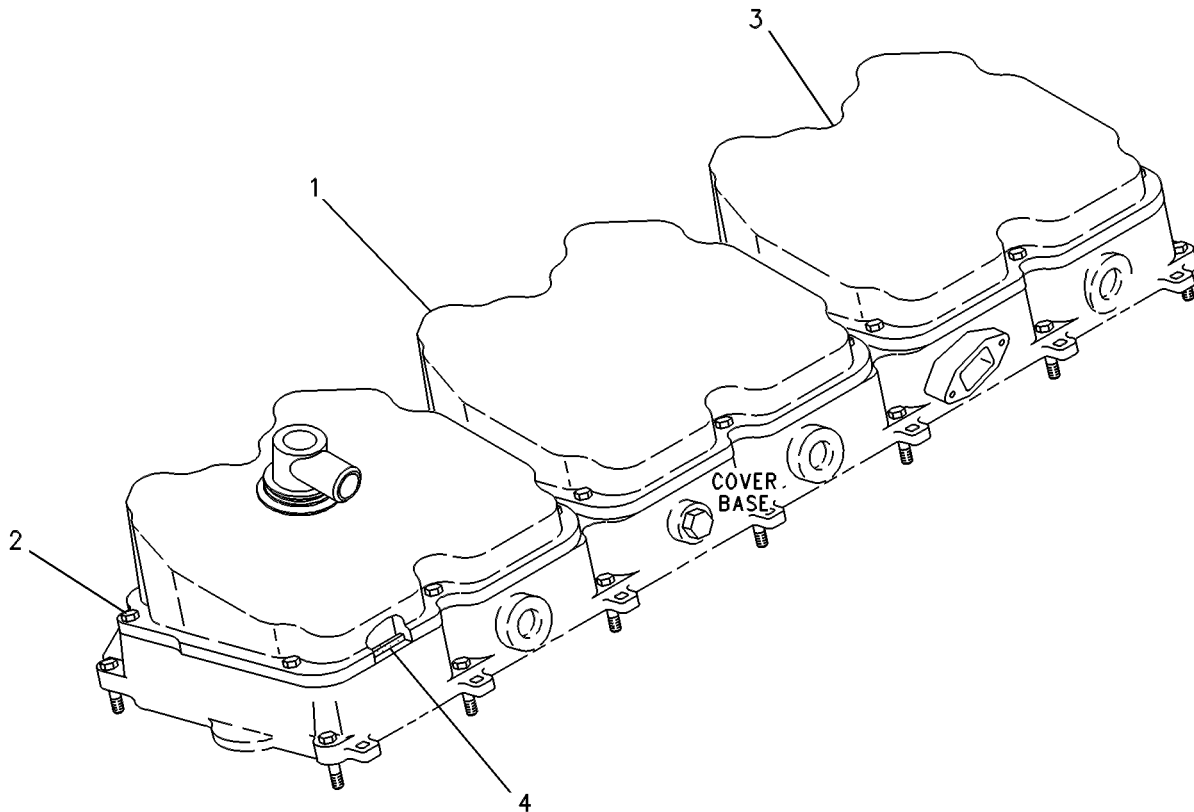
FOR USE WITH A, B, C & D RATED ENGINES
AN ATTACHMENT

SMCS-1107

i00670500

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	142-1418	1	COVER GP-VALVE MECHANISM						30
	2	1	9L-8925	18	BOLT (5/16-18X1.25IN)						
	3	1	102-8633	2	COVER-VALVE MECHANISM						
BD	4	1	5P-5678		SEAL						

B-USE AS REQUIRED
D-ORDER BY THE METER
Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00272491

BASIC ENGINE

142-1418 COVER GP - VALVE MECHANISM

PART OF 141-8972 COVER GP-VALVE MECHANISM

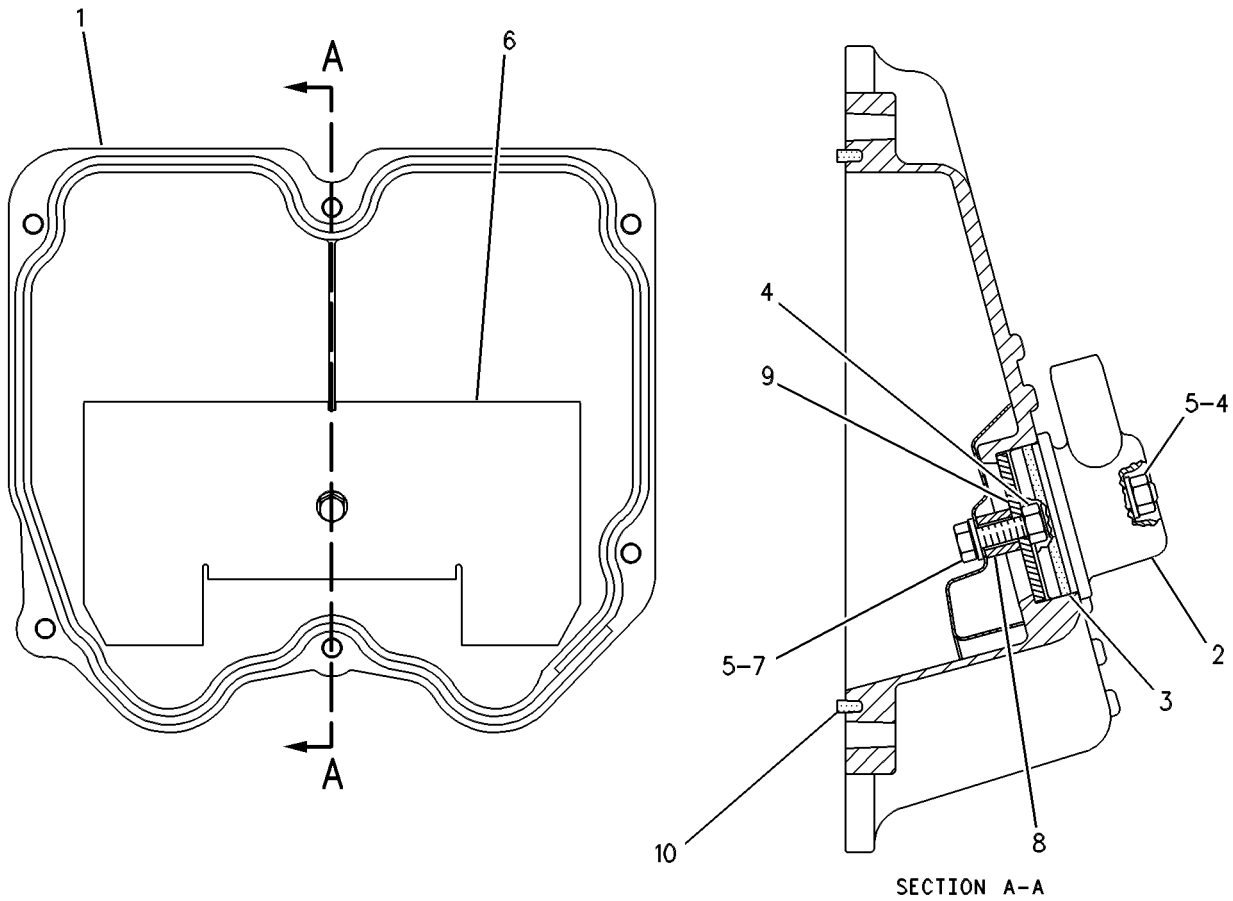
AN ATTACHMENT

SMCS-1107

i00670503

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	125-1292	1	COVER-VALVE MECHANISM						
	2	1	123-7045	1	BREATHER						
	3	1	6V-5100	1	SEAL-O-RING (53.64MM ID)						
	4	1	6V-8189	2	NUT (5/16-18 THD)						
	5	1	9M-1974	2	WASHER-HARD (2MM THK)						
	6	1	125-1293	1	BAFFLE						
	7	1	7X-0274	1	BOLT (5/16-18X2.75IN)						
	8	1	125-0995	1	SPACER						
	9	1	125-0997	1	PLATE						
D	10	1	5P-5678		SEAL (1.3M)						

D-ORDER BY THE METER



GRAPHIC #1

g00257311

BASIC ENGINE

150-3135 COVER GP - VALVE MECHANISM

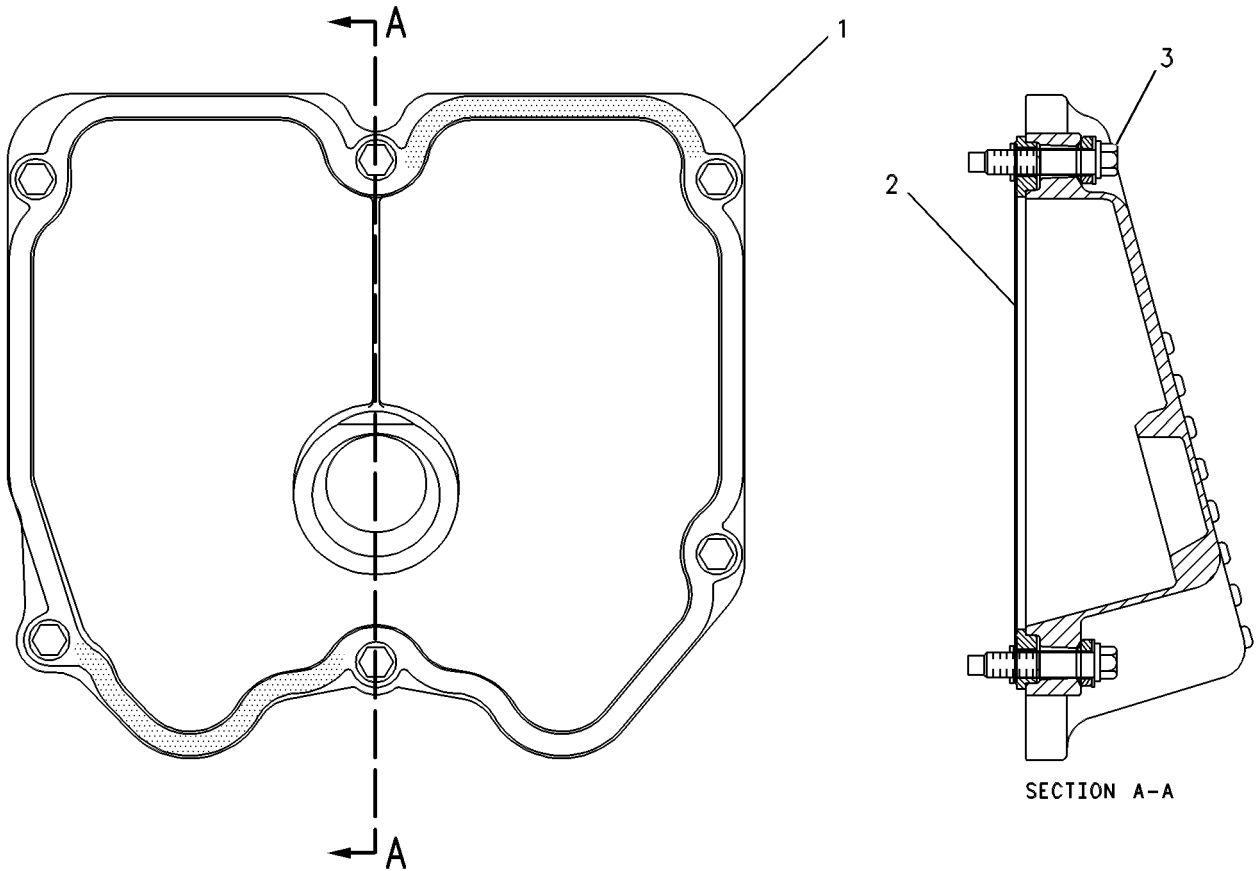
PART OF 153-5628 COVER GP-VALVE MECHANISM

AN ATTACHMENT

SMCS-1107

i01163675

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	150-2557	1	COVER-VALVE MECH						
	2	1	172-8027	1	SEAL						
	3	1	173-2390	6	FASTENER AS						



GRAPHIC #1

g00620207

BASIC ENGINE

150-3141 COVER GP - VALVE MECHANISM

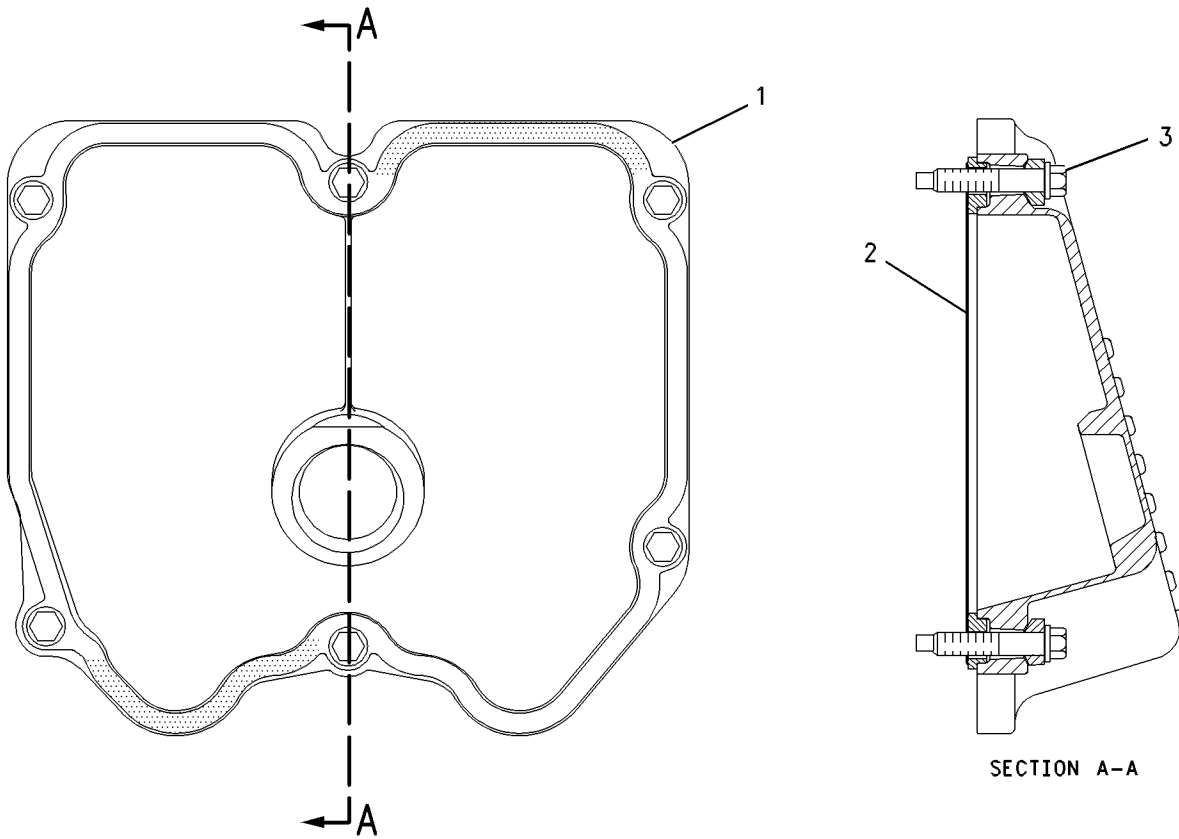
PART OF 153-5627 COVER GP-VALVE MECHANISM

AN ATTACHMENT

SMCS-1107

i01163840

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	149-7376	1	COVER-VALVE MECHANISM						
	2	1	172-8027	1	SEAL						
	3	1	173-2390	6	FASTENER AS						



GRAPHIC #1

g00299930

BASIC ENGINE

153-3291 COVER GP - VALVE MECHANISM

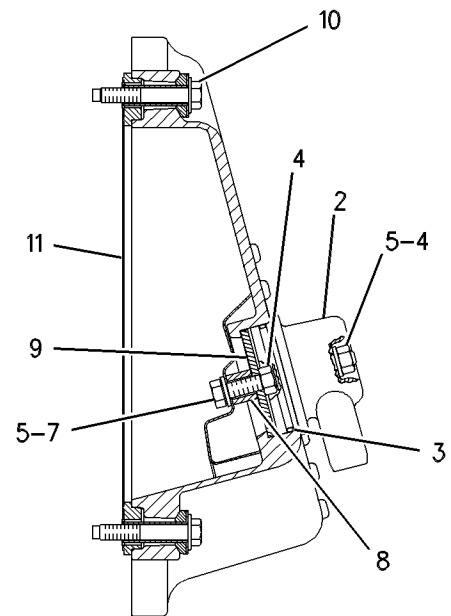
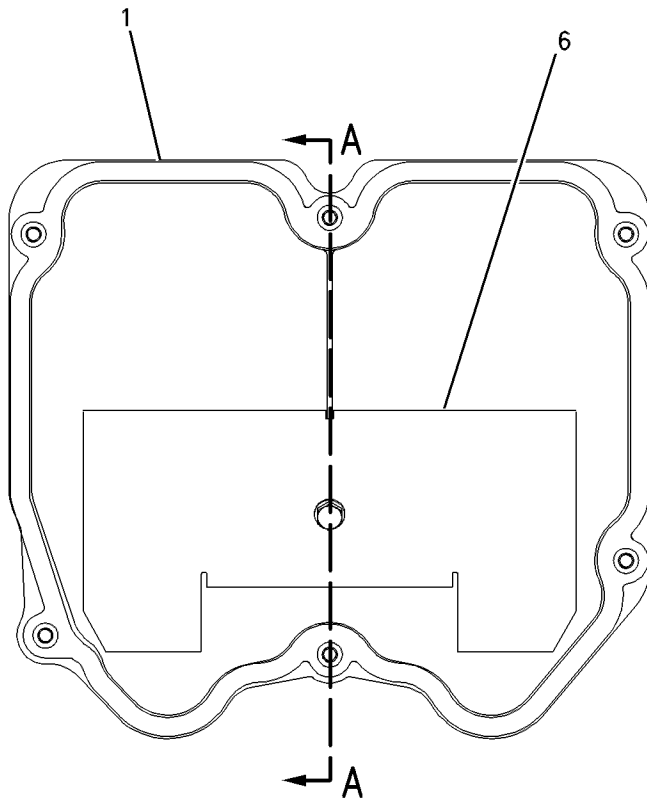
PART OF 153-5627 COVER GP-VALVE MECHANISM

AN ATTACHMENT

SMCS-1107

i01163847

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	153-3565	1	COVER-VALVE MECHANISM						
	2	1	125-8170	1	BREATHER						
	3	1	6V-5100	1	SEAL-O-RING (53.64MM ID)						
	4	1	6V-8189	2	NUT (5/16-18 THD)						
	5	1	9M-1974	2	WASHER-HARD (2MM THK)						
	6	1	125-1293	1	BAFFLE						
	7	1	7L-3351	1	BOLT						
	8	1	125-0995	1	SPACER						
	9	1	125-0997	1	PLATE						
	10	1	173-2390	6	FASTENER AS						
	11	1	172-8027	1	SEAL						



SECTION A-A

GRAPHIC #1

g00447462

BASIC ENGINE

153-3597 COVER GP - VALVE MECHANISM

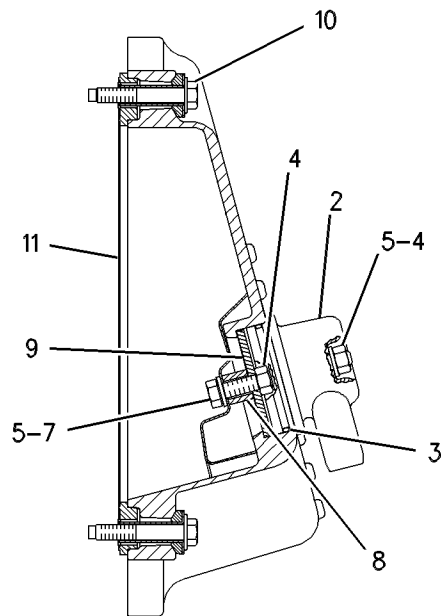
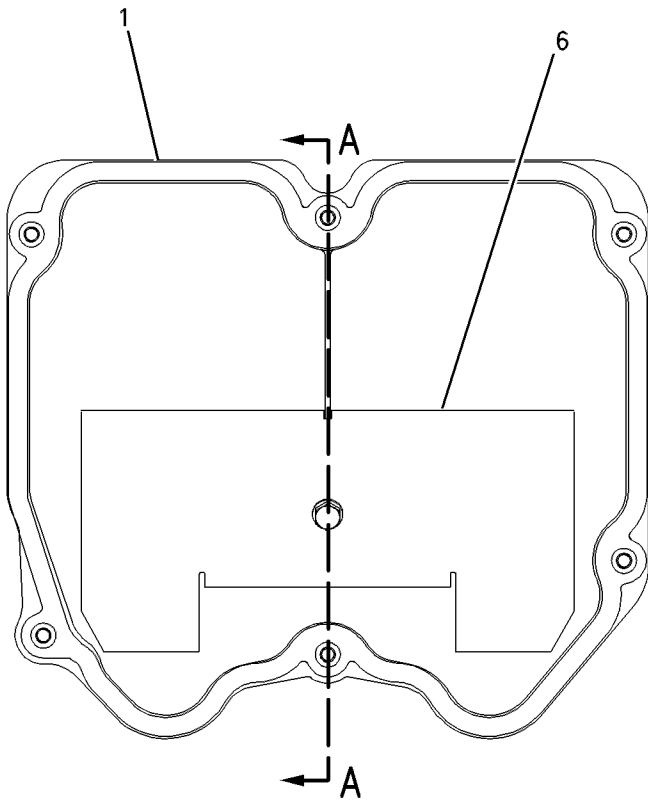
PART OF 153-5628 COVER GP-VALVE MECHANISM

AN ATTACHMENT

SMCS-1107

i01163853

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	153-3290	1	COVER-VALVE MECHANISM						
	2	1	123-7045	1	BREATHER						
	3	1	6V-5100	1	SEAL-O-RING (53.64MM ID)						
	4	1	6V-8189	2	NUT (5/16-18 THD)						
	5	1	9M-1974	2	WASHER-HARD (2MM THK)						
	6	1	125-1293	1	BAFFLE						
	7	1	7L-3351	1	BOLT						
	8	1	125-0995	1	SPACER						
	9	1	125-0997	1	PLATE						
	10	1	173-2390	6	FASTENER AS						
	11	1	172-8027	1	SEAL						



SECTION A-A

GRAPHIC #1

g00447462

BASIC ENGINE

153-5627 COVER GP - VALVE MECHANISM

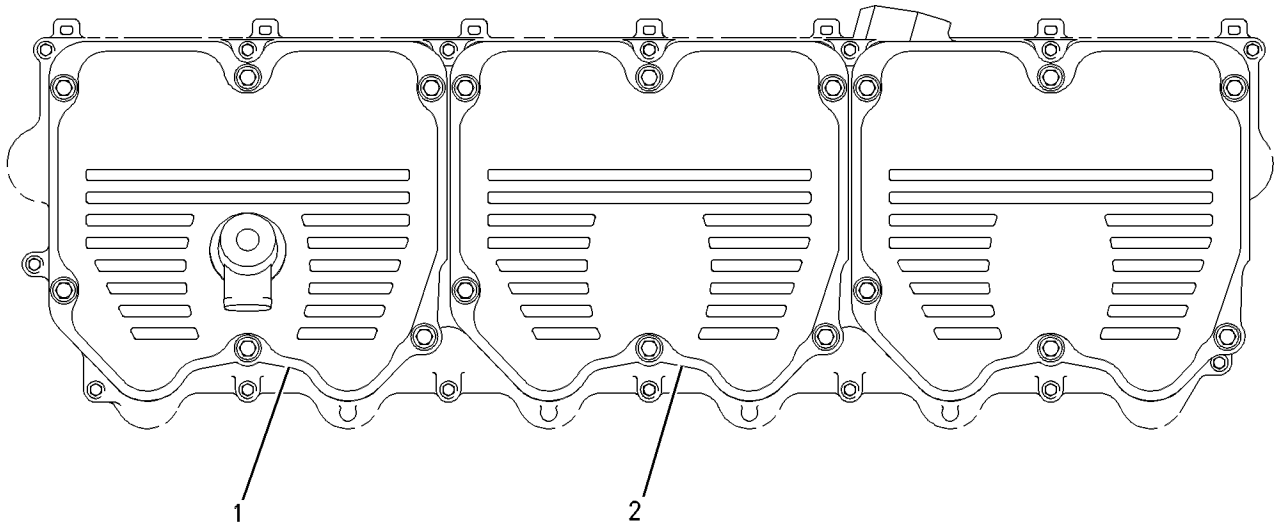
BLACK POWDER COATED, LOW NOISE, REAR FUMES
AN ATTACHMENT

SMCS-1107

i00943485

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	153-3291	1	COVER GP - VALVE MECHANISM						33
Y	2	1	150-3141	2	COVER GP - VALVE MECHANISM						32

Y - SEPARATE ILLUSTRATION



TOP VIEW

GRAPHIC #1

g00447464

BASIC ENGINE

153-5628 COVER GP - VALVE MECHANISM

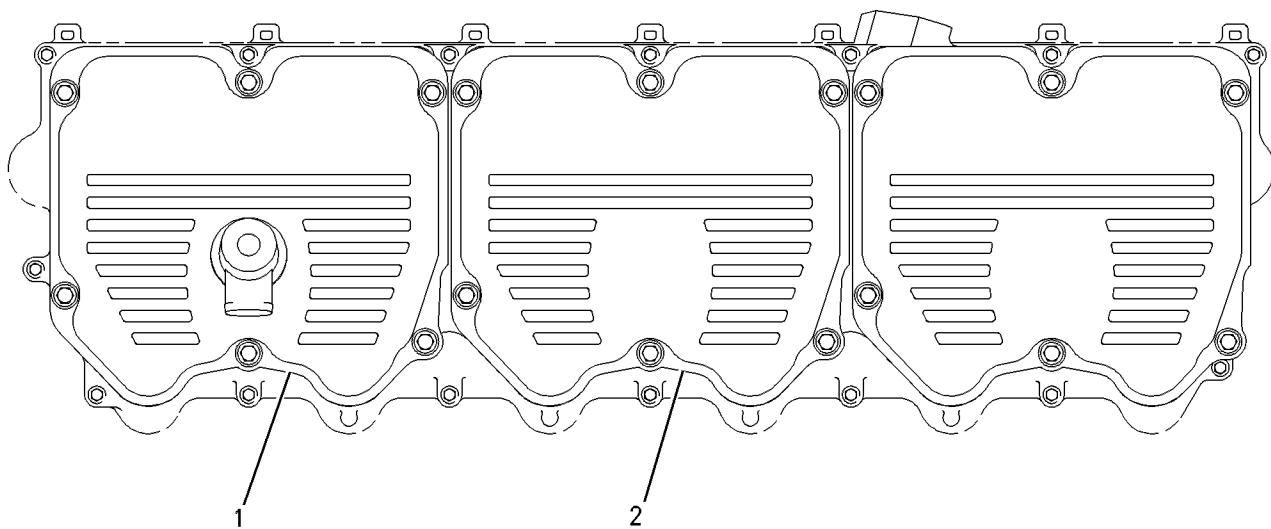
LOW NOISE, REAR FUMES
AN ATTACHMENT

SMCS-1107

i00943491

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	153-3597	1	COVER GP - VALVE MECHANISM						34
Y	2	1	150-3135	2	COVER GP - VALVE MECHANISM						31

Y - SEPARATE ILLUSTRATION



TOP VIEW

GRAPHIC #1

g00447464

BASIC ENGINE

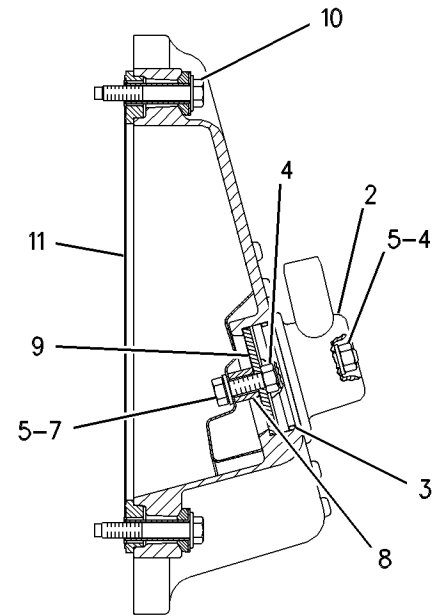
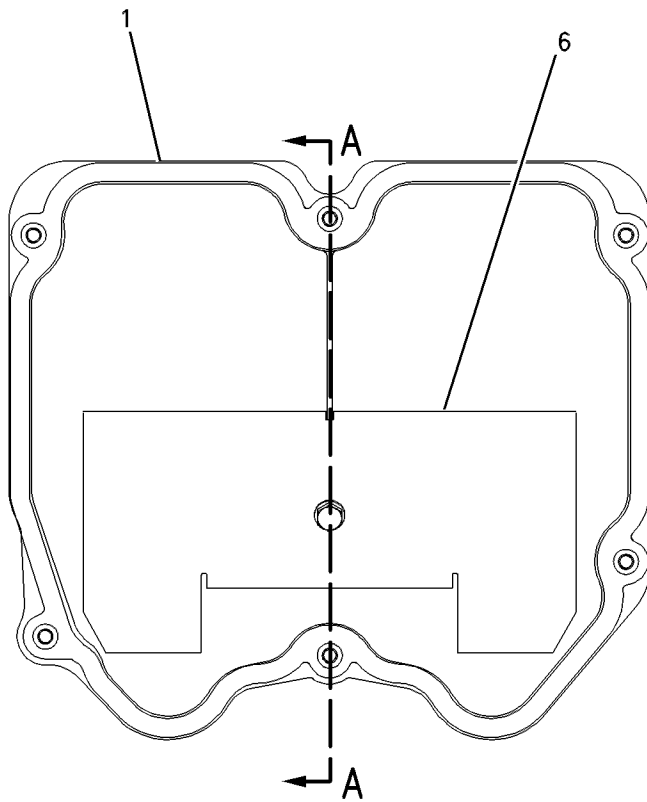
162-2264 COVER GP - VALVE MECHANISM

AN ATTACHMENT

SMCS-1107

i01163901

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	153-3565	1	COVER-VALVE MECHANISM						
	2	1	125-8170	1	BREATHER						
	3	1	6V-5100	1	SEAL-O-RING (53.64MM ID)						
	4	1	6V-8189	2	NUT (5/16-18 THD)						
	5	1	9M-1974	2	WASHER-HARD (2MM THK)						
	6	1	125-1293	1	BAFFLE						
	7	1	7L-3351	1	BOLT						
	8	1	125-0995	1	SPACER						
	9	1	125-0997	1	PLATE						
	10	1	173-2390	6	FASTENER AS						
	11	1	172-8027	1	SEAL						



SECTION A-A

GRAPHIC #1

g00608035

BASIC ENGINE

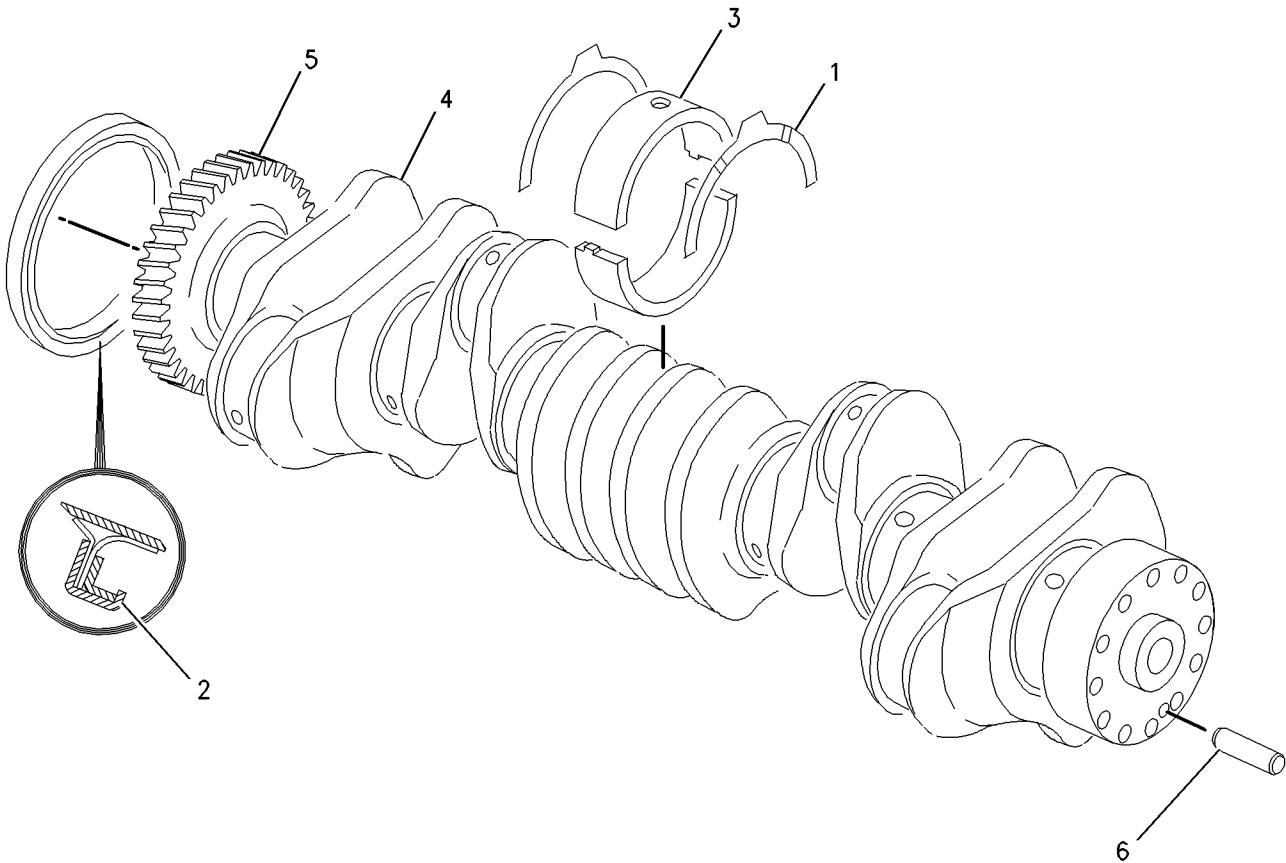
6I-1001 CRANKSHAFT GP*R

SMCS-1202

i01374856

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7E-9262	2	PLATE - THRUST						
	2	1	2W-1733	1	SEAL GP - CRANKSHAFT						
	3	1	4W-5492	7	BEARING - MAIN (STANDARD)						
AB		1	4W-5698		BEARING - MAIN (.025IN US)						
AB		1	4W-5699		BEARING - MAIN (.050IN US)						
AB		1	4W-5700		BEARING - MAIN (.025IN OS)						
AB		1	4W-5701		BEARING - MAIN (.025IN US, .025IN OS)						
R	4	1	6I-1453	1	CRANKSHAFT AS						
	5	1	1W-9302	1	GEAR - CRANKSHAFT (80 TEETH)						
		1	7S-5005	1	DOWEL						
	6	1	4N-0684	1	DOWEL						

A - NOT PART OF THIS GROUP
 B - USE AS REQUIRED
 R - REMFG PART MAY BE AVAILABLE



GRAPHIC #1

g00726033

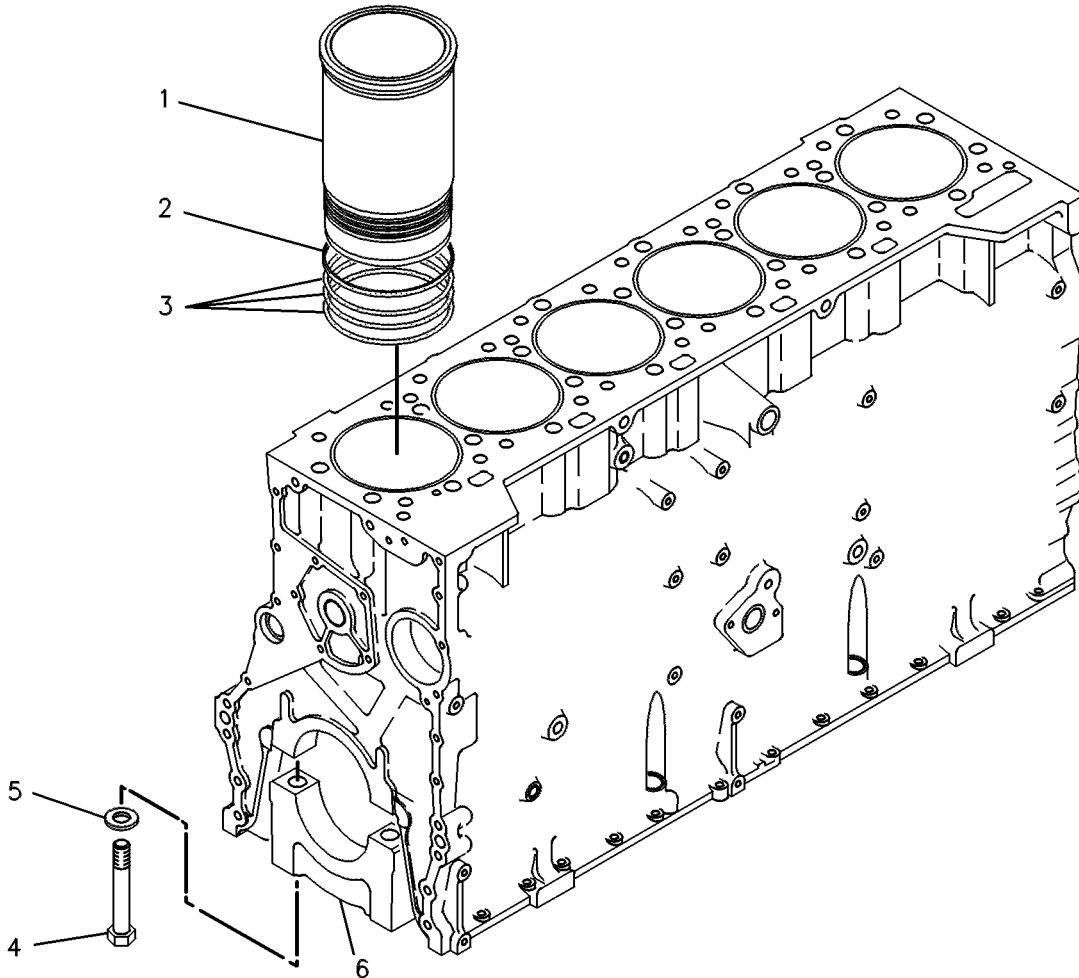
BASIC ENGINE

137-2671 CYLINDER BLOCK AS PART OF 107-2232, 145-8859 CYLINDER BLOCK GP

SMCS-1201

i00672418

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2W-6000	6	LINER-CYLINDER						
	2	1	9L-5854	6	BAND-FILLER (5.125MM ID)						
	3	1	110-2220	18	SEAL-O-RING (141MM ID)						
	4	1	3P-1323	14	BOLT-BEARING CAP						
	5	1	9H-1031	14	WASHER-HARD (6.0MM THK)						
	6	1	4N-5857	7	CAP						



GRAPHIC #1

g00238072

BASIC ENGINE

137-8467 CYLINDER BLOCK AS

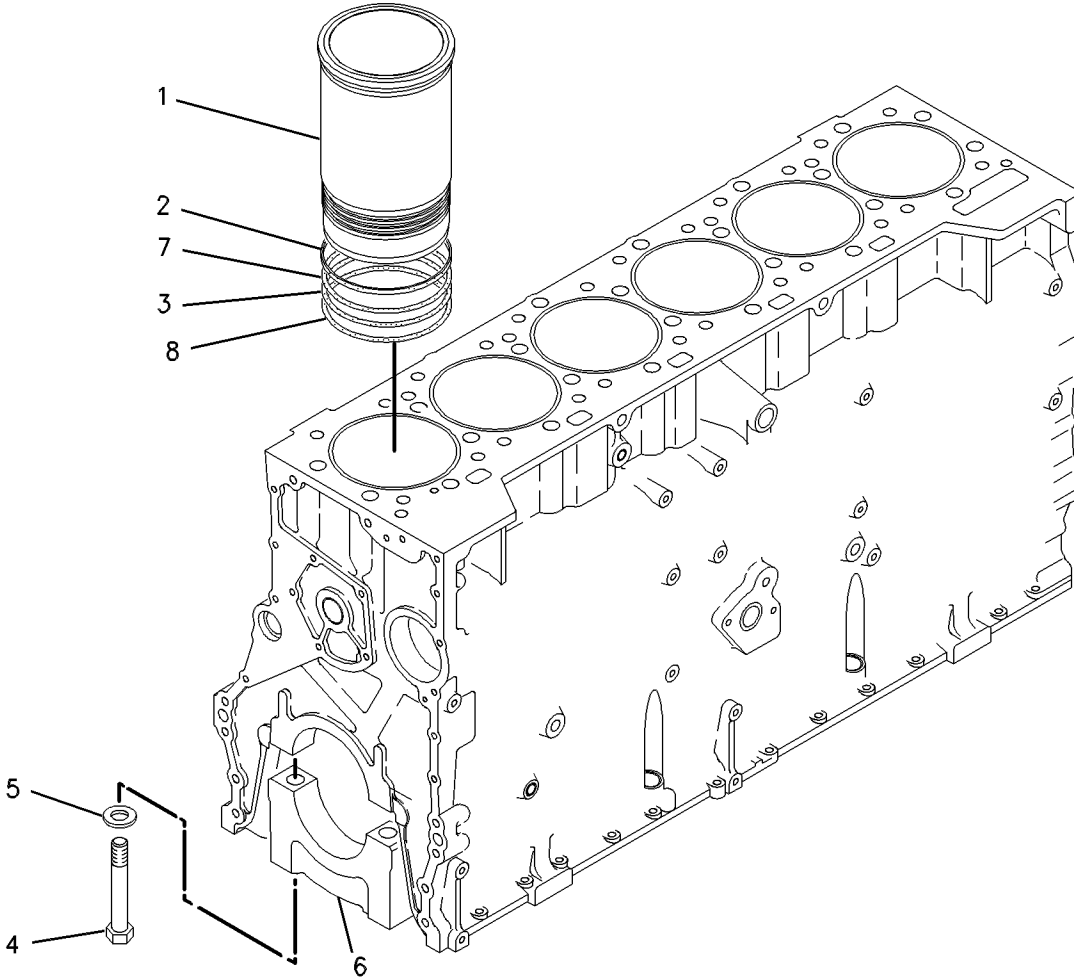
S/N: 9WR489-UP

PART OF 150-8016 CYLINDER BLOCK GP

SMCS-1201

i00942773

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2W-6000	6	LINER-CYLINDER						
	2	1	9L-5854	6	BAND-FILLER (5.125MM ID)						
	3	1	110-2220	6	SEAL-LINER (141MM ID)						
	4	1	3P-1323	14	BOLT-BEARING CAP						
	5	1	9H-1031	14	WASHER-HARD (6.0MM THK)						
	6	1	4N-5857	7	CAP						
	7	1	142-7072	6	SEAL-LINER (140.20MM ID)						
	8	1	142-6217	6	SEAL-LINER (140.20MM ID)						



GRAPHIC #1

g00501345

BASIC ENGINE

137-8468 CYLINDER BLOCK AS

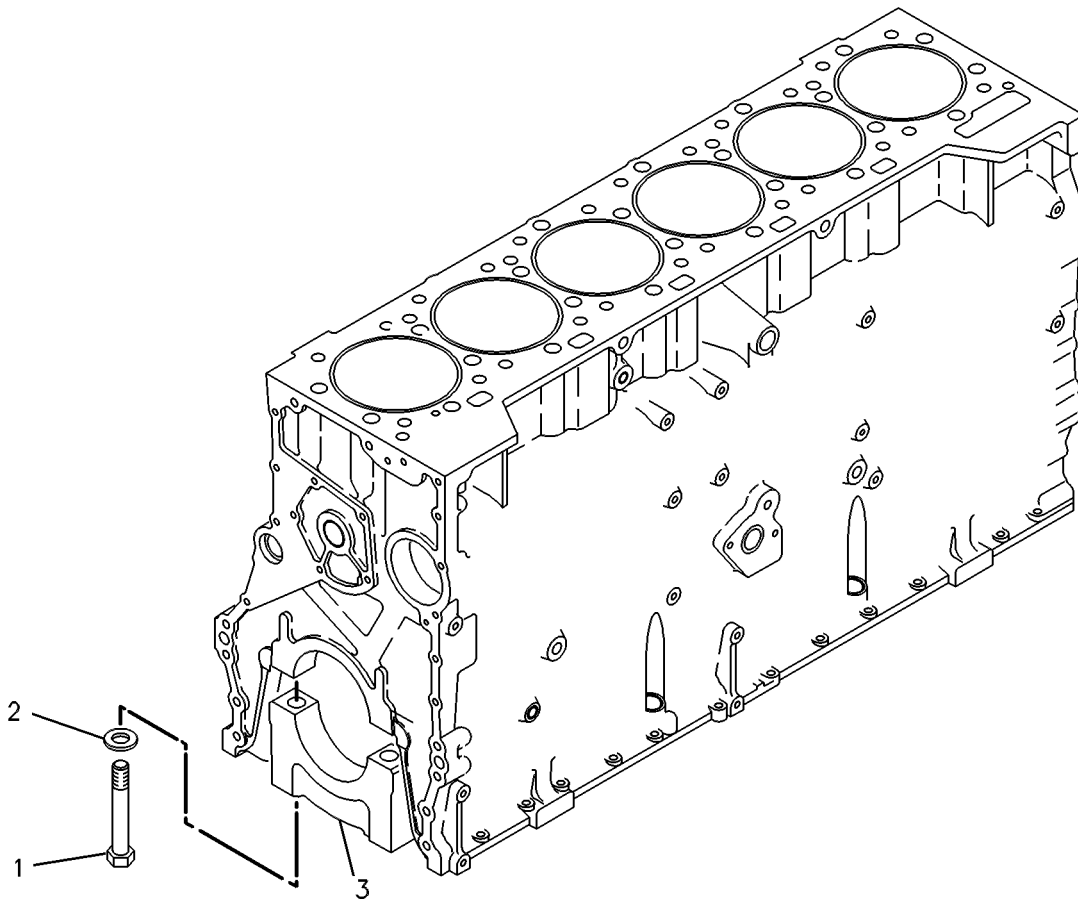
S/N: 9WR489-UP

PART OF 137-8469 CYLINDER BLOCK GP

SMCS-1201

i00837395

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	3P-1323	14	BOLT-BEARING CAP						
	2	1	9H-1031	14	WASHER-HARD (6.0MM THK)						
	3	1	4N-5857	7	CAP						



GRAPHIC #1

g00265763

BASIC ENGINE

107-2232 CYLINDER BLOCK GP*R

S/N: 9WR1-309

FIELD REPLACEMENT ORDER 133-3485--PAGE 44

SMCS-1201

i01300021

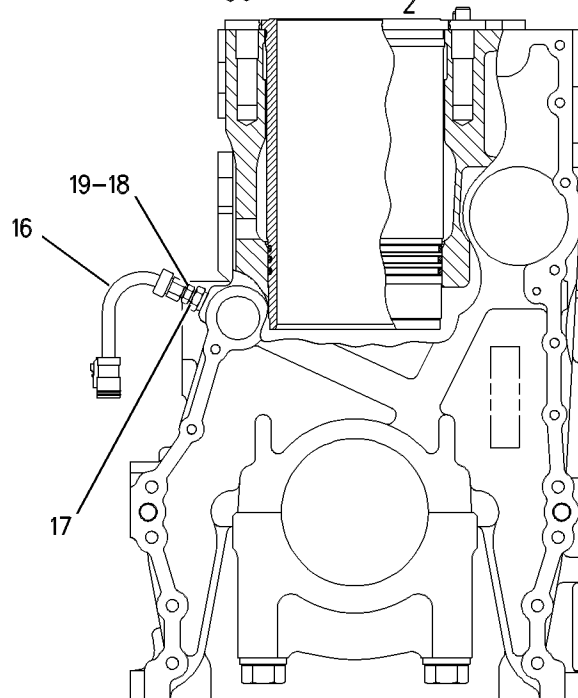
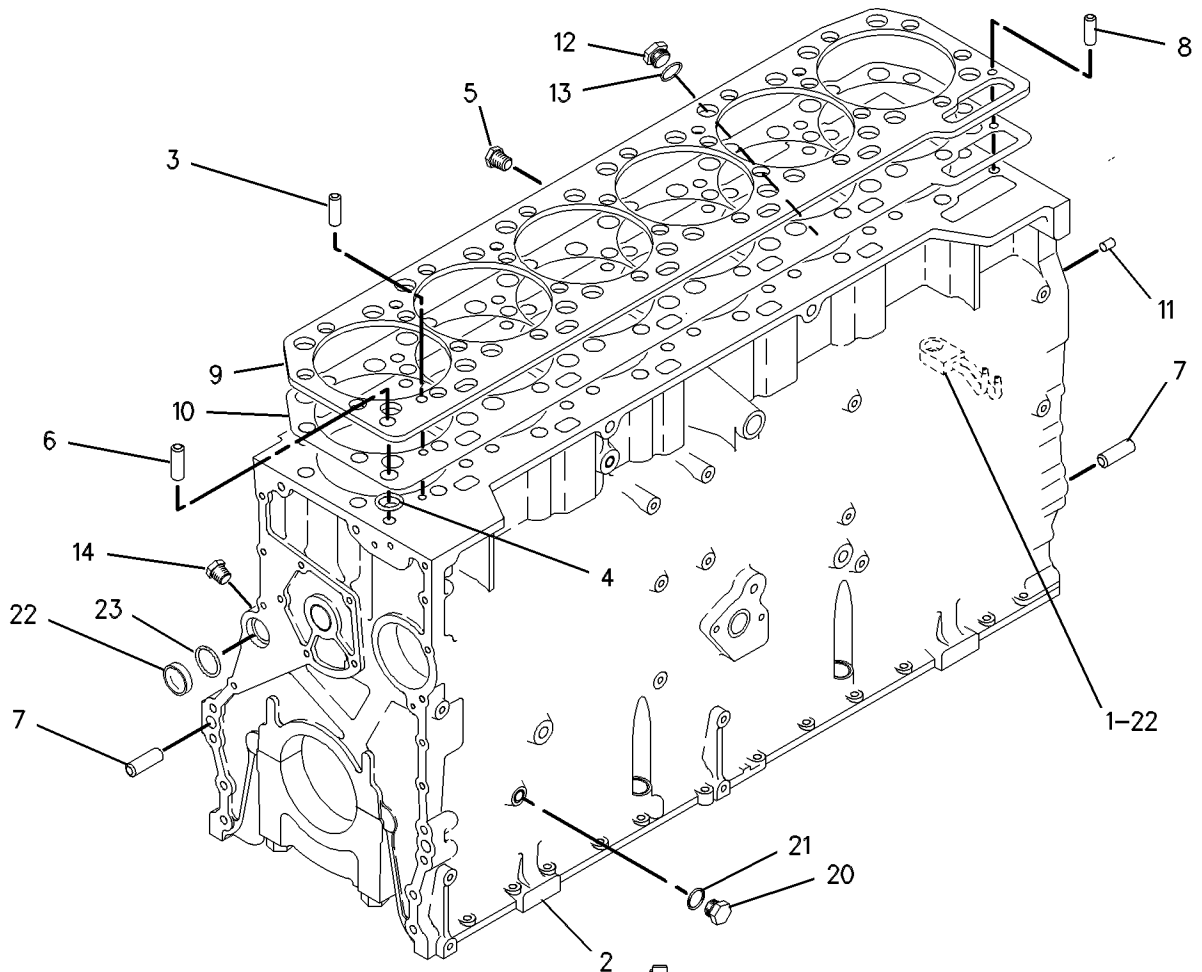
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
	1	1	145-6860	6	TUBE AS-OIL JET	
CY	2	1	137-2671	1	CYLINDER BLOCK AS	39
	3	1	1S-9540	1	DOWEL (30.23 MM X 9.37 MM)	
	4	1	5P-0840	1	SEAL-O-RING (12.29MM ID)	
	5	1	7W-6492	6	PLUG-PIPE (1/2-14 NPTF THD)	
	6	1	6I-1055	1	DOWEL	
	7	1	4N-0683	4	DOWEL (15.88 X 31.88MM)	
	8	1	4N-1650	1	DOWEL (1.25 IN LG X.376 DIA)	
	9	1	6I-4421	1	PLATE-SPACER	
	10	1	133-9827	1	GASKET-PLATE	
	11	1	8S-9094	1	PLUG-ORIFICE	
	12	1	9S-4190	1	PLUG-O-RING (7/16-20 THD)	
	13	1	114-4427	1	SEAL-O-RING (19.18MM ID)	
	14	1	7X-7732	5	PLUG-PIPE (3/8-18 NPTF THD)	
	15	1	7E-6479	6	BOLT-OIL JET	
C	16	1	111-2350	1	SENSOR GP-PRESSURE (OIL) INCLUDES PLUG AS AND WEDGE	
	17	1	3B-7722	1	BUSHING-PIPE	
	18	1	5N-2126	1	ADAPTER-EXHAUST (THERMOCOUPLE)	
	19	1	6V-5048	1	SEAL-O-RING (8.92MM ID)	
	20	1	9S-4182	1	PLUG (7/16-20 THD)	
	21	1	9X-7378	1	SEAL-O-RING (8.92MM ID)	
C	22	1	100-7399	2	PLUG	
C	23	1	3E-6747	2	SEAL-O-RING (32.99MM ID)	

C- CHANGE FROM PREVIOUS TYPE
Y- SEPARATE ILLUSTRATION

BASIC ENGINE

107-2232 CYLINDER BLOCK GP (contd.)

i01300021



FRONT VIEW

GRAPHIC #1

g00617456

BASIC ENGINE

133-3485 CYLINDER BLOCK GP

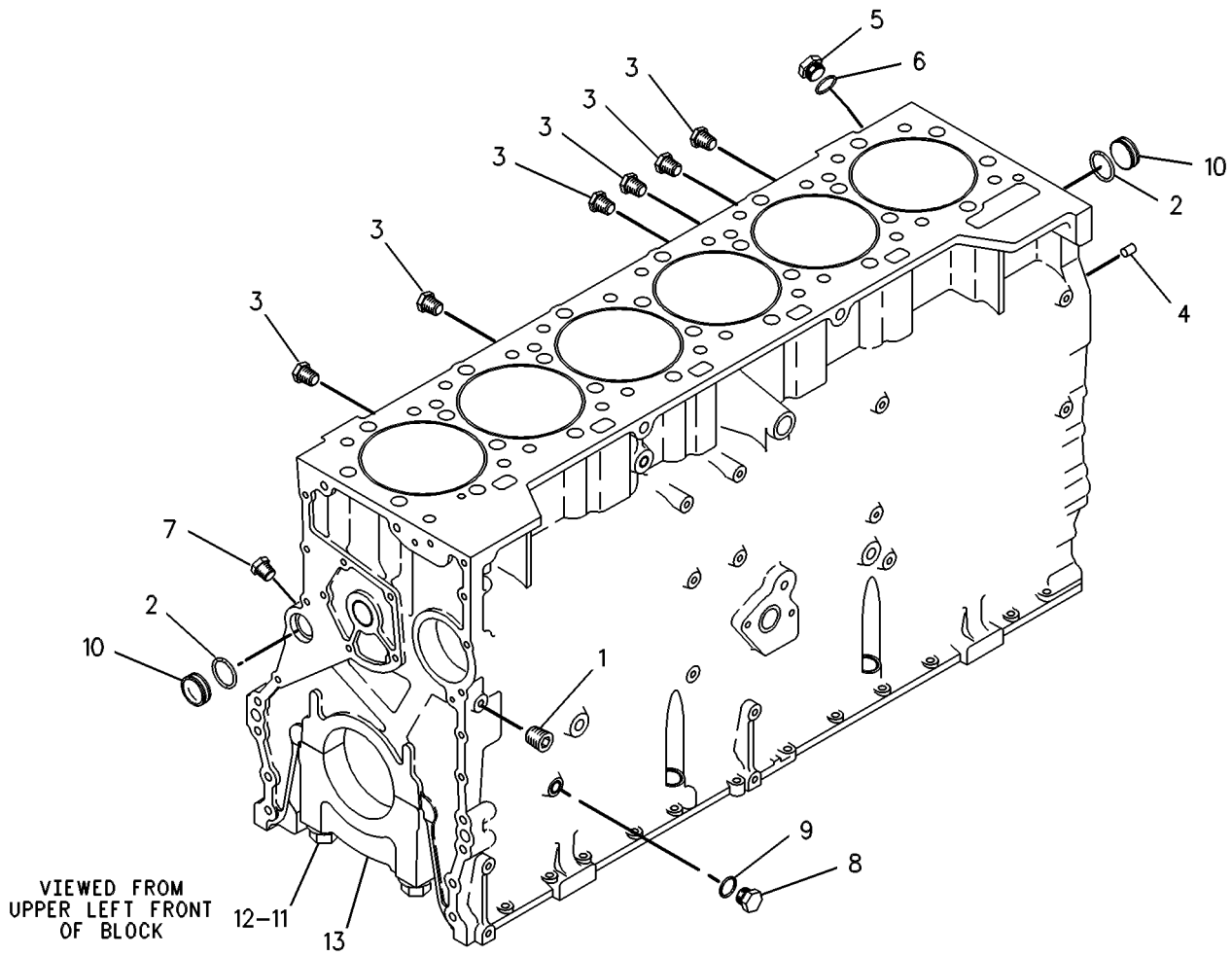
FIELD REPLACEMENT FOR 107-2232-PAGE 42

FIELD INSTALLATION

SMCS-1201

i00671870

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-6757	1	PLUG-PIPE (1/8-27 NPTF THD)						
	2	1	3E-6747	1	SEAL-O-RING (32.99MM ID)						
	3	1	7W-6492	6	PLUG-PIPE (1/2-14 NPTF THD)						
	4	1	8S-9094	1	PLUG-ORIFICE						
	5	1	9S-4190	1	PLUG-O-RING (7/16-20 THD)						
	6	1	114-4427	1	SEAL-O-RING (19.18MM ID)						
	7	1	7X-7732	6	PLUG-PIPE						
	8	1	9S-4182	1	PLUG (7/16-20 THD)						
	9	1	9X-7378	1	SEAL-O-RING (8.92MM ID)						
	10	1	100-7399	1	PLUG						
	11	1	3P-1323	14	BOLT-BEARING CAP						
	12	1	9H-1031	14	WASHER-HARD (6.0MM THK)						
	13	1	4N-5857	7	CAP						



GRAPHIC #1

g00263212

BASIC ENGINE

137-8469 CYLINDER BLOCK GP

S/N: 9WR489-UP

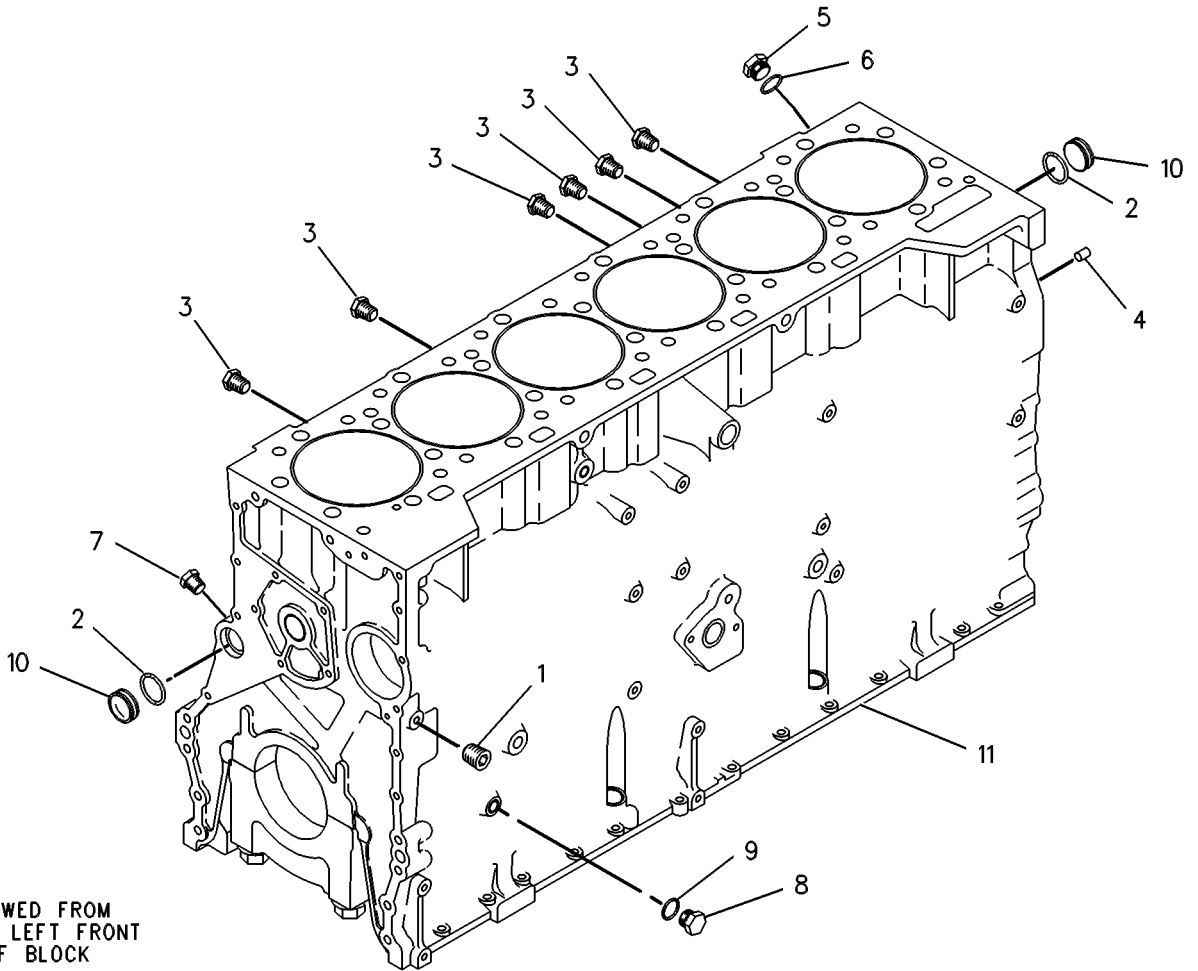
FIELD REPLACEMENT FOR 150-8016—PAGE 48

SMCS-1201

i00832254

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-6757	1	PLUG-PIPE (1/8-27 NPTF THD)						
	2	1	3E-6747	2	SEAL-O-RING (32.99MM ID)						
	3	1	7W-6492	4	PLUG-PIPE (1/2-14 NPTF THD)						
	4	1	8S-9094	1	PLUG-ORIFICE						
	5	1	9S-4190	1	PLUG-O-RING (7/16-20 THD)						
	6	1	114-4427	1	SEAL-O-RING (19.18MM ID)						
	7	1	7X-7732	6	PLUG-PIPE						
	8	1	9S-4182	1	PLUG (7/16-20 THD)						
	9	1	9X-7378	1	SEAL-O-RING (8.92MM ID)						
	10	1	100-7399	2	PLUG						
Y	11	1	137-8468	1	CYLINDER BLOCK AS						41

Y-SEPARATE ILLUSTRATION



VIEWED FROM
UPPER LEFT FRONT
OF BLOCK

GRAPHIC #1

g00265762

BASIC ENGINE

145-8859 CYLINDER BLOCK GP

S/N: 9WR1-488

SMCS-1201

i01157196

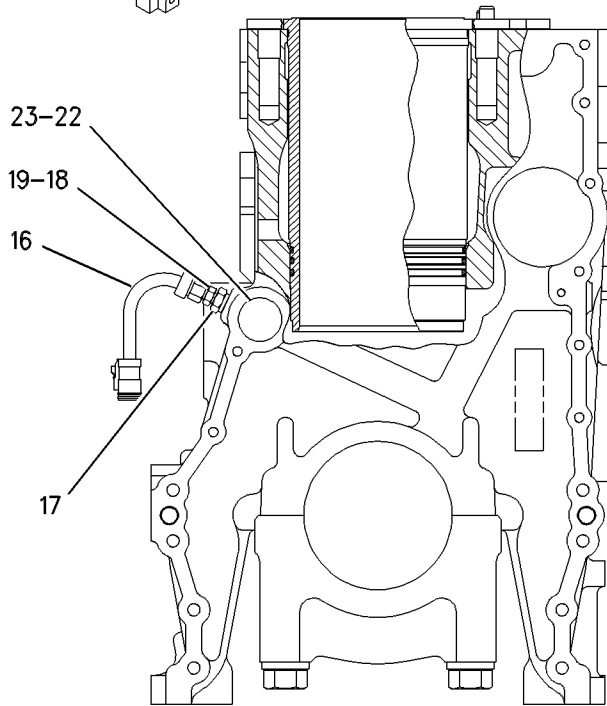
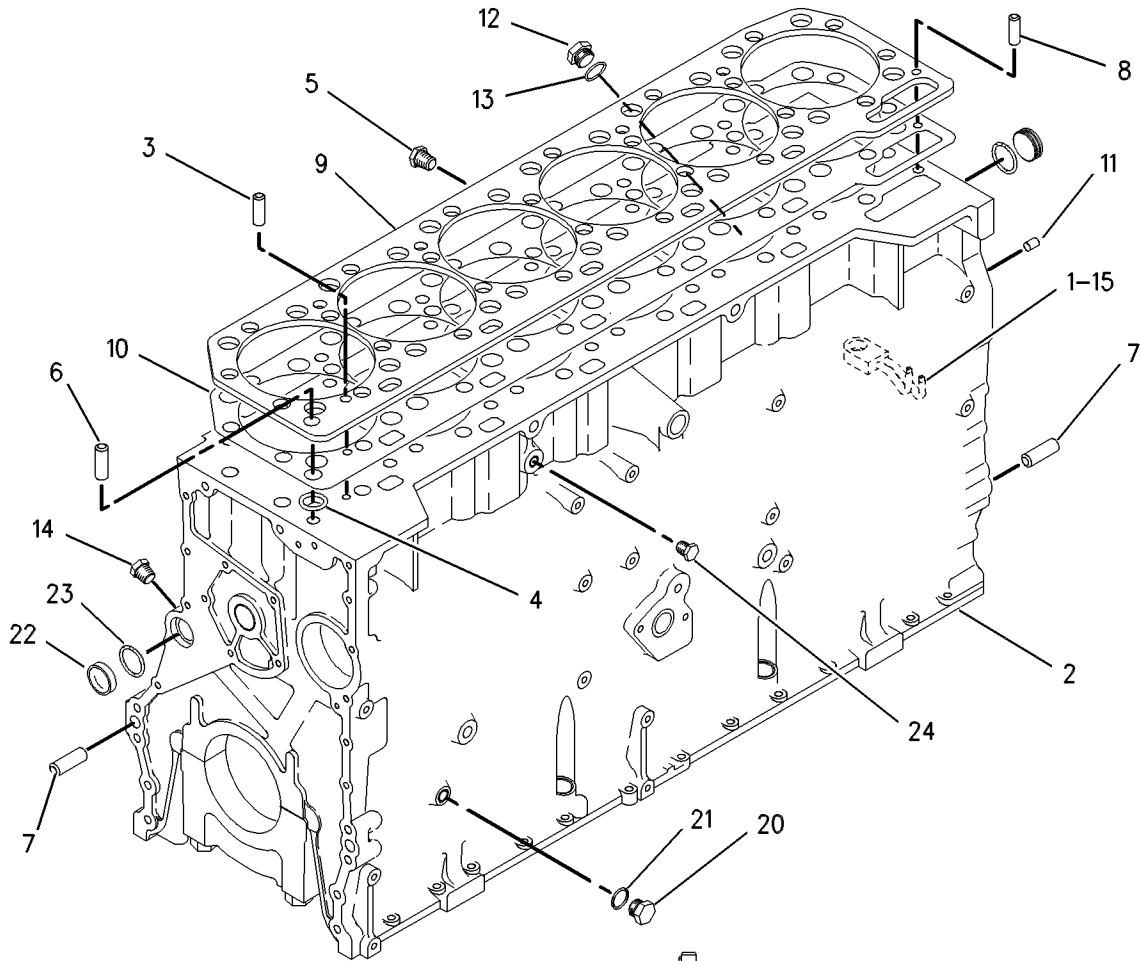
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	145-6860	6	TUBE AS-OIL JET						
Y	2	1	137-2671	1	CYLINDER BLOCK AS						39
	3	1	1S-9540	1	DOWEL (30.23 MM X 9.37 MM)						
	4	1	5P-0840	1	SEAL-O-RING (12.29MM ID)						
	5	1	7W-6492	6	PLUG-PIPE (1/2-14 NPTF THD)						
	6	1	6I-1055	1	DOWEL						
	7	1	4N-0683	4	DOWEL						
	8	1	4N-1650	1	DOWEL						
	9	1	6I-4421	1	PLATE-SPACER						
	10	1	133-9827	1	GASKET-PLATE						
	11	1	8S-9094	1	PLUG-ORIFICE						
	12	1	9S-4190	1	PLUG-O-RING (7/16-20 THD)						
	13	1	114-4427	1	SEAL-O-RING (19.18MM ID)						
	14	1	7X-7732	5	PLUG-PIPE (3/8-18 NPTF THD)						
	15	1	150-1156	6	BOLT-OIL JET						
	16	1	111-2350	1	SENSOR GP-PRESSURE (OIL)						
	17	1	3B-7722	1	BUSHING-PIPE						
	18	1	5N-2126	1	ADAPTER-EXHAUST (THERMOCOUPLE)						
	19	1	6V-5048	1	SEAL-O-RING (8.92MM ID)						
	20	1	9S-4182	1	PLUG (7/16-20 THD)						
	21	1	9X-7378	1	SEAL-O-RING (8.92MM ID)						
	22	1	100-7399	2	PLUG						
	23	1	3E-6747	2	SEAL-O-RING (32.99MM ID)						
	24	1	8T-6767	1	PLUG-PIPE (3/8-18 NPTF THD)						

Y- SEPARATE ILLUSTRATION

BASIC ENGINE

145-8859 CYLINDER BLOCK GP (contd.)

i01157196



FRONT VIEW

GRAPHIC #1

g00617385

BASIC ENGINE

150-8016 CYLINDER BLOCK GP

S/N: 9WR489-UP

FIELD REPLACEMENT ORDER 137-8469--PAGE 45

SMCS-1201

i01212885

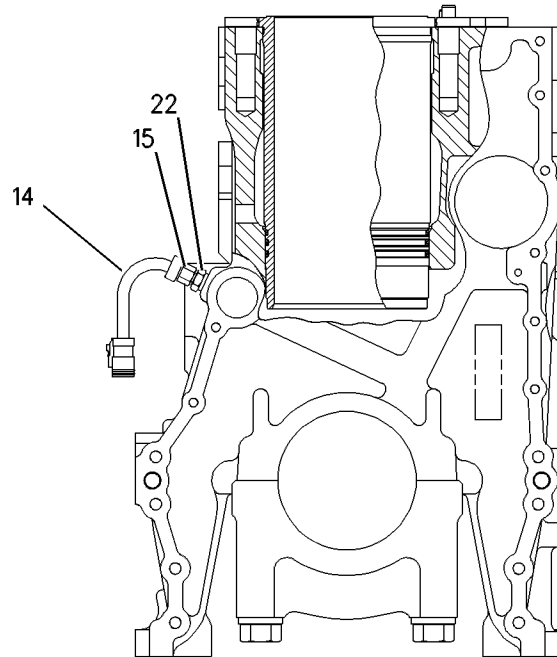
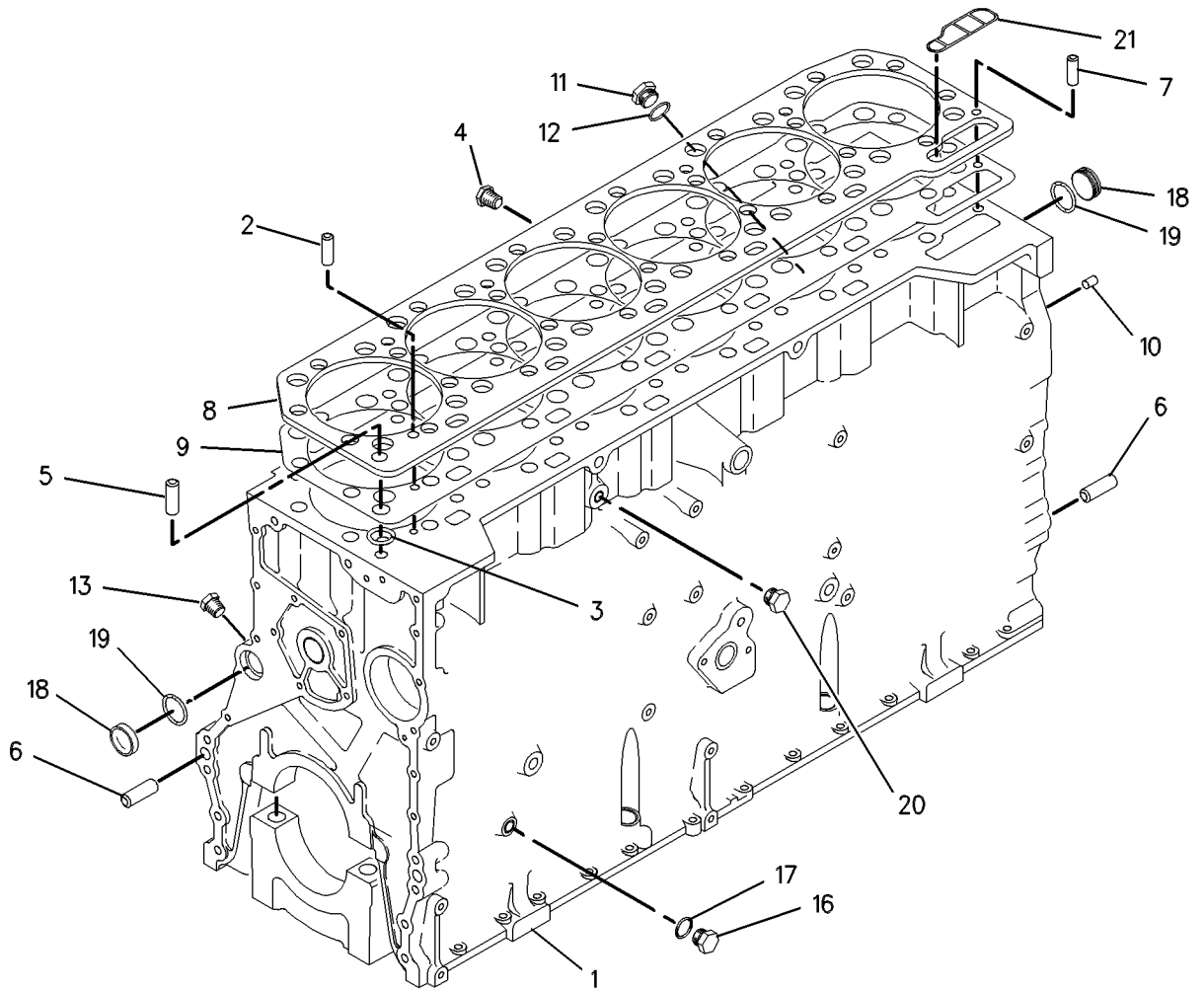
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	137-8467	1	CYLINDER BLOCK AS						40
	2	1	1S-9540	1	DOWEL (30.23 MM X 9.37 MM)						
	3	1	5P-0840	1	SEAL-O-RING (12.29MM ID)						
	4	1	7W-6492	6	PLUG-PIPE (1/2-14 NPTF THD)						
	5	1	6I-1055	1	DOWEL						
	6	1	4N-0683	4	DOWEL						
	7	1	4N-1650	1	DOWEL						
	8	1	6I-4421	1	PLATE-SPACER						
	9	1	180-5734	1	GASKET-PLATE						
	10	1	8S-9094	1	PLUG-ORIFICE						
	11	1	9S-4190	1	PLUG-O-RING (7/16-20 THD)						
	12	1	114-4427	1	SEAL-O-RING (19.18MM ID)						
	13	1	7X-7732	5	PLUG-PIPE (3/8-18 NPTF THD)						
Y	14	1	161-9930	1	SENSOR GP-PRESSURE (OIL)						320
	15	1	6V-5048	1	SEAL-O-RING (8.92MM ID)						
	16	1	9S-4182	1	PLUG (7/16-20 THD)						
	17	1	9X-7378	1	SEAL-O-RING (8.92MM ID)						
	18	1	100-7399	2	PLUG						
	19	1	3E-6747	2	SEAL-O-RING (32.99MM ID)						
	20	1	8T-6767	1	PLUG-PIPE (3/8-18 NPTF THD)						
	21	1	142-2329	1	SEAL-DRAINBACK						
	22	1	3E-7448	1	CONNECTOR						

Y-SEPARATE ILLUSTRATION

BASIC ENGINE

150-8016 CYLINDER BLOCK GP (contd.)

i01212885



FRONT VIEW

GRAPHIC #1

g00617949

BASIC ENGINE

137-4493 CYLINDER HEAD AS

S/N: 9WR1-473

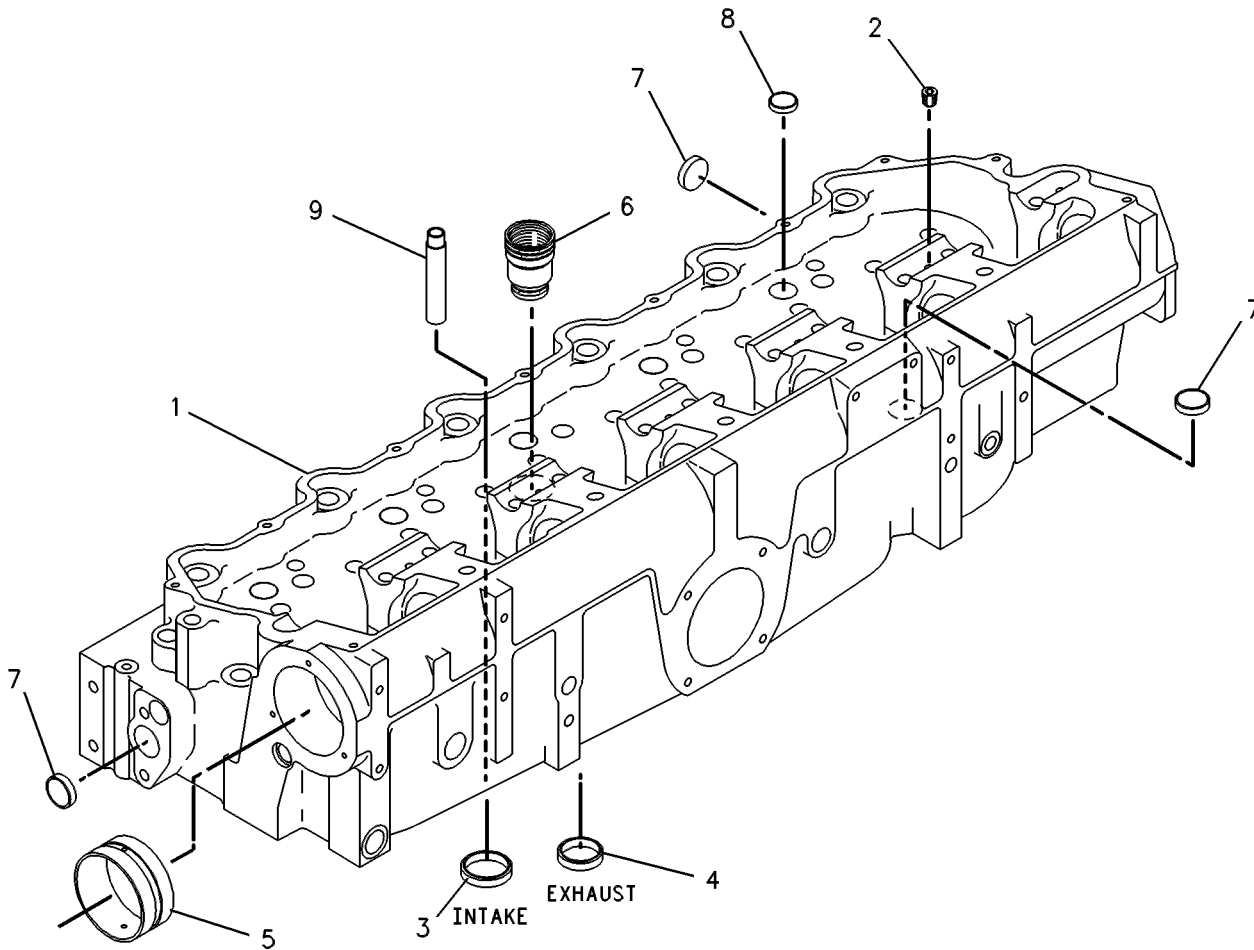
PART OF 141-9240 CYLINDER HEAD GP

SMCS-1100, 1101

i00672424

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4P-1599	1	CYLINDER HEAD						
	2	1	8T-6757	3	PLUG-PIPE (1/8-27 NPTF THD)						
	3	1	108-5912	12	INSERT-VALVE						
	4	1	1W-5283	12	INSERT-VALVE SEAT						
	5	1	4P-5053	7	BEARING-CAMSHAFT						
Y	6	1	115-2324	6	SLEEVE GP- INJECTOR						108
	7	1	3B-0645	19	PLUG-CUP (32.08MM AVG OD)						
	8	1	3B-0623	17	PLUG-CUP (25.73MM AVG OD)						
	9	1	122-7375	24	GUIDE-VALVE						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00271543

BASIC ENGINE

153-4220 CYLINDER HEAD AS

S/N: 9WR474-642

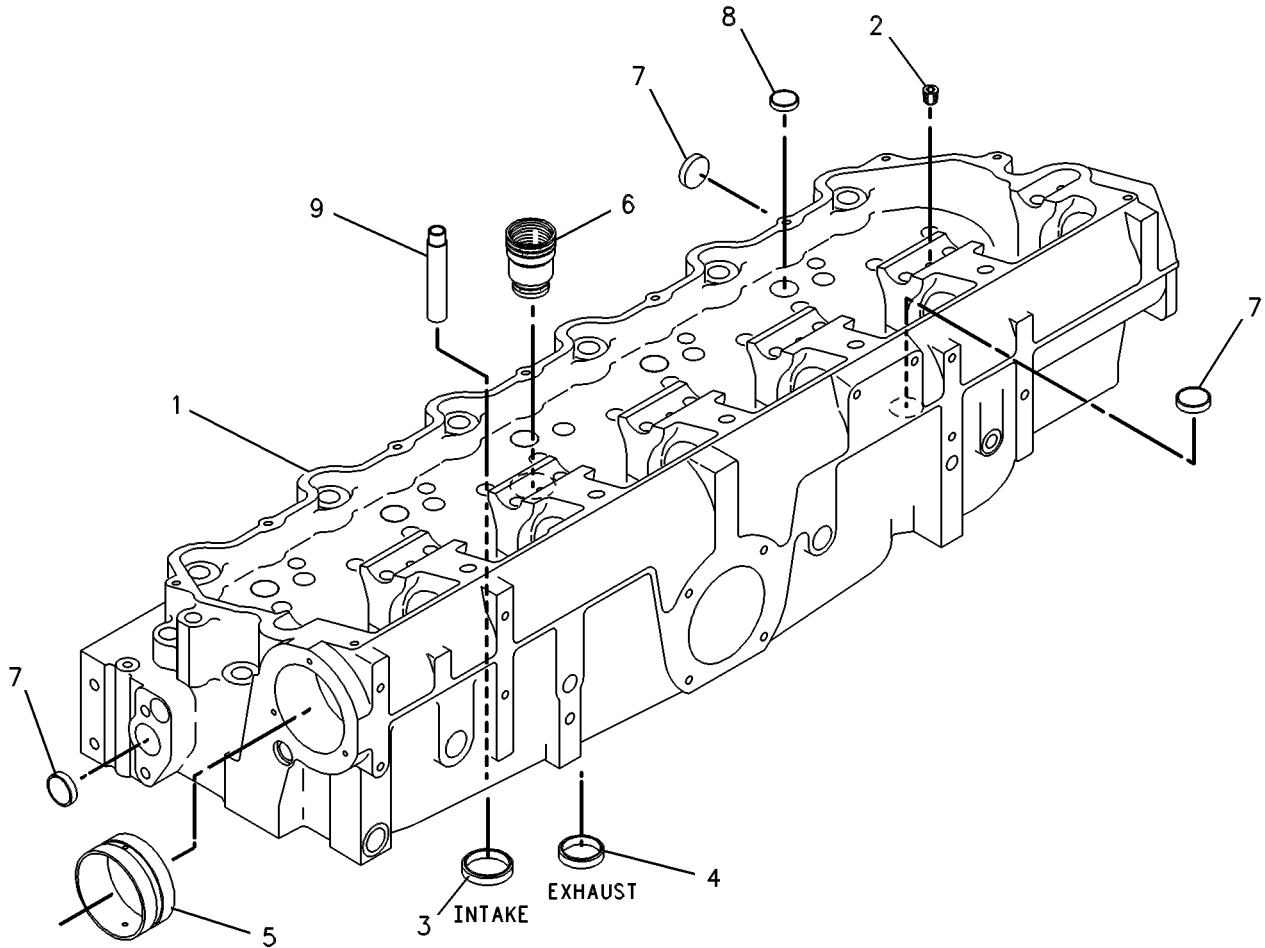
PART OF 153-4219 CYLINDER HEAD GP

SMCS-1100, 1101

i00943443

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	142-7340	1	CYLINDER HEAD						
	2	1	8T-6757	3	PLUG-PIPE (1/8-27 NPTF THD)						
	3	1	152-8379	12	INSERT-VALVE SEAT						
	4	1	152-7582	12	INSERT-VALVE						
	5	1	4P-5053	7	BEARING-CAMSHAFT						
Y	6	1	115-2324	6	SLEEVE GP- INJECTOR						108
	7	1	3B-0645	19	PLUG-CUP (32.08MM AVG OD)						
	8	1	3B-0623	17	PLUG-CUP (25.73MM AVG OD)						
	9	1	122-7375	24	GUIDE-VALVE						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00271543

BASIC ENGINE

161-6193 CYLINDER HEAD AS

S/N: 9WR643-1521

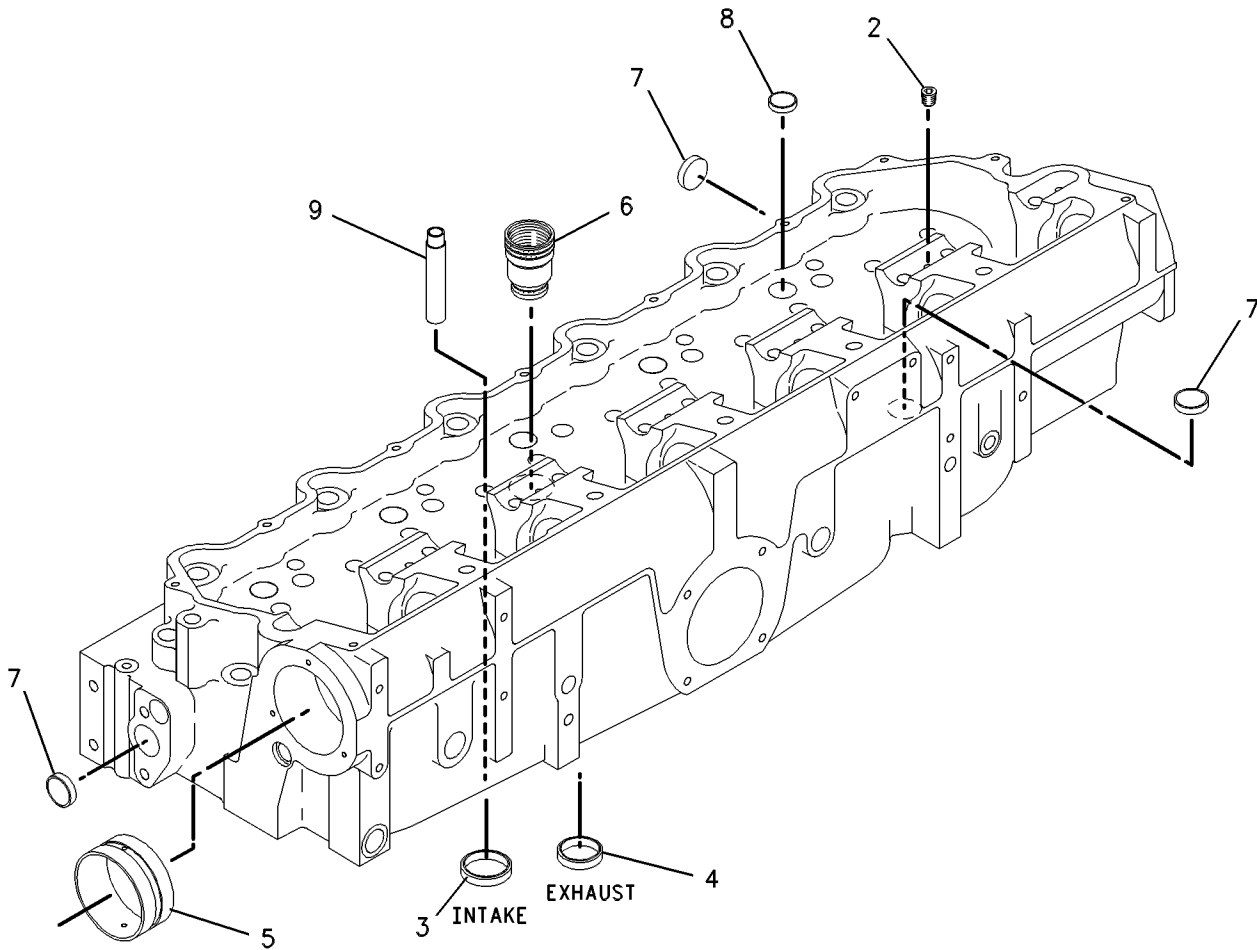
PART OF 161-6194 CYLINDER HEAD GP

SMCS-1100, 1101

i01338345

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	2	1	8T-6757	3	PLUG-PIPE (1/8-27 NPTF)						
	3	1	156-4168	12	SEAT-VALVE (INLET)						
	4	1	152-7582	12	SEAT-VALVE (EXHAUST)						
	5	1	134-5251	7	BEARING-CAMSHAFT						
A		1	150-4793	1	BEARING-CAMSHAFT (0.254MM O.S.)						
Y	6	1	115-2324	6	SLEEVE GP- INJECTOR						108
	7	1	3B-0645	19	PLUG-CUP (32.08MM AVG OD)						
	8	1	3B-0623	17	PLUG-CUP (25.73MM OD)						
	9	1	122-7375	24	GUIDE-VALVE						
A		1	122-0447	1	GUIDE-VALVE (.51MM O.S.)						
A		1	122-8612	1	GUIDE-VALVE (.13MM O.S.)						

A - NOT PART OF THIS GROUP
Y - SEPARATE ILLUSTRATION



GRAPHIC #1

g00447834

BASIC ENGINE

185-2246 CYLINDER HEAD AS

S/N: 9WR1522-UP

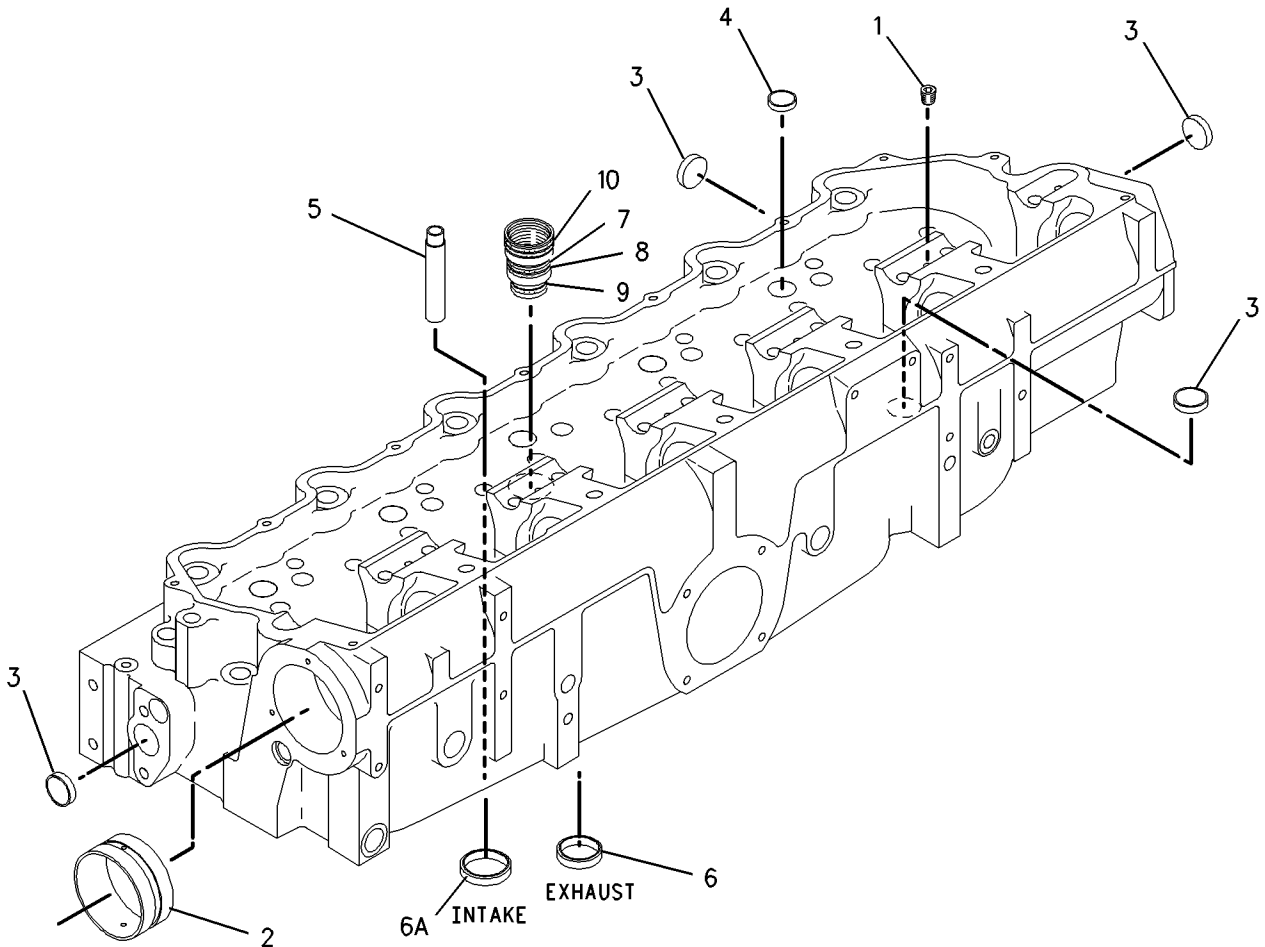
PART OF 187-2112 CYLINDER HEAD GP

SMCS-1100, 1101

i01356668

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-6757	3	PLUG-PIPE (1/8-27 NPTF)						
	2	1	134-5251	7	BEARING-CAMSHAFT						
AB		1	150-4793	1	BEARING-CAMSHAFT (0.254MM O.S.)						
AB		1	160-8151	1	BEARING-CAMSHAFT (0.762MM O.S.)						
	3	1	3B-0645	19	PLUG-CUP (32.08MM AVG OD)						
	4	1	3B-0623	17	PLUG-CUP (25.73MM OD)						
	5	1	122-7375	24	GUIDE-VALVE						
AB		1	122-0447	1	GUIDE-VALVE (0.51 MM O.S.)						
AB		1	122-8612	1	GUIDE-VALVE (0.13 MM O.S.)						
	6	1	152-7582	12	INSERT-VALVE SEAT (EXHAUST)						
	6A	1	175-3617	12	INSERT-VALVE SEAT (INLET)						
	7	1	166-2903	6	SEAL-O-RING (34.59MM ID)						
	8	1	166-2904	6	SEAL-O-RING (34.59MM ID)						
	9	1	9X-7430	6	SEAL-O-RING (25.63MM ID)						
	10	1	166-3739	6	SLEEVE-INJECTOR						

A-NOT PART OF THIS GROUP
B-USE AS REQUIRED



GRAPHIC #1

g00723183

BASIC ENGINE

131-3728 CYLINDER HEAD GP

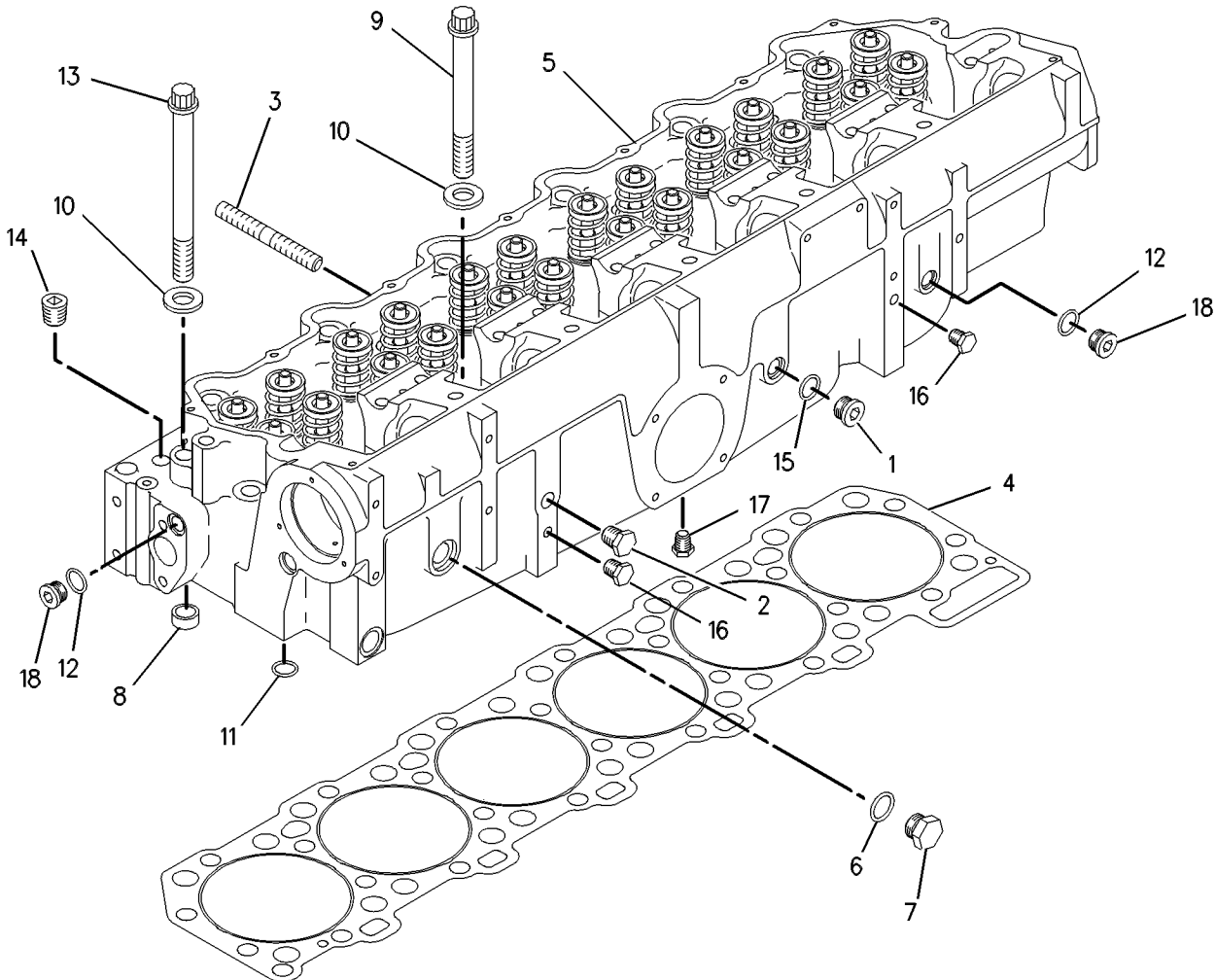
S/N: 9WR1-473

SMCS-1100

i00670700

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9S-8005	1	PLUG-O-RING (3/4-16 THD)						
	2	1	7W-6492	1	PLUG-PIPE (1/2-14 NPTF THD)						
	3	1	106-1792	1	STUD-TAPERLOCK (3/8-16X3.93IN)						
	4	1	6I-4420	1	GASKET-CYLINDER HEAD						
Y	5	1	141-9240	1	CYLINDER HEAD GP						55
	6	1	3D-2824	1	SEAL-O-RING (23.47MM ID)						
	7	1	9S-4183	1	PLUG (1 1/16-12 THD)						
	8	1	3E-6772	24	SEAL-WATER						
	9	1	124-1855	16	BOLT-12 POINT HEAD (3/4-16 X194MM)						
	10	1	5H-1504	26	WASHER-HARD (5MM THK)						
	11	1	5P-0840	1	SEAL-O-RING (12.29MM ID)						
	12	1	6V-5049	4	SEAL-O-RING (11.89MM ID)						
	13	1	124-1854	10	BOLT-12 POINT HEAD (3/4-16X215.9MM)						
	14	1	2B-0858	1	PLUG-PIPE (1/2-14 NPTF)						
	15	1	8L-2786	1	SEAL-O-RING (16.36MM ID)						
	16	1	8T-6763	2	PLUG						
	17	1	8T-6765	1	PLUG-PIPE (1/4-18 NPTF THD)						
	18	1	9S-8004	4	PLUG-O-RING (9/16-18 THD)						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00286606

BASIC ENGINE

141-9240 CYLINDER HEAD GP

S/N: 9WR1-473

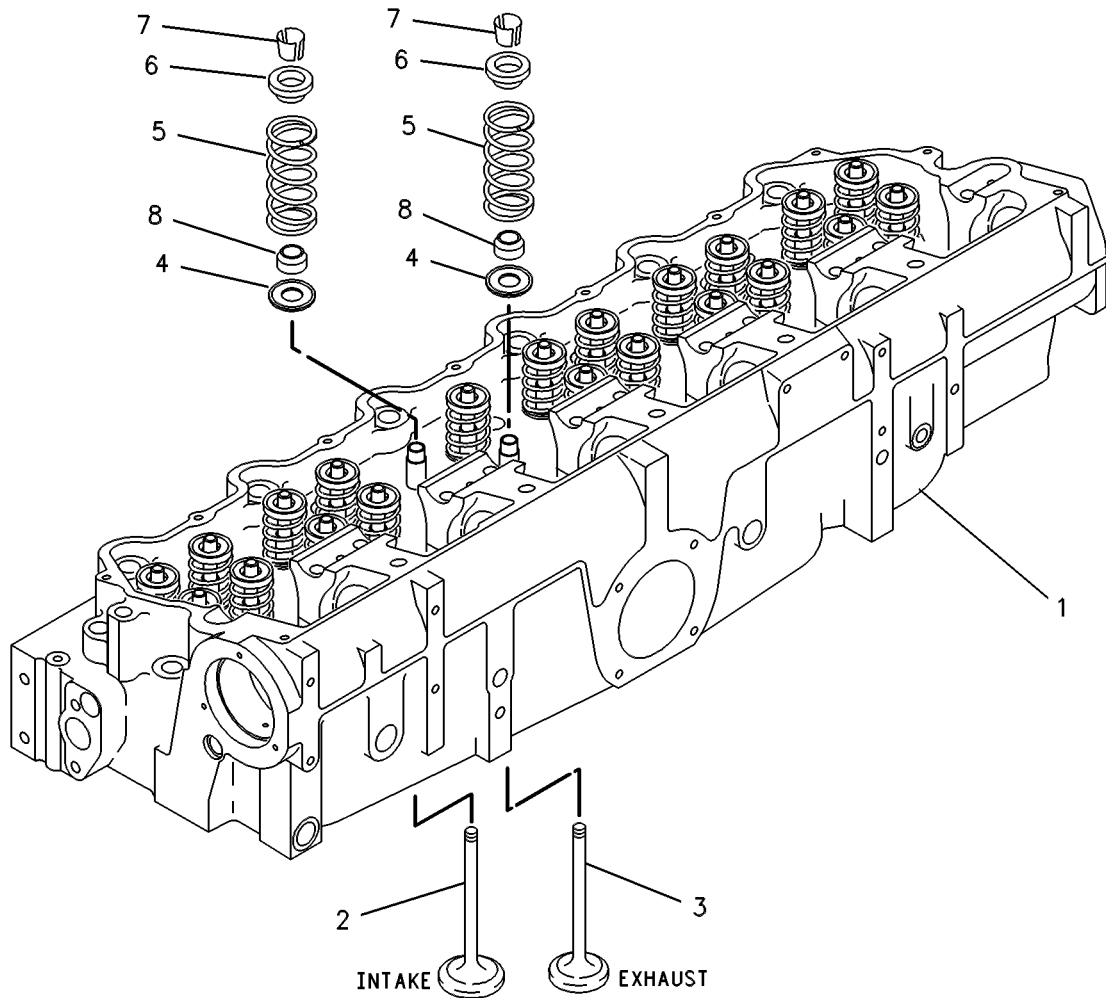
PART OF 131-3728 CYLINDER HEAD GP

SMCS-1100

i00670501

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	137-4493	1	CYLINDER HEAD AS						50
	2	1	108-5910	12	VALVE - INLET						
	3	1	108-5911	12	VALVE - EXHAUST						
	4	1	6I-0928	24	WASHER						
	5	1	102-7665	24	SPRING - VALVE						
	6	1	4P-4962	24	ROTOCOIL AS						
	7	1	4P-4661	48	LOCK - VALVE						
	8	1	102-6229	24	SEAL - VALVE STEM						

Y - SEPARATE ILLUSTRATION



GRAPHIC #1

g00252101

BASIC ENGINE

153-4219 CYLINDER HEAD GP

S/N: 9WR474-642

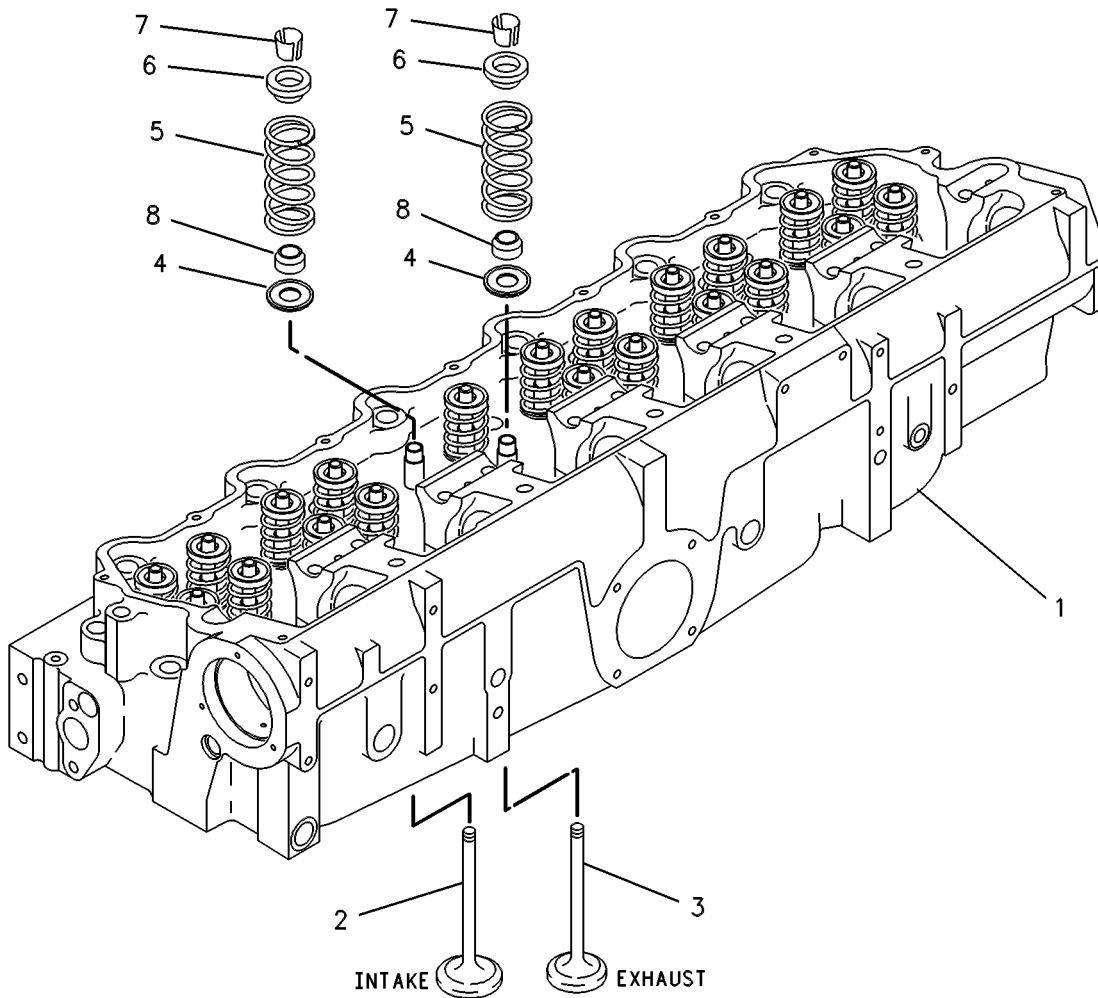
PART OF 153-5498 CYLINDER HEAD GP

SMCS-1100

i00943442

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	153-4220	1	CYLINDER HEAD AS						51
	2	1	152-8380	12	VALVE - INLET						
	3	1	152-7585	12	VALVE - EXHAUST						
	4	1	6I-0928	24	WASHER						
	5	1	102-7665	24	SPRING - VALVE						
	6	1	4P-4962	24	ROTOCOIL AS						
	7	1	4P-4661	48	LOCK - VALVE						
	8	1	102-6229	24	SEAL - VALVE STEM						

Y - SEPARATE ILLUSTRATION



GRAPHIC #1

g00252101

BASIC ENGINE

153-5498 CYLINDER HEAD GP

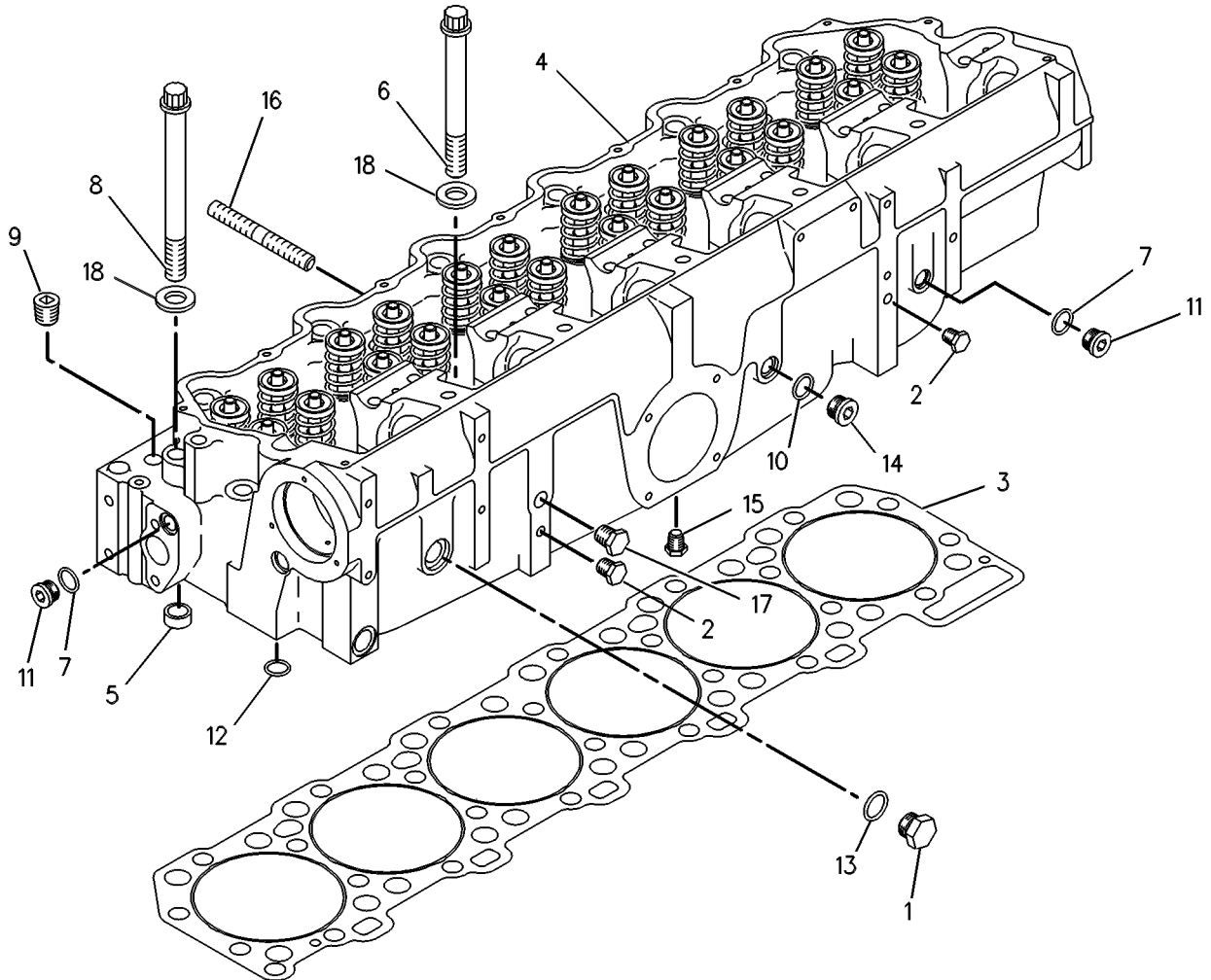
S/N: 9WR474-642

SMCS-1100

i00943444

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9S-4183	1	PLUG (1 1/16-12 THD)						
	2	1	8T-6763	2	PLUG						
	3	1	153-9653	1	GASKET-CYLINDER HEAD						
Y	4	1	153-4219	1	CYLINDER HEAD GP						56
	5	1	3E-6772	24	SEAL-WATER						
	6	1	124-1855	1	BOLT-12 POINT HEAD						
	7	1	6V-5049	4	SEAL-O-RING (11.89MM ID)						
	8	1	124-1854	10	BOLT-12 POINT HEAD						
	9	1	8T-6762	1	PLUG-PIPE						
	10	1	8L-2786	1	SEAL-O-RING (16.36MM ID)						
	11	1	9S-8004	4	PLUG-O-RING (9/16-18 THD)						
	12	1	5P-0840	1	SEAL-O-RING (12.29MM ID)						
	13	1	3D-2824	1	SEAL-O-RING (23.47MM ID)						
	14	1	9S-8005	1	PLUG-O-RING (3/4-16 THD)						
	15	1	8T-6765	1	PLUG-PIPE (1/4-18 NPTF THD)						
	16	1	106-1792	12	STUD-TAPERLOCK (3/8-16X3.93IN)						
	17	1	7W-6492	1	PLUG-PIPE (1/2-14 NPTF THD)						
	18	1	5H-1504	26	WASHER-HARD (5MM THK)						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00340437

BASIC ENGINE

153-5498 CYLINDER HEAD GP

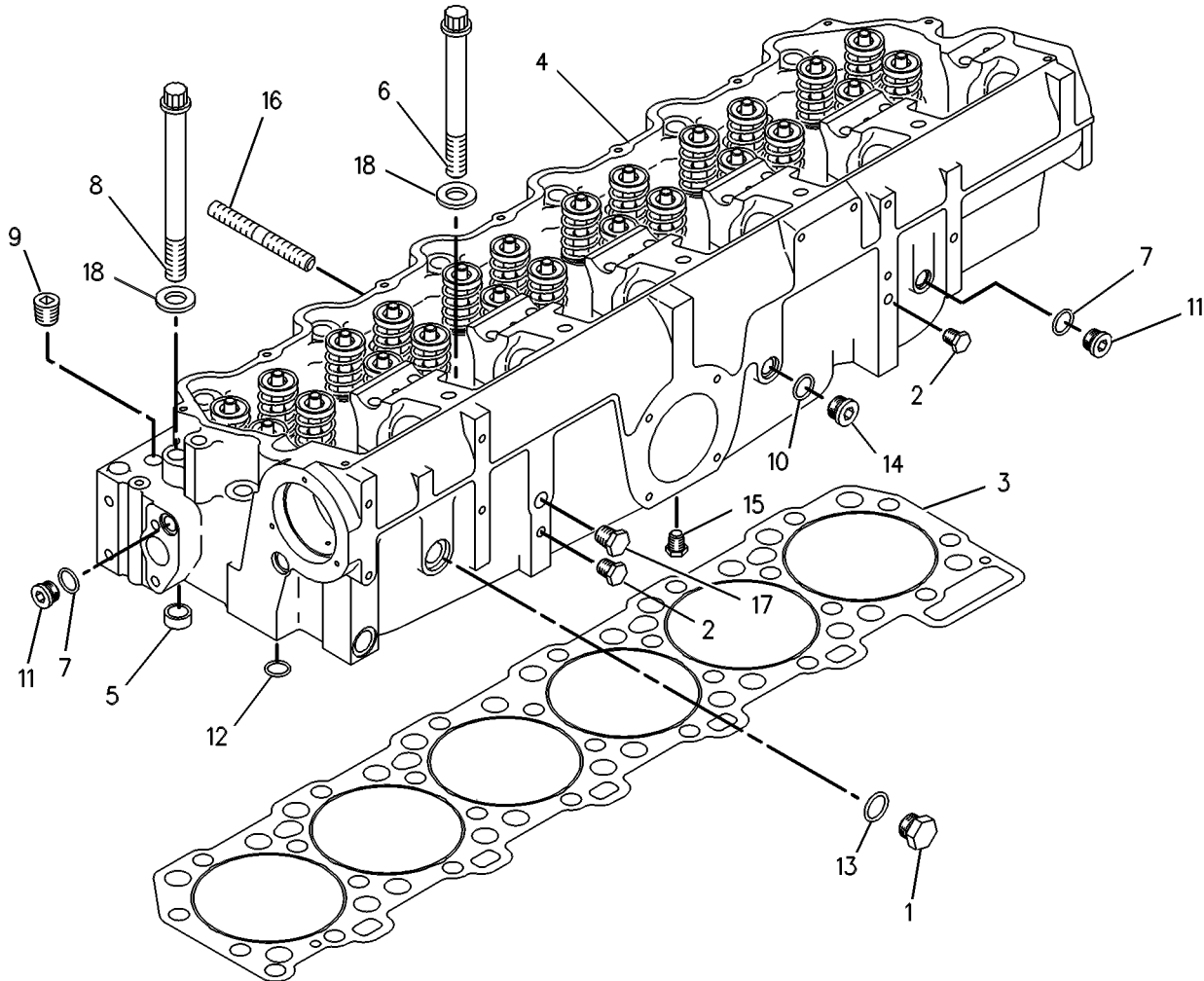
S/N: 9WR643-1527

SMCS-1100

i01243255

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9S-4183	1	PLUG (1 1/16-12 THD)						
	2	1	8T-6763	2	PLUG-PIPE (1/4-18 NPTF THD)						
	3	1	153-9653	1	GASKET-CYLINDER HEAD						
Y	4	1	161-6194	1	CYLINDER HEAD GP						60
	5	1	3E-6772	24	SEAL-WATER						
	6	1	124-1855	16	BOLT-12 POINT HEAD (3/4-16X194MM)						
	7	1	6V-5049	4	SEAL-O-RING (11.89MM ID)						
	8	1	124-1854	10	BOLT-12 POINT HEAD (3/4-16X216MM)						
	9	1	8T-6762	1	PLUG-PIPE (1/2-14 NPTF THD)						
	10	1	8L-2786	1	SEAL-O-RING (16.36MM ID)						
	11	1	9S-8004	4	PLUG-O-RING (9/16-18 THD)						
	12	1	5P-0840	1	SEAL-O-RING (12.29MM ID)						
	13	1	6V-5050	1	SEAL-O-RING (23.47MM ID)						
	14	1	9S-8005	1	PLUG-O-RING (3/4-16 THD)						
	15	1	8T-6765	1	PLUG-PIPE (1/4-18 NPTF THD)						
	16	1	106-1792	12	STUD-TAPERLOCK (3/8-16X3.93IN)						
	17	1	7W-6492	1	PLUG-PIPE (1/2-14 NPTF THD)						
	18	1	5H-1504	26	WASHER-HARD (5MM THK)						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00340437

BASIC ENGINE

153-5498 CYLINDER HEAD GP

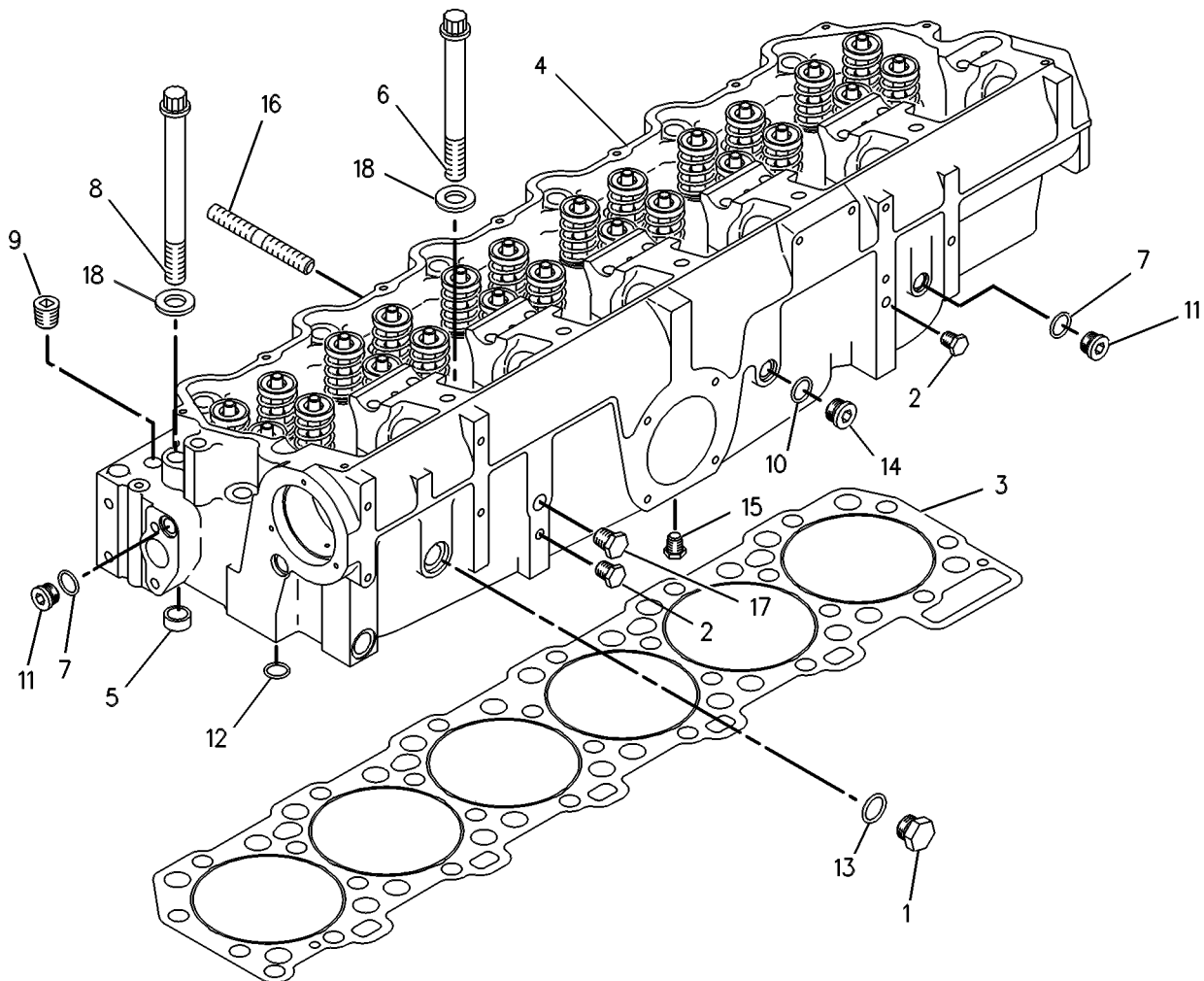
S/N: 9WR1528-UP

SMCS-1100

i01389637

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9S-4183	1	PLUG						
	2	1	8T-6763	2	PLUG-PIPE (1/4-18 NPTF THD)						
	3	1	153-9653	1	GASKET-CYLINDER HEAD						
CY	4	1	187-2112	1	CYLINDER HEAD GP						61
	5	1	3E-6772	24	SEAL-WATER						
	6	1	124-1855	16	BOLT-12 POINT HEAD (3/4-16X194MM)						
	7	1	6V-5049	4	SEAL-O-RING (11.89MM ID)						
	8	1	124-1854	10	BOLT-12 POINT HEAD (3/4-16X216MM)						
	9	1	8T-6762	1	PLUG-PIPE (1/2-14 NPTF THD)						
	10	1	8L-2786	1	SEAL-O-RING (16.36MM ID)						
	11	1	9S-8004	4	PLUG-O-RING (9/16-18 THD)						
	12	1	5P-0840	1	SEAL-O-RING (12.29MM ID)						
	13	1	6V-5050	1	SEAL-O-RING (23.47MM ID)						
	14	1	9S-8005	1	PLUG-O-RING (3/4-16 THD)						
	15	1	8T-6765	1	PLUG-PIPE						
	16	1	106-1792	12	STUD-TAPERLOCK (3/8-16X3.93IN)						
	17	1	7W-6492	1	PLUG-PIPE (1/2-14 NPTF THD)						
	18	1	5H-1504	26	WASHER-HARD (20X33.5X5MM THK)						

C- CHANGE FROM PREVIOUS TYPE
Y- SEPARATE ILLUSTRATION



GRAPHIC #1

g00340437

BASIC ENGINE

161-6194 CYLINDER HEAD GP

S/N: 9WR643-1527

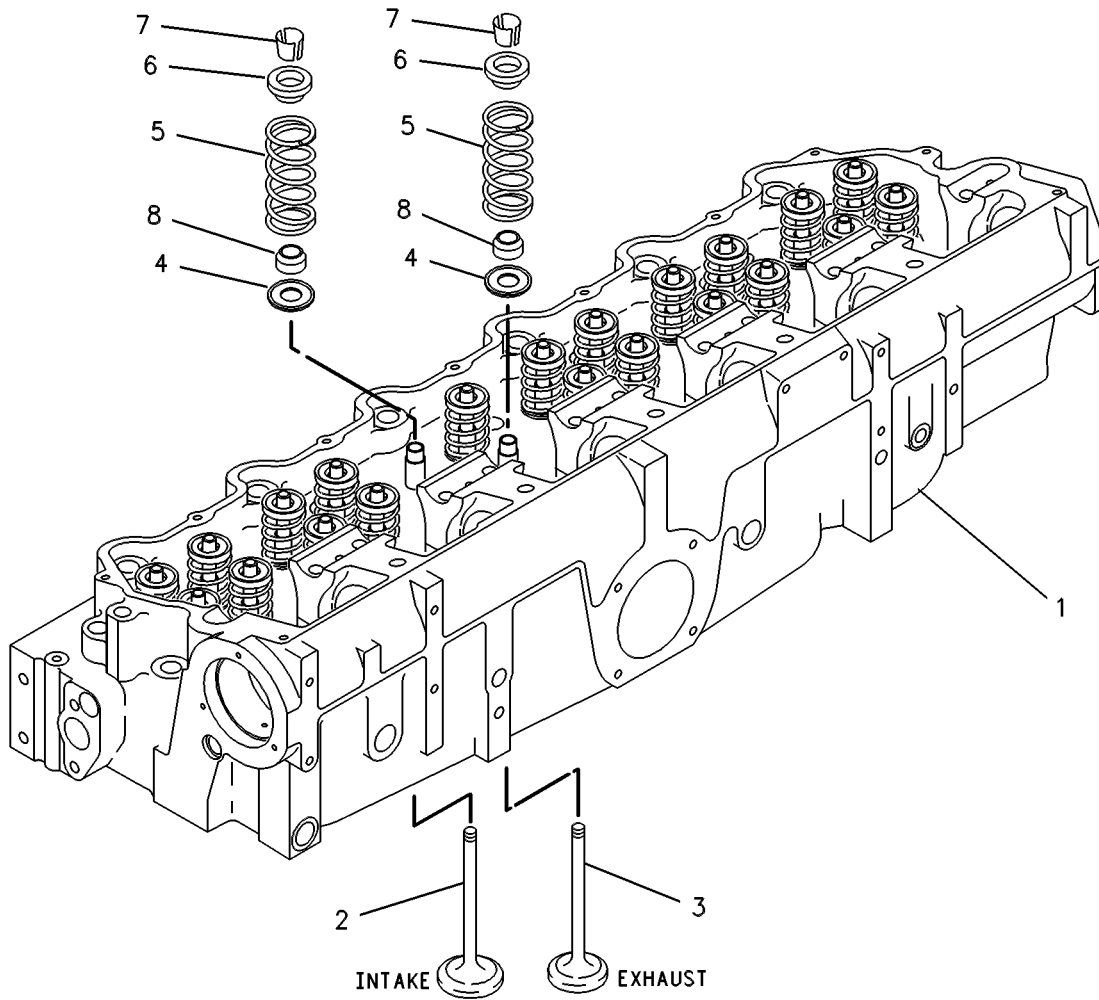
PART OF 153-5498 CYLINDER HEAD GP

SMCS-1100

i01370353

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	161-6193	1	CYLINDER HEAD AS						52
	2	1	153-7023	12	VALVE - INLET						
	3	1	153-7024	12	VALVE - EXHAUST						
	4	1	6I-0928	24	WASHER						
	5	1	102-7665	24	SPRING - VALVE						
	6	1	4P-4962	24	ROTOCOIL AS						
	7	1	2A-4429	48	LOCK-RETAINER						
	8	1	102-6229	24	SEAL - VALVE STEM						

Y - SEPARATE ILLUSTRATION



GRAPHIC #1

g00252101

BASIC ENGINE

187-2112 CYLINDER HEAD GP

S/N: 9WR1528-UP

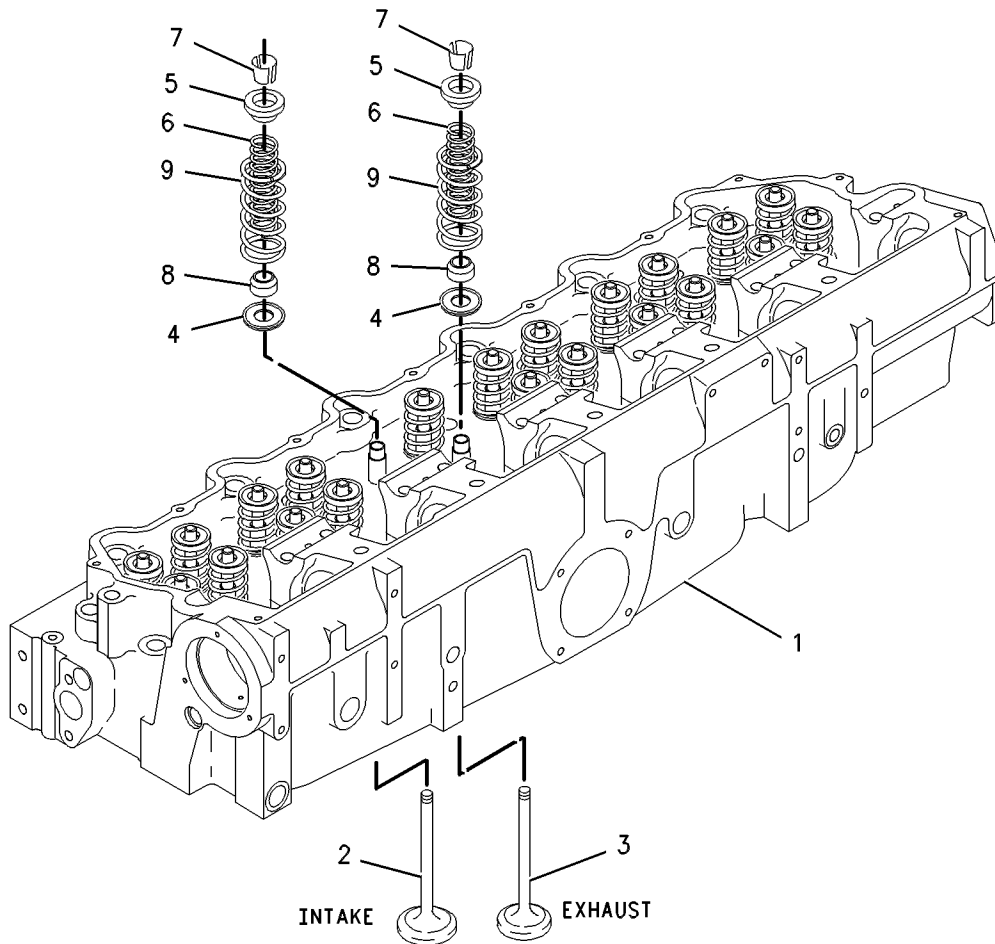
PART OF 153-5498 CYLINDER HEAD GP

SMCS-1100

i01356614

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	185-2246	1	CYLINDER HEAD AS						53
	2	1	153-7023	12	VALVE-INLET						
	3	1	153-7024	12	VALVE-EXHAUST						
	4	1	6I-0928	24	WASHER						
	5	1	186-2001	24	ROTOCOIL AS						
	6	1	175-7523	24	SPRING-VALVE (INNER)						
	7	1	2A-4429	48	LOCK-RETAINER						
	8	1	102-6229	24	SEAL-VALVE STEM						
	9	1	175-7526	24	SPRING-VALVE (OUTER)						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00631688

BASIC ENGINE

124-9042 DAMPER & PULLEY GP

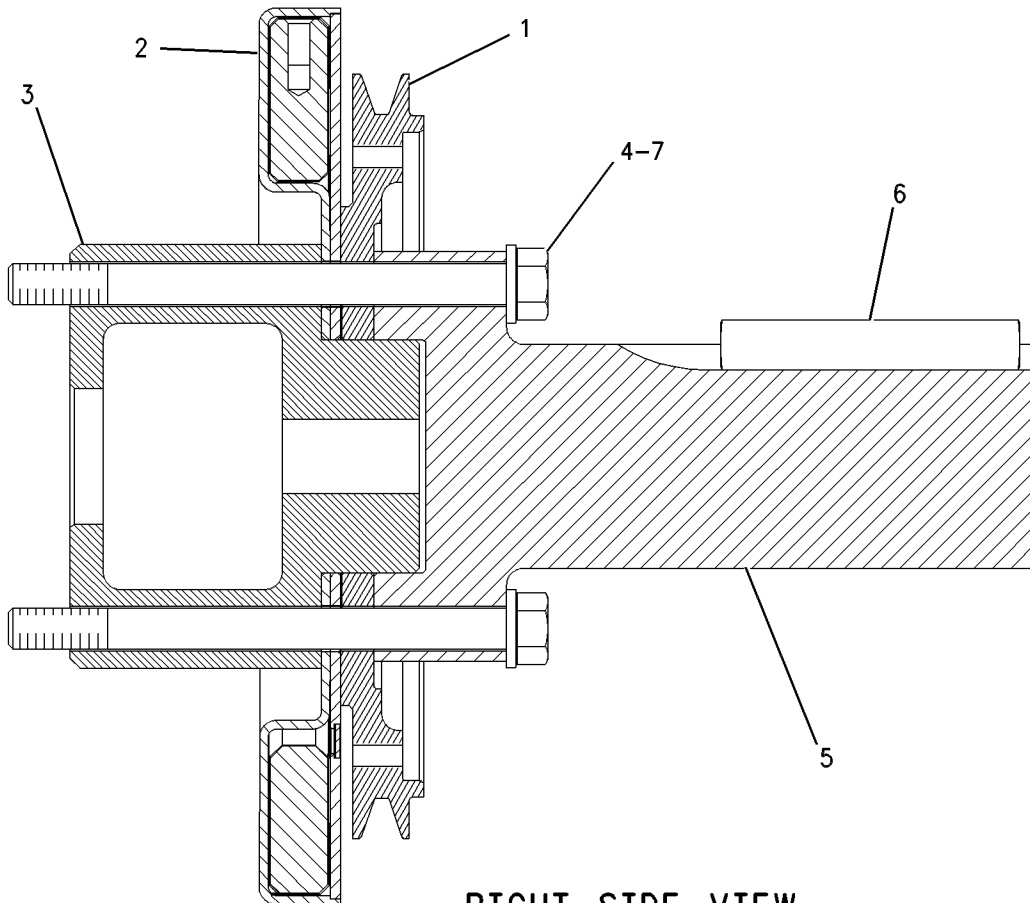
292.1 MM DIA. SINGLE GROOVE PULLEYS

FOR USE WITH 131-8293-PAGE 92, 140-3694-PAGE 110, 136-9503-PAGE 96
AN ATTACHMENT

SMCS-1205

i01207558

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4N-1047	1	PULLEY						
	2	1	167-8126	1	DAMPER AS						
	3	1	177-9026	1	ADAPTER-DAMPER						
	4	1	7H-5569	6	BOLT (5/8-18X7.5IN) (5/8)						
	5	1	3N-6059	1	SHAFT-STUB						
	6	1	9F-2186	1	KEY						
	7	1	5P-8247	6	WASHER-HARD (3.5MM THK)						



RIGHT SIDE VIEW

GRAPHIC #1

g00656432

BASIC ENGINE

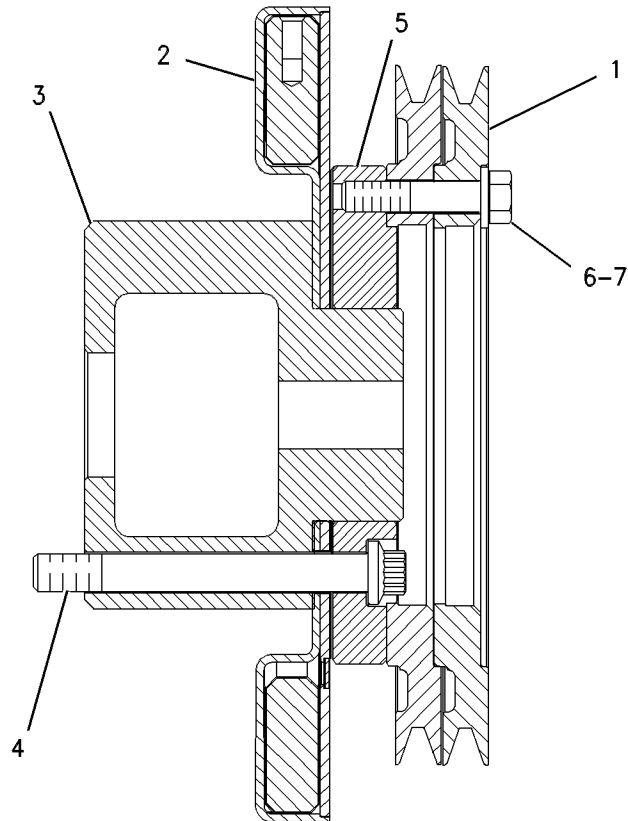
124-9046 DAMPER & PULLEY GP

292.1 MM DIA. SINGLE GROOVE PULLEYS
AN ATTACHMENT

SMCS-1205

i01207569

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	3N-9540	2	PULLEY						
	2	1	167-8126	1	DAMPER AS						
	3	1	177-9026	1	ADAPTER-DAMPER						
	4	1	131-7880	6	BOLT						
	5	1	4P-6771	1	ADAPTER-DAMPER						
	6	1	5P-8245	12	WASHER-HARD (3MM THK)						
	7	1	9S-1366	12	BOLT (1/2-13X2.5 IN)						



RIGHT SIDE VIEW

GRAPHIC #1

g00656418

BASIC ENGINE

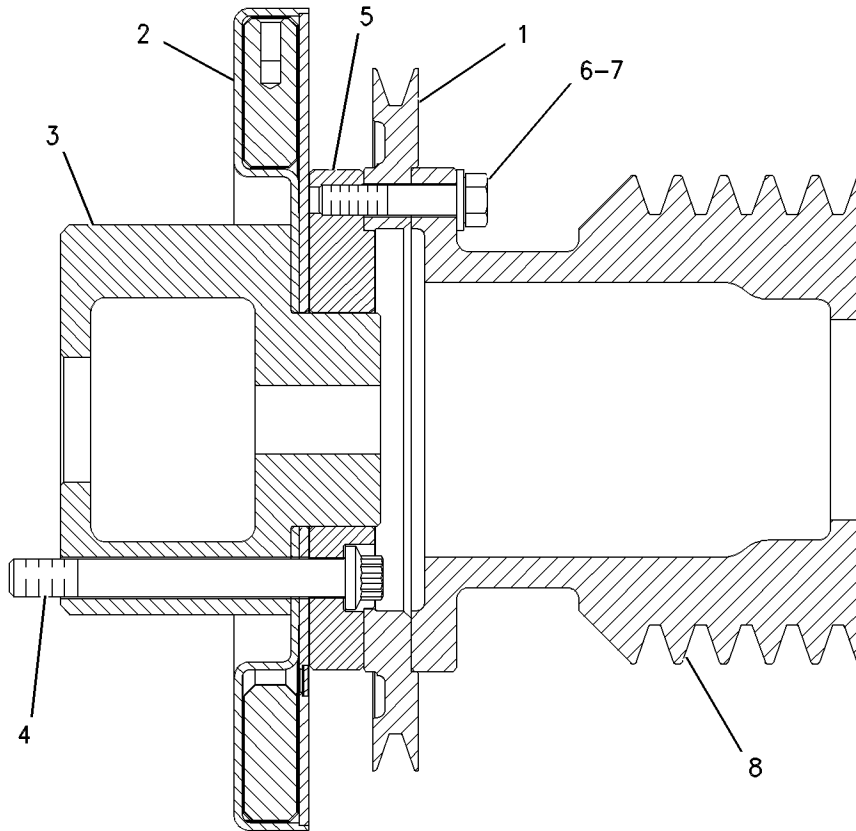
131-8295 DAMPER & PULLEY GP

CANNOT BE USED WITH FRONT PTO
AN ATTACHMENT

SMCS-1205

i01213287

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	3N-9540	1	PULLEY						
	2	1	167-8126	1	DAMPER AS						
	3	1	177-9026	1	ADAPTER-DAMPER						
	4	1	131-7880	6	BOLT						
	5	1	4P-6771	1	ADAPTER-DAMPER						
	6	1	5P-8245	12	WASHER-HARD (3MM THK)						
	7	1	9X-8873	12	BOLT (1/2-13X2.25IN)						
	8	1	6N-7785	1	PULLEY						



RIGHT SIDE VIEW

GRAPHIC #1

g00655846

BASIC ENGINE

4P-5892 DAMPER GP

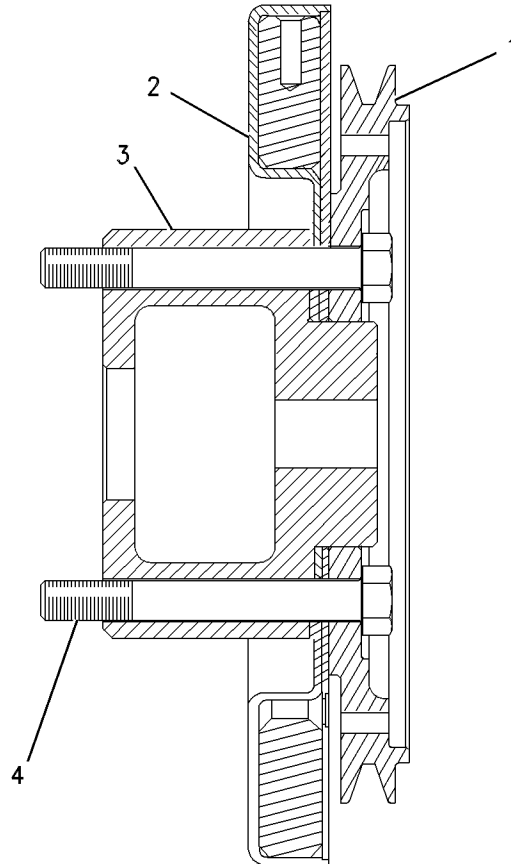
FOR USE WITH FRONT PTO
AN ATTACHMENT

SMCS-1205

i01206332

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4N-1047	1	PULLEY						
	2	1	167-8126	1	DAMPER AS						
C	3	1	177-9026	1	ADAPTER-DAMPER						
C	4	1	2A-2814	6	BOLT (5/8-18X5.5IN)						

C- CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

g00656345

BASIC ENGINE

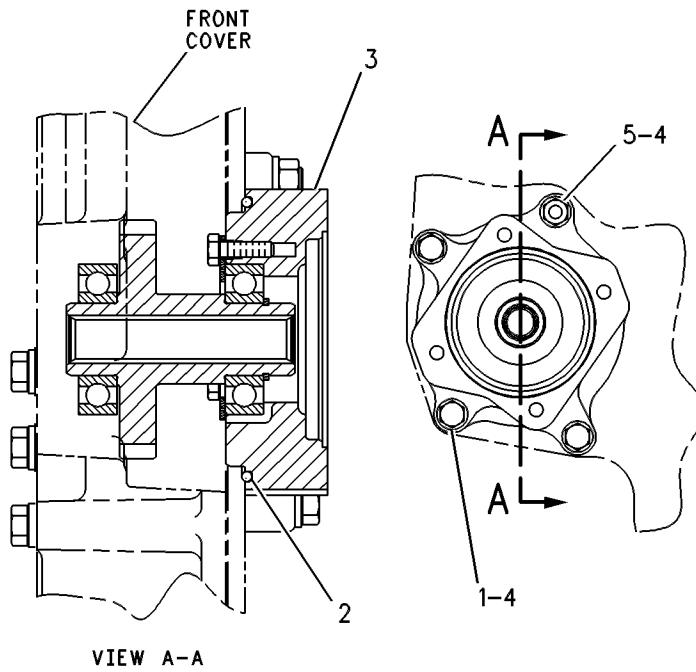
6I-3638 DRIVE GP-PUMP

SMCS-1017, 1207, 3108

i00670574

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1590	3	BOLT (3/8-16X2IN)						
	2	1	8T-9527	1	SEAL-O-RING (110.72MM ID)						
YC	3	1	133-9907	1	ADAPTER GP-PUMP DRIVE						11
	4	1	5M-2894	4	WASHER (2.5MM THK)						
	5	1	9S-8752	1	NUT-FULL (3/8-16 THD)						

C-CHANGE FROM PREVIOUS TYPE
Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00263601

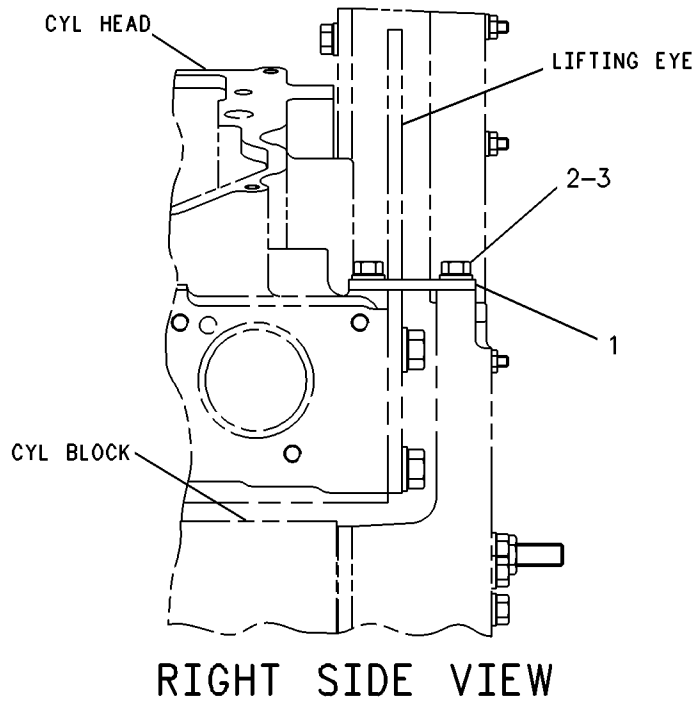
BASIC ENGINE

4P-6846 FASTENER GP-FRONT HOUSING

SMCS-1151, 1162

i00670557

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7N-0452	1	PLATE						
	2	1	0S-1594	2	BOLT (3/8-16X1IN)						
	3	1	5M-2894	2	WASHER (2.5MM THK)						



GRAPHIC #1

g00231021

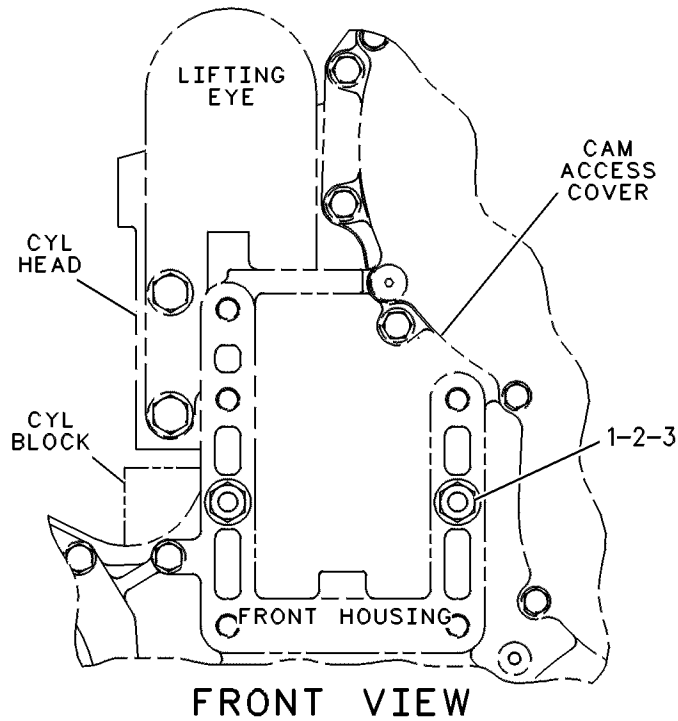
BASIC ENGINE

108-9382 FASTENER GP-FRONT HOUSING FOR USE WITH FRONT HOUSING WHEN FAN DRIVE IS NOT INSTALLED AN ATTACHMENT

SMCS-1151, 1162

i00670762

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1F-7958	2	NUT-FULL (1/2-13 THD)						
	2	1	5P-8245	2	WASHER (3MM THK)						
	3	1	149-5268	2	STUD-TAPERLOCK						



GRAPHIC #1

g00237936

BASIC ENGINE

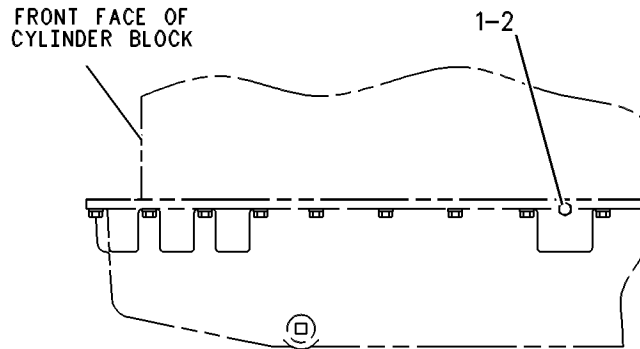
140-6327 FITTING GP-OIL PAN

REQUIRED WHEN A CLOSED VENT AIR CLEANER SYSTEM IS NOT INSTALLED
FOR USE WITH 126-9140-PAGE 100. CANNOT BE USED WITH 131-0126-PAGE 206
AN ATTACHMENT

SMCS-1302

i00672456

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9S-4182	1	PLUG (7/16-20 THD)						
	2	1	9X-7378	1	SEAL-O-RING (8.92MM ID)						



LEFT SIDE VIEW

GRAPHIC #1

g00265487

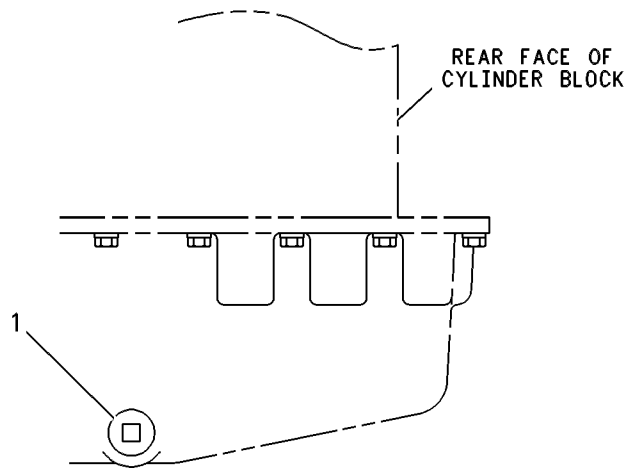
BASIC ENGINE

140-6330 FITTING GP-OIL PAN PROVIDES PLUG FOR LH REAR OPENING IN OIL PAN FOR USE WITH RH SUMP PUMP AN ATTACHMENT

SMCS-1302

i00670243

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-6761	1	PLUG-PIPE (1-11-1/2 NPTF THD)						



LEFT SIDE VIEW

GRAPHIC #1

g00265488

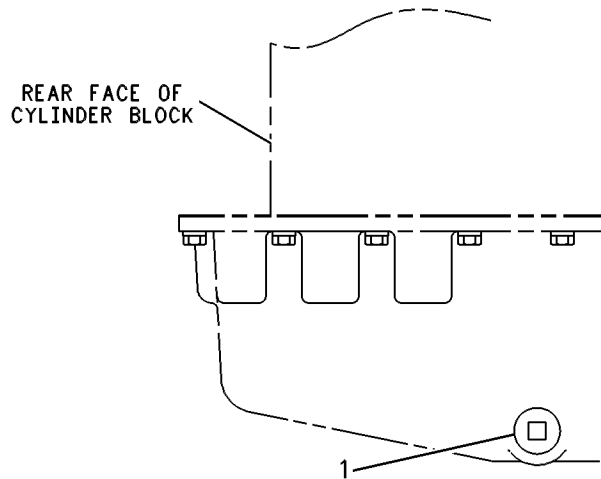
BASIC ENGINE

140-6331 FITTING GP-OIL PAN PROVIDES PLUG FOR RH REAR OPENING IN OIL PAN FOR USE WITH LH SUMP PUMP AN ATTACHMENT

SMCS-1302

i00670248

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-6761	1	PLUG-PIPE (1-11-1/2 NPTF THD)						



RIGHT SIDE VIEW

GRAPHIC #1

g00265497

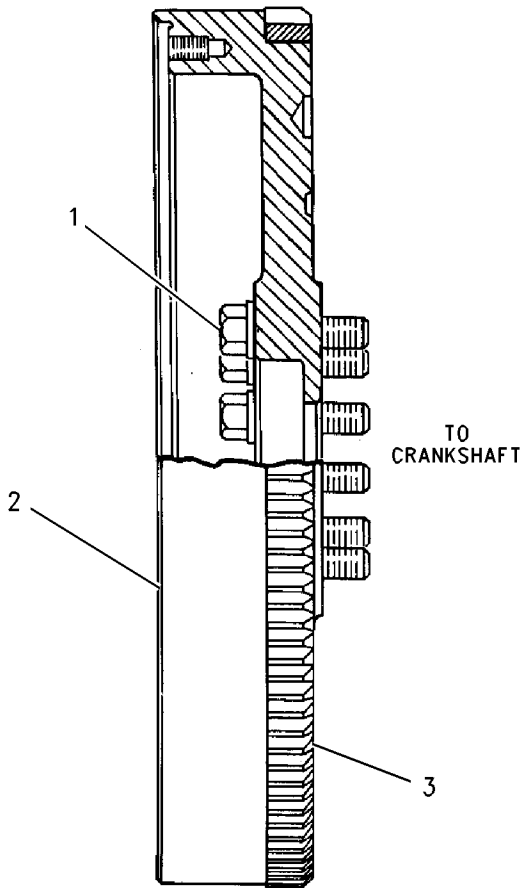
BASIC ENGINE

7N-3060 FLYWHEEL GP FOR USE WITH SAE #1 FLYWHEEL HOUSING AN ATTACHMENT

SMCS-1156

i01472674

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1601	12	BOLT (5/8-18X2.75IN)						
		1	4D-3704	12	WASHER-HARD (17X30X5MM THK)						
	2	1	7W-1248	1	FLYWHEEL AS						
	3	1	4N-2514	1	GEAR (113 TEETH)						



GRAPHIC #1

g00768376

MEMORANDA

BASIC ENGINE

102-8397 GEAR GP-FRONT

SMCS-1206

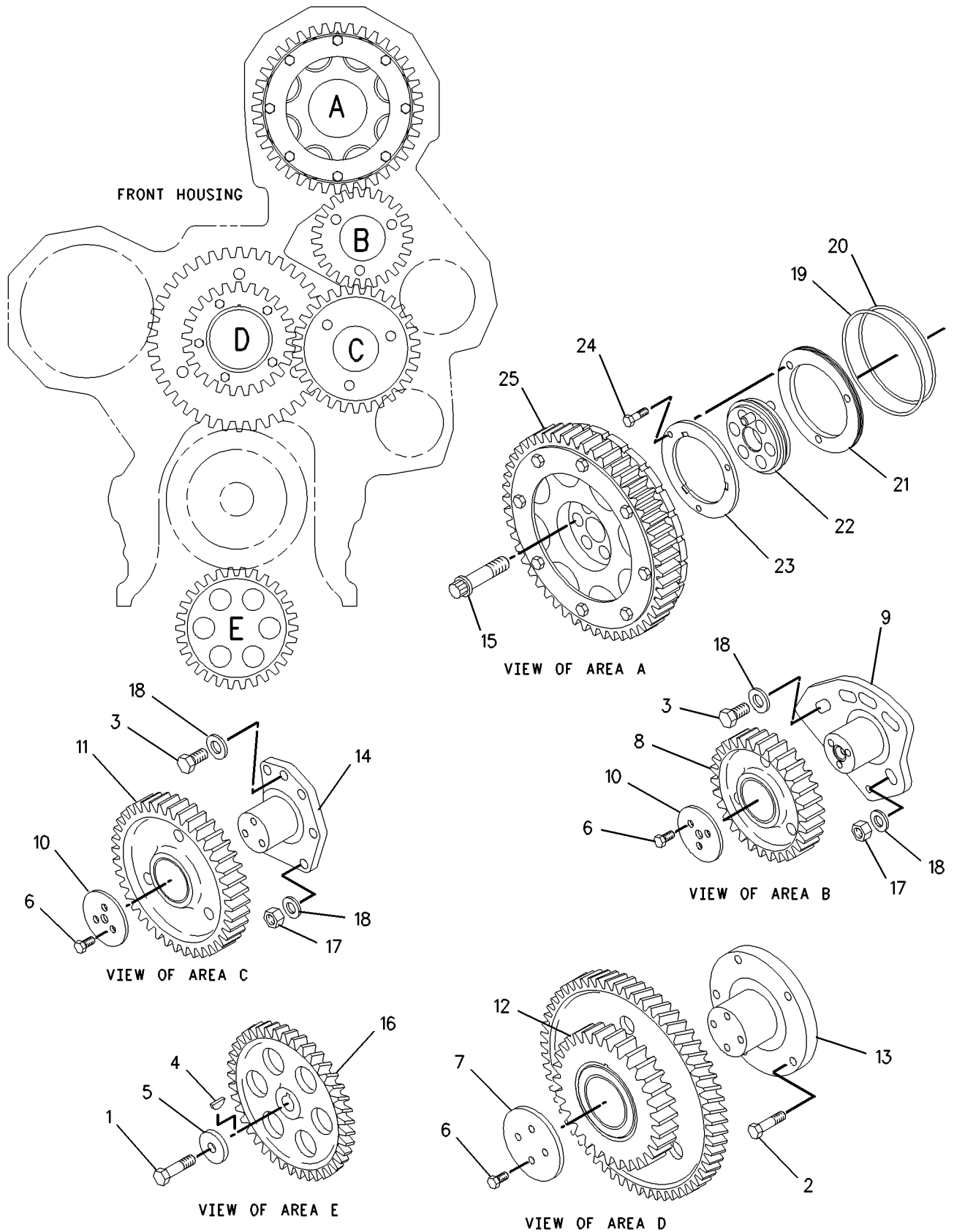
i01380551

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1571	1	BOLT (3/8-16X1.75 IN)						
	2	1	2J-3118	5	BOLT-LOCKING (3/8-16X1.25 IN)						
	3	1	5P-4142	2	BOLT-LOCKING						
	4	1	1B-8705	1	KEY-WOODRUFF						
	5	1	1P-7346	1	WASHER (10.2 X 35 X 6 MM)						
	6	1	126-1756	10	BOLT-LOCKING						
	7	1	112-9217	1	PLATE-THRUST						
	8	1	130-4701	1	GEAR AS (56 TEETH)						
		1	130-4698	1	BEARING-SLEEVE						
	9	1	151-5966	1	SHAFT AS-STUB						
		1	6I-3623	1	DOWEL						
	10	1	6I-3624	2	PLATE-THRUST						
	11	1	6I-3625	1	GEAR AS (71 TEETH)						
		1	101-8468	1	BEARING-SLEEVE						
	12	1	128-2659	1	GEAR AS (63/105 TEETH) (CLUSTER)						
		1	1B-8705	1	KEY-WOODRUFF						
		1	131-7123	1	BEARING-SLEEVE						
	13	1	6I-3632	1	SHAFT-STUB (CLUSTER)						
	14	1	158-3416	1	STUBSHAFT						
	15	1	031-3185	6	BOLT-12 POINT HEAD (76.2MM)						
	16	1	7E-5661	1	GEAR-OIL PUMP DRIVE (69 TEETH)						
	17	1	9S-8752	10	NUT-FULL (3/8-16 THD)						
	18	1	9X-6458	12	WASHER-HARD (10.2X22.5X3MM THK)						
	19	1	117-8801	1	SEAL-O-RING (126.67MM ID)						
	20	1	5E-8771	1	SEAL-O-RING						
	21	1	117-8557	1	PLATE-SEAL						
	22	1	128-8853	1	ADAPTER AS						
	23	1	102-5861	1	PLATE-THRUST						
	24	1	107-0583	3	BOLT-LOCKING (1/4-20 X 0.87IN)						
	25	1	155-6628	1	GEAR GP-CAMSHAFT (96 TEETH)						
		1	9X-8872	8	BOLT-LOCKING (3/8-16X0.875IN)						

BASIC ENGINE

102-8397 GEAR GP - FRONT (contd.)

i01380551



GRAPHIC #1

g00684126

BASIC ENGINE

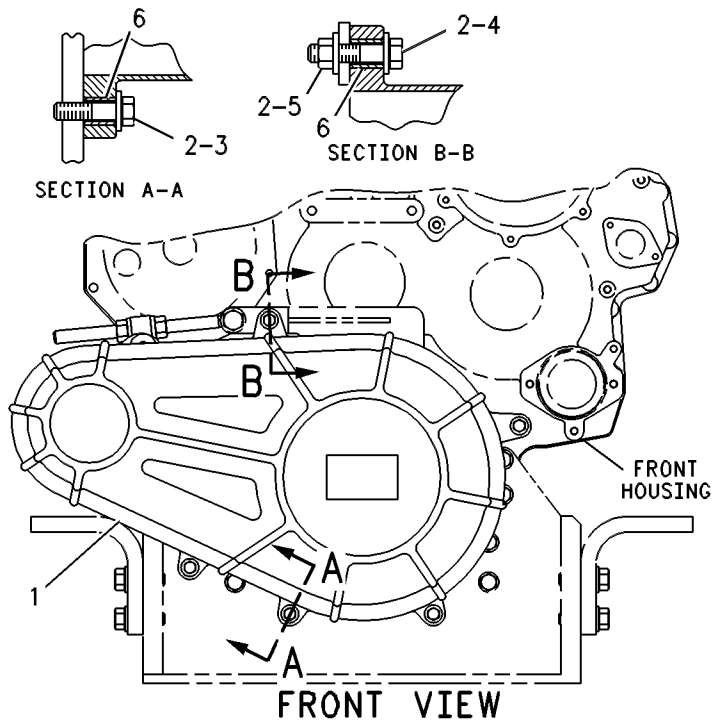
131-8264 GUARD GP-DAMPER

FOR USE WITH 124-3386-PAGE 90, 134-3460-PAGE 94, 124-9046-PAGE 63,
124-3388-PAGE 109
AN ATTACHMENT

SMCS-1205

i00670729

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	131-8265	1	GUARD & DAMPER-ALTERNATOR						
	2	1	5P-1075	6	WASHER-HARD (3MM THK)						
	3	1	4L-9337	4	BOLT (3/8-16X1.50IN)						
	4	1	5S-7383	1	BOLT (3/8-16X1.75IN)						
	5	1	6V-8801	1	NUT (3/8-16 THD)						
	6	1	8R-8088	5	SPACER						



GRAPHIC #1

g00272367

BASIC ENGINE

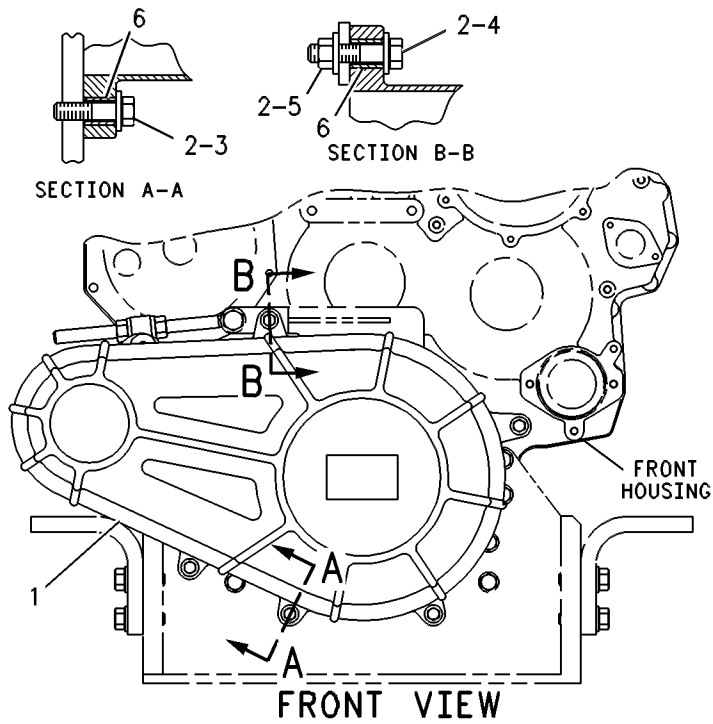
136-9493 GUARD GP-DAMPER

FOR USE WITH 124-3386-PAGE 90, 134-3460-PAGE 94, 131-8295-PAGE 64,
124-3388-PAGE 109
AN ATTACHMENT

SMCS-1205

i00672391

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	136-9492	1	GUARD & DAMPER-ALTERNATOR						
	2	1	5P-1075	6	WASHER-HARD (3MM THK)						
	3	1	4L-9337	4	BOLT (3/8-16X1.50IN)						
	4	1	5S-7383	1	BOLT (3/8-16X1.75IN)						
	5	1	6V-8801	1	NUT (3/8-16 THD)						
	6	1	8R-8088	5	SPACER						



GRAPHIC #1

g00272367

BASIC ENGINE

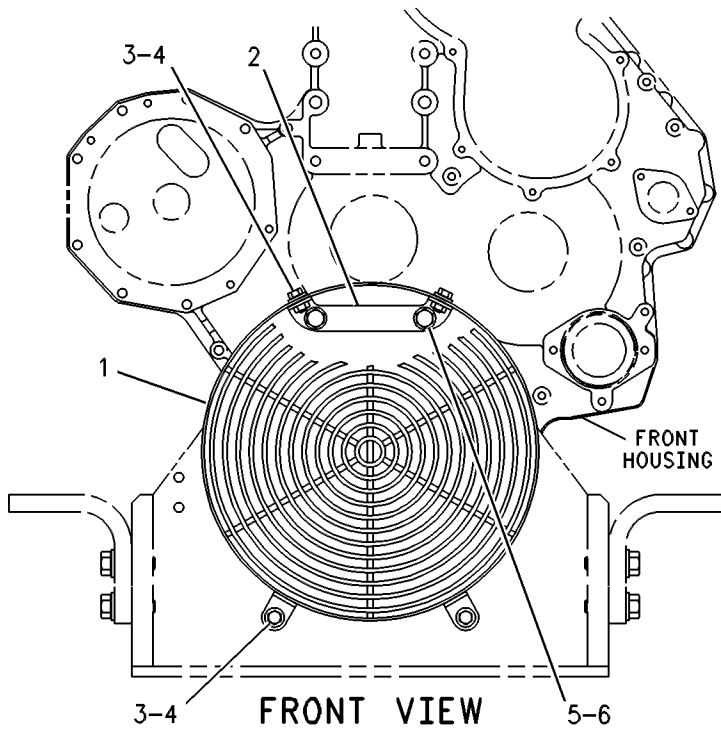
141-1011 GUARD GP-DAMPER

CANNOT BE USED WITH FRONT PTO, FRONT STUB SHAFT OR ALTERNATOR
AN ATTACHMENT

SMCS-1205

i00670467

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	141-1012	1	GUARD AS						
	2	1	141-1013	1	BRACKET AS						
	3	1	0S-0509	4	BOLT (3/8-16X.75IN)						
	4	1	5P-1075	4	WASHER-HARD (3MM THK)						
	5	1	0S-1595	2	BOLT (1/2-13X1.25IN)						
	6	1	5P-8245	2	WASHER (3MM THK)						



GRAPHIC #1

g00272431

MEMORANDA

BASIC ENGINE

140-5976 HOUSING GP-FLYWHEEL

AN ATTACHMENT

SMCS-1157

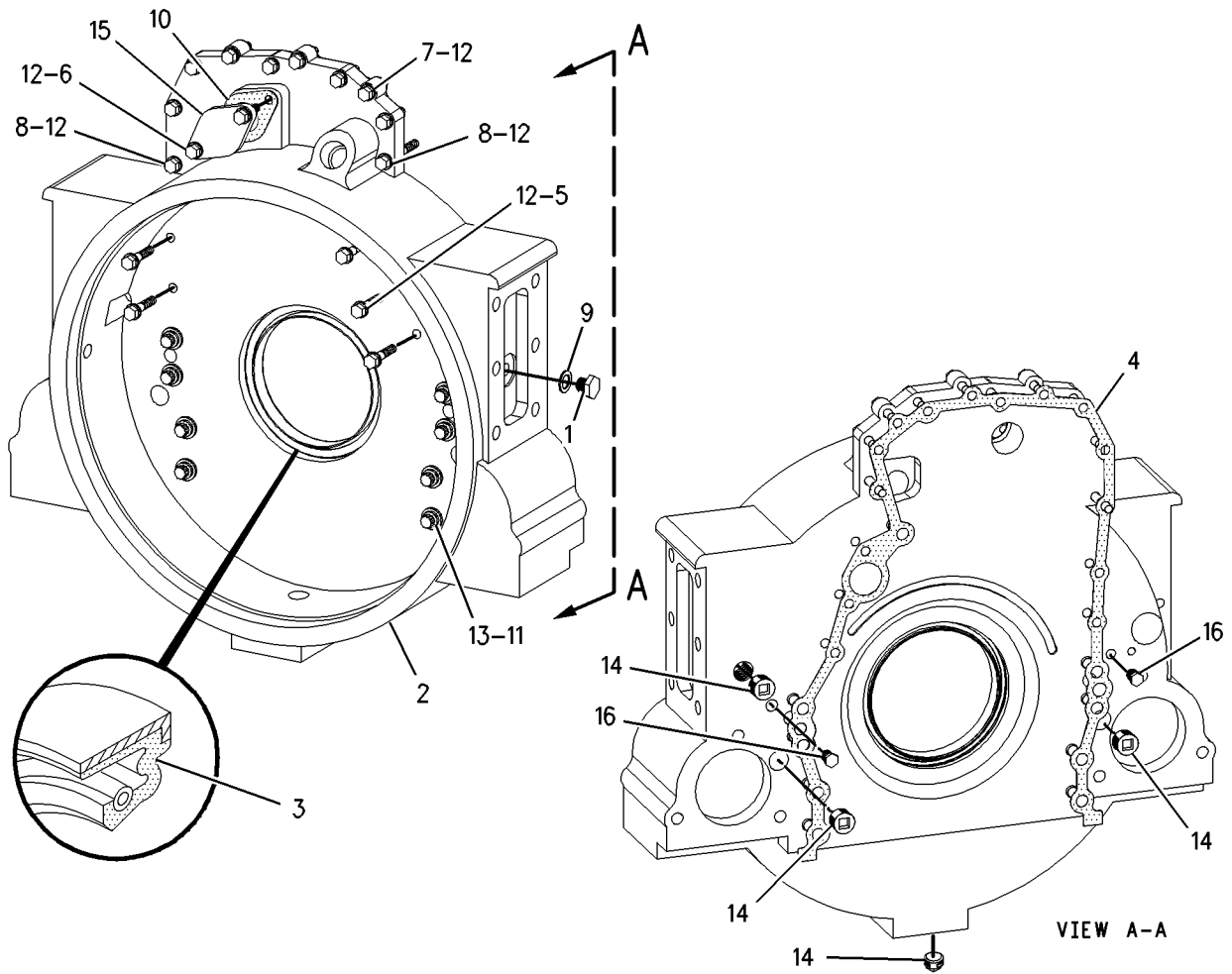
i01482050

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	5F-0304	1	PLUG-DRAIN						
	2	1	108-4747	1	HOUSING-FLYWHEEL						
C	3	1	130-8107	1	SEAL GP-CRANKSHAFT						
	4	1	155-5619	1	GASKET-FLYWHEEL						
	5	1	0S-1571	5	BOLT (3/8-16X1.75 IN)						
	6	1	0S-1588	2	BOLT (3/8-16X1.25 IN)						
	7	1	0S-1591	8	BOLT (3/8-16X1.5 IN)						
	8	1	0T-0573	2	BOLT (3/8-16X2.75 IN)						
	9	1	2A-1162	1	GASKET						
	10	1	5H-0244	1	GASKET						
	11	1	5J-5793	9	BOLT-12 POINT HEAD (1/2-13X1.75 IN)						
	12	1	5M-2894	17	WASHER-HARD (10.2X18.5X2.5MM THK)						
	13	1	5P-8245	9	WASHER-HARD (13.5X25.5X3MM THK)						
	14	1	7X-7731	4	PLUG-PIPE (3/4-14 NPTF THD)						
	15	1	8F-3030	1	FLANGE						
	16	1	8T-6765	2	PLUG-PIPE (1/4-18 NPTF THD)						
BF			1U-8846		SEALANT-GASKET (APPLY SEALANT TO FILL SPACE AT CYLINDER BLOCK, FLYWHEEL HOUSING, AND OIL PAN JOINT)						
B- USE AS REQUIRED C- CHANGE FROM PREVIOUS TYPE F- NOT SHOWN											

BASIC ENGINE

140-5976 HOUSING GP - FLYWHEEL (contd.)

i01482050



GRAPHIC #1

g00678981

BASIC ENGINE

127-1995 HOUSING GP-FRONT

AN ATTACHMENT

SMCS-1151, 1162

i01335955

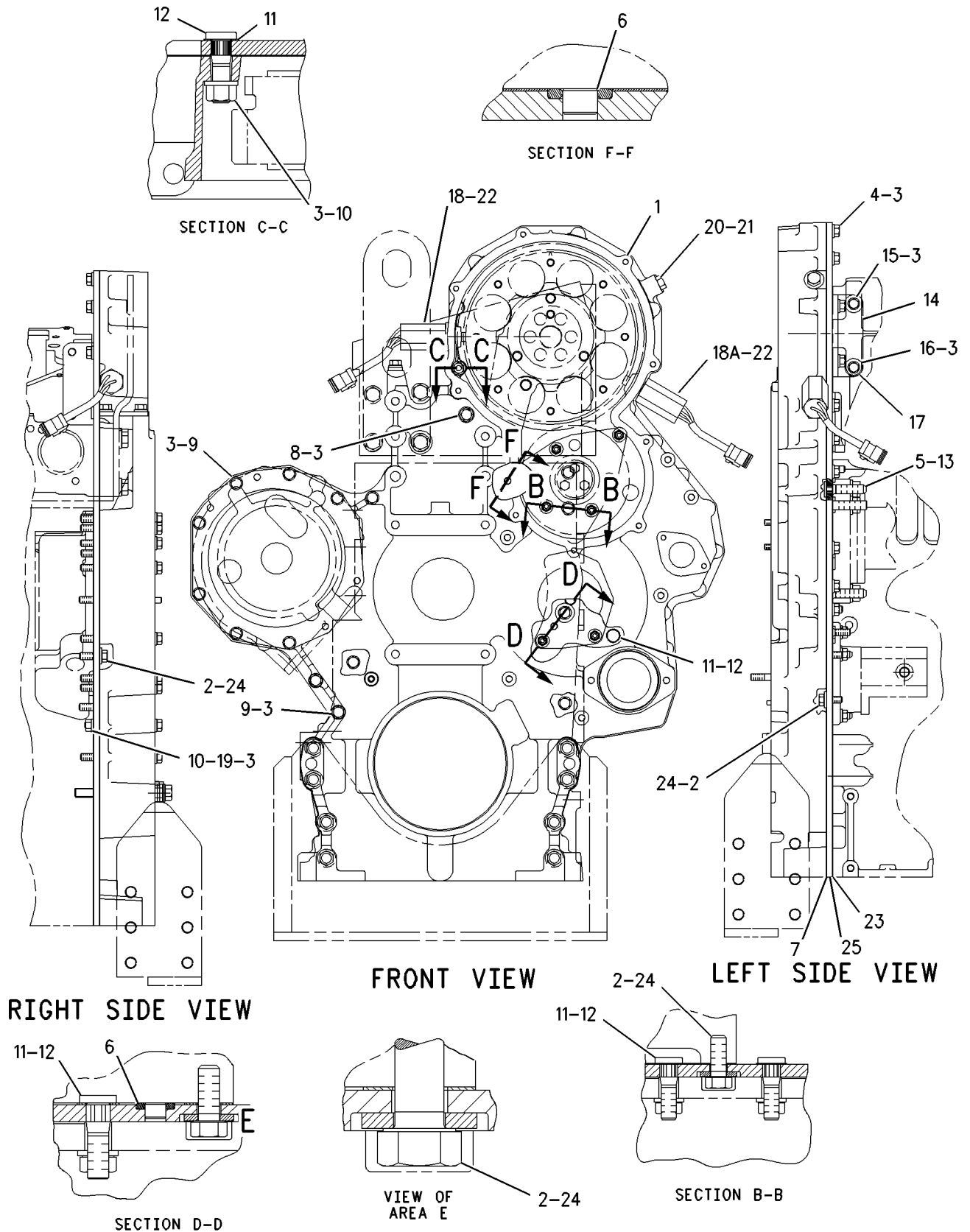
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	128-3854	1	HOUSING AS-FRONT						
		1	3E-8044	1	STUD						
	2	1	5P-4255	8	BOLT-LOCKING (3/8-16 X 1.0 IN)						
	3	1	5M-2894	28	WASHER-HARD (2.5MM THK)						
	4	1	0S-1588	11	BOLT (3/8-16X1.25 IN)						
	5	1	120-9243	2	STUD-BRAKE						
	6	1	7X-4805	2	SEAL-O-RING (9.12MM ID)						
	7	1	166-9144	1	GASKET						
	8	1	0L-2070	1	BOLT (3/8-16X2.25 IN)						
	9	1	0T-0055	9	BOLT (3/8-16X4.25 IN)						
	10	1	9S-8752	2	NUT-FULL (3/8-16 THD)						
	11	1	126-1757	12	WASHER-SEAL						
	12	1	129-5428	12	STUD						
	13	1	129-5427	2	WASHER						
	14	1	6I-3968	1	BRACKET-SUPPORT						
	15	1	0S-1591	2	BOLT (3/8-16X1.5 IN)						
	16	1	0S-1571	2	BOLT (3/8-16X1.75 IN)						
	17	1	101-3120	2	SPACER (10.5X25X20MMTHK)						
Y	18	1	129-6628	1	SENSOR GP-SPEED (SECONDARY)						324
Y	18A	1	129-6628	1	SENSOR GP-SPEED (PRIMARY)						324
	19	1	8S-9191	1	BOLT (3/8-16X4 IN)						
	20	1	9S-4191	1	PLUG-O-RING (9/16-18 THD)						
	21	1	6V-5049	1	SEAL-O-RING (11.89MM ID)						
	22	1	126-8481	2	WASHER						
	23	1	155-3629	1	GASKET						
	24	1	9X-6458	8	WASHER-HARD (3MM THK)						
	25	1	155-9818	1	PLATE AS-FRONT						

Y-SEPARATE ILLUSTRATION

BASIC ENGINE

127-1995 HOUSING GP - FRONT (contd.)

i01335955



GRAPHIC #1

g00678807

BASIC ENGINE

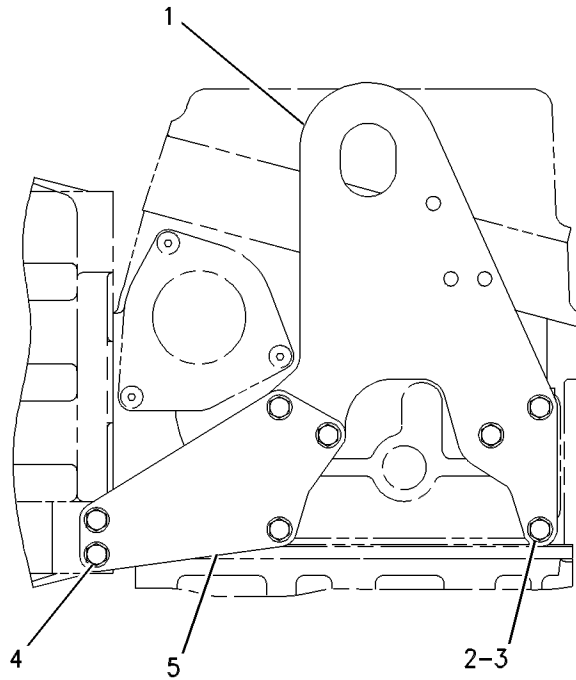
124-6328 LIFTING GP-ENGINE

REAR
AN ATTACHMENT

SMCS-1122

i00670934

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	124-6327	1	EYE-LIFTING						
	2	1	5M-2894	8	WASHER (2.5MM THK)						
	3	1	0S-1594	3	BOLT (3/8-16X1IN)						
	4	1	0S-1588	5	BOLT (3/8-16X1.25IN)						
	5	1	140-6333	1	PLATE						



GRAPHIC #1

g00282518

BASIC ENGINE

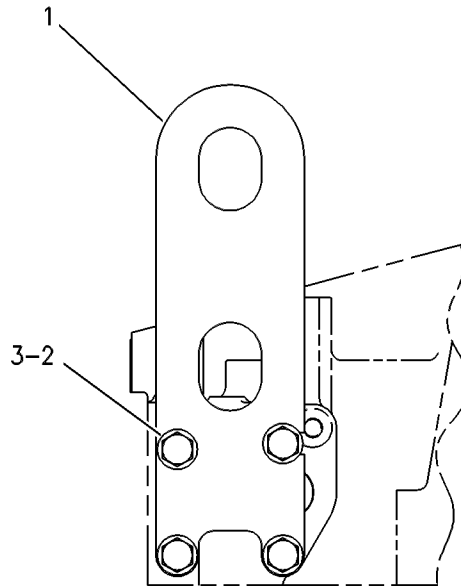
127-0564 LIFTING GP-ENGINE

FRONT
AN ATTACHMENT

SMCS-1122

i00671604

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	127-0563	1	EYE-LIFTING						
	2	1	0S-1595	4	BOLT (1/2-13X1.25IN)						
	3	1	5P-8245	4	WASHER (3MM THK)						



FRONT VIEW

GRAPHIC #1

g00257294

BASIC ENGINE

6I-1940 MECHANISM GP-FUEL PUMP & VALVE

S/N: 9WR1-304

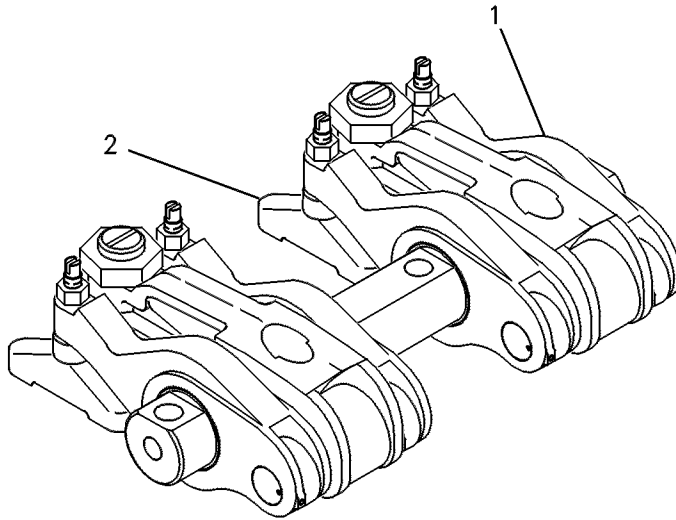
FOR USE WITH A FASTENER GP FOR NON-JAKE BRAKE APPLICATIONS

SMCS-1102, 1123

i00670564

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
CY	1	1	130-0077	3	ROCKER ARM GP						105
	2	1	6I-1458	12	BRIDGE-VALVE						

C- CHANGE FROM PREVIOUS TYPE
Y- SEPARATE ILLUSTRATION



GRAPHIC #1

g00238186

BASIC ENGINE

6I-1940 MECHANISM GP-FUEL PUMP & VALVE

S/N: 9WR305-684

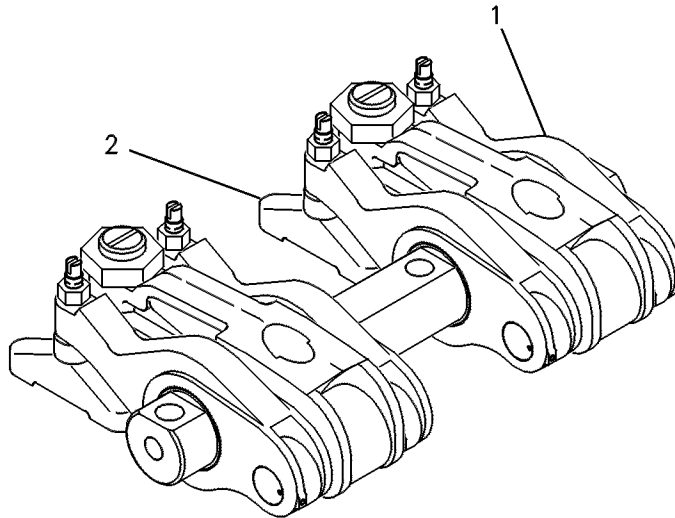
FOR USE WITH A FASTENER GP FOR NON-JAKE BRAKE APPLICATIONS

SMCS-1102, 1123

i00670562

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
CY	1	1	137-4361	3	ROCKER ARM GP						106
	2	1	6I-1458	12	BRIDGE-VALVE						

C-CHANGE FROM PREVIOUS TYPE
Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00238186

BASIC ENGINE

6I-1940 MECHANISM GP-FUEL PUMP & VALVE

S/N: 9WR685-UP

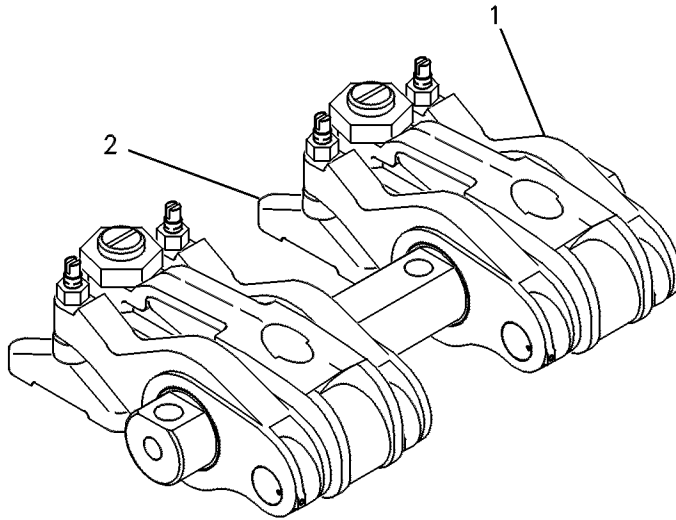
FOR USE WITH A FASTENER GP FOR NON-JAKE BRAKE APPLICATIONS

SMCS-1102, 1123

i00935347

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
CY	1	1	163-7381	3	ROCKER ARM GP						107
	2	1	6I-1458	12	BRIDGE-VALVE						

C- CHANGE FROM PREVIOUS TYPE
Y- SEPARATE ILLUSTRATION



GRAPHIC #1

g00238186

MEMORANDA

BASIC ENGINE

124-3386 MOUNTING GP-ALTERNATOR

FOR USE WITH 124-3388-PAGE 109

AN ATTACHMENT

SMCS-1405

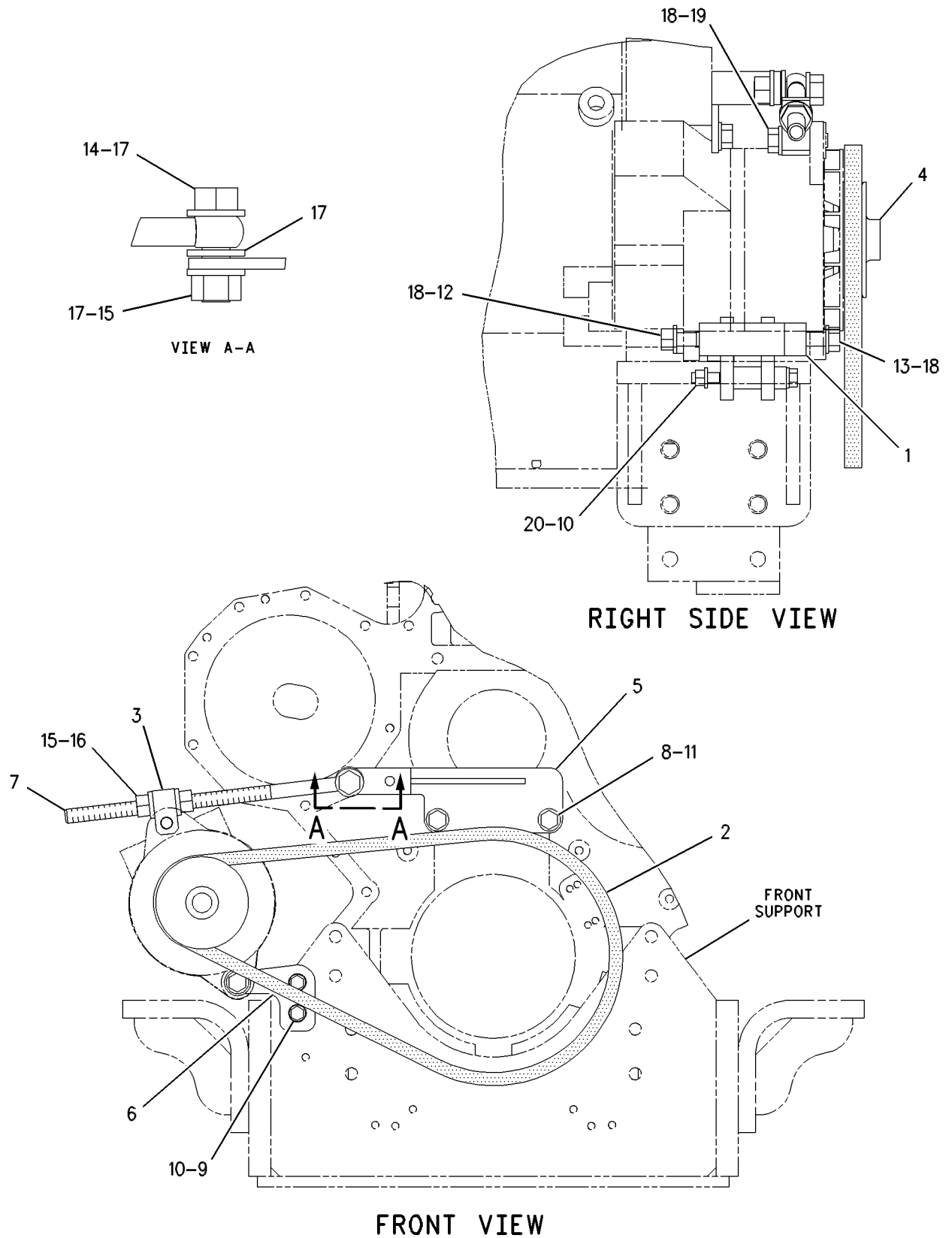
i01198791

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1W-8793	1	SPACER (20MM THK)						
	2	1	5B-8473	1	V-BELT						
	3	1	8S-5383	1	BLOCK						
	4	1	131-8269	1	PULLEY						
	5	1	131-8299	1	BRACKET AS						
	6	1	177-9539	1	BRACKET AS						
	7	1	180-7981	1	ROD						
	8	1	0S-1595	2	BOLT (1/2-13X1.25IN)						
	9	1	0T-0065	2	BOLT (3/8-16X3.5IN)						
	10	1	5M-2894	4	WASHER (2.5MM THK)						
	11	1	5P-8245	2	WASHER-HARD (3MM THK)						
	12	1	6V-8188	1	NUT (1/2-13 THD)						
	13	1	7X-0338	1	BOLT (1/2-13X6IN)						
	14	1	7X-0346	1	BOLT (5/8-11X2IN)						
	15	1	7X-0448	3	NUT (5/8-11 THD)						
	16	1	7X-0513	2	WASHER-HARD (5.0MM THK)						
	17	1	8T-4122	3	WASHER (3.5MM THK)						
	18	1	8T-4223	3	WASHER-HARD (3MM THK)						
	19	1	8T-8919	1	BOLT (1/2-13X1.75IN)						
	20	1	9S-8752	2	NUT (3/8-16 THD)						

BASIC ENGINE

124 - 3386 MOUNTING GP - ALTERNATOR (contd.)

i01198791



GRAPHIC #1

g00643748

BASIC ENGINE

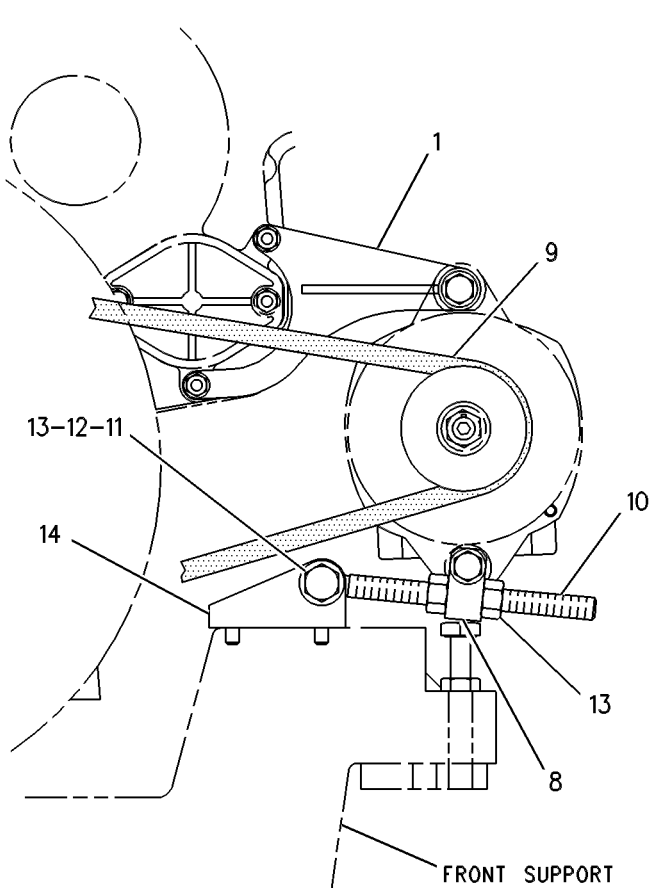
131-8293 MOUNTING GP-ALTERNATOR

FOR USE WITH HEAVY DUTY ALTERNATOR WHEN USED WITH FRONT PTO OR FRONT STUB SHAFT
AN ATTACHMENT

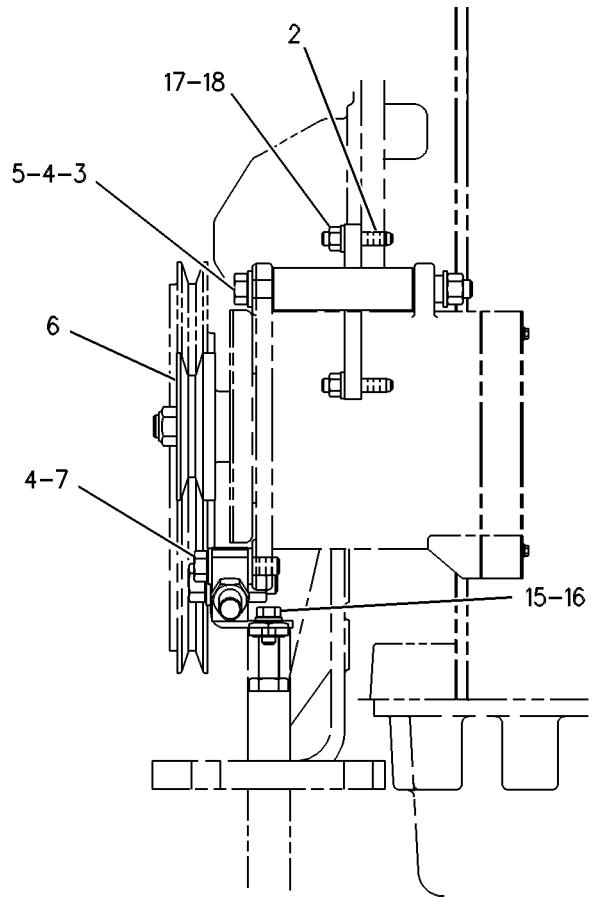
SMCS-1405

i00670835

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	136-9501	1	BRACKET AS						
	2	1	1J-8668	2	STUD-TAPERLOCK						
	3	1	7X-0339	1	BOLT (1/2NCX6 1/4)						
	4	1	8T-4223	4	WASHER-HARD (3MM THK)						
	5	1	6V-8188	1	NUT (1/2-13 THD)						
	6	1	1W-4846	1	PULLEY-ALTERNATOR						
	7	1	8T-4835	1	BOLT (1/2-13X2IN)						
	8	1	8S-5383	1	BLOCK						
	9	1	9L-6645	1	V-BELT						
	10	1	1S-4589	1	ROD						
	11	1	7X-0345	1	BOLT (5/8-11X1.75IN)						
	12	1	8T-4122	2	WASHER (3.5MM THK)						
	13	1	7X-0448	3	NUT (5/8-11 THD)						
	14	1	1W-4845	1	CLIP						
	15	1	0S-0509	2	BOLT (3/8-16X.75IN)						
	16	1	9L-9132	2	WASHER (2.5MM THK)						
	17	1	5M-2894	2	WASHER (2.5MM THK)						
	18	1	9S-8752	2	NUT-FULL (3/8-16 THD)						



FRONT VIEW



LEFT SIDE VIEW

GRAPHIC #1

g00272460

MEMORANDA

BASIC ENGINE

134-3460 MOUNTING GP-ALTERNATOR

FOR USE WITH 124-3386-PAGE 90

AN ATTACHMENT

SMCS-1405

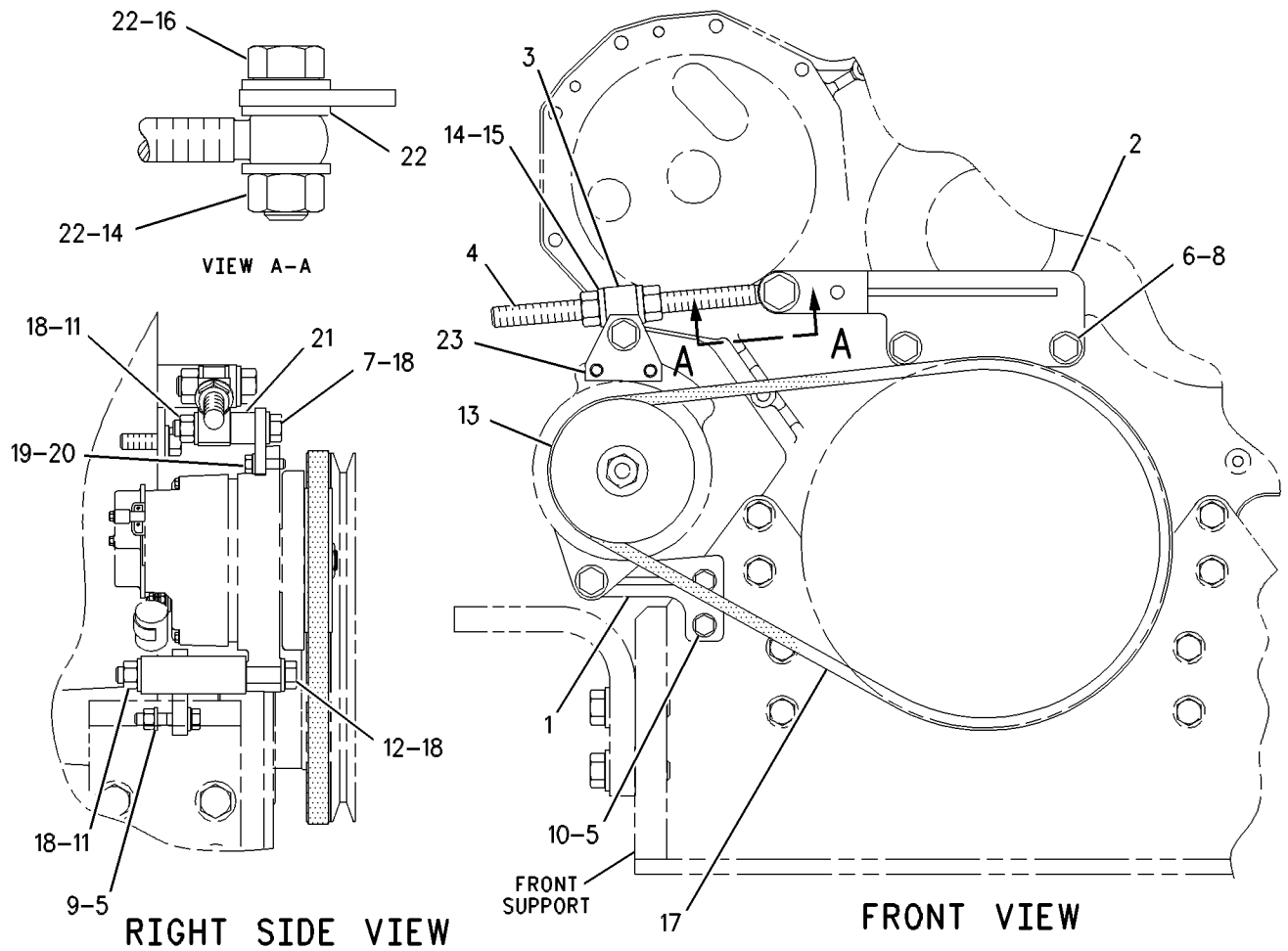
i01199699

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	177-9539	1	BRACKET AS						
	2	1	131-8299	1	BRACKET AS						
	3	1	8S-5383	1	BLOCK						
	4	1	4S-5780	1	ROD						
	5	1	5M-2894	4	WASHER (2.5MM THK)						
	6	1	5P-8245	2	WASHER-HARD (3MM THK)						
	7	1	7X-0326	1	BOLT (1/2-13X3IN)						
	8	1	0S-1585	2	BOLT (1/2-13X1.50IN)						
	9	1	9S-8752	2	NUT (3/8-16 THD)						
	10	1	0T-0065	2	BOLT (3/8-16X3.5IN)						
	11	1	6V-8188	2	NUT (1/2-13 THD)						
	12	1	7X-0335	1	BOLT (1/2-13X5.25IN)						
	13	1	6N-0216	1	PULLEY-ALTERNATOR						
	14	1	7X-0448	3	NUT (5/8-11 THD)						
	15	1	7X-0513	2	WASHER-HARD (5.0MM THK)						
	16	1	7X-0346	1	BOLT (5/8-11X2IN)						
	17	1	5B-8473	1	V-BELT						
	18	1	8T-4223	4	WASHER-HARD (3MM THK)						
	19	1	4M-6425	2	BOLT (5/16-18X1IN)						
	20	1	8T-4224	2	WASHER-HARD (2MM THK)						
	21	1	6H-7062	1	SPACER (19MM THK)						
	22	1	8T-4122	3	WASHER (3.5MM THK)						
	23	1	3N-2704	1	PLATE-MOUNTING						

BASIC ENGINE

134 - 3460 MOUNTING GP - ALTERNATOR (contd.)

i01199699



GRAPHIC #1

g00282801

BASIC ENGINE

136-9503 MOUNTING GP-ALTERNATOR

FOR USE WITH MEDIUM DUTY ALTERNATOR WHEN USED WITH FRONT PTO OR FRONT STUB SHAFT
AN ATTACHMENT

SMCS-1405

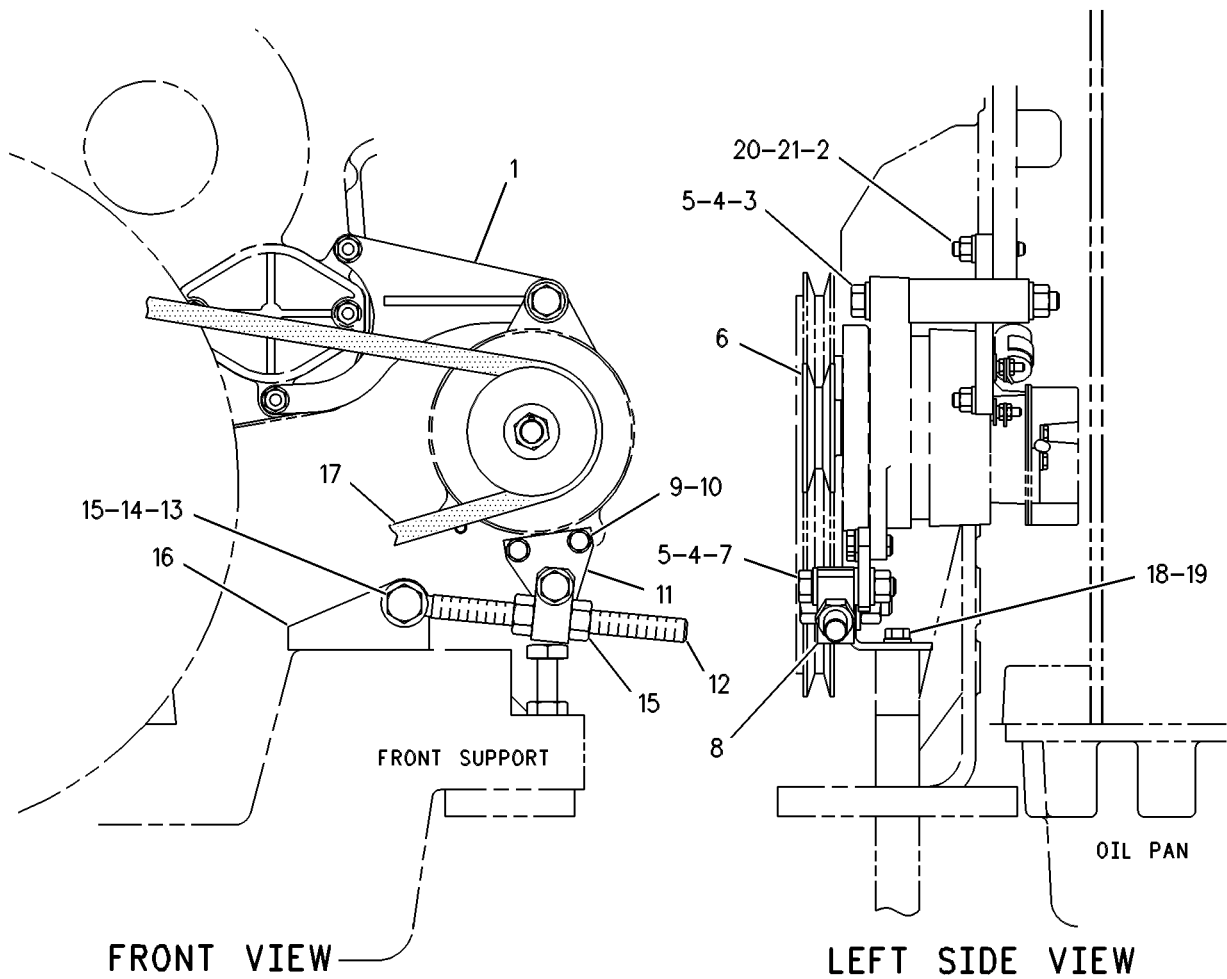
i00672401

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	136-9502	1	BRACKET AS						
	2	1	1J-8668	2	STUD-TAPERLOCK						
	3	1	7X-0335	1	BOLT (1/2-13X5.25IN)						
	4	1	8T-4223	5	WASHER-HARD (3MM THK)						
	5	1	6V-8188	2	NUT (1/2-13 THD)						
	6	1	116-3224	1	PULLEY						
	7	1	5P-2424	1	BOLT (1/2-13X2.25IN)						
	8	1	8S-5383	1	BLOCK						
	9	1	4M-6425	2	BOLT (5/16-18X1IN)						
	10	1	8T-4224	2	WASHER-HARD (2MM THK)						
	11	1	3N-2704	1	PLATE-MOUNTING						
	12	1	1S-4589	1	ROD						
	13	1	7X-0345	1	BOLT (5/8-11X1.75IN)						
	14	1	8T-4122	2	WASHER (3.5MM THK)						
	15	1	7X-0448	3	NUT (5/8-11 THD)						
	16	1	1W-4845	1	CLIP						
	17	1	9L-6643	1	V-BELT						
	18	1	0S-0509	2	BOLT (3/8-16X.75IN)						
	19	1	9L-9132	2	WASHER (2.5MM THK)						
	20	1	5M-2894	2	WASHER (2.5MM THK)						
	21	1	9S-8752	2	NUT-FULL (3/8-16 THD)						

BASIC ENGINE

136-9503 MOUNTING GP-ALTERNATOR (contd.)

i00672401



GRAPHIC #1

g00272390

BASIC ENGINE

131-8266 MOUNTING GP-ENGINE

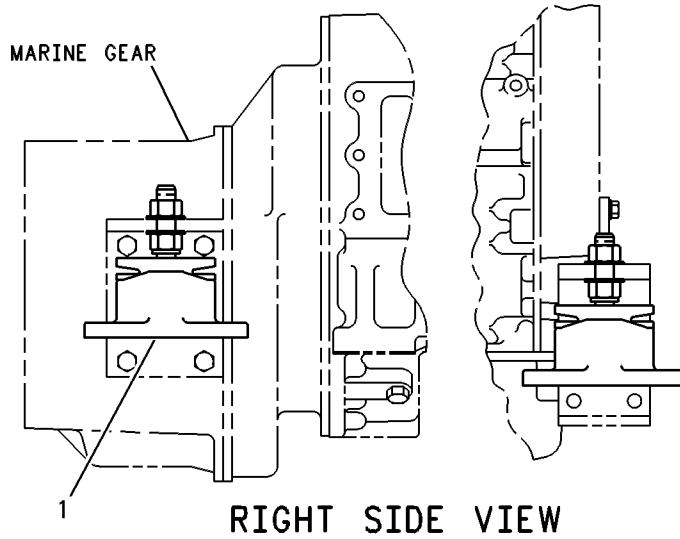
FLEXIBLE

FOR USE WITH 124-3388-PAGE 109
AN ATTACHMENT

SMCS-1152

i00670735

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	140-3592	1	MOUNT-ENGINE						



GRAPHIC #1

g00272369

BASIC ENGINE

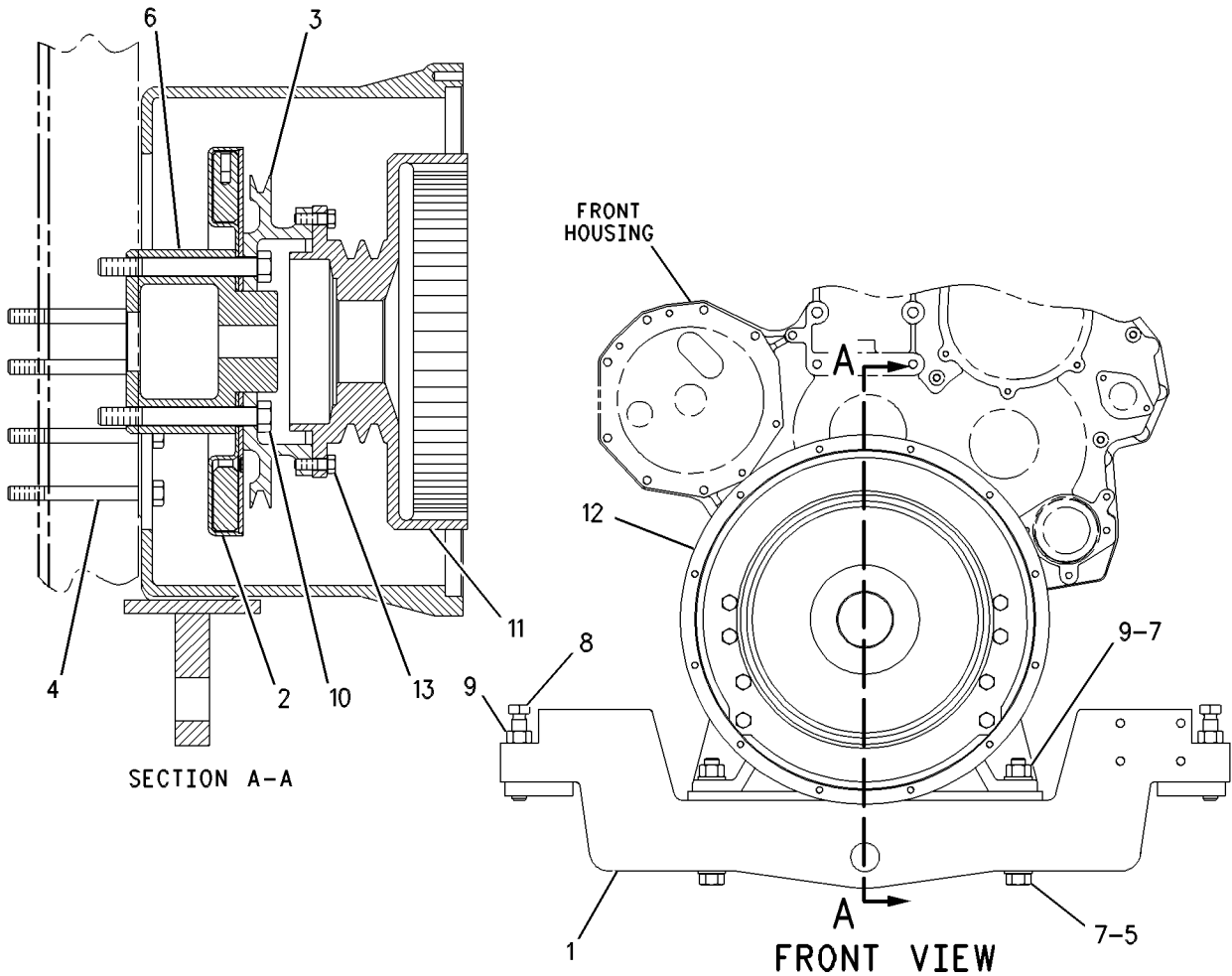
141-1000 MOUNTING GP-PUMP DRIVE

CANNOT BE USED WITH FRONT STUBSHAFT OR FRONT PTO
AN ATTACHMENT

SMCS-1017

i01213473

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8N-9339	1	SUPPORT AS-FRONT						
	2	1	167-8126	1	DAMPER AS						
	3	1	3N-8473	1	ADAPTER						
	4	1	9X-8877	8	BOLT (1/2-13X5.0IN)						
	5	1	1D-4616	2	BOLT (3/4-10X6IN)						
	6	1	177-9026	1	ADAPTER-DAMPER						
	7	1	5P-8248	4	WASHER-HARD (3.5MM THK)						
	8	1	8T-4162	2	SETSCREW-SQUARE HEAD						
	9	1	2J-3506	4	NUT-FULL (3/4-10 THD)						
	10	1	2A-2814	6	BOLT (5/8-18X5.5IN)						
	11	1	2N-7629	1	COUPLING-FRONT PTO						
	12	1	4N-1501	1	ADAPTER AS-POWER TAKE-OFF						
		1	4W-8688	2	DOWEL - THREADED						
		1	4W-8689	2	DOWEL						
		1	9F-6641	2	BOLT (5/16-18 THD)						
13	1	1	1A-2029	12	BOLT (3/8-16X1.125IN)						



GRAPHIC #1

g00648784

BASIC ENGINE

126-9140 PAN GP-OIL

SHALLOW, NO SOUND SUPPRESSION
AN ATTACHMENT

SMCS-1302

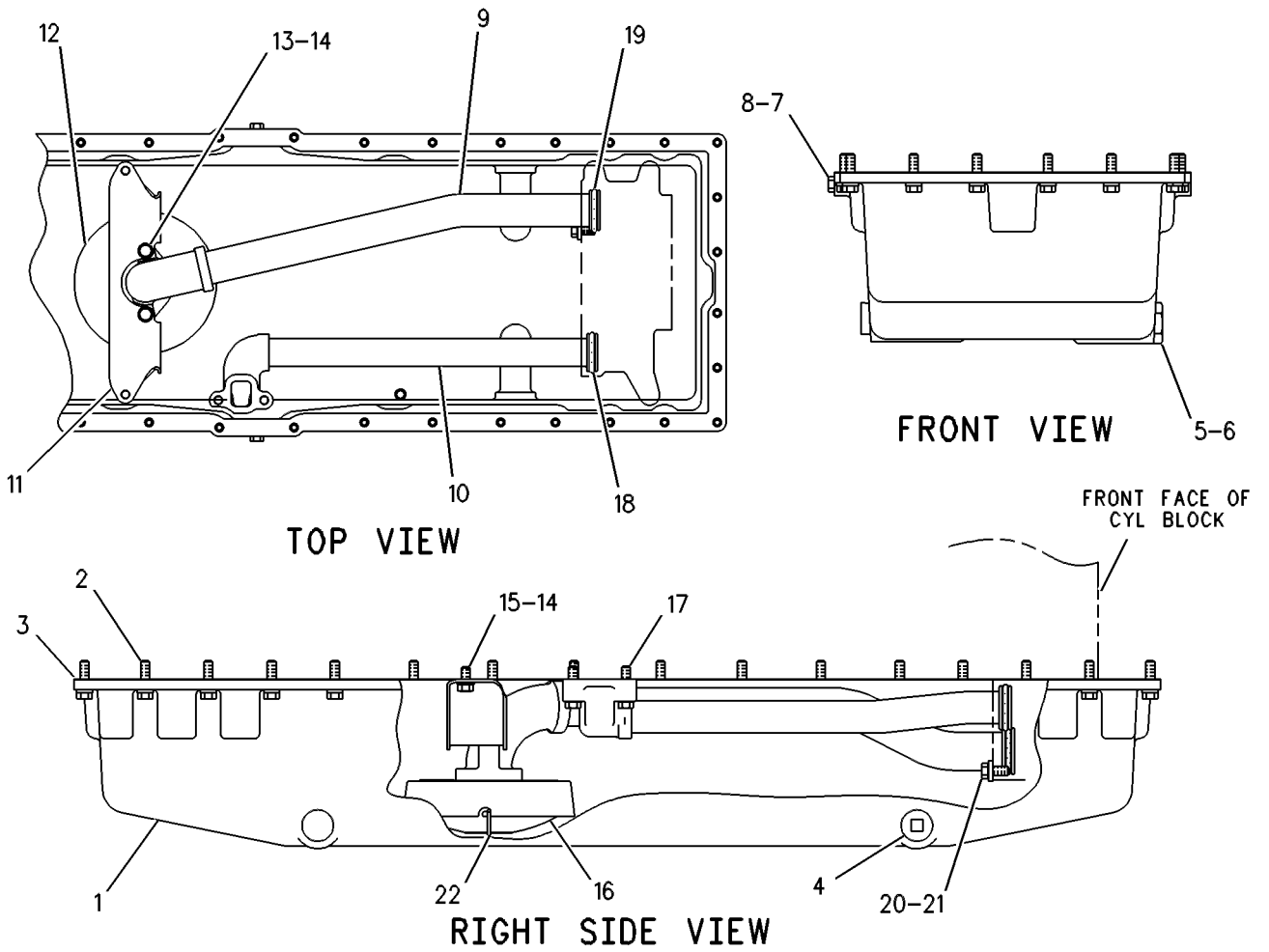
i01409140

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	126-9141	1	PAN-OIL						
	2	1	2P-3203	40	BOLT-WASHER HEAD (3/8-16X1.25 IN)						
	3	1	4N-3661	1	GASKET-OIL PAN						
	4	1	8T-6761	1	PLUG-PIPE						
	5	1	9X-6451	1	PLUG-DRAIN						
	6	1	121-0145	1	SEAL-O-RING (28.17MM ID)						
	7	1	9S-4182	1	PLUG-O-RING						
	8	1	9X-7378	1	SEAL-O-RING (8.92MM ID)						
	9	1	126-9138	1	TUBE AS						
	10	1	7W-5909	1	TUBE AS						
	11	1	126-9139	1	SUPPORT						
	12	1	8N-2104	1	BELL AS-SUCTION						
		1	9F-2978	2	NUT-WELD (3/8-16 THD)						
	13	1	0L-2070	2	BOLT (3/8-16X2.25 IN)						
	14	1	5M-2894	4	WASHER-HARD (10.2X18.5X2.5MM THK)						
	15	1	0S-0509	2	BOLT (3/8-16X.75 IN)						
	16	1	4N-0913	1	SCREEN AS-BELL						
	17	1	0S-1591	2	BOLT (3/8-16X1.5 IN)						
	18	1	5P-8068	1	SEAL-O-RING (37.47MM ID)						
	19	1	5P-5846	1	SEAL-O-RING (40.64MM ID)						
	20	1	0L-1351	1	BOLT (3/8-16X.875 IN)						
	21	1	8M-9024	1	WASHER-HARD (10.2X22.5X5MM THK)						
	22	1	4N-0914	1	CLIP						

BASIC ENGINE

126-9140 PAN GP-OIL (contd.)

i01409140



GRAPHIC #1

g00265328

BASIC ENGINE

130-8841 PISTON & ROD GP

14:1 RATIO

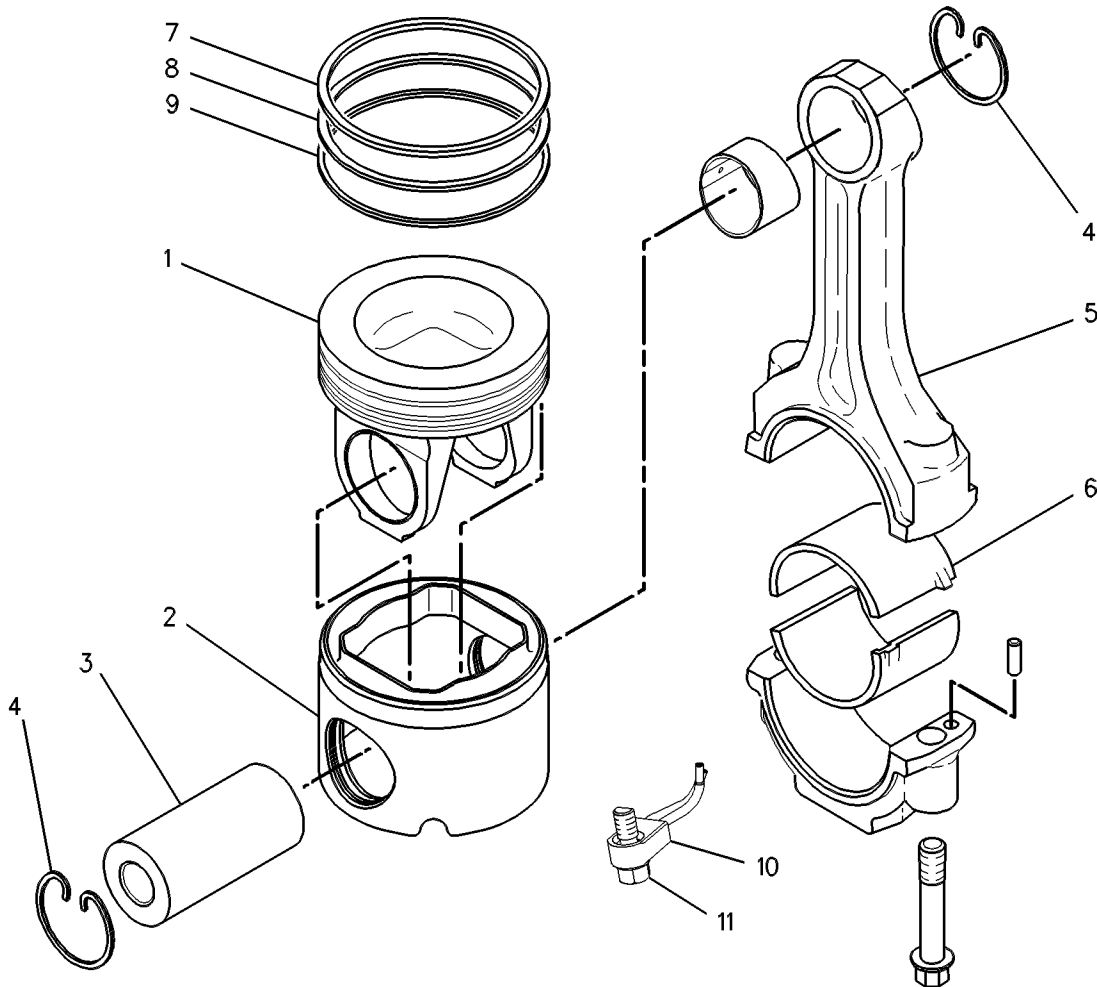
SMCS-1225

i01117651

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	145-6700	1	CROWN AS-PISTON						
	2	1	130-0241	1	SKIRT-PISTON						
	3	1	168-7246	1	PIN-PISTON						
	4	1	7E-1177	2	RETAINER-PIN						
R	5	1	9Y-6054	1	ROD AS-CONNECTING						
		1	7N-2043	2	DOWEL						
M		1	7E-4195	2	BOLT-CONNECTING ROD						
		1	4P-7377	1	BEARING-SLEEVE						
	6	1	9Y-7735	1	BEARING-ROD						
	7	1	134-3761	1	RING-PISTON						
	8	1	7N-7078	1	RING-OIL (INTERMEDIATE)						
	9	1	2P-2817	1	RING-PISTON (OIL)						
	10	1	168-4539	1	TUBE AS-OIL JET						
	11	1	151-5925	1	BOLT-OIL JET						

M-METRIC PART

R-REMFG PART MAY BE AVAILABLE



GRAPHIC #1

g00577442

BASIC ENGINE

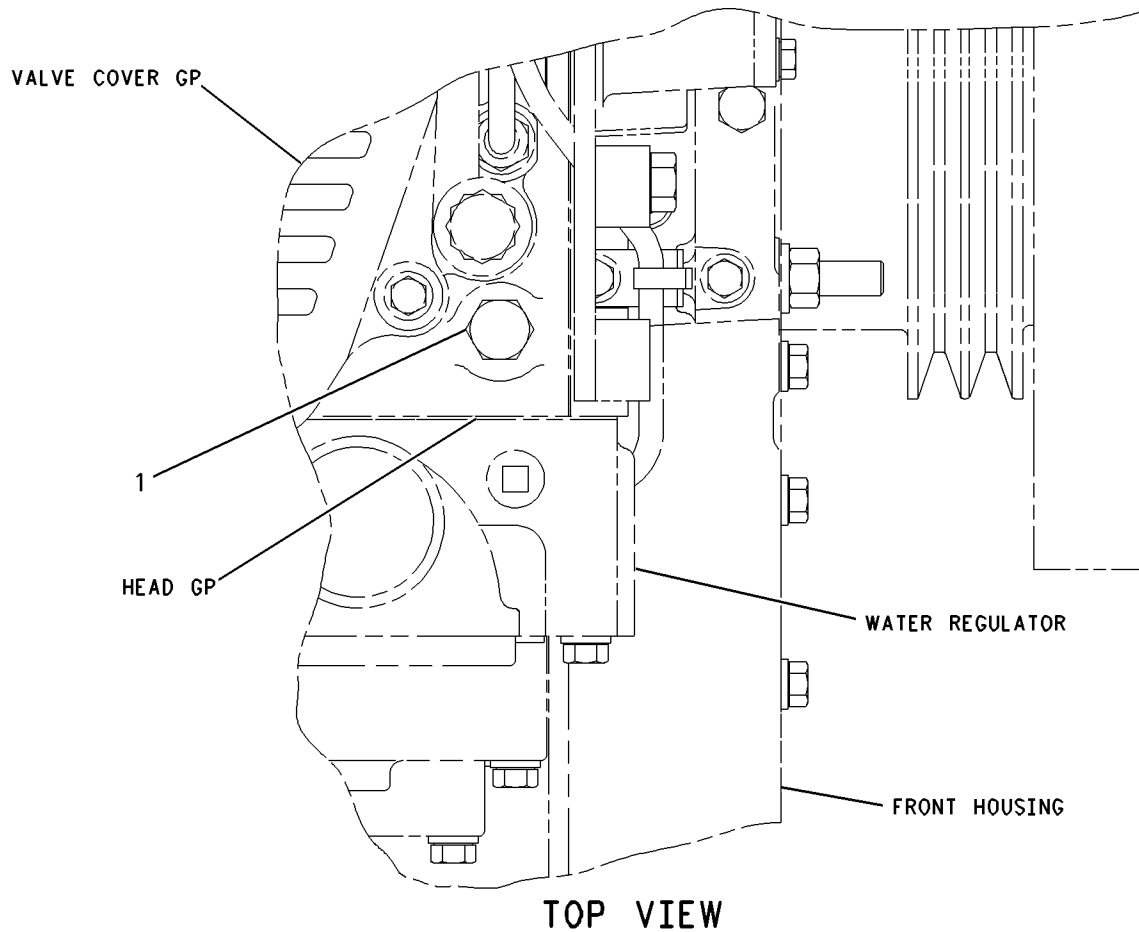
110-1116 PLUG GP-CYLINDER HEAD

CANNOT BE USED WITH SET BACK REGULATOR HOUSING
AN ATTACHMENT

SMCS-1100

i01377141

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7W-6492	1	PLUG-PIPE (1/2-14 NPTF THD)						
(INSTALL PLUG IN THE FORWARD RH CORNER OF THE HEAD)											



GRAPHIC #1

g00727962

BASIC ENGINE

136-9500 POWER TAKE-OFF GP-FRONT

FOR USE WITH 4P-5892-PAGE 65

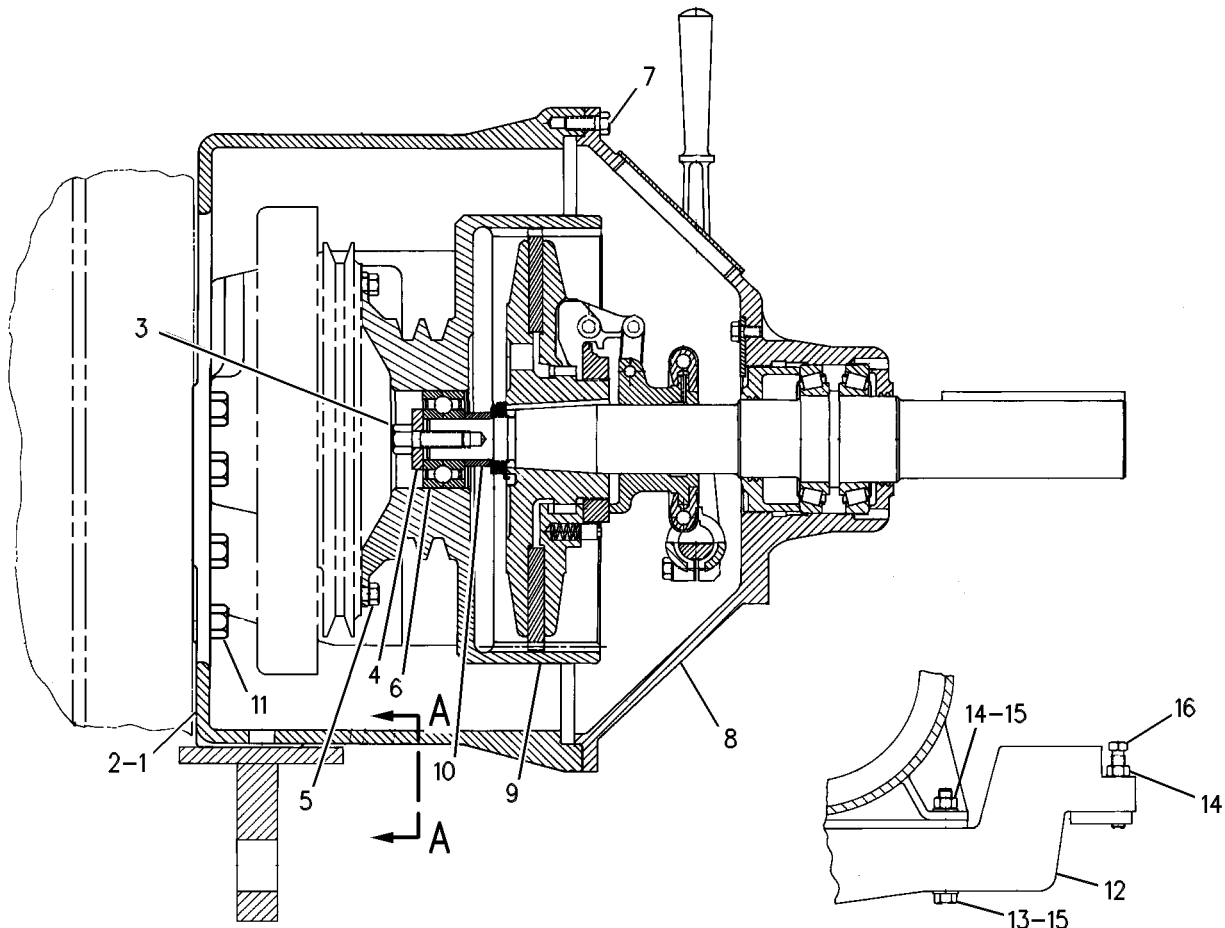
AN ATTACHMENT

SMCS-1165

i00672400

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4N-1501	1	ADAPTER AS-POWER TAKE-OFF						
	2	1	4W-8688	2	DOWEL -THREADED						
		1	4W-8689	2	DOWEL						
		1	9F-6641	2	BOLT						
	3	1	0S-1585	1	BOLT (1/2-13X1.50IN)						
	4	1	7K-6128	1	WASHER						
	5	1	0S-1588	12	BOLT (3/8-16X1.25IN)						
	6	1	5P-0898	1	BALL BEARING						
	7	1	0S-1594	12	BOLT (3/8-16X1IN)						
Y	8	1	3N-7841	1	CLUTCH GP						14
	9	1	4N-0835	1	COUPLING						
	10	1	4N-1503	1	SPACER						
	11	1	9X-8876	8	BOLT (1/2-13X4.75 IN)						
	12	1	8N-9339	1	SUPPORT AS-FRONT						
	13	1	2B-1015	2	BOLT (3/4-10X6.5IN)						
	14	1	2J-3506	4	NUT-FULL (3/4-10 THD)						
	15	1	5P-8248	4	WASHER-HARD (3.5MM THK)						
	16	1	8T-4162	2	SETSCREW-SQUARE HEAD						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00272387

BASIC ENGINE

130-0077 ROCKER ARM GP

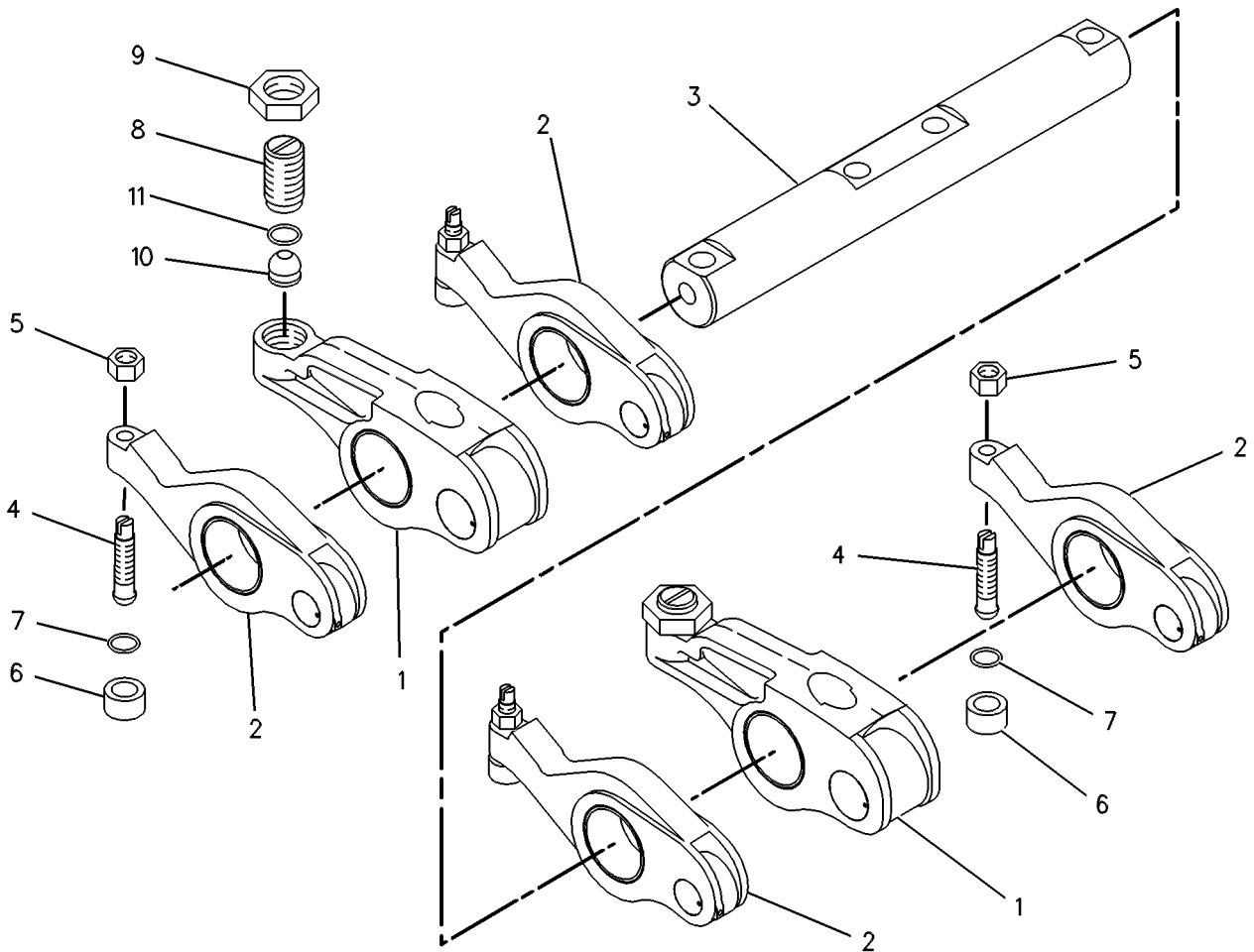
S/N: 9WR1-304

PART OF 6I-1940 MECHANISM GP-FUEL PUMP & VALVE

SMCS-1123

i00671626

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	130-0075	2	ROCKER ARM AS						
	2	1	108-5897	4	ROCKER ARM AS						
	3	1	6I-0901	1	SHAFT AS-ROCKER ARM						
		1	2A-3746	2	PLUG-CUP						
	4	1	4P-4313	4	SCREW-ADJUSTMENT						
	5	1	9L-7712	4	NUT (3/8-24 THD)						
	6	1	104-9270	4	BUTTON						
	7	1	8L-2777	4	SEAL-O-RING (10.77MM ID)						
	8	1	4P-4278	2	SCREW-UNIT INJ ADJUSTMENT						
	9	1	4P-4279	2	NUT-JAM						
	10	1	4P-7371	2	BUTTON-ROCKER ARM						
	11	1	032-9313	2	SEAL-O-RING						



GRAPHIC #1

g00254809

BASIC ENGINE

137-4361 ROCKER ARM GP

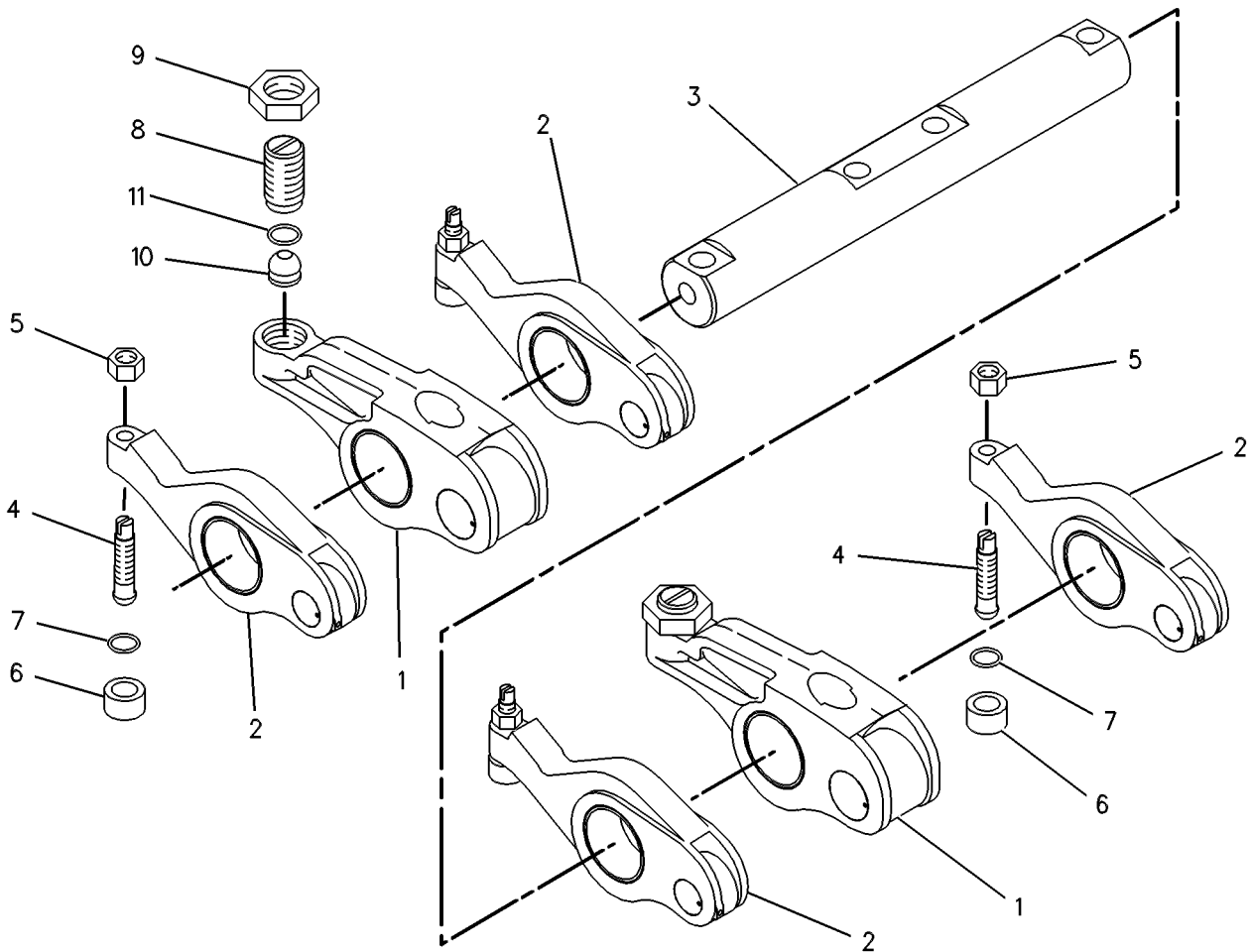
S/N: 9WR305-684

PART OF 6I-1940 MECHANISM GP-FUEL PUMP & VALVE

SMCS-1123

i00672421

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	137-4060	2	ROCKER ARM AS						
	2	1	108-5897	4	ROCKER ARM AS						
	3	1	6I-0901	1	SHAFT AS-ROCKER ARM						
		1	4B-9782	2	BALL (9.52MM)						
	4	1	4P-4313	4	SCREW-ADJUSTMENT						
	5	1	9L-7712	4	NUT (3/8-24 THD)						
	6	1	104-9270	4	BUTTON						
	7	1	8L-2777	4	SEAL-O-RING (10.77MM ID)						
	8	1	4P-4278	2	SCREW-UNIT INJ ADJUSTMENT						
	9	1	4P-4279	2	NUT-JAM						
	10	1	4P-7371	2	BUTTON-ROCKER ARM						
	11	1	032-9313	2	SEAL-O-RING						



GRAPHIC #1

g00254809

BASIC ENGINE

163-7381 ROCKER ARM GP

S/N: 9WR685-UP

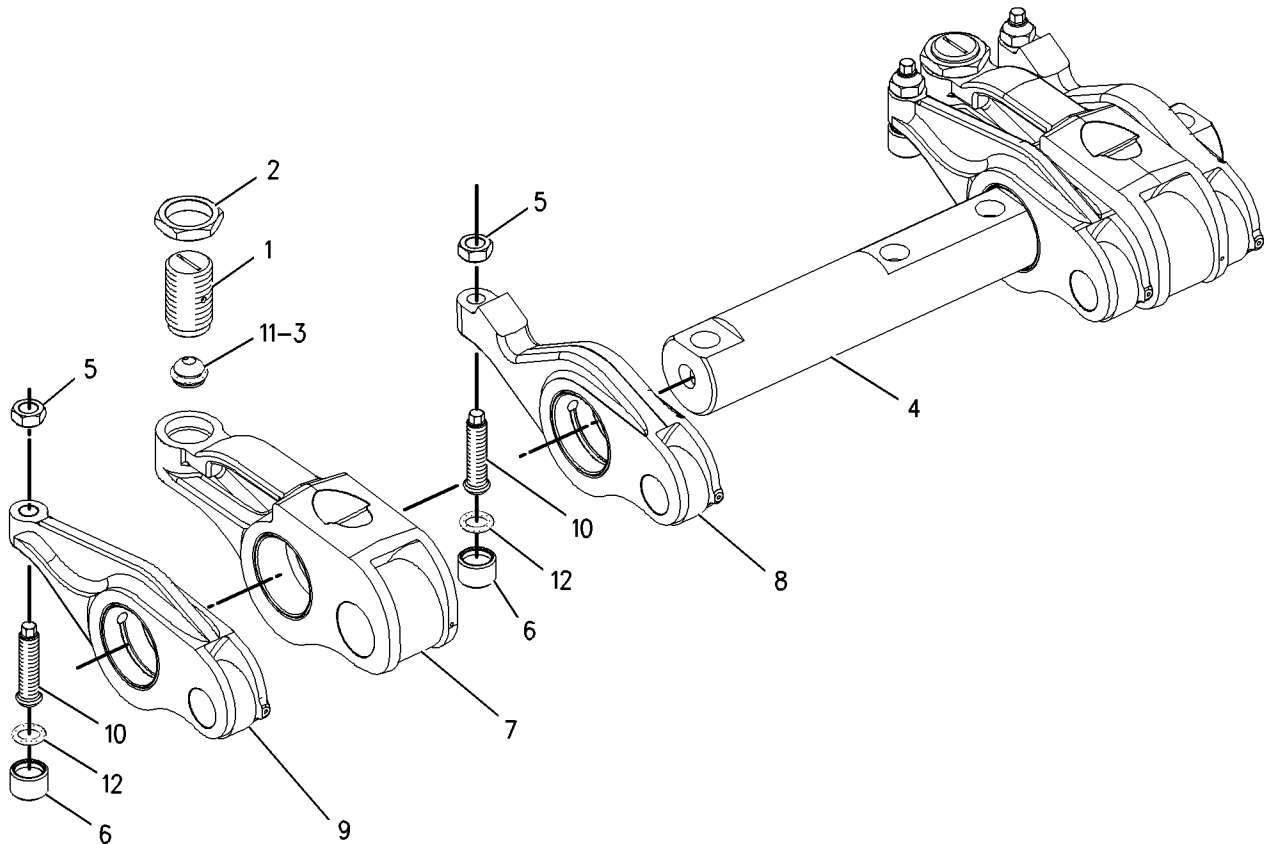
PART OF 6I-1940 MECHANISM GP-FUEL PUMP & VALVE

SMCS-1123

i01431012

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4P-4278	2	SCREW-UNIT INJ ADJUSTMENT						
	2	1	4P-4279	2	NUT-JAM						
	3	1	4P-7371	2	BUTTON-ROCKER ARM						
	4	1	6I-0901	1	SHAFT AS-ROCKER ARM						
		1	4B-9782	2	BALL						
	5	1	9L-7712	4	NUT (3/8-24 THD)						
	6	1	104-9270	4	BUTTON						
R	7	1	162-9174	2	ROCKER ARM AS (UNIT INJECTOR)						
R	8	1	162-9175	2	ROCKER ARM AS (EXHAUST)						
	9	1	170-8661	2	ROCKER ARM AS (INLET)						
	10	1	183-7547	4	SCREW-ROCKER ARM						
	11	1	032-9313	2	SEAL-O-RING (12.37MM ID)						
	12	1	8L-2777	4	SEAL-O-RING (10.8MM ID)						

R-REMG PART MAY BE AVAILABLE



GRAPHIC #1

g00749873

BASIC ENGINE

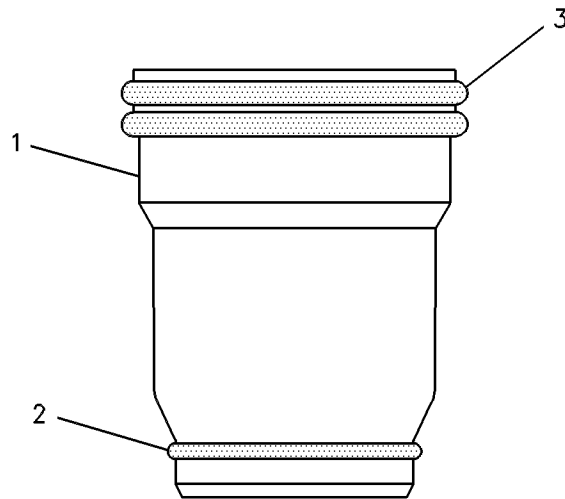
115-2324 SLEEVE GP - INJECTOR

PART OF 137-4493, 153-4220, 161-6193 CYLINDER HEAD AS

SMCS-1125, 1713

i01432465

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	166-3739	1	SLEEVE-INJECTOR						
	2	1	9X-7430	1	SEAL-O-RING (25.63MM ID)						
	3	1	166-2904	2	SEAL-O-RING (34.59MM ID)						



GRAPHIC #1

g00249688

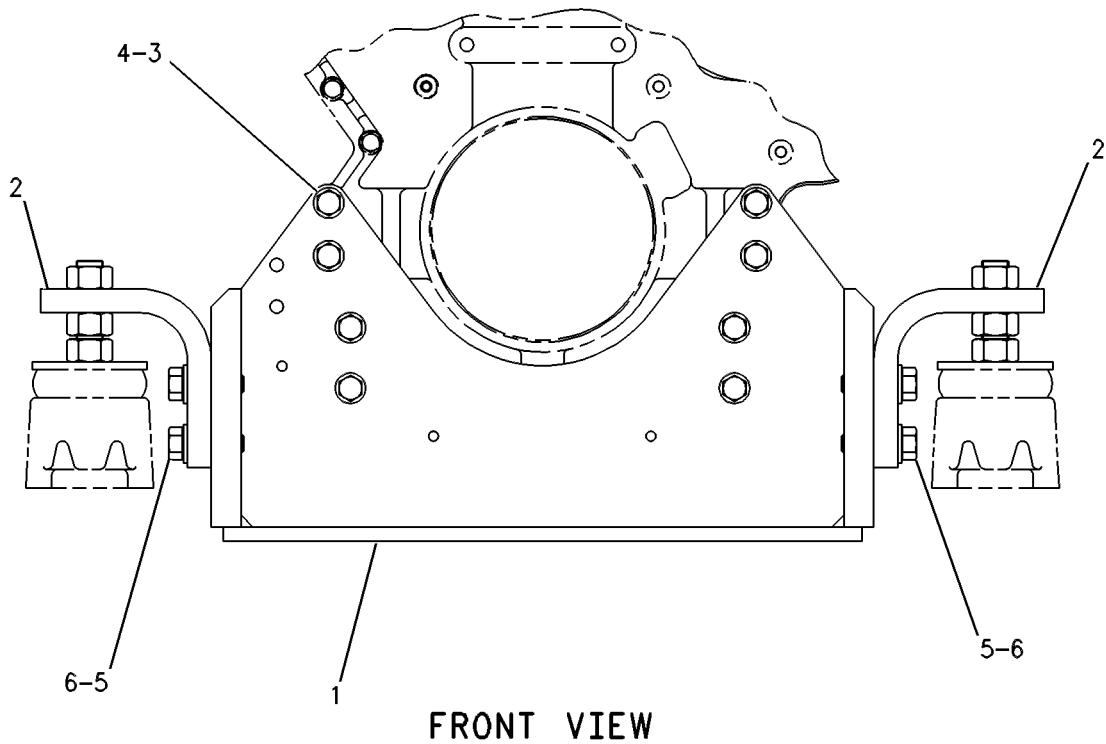
BASIC ENGINE

124-3388 SUPPORT GP-ENGINE AN ATTACHMENT

SMCS-1154

i00670829

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	124-3389	1	SUPPORT AS						
	2	1	131-0117	2	BRACKET						
	3	1	5P-8245	8	WASHER (3MM THK)						
	4	1	9X-8877	8	BOLT (1/2-13X5.0IN)						
	5	1	5P-8247	8	WASHER-HARD (3.5MM THK)						
	6	1	9X-8880	8	BOLT (5/8-11X2IN)						



GRAPHIC #1

g00257289

BASIC ENGINE

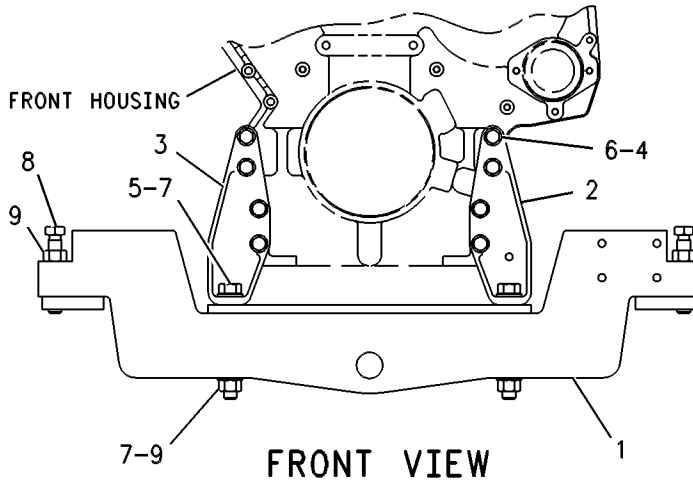
140-3694 SUPPORT GP-ENGINE

FOR USE WITH FRONT STUB SHAFT
AN ATTACHMENT

SMCS-1154

i00672437

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8N-9339	1	SUPPORT AS-FRONT						
	2	1	6N-0163	1	SUPPORT-ENGINE-LH						
	3	1	4N-1359	1	SUPPORT-ENGINE-RH						
	4	1	9X-8877	8	BOLT (1/2-13X5.0IN)						
	5	1	1D-4616	2	BOLT (3/4-10X6IN)						
	6	1	5P-8245	8	WASHER (3MM THK)						
	7	1	5P-8248	4	WASHER-HARD (3.5MM THK)						
	8	1	8T-4162	2	SETSCREW-SQUARE HEAD						
	9	1	2J-3506	4	NUT-FULL (3/4-10 THD)						



GRAPHIC #1

g00272459

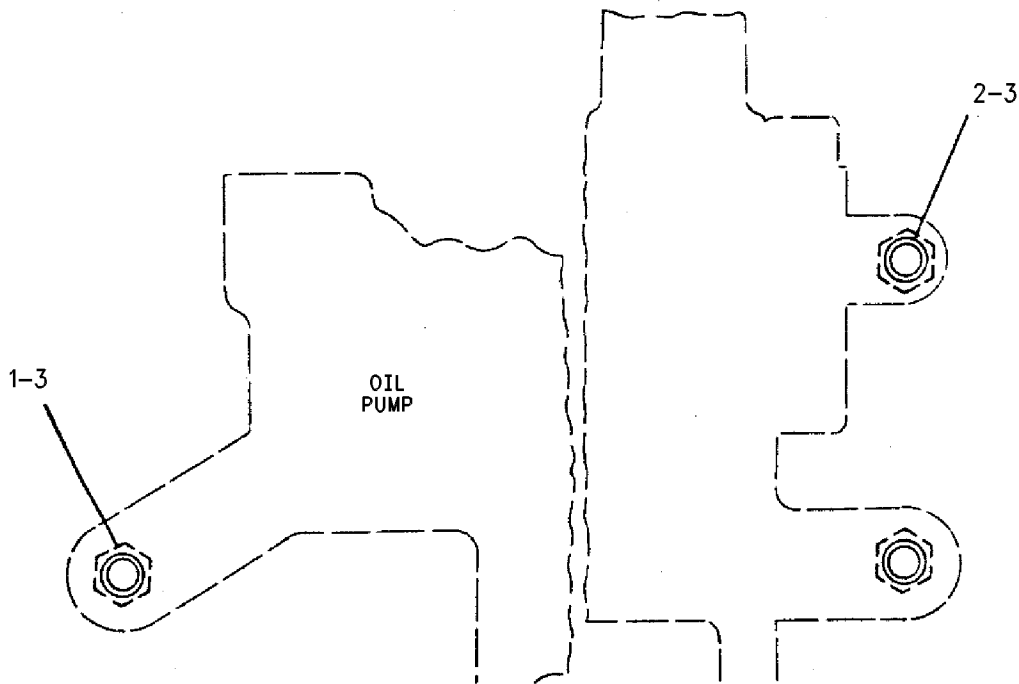
LUBRICATION SYSTEM

4N-2481 FASTENER GP-OIL PUMP MOUNTING

SMCS-1304

i01446823

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0L-1143	2	BOLT (3/8-16X2.50 IN)						
	2	1	0S-1590	1	BOLT (3/8-16X2 IN)						
	3	1	5M-2894	3	WASHER-HARD (10.2X18.5X2.5MM THK)						



GRAPHIC #1

g00604525

LUBRICATION SYSTEM

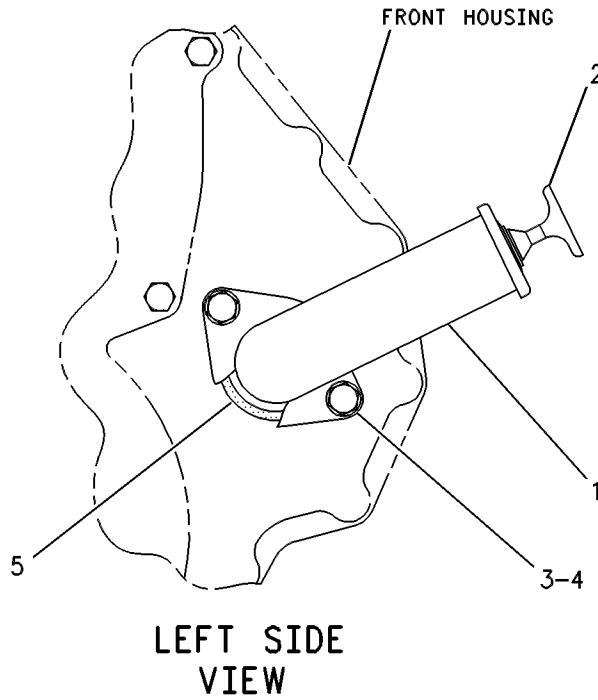
131-0118 FILLER GP-ENGINE OIL

FOR USE WITH LH SERVICE
AN ATTACHMENT

SMCS-1316

i00942401

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	156-6905	1	TUBE AS-FILLER						
	2	1	9L-8439	1	CAP-OIL FILLER						
	3	1	2B-2695	2	BOLT (5/16-18X.875IN)						
	4	1	9M-1974	2	WASHER-HARD (2MM THK)						
	5	1	061-9455	1	SEAL-O-RING						



GRAPHIC #1

g00257261

LUBRICATION SYSTEM

131-0124 FILLER GP-ENGINE OIL

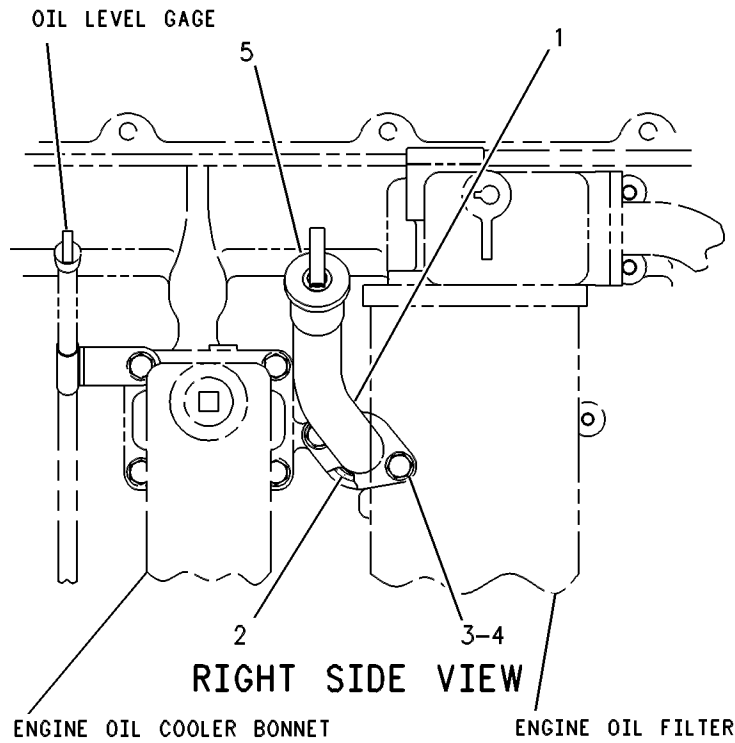
FOR USE WITH RH SERVICE

AN ATTACHMENT

SMCS-1316

i00670649

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	131-0125	1	TUBE AS						
	2	1	8C-0624	1	SEAL-O-RING (37.77MM ID)						
	3	1	5M-2894	2	WASHER (2.5MM THK)						
	4	1	0S-1588	2	BOLT (3/8-16X1.25IN)						
	5	1	9L-8439	1	CAP-OIL FILLER						



GRAPHIC #1

g00257262

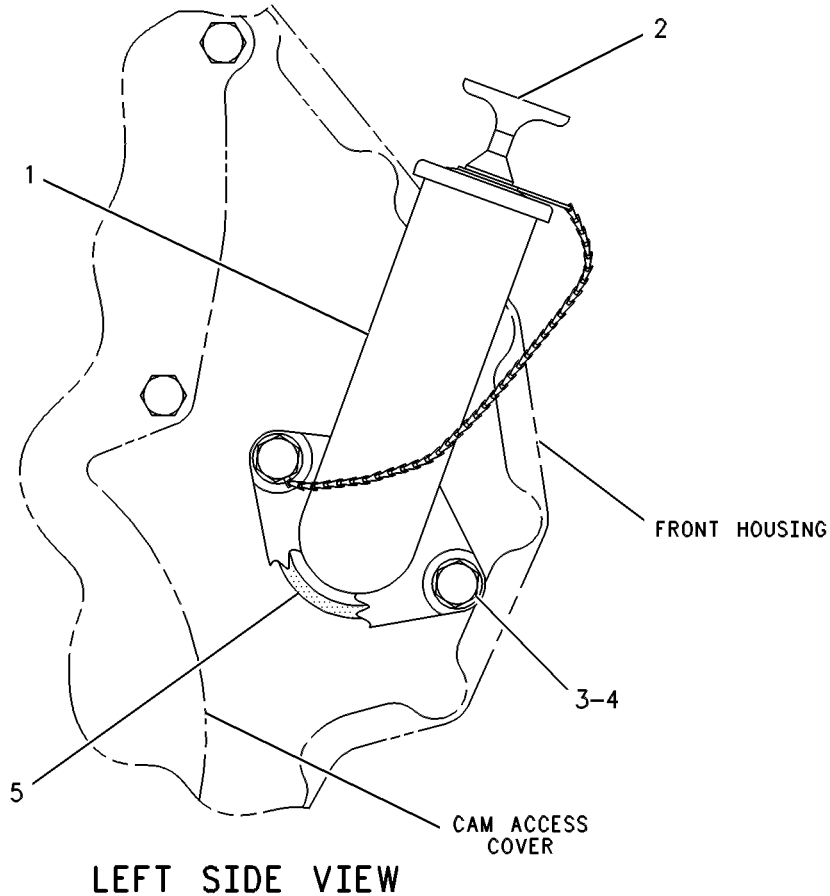
LUBRICATION SYSTEM

133-6353 FILLER GP-ENGINE OIL TIMING GEAR COVER MOUNTED FOR USE WITH OR WITHOUT FRONT SOUND SUPPRESSION PANELS AN ATTACHMENT

SMCS-1316

i00671879

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7E-4035	1	TUBE AS-OIL FILLER						
	2	1	4W-3087	1	CAP-OIL FILLER						
	3	1	2B-2695	2	BOLT (5/16-18X.875IN)						
	4	1	9M-1974	2	WASHER-HARD (2MM THK)						
	5	1	061-9455	1	SEAL-O-RING						



GRAPHIC #1

g00260205

MEMORANDA

LUBRICATION SYSTEM

126-6886 FILTER & LINES GP-ENGINE OIL

FOR USE WITH LH SERVICE. CANNOT BE USED WITH RH SERVICE OIL FILTER SYSTEM

AN ATTACHMENT

TYPE 1

SMCS-1306, 1307, 1308

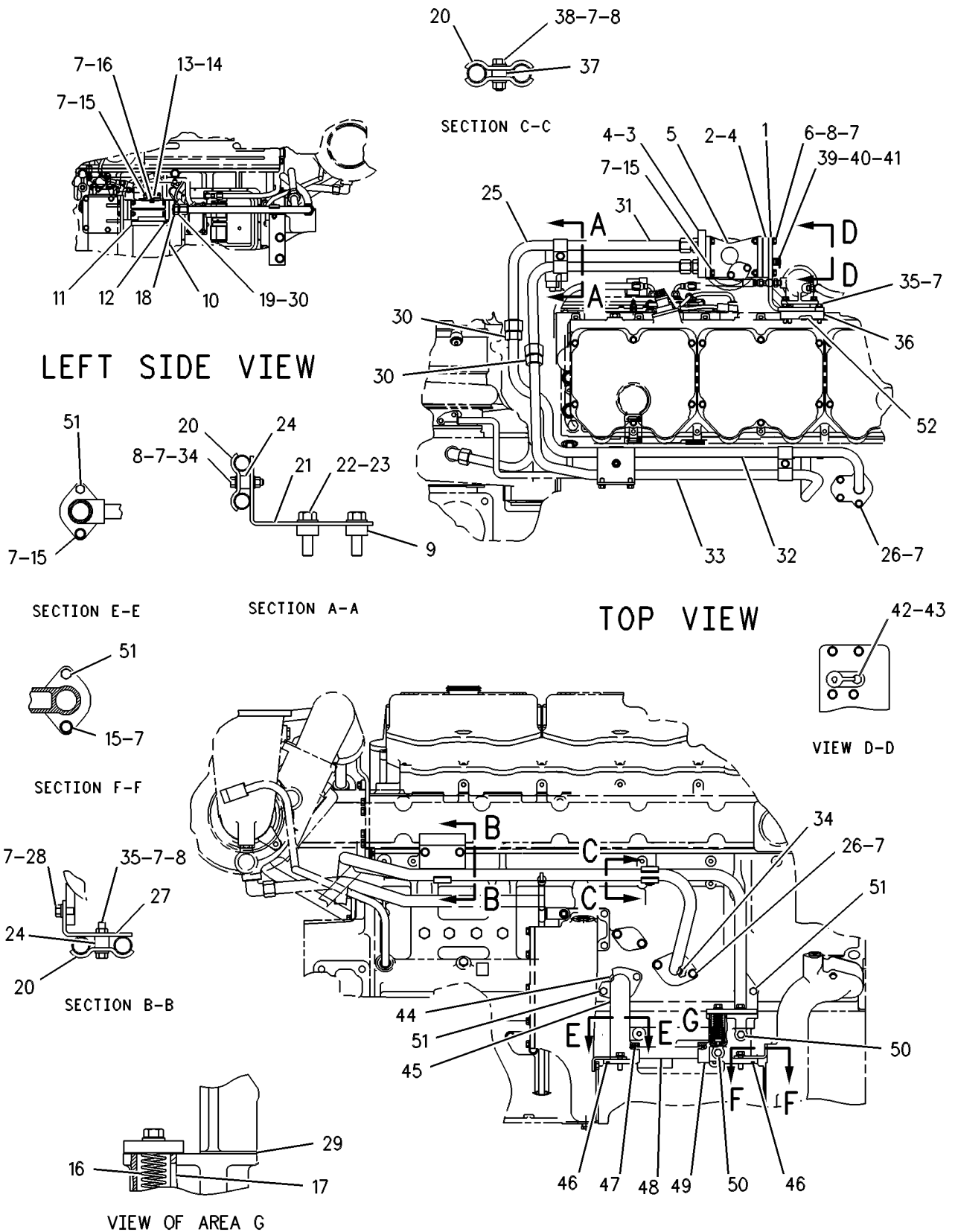
i00942398

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	136-5842	1	BRACKET AS						
	2	1	7C-4038	1	COVER						
	3	1	9L-5611	1	COVER						
	4	1	2P-4305	2	GASKET						
	5	1	2P-4301	1	BASE AS						
		1	2P-4304	1	STUD-TAPERLOCK						
	6	1	0L-2070	4	BOLT (3/8-16X2.25IN)						
	7	1	5M-2894	34	WASHER (2.5MM THK)						
	8	1	9S-8752	7	NUT-FULL (3/8-16 THD)						
	9	1	3P-8283	2	SPACER						
	10	1	1R-0716	1	FILTER AS-ENGINE OIL						
	11	1	4N-7082	1	SHIELD-OIL FILTER						
	12	1	7F-9090	2	SCREW-DRIVE						
	13	1	2P-3761	1	COVER						
	14	1	2P-3760	1	GASKET						
	15	1	0S-1588	8	BOLT (3/8X1.25)						
	16	1	4N-8150	1	SPRING						
	17	1	9M-0853	1	PLUNGER-RELIEF VALVE						
	18	1	7M-8485	2	SEAL-O-RING (29.74MM ID)						
	19	1	6V-8635	2	CONNECTOR-SEAL						
	20	1	5M-7087	4	CLAMP-TUBE						
	21	1	135-5449	1	BRACKET						
	22	1	9X-8882	2	BOLT (5/8-11X2.50IN)						
	23	1	5P-8247	1	WASHER-HARD (3.5MM THK)						
	24	1	135-5096	2	SPACER						
	25	1	141-0406	1	TUBE AS						
	26	1	1A-2029	6	BOLT (3/8-16X1.125IN)						
	27	1	135-5163	1	BRACKET						
	28	1	0S-0509	2	BOLT (3/8X.75IN)						
	29	1	126-6876	1	GASKET						
	30	1	5K-9090	4	SEAL-O-RING (23.52MM ID)						
	31	1	141-0405	1	TUBE AS						
	32	1	126-6878	1	TUBE AS						
	33	1	126-6881	1	TUBE AS						
	34	1	061-7540	1	SEAL-O-RING (37.69MM ID)						
	35	1	0S-1571	6	BOLT (3/8-16X1.75IN)						
	36	1	109-7424	1	COVER-CYLINDER BLOCK						
	37	1	7W-9094	1	SPACER (9MM THK)						
	38	1	3B-1915	1	BOLT (3/8-16X1.375IN)						
	39	1	8C-3446	1	VALVE-FLUID SAMPLING						
	40	1	3J-7354	1	SEAL-O-RING (8.92MM ID)						
	41	1	8C-3445	1	CAP-DUST						
	42	1	9S-4191	1	PLUG-O-RING (9/16-18 THD)						
	43	1	3J-1907	1	SEAL-O-RING (11.89MM ID)						
	44	1	109-0073	1	SEAL-O-RING (43.82MM ID)						
	45	1	4N-0826	1	ELBOW-COOLER INLET						
	46	1	109-0076	2	SEAL-O-RING (50.17MM ID)						
	47	1	2N-3350	2	SEAL-O-RING (21.59MM ID)						
	48	1	4N-1216	1	TUBE-COOLER BYPASS						
	49	1	4N-1215	1	BODY-COOLER BYPASS						
	50	1	8T-6765	2	PLUG-PIPE (1/4-18 NPTF THD)						
	51	1	0S-1594	6	BOLT (3/8X1.0IN)						
	52	1	109-7425	1	SEAL-COVER						

LUBRICATION SYSTEM

126-6886 FILTER & LINES GP-ENGINE OIL (contd.)

i00942398



GRAPHIC #1

g00329705

LUBRICATION SYSTEM

126-6886 FILTER & LINES GP-ENGINE OIL

FOR USE WITH LH SERVICE. CANNOT BE USED WITH RH SERVICE OIL FILTER SYSTEM

AN ATTACHMENT

TYPE 2

SMCS-1306, 1307, 1308

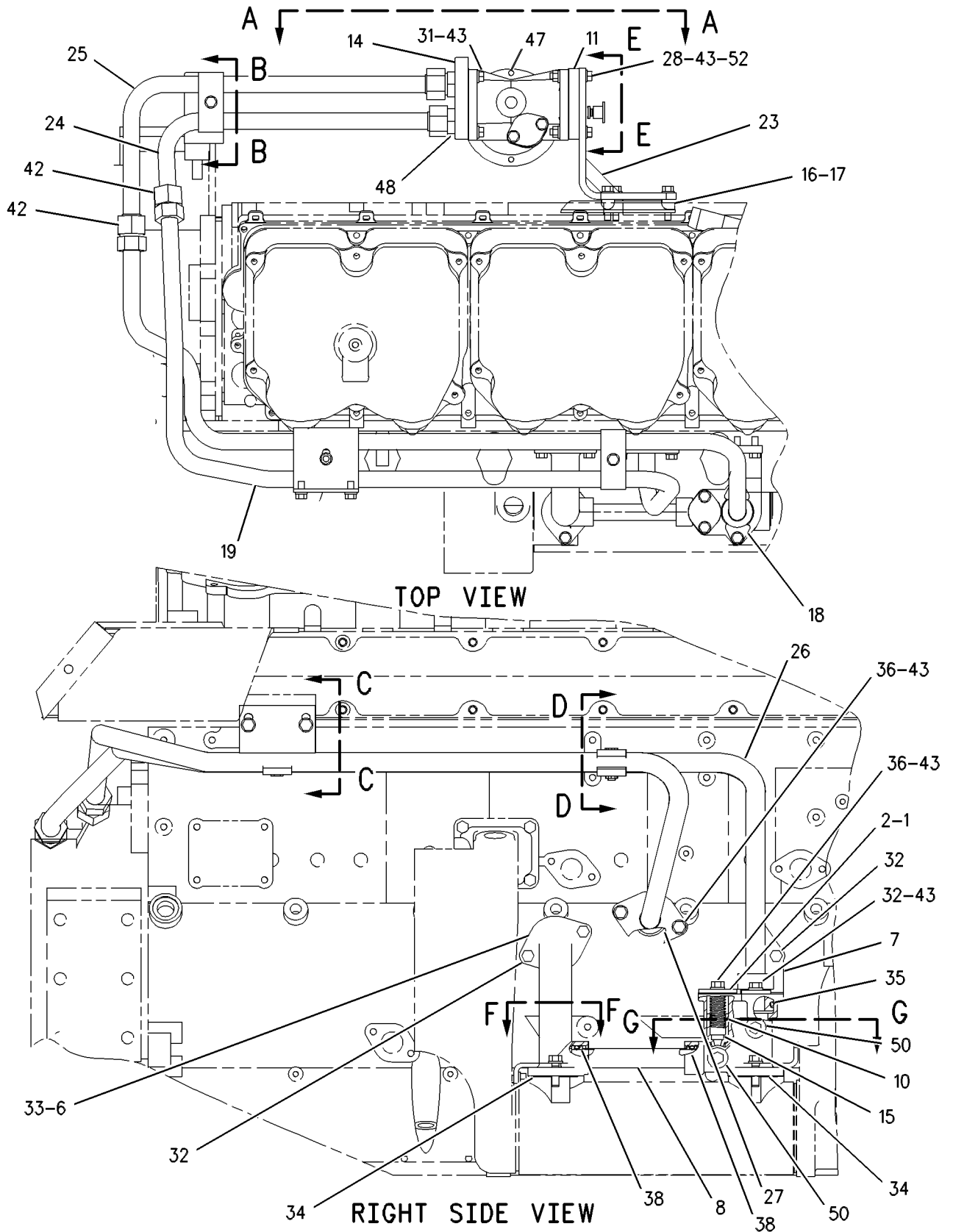
i01154087

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1,2	2P-3760	2	GASKET						
	2	1,2	2P-3761	2	COVER						
	3	2	2P-4301	1	BASE AS						
		2	2P-4304	1	STUD-TAPERLOCK						
	4	2	2P-4305	2	GASKET						
	5	2	3P-8283	2	SPACER						
	6	2	4N-0826	1	ELBOW-COOLER INLET						
	7	1	4N-1215	1	BODY-COOLER BYPASS						
	8	1	4N-1216	1	TUBE-COOLER BYPASS						
	9	2	4N-7082	1	SHIELD-OIL FILTER						
	10	1,2	4N-8150	2	SPRING						
	11	1	7C-4038	1	COVER						
	12	2	7W-9094	1	SPACER (9MM THK)						
	13	2	8C-3445	1	CAP-DUST						
	14	1	9L-5611	1	COVER						
	15	1,2	9M-0853	2	PLUNGER-RELIEF VALVE						
	16	1	109-7424	1	COVER-CYLINDER BLOCK						
	17	1	109-7425	1	SEAL-COVER						
	18	1	117-4897	2	RETAINER						
	19	1	126-6881	1	TUBE AS						
	20	2	135-5096	2	SPACER						
	21	1	135-5163	1	BRACKET						
	22	1	135-5449	1	BRACKET						
	23	1	136-5842	1	BRACKET AS						
	24	1	141-0405	1	TUBE AS						
	25	1	141-0406	1	TUBE AS						
	26	1	176-9796	1	TUBE AS						
	27	1	061-7540	1	SEAL-O-RING (37.69MM ID)						
	28	1	0L-2070	4	BOLT (3/8-16X2.25IN)						
	29	2	0S-0509	2	BOLT (3/8-16X.75IN)						
	30	2	0S-1571	6	BOLT (3/8-16X1.75IN)						
	31	1,2	0S-1588	8	BOLT (3/8-16X1.25IN)						
	32	1,2	0S-1594	8	BOLT (3/8-16X1 IN)						
	33	1	109-0073	1	SEAL-O-RING (43.82MM ID)						
	34	1	109-0076	2	SEAL-O-RING (50.17MM ID)						
	35	1	109-0078	1	SEAL-O-RING (33.47MM ID)						
	36	1	1A-2029	4	BOLT (3/8-16X1.125IN)						
	37	1	1R-0716	1	FILTER AS-ENGINE OIL						
	38	1	2N-3350	2	SEAL-O-RING (21.59MM ID)						
	39	2	3B-1915	1	BOLT (3/8-16X1.375IN)						
	40	2	3J-1907	1	SEAL-O-RING (11.89MM ID)						
	41	2	3J-7354	1	SEAL-O-RING (8.92MM ID)						
	42	1,2	5K-9090	4	SEAL-O-RING (23.52MM ID)						
	43	1,2	5M-2894	34	WASHER (2.5MM THK)						
	44	2	5M-7087	4	CLAMP-TUBE						
	45	2	5P-8247	2	WASHER-HARD (3.5MM THK)						
	46	2	6V-8635	2	CONNECTOR-SEAL						
	47	1	7F-9090	2	SCREW-DRIVE						
	48	1	7M-8485	2	SEAL-O-RING (29.74MM ID)						
	49	2	8C-3446	1	VALVE-FLUID SAMPLING						
	50	1	8T-6765	2	PLUG-PIPE (1/4-18 NPTF THD)						
	51	2	9S-4191	1	PLUG-O-RING (9/16-18 THD)						
	52	1,2	9S-8752	7	NUT (3/8-16 THD)						
	53	2	9X-8882	2	BOLT (5/8-11X2.50IN)						

LUBRICATION SYSTEM

126-6886 FILTER & LINES GP-ENGINE OIL (contd.)

i01154087



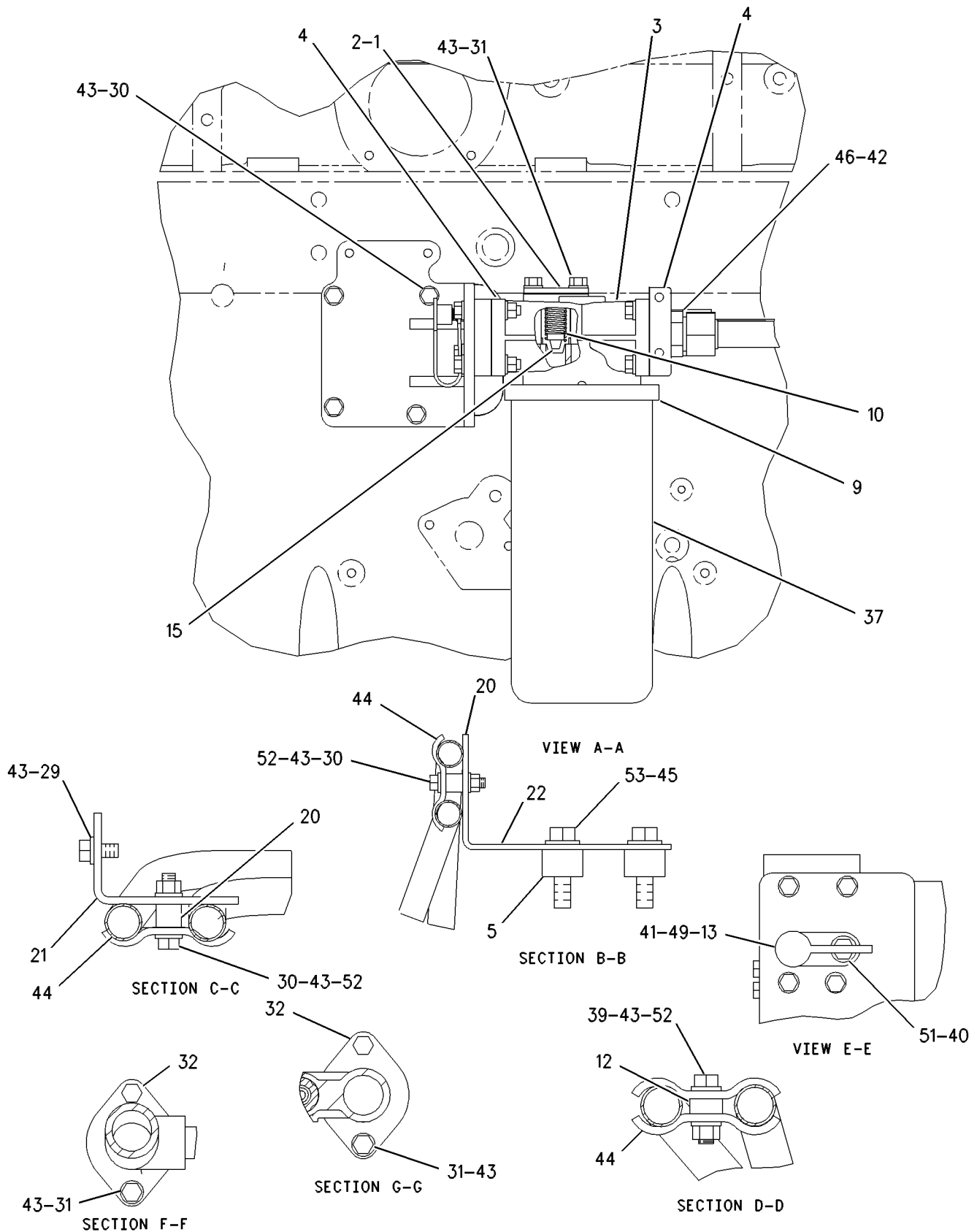
GRAPHIC #1

g00614645

LUBRICATION SYSTEM

126-6886 FILTER & LINES GP-ENGINE OIL (contd.)

i01154087



GRAPHIC #2

g00614745

MEMORANDA

LUBRICATION SYSTEM

4N-0745 FILTER GP-ENGINE OIL

AN ATTACHMENT

SMCS-1306, 1308

i01124906

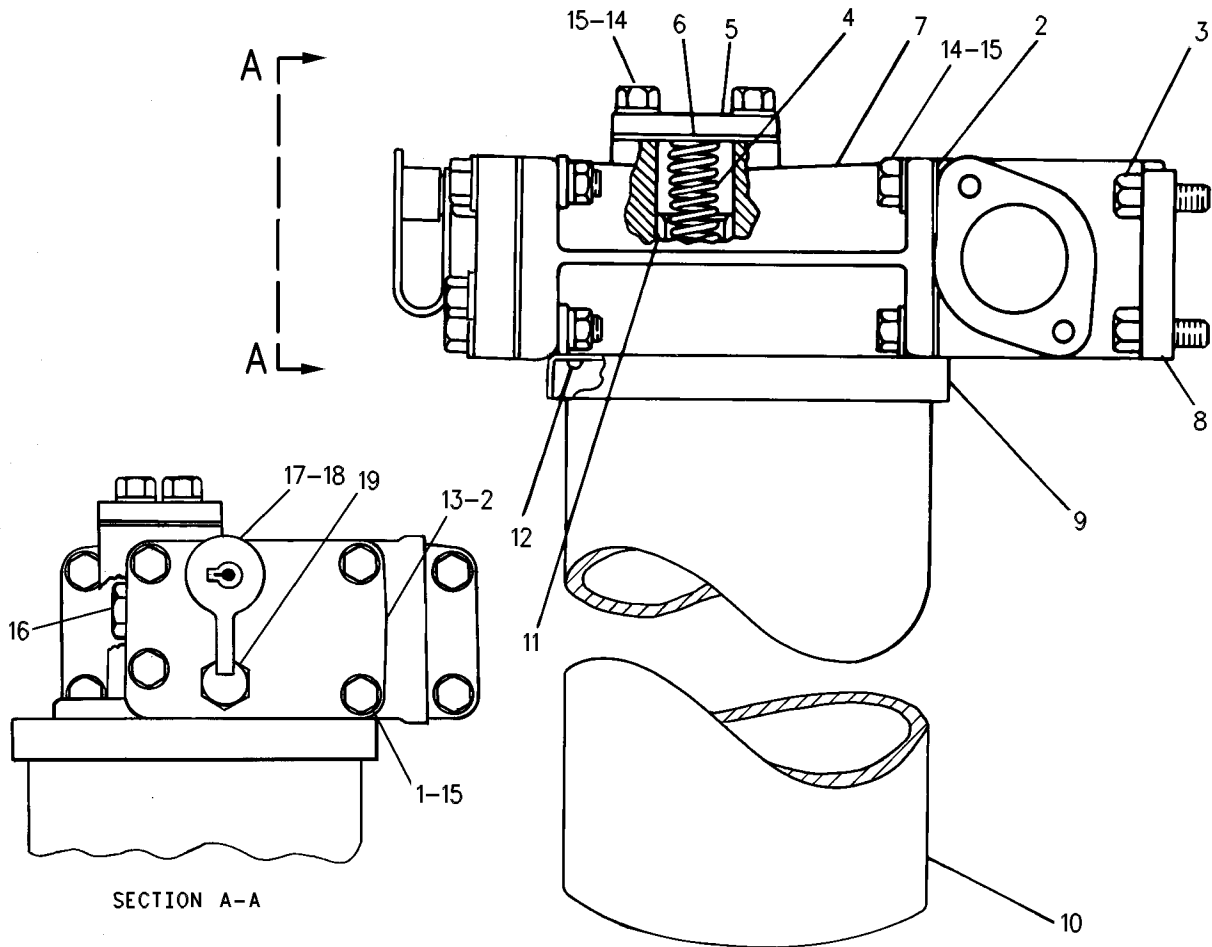
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1571	2	BOLT (3/8-16X1.75IN)						
		1	0S-1590	2	BOLT (3/8-16X2IN)						
		1	9S-8752	4	NUT (3/8-16 THD)						
2		1	2P-4305	2	GASKET						
3		1	0S-1594	4	BOLT (3/8-16X1.0IN)						
4		1	4N-8150	1	SPRING						
5		1	2P-3761	1	COVER						
6		1	2P-3760	1	GASKET						
7		1	2P-4301	1	BASE AS						
		1	2P-4304	1	STUD-TAPERLOCK						
8		1	4N-0827	1	ADAPTER-FILTER						
9		1	4N-7082	1	SHIELD-OIL FILTER						
10		1	1R-0716	1	FILTER AS-ENGINE OIL						
11		1	9M-0853	1	PLUNGER-RELIEF VALVE						
12		1	7F-9090	2	SCREW-DRIVE						
13		1	7C-4038	1	COVER						
14		1	0S-1588	6	BOLT (3/8-16X1.25IN)						
15		1	5M-2894	14	WASHER (2.5MM THK)						
B	16	1	7W-6492	1	PLUG-PIPE (1/2-14 NPTF THD)						
	17	1	8C-3446	1	VALVE-FLUID SAMPLING						
		1	3J-7354	1	SEAL-O-RING (8.92MM ID)						
18		1	8C-3445	1	CAP-DUST						
19		1	9S-4191	1	PLUG-O-RING (9/16-18 THD)						
		1	3J-1907	1	SEAL-O-RING (11.89MM ID)						

B-USE AS REQUIRED

LUBRICATION SYSTEM

4N-0745 FILTER GP-ENGINE OIL (contd.)

i01124906



GRAPHIC #1

g00595267

LUBRICATION SYSTEM

161-9297 FILTER GP-ENGINE OIL

AN ATTACHMENT

SMCS-1306, 1308

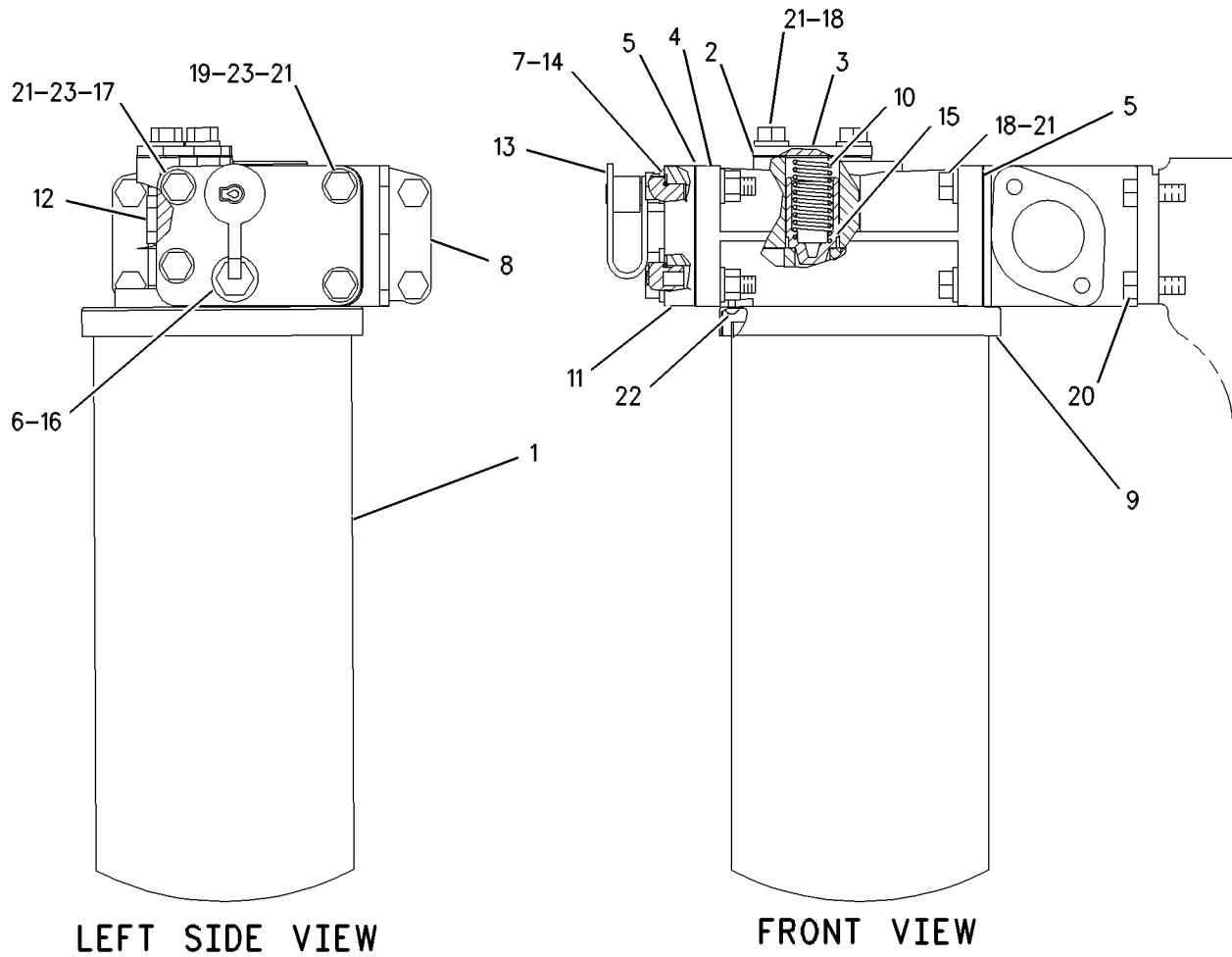
i01128151

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1R-0716	1	FILTER AS-ENGINE OIL						
	2	1	2P-3760	1	GASKET						
	3	1	2P-3761	1	COVER						
	4	1	2P-4301	1	BASE AS						
		1	2P-4304	1	STUD-TAPERLOCK						
	5	1	2P-4305	2	GASKET						
	6	1	3J-1907	1	SEAL-O-RING (11.89MM ID)						
	7	1	3J-7354	1	SEAL-O-RING (8.92MM ID)						
	8	1	4N-0827	1	ADAPTER-FILTER						
	9	1	4N-7082	1	SHIELD-OIL FILTER						
	10	1	4N-8150	1	SPRING						
	11	1	7C-4038	1	COVER						
	12	1	7W-6492	1	PLUG-PIPE (1/2-14 NPTF THD)						
	13	1	8C-3445	1	CAP-DUST						
	14	1	8C-3446	1	VALVE-FLUID SAMPLING						
	15	1	1P-1367	1	PLUNGER						
	16	1	9S-4191	1	PLUG-O-RING (9/16-18 THD)						
	17	1	0S-1571	2	BOLT (3/8-16X1.75IN)						
	18	1	0S-1588	6	BOLT (3/8-16X1.25IN)						
	19	1	0S-1590	2	BOLT (3/8-16X2IN)						
	20	1	0S-1594	4	BOLT (3/8-16X1.0IN)						
	21	1	5M-2894	14	WASHER (2.5MM THK)						
	22	1	7F-9090	2	SCREW-DRIVE						
	23	1	9S-8752	4	NUT (3/8-16 THD)						

LUBRICATION SYSTEM

161-9297 FILTER GP-ENGINE OIL (contd.)

i01128151



LEFT SIDE VIEW

FRONT VIEW

GRAPHIC #1

g00597106

LUBRICATION SYSTEM

125-5603 GAUGE GP-OIL LEVEL (DIPSTICK)

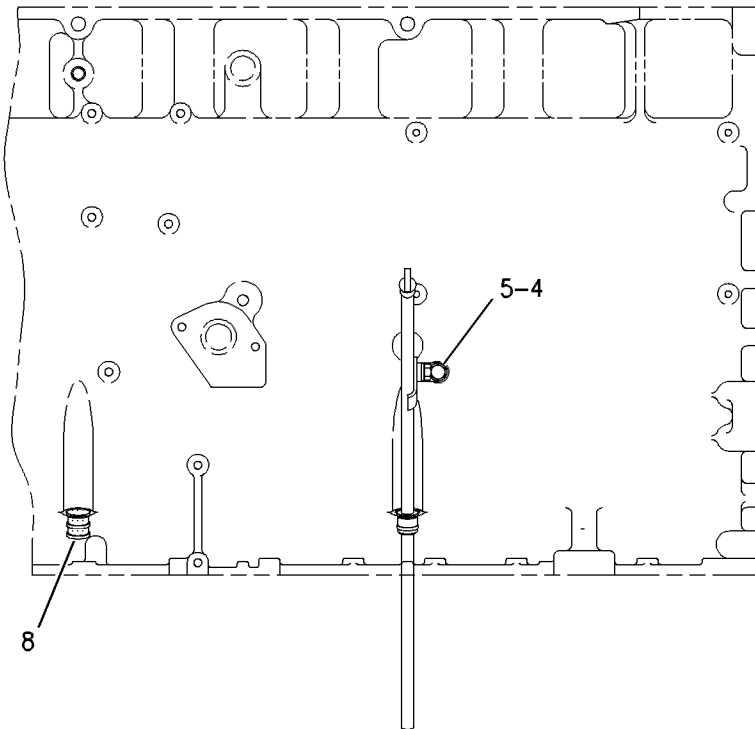
FOR USE WITH LH SERVICE
AN ATTACHMENT

SMCS-1326

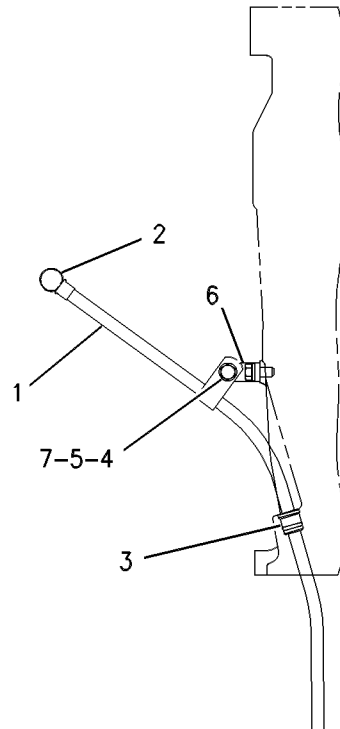
i01209858

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1N-3810	1	GUIDE AS-OIL LEVEL GAUGE						
	2	1	136-9509	1	GAUGE AS-OIL LEVEL (DIPSTICK)						
	3	1	118-5068	1	SEAL-O-RING (15.54MM ID)						
	4	1	0L-1351	2	BOLT (3/8-16X.875IN)						
	5	1	5M-2894	3	WASHER (2.5MM THK)						
	6	1	2L-6243	1	BRACKET						
	7	1	9S-8752	1	NUT (3/8-16 THD)						
J	8	1	165-6170	3	PLUG						

J-USE TO PLUG OPIONAL DIPSTICK LOCATIONS



LEFT SIDE VIEW



REAR VIEW

GRAPHIC #1

g00647640

LUBRICATION SYSTEM

136-9507 GAUGE GP-OIL LEVEL (DIPSTICK)

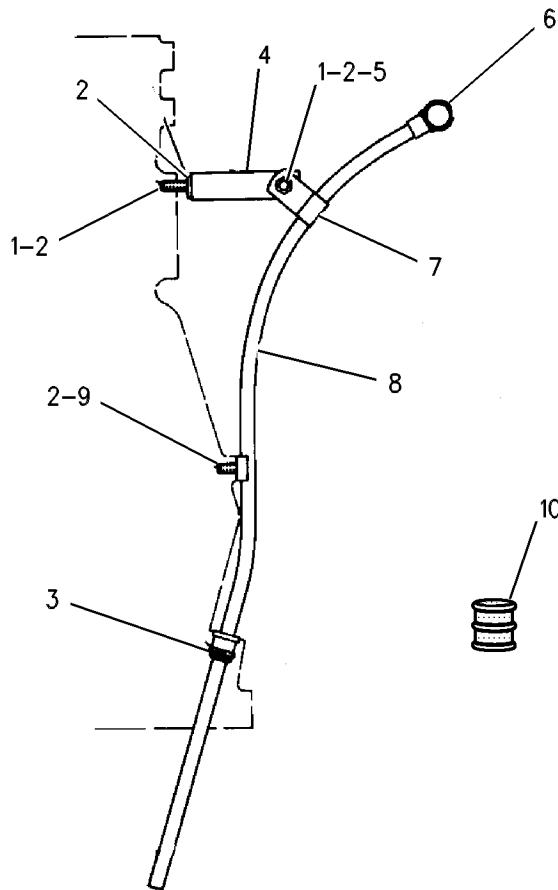
FOR USE WITH RH SERVICE
AN ATTACHMENT

SMCS-1326

i01211713

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1591	2	BOLT (3/8-16X1.5 IN)						
	2	1	5M-2894	5	WASHER (2.5MM THK)						
	3	1	118-5068	1	SEAL-O-RING (15.54MM ID)						
	4	1	6N-2283	1	BRACKET						
	5	1	9S-8752	1	NUT (3/8-16 THD)						
		1	5H-3124	1	SPACER (15.88MM THK)						
	6	1	136-9508	1	GAUGE AS-OIL LEVEL (DIPSTICK)						
	7	1	7B-1598	1	CLIP (12.7MM ID)						
	8	1	6N-7840	1	GUIDE AS-GAUGE						
	9	1	0S-0509	1	BOLT (3/8-16X.75IN)						
J	10	1	165-6170	3	PLUG						

J-USED TO PLUG OPTIONAL DIPSTICK LOCATIONS



REAR VIEW

GRAPHIC #1

g00648191

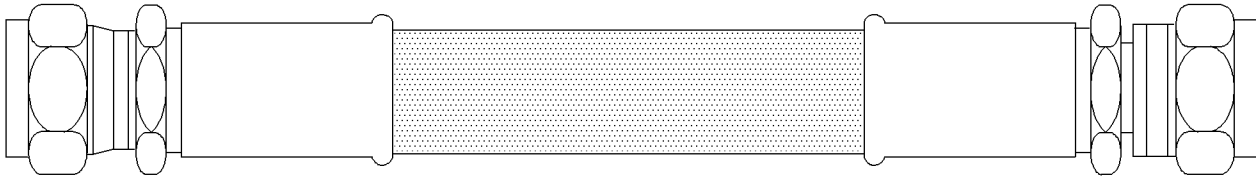
LUBRICATION SYSTEM

3P-6048 HOSE AS*I
PART OF 130-1159 STARTING MOTOR GP-AIR
AN ATTACHMENT

SMCS-1307

i01422459

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
(NO SERVICED PARTS)											



GRAPHIC #1

g00745968

MEMORANDA

LUBRICATION SYSTEM

4N-0698 LINES GP-ENGINE OIL

FOR USE WITH RH SERVICE

AN ATTACHMENT

SMCS-1307

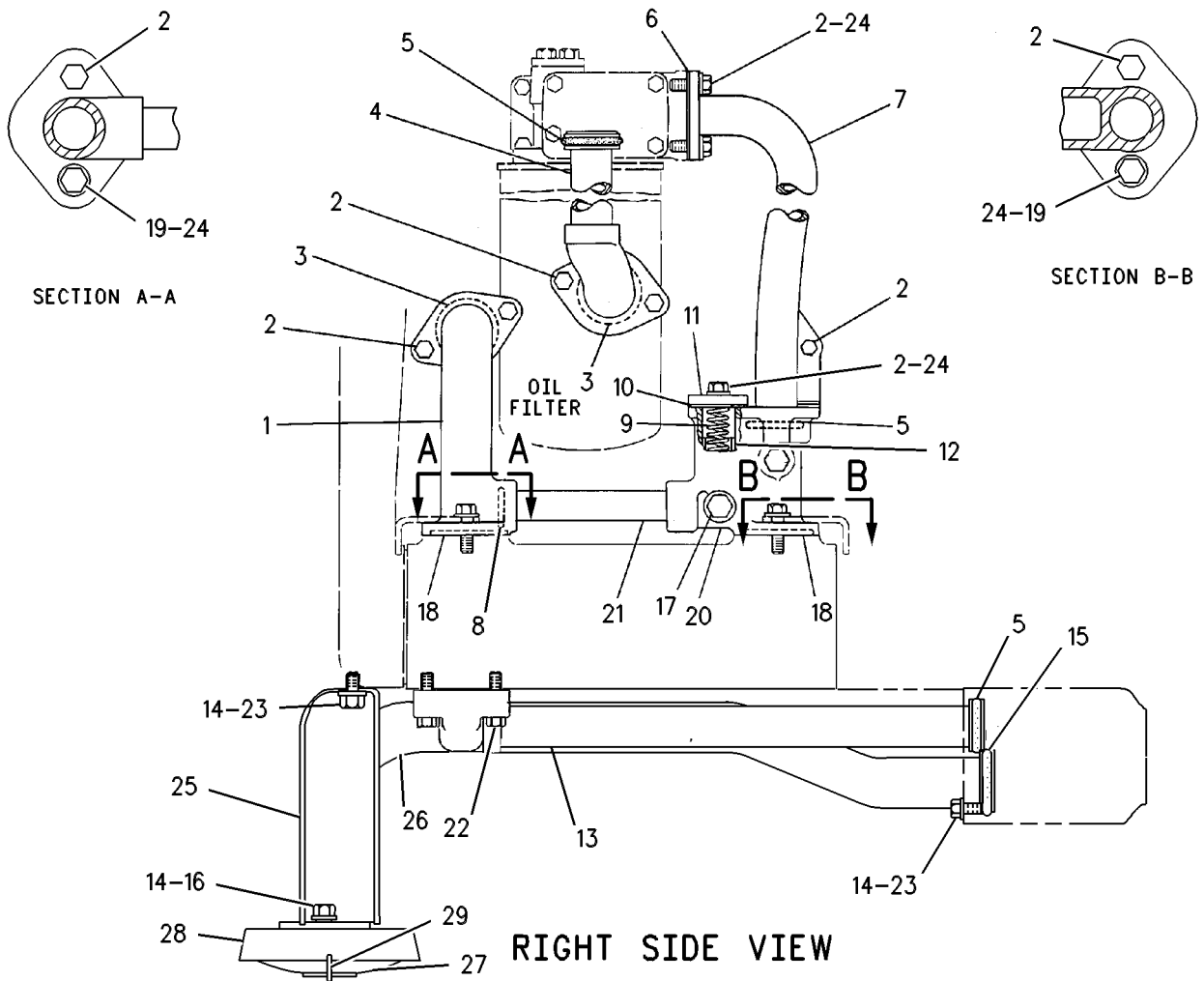
i00668442

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4N-0826	1	ELBOW-COOLER INLET						
	2	1	0S-1594	12	BOLT (3/8-16X1IN)						
C	3	1	109-0073	2	SEAL-O-RING (43.82MM ID)						
	4	1	1W-6137	1	TUBE AS						
C	5	1	109-0078	3	SEAL-O-RING (33.47MM ID)						
	6	1	4N-0933	1	GASKET						
	7	1	1W-6135	1	TUBE AS-OIL FILTER INLET						
C	8	1	2N-3350	2	SEAL-O-RING (21.59MM ID)						
	9	1	4N-8150	1	SPRING						
	10	1	2P-3760	1	GASKET						
	11	1	2P-3761	1	COVER						
	12	1	1P-1367	1	PLUNGER						
	13	1	4N-0995	1	TUBE AS						
C	14	1	9X-6458	5	WASHER-HARD (3MM THK)						
C	15	1	109-0072	1	SEAL-O-RING (40.64MM ID)						
	16	1	1A-2029	2	BOLT (3/8-16X1.125IN)						
C	17	1	8T-6765	2	PLUG-PIPE (1/4-18 NPTF THD)						
C	18	1	109-0076	2	SEAL-O-RING (50.17MM ID)						
	19	1	0S-1588	2	BOLT (3/8-16X1.25IN)						
	20	1	4N-1215	1	BODY-COOLER BYPASS						
	21	1	4N-1216	1	TUBE-COOLER BYPASS						
	22	1	0S-1591	2	BOLT (3/8-16X1.5IN)						
C	23	1	0L-1351	3	BOLT (3/8-16X.875IN)						
C	24	1	5M-2894	6	WASHER (2.5MM THK)						
	25	1	6N-7249	1	SUPPORT-SUCTION BELL						
	26	1	9N-5124	1	TUBE AS-PUMP SUCTION						
	27	1	4N-0913	1	SCREEN AS-BELL						
	28	1	8N-2104	1	BELL AS-SUCTION						
	29	1	4N-0914	1	CLIP (SUCTION SCREEN)						
C- CHANGE FROM PREVIOUS TYPE											

LUBRICATION SYSTEM

4N-0698 LINES GP-ENGINE OIL (contd.)

i00668442



GRAPHIC #1

g00260062

LUBRICATION SYSTEM

4N-1128 LINES GP-ENGINE OIL

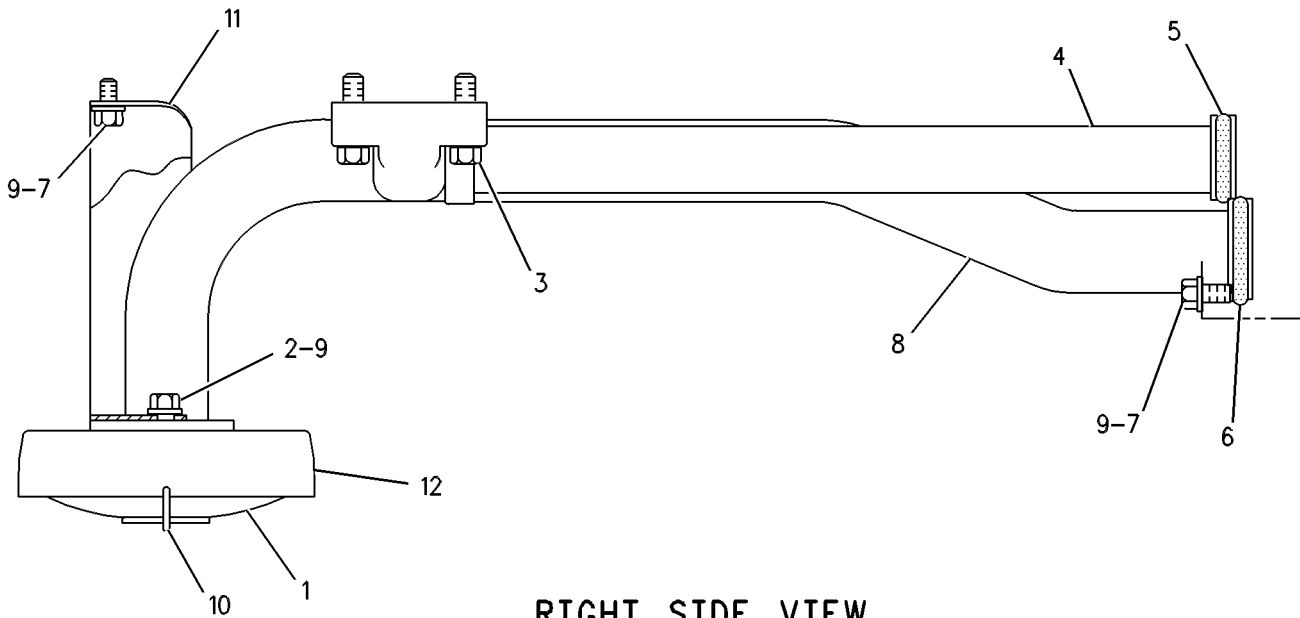
FOR USE WITH DEEP SUMP OIL PAN
AN ATTACHMENT

SMCS-1307

i01378167

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4N-0913	1	SCREEN AS-BELL						
	2	1	1A-2029	2	BOLT (3/8-16X1.125 IN)						
C	3	1	0S-1591	2	BOLT (3/8-16X1.5 IN)						
	4	1	4N-0995	1	TUBE AS						
	5	1	109-0078	1	SEAL-O-RING (33.47MM ID)						
C	6	1	109-0072	1	SEAL-O-RING (40.64MM ID)						
C	7	1	0L-1351	3	BOLT (3/8-16X.875 IN)						
	8	1	9N-5124	1	TUBE AS-PUMP SUCTION						
	9	1	9X-6458	5	WASHER-HARD (10.2X22.5X3MM THK)						
	10	1	4N-0914	1	CLIP						
	11	1	6N-7249	1	SUPPORT-SUCTION BELL						
	12	1	8N-2104	1	BELL AS-SUCTION						

C- CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

g00260084

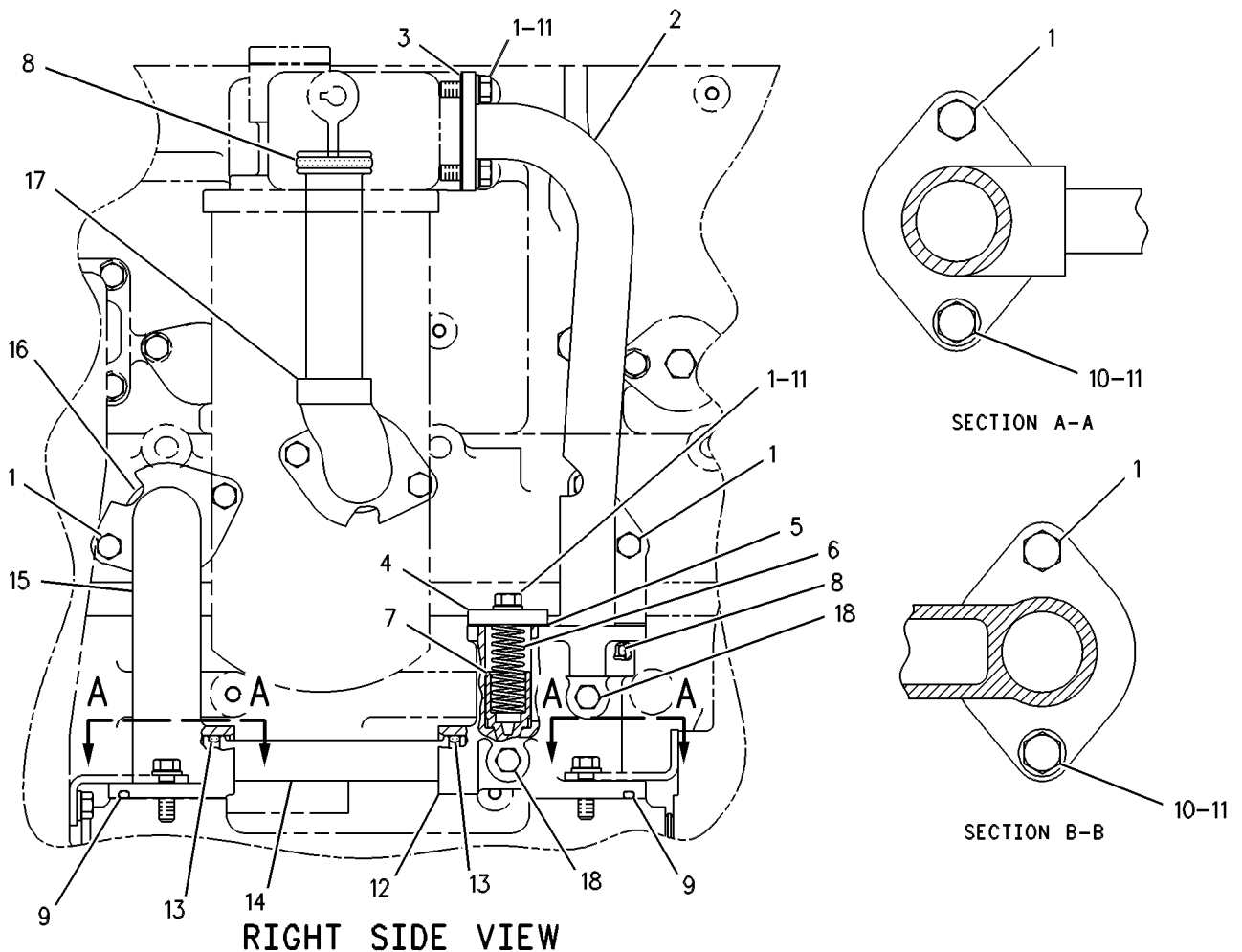
LUBRICATION SYSTEM

130-8901 LINES GP-ENGINE OIL FOR USE WITH RH SERVICE SHALLOW SUMP MARINE ENGINE AN ATTACHMENT

SMCS-1307

i00671669

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1594	12	BOLT (3/8-16X1IN)						
	2	1	1W-6135	1	TUBE AS-OIL FILTER INLET						
	3	1	4N-0933	1	GASKET						
	4	1	2P-3761	1	COVER						
	5	1	2P-3760	1	GASKET						
	6	1	4N-8150	1	SPRING						
	7	1	9M-0853	1	PLUNGER-RELIEF VALVE						
	8	1	109-0078	2	SEAL-O-RING (33.47MM ID)						
	9	1	109-0076	2	SEAL-O-RING (50.17MM ID)						
	10	1	0S-1588	2	BOLT (3/8-16X1.25IN)						
	11	1	5M-2894	6	WASHER (2.5MM THK)						
	12	1	4N-1215	1	BODY-COOLER BYPASS						
	13	1	2N-3350	2	SEAL-O-RING (21.59MM ID)						
	14	1	4N-1216	1	TUBE-COOLER BYPASS						
	15	1	4N-0826	1	ELBOW-COOLER INLET						
	16	1	109-0073	2	SEAL-O-RING (43.82MM ID)						
	17	1	1W-6137	1	TUBE AS						
	18	1	8T-6765	2	PLUG-PIPE (1/4-18 NPTF THD)						



GRAPHIC #1

g00257297

LUBRICATION SYSTEM

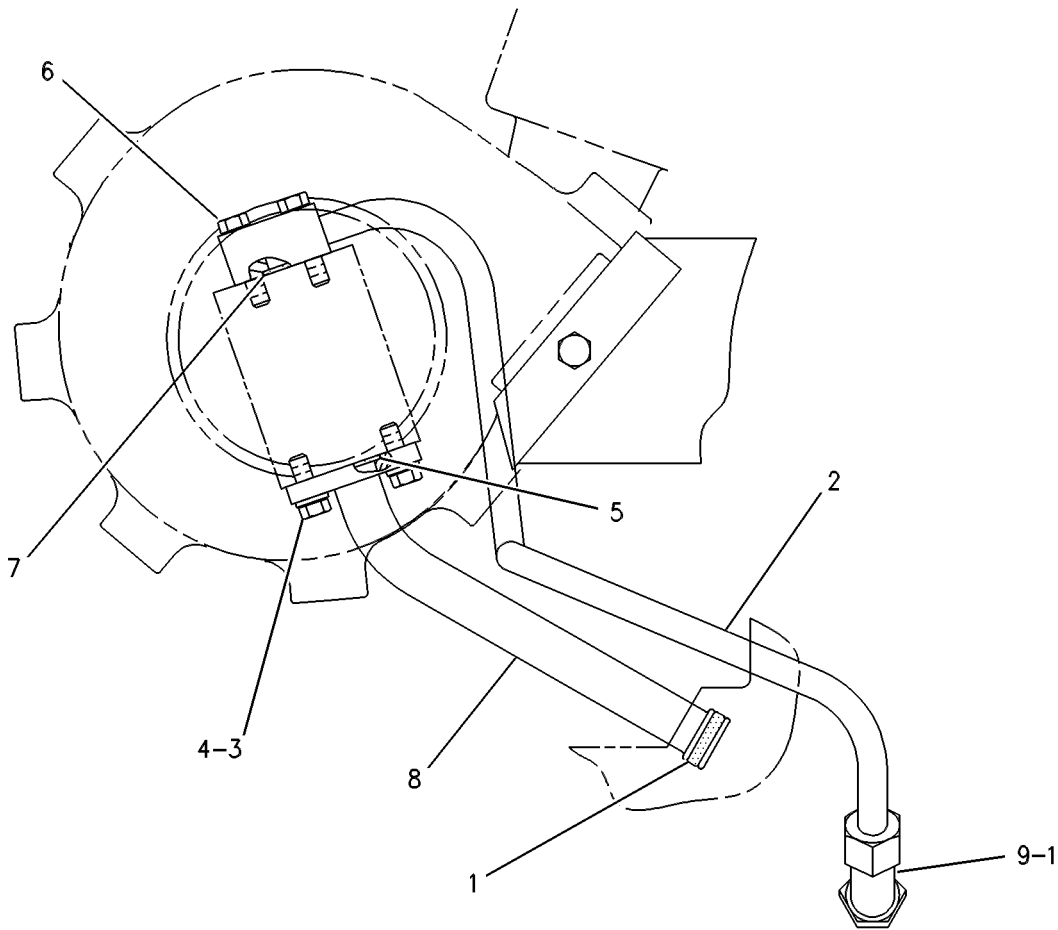
130-2958 LINES GP - TURBOCHARGER OIL

AN ATTACHMENT

SMCS-1052, 1307

i00671661

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	114-4427	2	SEAL-O-RING (19.18MM ID)						
	2	1	126-6875	1	TUBE AS						
	3	1	1A-2029	2	BOLT (3/8-16X1.125IN)						
	4	1	5M-2894	2	WASHER (2.5MM THK)						
	5	1	5P-7530	1	SEAL-O-RING (28.24MM ID)						
	6	1	2A-4639	2	BOLT (3/8-16X1.625IN)						
	7	1	6J-2245	1	SEAL-O-RING (17.12MM ID)						
	8	1	130-5371	1	TUBE AS						
	9	1	6M-7476	1	ELBOW						



GRAPHIC #1

g00257299

LUBRICATION SYSTEM

4N-0733 PUMP GP-ENGINE OIL*R

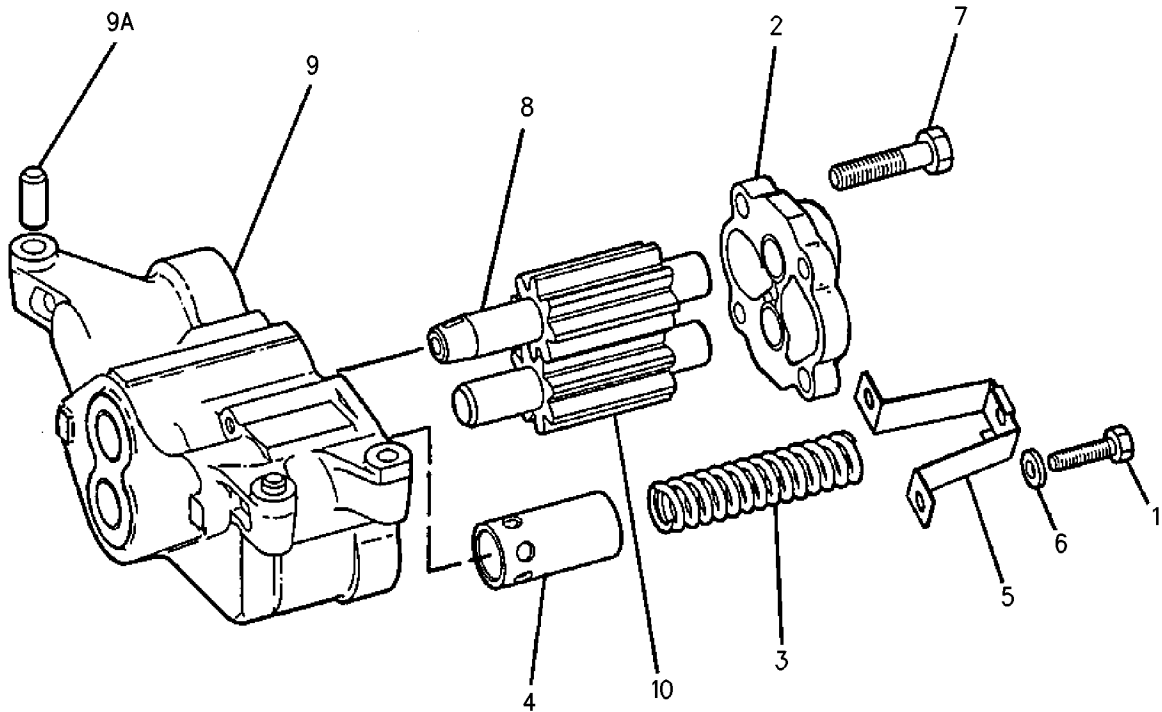
S/N: 9WR1-473

SMCS-1304, 1315

i01398571

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1M-0644	2	BOLT (3/8-16X2-1/4 IN)						
	2	1	7C-6498	1	COVER-OIL PUMP						
	3	1	2S-2760	1	SPRING						
	4	1	6N-1931	1	PLUNGER-RELIEF						
C	5	1	9Y-1800	1	RETAINER						
	6	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5MM THK)						
	7	1	2P-3205	4	BOLT-WASHER HEAD						
C	8	1	9Y-4632	1	SHAFT AS-OIL PUMP DRIVE						
	9	1	4N-0513	1	BODY AS-OIL PUMP						
C		1	7N-2156	2	BEARING-SLEEVE						
	9A	1	8M-8489	2	DOWEL						
C	10	1	9Y-4633	1	SHAFT AS-OIL PUMP IDLER						

C-CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

g00737034

LUBRICATION SYSTEM

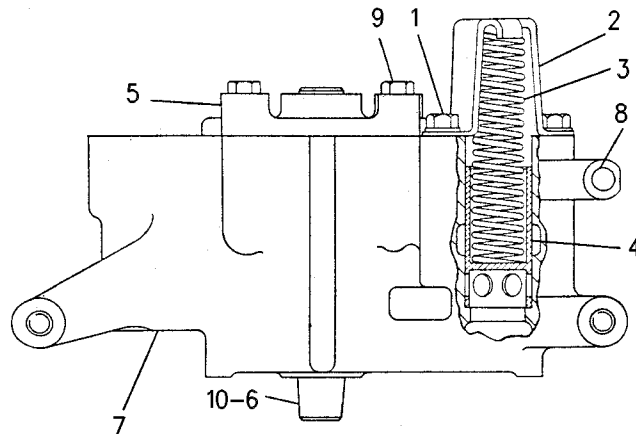
4N-8734 PUMP GP-ENGINE OIL*R

SMCS-1304, 1315

i01124926

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1M-0644	2	BOLT (3/8-16X2-1/4 IN)						
		1	5M-2894	2	WASHER (2.5MM THK)						
C	2	1	9Y-1792	1	RETAINER						
	3	1	2S-2760	1	SPRING						
	4	1	6N-1931	1	PLUNGER-RELIEF						
C	5	1	7C-6498	1	COVER-OIL PUMP						
C	6	1	9Y-4633	1	SHAFT AS-OIL PUMP IDLER						
	7	1	4N-0513	1	BODY AS-OIL PUMP						
C		1	7N-2156	2	BEARING-SLEEVE (27.013MM OD)						
	8	1	8M-8489	2	DOWEL (12.54MM DIA)						
C	9	1	2P-3205	4	BOLT-WASHER HEAD						
C	10	1	9Y-4632	1	SHAFT AS-OIL PUMP DRIVE						

C- CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

g00595281

LUBRICATION SYSTEM

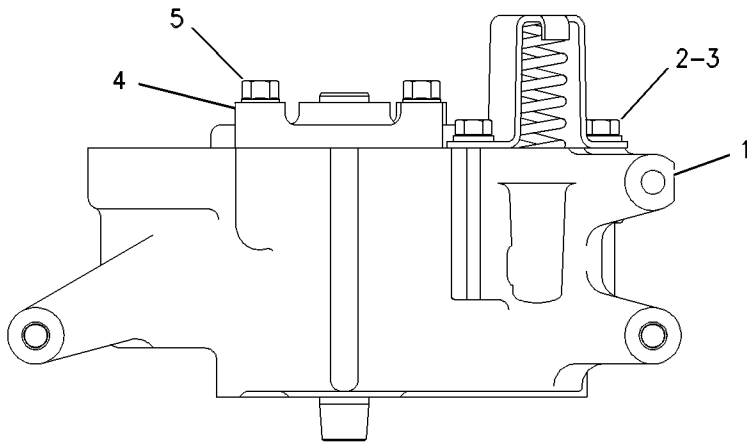
161-4113 PUMP GP-ENGINE OIL

S/N: 9WR489-UP

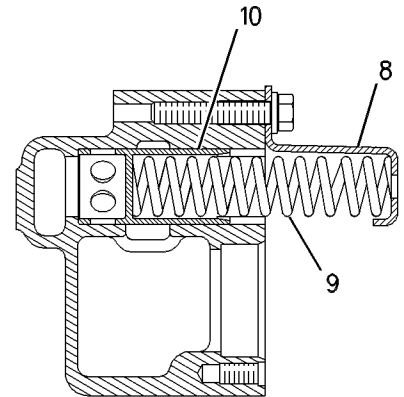
SMCS-1304, 1315

i01037805

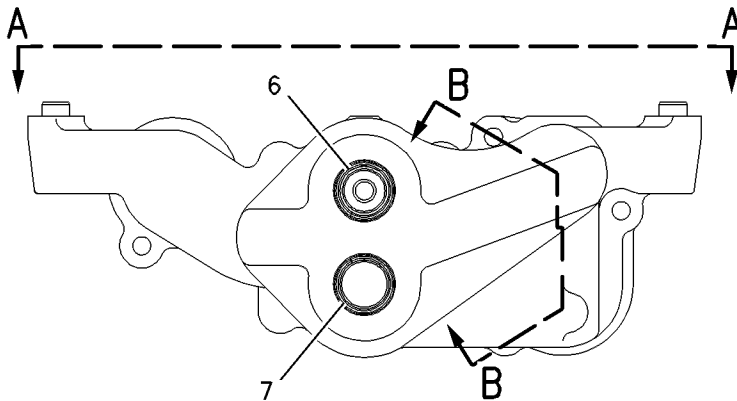
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4N-0513	1	BODY AS-OIL PUMP						
		1	7N-2156	2	BEARING-SLEEVE (27.013MM OD)						
		1	8M-8489	2	DOWEL (12.54MM DIA)						
	2	1	1M-0644	2	BOLT (3/8-16X2-1/4 IN)						
	3	1	5M-2894	2	WASHER (2.5MM THK)						
	4	1	127-6356	1	COVER AS-PUMP						
		1	8S-6511	2	BEARING-SLEEVE (.8775IN ID)						
	5	1	2P-3205	4	BOLT-WASHER HEAD						
	6	1	1W-7238	1	SHAFT AS-PUMP DRIVE						
	7	1	1W-7239	1	SHAFT AS-IDLER						
	8	1	9Y-1792	1	RETAINER						
	9	1	2S-2760	1	SPRING						
	10	1	6N-1931	1	PLUNGER-RELIEF						



VIEW A-A



SECTION B-B



GRAPHIC #1

g00544956

LUBRICATION SYSTEM

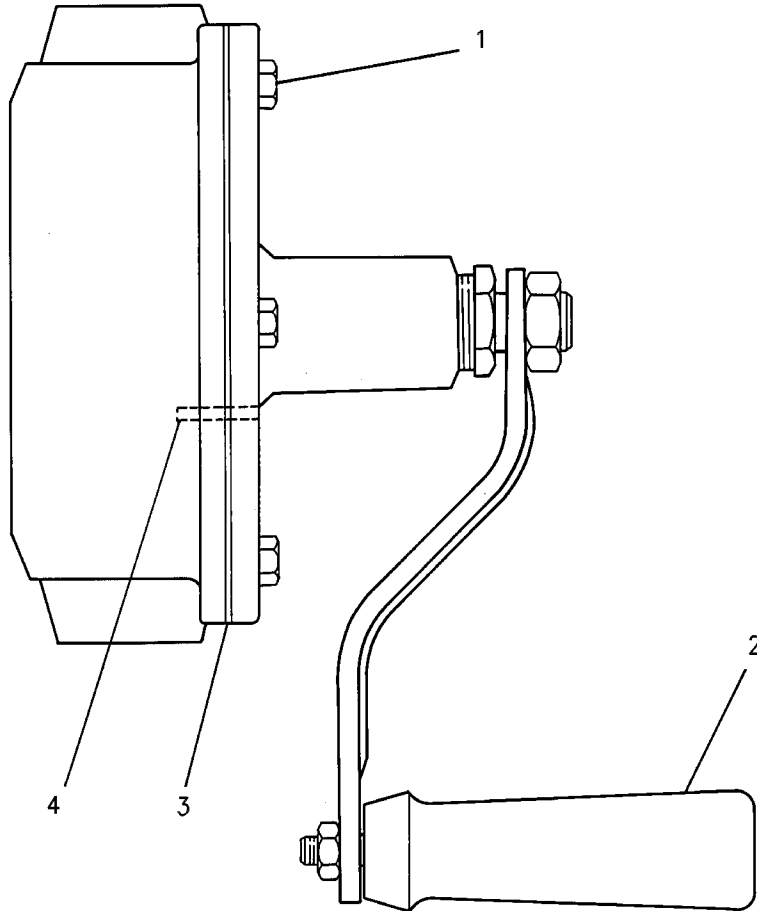
2N-8908 PUMP GP-SUMP PART OF 140-6325, 140-6332 PUMP GP-SUMP AN ATTACHMENT

SMCS-1324

i01381519

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2A-0762	6	BOLT (1/4-20X.625IN)						
	2	1	3N-3298	1	HANDLE AS						
B	3	1	3N-3299	1	GASKET SET						
	4	1	3N-3297	2	PIN-TAPER						
AVAILABLE REPAIR KIT(S):											
			3N-3300	1	KIT-PUMP						
(INCLUDES VANES, SPRINGS, PACKING, NUT, & GASKETS)											

B-USE AS REQUIRED



GRAPHIC #1

g00504536

MEMORANDA

LUBRICATION SYSTEM

140-6325 PUMP GP-SUMP

FOR USE WITH RH SERVICE
AN ATTACHMENT

SMCS-1324

i00672447

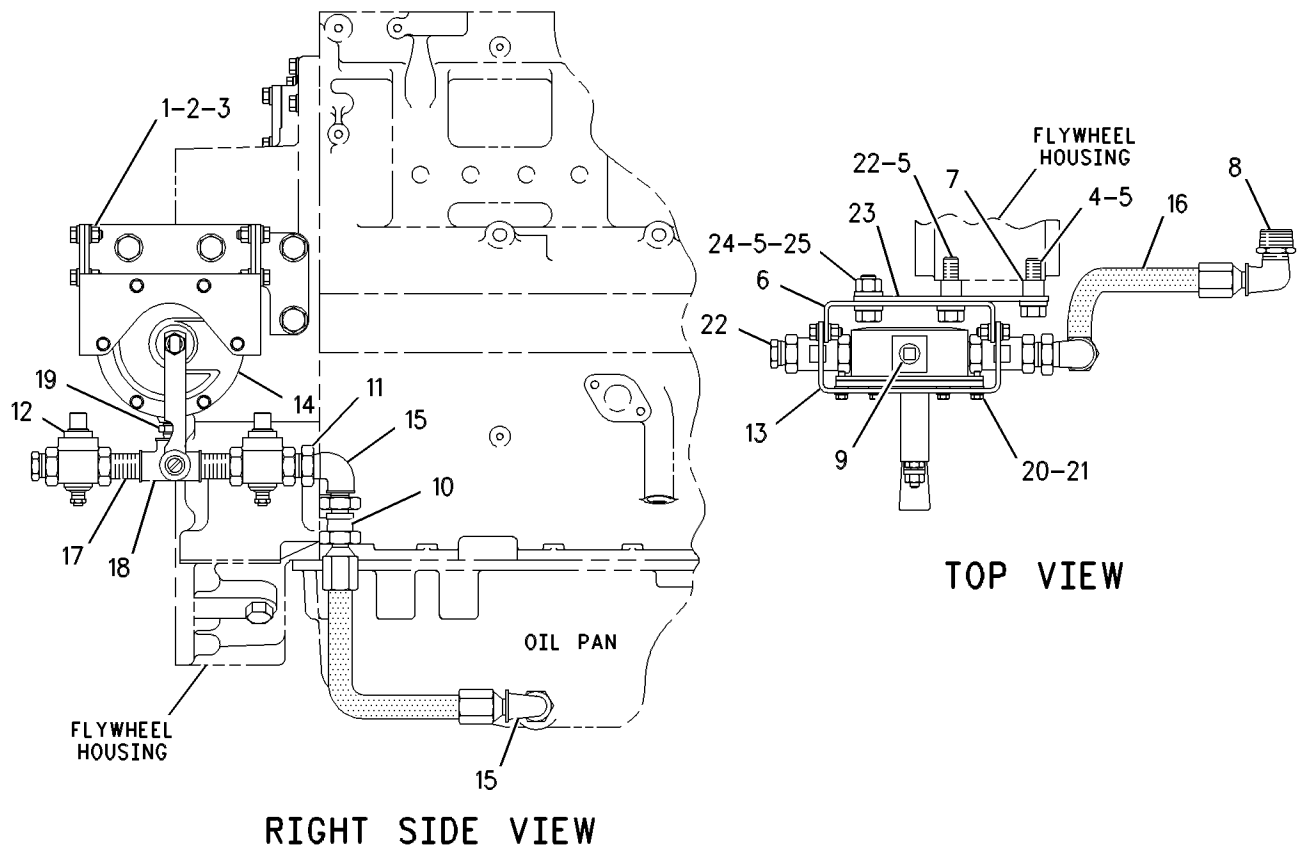
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9S-8752	4	NUT-FULL (3/8-16 THD)						
	2	1	5M-2894	8	WASHER (2.5MM THK)						
	3	1	0S-1594	4	BOLT (3/8-16X1IN)						
	4	1	9X-8880	2	BOLT (5/8-11X2IN)						
	5	1	4D-3704	8	WASHER-HARD (5MM THK)						
	6	1	8N-2825	1	BRACKET						
	7	1	2A-0047	4	WASHER (17.5MM THK)						
	8	1	5B-4855	1	BUSHING-REDUCER						
	9	1	7X-7731	1	PLUG-PIPE (3/4-14 NPTF THD)						
	10	1	2H-9091	1	CONNECTOR-PIPE						
	11	1	8B-2664	1	BUSHING-REDUCER						
	12	1	9B-4202	2	COCK						
	13	1	6N-9561	1	BRACKET						
Y	14	1	2N-8908	1	PUMP GP-SUMP						138
	15	1	3B-7259	2	ELBOW						
I	16	1	2W-4338	1	HOSE AS						
	17	1	3B-7270	2	NIPPLE						
	18	1	1L-8444	1	TEE						
	19	1	004-7270	1	NIPPLE						
	20	1	0S-1616	4	BOLT (1/4-20X1 IN)						
	21	1	5P-0537	8	WASHER (2MM THK)						
	22	1	9X-8882	2	BOLT (5/8-11X2.50IN)						
	23	1	8N-9102	1	PLATE-SUMP PUMP						
	24	1	0S-1566	2	BOLT (5/8-11X1.5IN)						
	25	1	4K-0367	2	NUT (5/8-11 THD)						

I- SEE HOSE FABRICATION GUIDE
Y- SEPARATE ILLUSTRATION

LUBRICATION SYSTEM

140-6325 PUMP GP - SUMP (contd.)

i00672447



GRAPHIC #1

g00289996

LUBRICATION SYSTEM

140-6332 PUMP GP - SUMP

FOR USE WITH LH SERVICE ENGINES. REQUIRES 140-6331 FITTING GP
AN ATTACHMENT

SMCS-1324

i00670250

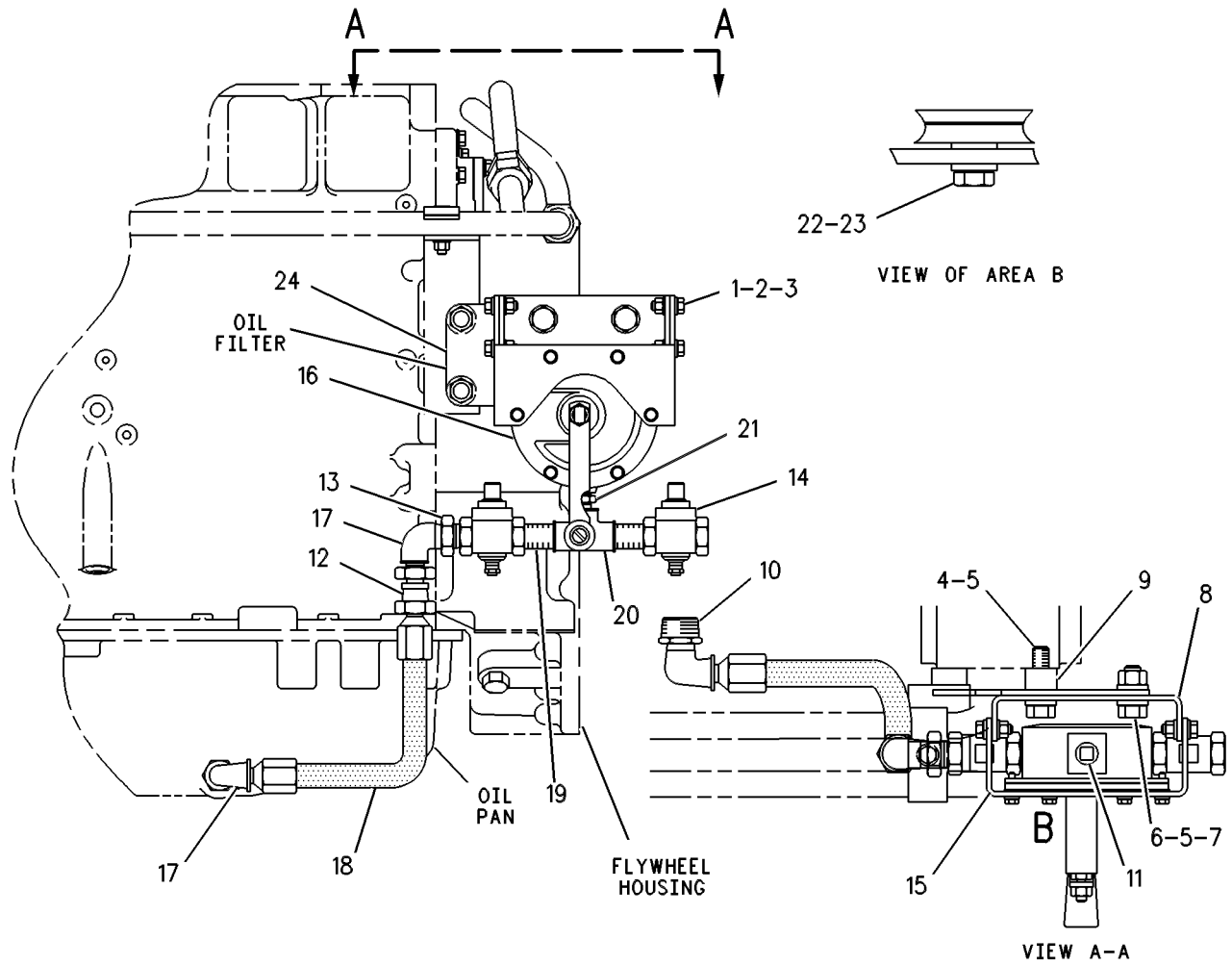
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9S-8752	4	NUT-FULL (3/8-16 THD)						
	2	1	5M-2894	8	WASHER (2.5MM THK)						
	3	1	0S-1594	4	BOLT (3/8-16X1IN)						
	4	1	1B-4367	2	BOLT (5/8-11X3IN)						
	5	1	4D-3704	6	WASHER-HARD (5MM THK)						
	6	1	0S-1566	2	BOLT (5/8-11X1.5IN)						
	7	1	4K-0367	2	NUT (5/8-11 THD)						
	8	1	8N-2825	1	BRACKET						
	9	1	3R-8530	2	BOSS (31.75MM THK)						
	10	1	5B-4855	1	BUSHING-REDUCER						
	11	1	7X-7731	1	PLUG-PIPE (3/4-14 NPTF THD)						
	12	1	2H-9091	1	CONNECTOR-PIPE						
	13	1	8B-2664	1	BUSHING-REDUCER						
	14	1	9B-4202	2	COCK						
	15	1	6N-9561	1	BRACKET						
Y	16	1	2N-8908	1	PUMP GP-SUMP						138
	17	1	3B-7259	2	ELBOW						
I	18	1	2W-4338	1	HOSE AS						
	19	1	3B-7270	2	NIPPLE						
	20	1	1L-8444	1	TEE						
	21	1	004-7270	1	NIPPLE						
	22	1	0S-1616	4	BOLT (1/4-20X1 IN)						
	23	1	5P-0537	8	WASHER (2MM THK)						
	24	1	8N-9102	1	PLATE-SUMP PUMP						

I - SEE HOSE FABRICATION GUIDE
Y - SEPARATE ILLUSTRATION

LUBRICATION SYSTEM

140-6332 PUMP GP-SUMP (contd.)

i00670250



GRAPHIC #1

g00272897

COOLING SYSTEM

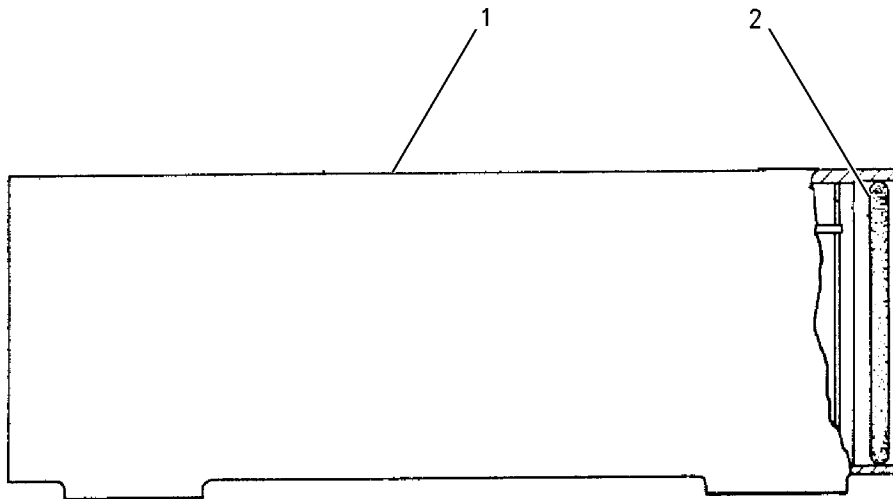
7W-2206 COOLER GP - ENGINE OIL AN ATTACHMENT

SMCS-1378

i01140910

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
R	1	1	7C-3039	1	CORE AS						
	2	1	109-0077	2	SEAL-O-RING (100.97MM ID)						

R-REMFG PART MAY BE AVAILABLE



GRAPHIC #1

g00604532

COOLING SYSTEM

142-5703 COOLER GP-ENGINE OIL

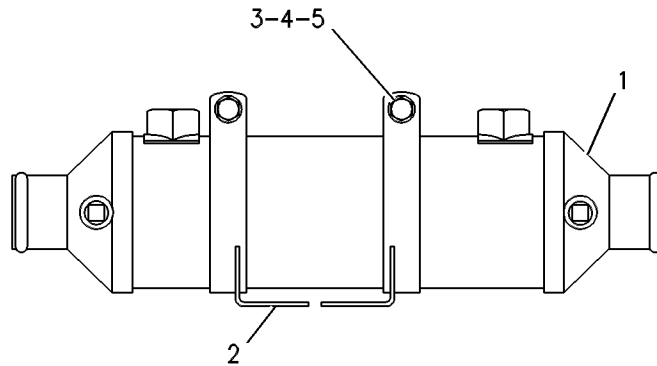
PART OF 142-3949 COOLER GP-MARINE TMSN OIL

AN ATTACHMENT

SMCS-1378

i00670515

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	141-8264	1	COOLER AS						
	2	1	142-5704	2	CLAMP						
	3	1	0S-1591	2	BOLT (3/8-16X1.5IN)						
	4	1	5M-2894	4	WASHER (2.5MM THK)						
	5	1	9S-8752	2	NUT-FULL (3/8-16 THD)						



GRAPHIC #1

g00272519

COOLING SYSTEM

142-3949 COOLER GP - MARINE TMSN OIL

HEAT EXCHANGER COOLED ENGINES
CANNOT BE USED WITH 142-3951—PAGE 215
AN ATTACHMENT

SMCS-3320

i00670506

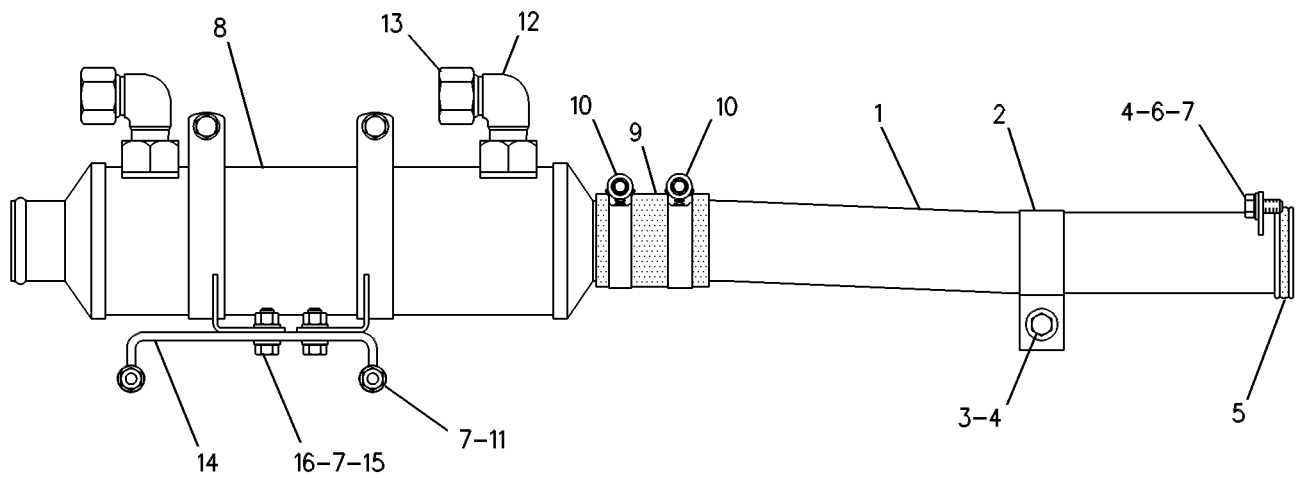
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	141-1001	1	TUBE						
	2	1	2V-2793	1	CLIP						
	3	1	9X-6458	1	WASHER-HARD (3MM THK)						
	4	1	0S-0509	2	BOLT (3/8-16X.75IN)						
	5	1	6L-1650	1	SEAL-O-RING						
	6	1	7W-1944	1	RETAINER						
	7	1	5M-2894	11	WASHER (2.5MM THK)						
Y	8	1	142-5703	1	COOLER GP-ENGINE OIL						145
E	9	1	5P-1260		HOSE (9CM)						
	10	1	8T-4984	2	CLAMP-HOSE						
	11	1	2N-2766	2	LOCKNUT (3/8-16 NPTF THD)						
	12	1	031-0782	2	ELBOW-FLARED						
	13	1	8L-9137	2	CAP-FLARED						
	14	1	142-5696	1	BRACKET AS						
		1	108-3612	2	SPACER (53MM THK)						
	15	1	0S-1594	4	BOLT (3/8-16X1IN)						
	16	1	9S-8752	4	NUT-FULL (3/8-16 THD)						

E-ORDER BY THE CENTIMETER
Y-SEPARATE ILLUSTRATION

COOLING SYSTEM

142-3949 COOLER GP-MARINE TMSN OIL (contd.)

i00670506



RIGHT SIDE VIEW

GRAPHIC #1

g00288089

COOLING SYSTEM

4N-1559 COOLER GP-TRANSMISSION OIL

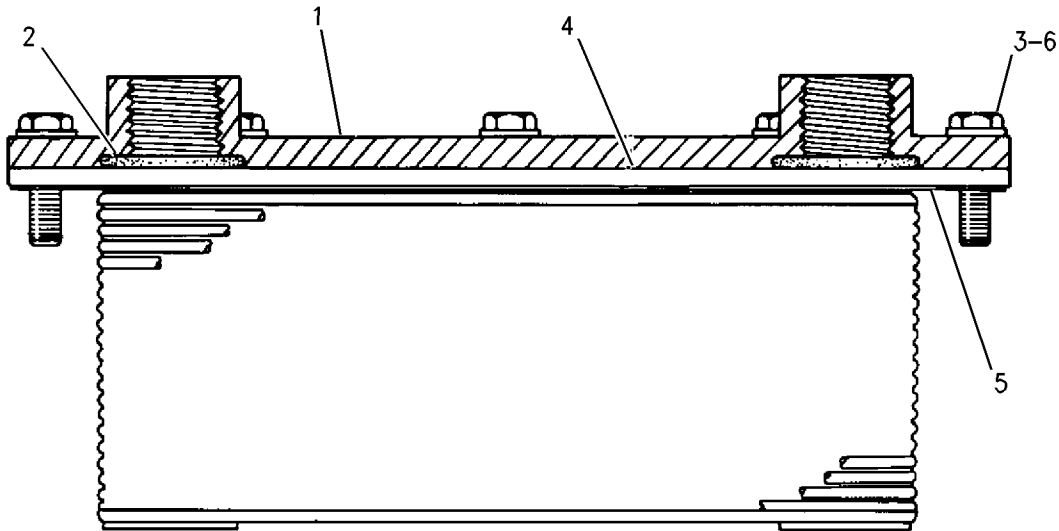
FOR USE WITH 124-9043-PAGE 196, 131-8294-PAGE 158

AN ATTACHMENT

SMCS-1375

i01406027

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
1	1	1	6L-2001	1	PLATE AS						
		1	6B-0430	2	BOSS						
2	1	1	5P-8066	2	SEAL-O-RING (32.92MM ID)						
3	1	1	4B-3388	8	BOLT (5/16-18X1.125 IN)						
4	1	1	132-8594	1	CORE AS-OIL COOLER						
5	1	1	4L-1267	1	GASKET						
6	1	1	9M-1974	8	WASHER-HARD (8.8X16X2MM THK)						



GRAPHIC #1

g00740488

COOLING SYSTEM

140-6328 COVER GP-WATER LINES

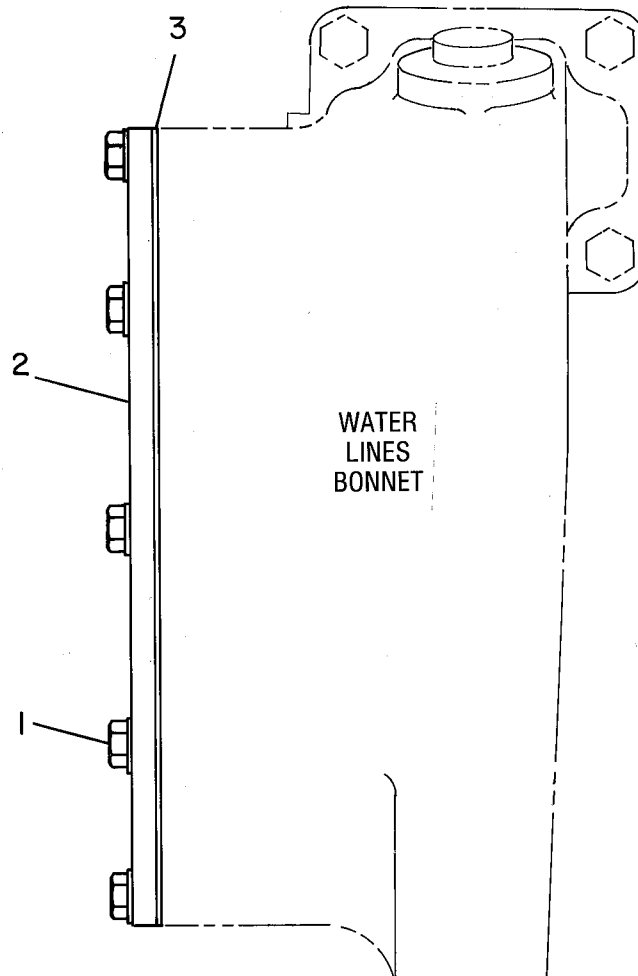
REAR OIL COOLER BONNET

CANNOT BE USED WITH 4N-1559-PAGE 148, 124-3399-PAGE 156
AN ATTACHMENT

SMCS-1380

i00672459

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1618	8	BOLT (5/16X18X1IN)						
		1	9M-1974	8	WASHER-HARD (2MM THK)						
	2	1	6L-2000	1	PLATE						
	3	1	4L-1267	1	GASKET						



GRAPHIC #1

g00186865

COOLING SYSTEM

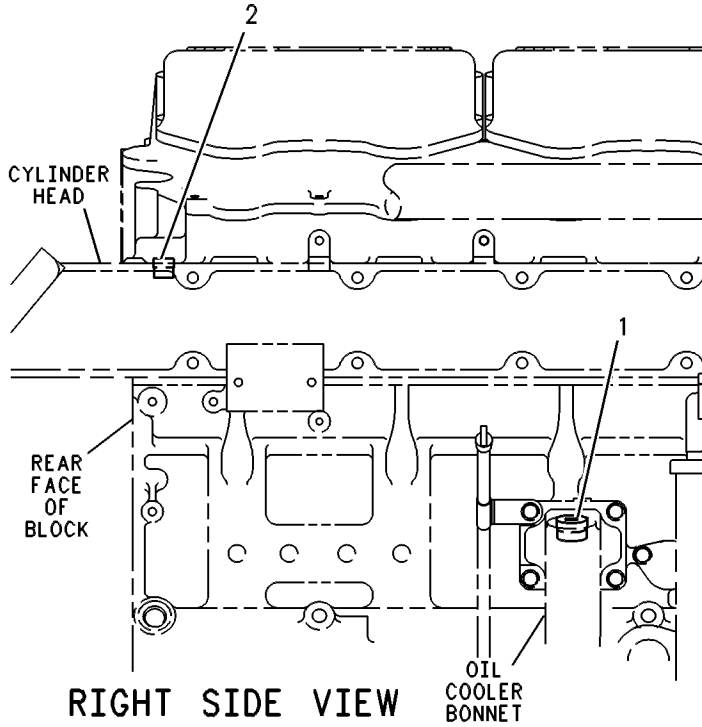
131-6201 FITTING GP-WATER LINES

CANNOT BE USED WITH JACKET WATER HEATER
AN ATTACHMENT

SMCS-1380

i00670703

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-6761	1	PLUG-PIPE (1-11-1/2 NPTF THD)						
	2	1	8T-6762	1	PLUG-PIPE (9.52 CF SQ HOLE)						



GRAPHIC #1

g00263645

COOLING SYSTEM

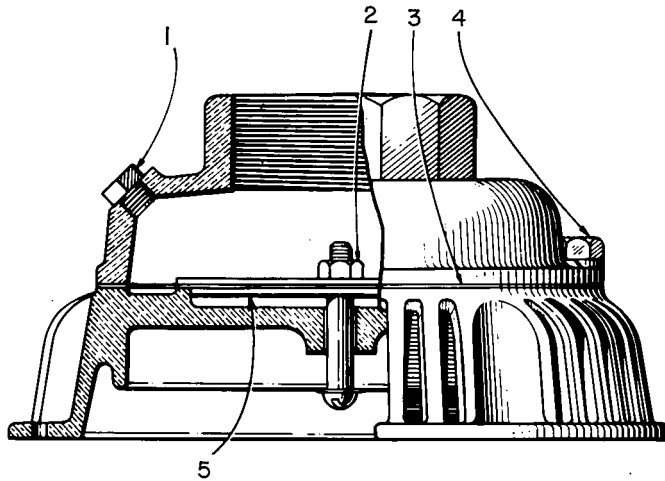
3F-4394 FOOT VALVE & STRAINER AS

PART OF 6L-5858 PUMP GP-BILGE
AN ATTACHMENT

SMCS-1371

i00638059

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6B-7440	1	PLUG-PIPE						
	2	1	4B-2048	1	NUT (10-32 THD)						
	3	1	5F-1051	1	GASKET						
	4	1	0S-1614	3	BOLT (1/4-20X.5IN)						
		1	3B-4504	3	LOCKWASHER (.077IN THK)						
	5	1	5F-1053	1	SEAL-FOOT VALVE						



GRAPHIC #1

g00205627

COOLING SYSTEM

124-3398 HEAT EXCHANGER GP

SEA WATER
AN ATTACHMENT

SMCS-1379

i01474858

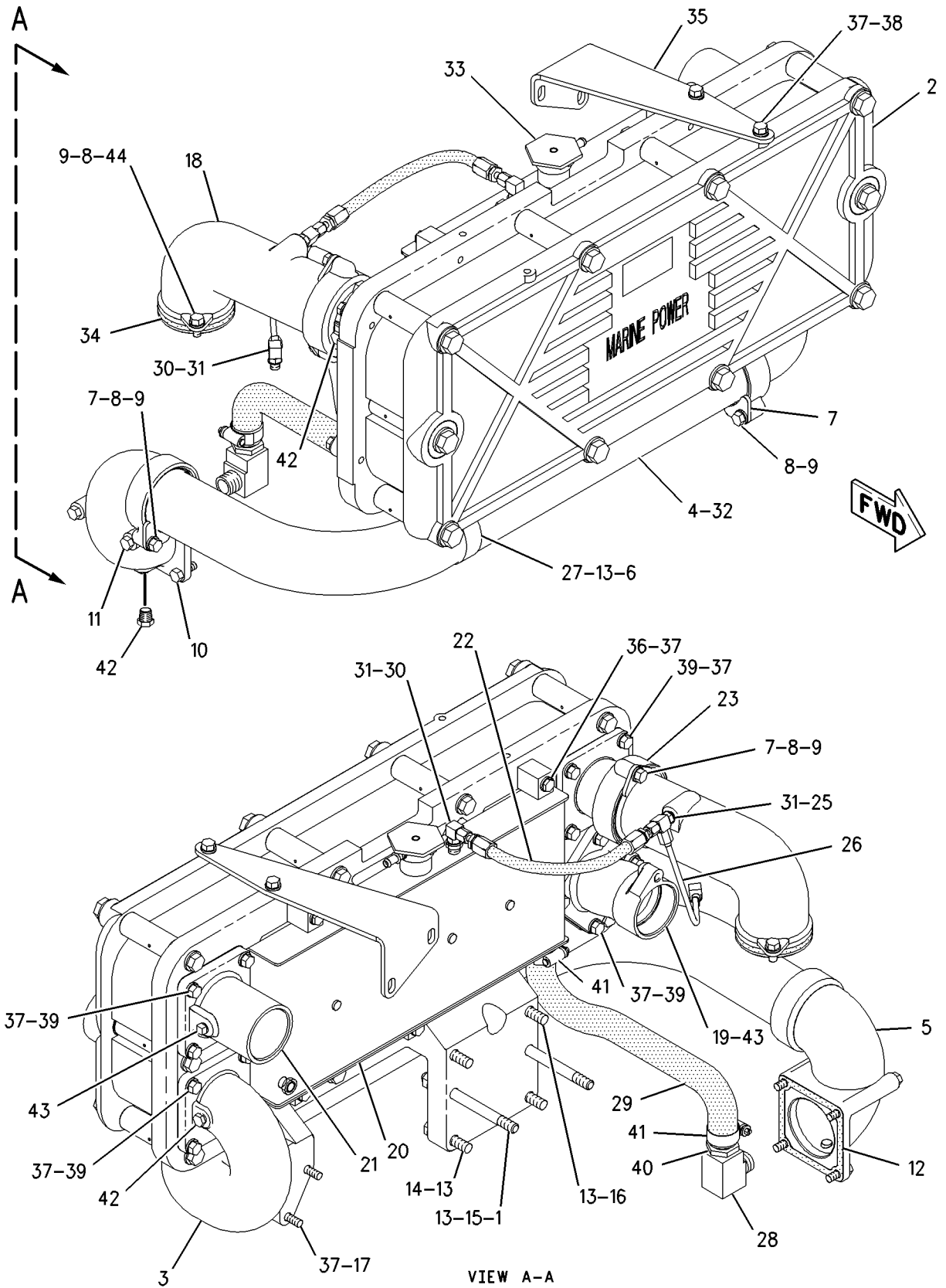
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4M-8548	2	STUD-TAPERLOCK						
Y	2	1	125-5590	1	HEAT EXCHANGER GP						154
	3	1	121-7518	1	ELBOW						
	4	1	120-4554	1	TUBE						
	5	1	121-7517	1	ELBOW						
	6	1	6B-4312	1	CLIP						
	7	1	7W-1944	4	RETAINER						
	8	1	5M-2894	6	WASHER-HARD (10.2X18.5X2.5MM THK)						
	9	1	0S-0509	6	BOLT (3/8-16X0.75 IN)						
	10	1	0S-1594	2	BOLT (3/8-16X1 IN)						
	11	1	0T-0055	2	BOLT (3/8-16X4.25 IN)						
	12	1	2N-0931	1	GASKET						
	13	1	130-2321	7	WASHER						
	14	1	144-6652	2	BOLT-HEX HEAD						
	15	1	6V-3631	2	NUT-FULL						
	16	1	124-9523	2	PLATE						
	17	1	148-3627	2	BOLT-HEX HEAD (3/8-16X2.5 IN)						
	18	1	121-7520	1	ELBOW						
	19	1	121-7519	1	ELBOW						
	20	1	200-7984	1	TANK AS-RADIATOR						
	21	1	121-7521	1	ADAPTER						
I	22	1	7V-1037	1	HOSE AS						
	23	1	124-3405	1	ADAPTER						
	25	1	030-7957	1	TEE-FLARED						
	26	1	136-9489	1	TUBE AS						
	27	1	3H-5825	1	BOLT						
	28	1	003-9163	1	ELBOW						
	29	1	136-9488	1	HOSE						
	30	1	030-7946	2	ELBOW						
	31	1	9X-7378	3	SEAL-O-RING						
	32	1	110-7753	2	SEAL-O-RING						
	33	1	036-1865	1	CAP AS-RADIATOR						
	34	1	6V-5656	2	SEAL-O-RING						
	35	1	125-5602	1	BRACKET						
	36	1	7L-6443	3	BOLT (3/8-16X2.25IN)						
	37	1	110-8314	23	WASHER (10.3X18.3X2.66MM THK)						
	38	1	3H-5841	2	BOLT (3/8-16X1.0IN)						
	39	1	3H-5844	16	BOLT (3/8-16X1.5 IN)						
	40	1	053-2313	1	CONNECTOR						
	41	1	7X-7958	2	CLAMP-HOSE						
	42	1	3E-7428	3	PLUG-PIPE						
	43	1	155-8724	2	ROD AS						
	44	1	117-4897	2	RETAINER						

I- SEE HOSE FABRICATION GUIDE
Y- SEPARATE ILLUSTRATION

COOLING SYSTEM

124-3398 HEAT EXCHANGER GP (contd.)

i01474858



VIEW A-A

GRAPHIC #1

g00675067

COOLING SYSTEM

125-5590 HEAT EXCHANGER GP

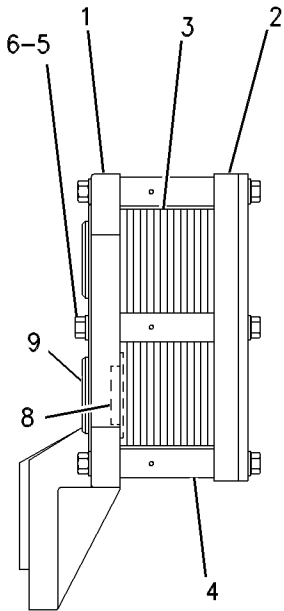
PART OF 124-3398 HEAT EXCHANGER GP
AN ATTACHMENT

SMCS-1379

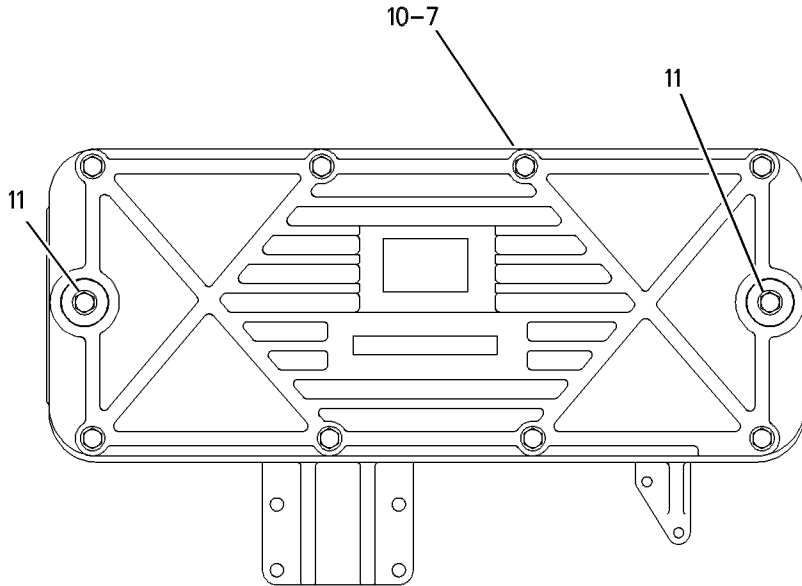
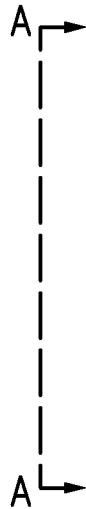
i01104439

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	125-5588	1	FRAME - REAR						
	2	1	166-4387	1	FRAME - FRONT						
Y	3	1	125-5593	1	PLATE GP - HEAT EXCHANGER						168
	4	1	166-4390	10	SPACER - MOUNTING						
	5	1	130-2321	10	WASHER						
	6	1	144-6652	10	BOLT - HEX HEAD						
	7	1	164-4537	10	WASHER						
	8	1	136-9486	4	LINER						
	9	1	136-9487	4	COLLAR						
	10	1	164-4538	10	BOLT - HEX HEAD						
	11	1	166-4392	2	SPACER						

Y - SEPARATE ILLUSTRATION



VIEW A-A



GRAPHIC #1

g00582043

MEMORANDA

COOLING SYSTEM

124-3399 HOUSING & REGULATOR GP

FOR USE WITH HEAT EXCHANGER COOLED ENGINES

AN ATTACHMENT

SMCS-1355, 1393

i00670930

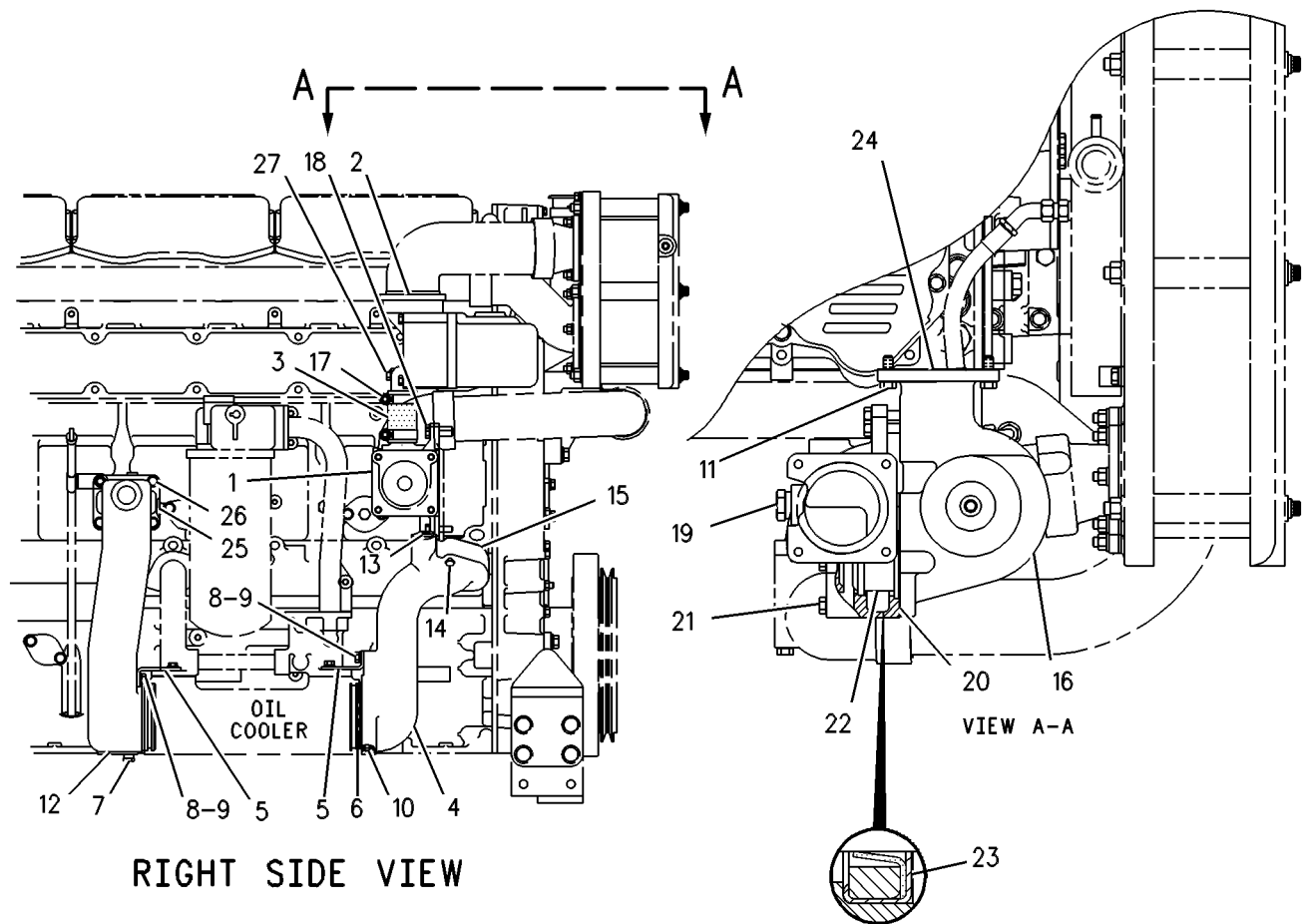
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	124-3393	1	COVER-WATER PUMP						
	2	1	124-3402	1	HOUSING						
E	3	1	5P-0763		HOSE (7.62CM)						
	4	1	124-3403	1	BONNET-OIL COOLER INLET						
	5	1	4N-1199	2	CLIP						
	6	1	4N-6257	1	ADAPTER						
	7	1	8T-6767	1	PLUG-PIPE (3/8-18 NPTF THD)						
	8	1	0L-1351	2	BOLT (3/8-16X.875IN)						
	9	1	5M-2894	2	WASHER (2.5MM THK)						
	10	1	109-0077	1	SEAL-O-RING (100.97MM ID)						
	11	1	0S-1594	3	BOLT (3/8-16X1IN)						
	12	1	131-0120	1	BONNET						
	13	1	7X-7731	1	PLUG-PIPE (3/4-14 NPTF THD)						
	14	1	0L-2070	2	BOLT (3/8-16X2.25IN)						
	15	1	1W-2636	1	GASKET						
	16	1	124-3401	1	HOUSING						
	17	1	8T-4983	2	CLAMP-HOSE						
	18	1	0S-1591	4	BOLT (3/8-16X1.5IN)						
	19	1	3E-7430	1	PLUG-PIPE						
	20	1	124-9052	1	GASKET						
	21	1	0T-0065	2	BOLT (3/8-16X3.5IN)						
	22	1	4W-4794	1	REGULATOR-WATER TEMPERATURE (92 DEG C.)						
	23	1	3S-9643	1	SEAL-LIP						
	24	1	4N-1156	1	GASKET-REGULATOR COVER						
	25	1	4N-0641	1	GASKET						
	26	1	1A-2029	3	BOLT (3/8-16X1.125IN)						
	27	1	0T-0055	1	BOLT (3/8-16X4.25IN)						

E- ORDER BY THE CENTIMETER

COOLING SYSTEM

124-3399 HOUSING & REGULATOR GP (contd.)

i00670930



GRAPHIC #1

g00257477

COOLING SYSTEM

131-8294 HOUSING & REGULATOR GP

FOR USE WITH HEAT EXCHANGER COOLED ENGINES

AN ATTACHMENT

SMCS-1355, 1393

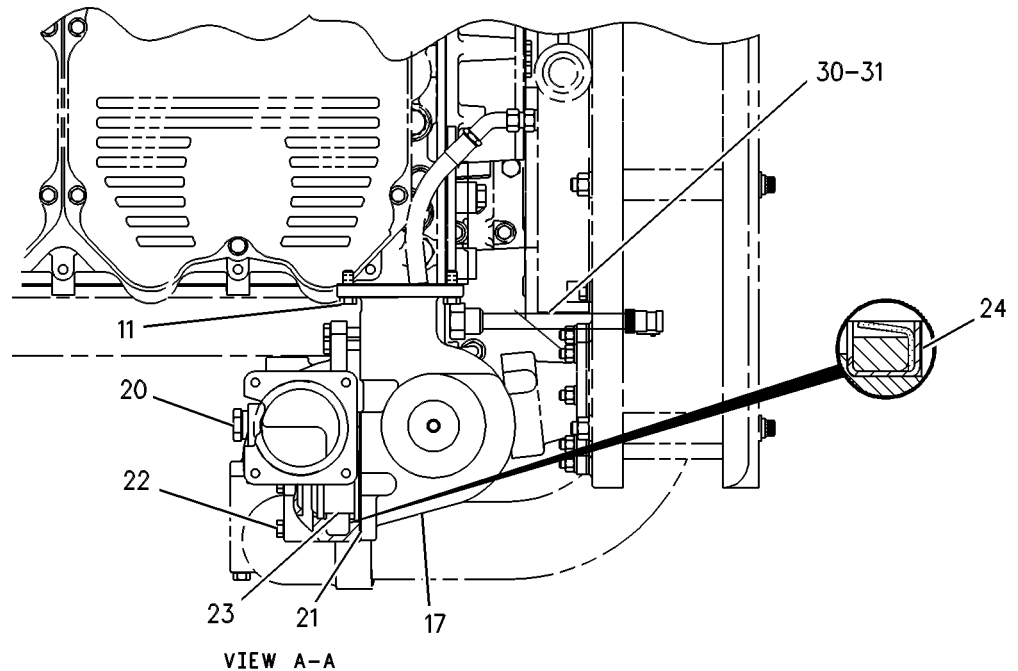
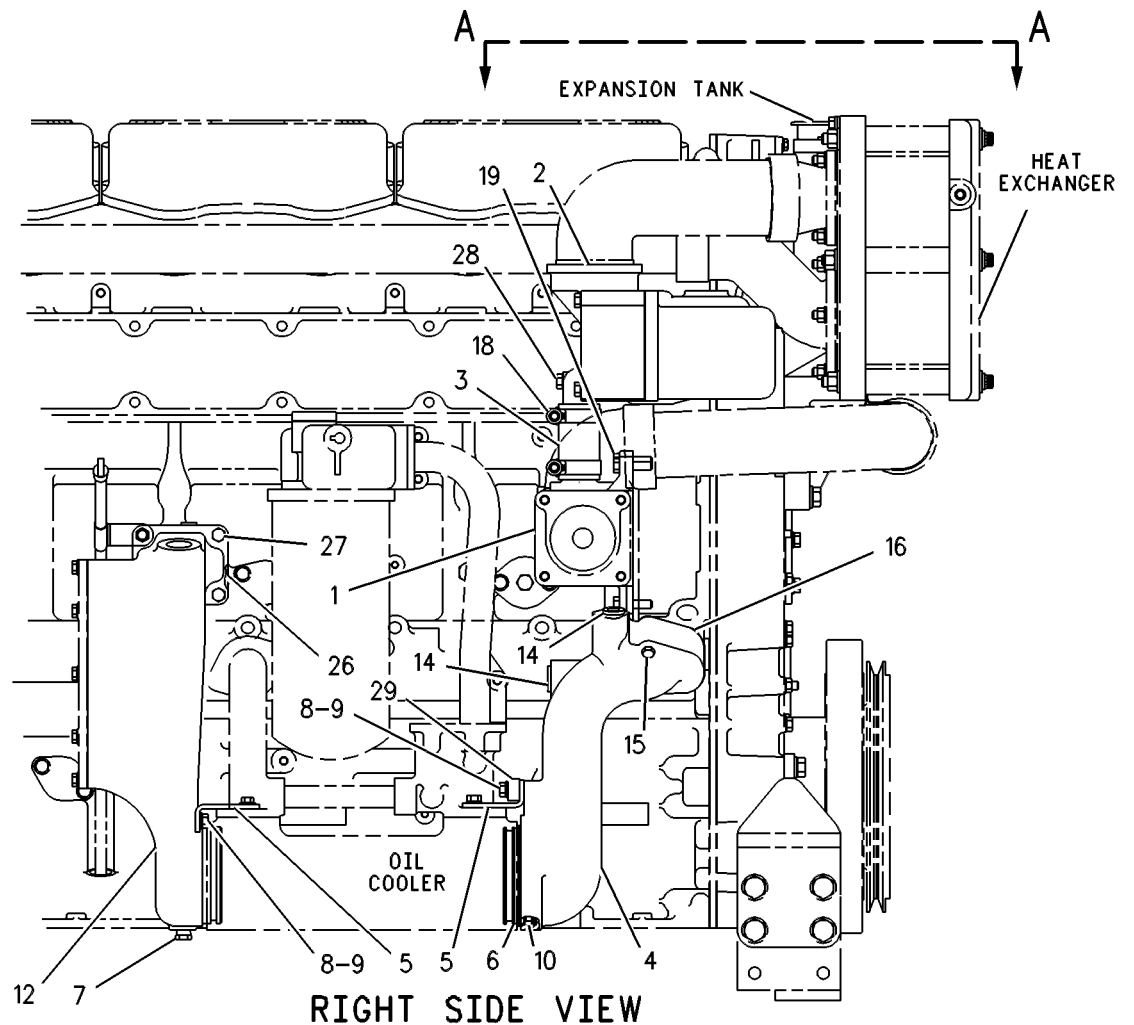
i01158603

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	124-3393	1	COVER-WATER PUMP						
	2	1	124-3402	1	HOUSING						
	3	1	5P-0763	9	HOSE						
	4	1	124-3403	1	BONNET-OIL COOLER INLET						
	5	1	4N-1199	2	CLIP						
	6	1	4N-6257	1	ADAPTER						
	7	1	8T-6767	1	PLUG-PIPE (3/8-18 NPTF THD)						
	8	1	3B-1915	2	BOLT (3/8-16X1.375IN)						
	9	1	5M-2894	2	WASHER (2.5MM THK)						
	10	1	109-0077	1	SEAL-O-RING (100.97MM ID)						
	11	1	0S-1594	3	BOLT (3/8-16X1 IN)						
	12	1	130-8880	1	BONNET-OUTLET						
	14	1	7X-7731	2	PLUG-PIPE (3/4-14 NPTF THD)						
	15	1	0L-2070	2	BOLT (3/8-16X2.25IN)						
	16	1	1W-2636	1	GASKET						
	17	1	124-3401	1	HOUSING						
	18	1	8T-4983	2	CLAMP-HOSE						
	19	1	0S-1591	4	BOLT (3/8-16X1.5 IN)						
	20	1	3E-7430	1	PLUG-PIPE (3/4-14NPTFX3/4IN)						
	21	1	124-9052	1	GASKET						
	22	1	0T-0065	2	BOLT (3/8-16X3.5IN)						
	23	1	4W-4794	1	REGULATOR-WATER TEMPERATURE (92 DEG C.)						
	24	1	3S-9643	1	SEAL-LIP						
	25	1	4N-1156	1	GASKET-REGULATOR COVER						
	26	1	4N-0641	1	GASKET						
	27	1	1A-2029	3	BOLT (3/8-16X1.125IN)						
	28	1	0T-0055	1	BOLT (3/8-16X4.25IN)						
	29	1	2Y-6448	1	SPACER						
	30	1	102-2240	1	SENSOR GP-TEMPERATURE (ENGINE COOLANT)						
	31	1	112-5282	1	SEAL-O-RING (16.36MM ID)						

COOLING SYSTEM

131-8294 HOUSING & REGULATOR GP (contd.)

i01158603



GRAPHIC #1

g00288661

COOLING SYSTEM

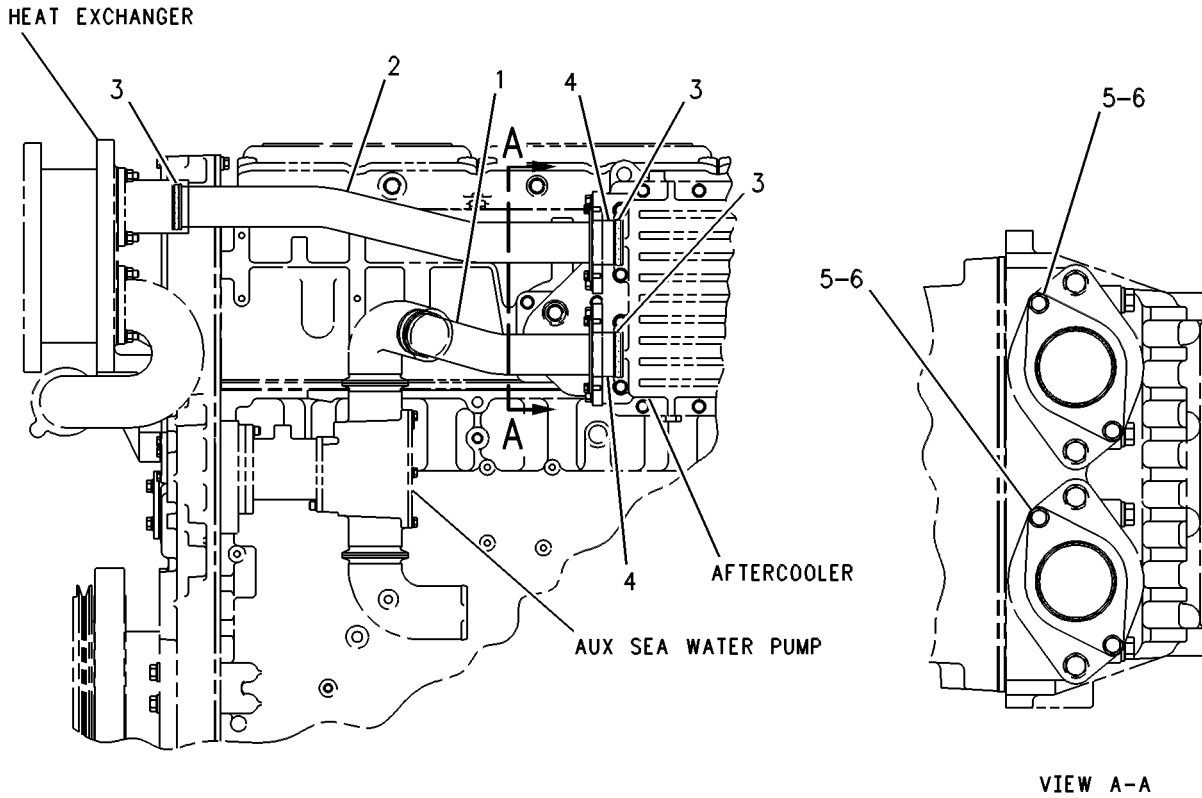
124-3390 LINES GP-AUXILIARY

FOR USE WITH 125-4351-PAGE 172, HEAT EXCHANGER COOLED ENGINES
AN ATTACHMENT

SMCS-1380

i00670832

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	124-3391	1	TUBE AS						
	2	1	124-3392	1	TUBE AS						
	3	1	6L-1650	4	SEAL-O-RING						
	4	1	121-7745	2	SLEEVE-RETAINER						
	5	1	0S-1615	4	BOLT (1/4-20X.75IN)						
	6	1	5P-0537	4	WASHER (2MM THK)						



LEFT SIDE VIEW

VIEW A-A

GRAPHIC #1

g00257254

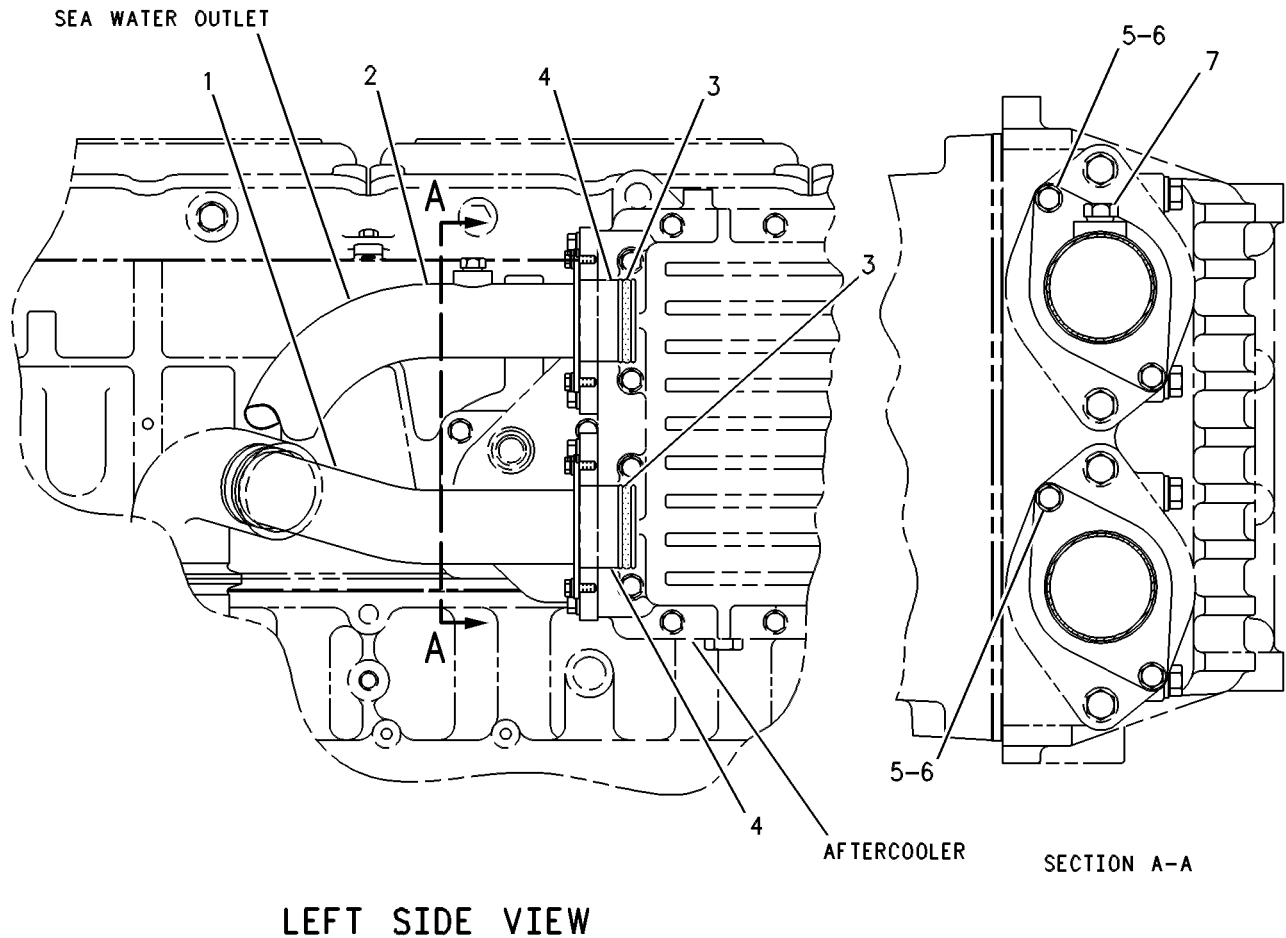
COOLING SYSTEM

131-8275 LINES GP-AUXILIARY FOR USE WITH 125-4351-PAGE 172, KEEL COOLED ENGINES AN ATTACHMENT

SMCS-1380

i00670800

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	124-3391	1	TUBE AS						
	2	1	131-8276	1	TUBE AS						
	3	1	6L-1650	3	SEAL-O-RING						
	4	1	121-7745	2	SLEEVE-RETAINER						
	5	1	0S-1615	4	BOLT (1/4-20X.75IN)						
	6	1	5P-0537	4	WASHER (2MM THK)						
	7	1	3E-7428	1	PLUG-PIPE						



LEFT SIDE VIEW

SECTION A-A

GRAPHIC #1

g00263599

COOLING SYSTEM

4N-4075 LINES GP-WATER

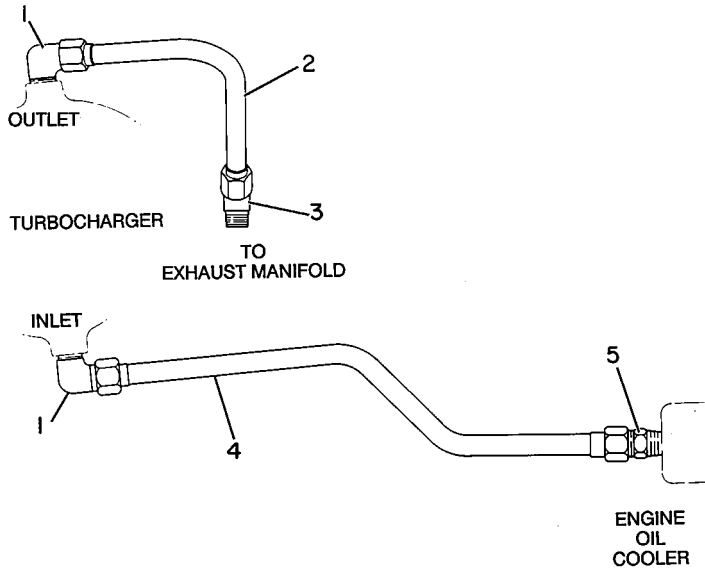
TURBO COOLING
AN ATTACHMENT

SMCS-1380

i00641097

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	031-0782	2	ELBOW-FLARED						
	2	1	4N-4999	1	TUBE AS-OUTLET						
C	3	1	2P-1311	1	ELBOW-FLARED						
C	4	1	6N-8801	1	TUBE AS-WATER INLET						
C	5	1	2P-1289	1	CONNECTOR-FLARED						

C- CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

g00142351

COOLING SYSTEM

131-8267 LINES GP-WATER

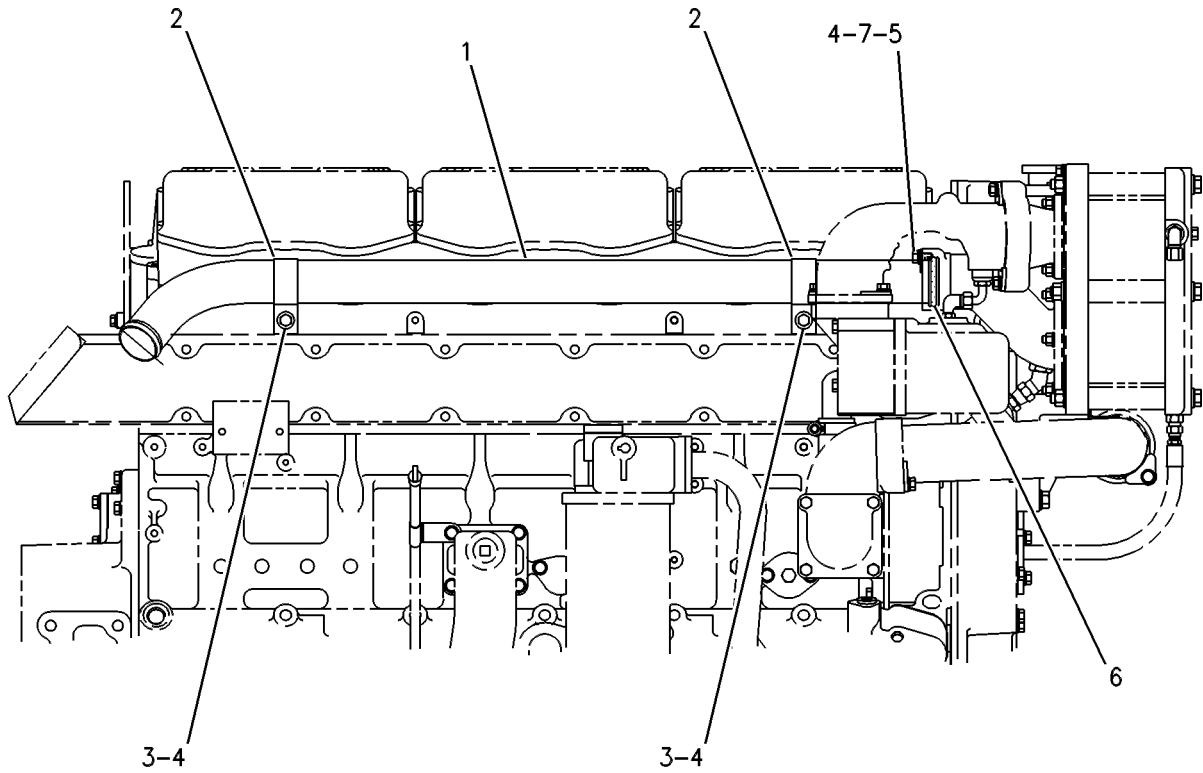
FOR USE WITH 124-3398-PAGE 152

AN ATTACHMENT

SMCS-1380

i00670747

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	131-8268	1	TUBE AS						
	2	1	2V-2793	2	CLIP						
	3	1	9X-6458	2	WASHER-HARD (3MM THK)						
	4	1	0S-0509	3	BOLT (3/8-16X.75IN)						
	5	1	5M-2894	1	WASHER (2.5MM THK)						
	6	1	6L-1650	1	SEAL-O-RING						
	7	1	7W-1944	1	RETAINER						



RIGHT SIDE VIEW

GRAPHIC #1

g00272709

COOLING SYSTEM

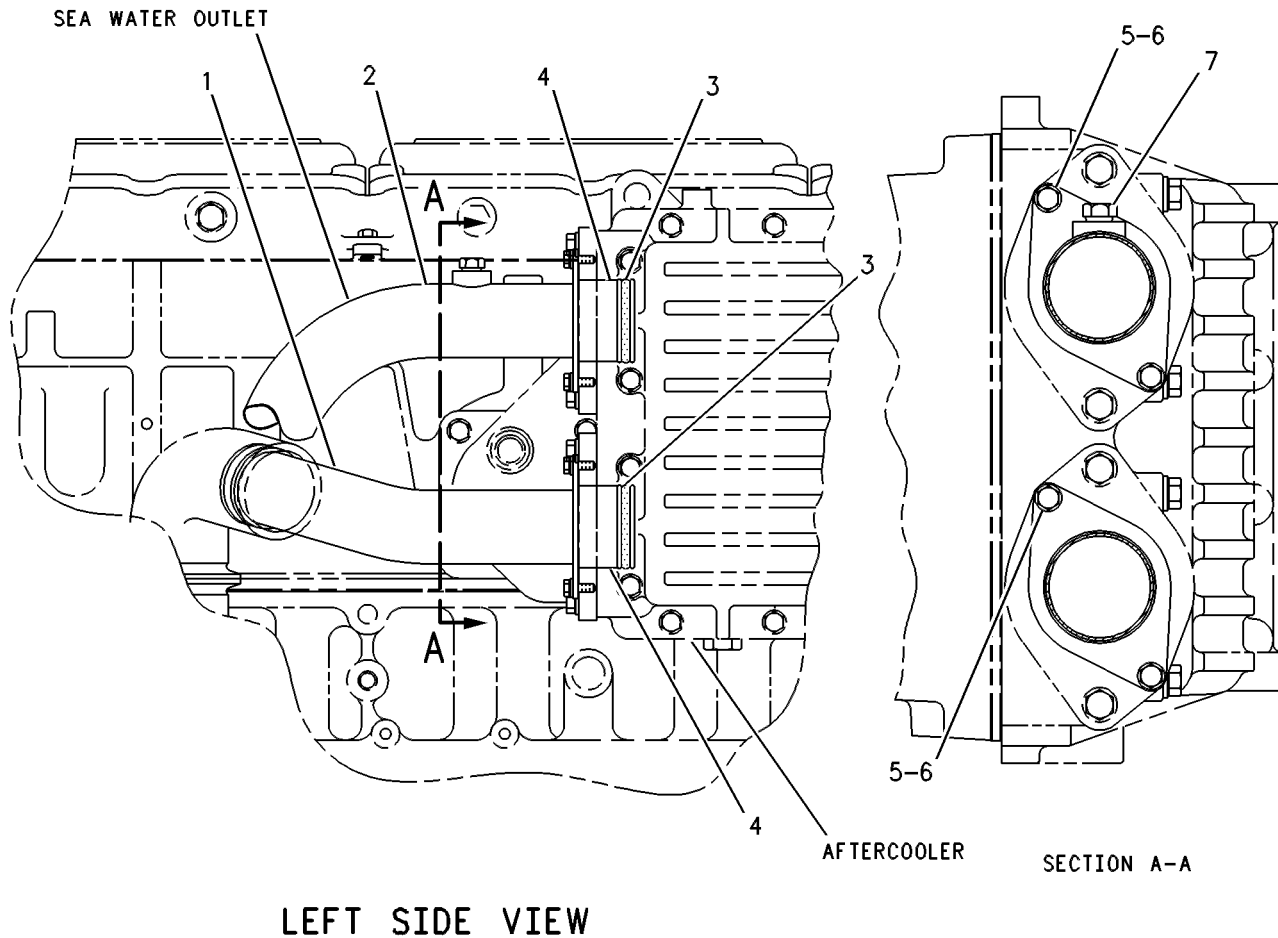
131-8274 LINES GP-WATER

FOR USE WITH KEEL COOLED ENGINE
AN ATTACHMENT

SMCS-1380

i00670798

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	131-8279	1	TUBE AS						
	2	1	131-8276	1	TUBE AS						
	3	1	6L-1650	3	SEAL-O-RING						
	4	1	121-7745	2	SLEEVE-RETAINER						
	5	1	0S-1615	4	BOLT (1/4-20X.75IN)						
	6	1	5P-0537	4	WASHER (2MM THK)						
	7	1	3E-7428	1	PLUG-PIPE						



GRAPHIC #1

g00263599

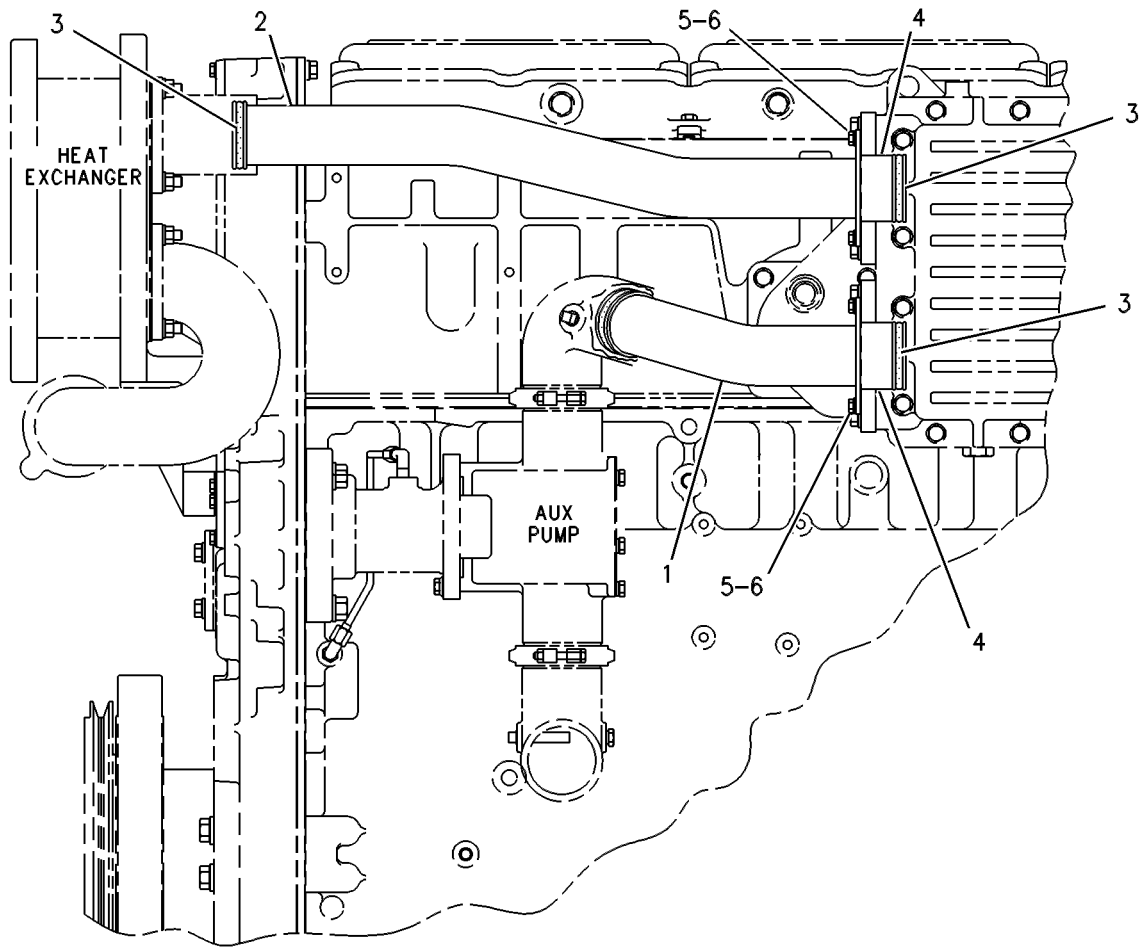
COOLING SYSTEM

131-8278 LINES GP-WATER FOR USE WITH HEAT EXCHANGER COOLED ENGINE AN ATTACHMENT

SMCS-1380

i00670811

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	131-8279	1	TUBE AS						
	2	1	124-3392	1	TUBE AS						
	3	1	6L-1650	4	SEAL-O-RING						
	4	1	121-7745	2	SLEEVE-RETAINER						
	5	1	0S-1615	4	BOLT (1/4-20X.75IN)						
	6	1	5P-0537	4	WASHER (2MM THK)						



LEFT SIDE VIEW

GRAPHIC #1

g00272374

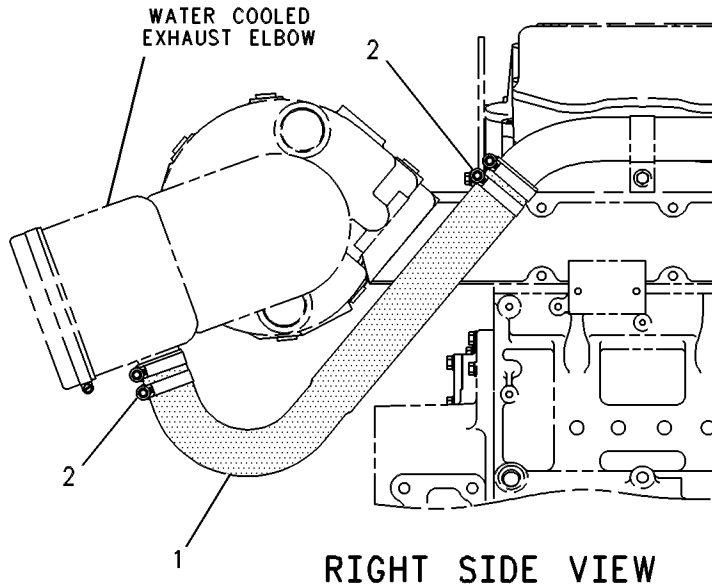
COOLING SYSTEM

140-9583 LINES GP-WATER FOR USE WITH HEAT EXCHANGER COOLED ENGINE AN ATTACHMENT

SMCS-1380

i00670459

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	140-9584	1	HOSE						
	2	1	8T-6703	4	CLAMP-HOSE						



GRAPHIC #1

g00272449

MEMORANDA

COOLING SYSTEM

125-5593 PLATE GP-HEAT EXCHANGER

PART OF 125-5590 HEAT EXCHANGER GP

AN ATTACHMENT

SMCS-1379

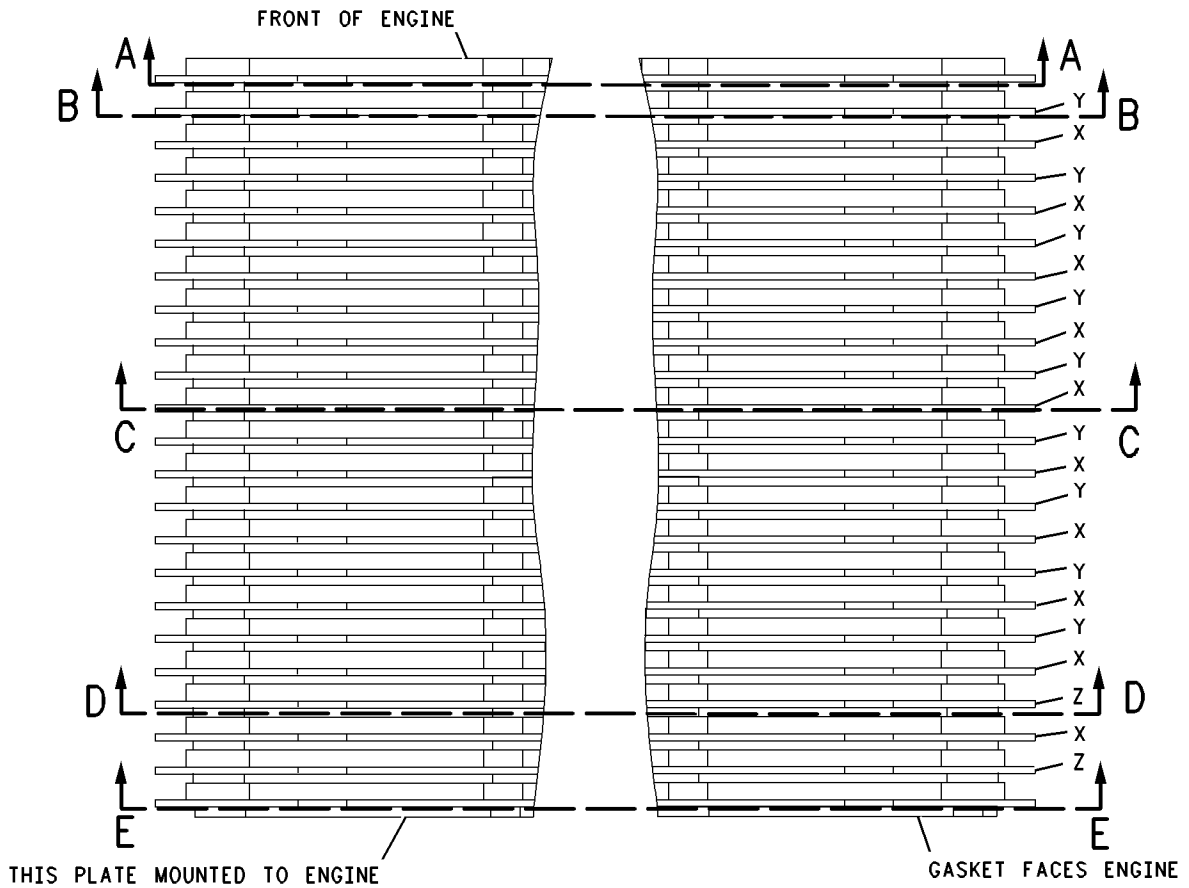
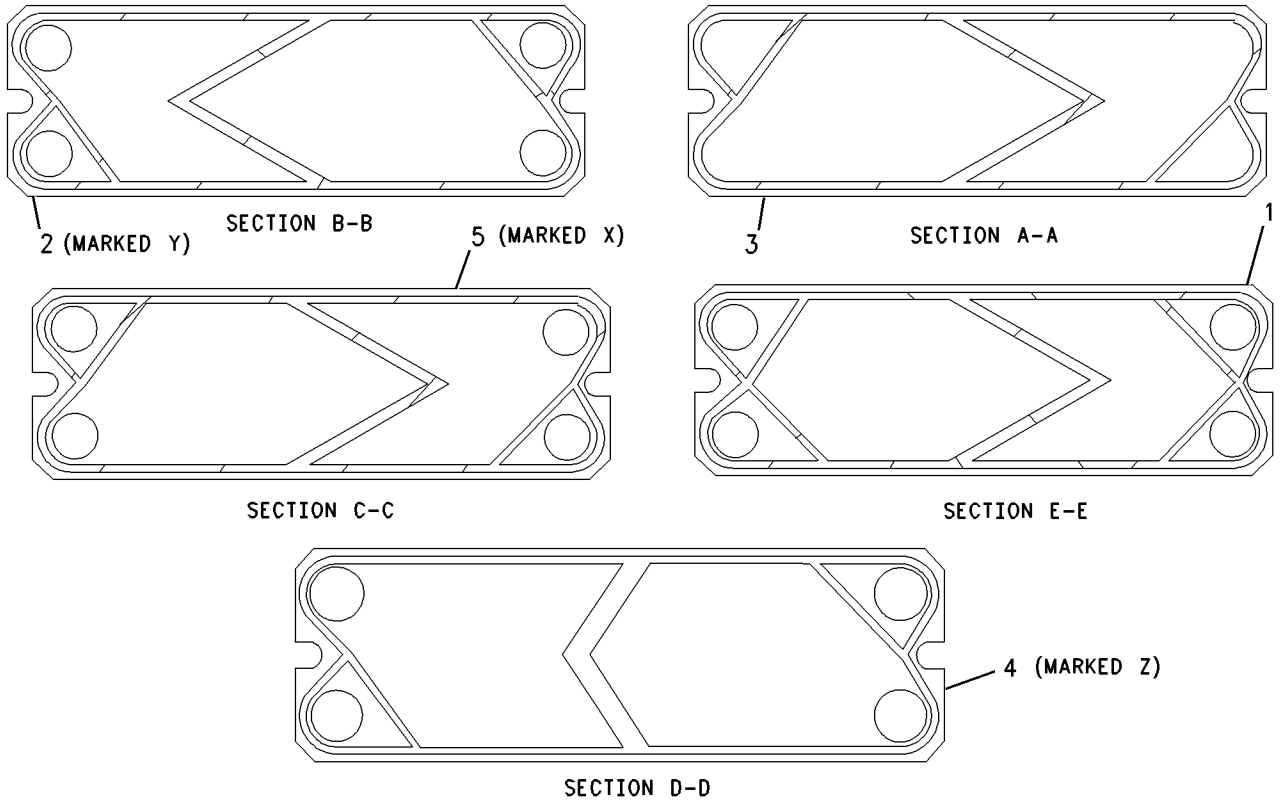
i01427693

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	125-5596	1	PLATE (END)						
	2	1	130-6046	9	PLATE (CHANNEL) (MARKED Y)						
	3	1	136-9494	1	PLATE-END						
	4	1	130-6045	2	PLATE (CHANNEL) (MARKED Z)						
	5	1	130-6047	10	PLATE (CHANNEL) (MARKED X)						

COOLING SYSTEM

125-5593 PLATE GP-HEAT EXCHANGER (contd.)

i01427693



GRAPHIC #1

g00747855

COOLING SYSTEM

109-2322 PLUG GP-WATER LINES

CANNOT BE USED WITH COOLANT CONDITIONER
AN ATTACHMENT

SMCS-1380

i01389055

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	7X-7731	4	PLUG-PIPE						
INSTALL 1 PLUG INTO OIL COOLER BONNET AND 3 PLUGS INTO THE WATER PUMP COVER.									

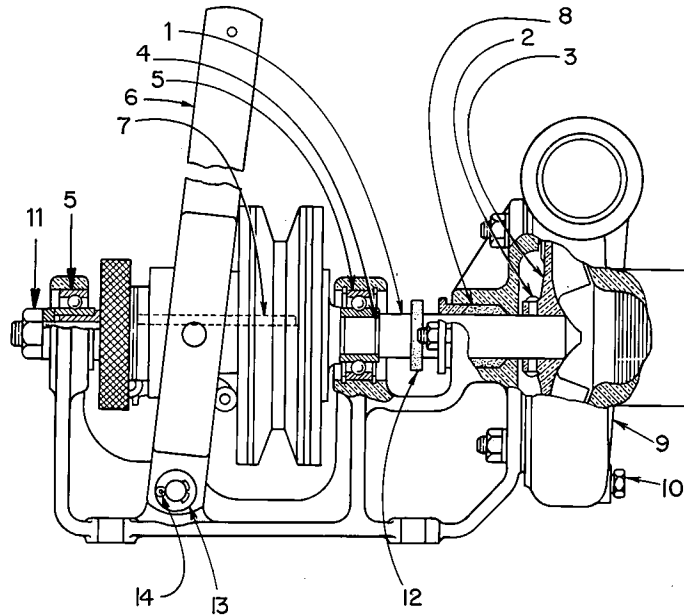
COOLING SYSTEM

6L-5875 PUMP AS-BILGE-RH PART OF 6L-5858 PUMP GP-BILGE AN ATTACHMENT

SMCS-1371

i00637825

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6L-7366	1	IMPELLER AS						
	2	1	1A-1345	1	PIN						
	3	1	6L-7367	1	IMPELLER						
	4	1	6L-7369	1	SHIM						
	5	1	5F-5049	2	BEARING						
	6	1	5F-5061	1	LEVER AS						
	7	1	5F-5062	1	KEY						
	8	1	5F-5047	1	PACKING						
	9	1	6L-7365	1	HOUSING AS						
	10	1	6B-7440	1	PLUG-PIPE						
	11	1	1B-4205	1	NUT (1/2-20 THD)						
	12	1	6L-7368	1	PACKING						
	13	1	5F-5041	2	WASHER						
	14	1	3B-4604	1	PIN-COTTER						



GRAPHIC #1

g00240893

COOLING SYSTEM

125-4351 PUMP GP-AUXILIARY

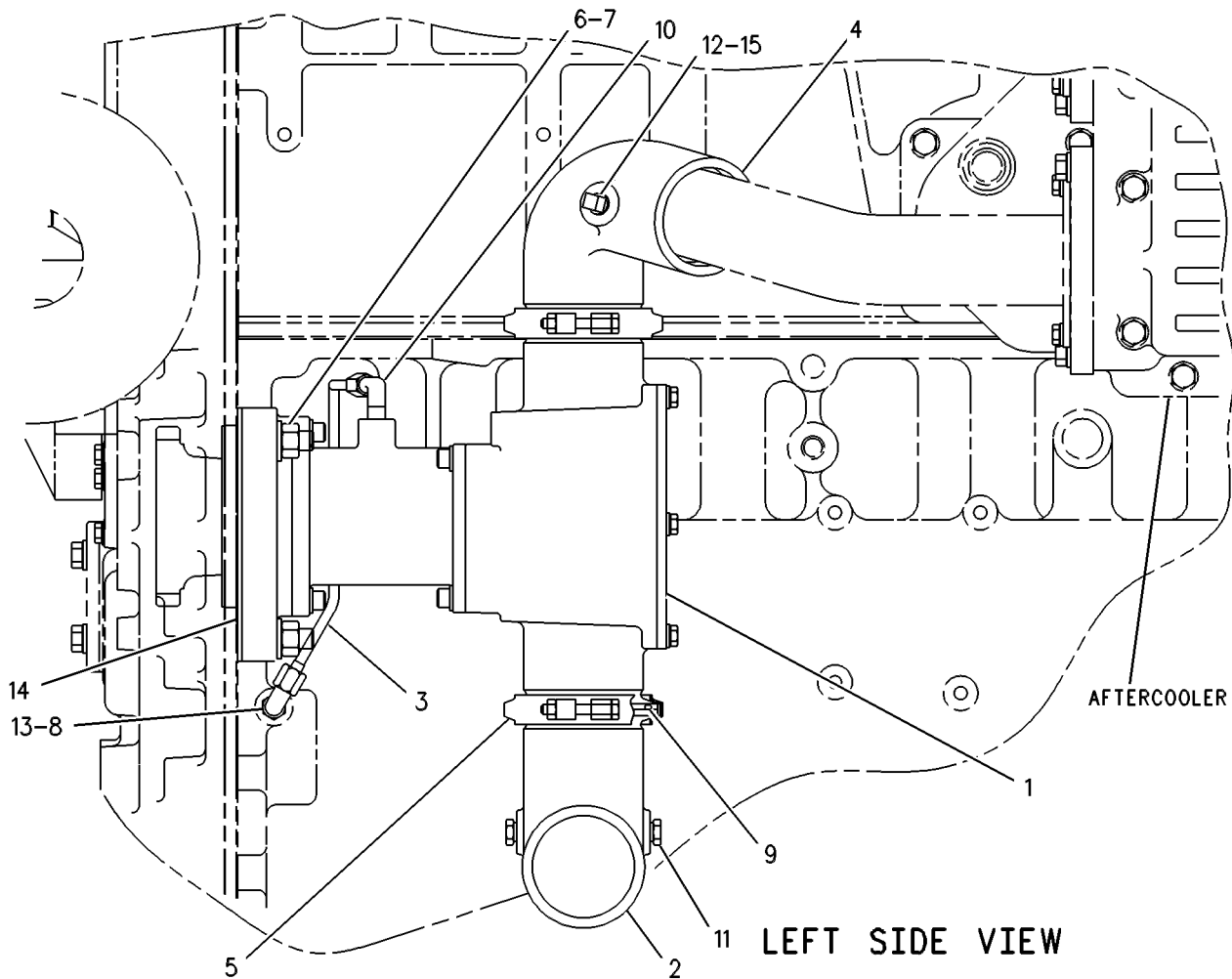
SEA WATER
AN ATTACHMENT

SMCS-1371

i00670960

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	125-4352	1	PUMP GP-AUXILIARY						174
	2	1	125-4356	1	ELBOW						
	3	1	125-4357	1	TUBE AS						
	4	1	121-7522	1	ELBOW						
	5	1	3N-8468	2	CLAMP AS						
	6	1	1F-7958	3	NUT-FULL (1/2-13 THD)						
	7	1	5P-8245	3	WASHER (3MM THK)						
	8	1	7K-9197	1	ELBOW						
	9	1	5M-3038	2	SEAL-O-RING (75.59MM ID)						
	10	1	6K-1972	1	ELBOW-FLARED (1/4 NPT)						
	11	1	3E-7428	3	PLUG-PIPE						
	12	1	6L-3104	1	ROD						
	13	1	8L-6557	1	CONNECTOR						
	14	1	2S-4080	1	GASKET-ADAPTER						
	15	1	6L-2282	1	PLUG-PIPE						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00272549

MEMORANDA

COOLING SYSTEM

125-4352 PUMP GP-AUXILIARY

PART OF 125-4351 PUMP GP-AUXILIARY

AN ATTACHMENT

SMCS-1371

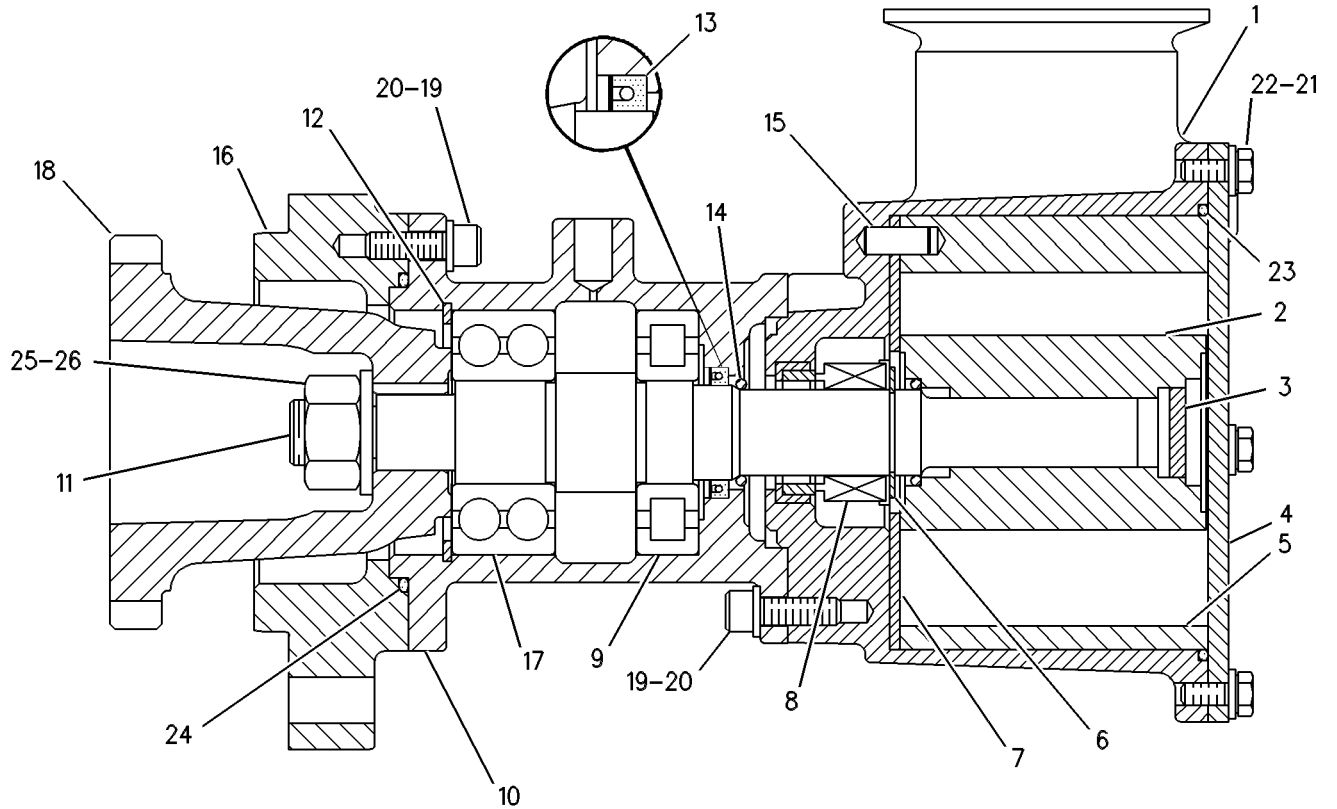
i00670963

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	125-4358	1	BODY						
	2	1	7E-3022	1	IMPELLER						
	3	1	3N-7758	1	SEAL-SPLINE						
	4	1	7E-3021	1	COVER						
	5	1	7E-3020	1	CAM						
	6	1	3N-7759	1	RING-RETAINING						
	7	1	7E-3019	1	PLATE						
	8	1	3N-5632	1	SEAL AS						
	9	1	030-3215	1	BEARING AS-ROLLER						
	10	1	125-4354	1	HOUSING						
	11	1	125-4355	1	SHAFT						
	12	1	2R-1236	1	RING-RETAINING						
	13	1	3N-4863	1	SEAL						
	14	1	3N-4866	2	SEAL-O-RING						
	15	1	7E-3024	1	DOWEL						
	16	1	125-4353	1	ADAPTER						
	17	1	129-1386	1	BEARING						
	18	1	101-9640	1	GEAR (40 TEETH)						
	19	1	2J-5245	10	BOLT						
	20	1	5M-2894	10	WASHER (2.5MM THK)						
	21	1	5P-0537	4	WASHER (2MM THK)						
	22	1	2A-0762	4	BOLT (1/4-20X.625IN)						
	23	1	5F-3106	1	SEAL-O-RING (126.59MM ID)						
	24	1	6V-8001	1	SEAL-O-RING (85.32MM ID)						
	25	1	2K-0337	1	LOCKNUT (3/4-16 THD)						
	26	1	5P-8248	1	WASHER-HARD (3.5MM THK)						

COOLING SYSTEM

125-4352 PUMP GP-AUXILIARY (contd.)

i00670963



GRAPHIC #1

g00257259

COOLING SYSTEM

196-8895 PUMP GP-AUXILIARY

S/N: 9WR1889-UP

PART OF 131-8271 PUMP GP-AUXILIARY SEA WATER
AN ATTACHMENT

SMCS-1371

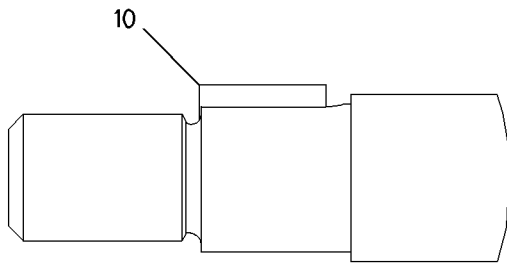
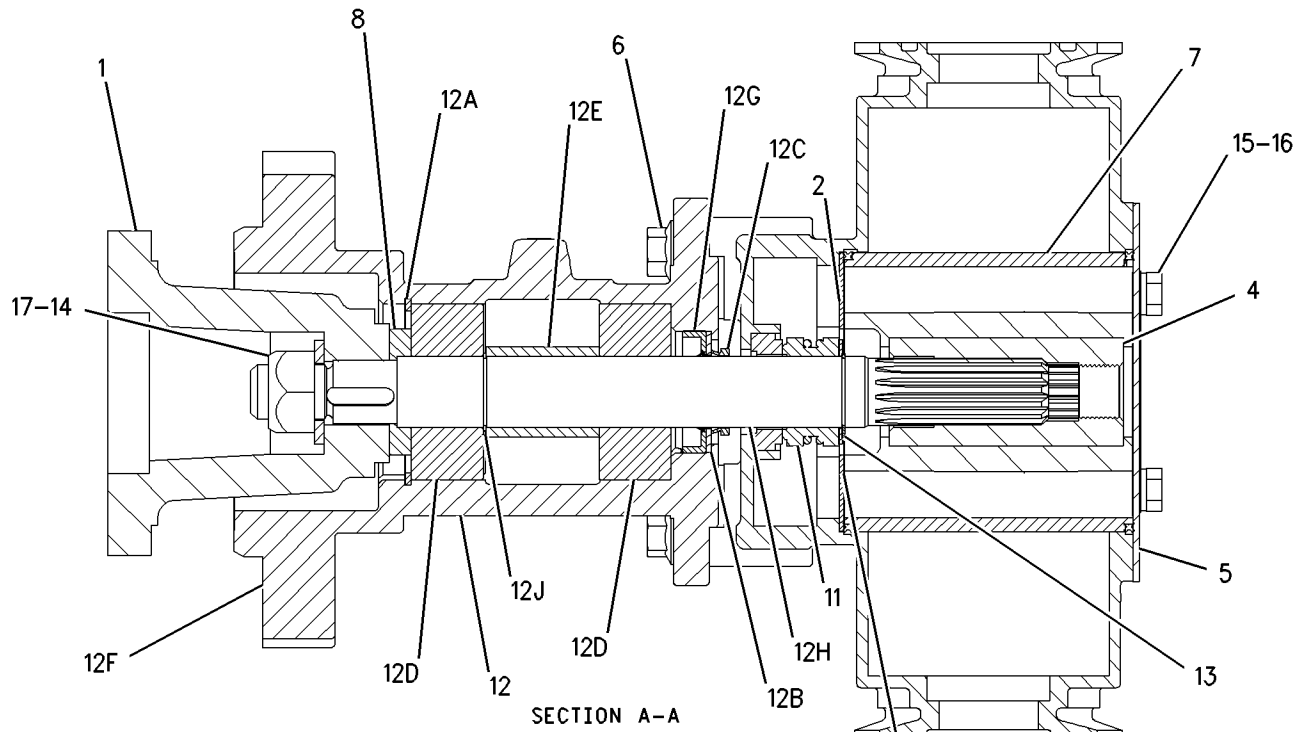
i01454529

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	101-9640	1	GEAR (40 TEETH)						
NP	2	1	109-5322	1	PLATE-WEAR						
P	3	1	109-5323	1	WASHER						
JNP	4	1	109-5324	1	IMPELLER						
NP	5	1	109-5325	1	COVER						
M	6	1	109-5326	3	BOLT						
NP	7	1	136-9490	2	LINER-CAM						
	8	1	141-1016	1	SPACER						
	9	1	141-1017	1	HOUSING						
	10	1	173-3998	1	KEY						
P	11	1	195-0763	1	SEAL AS						
P	12	1	196-8898	1	BODY AS						
	12A	1	1L-4775	1	RING-RETAINING						
	12B	1	109-5330	1	WASHER						
	12C	1	109-5333	1	SEAL						
	12D	1	109-5348	2	BEARING						
	12E	1	141-1019	1	SPACER						
	12F	1	141-1020	1	BODY						
	12G	1	148-9767	1	SEAL						
	12H	1	196-8899	1	SHAFT						
	12J	1	1L-8497	1	RING-SNAP						
P	13	1	197-4870	1	RING-RETAINING						
	14	1	2K-0337	1	LOCKNUT						
M	15	1	3E-9854	5	BOLT (M8X1.25X20MM)						
	16	1	3L-6789	5	LOCKWASHER						
	17	1	5P-8248	1	WASHER-HARD (20X36.5X3.5MM THK)						
AVAILABLE REPAIR KIT(S) :											
J			123-0492	1	KIT-IMPELLER (INCLUDES IMPELLER AND SEAL-QUAD RINGS)						
N			123-9785	1	KIT-IMPELLER (INCLUDES PLATE-WEAR, IMPELLER, COVER, SEALANT, SEAL-QUAD RINGS, PIN, AND LINER-CAMS)						
P			196-8897	1	KIT-PUMP (INCLUDES PLATE-WEAR, WASHER, IMPELLER, COVER, SEALANT, SEAL-QUAD RINGS, PIN, LINER-CAMS, SEAL AS, BODY AS, AND RING-RETAINING)						
<p>J-KIT MARKED J INCLUDES PARTS MARKED J M-METRIC PART N-KIT MARKED N INCLUDES PARTS MARKED N P-KIT MARKED P INCLUDES PARTS MARKED P</p>											

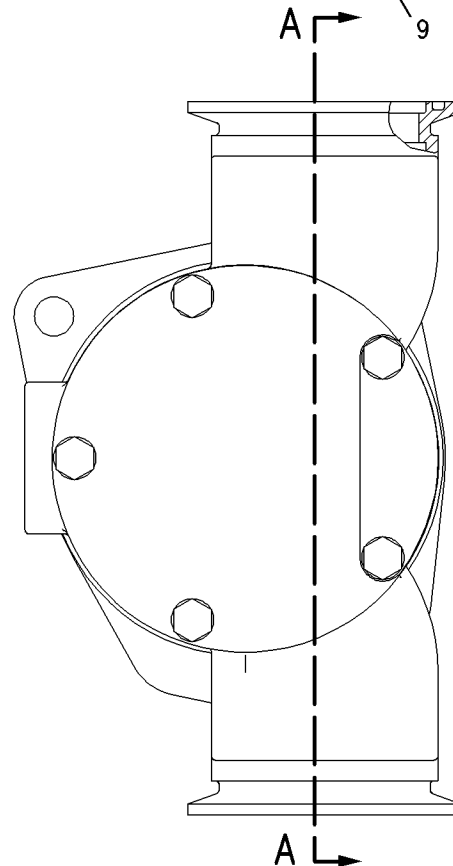
COOLING SYSTEM

196-8895 PUMP GP-AUXILIARY (contd.)

i01454529



DETAIL OF SHAFT



GRAPHIC #1

g00768958

COOLING SYSTEM

131-8271 PUMP GP-AUXILIARY SEA WATER

S/N: 9WR1-1888

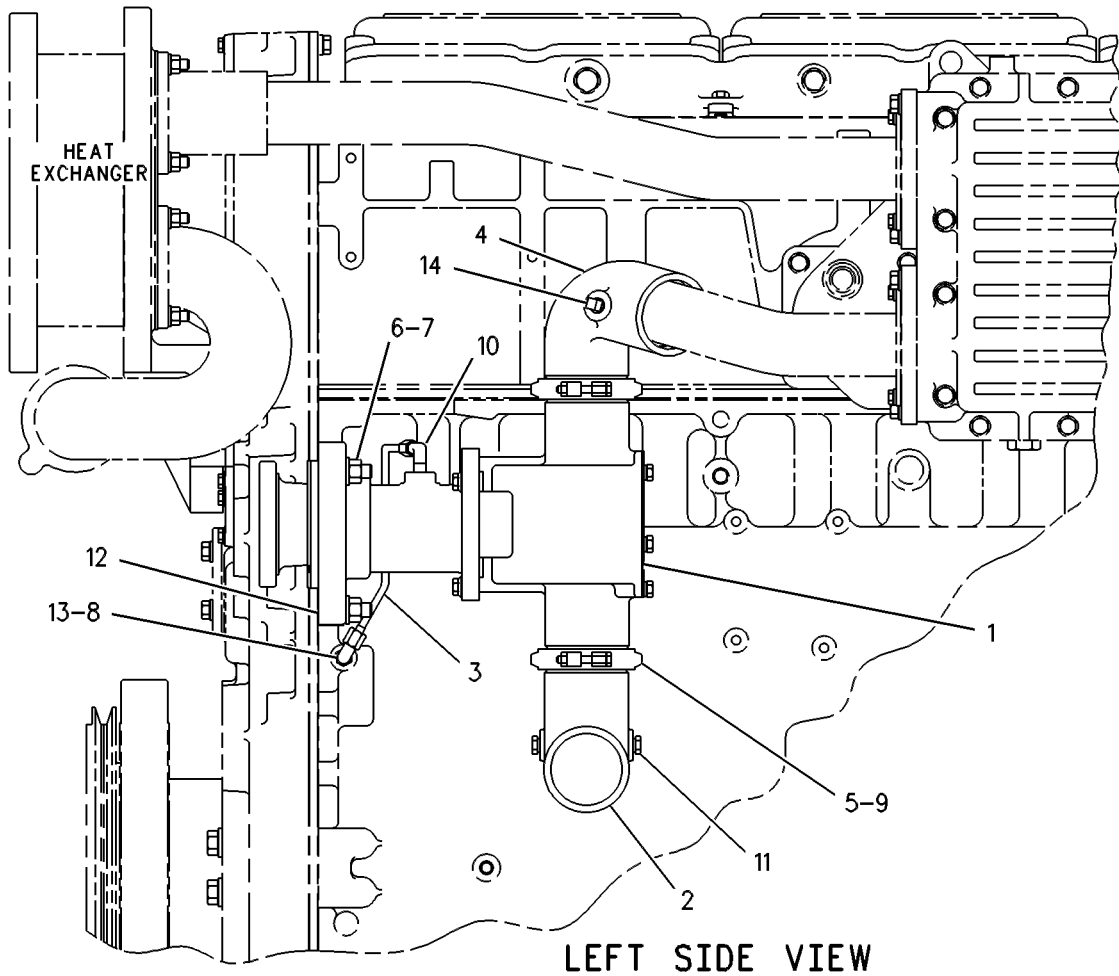
AN ATTACHMENT

SMCS-1371

i00942402

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	131-8272	1	PUMP GP-AUXILIARY SEA WATER						180
	2	1	125-4356	1	ELBOW						
	3	1	131-8273	1	TUBE AS						
	4	1	121-7522	1	ELBOW						
	5	1	3N-8468	2	CLAMP AS						
	6	1	1F-7958	3	NUT-FULL (1/2-13 THD)						
	7	1	5P-8245	3	WASHER (3MM THK)						
	8	1	7K-9197	1	ELBOW						
	9	1	5M-3038	2	SEAL-O-RING (75.59MM ID)						
	10	1	6K-1972	1	ELBOW-FLARED (1/4 NPT)						
	11	1	3E-7428	3	PLUG-PIPE						
	12	1	2S-4080	1	GASKET-ADAPTER						
	13	1	8L-6557	1	CONNECTOR-FLARED						
	14	1	155-8724	1	ROD AS						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00387701

COOLING SYSTEM

131-8271 PUMP GP-AUXILIARY SEA WATER

S/N: 9WR1889-UP

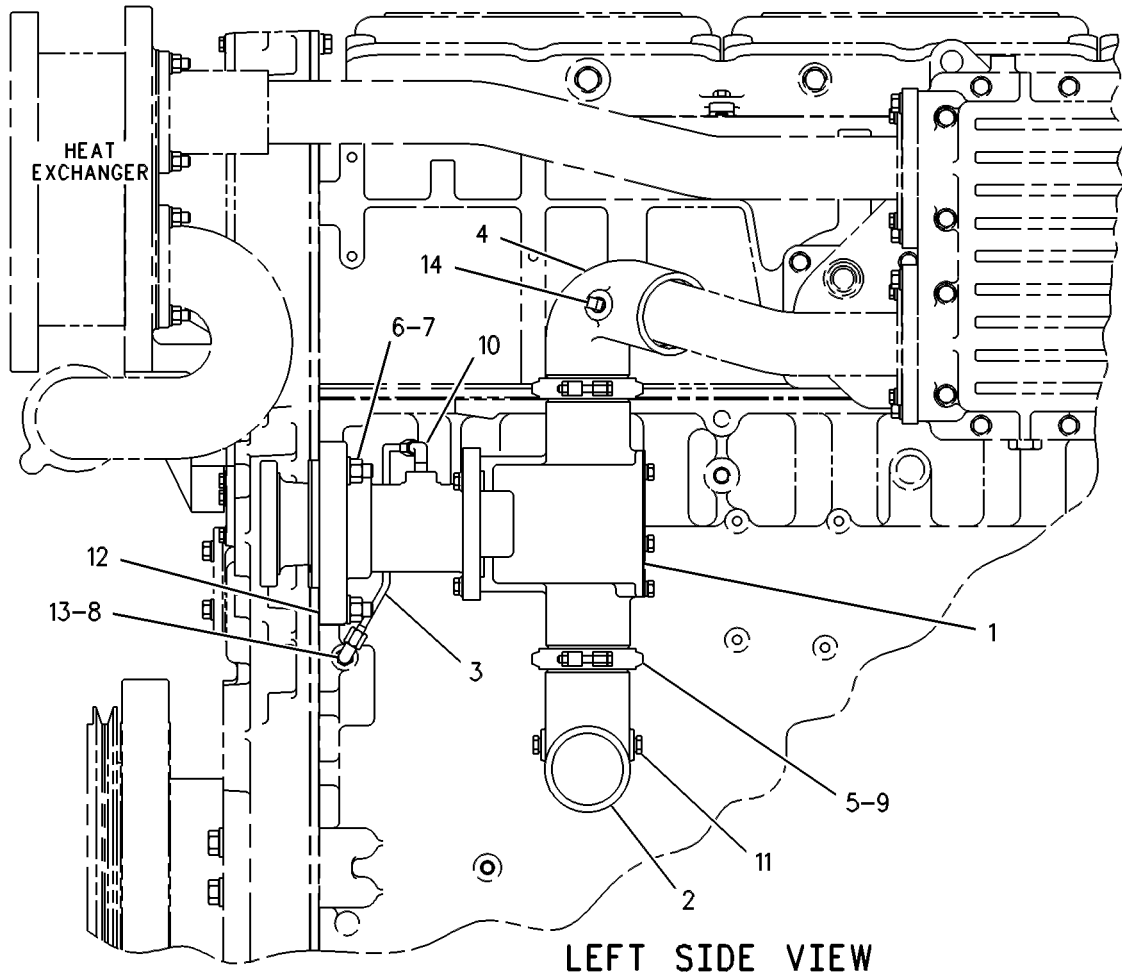
AN ATTACHMENT

SMCS-1371

i01454526

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
CY	1	1	196-8895	1	PUMP GP-AUXILIARY						176
	2	1	125-4356	1	ELBOW						
	3	1	131-8273	1	TUBE AS						
	4	1	121-7522	1	ELBOW						
	5	1	3N-8468	2	CLAMP AS						
	6	1	1F-7958	3	NUT-FULL (1/2-13 THD)						
	7	1	5P-8245	3	WASHER-HARD (13.5X25.5X3MM THK)						
	8	1	7K-9197	1	ELBOW-SWIVEL						
	9	1	5M-3038	2	SEAL-O-RING (75.59MM ID)						
	10	1	6K-1972	1	ELBOW-FLARED						
	11	1	3E-7428	3	PLUG-PIPE						
	12	1	2S-4080	1	GASKET-ADAPTER						
	13	1	8L-6557	1	CONNECTOR						
	14	1	155-8724	1	ROD AS						

C- CHANGE FROM PREVIOUS TYPE
Y- SEPARATE ILLUSTRATION



GRAPHIC #1

g00387701

COOLING SYSTEM

131-8272 PUMP GP-AUXILIARY SEA WATER

S/N: 9WR1-1888

PART OF 131-8271 PUMP GP-AUXILIARY SEA WATER
AN ATTACHMENT

SMCS-1371

i00701457

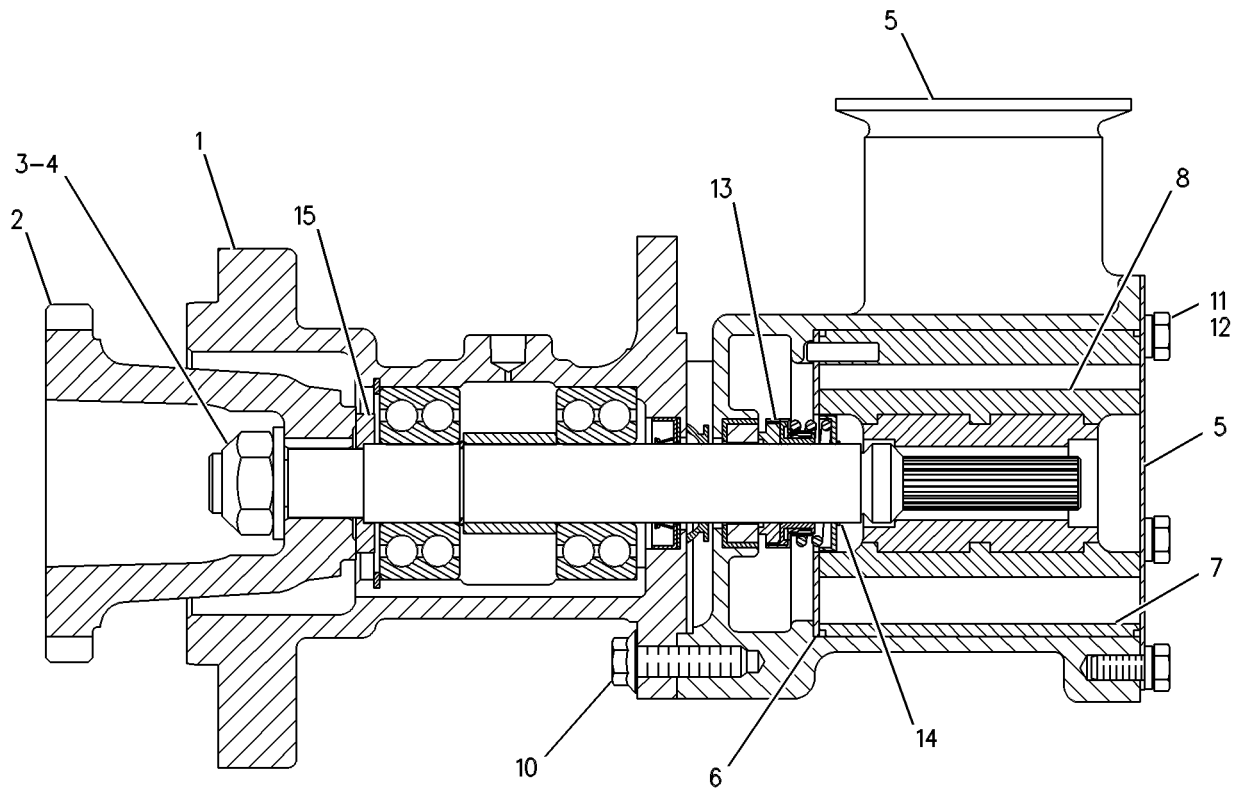
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	141-0998	1	BODY AS						
		1	148-9767	1	SEAL						
		1	109-5330	1	WASHER						
		1	109-5333	1	SEAL						
		1	109-5348	2	BEARING						
		1	141-1018	1	SHAFT						
		1	141-1019	1	SPACER						
	2	1	101-9640	1	GEAR (40 TEETH)						
	3	1	2K-0337	1	LOCKNUT (3/4-16 THD)						
	4	1	5P-8248	1	WASHER-HARD (3.5MM THK)						
	5	1	141-1017	1	HOUSING						
	6	1	109-5322	1	PLATE-WEAR						
	7	1	136-9490	2	LINER-CAM						
	8	1	109-5324	1	IMPELLER						
	9	1	109-5325	1	COVER						
M	10	1	109-5326	3	BOLT (M10X1.5)						
M	11	1	3E-9854	5	BOLT (M8X1.25 THD)						
	12	1	3L-6789	5	LOCKWASHER (.326MM ID)						
	13	1	109-5321	1	SEAL AS						
	14	1	109-5323	1	WASHER						
	15	1	141-1016	1	SPACER						
	16	1	123-0492	1	KIT-IMPELLER (INCLUDES IMPELLER AND SEALS-QUAD RING)						
	17	1	123-9785	1	KIT-IMPELLER (INCLUDES PLATE-WEAR, IMPELLER, COVER SEALANT, SEALS-QUAD RING, PIN AND LINERS-CAM)						
	18	1	141-0999	1	KIT-PUMP (INCLUDES RING-RETAINING, SEAL, PLATE-WEAR, WASHER, IMPELLER, COVER, SEALANT, SEAL-QUAD RING, PIN, LINER-CAM & BODY AS)						

M-METRIC PART

COOLING SYSTEM

131-8272 PUMP GP-AUXILIARY SEA WATER (contd.)

i00701457



GRAPHIC #1

g00272479

COOLING SYSTEM

6L-5858 PUMP GP-BILGE

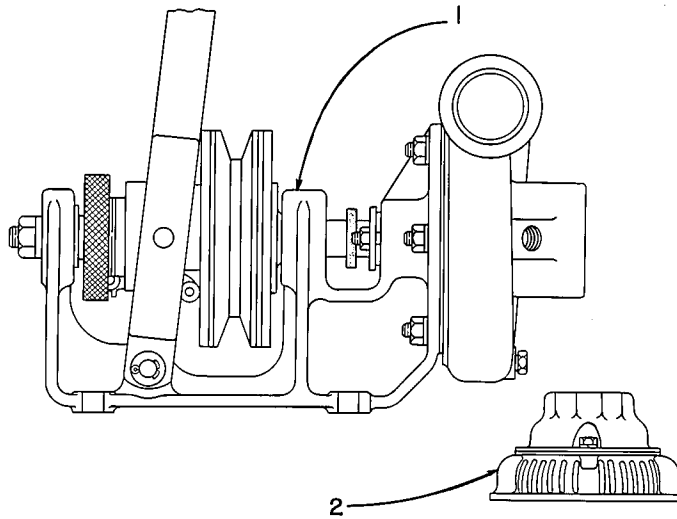
**NOTE: 2--5F3581 VEE BELTS ARE AVAILABLE FOR USE WITH FRONT POWER TAKE-OFF.
FOR USE WITH MARINE AUX ENGINE
AN ATTACHMENT**

SMCS-1371

i00637817

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	6L-5875	1	PUMP AS-BILGE						171
Y	2	1	3F-4394	1	FOOT VALVE & STRAINER AS						151

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00205632

COOLING SYSTEM

6I-3642 PUMP GP-WATER

S/N: 9WR1-304

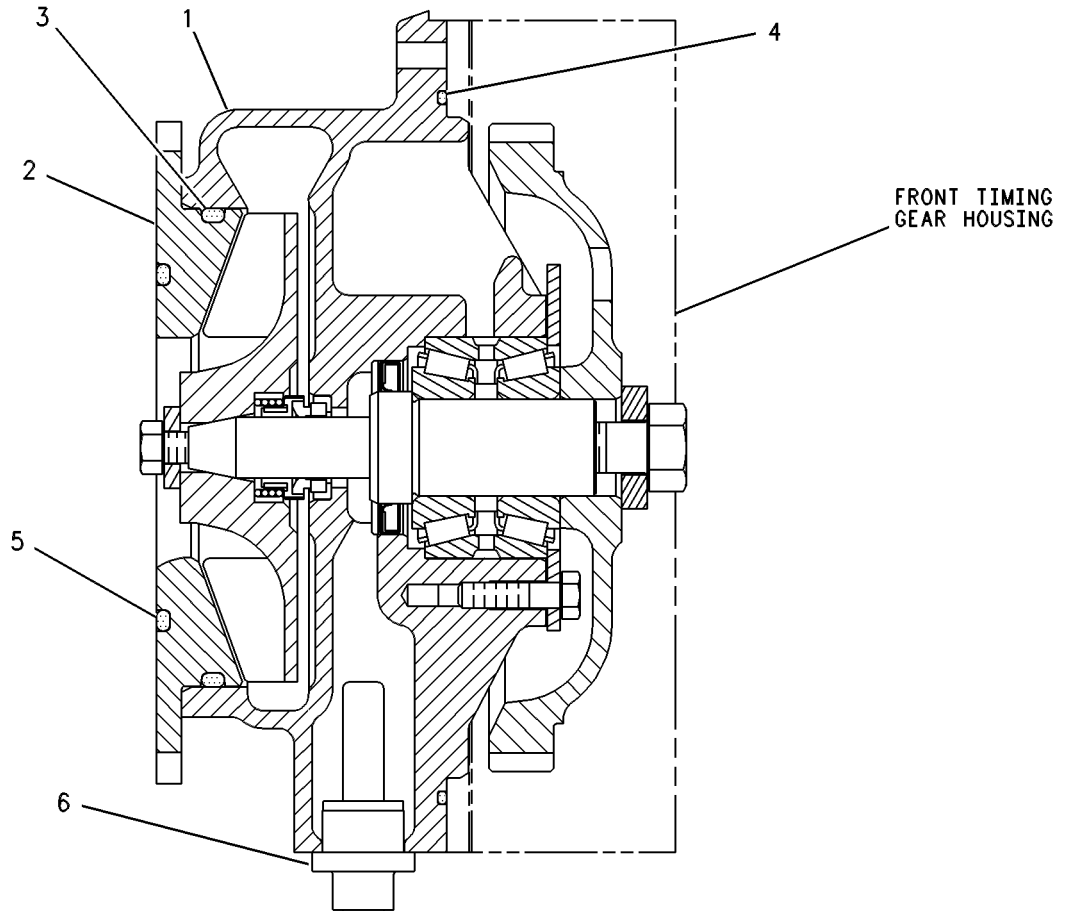
AN ATTACHMENT

SMCS-1361

i01278578

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
CYR	1	1	6I-3890	1	PUMP GP-WATER						187
	2	1	7C-9222	1	ADAPTER-INLET						
	3	1	9M-3786	1	SEAL-O-RING (139.06MM ID)						
	4	1	122-3772	1	SEAL-O-RING (215.49MM ID)						
	5	1	109-0077	1	SEAL-O-RING (100.97MM ID)						
	6	1	127-0890	1	STANDPIPE						

C-CHANGE FROM PREVIOUS TYPE
 R-REMFG PART MAY BE AVAILABLE
 Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00257781

COOLING SYSTEM

6I-3642 PUMP GP-WATER

S/N: 9WR305-483

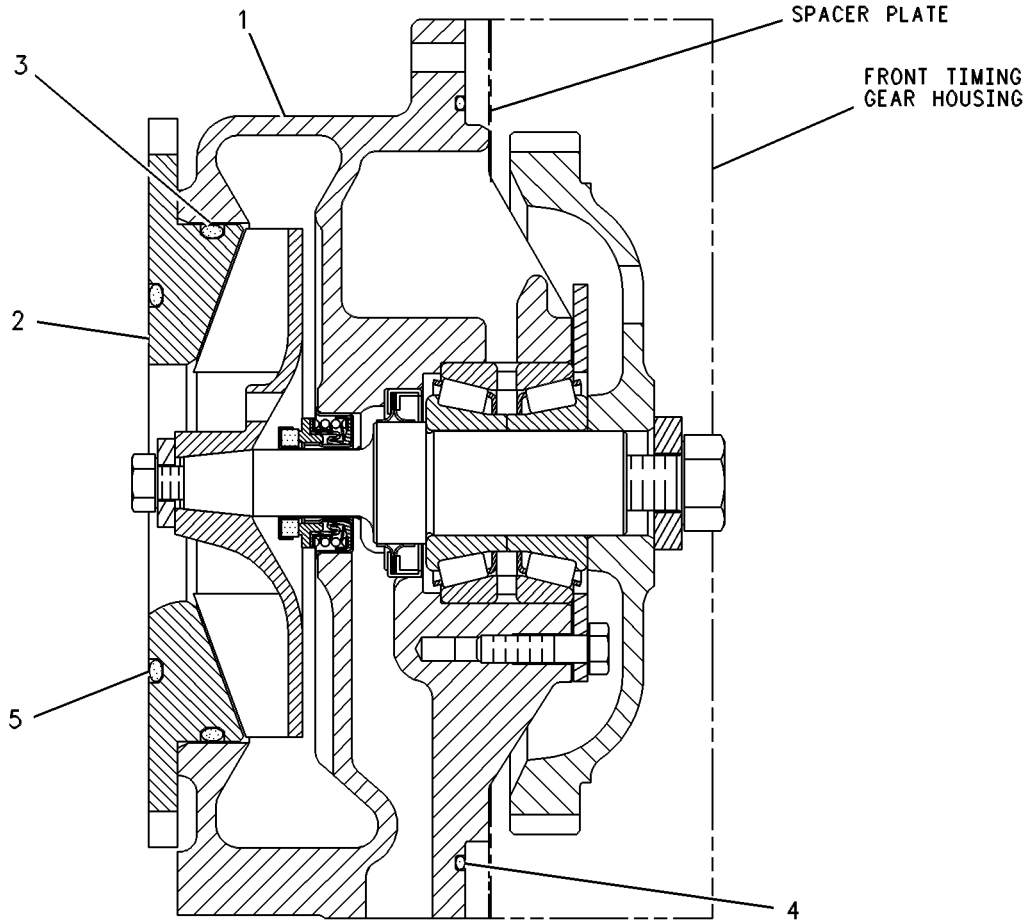
AN ATTACHMENT

SMCS-1361

i01278580

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
CYR	1	1	135-4925	1	PUMP GP-WATER						192
	2	1	7C-9222	1	ADAPTER-INLET						
	3	1	9M-3786	1	SEAL-O-RING (139.06MM ID)						
	4	1	122-3772	1	SEAL-O-RING (215.49MM ID)						
	5	1	109-0077	1	SEAL-O-RING (100.97MM ID)						

C- CHANGE FROM PREVIOUS TYPE
R- REMFG PART MAY BE AVAILABLE
Y- SEPARATE ILLUSTRATION



GRAPHIC #1

g00263504

COOLING SYSTEM

6I-3642 PUMP GP-WATER

S/N: 9WR484-490

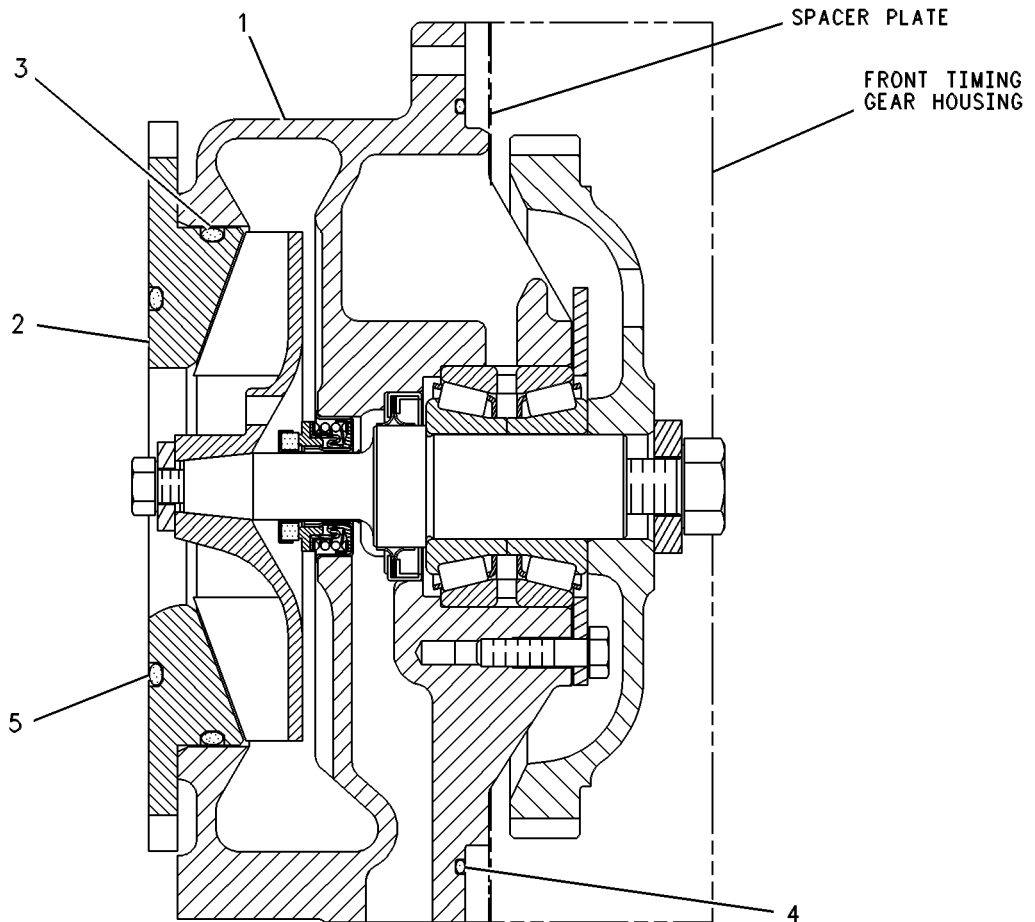
AN ATTACHMENT

SMCS-1361

i01278606

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
CY	1	1	146-6258	1	PUMP GP-WATER						194
	2	1	7C-9222	1	ADAPTER-INLET						
	3	1	9M-3786	1	SEAL-O-RING (139.06MM ID)						
	4	1	122-3772	1	SEAL-O-RING (215.49MM ID)						
	5	1	109-0077	1	SEAL-O-RING (100.97MM ID)						

C-CHANGE FROM PREVIOUS TYPE
Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00263504

COOLING SYSTEM

6I-3642 PUMP GP-WATER

S/N: 9WR491-UP

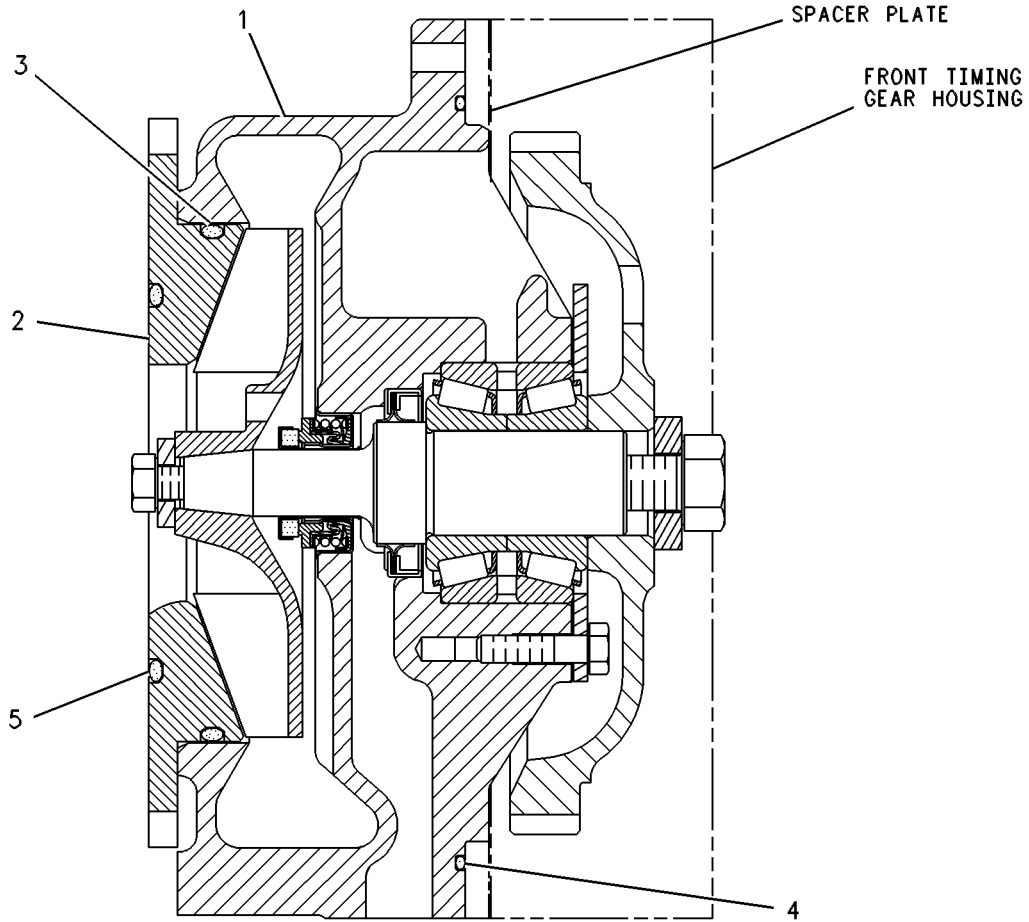
AN ATTACHMENT

SMCS-1361

i01278585

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
CYR	1	1	135-4925	1	PUMP GP-WATER						192
	2	1	7C-9222	1	ADAPTER-INLET						
	3	1	9M-3786	1	SEAL-O-RING (139.06MM ID)						
	4	1	122-3772	1	SEAL-O-RING (215.49MM ID)						
	5	1	109-0077	1	SEAL-O-RING (100.97MM ID)						

C- CHANGE FROM PREVIOUS TYPE
 R- REMFG PART MAY BE AVAILABLE
 Y- SEPARATE ILLUSTRATION



GRAPHIC #1

g00263504

COOLING SYSTEM

6I-3890 PUMP GP-WATER*R

S/N: 9WR1-304

PART OF 6I-3642 PUMP GP-WATER
AN ATTACHMENT

SMCS-1361

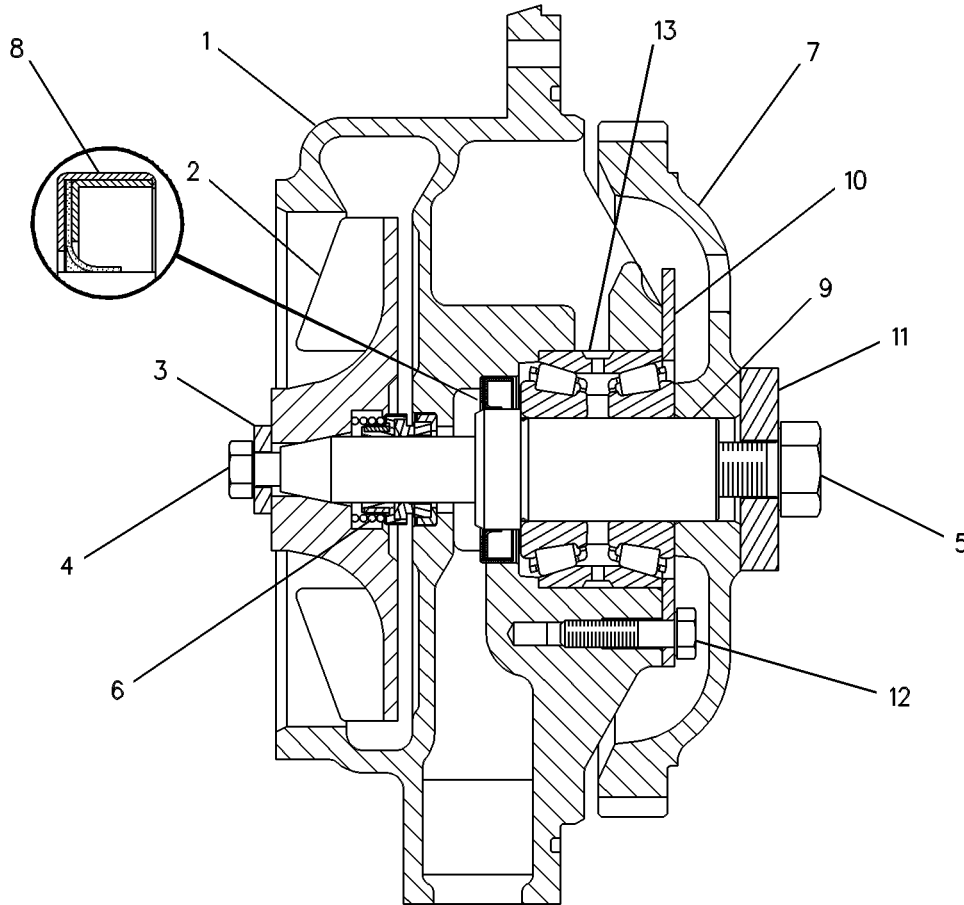
i00715829

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	100-7479	1	HOUSING-WATER PUMP						
	2	1	7C-5479	1	IMPELLER-PUMP						
W	3	1	9M-6527	1	WASHER-HARD (5.0MM THK)						
W	4	1	0S-1591	1	BOLT (3/8-16X1.5IN)						
	5	1	1A-1135	1	BOLT (5/8-11X2IN)						
	6	1	131-3815	1	SEAL GP						
	7	1	6I-3643	1	GEAR (74 T)						
W	8	1	8C-3100	1	SEAL-LIP						
W	9	1	123-6666	1	SHAFT-WATER PUMP						
W	10	1	105-3785	1	RETAINER						
	11	1	5S-0581	1	WASHER-HARD (8MM THK)						
	12	1	1B-7182	4	BOLT (5/16-18X1.25IN)						
W	13	1	108-7930	1	BEARING AS-ROLLER						

AVAILABLE REPAIR KIT(S) :

W	105-4985	1	KIT-WATER PUMP REBUILD
---	----------	---	------------------------

W-PART(S) MARKED W INCLUDES KIT MARKED W



GRAPHIC #1

g00257935

COOLING SYSTEM

100-9347 PUMP GP-WATER

S/N: 9WR305-UP

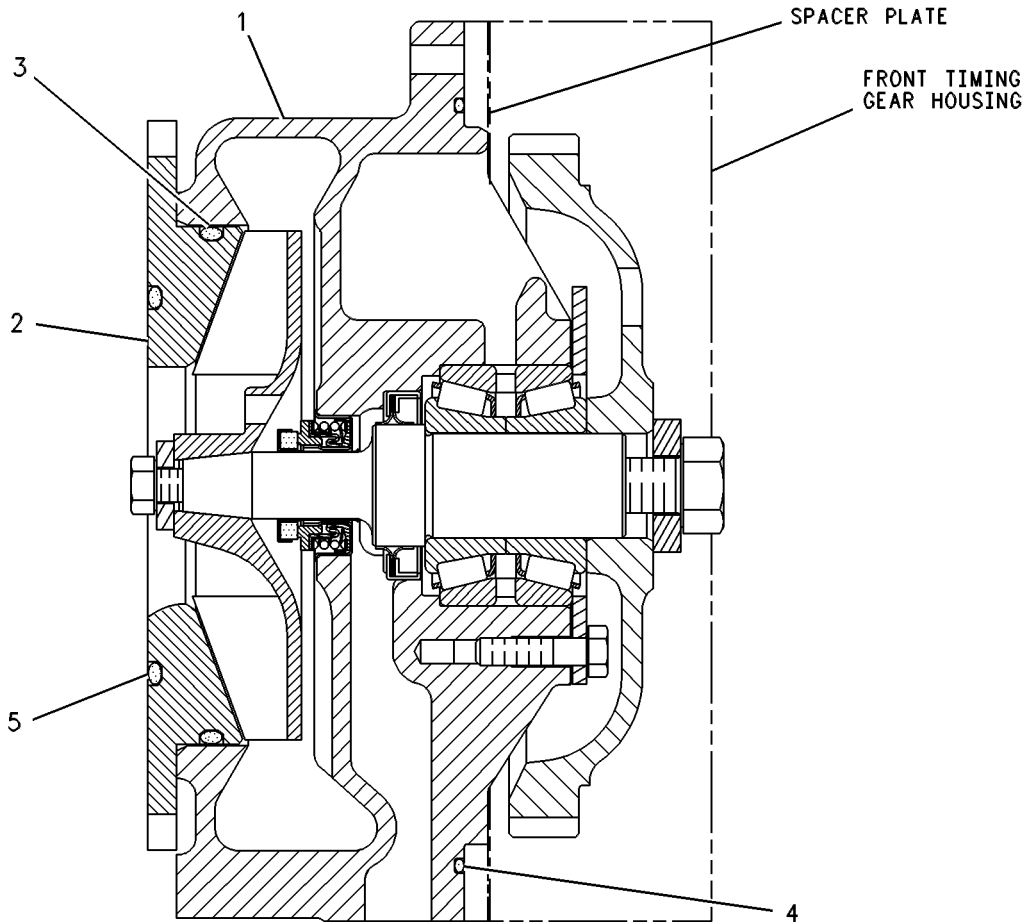
PROVIDES CAST IRON ADAPTER
AN ATTACHMENT
TYPE 1

SMCS-1361

i00701743

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
YCR	1	1	135-4925	1	PUMP GP-WATER						192
	2	1	4P-2383	1	ADAPTER-INLET						
	3	1	9M-3786	1	SEAL-O-RING (139.06MM ID)						
	4	1	122-3772	1	SEAL-O-RING (215.49MM ID)						
	5	1	109-0077	1	SEAL-O-RING (100.97MM ID)						

C- CHANGE FROM PREVIOUS TYPE
R- REMFG PART MAY BE AVAILABLE
Y- SEPARATE ILLUSTRATION



GRAPHIC #1

g00263504

COOLING SYSTEM

100-9347 PUMP GP-WATER

S/N: 9WR305-UP

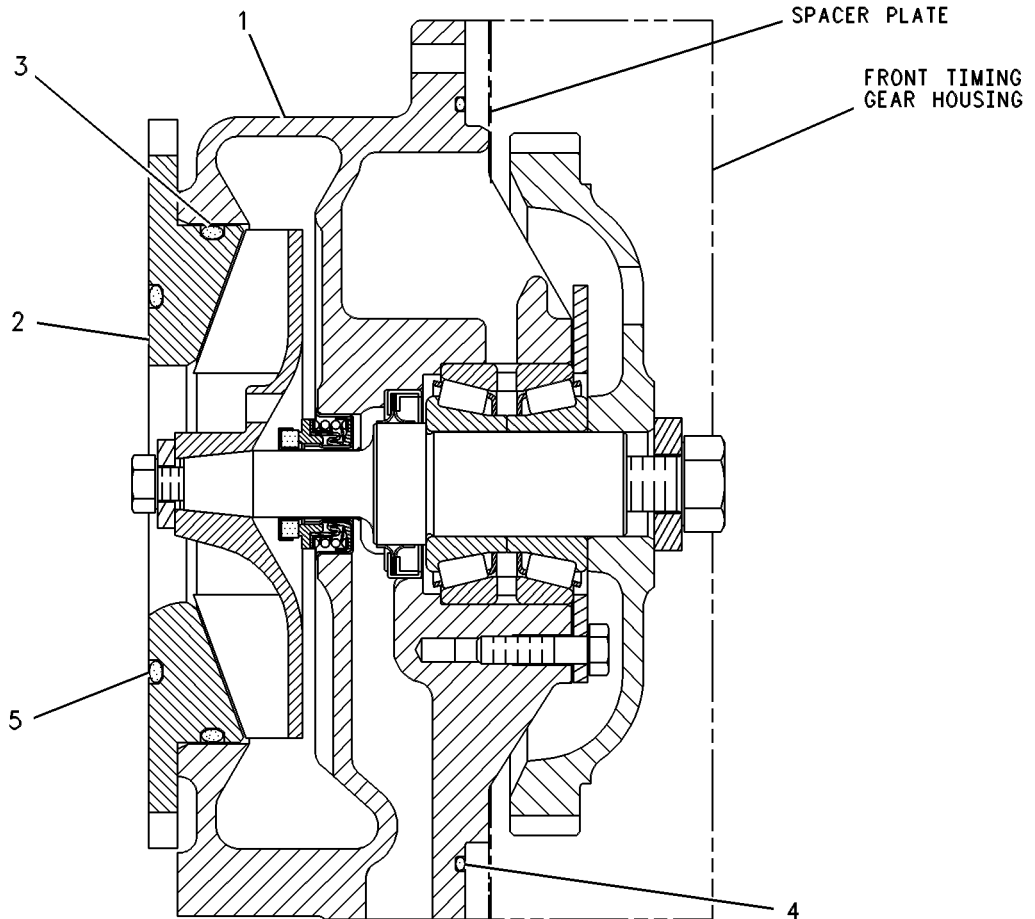
PROVIDES CAST IRON ADAPTER
AN ATTACHMENT
TYPE 2

SMCS-1361

i00701739

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
CY	1	1	146-6258	1	PUMP GP-WATER						194
	2	1	4P-2383	1	ADAPTER-INLET						
	3	1	9M-3786	1	SEAL-O-RING (139.06MM ID)						
	4	1	122-3772	1	SEAL-O-RING (215.49MM ID)						
	5	1	109-0077	1	SEAL-O-RING (100.97MM ID)						

C-CHANGE FROM PREVIOUS TYPE
Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00263504

COOLING SYSTEM

100-9347 PUMP GP-WATER

S/N: 9WR305-UP

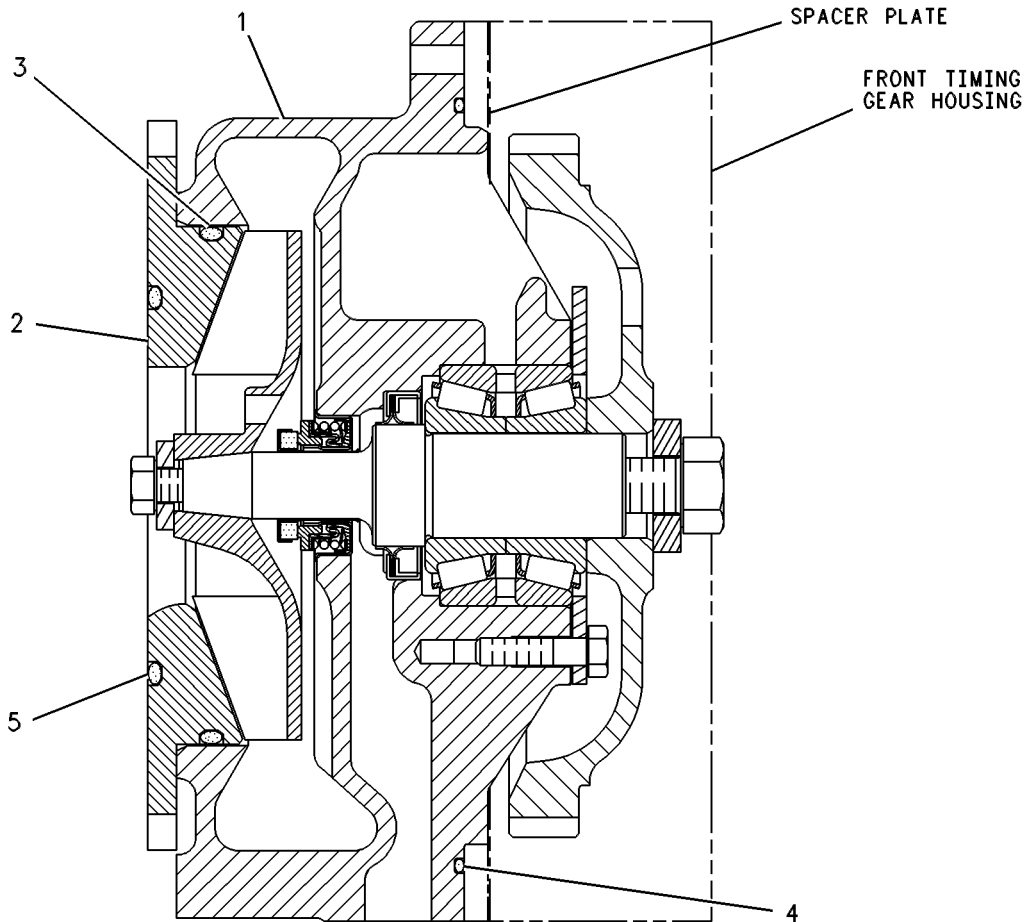
PROVIDES CAST IRON ADAPTER
AN ATTACHMENT
TYPE 3

SMCS-1361

i00701733

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
YCR	1	1	135-4925	1	PUMP GP-WATER						192
	2	1	4P-2383	1	ADAPTER-INLET						
	3	1	9M-3786	1	SEAL-O-RING (139.06MM ID)						
	4	1	122-3772	1	SEAL-O-RING (215.49MM ID)						
	5	1	109-0077	1	SEAL-O-RING (100.97MM ID)						

C- CHANGE FROM PREVIOUS TYPE
R- REMFG PART MAY BE AVAILABLE
Y- SEPARATE ILLUSTRATION



GRAPHIC #1

g00263504

MEMORANDA

COOLING SYSTEM

135-4925 PUMP GP-WATER*R

S/N: 9WR305-UP

PART OF 100-9347, 6I-3642 PUMP GP-WATER
AN ATTACHMENT

SMCS-1361

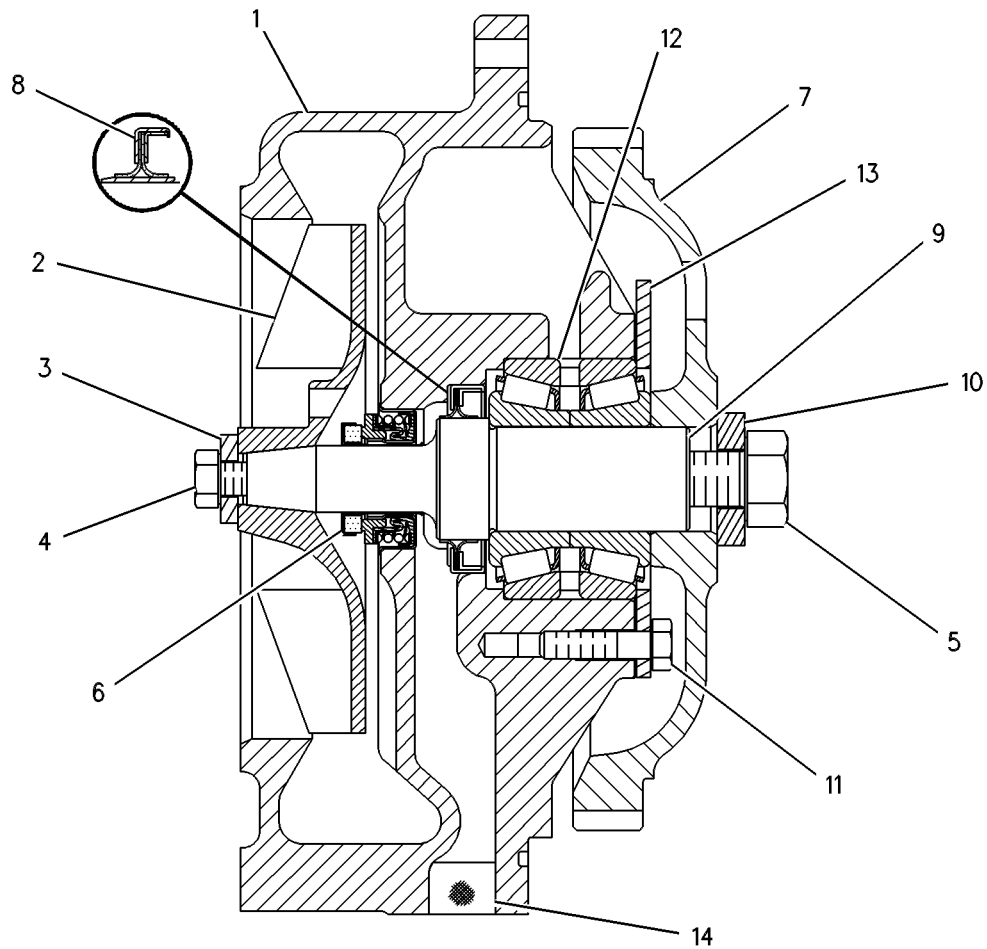
i01064415

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	135-4918	1	HOUSING-WATER PUMP						
	2	1	129-9907	1	IMPELLER-PUMP						
W	3	1	9M-6527	1	WASHER-HARD (5.0MM THK)						
	4	1	0S-1591	1	BOLT (3/8-16X1.5IN)						
	5	1	1A-1135	1	BOLT (5/8-11X2IN)						
W	6	1	128-0317	1	SEAL GP						
	7	1	6I-3643	1	GEAR (74 T)						
W	8	1	153-1256	1	SEAL-LIP TYPE						
W	9	1	135-4928	1	SHAFT-WATER PUMP						
W	10	1	5S-0581	1	WASHER-HARD (8MM THK)						
	11	1	1B-7182	4	BOLT (5/16-18X1.25IN)						
W	12	1	108-7930	1	BEARING AS-ROLLER						
W	13	1	136-1107	1	RETAINER						
W	14	1	136-3742	1	FILTER-WATER PUMP						
AVAILABLE REPAIR KIT(S) :											
W			138-6744	1	KIT-PUMP REBUILD						
			128-2922	1	KIT-GASKET (WATER PUMP) (ALSO INCLUDES O-RINGS)						
W-KIT(S) MARKED W INCLUDES PART(S) MARKED W											

COOLING SYSTEM

135-4925 PUMP GP-WATER (contd.)

i01064415



GRAPHIC #1

g00263499

COOLING SYSTEM

146-6258 PUMP GP-WATER

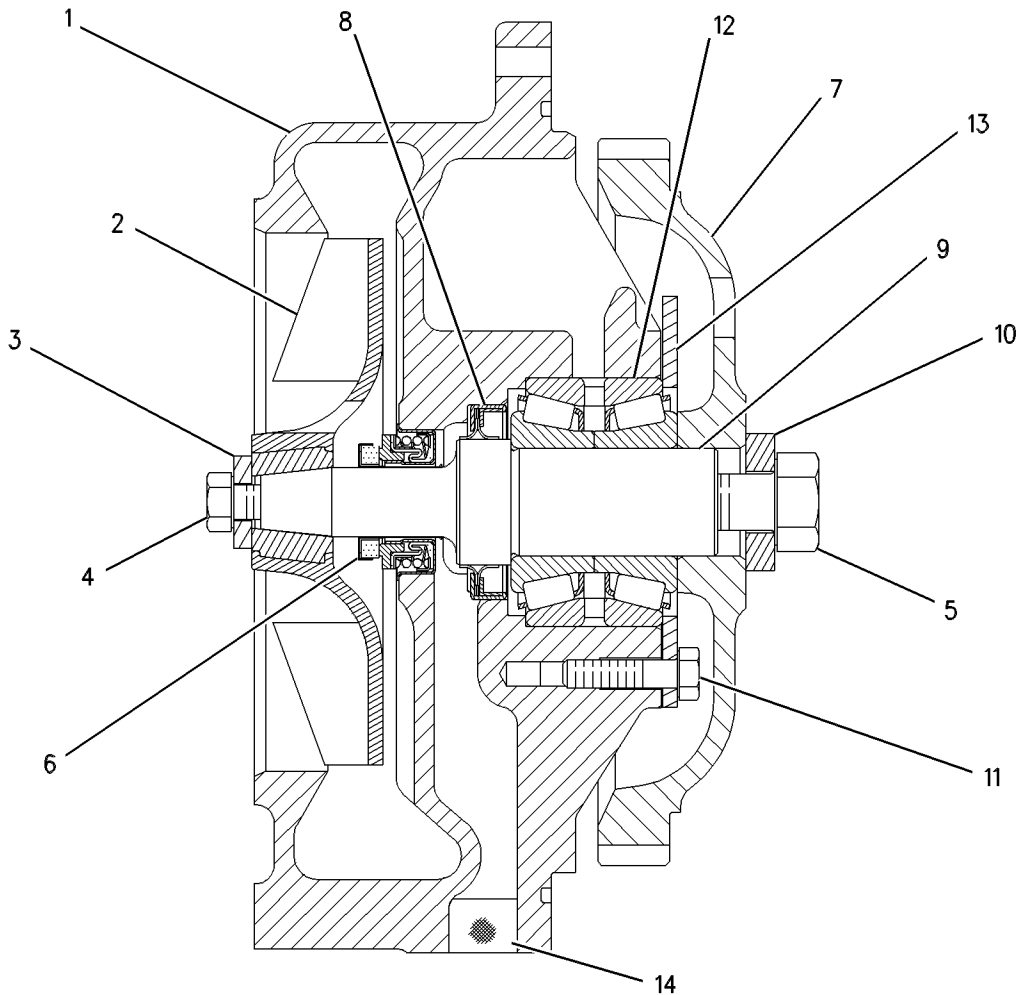
S/N: 9WR305-UP

PART OF 100-9347, 6I-3642 PUMP GP-WATER
AN ATTACHMENT

SMCS-1361

i00703052

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	135-4918	1	HOUSING-WATER PUMP						
	2	1	129-7517	1	IMPELLER AS-PUMP						
	3	1	9M-6527	1	WASHER-HARD (5.0MM THK)						
	4	1	0S-1591	1	BOLT (3/8-16X1.5IN)						
	5	1	1A-1135	1	BOLT (5/8-11X2IN)						
	6	1	132-6756	1	SEAL GP-WATER PUMP						
	7	1	6I-3643	1	GEAR (74 T)						
	8	1	153-1256	1	SEAL-LIP TYPE						
	9	1	135-4928	1	SHAFT-WATER PUMP						
	10	1	5S-0581	1	WASHER-HARD (8MM THK)						
	11	1	1B-7182	4	BOLT (5/16-18X1.25IN)						
	12	1	108-7930	1	BEARING AS-ROLLER						
	13	1	136-1107	1	RETAINER						
	14	1	136-3742	1	FILTER-WATER PUMP						



GRAPHIC #1

g00293255

COOLING SYSTEM

102-9220 RECOVERY GP-COOLANT

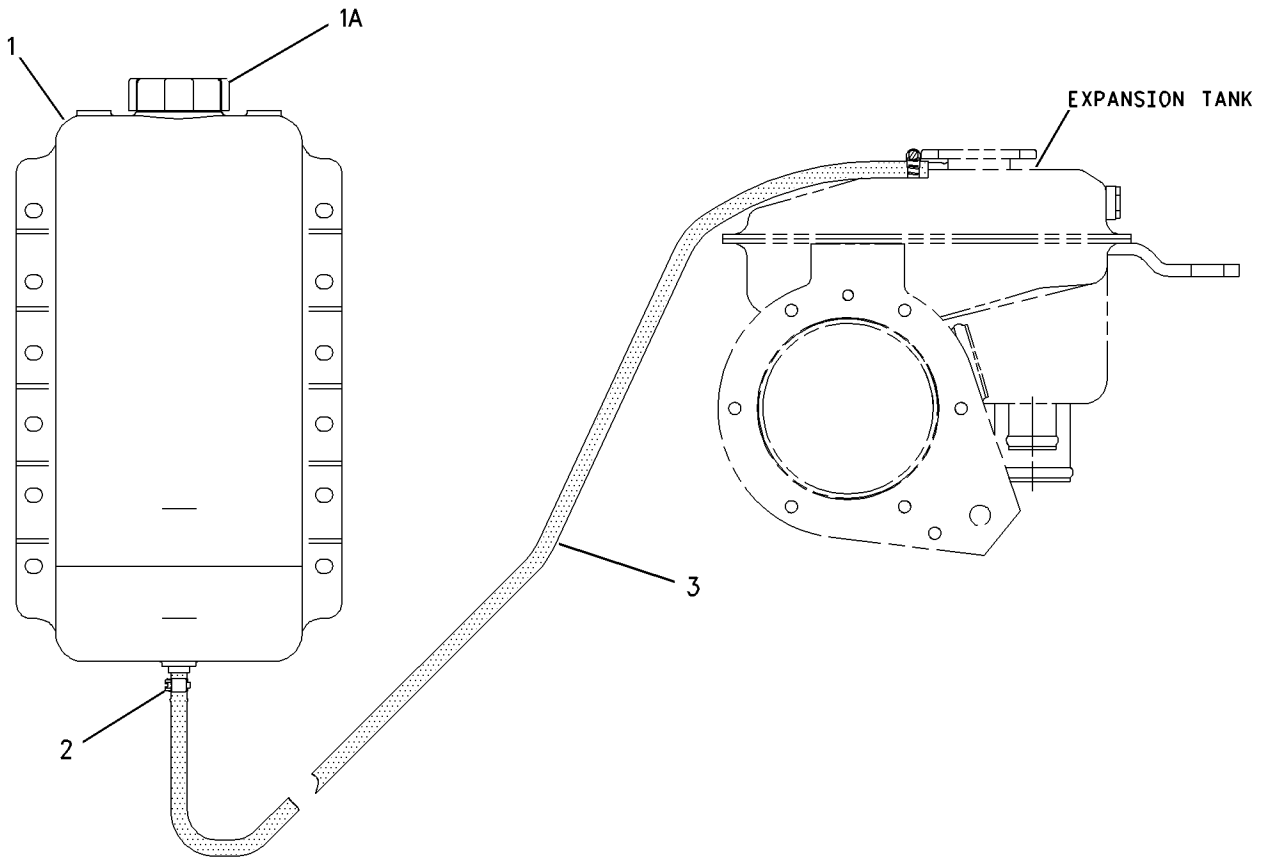
FOR USE WITH EXPANSION TANK
AN ATTACHMENT

SMCS-1354

i01368544

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	102-9223	1	TANK GP-COOLANT						
	1A	1	8E-8292	1	CAP-VENTED						
	2	1	1P-4278	2	CLAMP-HOSE						
E	3	1	8C-3681		HOSE (7.4MM ID) (200CM)						

E-ORDER BY THE CENTIMETER



GRAPHIC #1

g00722112

COOLING SYSTEM

124-9043 REGULATOR GP - TEMPERATURE

FOR USE WITH KEEL COOLED ENGINES
AN ATTACHMENT

SMCS - 1355

i01444440

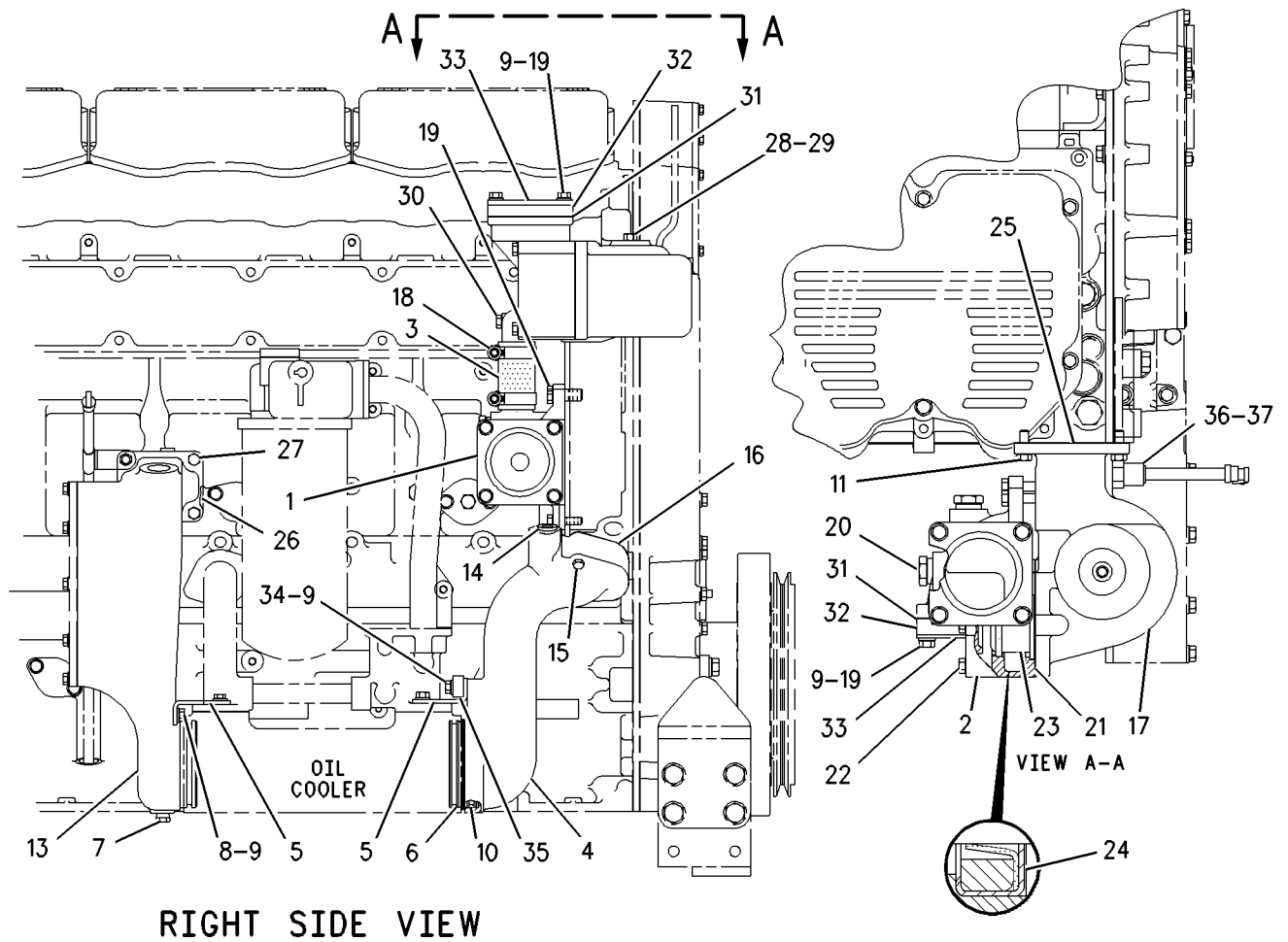
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	124-3393	1	COVER-WATER PUMP						
	2	1	124-3402	1	HOUSING						
E	3	1	5P-0763		HOSE (38.1MM ID)						
	4	1	124-3403	1	BONNET-OIL COOLER INLET						
	5	1	4N-1199	2	CLIP						
	6	1	4N-6257	1	ADAPTER						
	7	1	8T-6767	1	PLUG-PIPE						
	8	1	0L-1351	1	BOLT (3/8-16X.875 IN)						
	9	1	5M-2894	10	WASHER-HARD (10.2X18.5X2.5MM THK)						
	10	1	109-0077	1	SEAL-O-RING (100.97MM ID)						
	11	1	0S-1594	3	BOLT (3/8-16X1 IN)						
	13	1	130-8880	1	BONNET-OUTLET						
	14	1	7X-7731	2	PLUG-PIPE						
	15	1	0L-2070	2	BOLT (3/8-16X2.25 IN)						
	16	1	1W-2636	1	GASKET						
	17	1	124-3401	1	HOUSING						
	18	1	8T-4983	2	CLAMP-HOSE						
	19	1	0S-1591	12	BOLT (3/8-16X1.5 IN)						
	20	1	3E-7430	2	PLUG-PIPE						
	21	1	124-9052	1	GASKET						
	22	1	0T-0065	2	BOLT (3/8-16X3.5 IN)						
	23	1	4W-4794	1	REGULATOR-WATER TEMPERATURE (92 DEG C.)						
	24	1	3S-9643	1	SEAL-LIP						
	25	1	4N-1156	1	GASKET-REGULATOR COVER						
	26	1	4N-0641	1	GASKET						
	27	1	1A-2029	3	BOLT (3/8-16X1.125 IN)						
	28	1	9S-4182	1	PLUG-O-RING						
	29	1	9X-7378	1	SEAL-O-RING (8.92MM ID)						
	30	1	0T-0055	1	BOLT (3/8-16X4.25 IN)						
	31	1	2N-0931	4	GASKET						
	32	1	5R-0066	2	FLANGE						
	33	1	9F-0307	2	COVER						
	34	1	3B-1915	1	BOLT (3/8-16X1.37 IN)						
	35	1	2Y-6448	1	SPACER						
	36	1	102-2240	1	SENSOR GP-TEMPERATURE (ENGINE COOLANT)						
	37	1	112-5282	1	SEAL-O-RING (16.36MM ID)						

E- ORDER BY THE CENTIMETER

COOLING SYSTEM

124-9043 REGULATOR GP - TEMPERATURE (contd.)

i01444440



RIGHT SIDE VIEW

GRAPHIC #1

g00756437

AIR INLET AND EXHAUST SYSTEM

123-6808 AFTERCooler GP

S/N: 9WR1-915
SEA AIR-RAW WATER
AN ATTACHMENT

SMCS-1063

i01161711

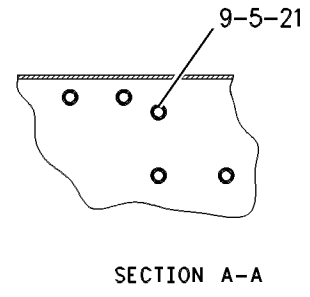
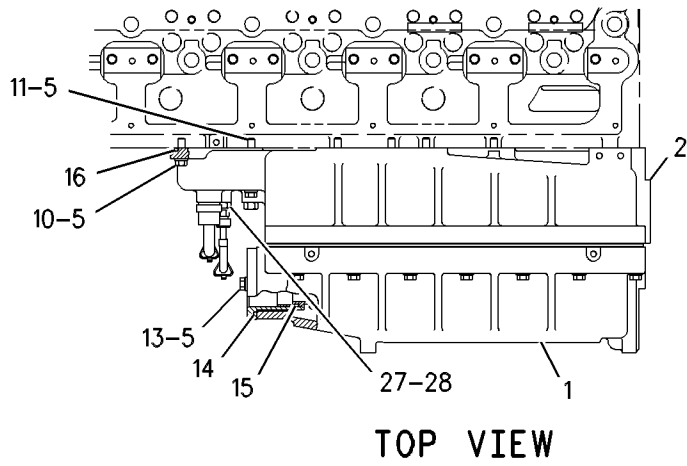
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	123-0416	1	COVER						
	2	1	123-6835	1	BASE AS						
		1	6V-3535	2	DOWEL (25MM LG)						
	3	1	118-8629	1	CORE AS						
	4	1	123-5205	2	GASKET						
	5	1	5M-2894	13	WASHER (2.5MM THK)						
	6	1	5P-2755	13	BOLT-HIGH TEMPERATURE (3/8-16X69.8MM)						
	7	1	5L-6566	4	BOLT (3/8-16X114.3MM)						
	8	1	5P-7128	3	BOLT-HIGH TEMPERATURE (3/8-16X2IN)						
	9	1	1C-2251	5	BOLT (3/8-16X1.87IN)						
	10	1	0S-1588	2	BOLT (3/8-16X1.25IN)						
	11	1	0S-1619	2	BOLT (3/8-16X3.0IN)						
	12	1	123-8183	2	ADAPTER						
	13	1	3B-1915	4	BOLT (3/8-16X1.375IN)						
	14	1	6V-5656	2	SEAL-O-RING						
	15	1	3P-0649	2	SEAL-O-RING (56.52MM ID)						
	16	1	7D-7111	1	SEAL-O-RING (110.49MM ID)						
	17	1	9S-4188	1	PLUG-O-RING (1-3/16-12 THD)						
	18	1	6V-1903	1	SEAL-O-RING (26.59MM ID)						
	19	1	9S-4684	1	PLUG-O-RING						
	20	1	6V-5049	2	SEAL-O-RING (11.89MM ID)						
	21	1	6V-4365	5	SEAL-O-RING (9.19MM ID)						
	22	1	9X-2068	1	BOLT-HIGH TEMPERATURE (3/8-16X88.9MM)						
	23	1	110-8314	21	WASHER (2.66MM THK) (2.66MM THK)						
	24	1	9S-4182	1	PLUG (7/16-20 THD)						
	25	1	107-8618	1	SENSOR GP-TEMPERATURE (AIR INLET)						
BE		1	112-4550		SLEEVE						
		1	8T-8729	3	PIN-CONNECTOR						
		1	3E-3371	1	WEDGE-RECEPTACLE LOCK						
	26	1	111-2350	1	SENSOR GP-PRESSURE (INLET MANIFOLD)						
BE		1	9X-1813		SLEEVE						
		1	8T-8730	3	SOCKET-CONNECTOR						
		1	3E-3368	1	WEDGE-PLUG LOCK						
	27	1	6V-5048	2	SEAL-O-RING (8.92MM ID)						
	28	1	9X-0261	1	ADAPTER (19.05MM HEX)						
	29	1	8L-2786	1	SEAL-O-RING (16.36MM ID)						

B- USE AS REQUIRED
E- ORDER BY THE CENTIMETER

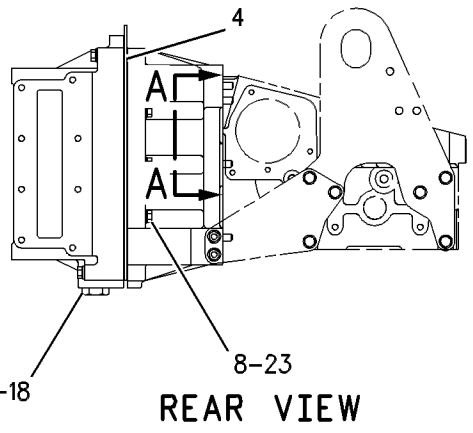
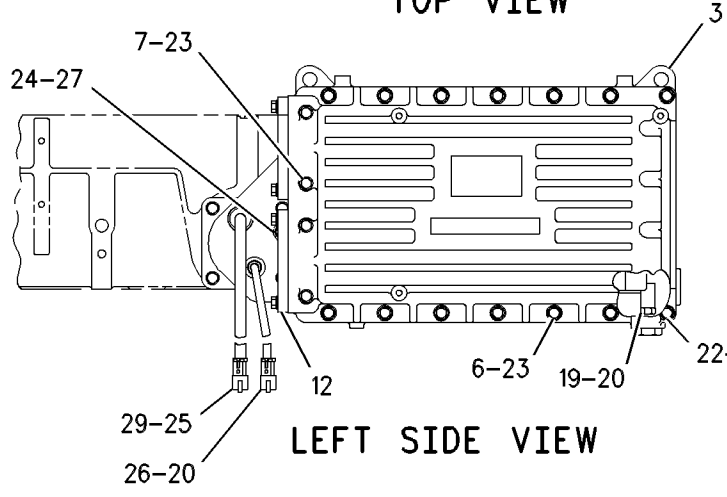
AIR INLET AND EXHAUST SYSTEM

123-6808 AFTERCOOLER GP (contd.)

i01161711



TOP VIEW



LEFT SIDE VIEW

REAR VIEW

GRAPHIC #1

g00281723

AIR INLET AND EXHAUST SYSTEM

123-6808 AFTERCooler GP

S/N: 9WR916-UP
SEA AIR-RAW WATER
AN ATTACHMENT

SMCS-1063

i01483203

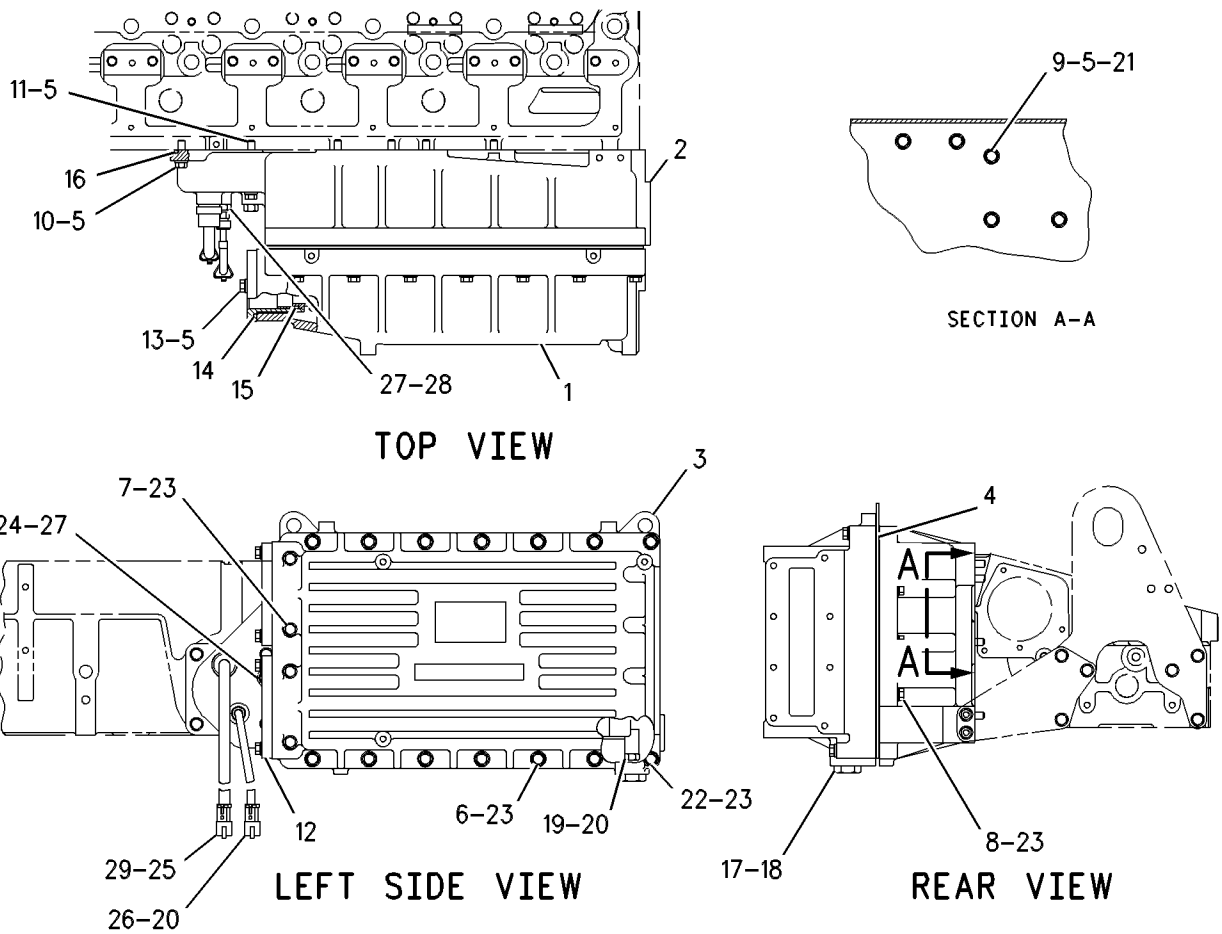
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE	
					1	2	3	4	5	6 (PRODUCT LEVEL)		
C	1	1	142-5709	1	COVER-AFTERCooler							
	2	1	123-6835	1	BASE AS							
			6V-3535	2	DOWEL (25MM LG)							
C	3	1	142-5700	1	CORE AS-AFTERCooler							
	4	1	123-5205	2	GASKET							
	5	1	5M-2894	13	WASHER-HARD (10.2X18.5X2.5MM THK)							
	6	1	5P-2755	13	BOLT-HIGH TEMPERATURE (3/8-16X69.85MM) (3/8-16X69.8MM)							
	7	1	5L-6566	4	BOLT (3/8-16X4.5IN) (3/8-16X114.3MM)							
	8	1	5P-7128	3	BOLT-HIGH TEMPERATURE (3/8-16X2IN)							
	9	1	1C-2251	5	BOLT (3/8-16X1.87 IN)							
	10	1	0S-1588	2	BOLT (3/8-16X1.25 IN)							
	11	1	0S-1619	2	BOLT (3/8-16X3 IN)							
	C	12	1	144-3288	2	ADAPTER						
		13	1	3B-1915	4	BOLT (3/8-16X1.37 IN)						
C	14	1	3P-0654	2	SEAL (85.09MM ID)							
	15	1	3P-0649	2	SEAL-O-RING							
	16	1	7D-7111	1	SEAL-O-RING							
	17	1	9S-4188	1	PLUG-O-RING							
	18	1	6V-1903	1	SEAL-O-RING							
	19	1	9S-4684	1	PLUG-O-RING							
	20	1	6V-5049	2	SEAL-O-RING							
	21	1	6V-4365	5	SEAL-O-RING							
	22	1	9X-2068	1	BOLT-HIGH TEMPERATURE (3/8-16X88.9MM)							
	23	1	110-8314	21	WASHER (10.3X18.3X2.66MM THK) (2.66MM THK)							
	24	1	9S-4182	1	PLUG-O-RING							
	25	1	107-8618	1	SENSOR GP-TEMPERATURE (AIR INLET)							
	BE		1	112-4550		SLEEVE						
		1	8T-8729	3	PIN-CONNECTOR							
		1	3E-3371	1	WEDGE-RECEPTACLE LOCK (3 PIN)							
CY	26	1	169-3725	1	SENSOR GP-PRESSURE (INLET MANIFOLD)						322	
	27	1	6V-5048	2	SEAL-O-RING							
	28	1	9X-0261	1	ADAPTER							
	29	1	8L-2786	1	SEAL-O-RING							

B- USE AS REQUIRED
C- CHANGE FROM PREVIOUS TYPE
E- ORDER BY THE CENTIMETER
Y- SEPARATE ILLUSTRATION

AIR INLET AND EXHAUST SYSTEM

123-6808 AFTERCOOLER GP (contd.)

i01483203



GRAPHIC #1

g00281723

AIR INLET AND EXHAUST SYSTEM

4N-0879 AIR CLEANER GP

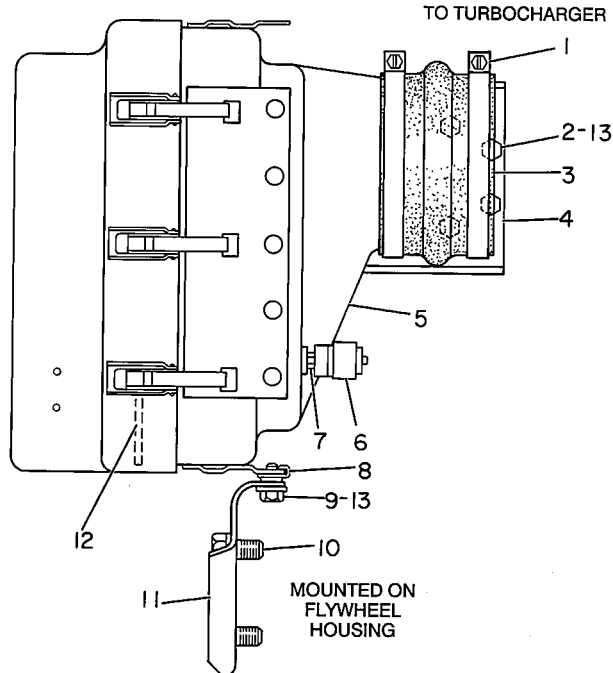
FOR USE WITH WATERCOOLED EXHAUST MANIFOLD & CENTER MOUNTED TURBOCHARGER
AN ATTACHMENT

SMCS-1051

i01390860

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	5P-3860	2	CLAMP-HOSE						
	2	1	0S-1588	4	BOLT (3/8-16X1.25 IN)						
	3	1	9S-2592	1	HOSE-HUMP						
	4	1	4N-1040	1	SUPPORT						
CY	5	1	8N-5766	1	AIR CLEANER GP						203
	6	1	7S-0687	1	INDICATOR-AIR FILTER SERVICE						
	7	1	5L-3233	1	FITTING						
	8	1	2N-3385	6	NUT-CLIP (3/8-16)						
	9	1	0S-0509	6	BOLT (3/8-16X.75 IN)						
	10	1	0S-1592	4	BOLT (5/8-11X1.25IN)						
		1	4D-3704	4	WASHER-HARD (17X30X5MM THK)						
	11	1	4N-1171	1	SUPPORT-AIR CLEANER						
	12	1	4N-7808	1	FILTER-SOOT						
	13	1	5M-2894	10	WASHER-HARD (10.2X18.5X2.5MM THK)						

C- CHANGE FROM PREVIOUS TYPE
Y- SEPARATE ILLUSTRATION



GRAPHIC #1

g00163417

AIR INLET AND EXHAUST SYSTEM

8N-5766 AIR CLEANER GP

4N7808 SOOT FILTER IS AVAILABLE

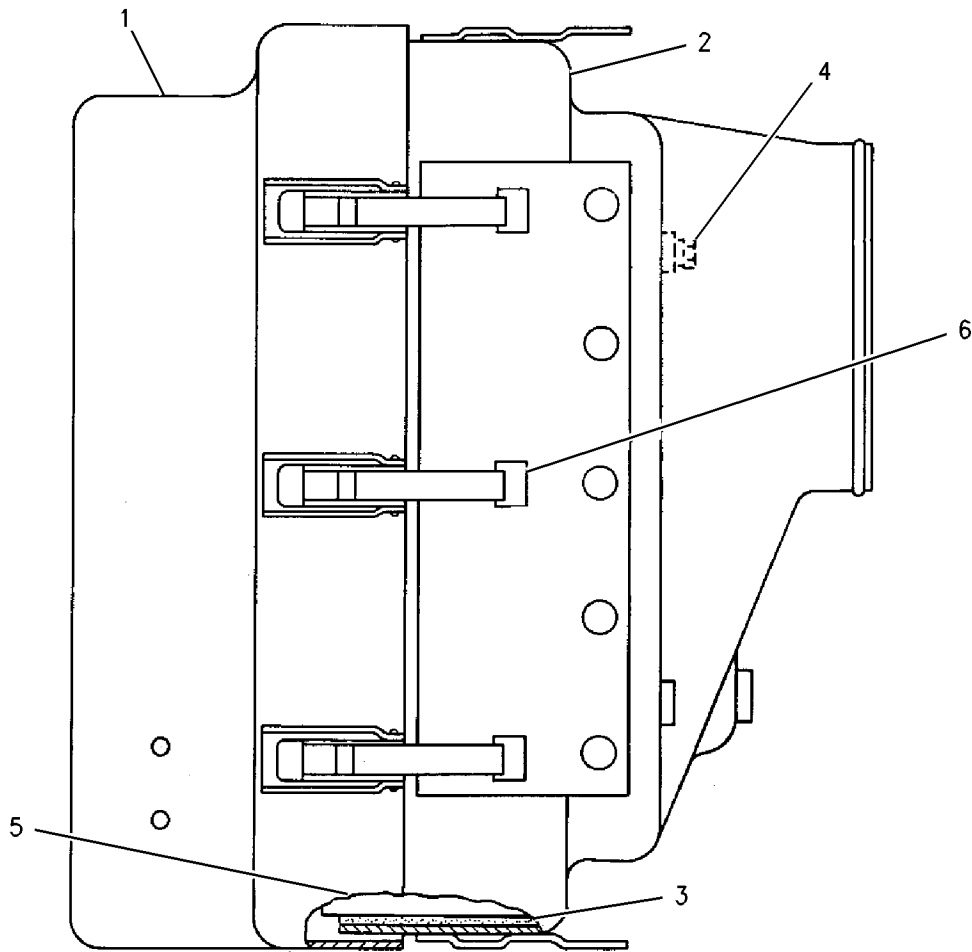
PART OF 4N-0879 AIR CLEANER GP
AN ATTACHMENT

SMCS-1051

i01473661

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4N-0015	1	FILTER-AIR						
	2	1	6N-5579	1	HOUSING AS						
BD	3	1	5P-5923		SEAL						
	4	1	5M-6214	1	PLUG-PIPE						
	5	1	4N-0045	1	COVER AS-AIR CLEANER						
	6	1	8N-4455	6	CLAMP AS						
AVAILABLE REPAIR KIT(S) :											
			8N-4617	1	KIT-AIR CLEANER CLAMP (INCLUDES RIVET & CLAMP AS)						

B-USE AS REQUIRED
D-ORDER BY THE METER



GRAPHIC #1

g00768952

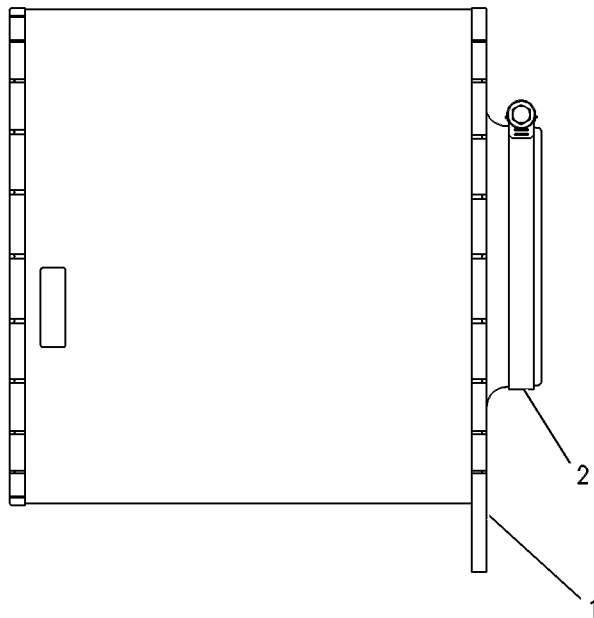
AIR INLET AND EXHAUST SYSTEM

124-3395 AIR CLEANER GP AN ATTACHMENT

SMCS-1051

i00670834

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6I-3137	1	SCREEN AS						
	2	1	8T-4988	1	CLAMP-HOSE						



GRAPHIC #1

g00257253

MEMORANDA

AIR INLET AND EXHAUST SYSTEM

131-0126 AIR CLEANER GP

FOR USE WITH RH SERVICE ENGINES, PLEASURE CRAFT APPLICATIONS, 141-1006-PAGE 214
AN ATTACHMENT

SMCS-1051

i00670662

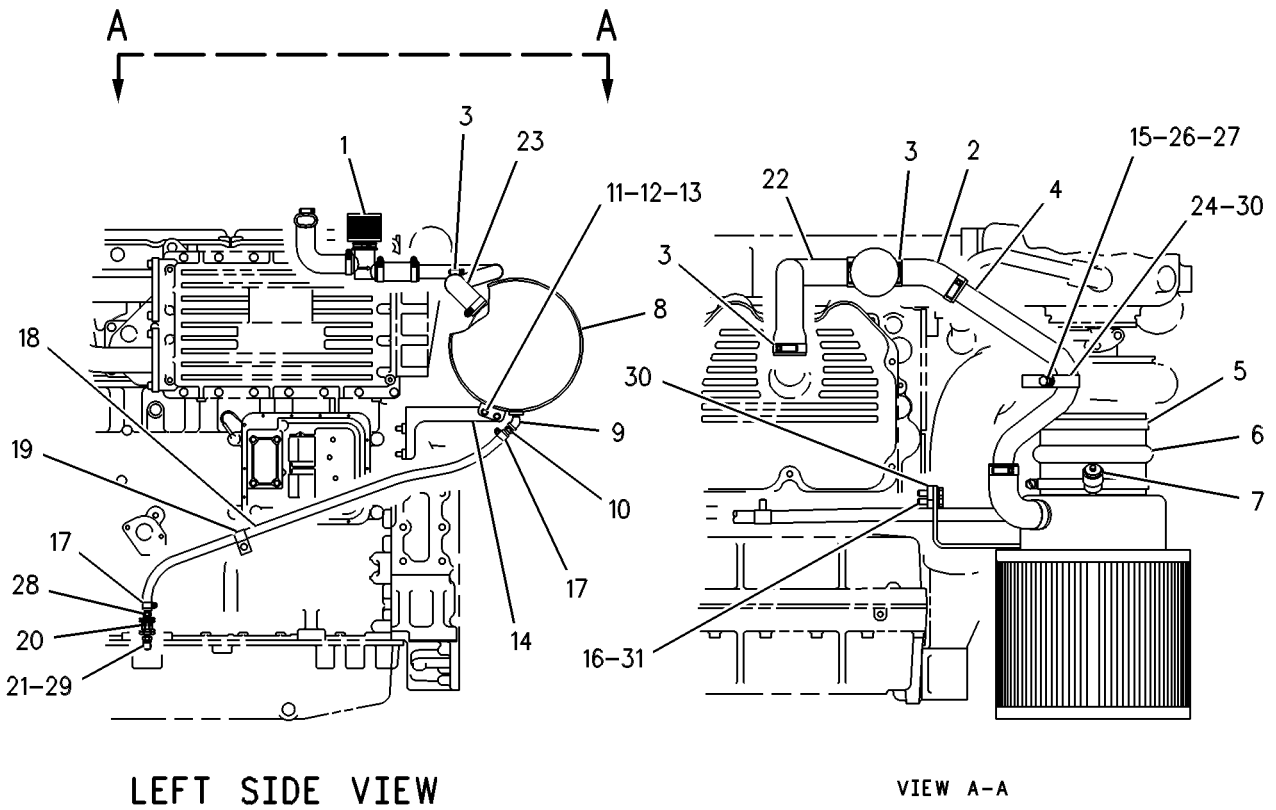
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	114-4384	1	REGULATOR-VACUUM						
	2	1	134-3452	1	HOSE						
	3	1	9M-2904	6	CLAMP-HOSE						
	4	1	131-0128	1	TUBE						
	5	1	5P-3860	2	CLAMP-HOSE						
	6	1	9S-2592	1	HOSE-HUMP						
	7	1	2N-3323	1	INDICATOR-SERVICE						
	8	1	136-7352	1	AIR CLEANER AS						
	9	1	1L-2279	1	ELBOW-PIPE (3/8 IN PIPE)						
	10	1	9M-7961	1	FITTING						
	11	1	1H-3337	2	BOLT (1/4-20X.875IN)						
	12	1	8T-4205	4	WASHER-HARD (2MM THK)						
	13	1	6V-8185	2	NUT (1/4-20 THD)						
	14	1	141-1007	1	BRACKET						
	15	1	8T-4896	2	WASHER-HARD (2.5MM THK)						
	16	1	0S-1588	2	BOLT (3/8-16X1.25IN)						
	17	1	5D-1026	2	CLAMP-HOSE						
E	18	1	5P-1505		HOSE (72CM)						
	19	1	5K-9660	1	CLIP						
	20	1	4P-9234	1	VALVE-CHECK						
	21	1	5P-7981	1	ELBOW-O-RING						
	22	1	131-0127	1	HOSE						
	23	1	100-6423	1	HOSE						
	24	1	6B-1032	1	CLIP						
	25	1	7N-0452	1	PLATE						
	26	1	9B-7237	1	BOLT (3/8-16X1.25IN)						
	27	1	6V-8801	1	NUT (3/8-16 THD)						
	28	1	1S-0178	1	CONNECTOR-HOSE						
	29	1	3J-7354	1	SEAL-O-RING (8.92MM ID)						
	30	1	7W-9094	2	SPACER (9MM THK)						
	31	1	5M-2894	2	WASHER (2.5MM THK)						

E- ORDER BY THE CENTIMETER

AIR INLET AND EXHAUST SYSTEM

131-0126 AIR CLEANER GP (contd.)

i00670662



LEFT SIDE VIEW

VIEW A-A

GRAPHIC #1

g00287278

AIR INLET AND EXHAUST SYSTEM

149-2367 AIR CLEANER GP

FOR USE WITH DEEP SUMP OIL PAN
AN ATTACHMENT

SMCS-1051

i00943429

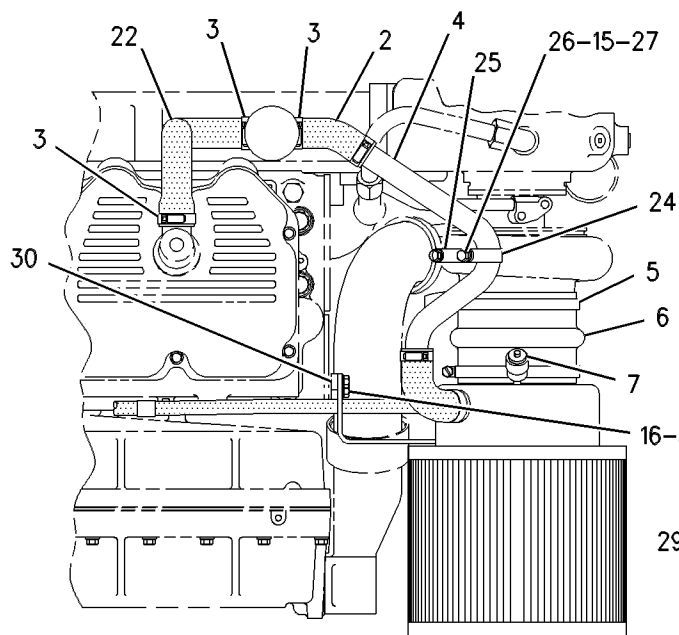
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	114-4384	1	REGULATOR-VACUUM						
	2	1	134-3452	1	HOSE						
	3	1	9M-2904	6	CLAMP-HOSE						
	4	1	131-0128	1	TUBE						
	5	1	5P-3860	2	CLAMP-HOSE						
	6	1	9S-2592	1	HOSE-HUMP						
	7	1	2N-3323	1	INDICATOR-SERVICE						
	8	1	136-7352	1	AIR CLEANER AS						
		1	128-3698	4	SPRING						
		1	136-7353	1	ELEMENT-AIR CLEANER						
	9	1	1L-2279	1	ELBOW-PIPE (3/8 IN PIPE)						
	10	1	9M-7961	1	FITTING						
	11	1	1H-3337	2	BOLT (1/4-20X.875IN)						
	12	1	8T-4205	4	WASHER-HARD (2MM THK)						
	13	1	6V-8185	2	NUT (1/4-20 THD)						
	14	1	141-1007	1	BRACKET						
	15	1	8T-4896	2	WASHER-HARD (2.5MM THK)						
	16	1	0S-1588	2	BOLT (3/8X1.25)						
	17	1	5D-1026	4	CLAMP-HOSE						
E	18	1	5P-1505		HOSE (110CM)						
	19	1	5K-9660	1	CLIP						
	20	1	4P-9234	1	VALVE-CHECK						
	21	1	4P-9233	1	TUBE AS						
	22	1	131-0127	1	HOSE						
	23	1	100-6423	1	HOSE						
	24	1	6B-1032	1	CLIP						
	25	1	7N-0452	1	PLATE						
	26	1	9B-7237	1	BOLT (3/8-16X1.25IN)						
	27	1	6V-8801	1	NUT (3/8-16 THD)						
	28	1	1S-0178	2	CONNECTOR-HOSE						
	29	1	8M-5260	1	SEAL-O-RING						
	30	1	7W-9094	2	SPACER (9MM THK)						
	31	1	5M-2894	2	WASHER (2.5MM THK)						
	32	1	8S-7169	1	COUPLING						

E- ORDER BY THE CENTIMETER

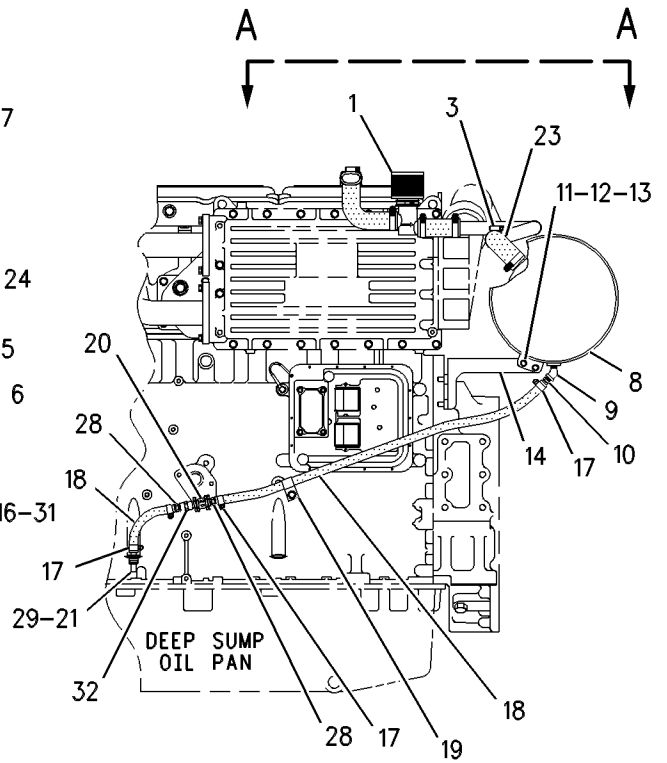
AIR INLET AND EXHAUST SYSTEM

149-2367 AIR CLEANER GP (contd.)

i00943429



VIEW A-A



LEFT SIDE VIEW

GRAPHIC #1

g00305306

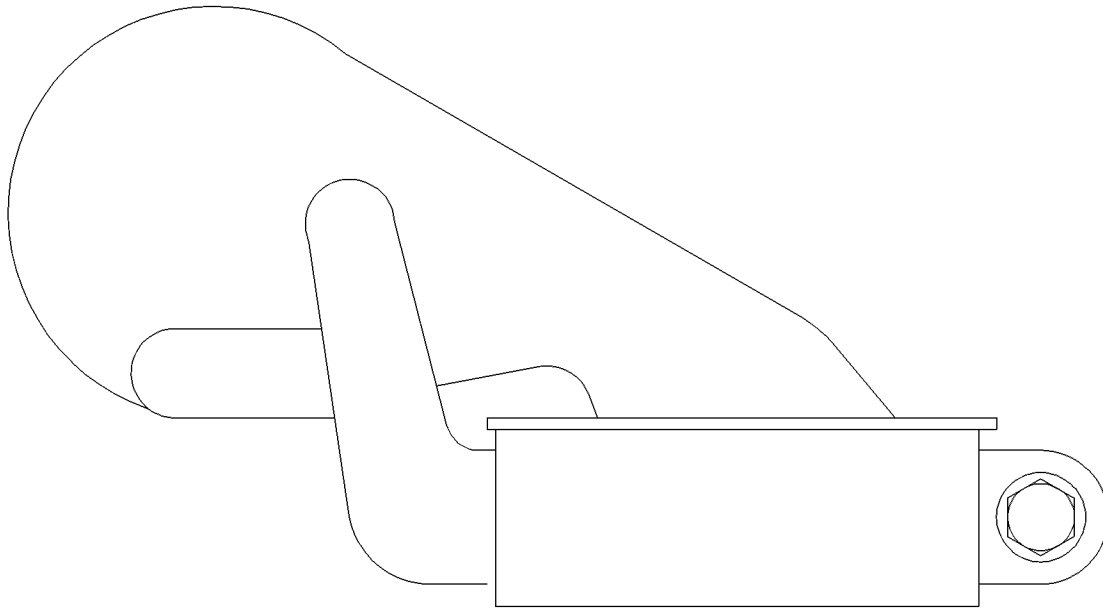
AIR INLET AND EXHAUST SYSTEM

7S-4411 CAP AS-RAIN 6 INCH DIAMETER. EXHAUST AN ATTACHMENT

SMCS-1072

i01297417

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
(NO SERVICED PARTS)											



GRAPHIC #1

g00595606

AIR INLET AND EXHAUST SYSTEM

6N-6093 ELBOW GP-EXHAUST

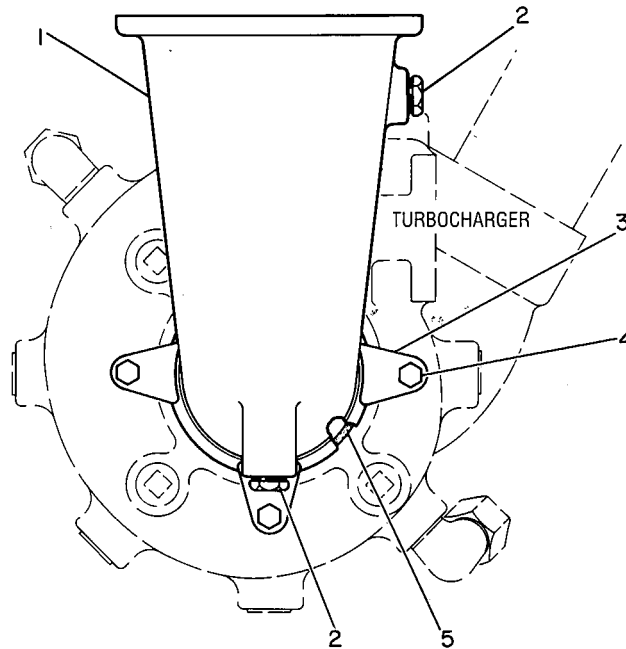
152 MM (6 IN)

CANNOT BE USED WITH EXHAUST RESTRICTOR
AN ATTACHMENT

SMCS-1061

i00640626

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4N-4967	1	ELBOW-EXHAUST						
	2	1	3J-5389	2	PLUG						
	3	1	6N-0561	4	CLIP						
	4	1	0T-0102	4	BOLT (3/8-16X0.625IN)						
	5	1	4N-3955	1	GASKET						



GRAPHIC #1

g00135551

AIR INLET AND EXHAUST SYSTEM

128-4113 ELBOW GP - EXHAUST

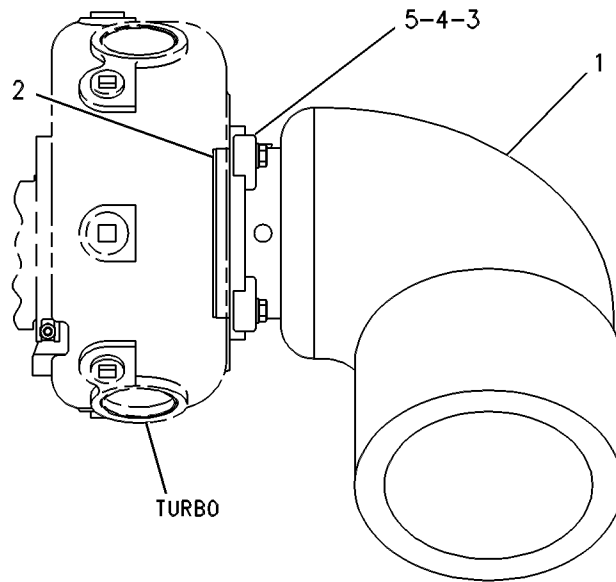
WATERCOOLED - 8IN. O.D.

AN ATTACHMENT

SMCS-1061

i00663481

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	128-4114	1	ELBOW AS-EXHAUST						
		1	129-1667	2	PLUG-PIPE						
	2	1	4N-3955	1	GASKET						
	3	1	129-1666	4	CLIP						
	4	1	3H-6622	4	BOLT						
	5	1	110-8314	4	WASHER						



GRAPHIC #1

g00257863

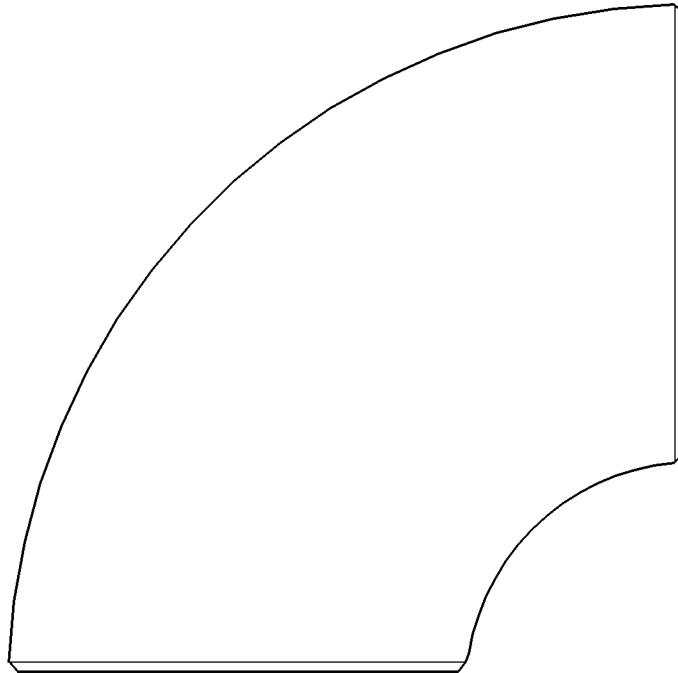
AIR INLET AND EXHAUST SYSTEM

8L - 9859 ELBOW-EXHAUST AN ATTACHMENT

SMCS - 1061

i01373048

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
(NO SERVICED PARTS)						



GRAPHIC #1

g00724697

AIR INLET AND EXHAUST SYSTEM

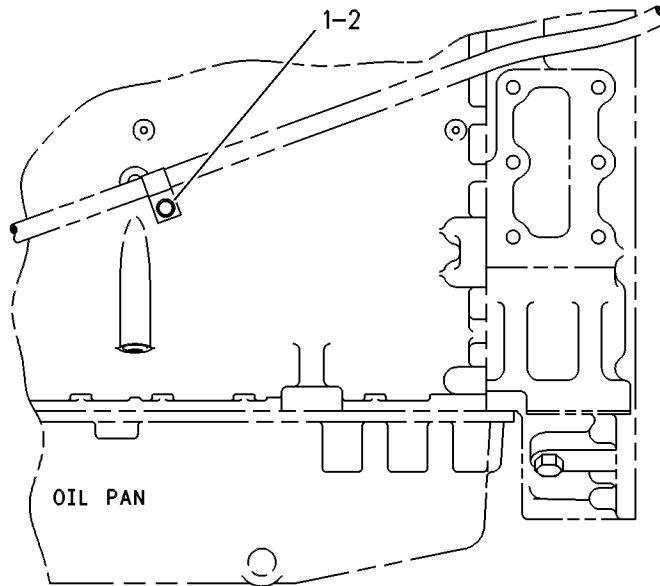
141-1006 FASTENER GP-AIR CLEANER

FOR USE WITH RH SERVICE ENGINE WITH CLOSED FUMES DISPOSAL AIR CLEANER
AN ATTACHMENT

SMCS-1051

i00670465

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	5S-7379	1	BOLT (3/8-16X.875IN)						
	2	1	8T-4896	1	WASHER-HARD (2.5MM THK)						



LEFT SIDE VIEW

GRAPHIC #1

g00272440

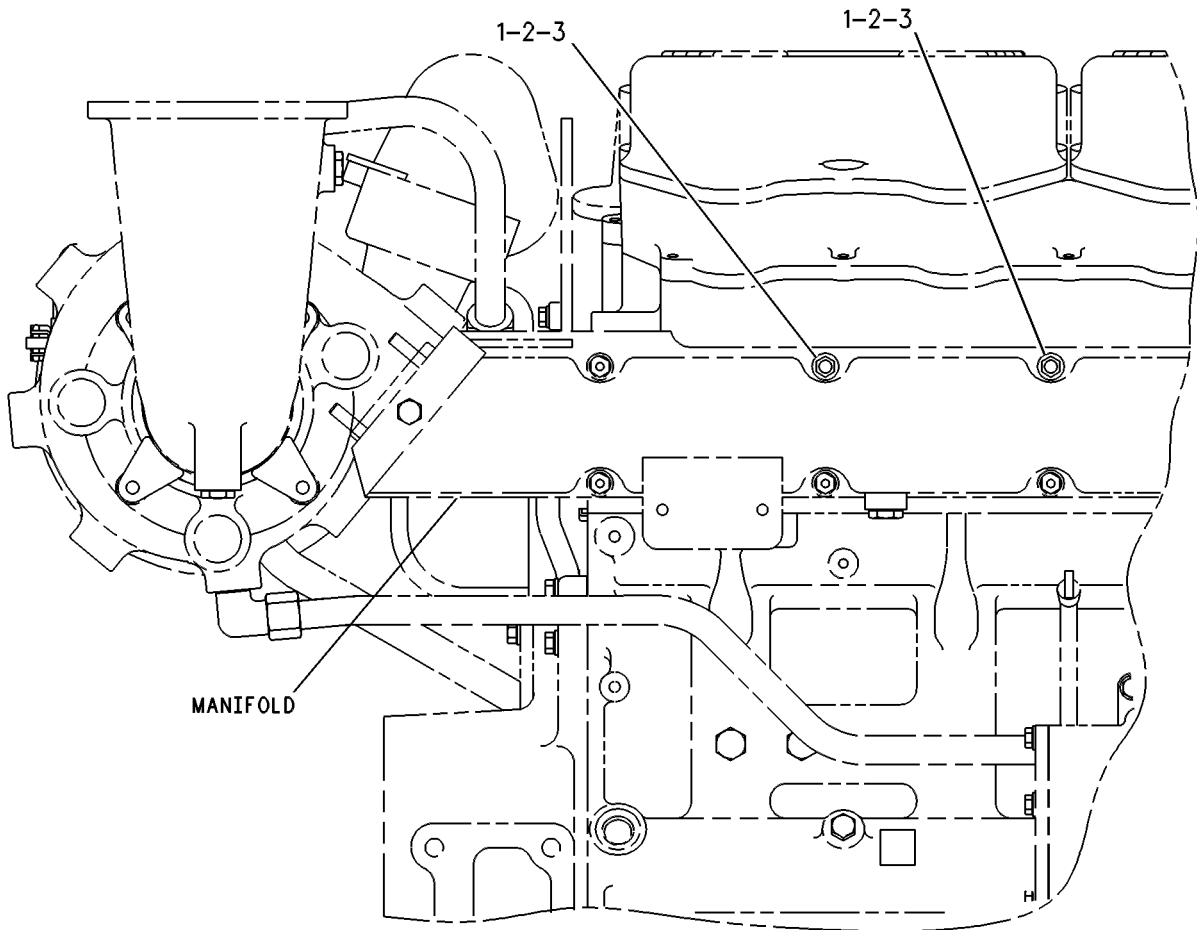
AIR INLET AND EXHAUST SYSTEM

142-3951 FASTENER GP-EXHAUST MANIFOLD FOR USE WITH EXHAUST MANIFOLD WHEN THERE IS NO MARINE GEAR OIL COOLER AN ATTACHMENT

SMCS-1059

i00670510

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2N-2766	2	LOCKNUT (3/8-16 NPTF THD)						
	2	1	5M-2894	2	WASHER (2.5MM THK)						
	3	1	108-3612	2	SPACER (53MM THK)						



RIGHT SIDE VIEW

GRAPHIC #1

g00272430

AIR INLET AND EXHAUST SYSTEM

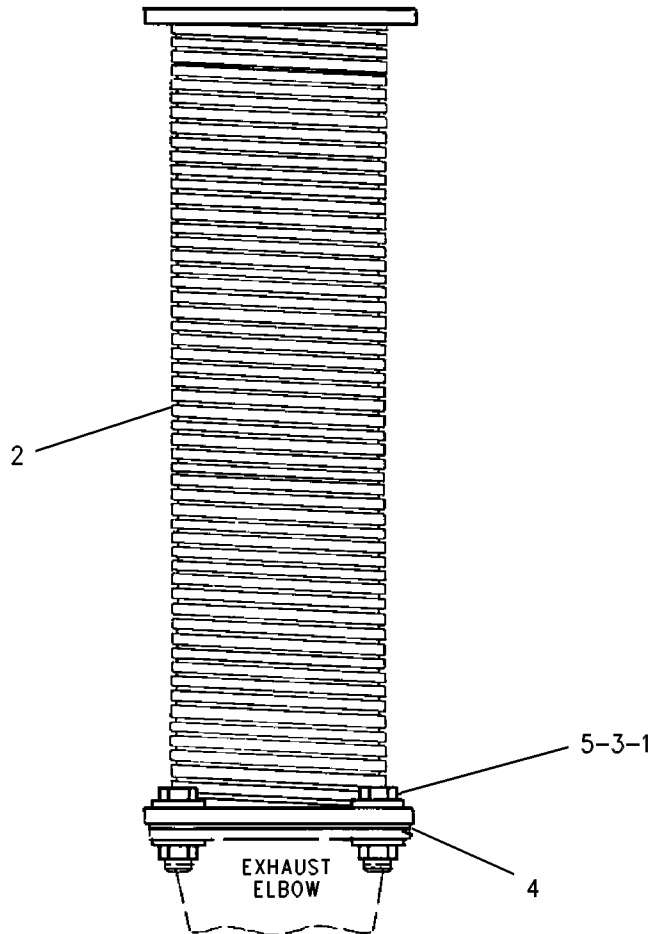
2W-7847 FITTING GP-EXHAUST

152 MM (6 INCH) . FLEXIBLE
AN ATTACHMENT

SMCS-1061

i01160886

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	5P-8247	8	WASHER-HARD (3.5MM THK)						
	2	1	3N-3017	1	ADAPTER AS						
	3	1	1B-5358	4	NUT-FULL						
	4	1	5H-8331	1	GASKET						
	5	1	8S-9092	4	BOLT (5/8-11X2.25IN)						



GRAPHIC #1

g00617939

AIR INLET AND EXHAUST SYSTEM

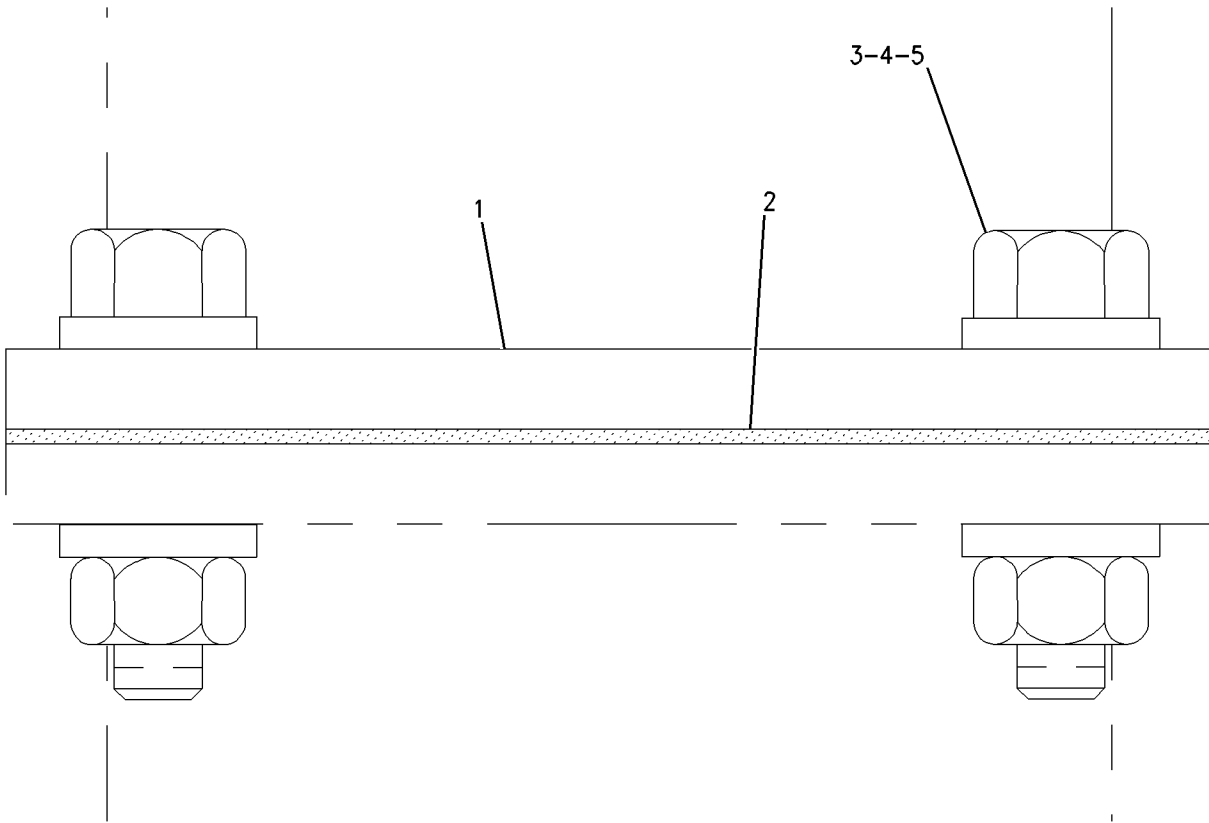
2W-7851 FLANGE GP - EXHAUST

152 MM (6 INCH) DIAMETER PIPE.. 8L9859 ELBOW IS AVAILABLE
 FOR USE WITH EXHAUST PIPE & ELBOW. CANNOT BE USED WITH WATERCOOLED EXHAUST ELBOW
 AN ATTACHMENT

SMCS-1061

i01473841

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	5N-4739	1	FLANGE						
	2	1	5H-8331	1	GASKET						
	3	1	1A-1135	4	BOLT (5/8-11X2 IN)						
	4	1	1B-5358	4	NUT - FULL						
	5	1	5P-8247	8	WASHER - HARD (17X32X3.5MM THK)						



GRAPHIC #1

g00768712

AIR INLET AND EXHAUST SYSTEM

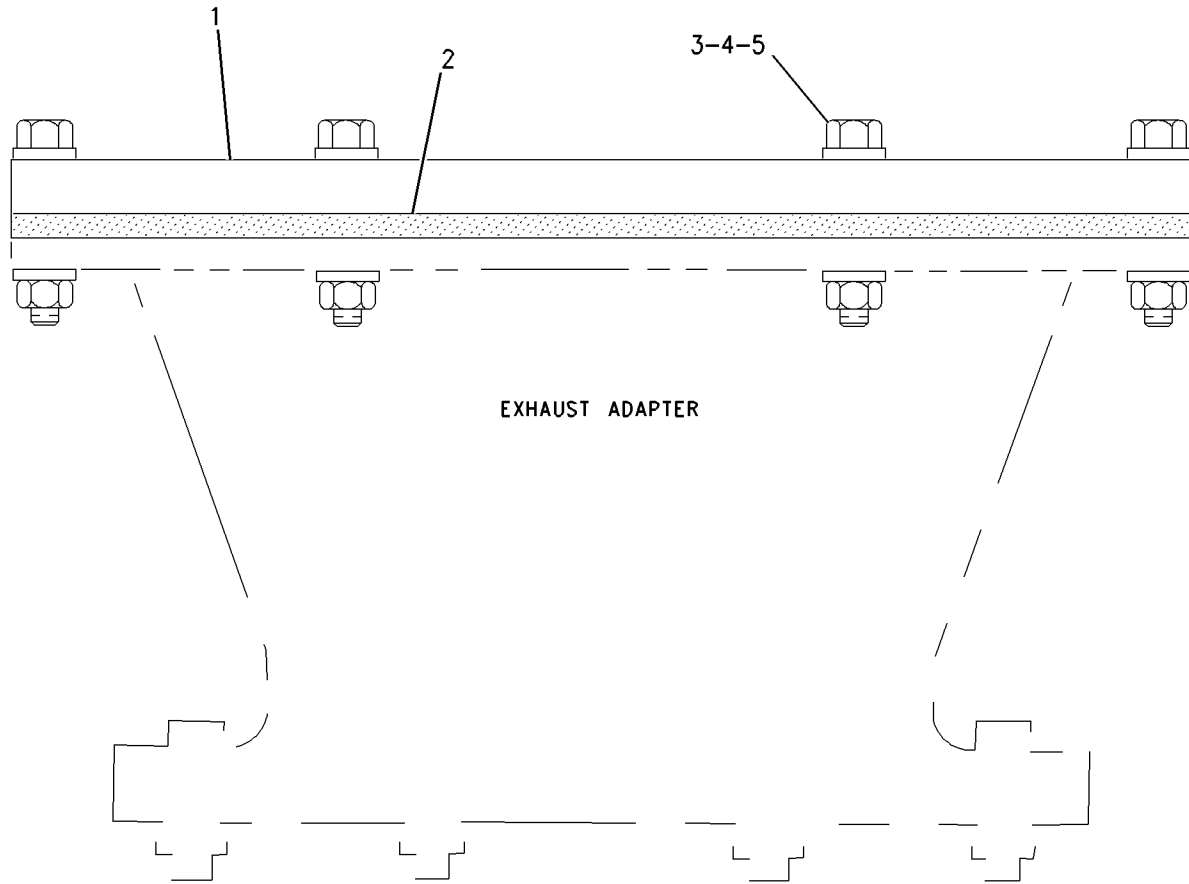
2W-7860 FLANGE GP - EXHAUST

152 MM (6 INCH) DIAMETER PIPE. 2W4072 MUFFLER IS AVAILABLE
AN ATTACHMENT

SMCS-1061

i01473843

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2W-7861	1	FLANGE - EXHAUST						
	2	1	2W-7862	1	GASKET - EXHAUST						
	3	1	5L-4398	6	BOLT (1/2-13X2.25IN)						
	4	1	1B-5357	6	NUT - FULL (1/2-13 THD)						
	5	1	5P-8245	12	WASHER - HARD (13.5X25.5X3MM THK)						



GRAPHIC #1

g00768699

AIR INLET AND EXHAUST SYSTEM

134-3458 LINES GP-AFTERCOOLER DRAIN

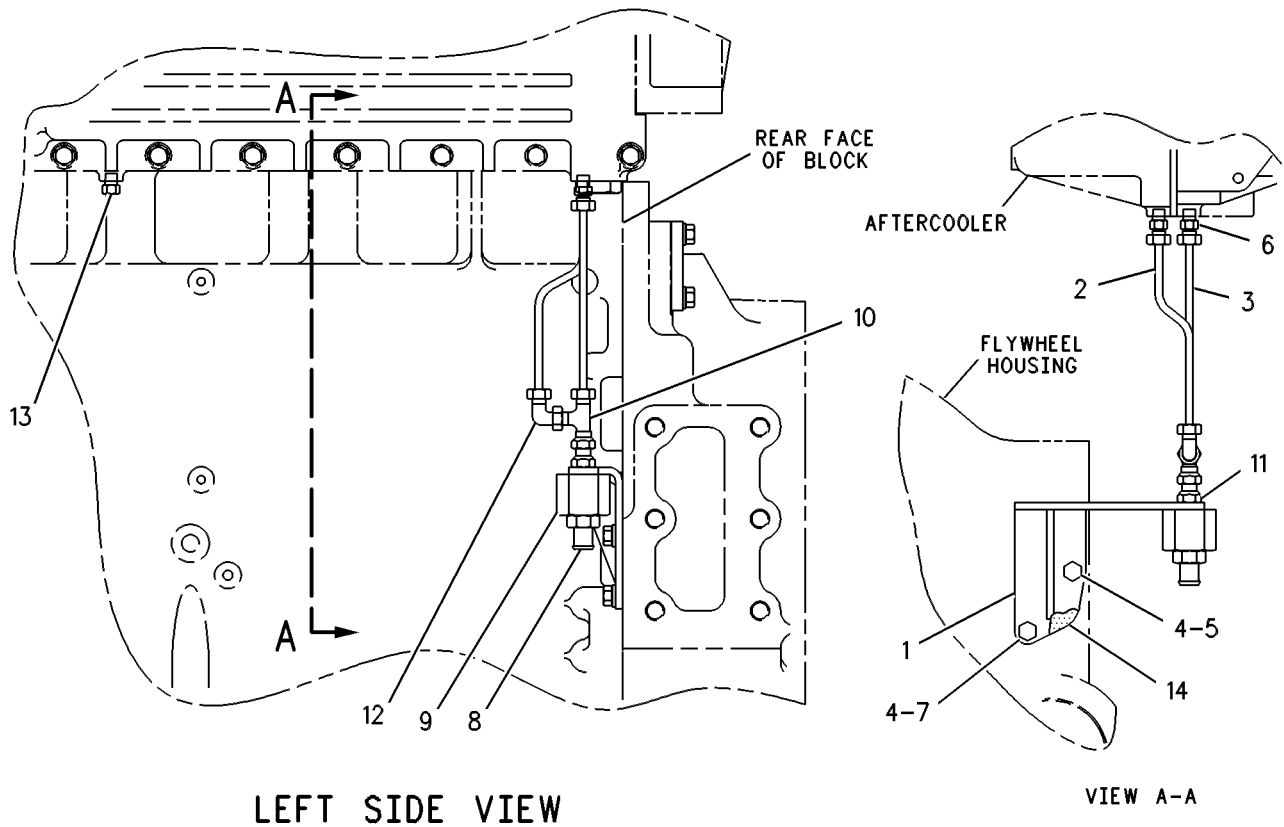
FOR USE WITH REAR DOWN ENGINE INSTALLATION

AN ATTACHMENT

SMCS-1063

i00671885

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	131-0121	1	BRACKET						
	2	1	131-0122	1	TUBE AS						
	3	1	131-0123	1	TUBE AS						
	4	1	5M-2894	2	WASHER (2.5MM THK)						
	5	1	0S-1619	1	BOLT (3/8-16X3IN)						
	6	1	8L-6557	2	CONNECTOR						
	7	1	0S-1594	1	BOLT (3/8-16X1IN)						
	8	1	108-1478	1	VALVE GP						
		1	2M-9780	1	SEAL-O-RING (19.18MM ID)						
	9	1	113-7696	1	ADAPTER						
	10	1	052-0572	1	TEE						
	11	1	4D-6432	1	LOCKNUT (7/16-20 THD)						
	12	1	7K-9197	1	ELBOW						
	13	1	8T-6764	2	PLUG-PIPE (1/8-27 NPTF THD)						
	14	1	4N-0933	1	GASKET						



GRAPHIC #1

g00263652

AIR INLET AND EXHAUST SYSTEM

134-3459 LINES GP-AFTERCOOLER DRAIN

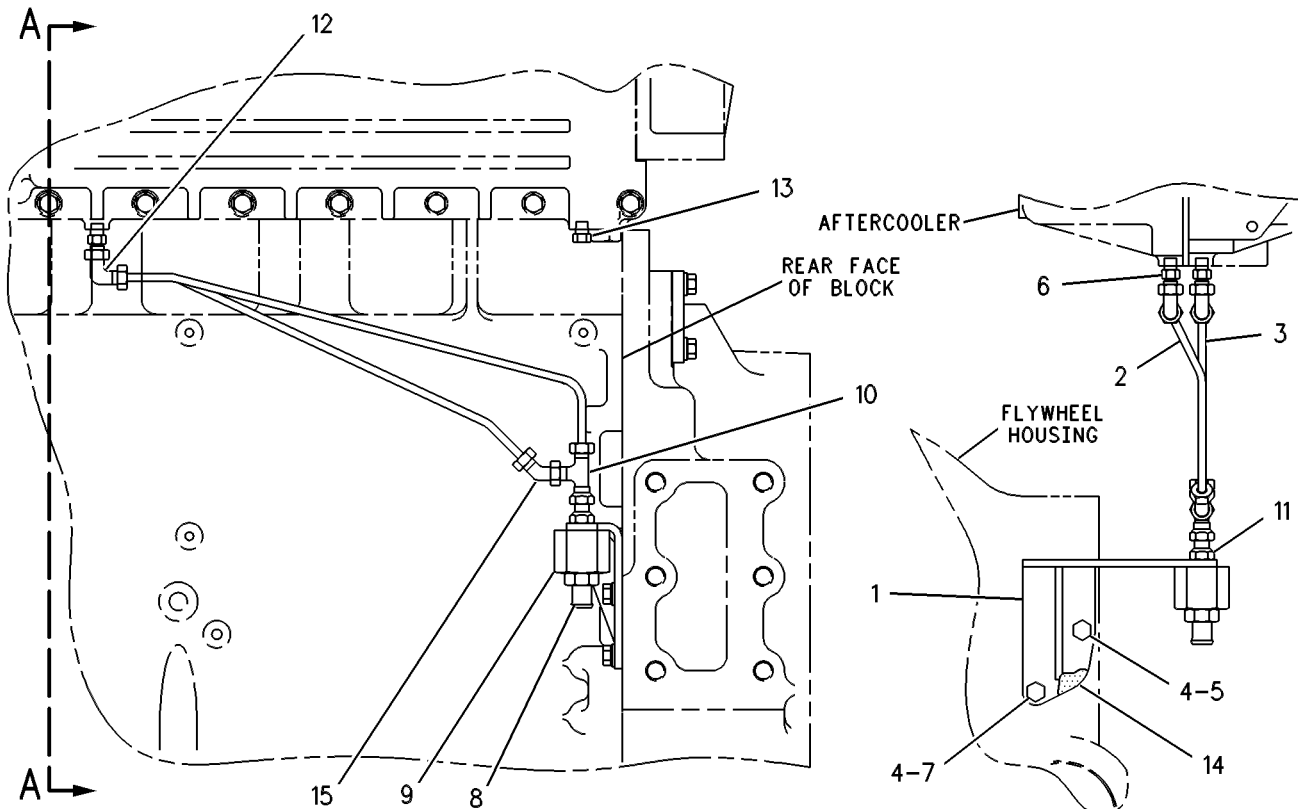
FOR USE WITH FRONT DOWN ENGINE INSTALLATION

AN ATTACHMENT

SMCS-1063

i00671890

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	131-0121	1	BRACKET						
	2	1	131-0114	1	TUBE AS						
	3	1	131-0115	1	TUBE AS						
	4	1	5M-2894	2	WASHER (2.5MM THK)						
	5	1	0S-1619	1	BOLT (3/8-16X3IN)						
	6	1	8L-6557	2	CONNECTOR						
	7	1	0S-1594	1	BOLT (3/8-16X1IN)						
	8	1	108-1478	1	VALVE GP						
		1	2M-9780	1	SEAL-O-RING (19.18MM ID)						
	9	1	113-7696	1	ADAPTER						
	10	1	052-0572	1	TEE						
	11	1	4D-6432	1	LOCKNUT (7/16-20 THD)						
	12	1	7K-9197	2	ELBOW						
	13	1	8T-6764	2	PLUG-PIPE (1/8-27 NPTF THD)						
	14	1	4N-0933	1	GASKET						
	15	1	030-7961	1	ELBOW						



LEFT SIDE VIEW

VIEW A-A

GRAPHIC #1

g00263656

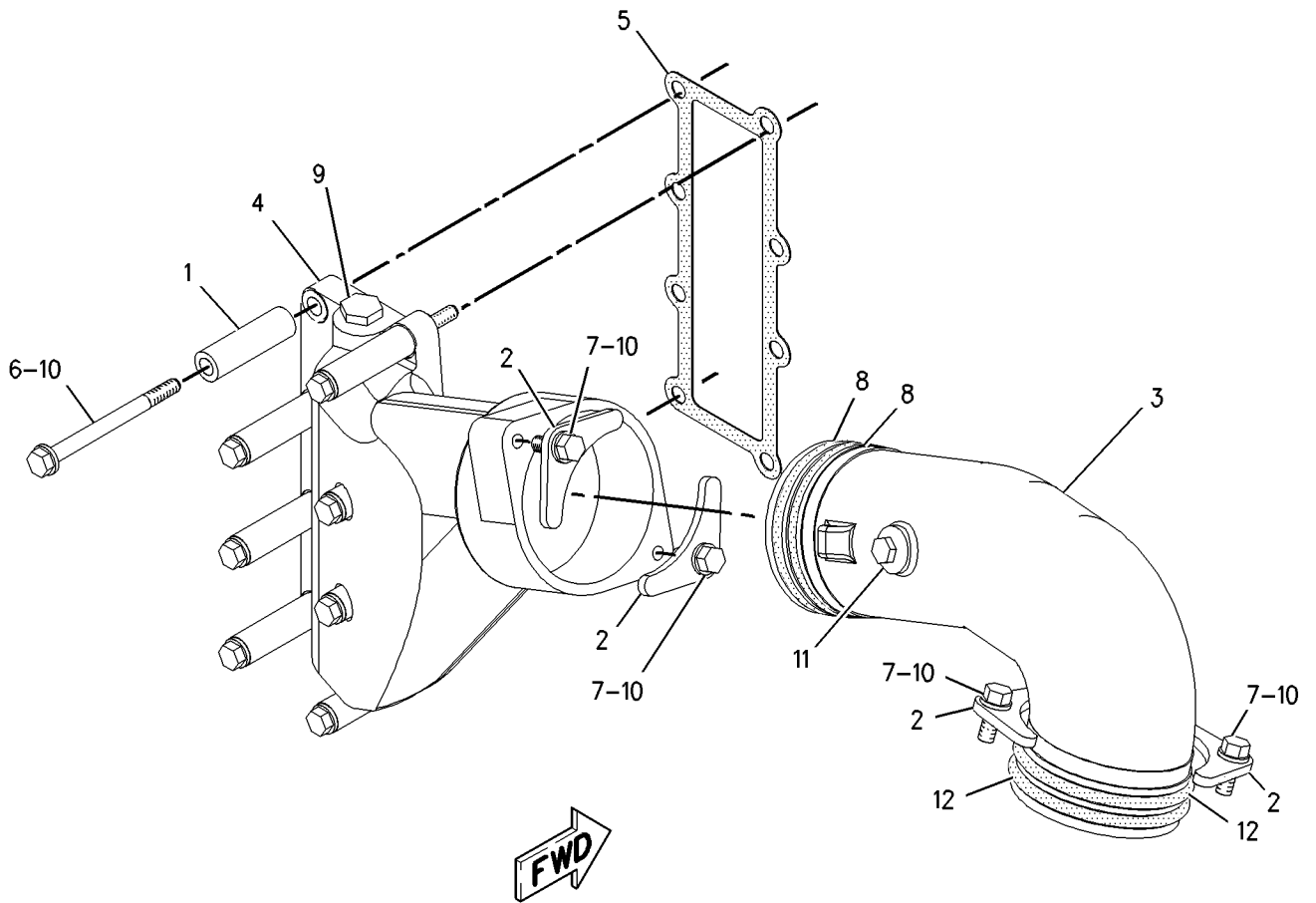
AIR INLET AND EXHAUST SYSTEM

130-6521 LINES GP-AIR AN ATTACHMENT

SMCS-1071

i01370556

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6N-0905	8	SPACER						
	2	1	7W-3145	4	PLATE						
	3	1	120-8666	1	PIPE						
	4	1	141-6436	1	ADAPTER-INTAKE						
	5	1	150-4104	1	GASKET						
	6	1	193-1417	8	BOLT						
	7	1	0S-1594	4	BOLT (3/8-16X1 IN)						
	8	1	130-5694	2	SEAL-O-RING						
	9	1	3J-5389	1	PLUG (1/2-14 NPT THD)						
	10	1	5M-2894	12	WASHER-HARD (10.2X18.5X2.5MM THK)						
	11	1	5M-6213	1	PLUG-PIPE						
	12	1	6V-3917	2	SEAL-O-RING (94.62MM ID)						



GRAPHIC #1

g00723113

AIR INLET AND EXHAUST SYSTEM

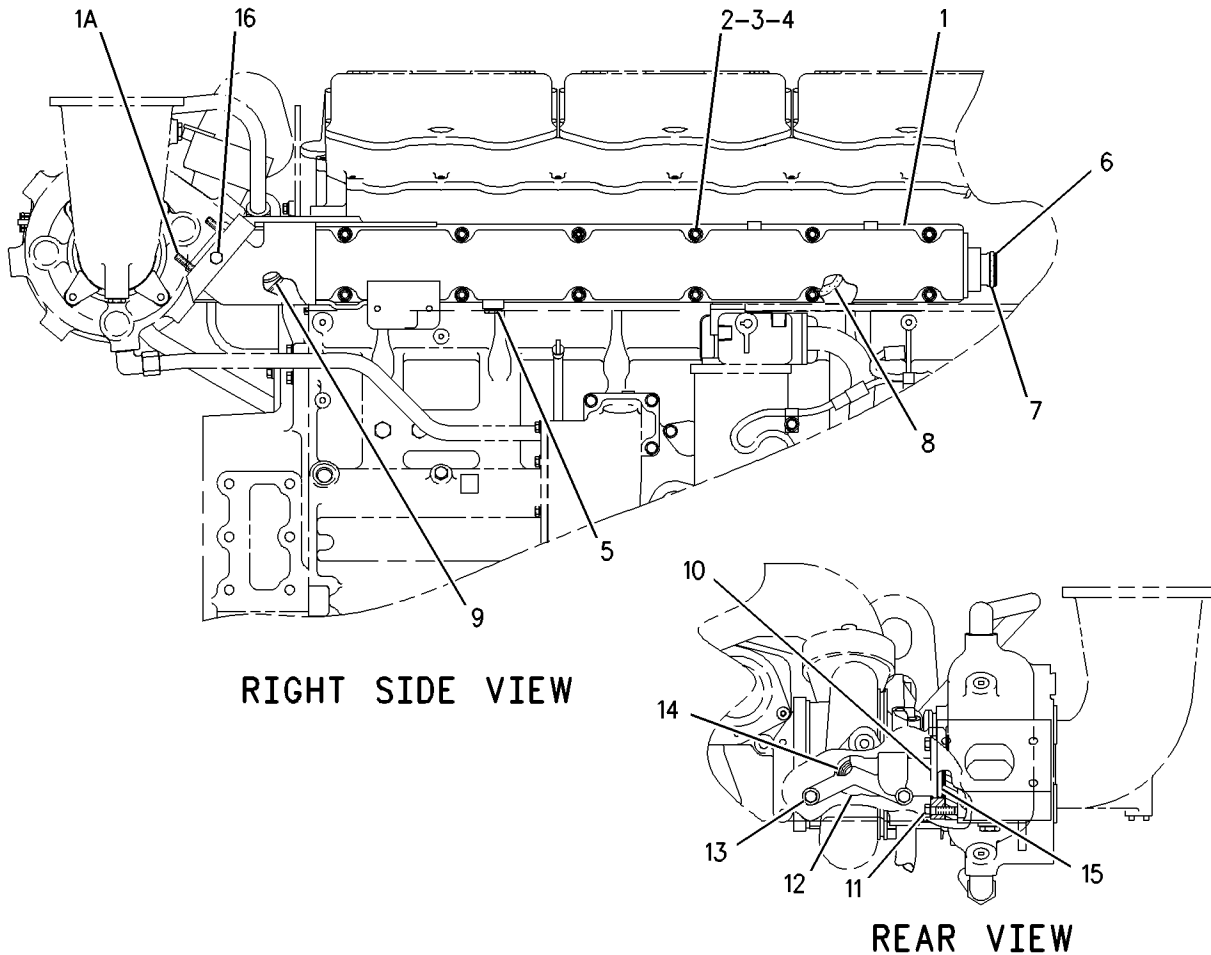
126-5052 MANIFOLD GP-WATER COOLED EXH

AN ATTACHMENT

SMCS-1059

i01263918

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	142-4162	1	MANIFOLD AS						
	1A	1	7L-0520	4	STUD-TAPERLOCK						
	2	1	2N-2766	10	LOCKNUT (3/8-16 THD)						
	3	1	5M-2894	10	WASHER (2.5MM THK)						
	4	1	108-3612	10	SPACER (53MM THK)						
	5	1	7W-6492	1	PLUG-PIPE (1/2-14 NPTF THD)						
	6	1	4N-0822	1	COUPLING						
	7	1	109-0072	2	SEAL-O-RING (40.64MM ID)						
	8	1	129-9452	6	GASKET-EXHAUST MANIFOLD						
	9	1	6I-2517	1	GASKET						
	10	1	4N-4859	1	FLANGE						
	11	1	0S-1588	2	BOLT (3/8-16X1.25IN)						
	12	1	118-7374	1	ELBOW						
	13	1	0S-1608	2	BOLT (3/8-16X3.75IN)						
	14	1	6V-4367	1	SEAL-O-RING						
	15	1	109-0073	1	SEAL-O-RING (43.82MM ID)						
	16	1	8T-6765	1	PLUG-PIPE (1/4-18 NPTF THD)						



GRAPHIC #1

g00672220

AIR INLET AND EXHAUST SYSTEM

4L-5801 PIPE GP-EXHAUST

152 MM (6 IN.)

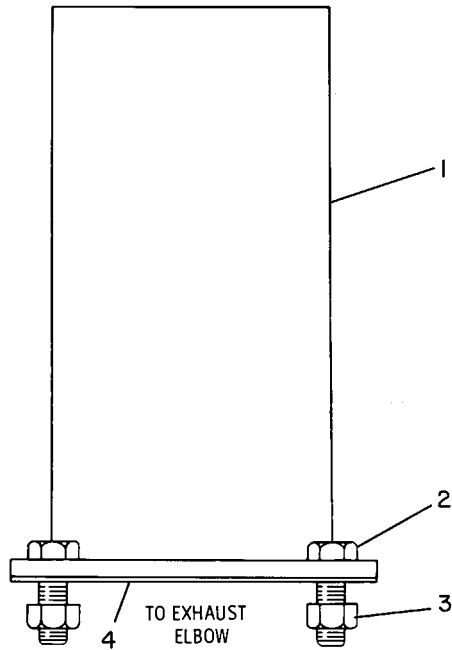
AN ATTACHMENT

SMCS-1061

i00640227

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
C	1	1	5L-2264	1	PIPE AS						
	2	1	0S-1566	4	BOLT (5/8-11X1.5IN)						
	3	1	1B-5358	4	NUT-FULL						
	4	1	5H-8331	1	GASKET						

C- CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

g00205793

AIR INLET AND EXHAUST SYSTEM

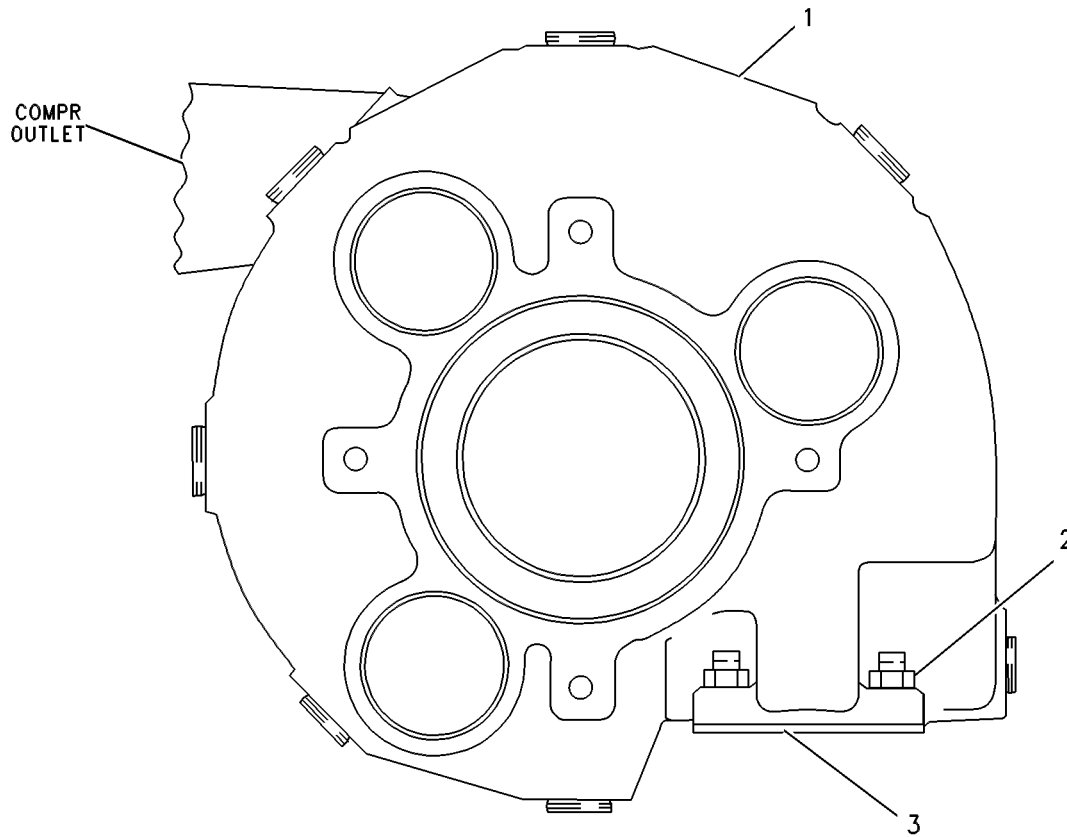
130-9724 TURBOCHARGER GP

SMCS-1052

i00670630

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	130-9725	1	TURBOCHARGER GP						225
	2	1	2N-2766	4	LOCKNUT (3/8-16 NPTF THD)						
	3	1	7M-7273	1	GASKET-TURBOCHARGER						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00257285

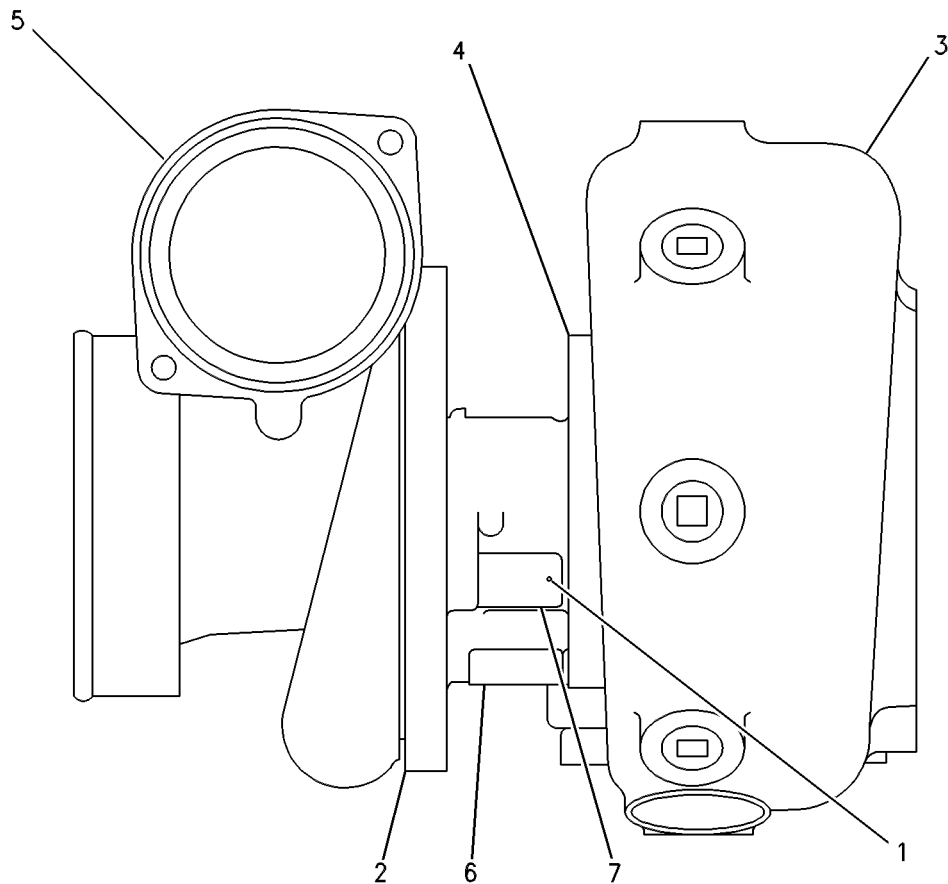
AIR INLET AND EXHAUST SYSTEM

130-9725 TURBOCHARGER GP PART OF 130-9724 TURBOCHARGER GP

SMCS-1052

i00670638

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2F-0808	2	SCREW						
	2	1	4W-9977	1	CLAMP AS						
	3	1	6N-9908	1	HOUSING AS-TURBINE						
		1	3B-0645	3	PLUG-CUP (32.08MM AVG OD)						
		1	3P-1896	3	PLUG-CUP (35.31MM AVG OD)						
		1	4N-0932	4	PLUG-CUP (57.53MM AVG OD)						
		1	100-6816	4	PLUG-CUP (60.71MM AVG OD)						
	4	1	9N-2038	1	CLAMP AS						
	5	1	126-0911	1	COVER-COMPRESSOR						
	6	1	130-9726	1	CARTRIDGE GP-TURBOCHARGER						
	7	1	1W-4795	1	PLATE-IDENTIFICATION						



GRAPHIC #1

g00257279

AIR INLET AND EXHAUST SYSTEM

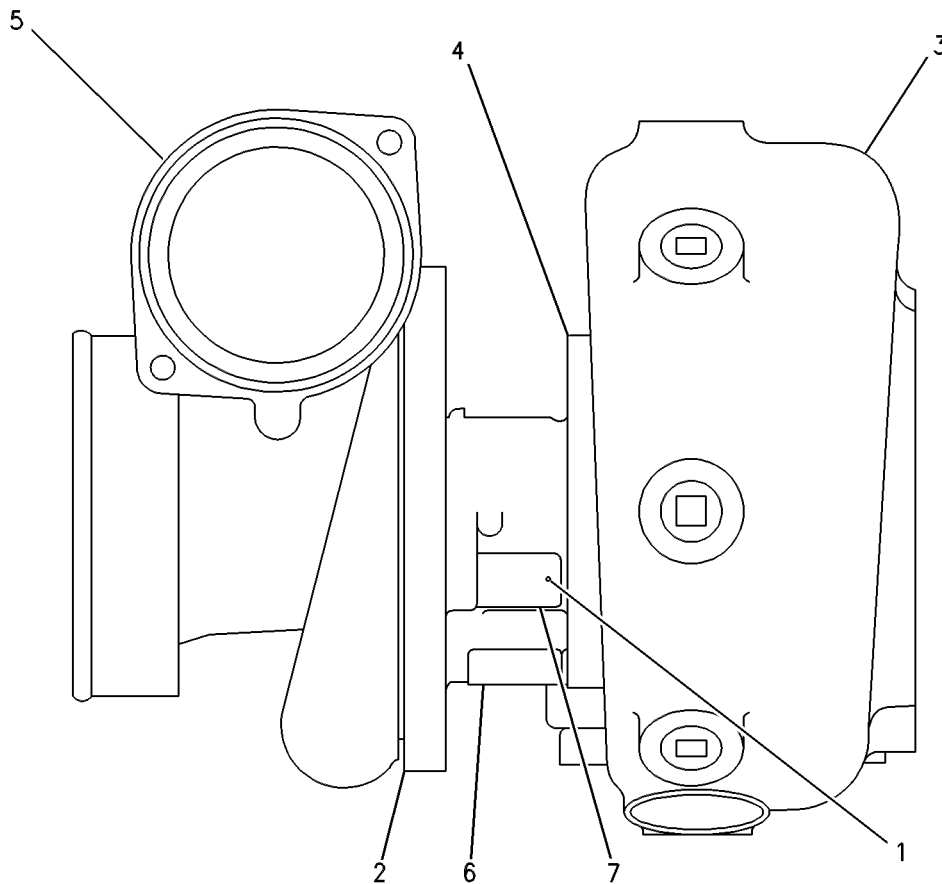
131-8687 TURBOCHARGER GP

PART OF 132-0290 TURBOCHARGER GP

SMCS-1052

i00671858

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2F-0808	2	SCREW						
	2	1	7W-2297	1	CLAMP AS						
	3	1	131-8689	1	HOUSING AS						
		1	3B-0645	3	PLUG-CUP (32.08MM AVG OD)						
		1	3P-1896	3	PLUG-CUP (35.31MM AVG OD)						
		1	4N-0932	4	PLUG-CUP (57.53MM AVG OD)						
		1	100-6816	4	PLUG-CUP (60.71MM AVG OD)						
	4	1	9N-2038	1	CLAMP AS						
	5	1	131-8690	1	COVER						
	6	1	131-8688	1	CARTRIDGE GP-TURBOCHARGER						
	7	1	1W-4795	1	PLATE-IDENTIFICATION						



GRAPHIC #1

g00257279

AIR INLET AND EXHAUST SYSTEM

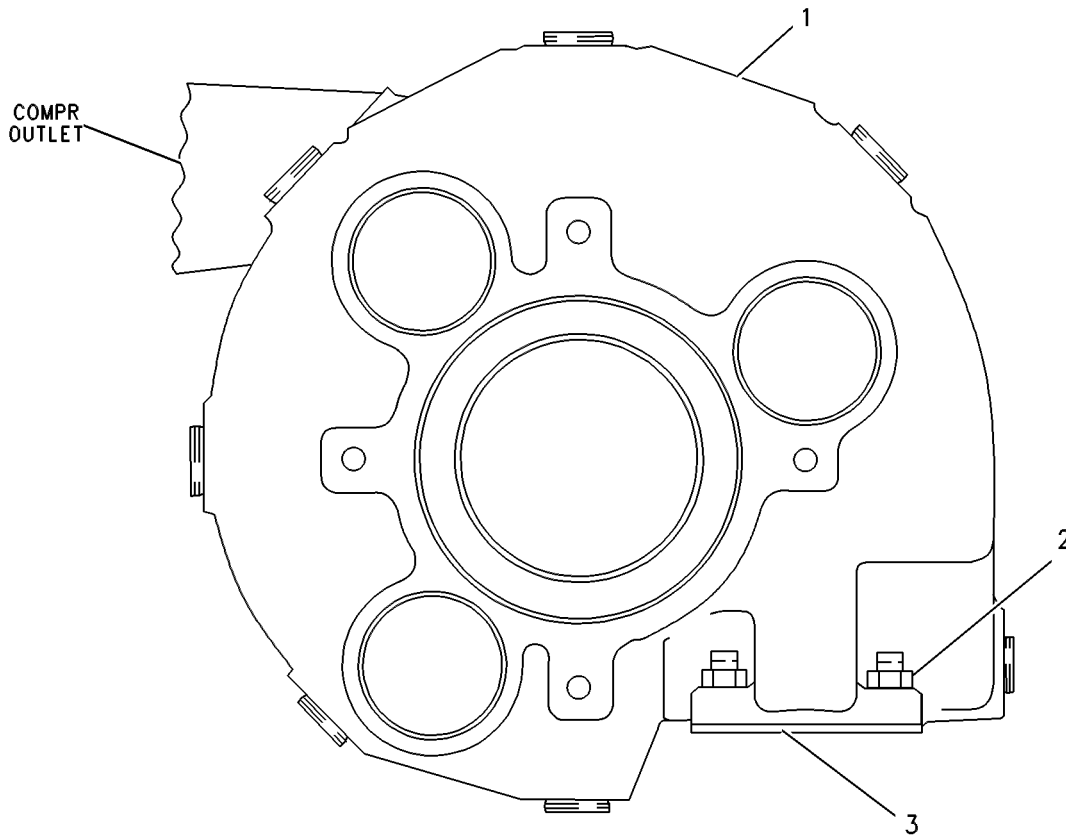
132-0290 TURBOCHARGER GP

SMCS-1052

i00671865

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	131-8687	1	TURBOCHARGER GP						226
	2	1	2N-2766	4	LOCKNUT (3/8-16 NPTF THD)						
	3	1	7M-7273	1	GASKET-TURBOCHARGER						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00257285

FUEL SYSTEM

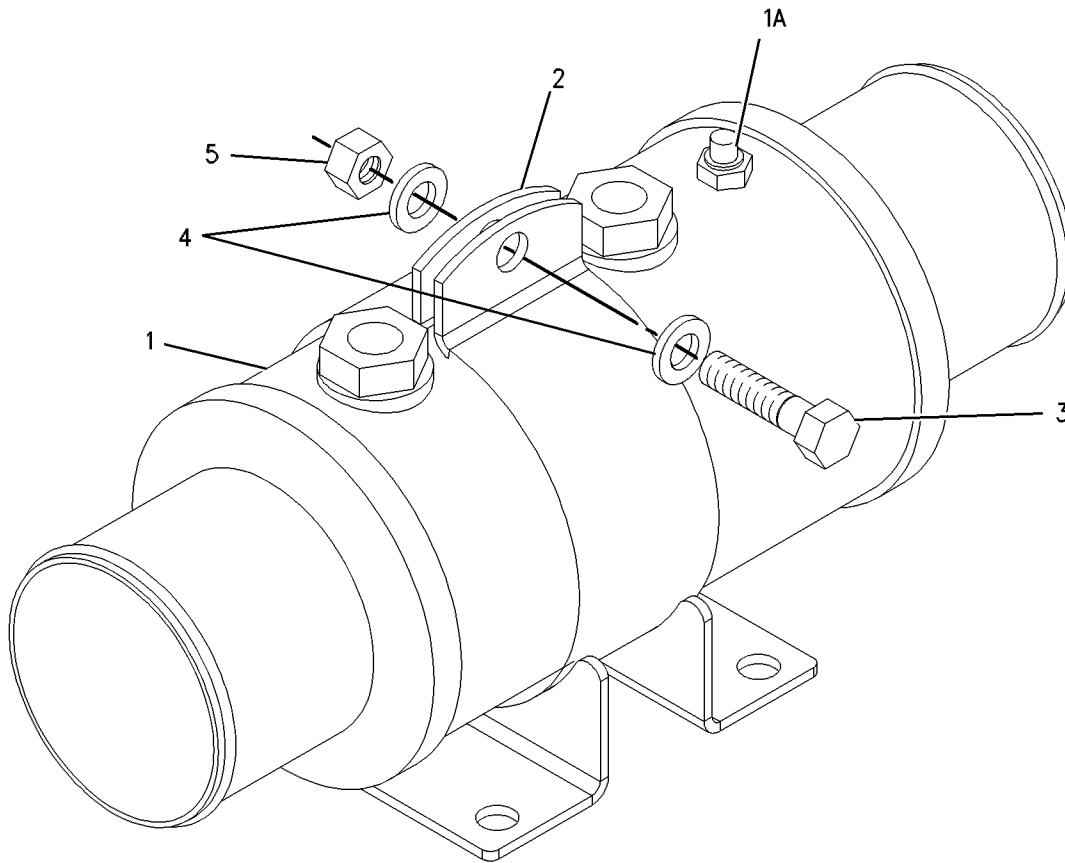
164-0449 COOLER GP-FUEL

REQUIRES AUXILIARY SEAWATER PUMP
FOR USE WITH CUSTOMER SUPPLIED FUEL LINES
AN ATTACHMENT

SMCS-1712

i01128147

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	140-9545	1	COOLER AS						
	1A	1	6L-2279	1	PLUG-PIPE						
		1	6L-2281	1	ROD						
	2	1	164-0436	1	CLAMP-COOLER						
	3	1	0S-1591	1	BOLT (3/8-16X1.5IN)						
	4	1	5M-2894	2	WASHER (2.5MM THK)						
	5	1	9S-8752	1	NUT (3/8-16 THD)						



GRAPHIC #1

g00597749

FUEL SYSTEM

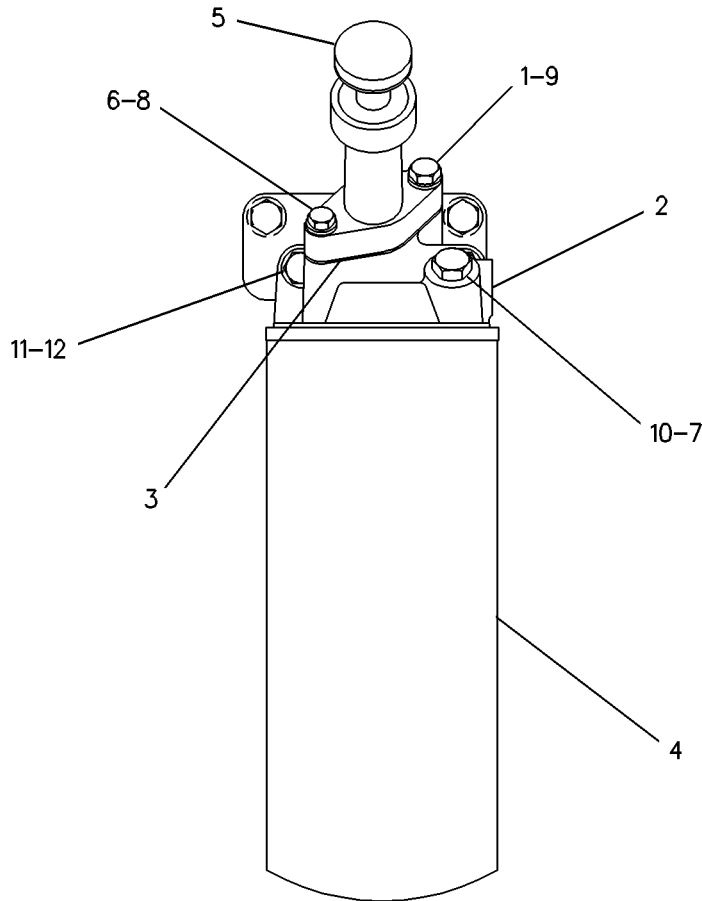
6I-3949 FILTER GP-FUEL

PROVIDES NO FUEL TEMPERATURE SENSOR
FOR USE WITH STANDARD ECM
AN ATTACHMENT

SMCS-1261

i00996764

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1B-7182	1	BOLT (5/16-18X1.25IN)						
	2	1	1N-3789	1	BASE AS-FILTER						
		1	9S-4167	1	STUD-HOLLOW						
	3	1	1P-0436	1	GASKET (PRIMING PUMP)						
	4	1	1R-0749	1	FILTER AS-FUEL						
	5	1	105-2508	1	PUMP AS-FUEL PRIMING						
	6	1	5P-0537	1	WASHER (2MM THK)						
	7	1	6V-5048	1	SEAL-O-RING (8.92MM ID)						
	8	1	7B-2742	1	BOLT (1/4X1.25IN)						
	9	1	9M-1974	1	WASHER-HARD (2MM THK)						
	10	1	9S-4182	1	PLUG (7/16-20 THD)						
	11	1	5M-2894	2	WASHER (2.5MM THK)						
	12	1	0S-1594	2	BOLT (3/8-16X1.0IN)						



GRAPHIC #1

g00231184

FUEL SYSTEM

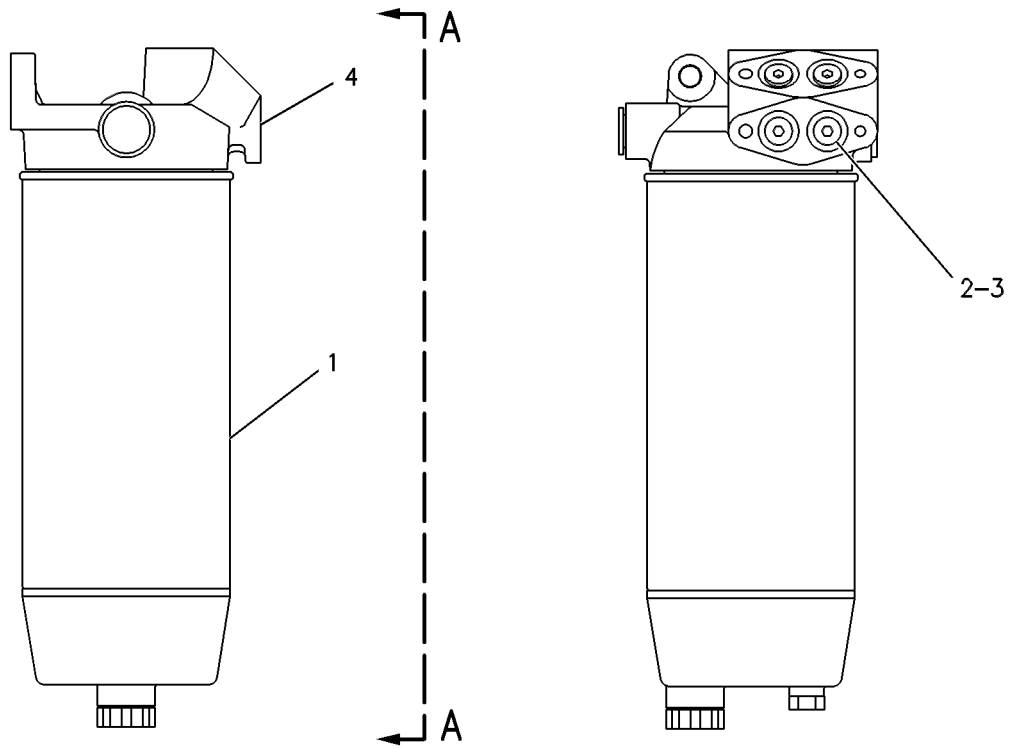
130-2960 FILTER GP-FUEL

FOR USE WITH WATER SEPARATOR
AN ATTACHMENT

SMCS-1261

i00609840

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	129-0372	1	FILTER AS-WATER SEP & FUEL						
		1	129-0373	1	ELEMENT-FILTER						
		1	129-0375	1	BOWL						
		1	141-0284	1	KIT-FUEL FILTER & WATER SEP (INCLUDES SEAL & GASKET)						
2		1	9S-8002	6	PLUG-O-RING (7/16-20 THD)						
3		1	6V-5048	6	SEAL-O-RING (8.92MM ID)						
4		1	127-0291	1	BASE AS						
		1	9S-4167	1	STUD-HOLLOW						



VIEW A-A

GRAPHIC #1

g00111467

FUEL SYSTEM

139-3501 FILTER GP-FUEL

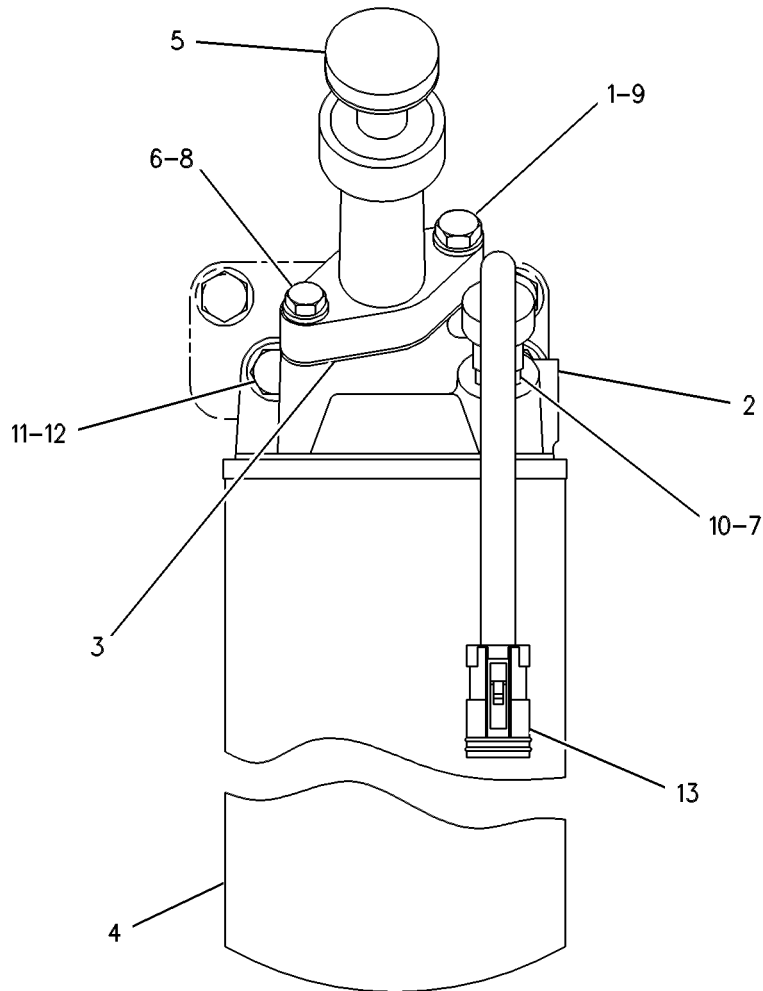
2 MICRON FILTER
AN ATTACHMENT

SMCS-1261

i01483208

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1B-7182	1	BOLT (5/16-18X1.25 IN)						
	2	1	1N-3789	1	BASE AS-FILTER						
		1	9S-4167	1	STUD-HOLLOW						
	3	1	1P-0436	1	GASKET (FUEL PRIMING PUMP)						
	4	1	1R-0749	1	FILTER AS-FUEL						
C	5	1	137-5541	1	PUMP AS-FUEL PRIMING						
	6	1	5P-0537	1	WASHER-HARD (7.2X14.5X2MM THK)						
C	7	1	6V-5048	2	SEAL-O-RING						
	8	1	7B-2742	1	BOLT (1/4-20X1.25 IN)						
	9	1	9M-1974	1	WASHER-HARD (8.8X16X2MM THK)						
C	10	1	9X-0262	1	ADAPTER						
	11	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5MM THK)						
	12	1	0S-1594	2	BOLT (3/8-16X1 IN)						
CY	13	1	161-9930	1	SENSOR GP-PRESSURE (FUEL)						320

C-CHANGE FROM PREVIOUS TYPE
Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00276366

FUEL SYSTEM

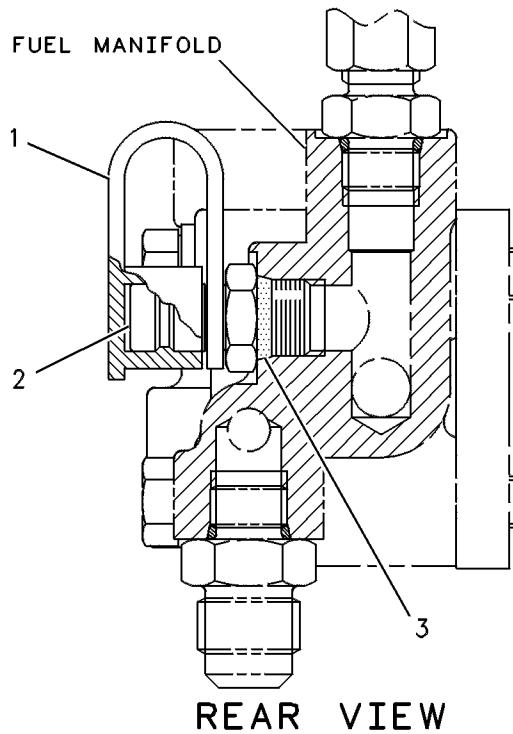
108-2312 FITTING GP-FUEL LINES

FUEL BLEED
AN ATTACHMENT

SMCS-1274

i01155927

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6V-0852	1	CAP-DUST						
	2	1	6V-3965	1	NIPPLE AS						
	3	1	033-6042	1	SEAL-O-RING (11.89MM ID)						



GRAPHIC #1

g00237924

FUEL SYSTEM

108-8756 FITTING GP-FUEL RETURN

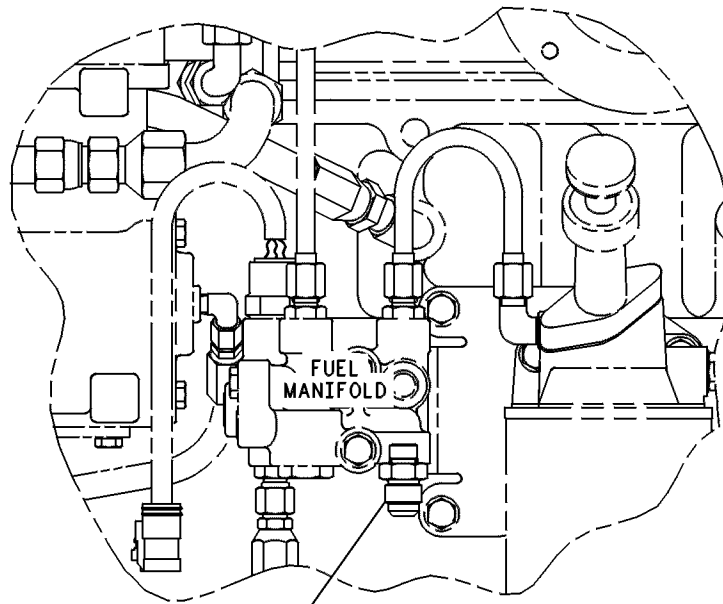
3/4-16 X 45 DEGREE STRAIGHT CONNECTOR

AN ATTACHMENT

SMCS-1274

i00993713

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	033-6042	1	SEAL-O-RING						
	2	1	107-9343	1	CONNECTOR-O-RING						



1-2

LEFT SIDE VIEW

GRAPHIC #1

g00237929

FUEL SYSTEM

153-9084 LINES GP-FLEXIBLE FUEL AN ATTACHMENT

SMCS-1274

i00943492

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	8L-3282	1	CONNECTOR-FLARED (FUEL RETURN TO TANK)						
	124-1961	2	COUPLING-PERMANENT (INLET FROM TANK)						
I	116-2578	1	HOSE AS (FUEL RETURN TO TANK)						
	153-9085	1	HOSE AS (INLET FROM TANK)						
I-SEE HOSE FABRICATION GUIDE									

MEMORANDA

FUEL SYSTEM

136-9495 LINES GP-FUEL

FOR USE WITH LH SERVICE

AN ATTACHMENT

TYPE 1

SMCS-1252, 1274

i01158964

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	103-4656	1	MANIFOLD-FUEL						
	2	1	2R-6806	4	CONNECTOR (9/16-18 STR THD)						
	3	1	5M-2894	5	WASHER (2.5MM THK)						
I	4	1	136-9497	1	HOSE AS						
	5	1	033-6042	10	SEAL-O-RING (11.89MM ID)						
	6	1	0S-0509	1	BOLT (3/8-16X.75IN)						
	7	1	8L-2786	2	SEAL-O-RING (16.36MM ID)						
	8	1	9S-8002	1	PLUG-O-RING (7/16-20 THD)						
	9	1	030-7947	2	ELBOW (9/16-18 STR THD)						
	10	1	9S-8004	1	PLUG-O-RING (9/16-18 THD)						
	11	1	124-3414	1	BRACKET						
	12	1	9S-4182	1	PLUG (7/16-20 THD)						
	13	1	6V-5048	2	SEAL-O-RING (8.92MM ID)						
	14	1	124-9048	1	HOSE AS						
	15	1	102-2240	1	SENSOR GP-TEMPERATURE (FUEL)						
	16	1	0L-1143	2	BOLT (3/8-16X2.50IN)						
Y	17	1	102-7535	1	VALVE GP-PRESSURE CONTROL						250
	18	1	6V-4589	1	SEAL-O-RING (19.18MM ID)						
	19	1	4D-7735	2	CLIP (18.29MM ID)						
	20	1	3S-2093	1	STRAP-CABLE						
	21	1	030-7937	1	CONNECTOR-PORT						
	22	1	030-7962	1	ELBOW						
	23	1	6K-9194	2	ELBOW						
	24	1	5K-3338	1	CLIP						
	25	1	101-3121	2	SPACER						
	26	1	136-9506	1	HOSE AS						
	27	1	125-4369	1	HOSE AS						
	28	1	0S-1590	2	BOLT (3/8-16X2 IN)						
	29	1	061-9258	1	TEE						
	30	1	8S-4950	1	CAP						
	31	1	030-7948	1	ELBOW						
	32	1	030-8156	2	ELBOW						
I	33	1	116-0047	1	HOSE AS						

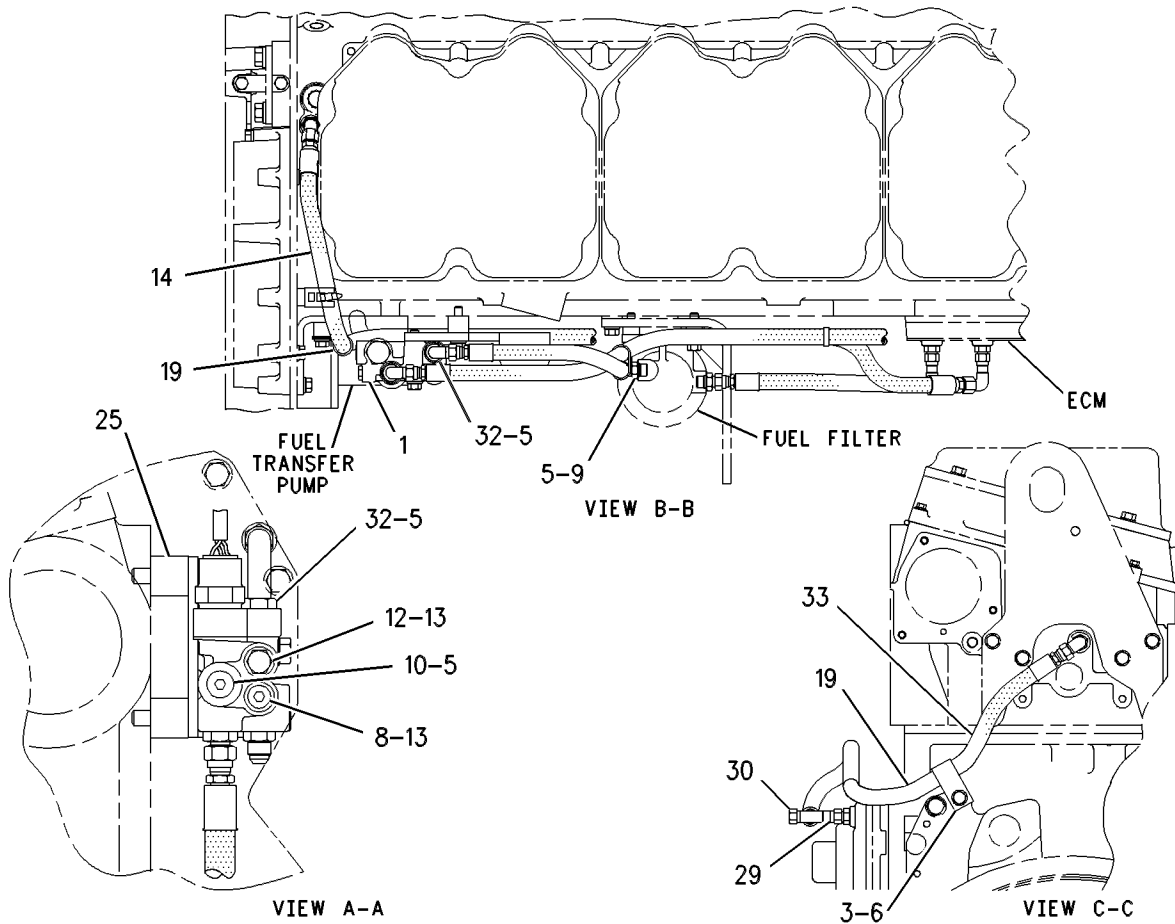
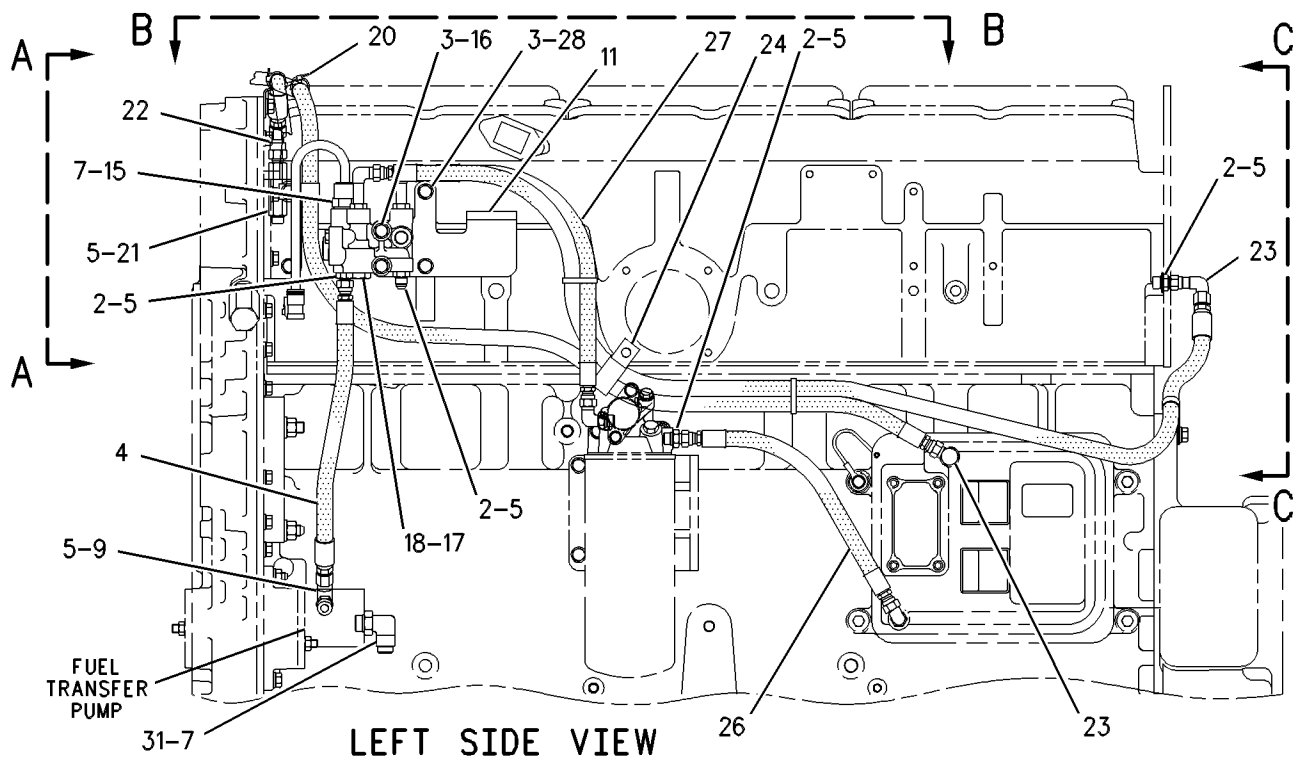
I - SEE HOSE FABRICATION GUIDE

Y - SEPARATE ILLUSTRATION

FUEL SYSTEM

136-9495 LINES GP-FUEL (contd.)

i01158964



GRAPHIC #1

g00325153

FUEL SYSTEM

136-9495 LINES GP-FUEL

FOR USE WITH LH SERVICE

AN ATTACHMENT

TYPE 2

SMCS-1252, 1274

i01379594

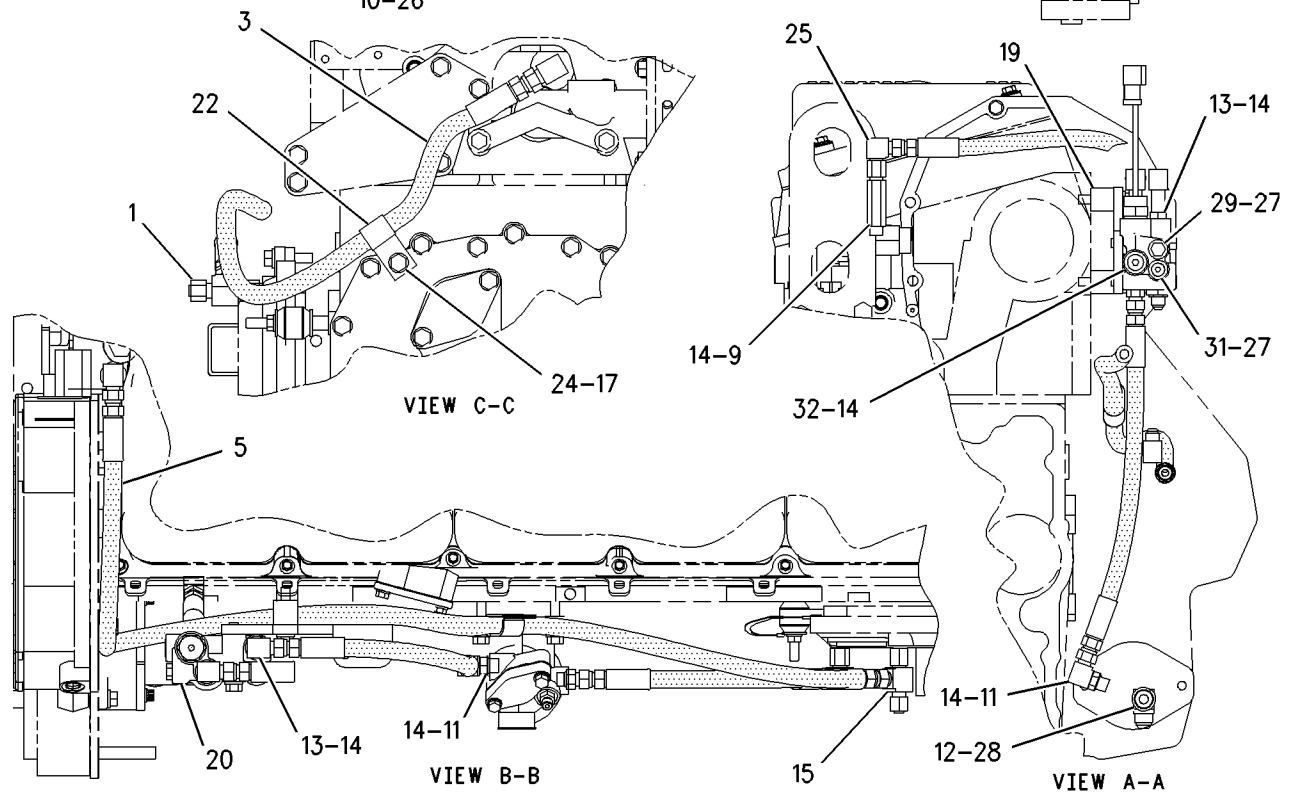
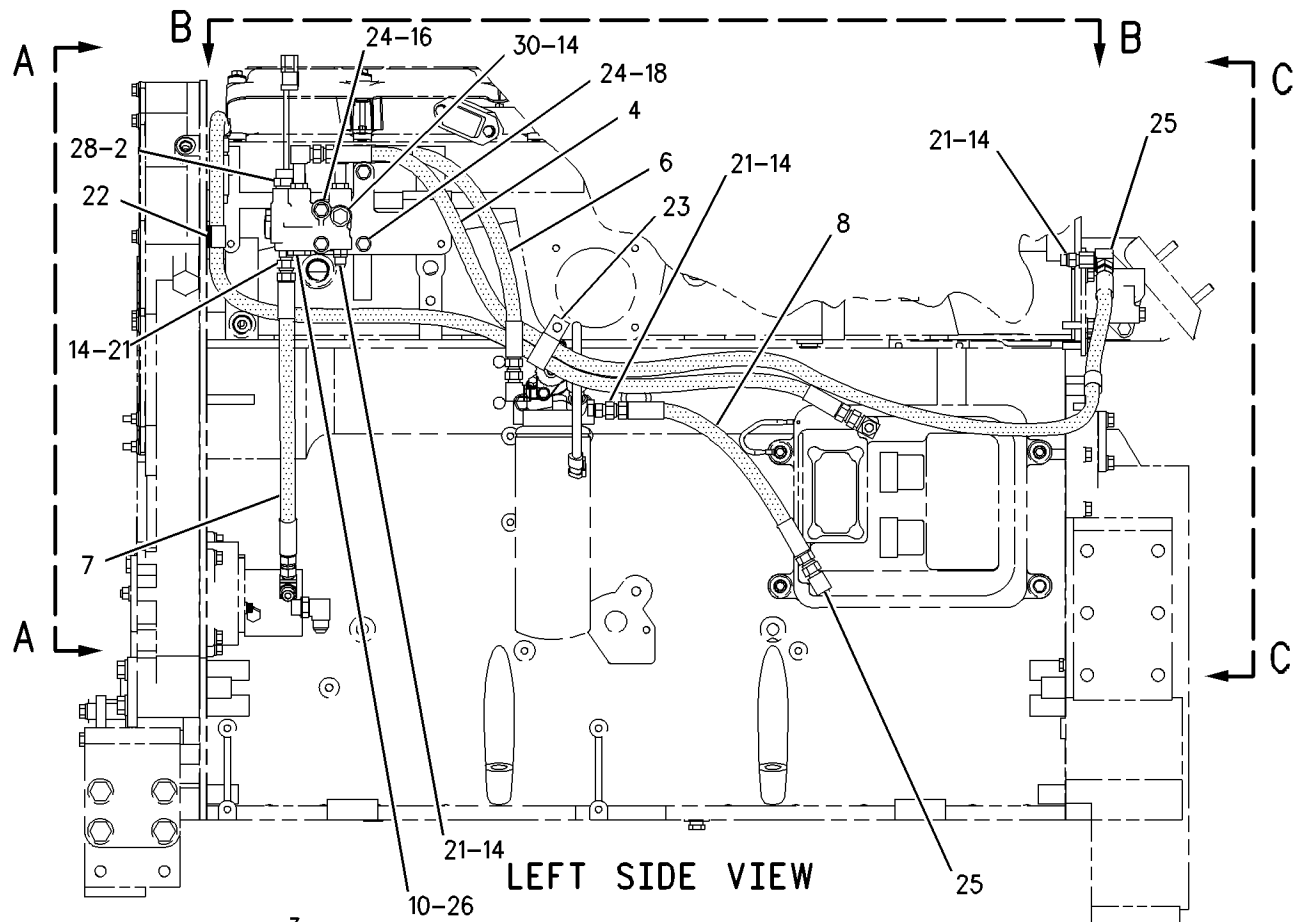
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8S-4950	1	CAP (37 DEGREE FLARED)						
	2	1	102-2240	1	SENSOR GP-TEMPERATURE (FUEL)						
		1	3E-3371	1	WEDGE-RECEPTACLE LOCK (3 PIN)						
		1	8T-8729	3	PIN-CONNECTOR						
BE		1	9X-1813		SLEEVE						
		1	102-8803	1	KIT-RECEPTACLE (3 PIN)						
					(INCLUDES RECEPTACLE AS & WEDGE)						
I	3	1	116-0047	1	HOSE AS						
	4	1	124-3414	1	BRACKET						
	5	1	124-9048	1	HOSE AS						
	6	1	125-4369	1	HOSE AS						
I	7	1	136-9497	1	HOSE AS						
I	8	1	136-9506	1	HOSE AS						
C	9	1	147-3396	1	CONNECTOR-PORT						
CY	10	1	156-5783	1	VALVE GP-CHECK						249
	11	1	030-7947	2	ELBOW						
	12	1	118-4728	1	ELBOW						
	13	1	030-8156	2	ELBOW						
	14	1	033-6042	11	SEAL-O-RING (11.89MM ID)						
	15	1	061-9258	1	TEE						
	16	1	0L-1143	2	BOLT (3/8-16X2.50 IN)						
	17	1	0S-0509	1	BOLT (3/8-16X.75 IN)						
	18	1	0S-1590	2	BOLT (3/8-16X2 IN)						
	19	1	101-3121	2	SPACER						
	20	1	103-4656	1	MANIFOLD-FUEL						
	21	1	2R-6806	4	CONNECTOR (9/16-18 STR THD)						
	22	1	4D-7735	2	CLIP (SLOT)						
	23	1	5K-3338	1	CLIP						
	24	1	5M-2894	5	WASHER-HARD (10.2X18.5X2.5MM THK)						
C	25	1	6K-9194	3	ELBOW						
	26	1	6V-4589	1	SEAL-O-RING (19.18MM ID)						
	27	1	6V-5048	2	SEAL-O-RING (8.92MM ID)						
	28	1	8L-2786	2	SEAL-O-RING (16.36MM ID)						
	29	1	9S-4182	1	PLUG-O-RING						
	30	1	9S-4191	1	PLUG-O-RING						
	31	1	9S-8002	1	PLUG-O-RING						
	32	1	9S-8004	1	PLUG-O-RING						

B- USE AS REQUIRED
 C- CHANGE FROM PREVIOUS TYPE
 E- ORDER BY THE CENTIMETER
 I- SEE HOSE FABRICATION GUIDE
 Y- SEPARATE ILLUSTRATION

FUEL SYSTEM

136-9495 LINES GP-FUEL (contd.)

i01379594



GRAPHIC #1

g00735329

FUEL SYSTEM

136-9496 LINES GP-FUEL

FOR USE WITH RH SERVICE ENGINES

AN ATTACHMENT

TYPE 1

SMCS-1252, 1274

i01158973

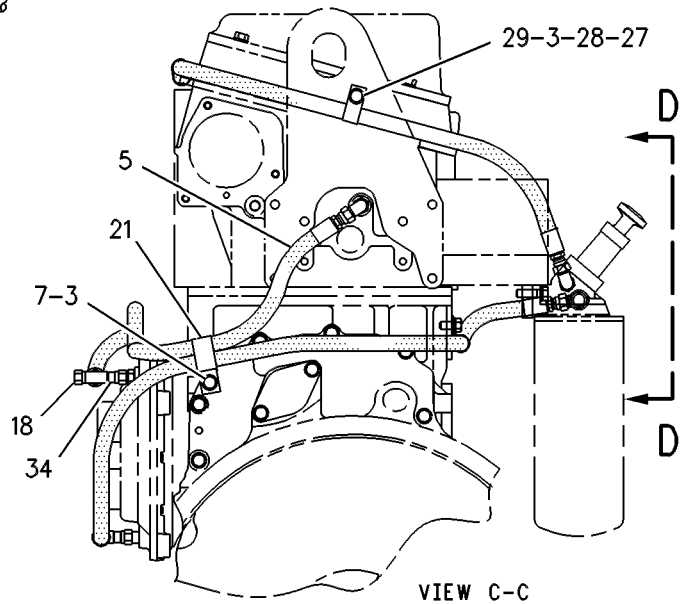
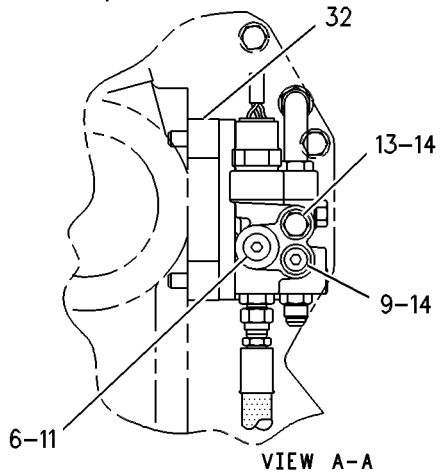
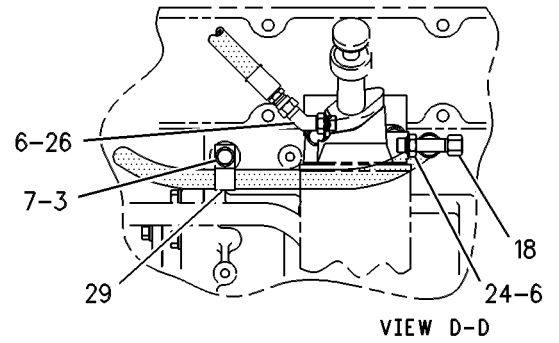
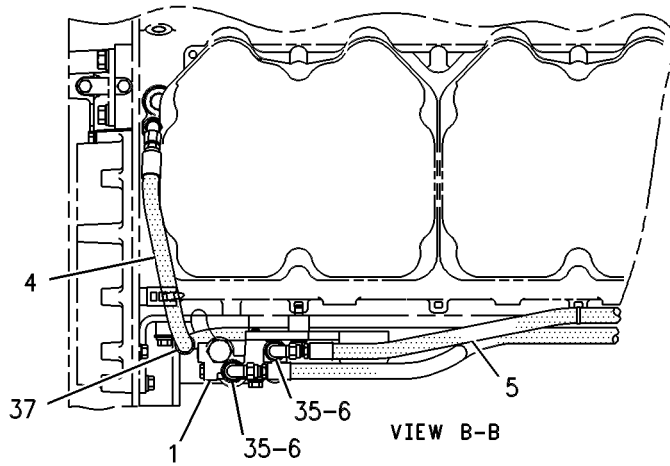
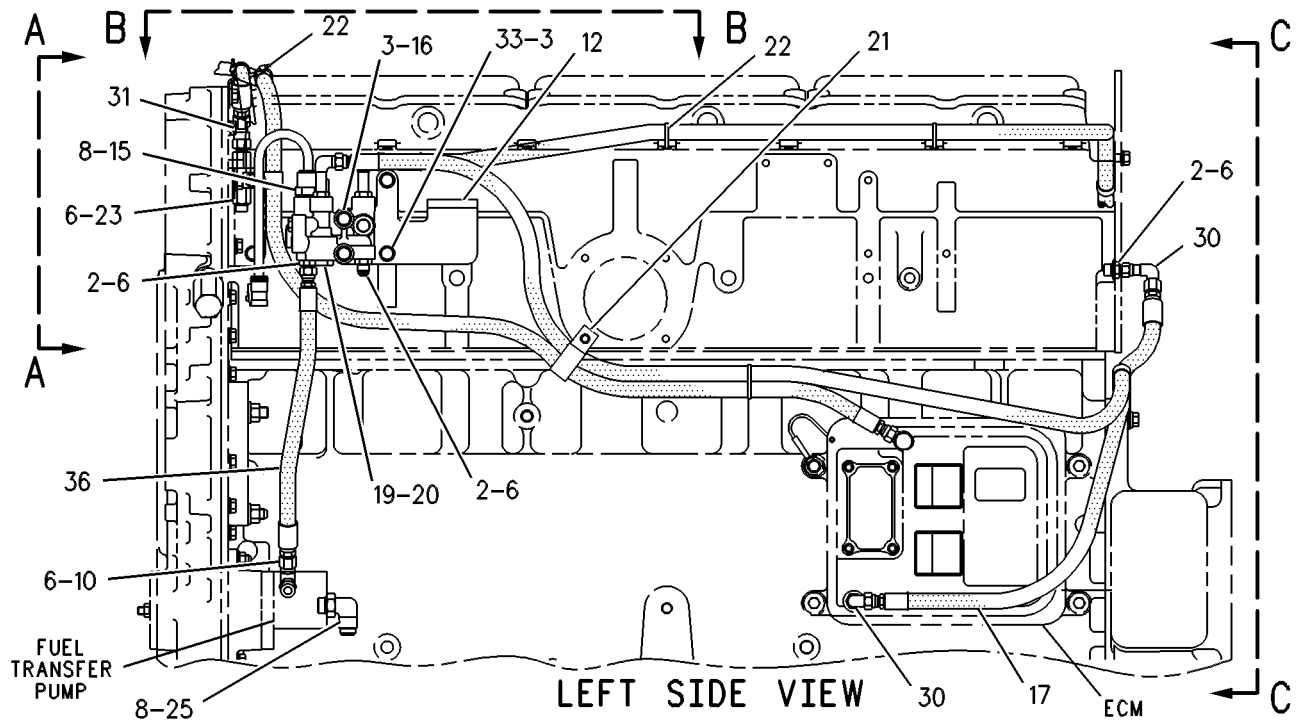
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	103-4656	1	MANIFOLD-FUEL						
	2	1	2R-6806	3	CONNECTOR (9/16-18 STR THD)						
	3	1	5M-2894	8	WASHER (2.5MM THK)						
	4	1	124-9048	1	HOSE AS						
I	5	1	116-0047	2	HOSE AS						
	6	1	033-6042	10	SEAL-O-RING (11.89MM ID)						
	7	1	0S-0509	2	BOLT (3/8-16X.75IN)						
	8	1	8L-2786	2	SEAL-O-RING (16.36MM ID)						
	9	1	9S-8002	1	PLUG-O-RING (7/16-20 THD)						
		1	9S-8004	1	PLUG-O-RING (9/16-18 THD)						
	10	1	030-7947	1	ELBOW (9/16-18 STR THD)						
	12	1	124-3414	1	BRACKET						
	13	1	9S-4182	1	PLUG (7/16-20 THD)						
	14	1	6V-5048	2	SEAL-O-RING (8.92MM ID)						
	15	1	102-2240	1	SENSOR GP-TEMPERATURE (FUEL)						
	16	1	0L-1143	2	BOLT (3/8-16X2.50IN)						
I	17	1	103-7473	1	HOSE AS						
	18	1	8S-4950	2	CAP						
Y	19	1	102-7535	1	VALVE GP-PRESSURE CONTROL						250
	20	1	6V-4589	1	SEAL-O-RING (19.18MM ID)						
	21	1	5K-5338	2	CLIP (SLOT)						
	22	1	3S-2093	3	STRAP-CABLE						
	23	1	030-7937	1	CONNECTOR-PORT						
		1	030-7942	1	ELBOW						
	24	1	6M-6853	1	TEE-O-RING						
	25	1	030-7948	1	ELBOW						
		1	030-7962	1	ELBOW						
	27	1	0S-1594	1	BOLT (3/8-16X1 IN)						
	28	1	9S-8752	1	NUT (3/8-16 THD)						
	29	1	8M-2773	2	CLIP (17.46MM ID)						
	30	1	6K-9194	2	ELBOW						
	32	1	101-3121	2	SPACER						
	33	1	0S-1590	2	BOLT (3/8-16X2 IN)						
	34	1	061-9258	1	TEE						
	35	1	030-8156	2	ELBOW						
I	36	1	136-9497	1	HOSE AS						
	37	1	4D-7735	1	CLIP (18.29MM ID)						

I- SEE HOSE FABRICATION GUIDE
Y- SEPARATE ILLUSTRATION

FUEL SYSTEM

136-9496 LINES GP-FUEL (contd.)

i01158973



GRAPHIC #1

g00263665

FUEL SYSTEM

136-9496 LINES GP-FUEL

FOR USE WITH RH SERVICE ENGINES

AN ATTACHMENT

TYPE 2

SMCS-1252, 1274

i01379547

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	3S-2093	3	STRAP-CABLE						
	2	1	8S-4950	2	CAP (37 DEGREE FLARED)						
	3	1	102-2240	1	SENSOR GP-TEMPERATURE (FUEL)						
I	4	1	103-7473	1	HOSE AS						
I	5	1	116-0047	2	HOSE AS						
	6	1	124-3414	1	BRACKET						
	7	1	124-9048	1	HOSE AS						
I	8	1	136-9497	1	HOSE AS						
	9	1	147-3396	1	CONNECTOR-PORT						
Y	10	1	156-5783	1	VALVE GP-CHECK						249
		1	6V-6923	1	RING-BACKUP (13.16MM ID)						
		1	033-6033	1	SEAL-O-RING (12.42MM ID)						
	11	1	030-7942	1	ELBOW (45 DEGREE, FLARED 37 DEGREE)						
	12	1	030-7947	1	ELBOW						
	13	1	030-7948	1	ELBOW						
	14	1	030-8156	2	ELBOW						
	15	1	033-6042	11	SEAL-O-RING (11.89MM ID)						
	16	1	061-9258	1	TEE						
	17	1	0L-1143	2	BOLT (3/8-16X2.50IN)						
	18	1	0S-0509	2	BOLT (3/8-16X.75 IN)						
	19	1	0S-1590	2	BOLT (3/8-16X2 IN)						
	20	1	0S-1594	1	BOLT (3/8-16X1 IN)						
	21	1	101-3121	2	SPACER						
	22	1	103-4656	1	MANIFOLD-FUEL						
	23	1	2R-6806	3	CONNECTOR (9/16-18 STR THD)						
	24	1	4D-7735	1	CLIP (SLOT)						
	25	1	5K-5338	2	CLIP						
	26	1	5M-2894	8	WASHER-HARD (10.2X18.5X2.5MM THK)						
	27	1	6K-9194	3	ELBOW (90 DEGREE)						
	28	1	6M-6853	1	TEE-O-RING						
	29	1	6V-4589	1	SEAL-O-RING (19.18MM ID)						
	30	1	6V-5048	2	SEAL-O-RING (8.92MM ID)						
	31	1	8L-2786	2	SEAL-O-RING (16.36MM ID)						
	32	1	8M-2773	2	CLIP						
	33	1	9S-4182	1	PLUG-O-RING						
	34	1	9S-4191	1	PLUG-O-RING						
	35	1	9S-8002	1	PLUG-O-RING						
	36	1	9S-8004	1	PLUG-O-RING (9/16-18 THD)						
	37	1	9S-8752	1	NUT-FULL (3/8-16 THD)						

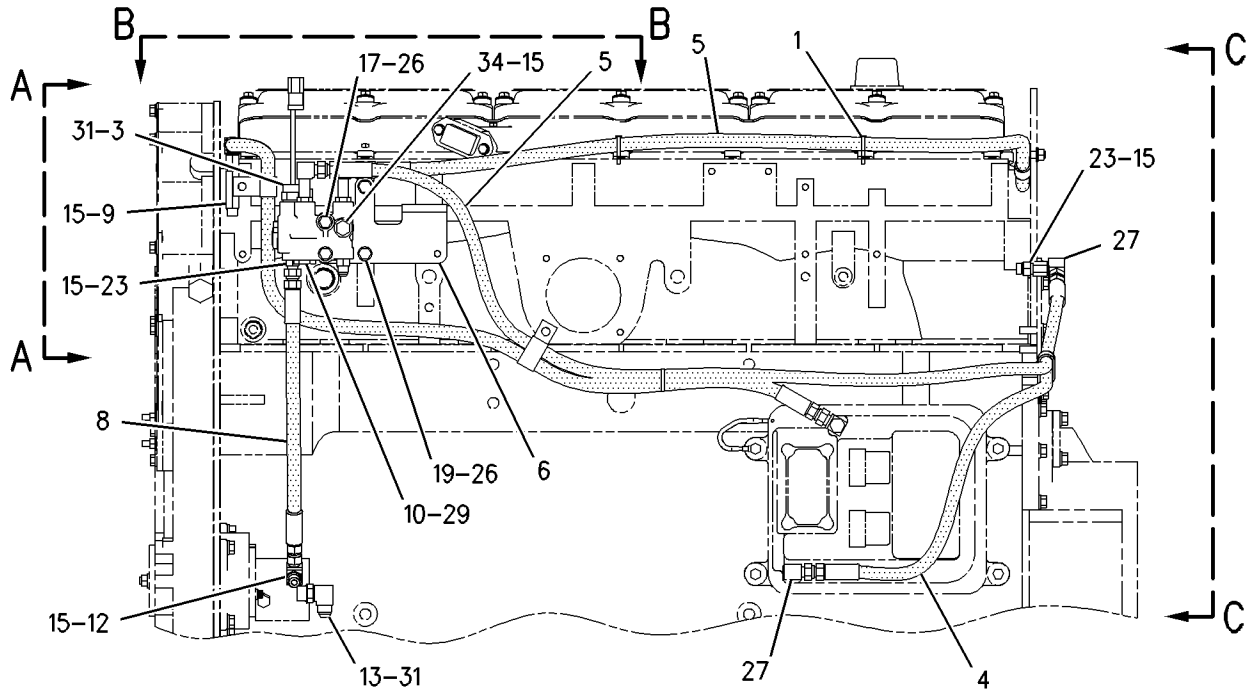
I - SEE HOSE FABRICATION GUIDE

Y - SEPARATE ILLUSTRATION

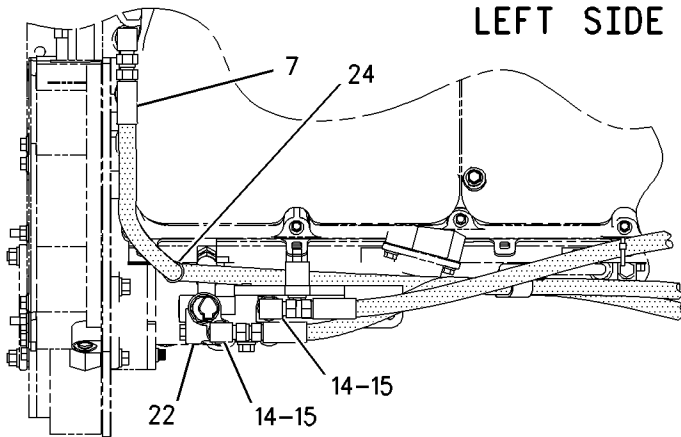
FUEL SYSTEM

136-9496 LINES GP-FUEL (contd.)

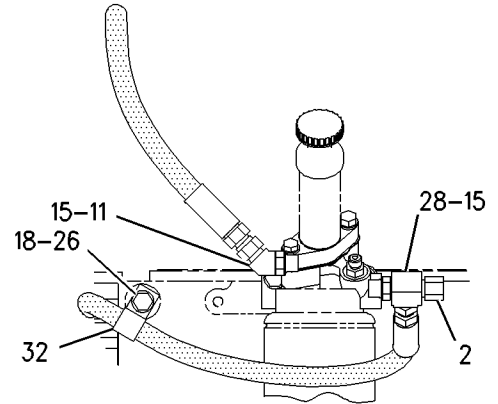
i01379547



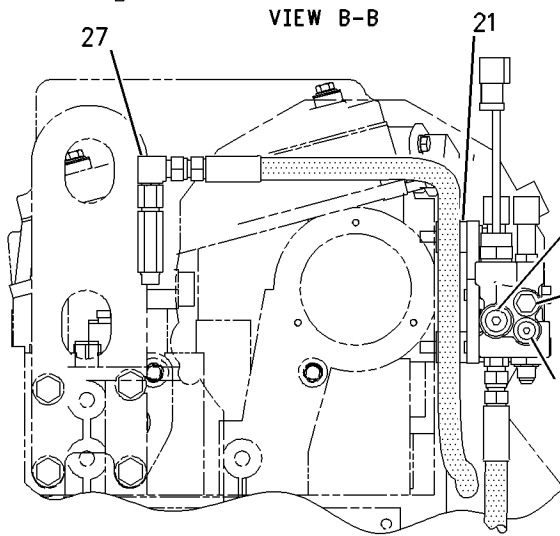
LEFT SIDE VIEW



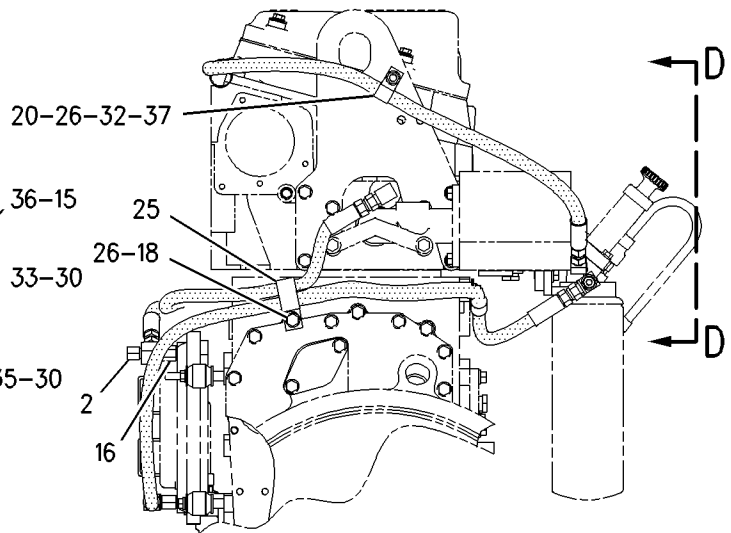
VIEW B-B



VIEW D-D



VIEW A-A



VIEW C-C

GRAPHIC #1

g00738753

FUEL SYSTEM

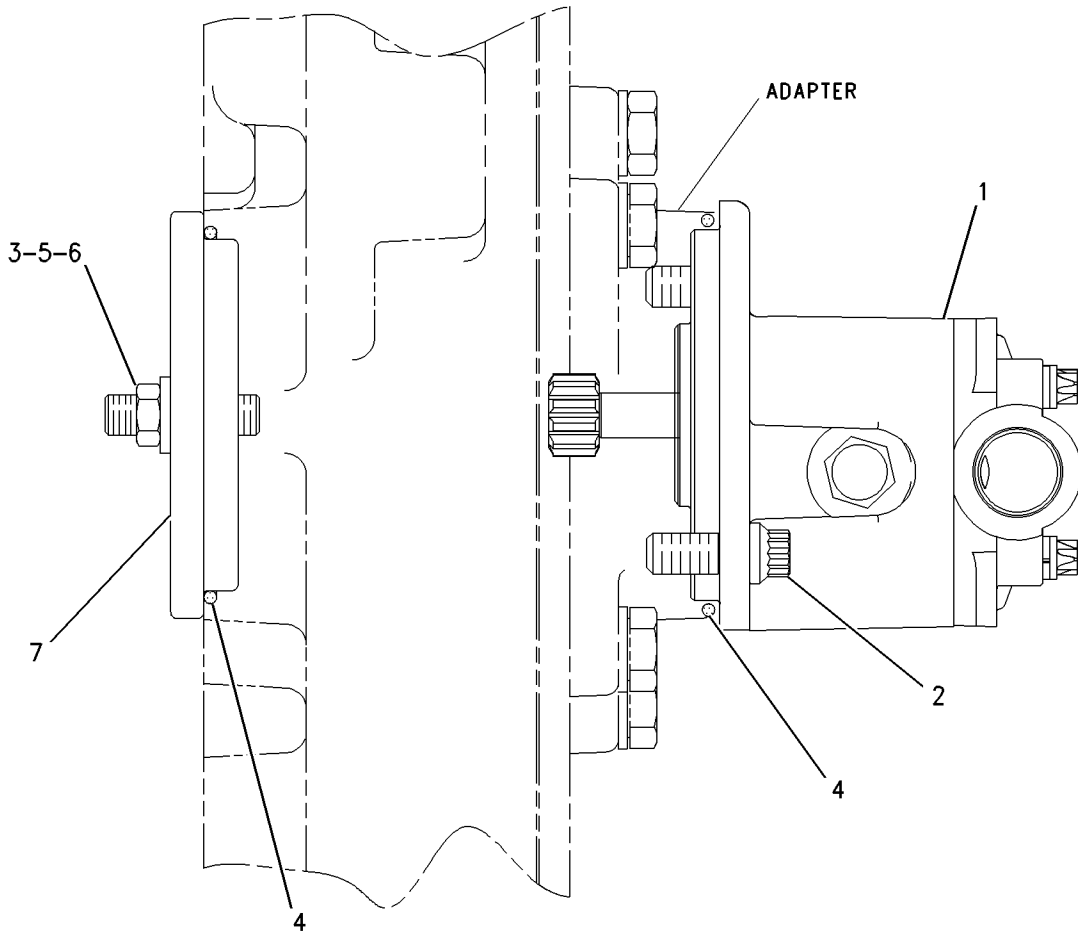
150-4279 PUMP & MTG GP - FUEL TRANSFER

ALLOWS USE OF FRONT MOUNTED PUMP EXCEPT WHEN LH MOUNTING GP-ALTERNATOR IS PROVIDED
AN ATTACHMENT

SMCS-1256

i01452058

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	190-3443	1	PUMP GP-FUEL TRANSFER						
	2	1	1T-0765	2	BOLT (3/8-16X1 IN)						
	3	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5MM THK)						
	4	1	107-5769	2	SEAL-O-RING						
	5	1	0S-0699	2	STUD						
	6	1	9S-8752	2	NUT-FULL (3/8-16 THD)						
	7	1	133-9116	1	COVER						



LEFT SIDE VIEW

GRAPHIC #1

g00762253

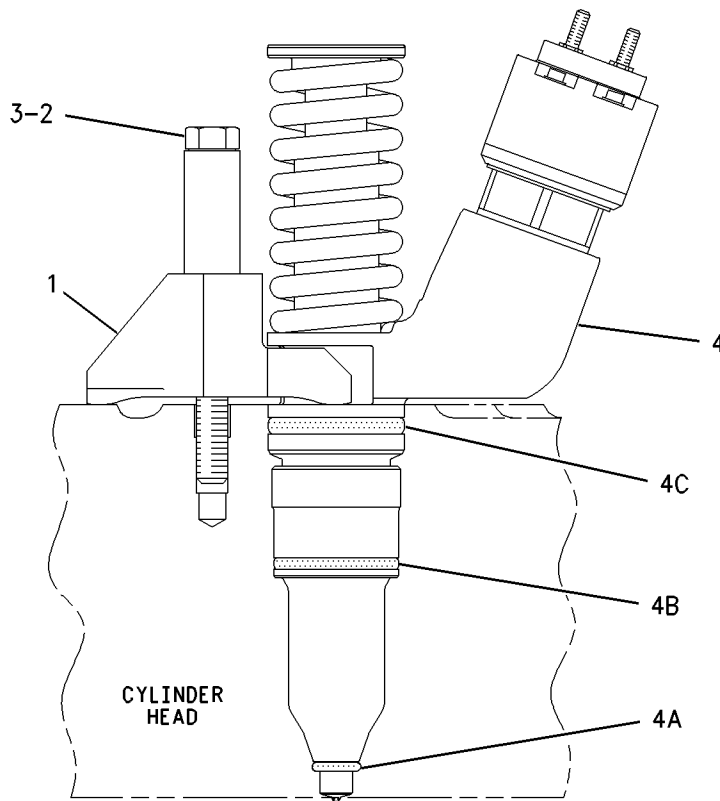
FUEL SYSTEM

130-9701 PUMP GP-FUEL INJECTION

SMCS-1251

i01481424

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6I-0213	1	CLAMP						
	2	1	8S-9191	1	BOLT (3/8-16X4 IN)						
	3	1	100-5072	1	SPACER						
	4	1	191-3007	1	INJECTOR GP-FUEL						
	4A	1	9X-7317	1	SEAL-O-RING						
	4B	1	9X-7418	1	SEAL-O-RING						
	4C	1	9X-7419	1	SEAL-O-RING						



REAR VIEW

GRAPHIC #1

g00665501

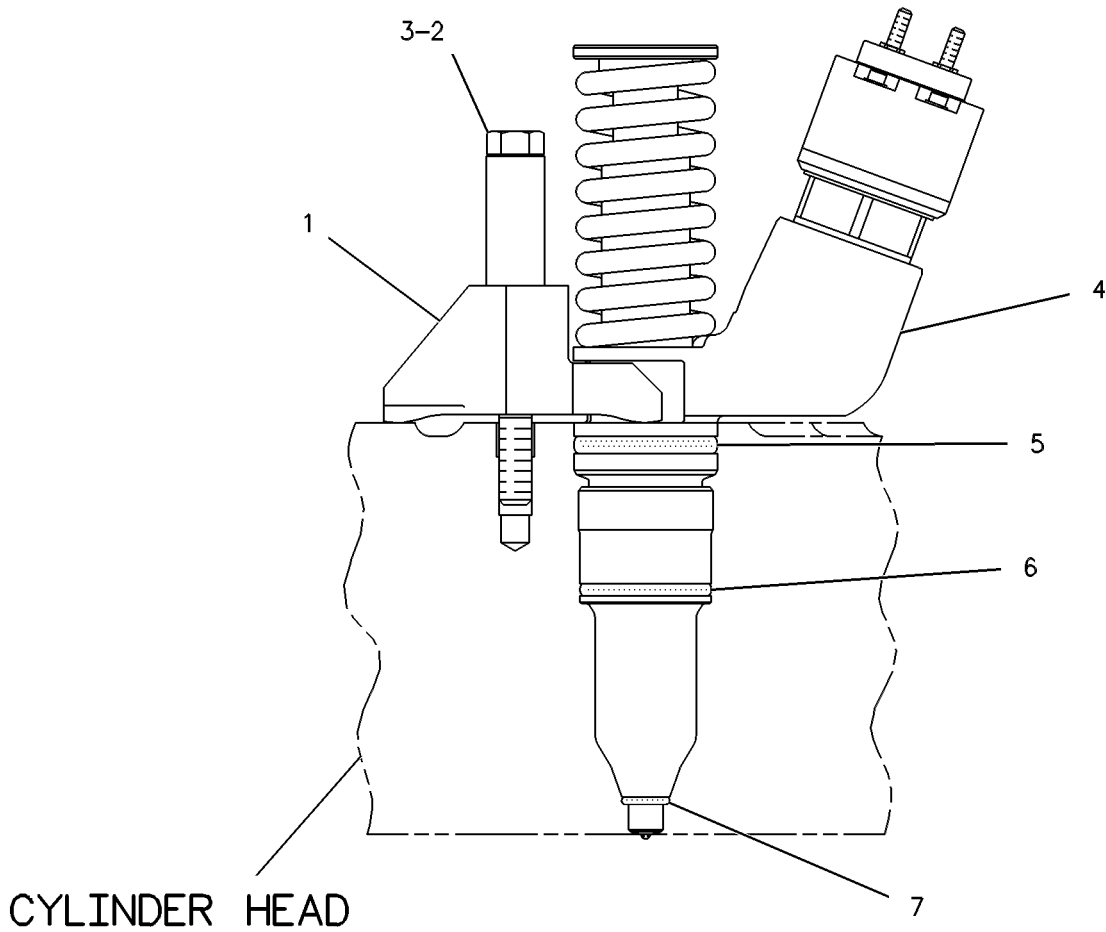
FUEL SYSTEM

131-6589 PUMP GP-FUEL INJECTION

SMCS-1251

i01404348

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6I-0213	1	CLAMP						
	2	1	8S-9191	1	BOLT (3/8-16X4 IN)						
	3	1	100-5072	1	SPACER						
	4	1	191-3006	1	INJECTOR GP-FUEL						
	5	1	9X-7419	1	SEAL-O-RING (36.09MM ID)						
	6	1	9X-7418	1	SEAL-O-RING (32.99MM ID)						
	7	1	9X-7317	1	SEAL-O-RING (9.6MM ID)						



GRAPHIC #1

g00255182

FUEL SYSTEM

124-3397 PUMP GP-FUEL PRIMING

FOR USE WITH 136-9495-PAGE 236

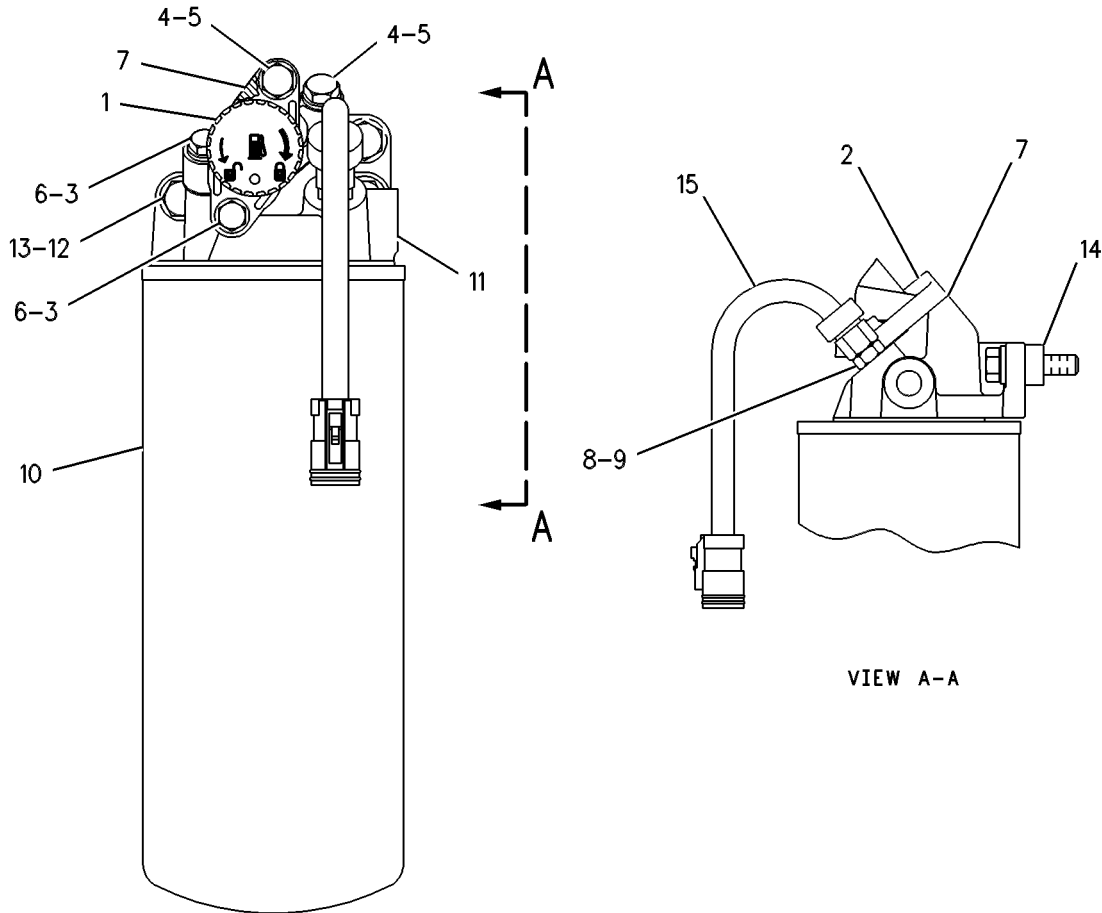
AN ATTACHMENT

SMCS-1258

i01483211

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	1 2 3 4 5 6 (PRODUCT LEVEL)						SEE PAGE
	1	1	137-5541	1	PUMP AS-FUEL PRIMING							
	2	1	117-5254	1	ADAPTER							
	3	1	5P-0537	2	WASHER-HARD (7.2X14.5X2MM THK)							
	4	1	9M-1974	2	WASHER-HARD (8.8X16X2MM THK)							
	5	1	1B-2790	2	BOLT (5/16-18X1.375 IN)							
	6	1	7B-2742	2	BOLT (1/4-20X1.25 IN)							
	7	1	1P-0436	2	GASKET (FUEL PRIMING PUMP)							
	8	1	9X-0262	1	ADAPTER							
	9	1	6V-5048	2	SEAL-O-RING							
	10	1	1R-0749	1	FILTER AS-FUEL							
	11	1	1N-3789	1	BASE AS-FILTER							
		1	9S-4167	1	STUD-HOLLOW							
	12	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5MM THK)							
	13	1	0S-1591	2	BOLT (3/8-16X1.5 IN)							
	14	1	7W-9094	2	SPACER (10.5X20X9MM THK)							
Y	15	1	161-9930	1	SENSOR GP-PRESSURE (FUEL)							320

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00282949

FUEL SYSTEM

131-8270 PUMP GP-FUEL TRANSFER

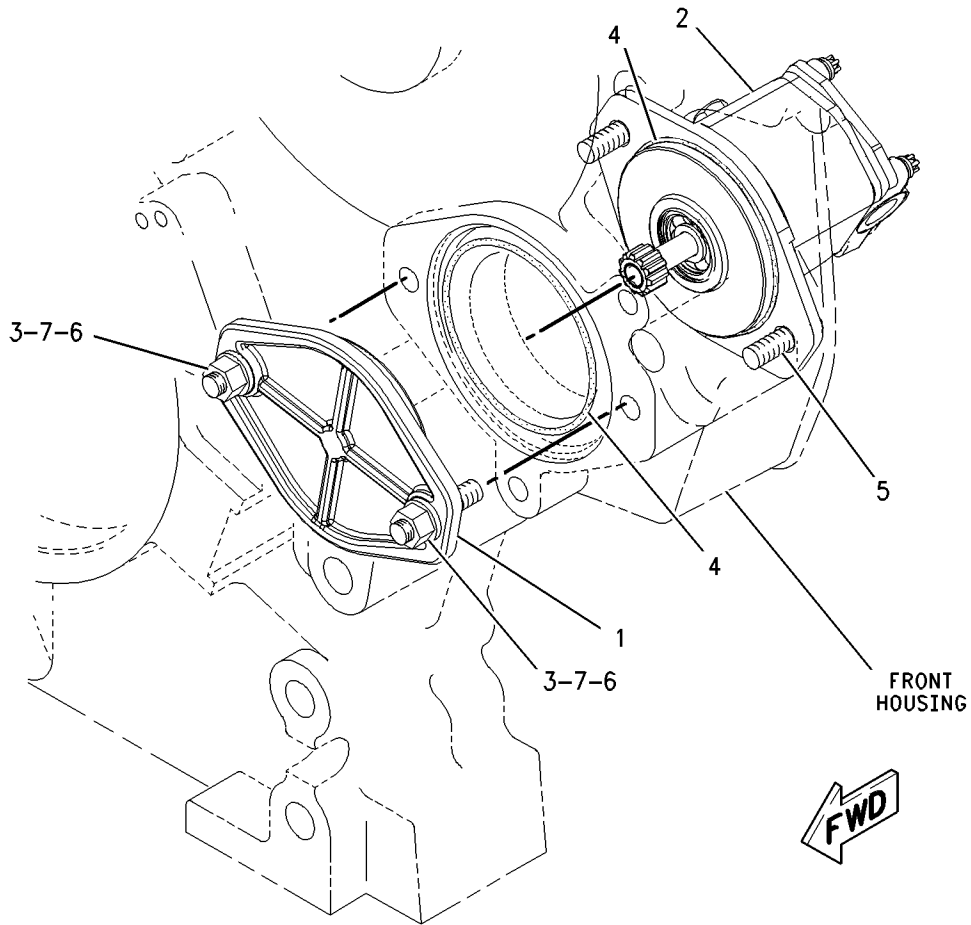
ALLOWS USE OF FRONT MOUNTED PUMP EXCEPT WHEN LH MOUNTING GP-ALTERNATOR IS PROVIDED,
REAR

FOR USE WITH 136-9495-PAGE 236, 136-9496-PAGE 240
AN ATTACHMENT

SMCS-1256

i01479732

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	133-9116	1	COVER						
	2	1	190-3443	1	PUMP GP-FUEL TRANSFER						
	3	1	0S-0699	2	STUD						
	4	1	107-5769	2	SEAL-O-RING						
	5	1	1T-0765	2	BOLT (3/8-16X1 IN)						
	6	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5MM THK)						
	7	1	9S-8752	2	NUT-FULL (3/8-16 THD)						



GRAPHIC #1

g00769995

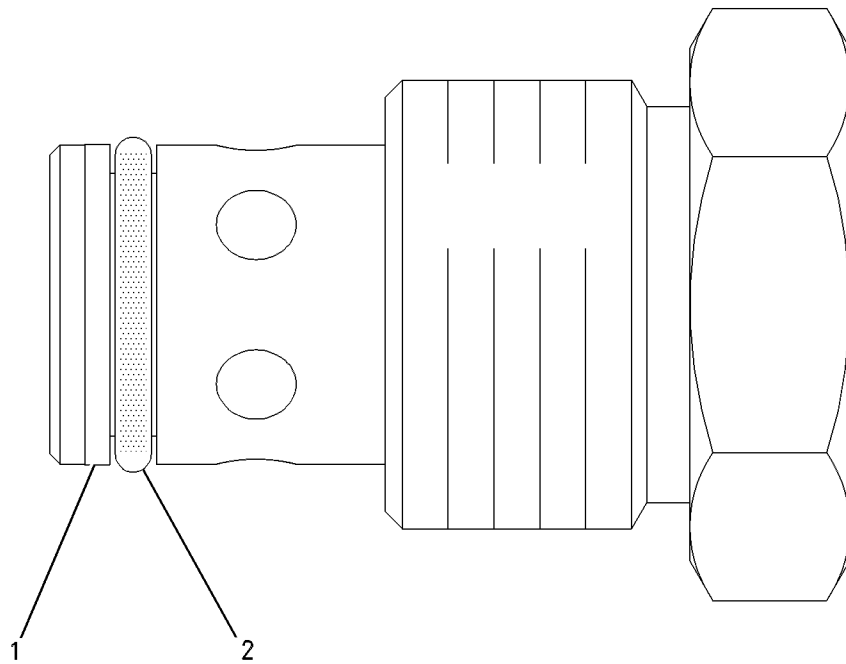
FUEL SYSTEM

156-5783 VALVE GP-CHECK PART OF 136-9495, 136-9496 LINES GP-FUEL AN ATTACHMENT

SMCS-1262

i01226449

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6V-6923	1	RING-BACKUP (13.16MM ID)						
	2	1	033-6033	1	SEAL-O-RING (12.42MM ID)						



GRAPHIC #1

g00655663

FUEL SYSTEM

102-7535 VALVE GP - PRESSURE CONTROL

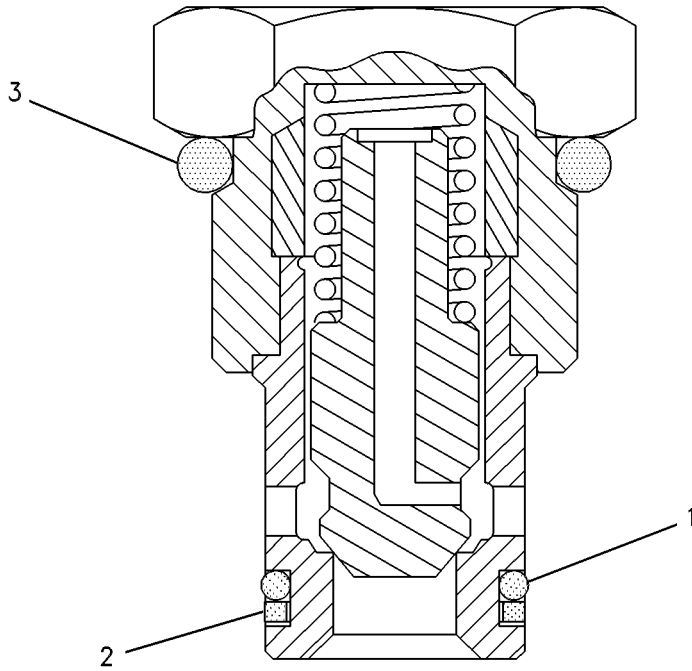
PART OF 136-9495, 136-9496 LINES GP - FUEL

AN ATTACHMENT

SMCS-1715

i01022640

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	033-6033	1	SEAL-O-RING (12.42MM ID)						
	2	1	6V-6923	1	RING-BACKUP (13.16MM ID)						
	3	1	6V-4589	1	SEAL-O-RING (19.18MM ID)						



GRAPHIC #1

g00278840

ELECTRICAL AND STARTING SYSTEM

118-9476 ADAPTER GP-SENSOR FOR USE WITH TRANSMISSION TEMPERATURE AND GEAR SENSORS AN ATTACHMENT

SMCS-1900

i01353416

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	9X-3271	1	ADAPTER (TRANSMISSION OIL TEMP SENSOR)						
	9X-0263	1	ADAPTER (TRANSMISSION OIL PRESS SENSOR)						
	6V-5049	1	SEAL-O-RING (11.89MM ID)						
	6V-5048	1	SEAL-O-RING (8.92MM ID)						

ELECTRICAL AND STARTING SYSTEM

4N-3986 ALTERNATOR GP-CHARGING*R

24 VOLT, 60 AMPERE
AN ATTACHMENT

SMCS-1405

i00778243

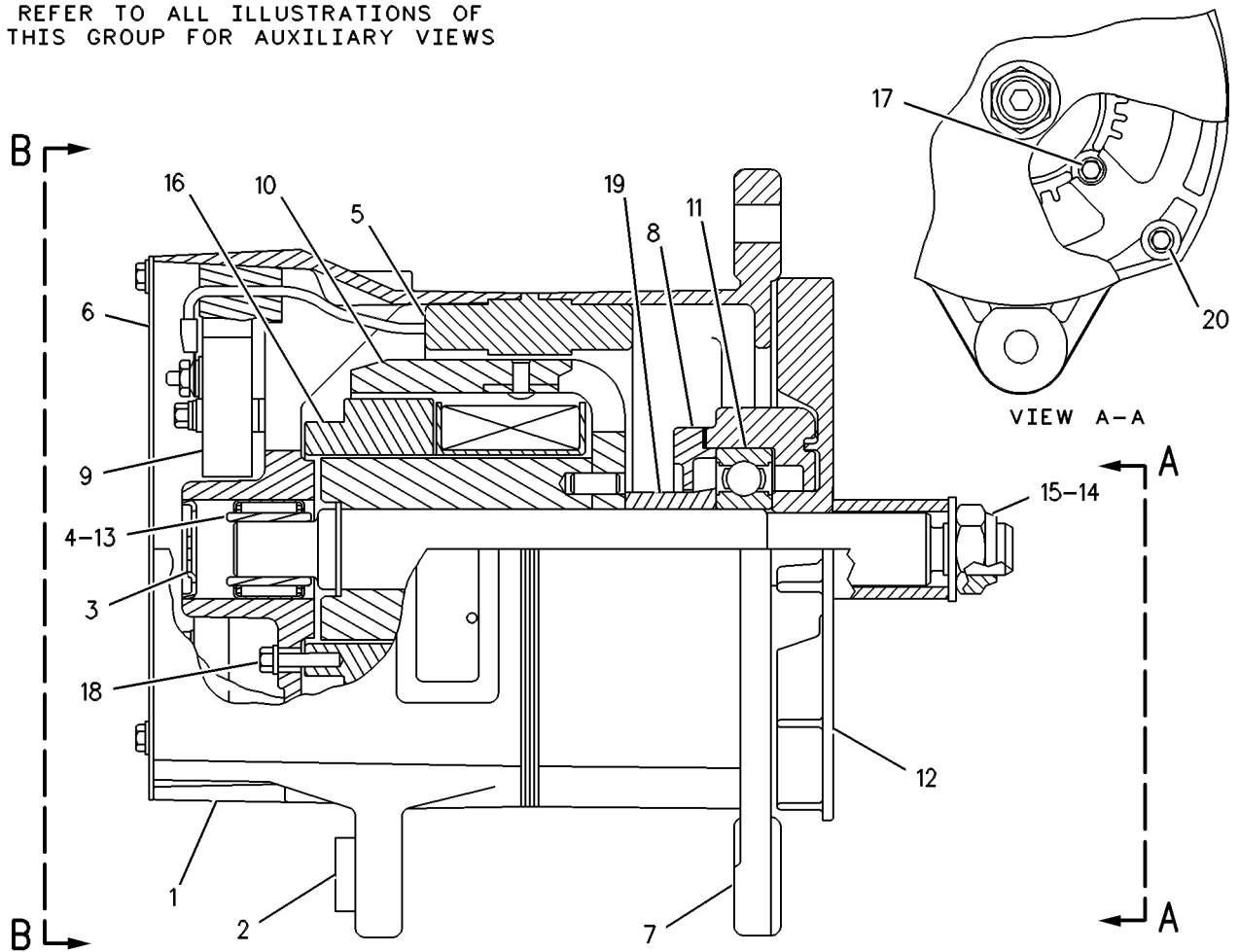
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6N-1876	1	HOUSING AS						
	2	1	9S-2396	1	BUSHING-TERMINAL						
	3	1	9N-0943	1	PLUG-BEARING WELL						
	4	1	5P-3418	1	BEARING-ROLLER						
	5	1	6N-1968	1	STATOR AS						
		1	9S-2014	3	CLIP						
		1	9N-0939	1	GROMMET						
	6	1	9N-0942	1	PLATE-COVER						
	7	1	2P-5616	1	FRAME-DRIVE END						
	8	1	9S-2390	1	RETAINER						
	9	1	9N-0937	1	RECTIFIER AS						
	10	1	9S-2302	1	ROTOR AS						
	11	1	5P-7807	1	BALL BEARING						
	12	1	100-6531	1	FAN-ALTERNATOR						
	13	1	5P-3419	1	RACE-BEARING INNER						
	14	1	7F-7621	1	WASHER						
	15	1	2K-4821	1	LOCKNUT (5/8-18 THD)						
	16	1	6N-1945	1	COIL AS-FIELD						
	17	1	9X-2500	4	SCREW-HEX FLANGE						
	18	1	9N-3388	5	LOCKSCREW						
	19	1	100-6532	1	COLLAR-ALTERNATOR						
	20	1	9S-2009	4	SCREW-HEAD						
	21	2	6N-1944	1	DIODE AS						
	22	2	6N-1870	2	SCREW AS						
		2	8M-6701	3	WASHER (12.7MM)						
		2	6N-1856	4	BUSHING-TERMINAL						
	23	2	8T-0328	2	WASHER-HARD (1MM THK)						
	24	2	9S-2544	7	SCREW-HEX HEAD						
	25	2	9B-7233	11	LOCKWASHER (NO.8)						
	26	2	4B-2043	4	NUT (8-32 THD)						
	27	2	6V-8187	2	NUT (1/4-28 THD)						
	28	2	1H-3244	2	LOCKWASHER (NO.14)						
	29	2	6N-1925	1	BRACKET						
	30	2	6N-1946	1	CAPACITOR AS						
	31	2	6N-1872	3	SCREW AS						
	32	2	3T-6354	1	REGULATOR AS						
	33	2	6N-1873	1	LEAD AS						
	34	2	2L-8075	3	TERMINAL (HORN)						
	35	2	8T-4205	2	WASHER-HARD (2MM THK)						
	36	2	6N-1871	1	LEAD AS						
					AVAILABLE REPAIR KIT(S) :						
			6N-1875	1	KIT-TERMINAL (INCLUDES TERMINAL, LOAD, BUSHING, WASHERS, NUTS AND LOCKWASHERS)						
			105-3762	1	KIT-ALTERNATOR TERMINAL (INCLUDES TERMINAL, INSULATOR, BUSHING, WASHER, NUTS AND LOCKWASHERS)						

ELECTRICAL AND STARTING SYSTEM

4N-3986 ALTERNATOR GP - CHARGING (contd.)

i00778243

REFER TO ALL ILLUSTRATIONS OF THIS GROUP FOR AUXILIARY VIEWS



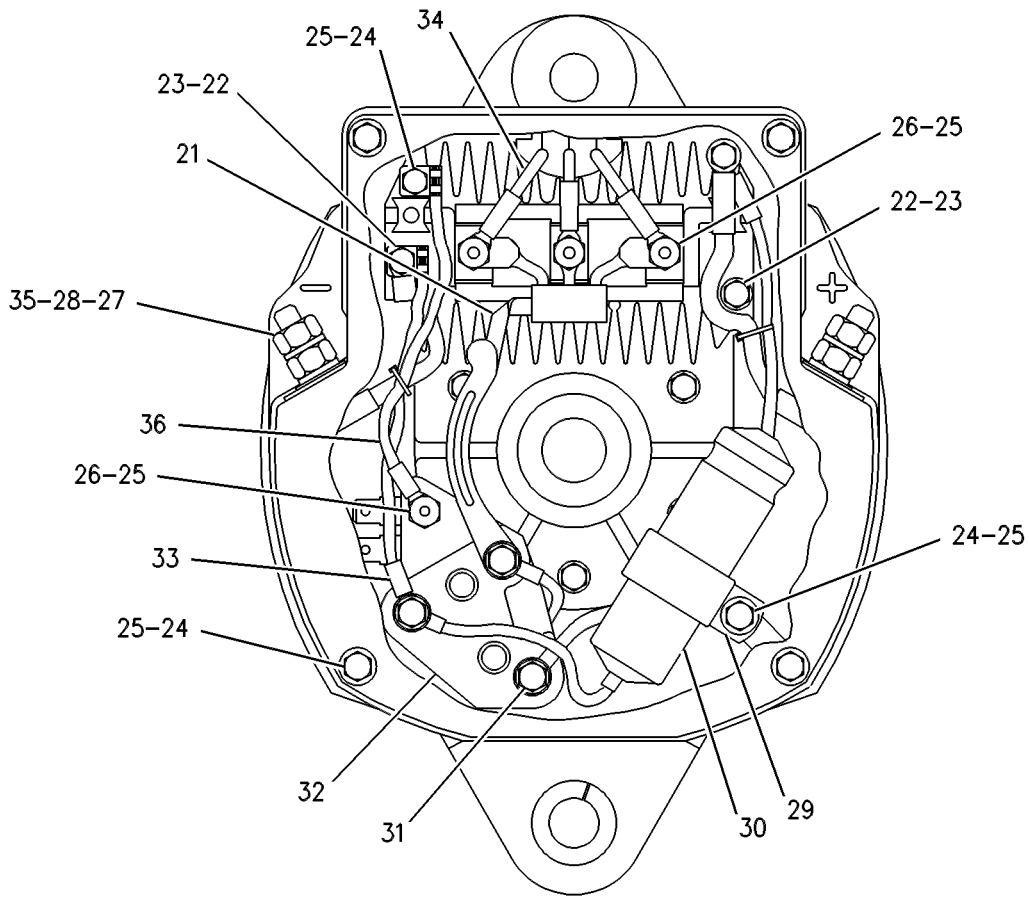
GRAPHIC #1

g00358207

ELECTRICAL AND STARTING SYSTEM

4N-3986 ALTERNATOR GP - CHARGING (contd.)

i00778243



VIEW B-B

GRAPHIC #2

g00358144

MEMORANDA

ELECTRICAL AND STARTING SYSTEM

6T-1395 ALTERNATOR GP-CHARGING*R

24 VOLT, 35 AMPERE
AN ATTACHMENT

SMCS-1405

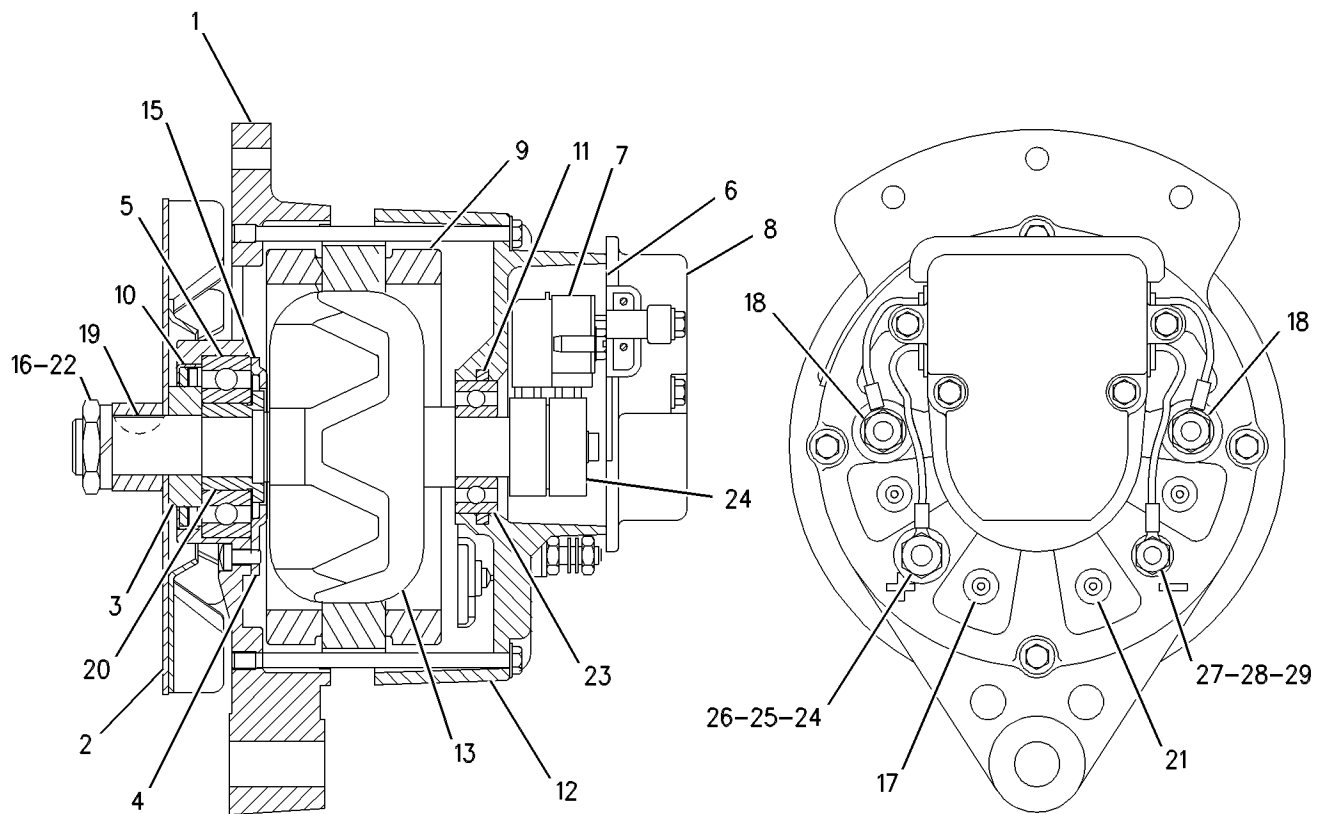
i01443195

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
1	1		8L-9655	1	HOUSING-FRONT						
2	1		8L-9661	1	FAN						
3	1		1N-9087	1	SPACER-FAN						
4	1		8L-9657	1	RETAINER-FRONT BEARING						
5	1		1S-7056	1	BALL BEARING						
6	1		8L-9362	1	GASKET-COVER						
7	1		6T-2031	1	BRUSH AS						
8	1		134-8278	1	REGULATOR KIT						
9	1		143-9760	1	STATOR AS						
10	1		8L-9663	1	SEAL-GREASE						
11	1		9G-5208	1	RETAINER-REAR BEARING						
12	1		6T-9446	1	HOUSING-REAR						
13	1		3N-1202	1	ROTOR AS						
			5P-6836	1	BEARING (DOUBLE SHIELD)						
			3K-6168	1	BOLT-SOCKET HEAD (10-32X.625 IN)						
			7H-2079	1	LOCKWASHER						
			3N-1223	1	WASHER						
14	1		6V-8185	1	NUT (1/4-20 THD)						
15	1		8L-9656	1	WASHER-BEARING SEAL						
16	1		6V-8645	1	NUT						
17	1		7T-0676	1	DIODE AS-POSITIVE (3 DIODE)						
18	1		7T-0895	2	CAP						
19	1		1B-8704	1	KEY-WOODRUFF						
20	1		8L-9654	1	SLEEVE-SHAFT						
21	1		7T-0677	1	DIODE AS-NEGATIVE (3 DIODE)						
22	1		3B-4510	1	LOCKWASHER						
23	1		5P-6836	1	BEARING (DOUBLE SHIELD)						
24	1		3N-1200	1	RING AS-SLIP						
25	1		8T-4205	1	WASHER-HARD (7.2X14.5X2MM THK)						
26	1		1H-3244	1	LOCKWASHER						
27	1		4B-2047	1	NUT (10-24 THD)						
28	1		8T-0328	1	WASHER-HARD (5.5X10X1MM THK)						
29	1		8F-1434	1	LOCKWASHER						
					AVAILABLE REPAIR KIT(S) :						
			140-3005	1	KIT-TERMINAL (INCL INSULATORS,NUTS, LOCKWASHERS, SCREWS,& WASHERS)						
			140-3004	1	KIT-HARDWARE (INCL BOLTS, LOCKWASHERS, NUTS, SCREWS, STRAPS, & WASHERS)						

ELECTRICAL AND STARTING SYSTEM

6T-1395 ALTERNATOR GP - CHARGING (contd.)

i01443195



GRAPHIC #1

g00282412

ELECTRICAL AND STARTING SYSTEM

6T-1396 ALTERNATOR GP-CHARGING*R

12 VOLT, 51 AMPERE
AN ATTACHMENT

SMCS-1405

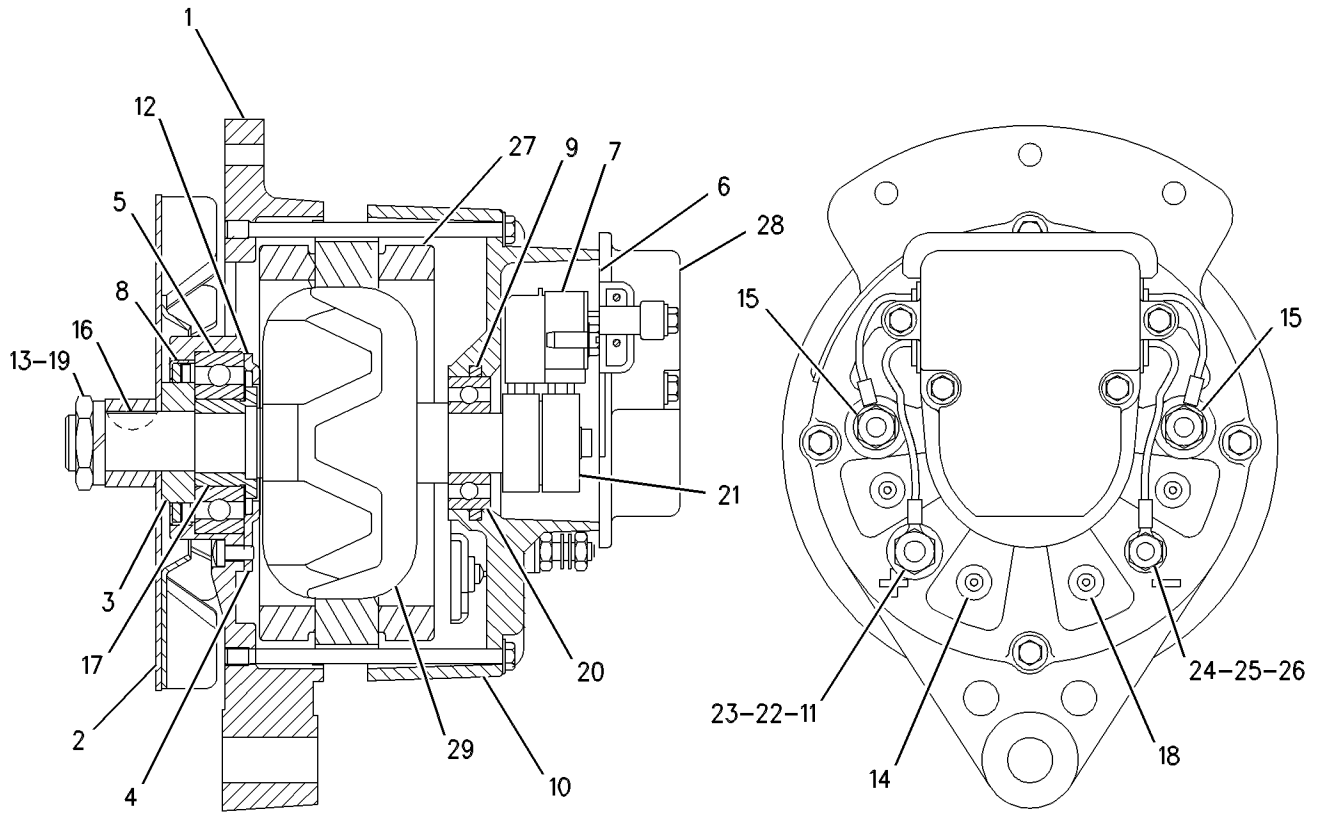
i01449123

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8L-9655	1	HOUSING-FRONT						
	2	1	8L-9661	1	FAN						
	3	1	1N-9087	1	SPACER-FAN						
	4	1	8L-9657	1	RETAINER-FRONT BEARING						
	5	1	1S-7056	1	BALL BEARING						
	6	1	8L-9362	1	GASKET-COVER						
	7	1	6T-2031	1	BRUSH AS						
	8	1	8L-9663	1	SEAL-GREASE						
	9	1	9G-5208	1	RETAINER-REAR BEARING						
	10	1	6T-9446	1	HOUSING-REAR						
	11	1	6V-8185	1	NUT (1/4-20 THD)						
	12	1	8L-9656	1	WASHER-BEARING SEAL						
	13	1	6V-8645	1	NUT						
	14	1	7T-0676	1	DIODE AS-POSITIVE (3 DIODE)						
	15	1	7T-0895	2	CAP						
	16	1	1B-8704	1	KEY-WOODRUFF						
	17	1	8L-9654	1	SLEEVE-SHAFT						
	18	1	7T-0677	1	DIODE AS-NEGATIVE (3 DIODE)						
	19	1	3B-4510	1	LOCKWASHER						
	20	1	5P-6836	1	BEARING (DOUBLE SHIELD)						
	21	1	3N-1200	1	RING AS-SLIP						
	22	1	8T-4205	1	WASHER-HARD (7.2X14.5X2MM THK)						
	23	1	1H-3244	1	LOCKWASHER						
	24	1	4B-2047	1	NUT (10-24 THD)						
	25	1	8T-0328	1	WASHER-HARD (5.5X10X1MM THK)						
	26	1	8F-1434	1	LOCKWASHER						
	27	1	143-9759	1	STATOR AS						
	28	1	134-8277	1	KIT-REGULATOR						
	29	1	3N-1203	1	ROTOR AS						
		1	5P-6836	1	BEARING (DOUBLE SHIELD)						
		1	3K-6168	1	BOLT-SOCKET HEAD (10-32X.625 IN)						
		1	7H-2079	1	LOCKWASHER						
		1	3N-1223	1	WASHER						
					AVAILABLE REPAIR KIT(S) :						
			140-3004	1	KIT-HARDWARE (INCL. BOLTS, NUTS, KEY LOCKWASHERS, & SCREWS)						
			140-3005	1	KIT-TERMINAL (INCL. CAP, SLEEVES, NUTS, INSULATORS, & WASHERS)						

ELECTRICAL AND STARTING SYSTEM

6T-1396 ALTERNATOR GP - CHARGING (contd.)

i01449123



GRAPHIC #1

g00282513

ELECTRICAL AND STARTING SYSTEM

8C-6163 ALTERNATOR GP-CHARGING

12 VOLT, 105 AMPERE
AN ATTACHMENT

SMCS-1405

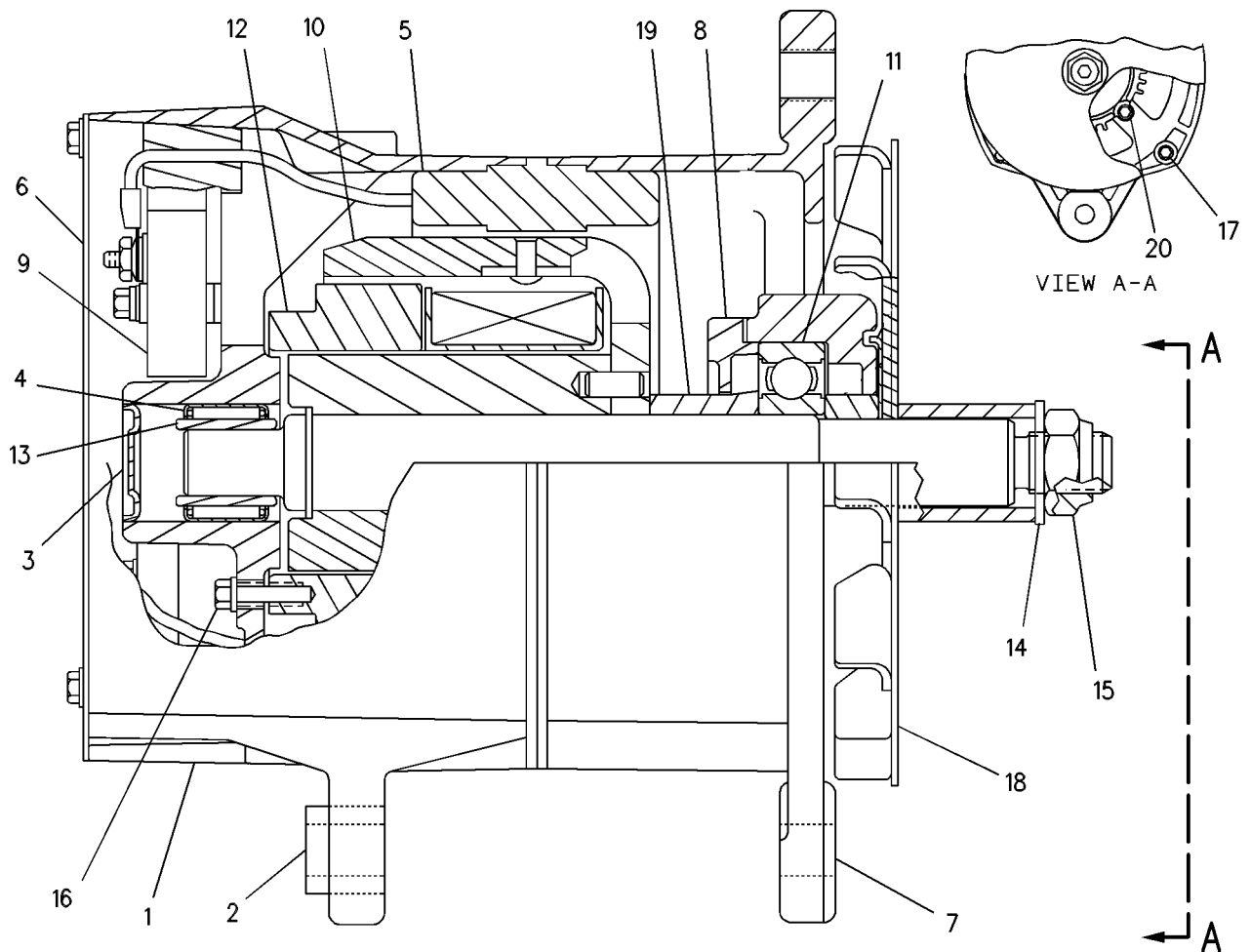
i00993708

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6N-1876	1	HOUSING AS						
	2	1	9S-2396	1	BUSHING-TERMINAL						
	3	1	9N-0943	1	PLUG-BEARING WELL						
	4	1	5P-3418	1	BEARING-ROLLER						
	5	1	8T-9762	1	STATOR AS						
	6	1	9N-0942	1	PLATE-COVER						
	7	1	2P-5616	1	FRAME-DRIVE END						
	8	1	9S-2390	1	RETAINER						
	9	1	9N-0937	1	RECTIFIER AS						
	10	1	9S-2302	1	ROTOR AS						
	11	1	5P-7807	1	BALL BEARING						
	12	1	9W-4065	1	COIL AS-FIELD						
	13	1	5P-3419	1	RACE-BEARING INNER						
	14	1	7F-7621	1	WASHER						
	15	1	2K-4821	1	LOCKNUT (5/8-18 THD)						
	16	1	9N-3388	5	LOCKSCREW						
	17	1	9S-2009	4	SCREW-HEAD						
	18	1	100-6531	1	FAN-ALTERNATOR						
	19	1	100-6532	1	COLLAR-ALTERNATOR						
	20	1	9X-2500	4	SCREW-HEX FLANGE						
	21	2	6N-1944	1	DIODE AS						
	22	2	6N-1870	2	SCREW AS						
		2	8M-6701	3	WASHER (12.7MM .5IN OD)						
		2	6N-1856	4	BUSHING-TERMINAL						
	23	2	8T-0328	2	WASHER-HARD (1MM THK)						
	24	2	9S-2544	3	SCREW-HEX HEAD						
		2	9B-7233	7	LOCKWASHER (NO.8)						
	25	2	6N-1871	1	LEAD AS						
	26	2	4B-2043	4	NUT (8-32 THD)						
	27	2	6V-8187	2	NUT (1/4-28 THD)						
	28	2	1H-3244	2	LOCKWASHER (NO.14)						
	29	2	6N-1925	1	BRACKET						
	30	2	6N-1946	1	CAPACITOR AS						
	31	2	6N-1872	3	SCREW AS						
	32	2	3E-5451	1	REGULATOR AS						
	33	2	6N-1873	1	LEAD AS						
	34	2	2L-8075	3	TERMINAL (HORN)						
	35	2	8T-4205	2	WASHER-HARD (2MM THK)						
	36	2	030-9612	4	SCREW-FORMING						
					AVAILABLE REPAIR KIT(S) :						
			6N-1875	1	KIT-TERMINAL						
					(INCLUDES TERMINAL LOAD, BUSHING, WASHERS, NUTS & LOCKWASHERS)						
			105-3762	1	KIT-ALTERNATOR TERMINAL						
					(INCLUDES TERMINAL, INSULATOR, BUSHING, WASHER, NUTS & LOCKWASHERS)						

ELECTRICAL AND STARTING SYSTEM

8C-6163 ALTERNATOR GP - CHARGING (contd.)

i00993708



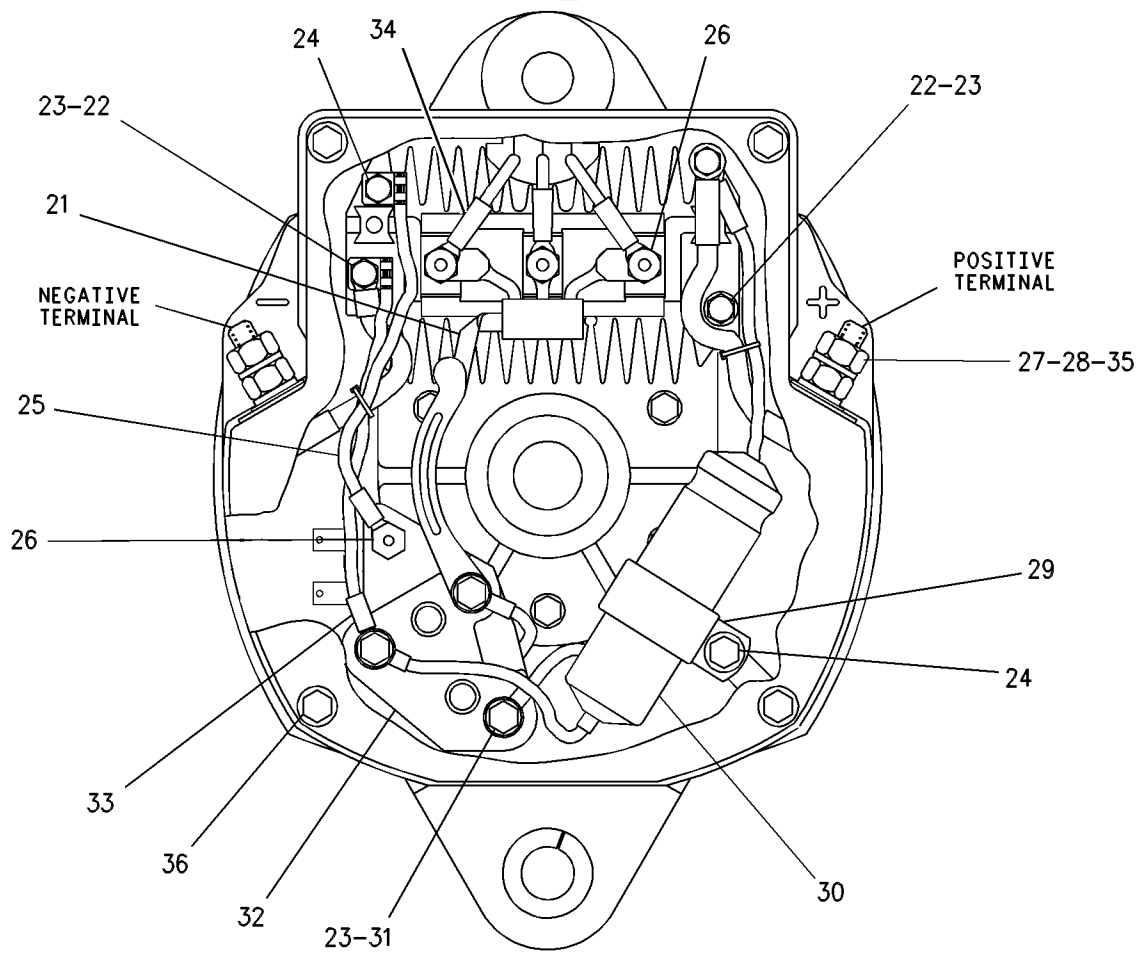
GRAPHIC #1

g00364335

ELECTRICAL AND STARTING SYSTEM

8C-6163 ALTERNATOR GP - CHARGING (contd.)

i00993708



GRAPHIC #2

g00507023

ELECTRICAL AND STARTING SYSTEM

7W-0408 BATTERY CHARGER

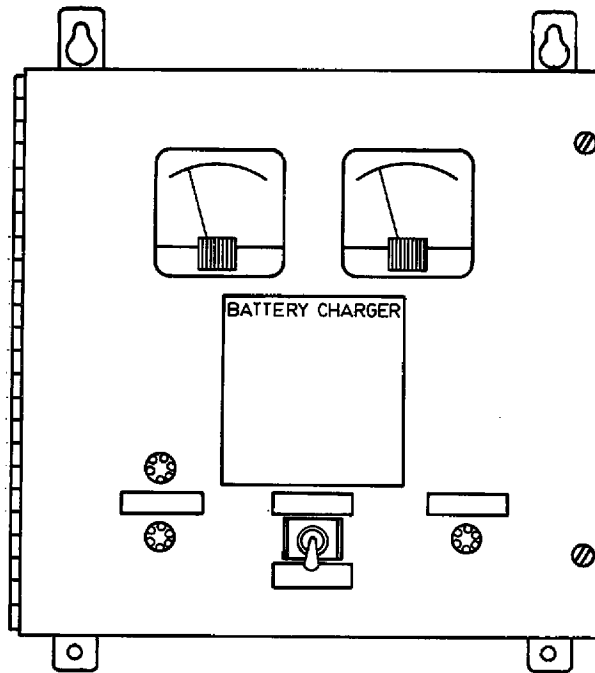
24 VOLT DC

FOR USE WITH EITHER LEAD ACID OR NICAD BATTERY
AN ATTACHMENT

SMCS-1401, 1406

i01390768

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
(NO SERVICED PARTS)						



GRAPHIC #1

g00733001

ELECTRICAL AND STARTING SYSTEM

7C-1899 BATTERY GP

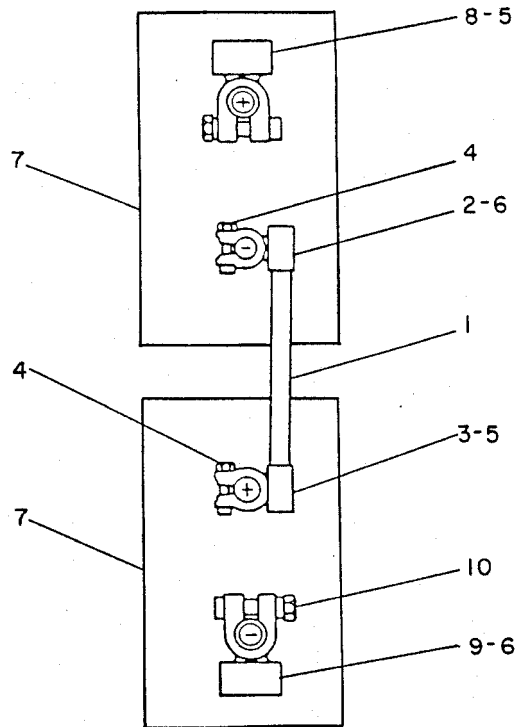
24 VOLT, 66 AMPERE
FOR USE WITH BATTERY SUPPORT
AN ATTACHMENT

SMCS-1401

i01010177

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2V-7397	1	CABLE AS						
BE		1	5P-0747		CABLE (OOGA)						
	2	1	5M-9205	1	TERMINAL AS (NEG)						
	3	1	5M-9204	1	TERMINAL AS (POS)						
					(EACH TERMINAL AS INCLUDES)						
	4	1	1M-6119	1	BOLT-BATTERY TERMINAL (5/16-18X1.375IN)						
		1	1M-6120	1	NUT-BATTERY TERMINAL (5/16-18 THD)						
	5	1	9G-0004	2	COVER (RED)						
	6	1	9G-0003	2	COVER (BLACK)						
	7	1	3T-5857	2	BATTERY (12 VOLT)						
	8	1	5M-9204	1	TERMINAL AS (POS)						
	9	1	5M-9205	1	TERMINAL AS (NEG)						
					(EACH TERMINAL AS INCLUDES)						
	10	1	1M-6119	1	BOLT-BATTERY TERMINAL (5/16-18X1.375IN)						
		1	1M-6120	1	NUT-BATTERY TERMINAL (5/16-18 THD)						

B-USE AS REQUIRED
E-ORDER BY THE CENTIMETER



GRAPHIC #1

g00185831

ELECTRICAL AND STARTING SYSTEM

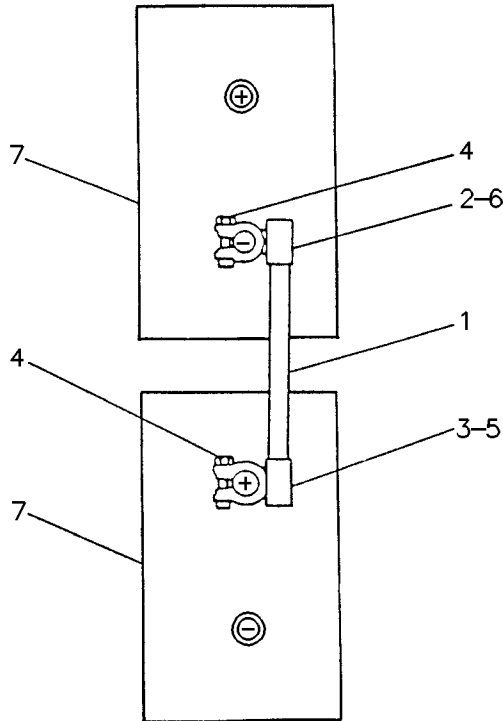
7C-1900 BATTERY GP 24 VOLT, 100 AMPERE FOR USE WITH BATTERY SUPPORT AN ATTACHMENT

SMCS-1401

i01294545

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2V-7397	1	CABLE AS						
BE		1	5P-0747		CABLE (00GA) (20CM)						
	2	1	5M-9205	1	TERMINAL AS (NEG)						
	3	1	5M-9204	1	TERMINAL AS (POS)						
					(EACH TERMINAL AS INCLUDES)						
	4	1	1M-6119	1	BOLT (5/16-18X1.375IN)						
		1	1M-6120	1	NUT-BATTERY TERMINAL (5/16-18 THD)						
	5	1	9G-0004	2	COVER (RED)						
	6	1	9G-0003	2	COVER (BLACK)						
	7	1	3T-5760	2	BATTERY (12 VOLT 750 AMP) (LOW MAINTENANCE)						

B-USE AS REQUIRED
E-ORDER BY THE CENTIMETER



GRAPHIC #1

g00214497

ELECTRICAL AND STARTING SYSTEM

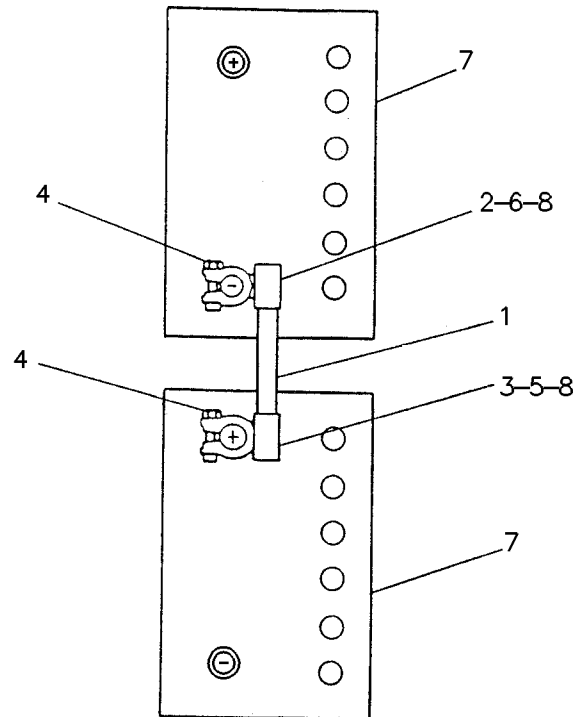
7C-1977 BATTERY GP 24 VOLT, 92 AMPERE. LOW MAINTENANCE FOR USE WITH BATTERY SUPPORT AN ATTACHMENT

SMCS-1401

i01400418

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2V-7397	1	CABLE AS						
BE		1	5P-0747		CABLE (00GA) (20CM)						
	2	1	5M-9205	1	TERMINAL AS (NEG)						
	3	1	5M-9204	1	TERMINAL AS (POS)						
					(EACH TERMINAL AS INCLUDES)						
	4	1	1M-6119	1	BOLT-BATTERY TERMINAL (5/16-18X1.375 IN)						
		1	1M-6120	1	NUT-BATTERY TERMINAL (5/16-18 THD)						
	5	1	9G-0004	2	COVER-TERMINAL (RED/RH POS)						
	6	1	9G-0003	2	COVER-TERMINAL (BLACK/LH NEG)						
	7	1	9G-4233	2	BATTERY (12 VOLT) (DRY)						
					(EACH INCLUDES)						
		1	7N-0060	6	VENT AS						
	8	1	8L-8413	4	STRAP-CABLE						

B- USE AS REQUIRED
E- ORDER BY THE CENTIMETER



GRAPHIC #1

g00216211

ELECTRICAL AND STARTING SYSTEM

7L-7871 BATTERY GP

24 VOLT, 172 AMPERE

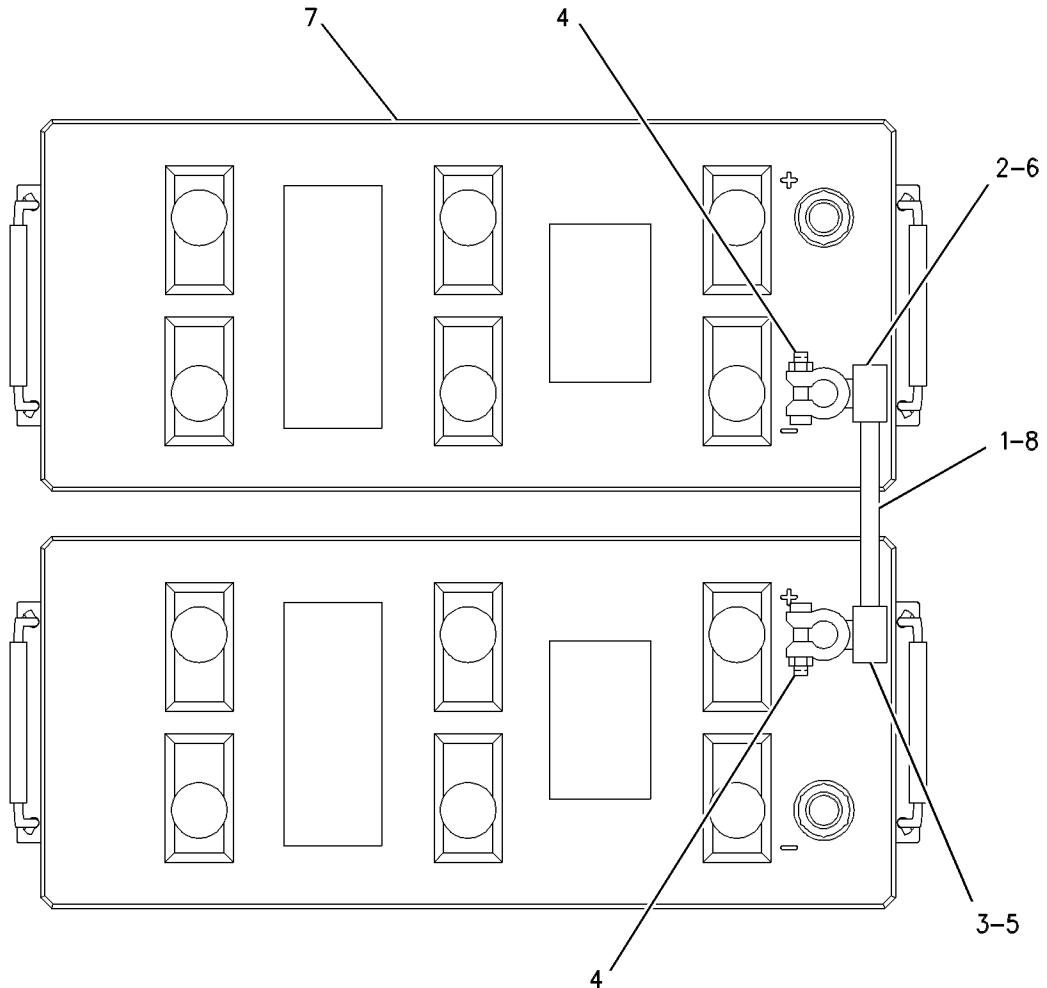
AN ATTACHMENT

SMCS-1401

i01166995

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2V-7397	1	CABLE AS						
E		1	5P-0747		CABLE (00GA) (20CM)						
	2	1	8T-9757	1	TERMINAL AS (NEG)						
	3	1	8C-5917	1	TERMINAL AS (POS)						
	4	1	1M-6119	2	BOLT (5/16-18X1.375IN)						
		1	1M-6120	2	NUT-BATTERY TERMINAL (5/16-18 THD)						
	5	1	9G-0004	2	COVER (RED)						
	6	1	9G-0003	2	COVER (BLACK)						
C	7	1	9X-9720	2	BATTERY (12 VOLT)						
	8	1	8L-8413	2	STRAP-CABLE (1.12IN DIA)						

C- CHANGE FROM PREVIOUS TYPE
E- ORDER BY THE CENTIMETER



GRAPHIC #1

g00621897

ELECTRICAL AND STARTING SYSTEM

7L-7872 BATTERY GP

24 VOLT, 220 AMPERE

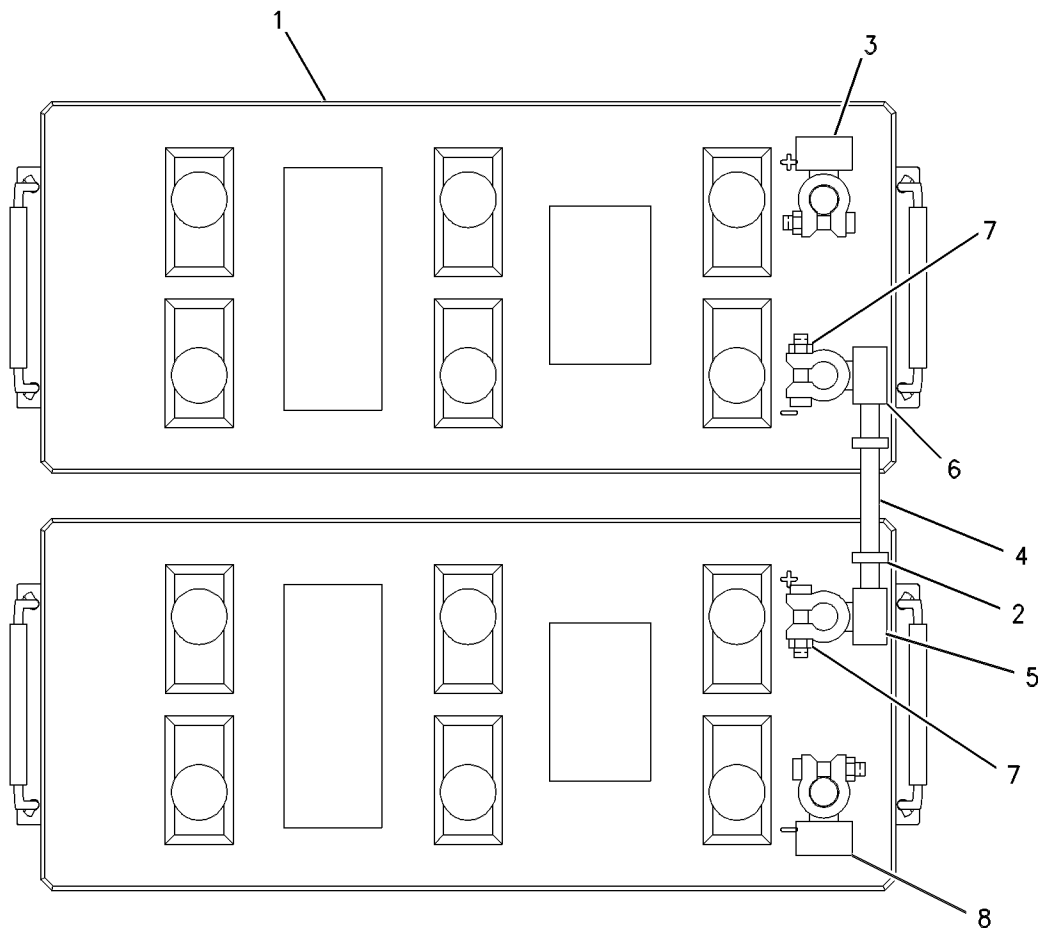
FOR USE WITH BATTERY SUPPORT AND DISCONNECT SWITCH
AN ATTACHMENT

SMCS-1401

i01382633

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
C	1	1	9X-9730	2	BATTERY (12 VOLT/DRY)						
					(EACH INCLUDES)						
		1	7N-0060	6	VENT AS						
C	2	1	8L-8413	2	STRAP-CABLE (1.12IN DIA)						
C	3	1	9G-0004	2	COVER-TERMINAL (RED/RH POS)						
C	4	1	2V-7397	1	CABLE AS						
BE		1	5P-0747		CABLE (00GA) (20CM)						
	5	1	5M-9204	1	TERMINAL AS (POS)						
	6	1	5M-9205	1	TERMINAL AS (NEG)						
					(EACH TERMINAL AS INCLUDES)						
	7	1	1M-6119	1	BOLT-BATTERY TERMINAL (5/16-18X1.375 IN)						
		1	1M-6120	1	NUT-BATTERY TERMINAL (5/16-18 THD)						
C	8	1	9G-0003	2	COVER-TERMINAL (BLACK/LH NEG)						

B - USE AS REQUIRED
C - CHANGE FROM PREVIOUS TYPE
E - ORDER BY THE CENTIMETER



GRAPHIC #1

g00622754

ELECTRICAL AND STARTING SYSTEM

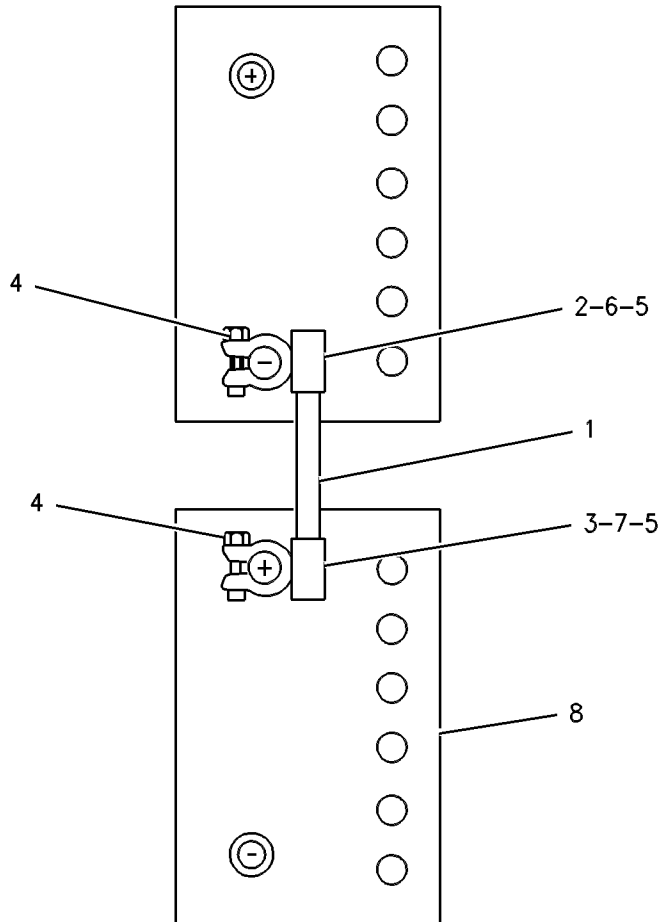
160-5447 BATTERY GP 24 VOLT, 90 AMPERE. LOW MAINTENANCE AN ATTACHMENT

SMCS-1401

i01294560

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2V-7397	1	CABLE AS						
BE		1	5P-0747		CABLE (00GA) (20 CM)						
	2	1	8T-9757	1	TERMINAL AS						
	3	1	8C-5917	1	TERMINAL AS						
	4	1	1M-6119	2	BOLT (5/16-18X1.375IN)						
		1	1M-6120	2	NUT-BATTERY TERMINAL (5/16-18 THD)						
	5	1	8L-8413	4	STRAP-CABLE (1.12IN DIA)						
	6	1	9G-0003	2	COVER (BLACK)						
	7	1	9G-0004	2	COVER (RED)						
	8	1	115-2421	2	BATTERY (LOW MAINTENANCE) (12 VOLT) (EACH INCLUDES)						
		1	123-1373	6	PLUG AS-FILLER						

B-USE AS REQUIRED
E-ORDER BY THE CENTIMETER



GRAPHIC #1

g00436618

ELECTRICAL AND STARTING SYSTEM

165-0202 CABLE AS-EXTENSION

3 PIN

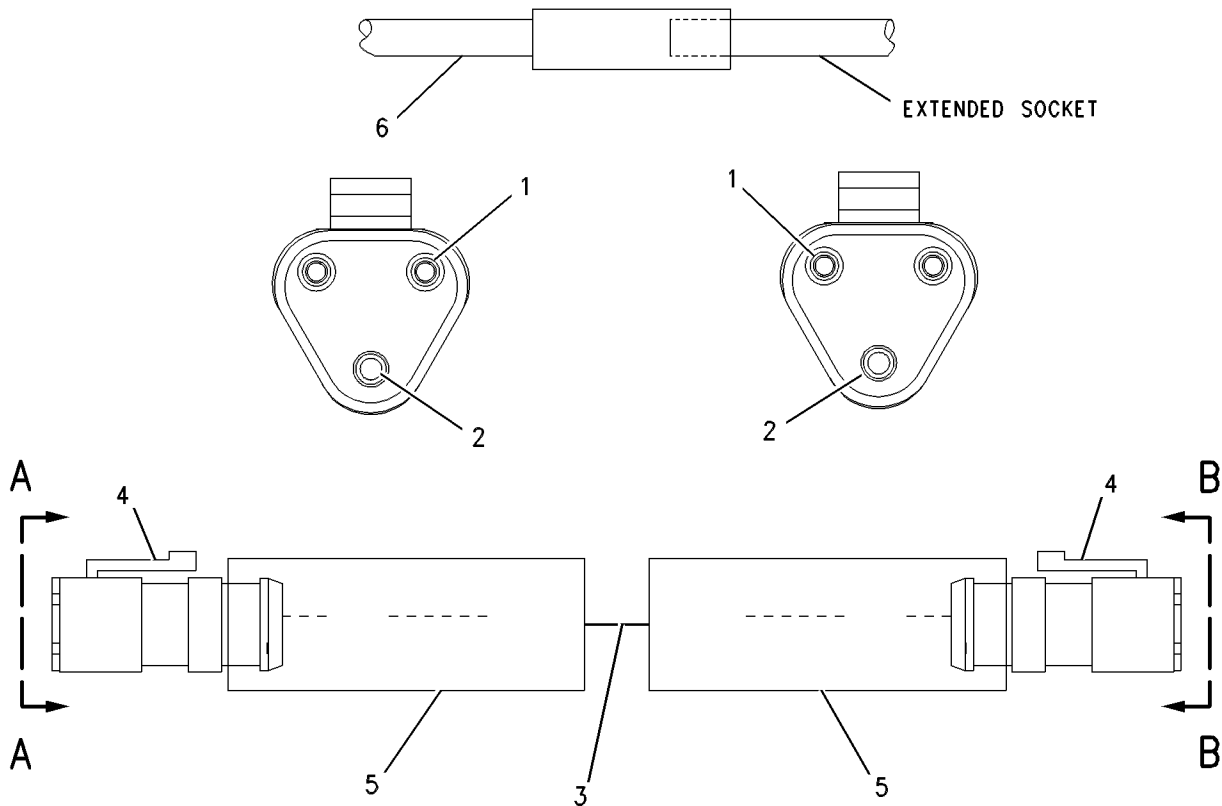
FOR USE WITH 165-0199-PAGE 377
AN ATTACHMENT

SMCS-4459

i01095194

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-8730	4	SOCKET - CONNECTOR						
	2	1	133-0969	2	CONNECTOR - SOCKET						
E	3	1	153-2707		CABLE (3990CM)						
	4	1	148-5390	2	KIT - CONNECTING PLUG						
F		1	102-8813	1	SEAL - INTERFACE						
E	5	1	125-7876		TUBE - SHRINKABLE (10CM)						
D	6	1	5P-0702		TUBE - SHRINKABLE (1DM)						

D - ORDER BY THE METER
E - ORDER BY THE CENTIMETER
F - NOT SHOWN



GRAPHIC #1

g00565346

ELECTRICAL AND STARTING SYSTEM

141-6172 CIRCUIT BREAKER GP

FOR USE WITH 12 VOLT, 51 AMPERE ALTERNATOR
AN ATTACHMENT

SMCS-1420, 4461

i01159007

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	6T-3645	1	CIRCUIT BREAKER (60 AMP)						
	9X-8486	2	SCREW-MACHINE (8-32X.75IN)						

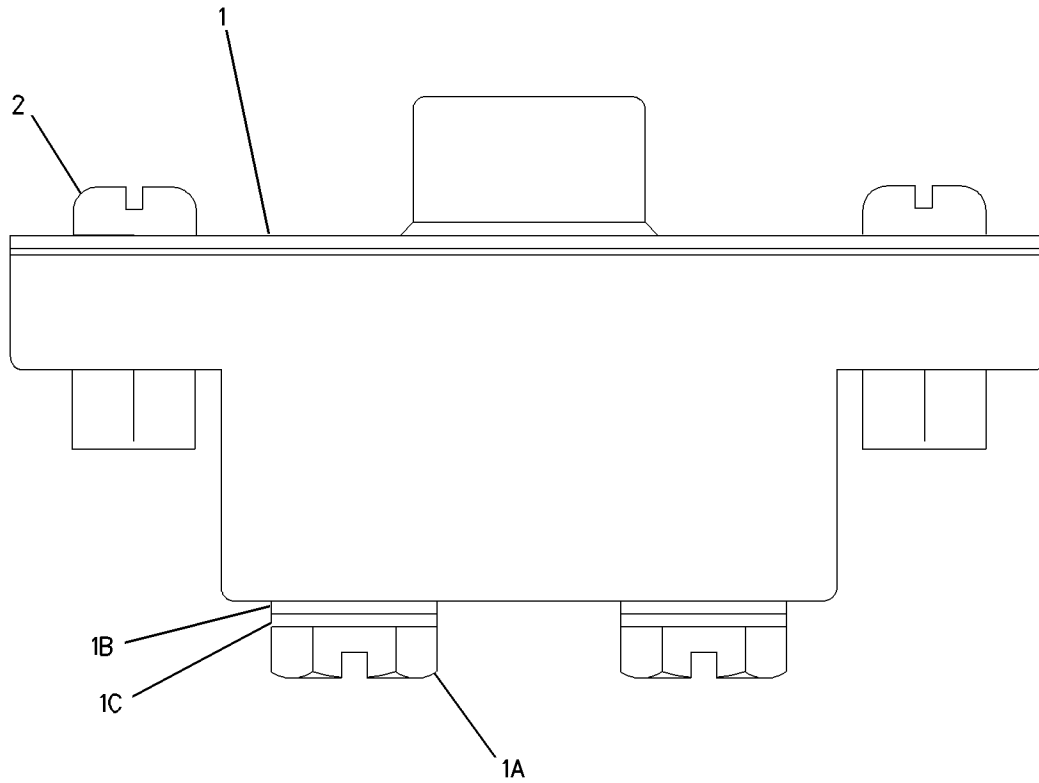
ELECTRICAL AND STARTING SYSTEM

141-6173 CIRCUIT BREAKER GP FOR USE WITH 12 VOLT, 105 AMPERE ALTERNATOR AN ATTACHMENT

SMCS-1420, 4461

i01364949

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	135-7893	1	CIRCUIT BREAKER AS (135 AMP)						
	1A	1	7X-3182	2	BOLT (1/4-28X.5IN)						
	1B	1	1H-3244	2	LOCKWASHER (NO.14)						
	1C	1	8T-4205	2	WASHER-HARD (2MM THK)						
	2	1	030-1193	2	SCREW-MACHINE						



GRAPHIC #1

g00720513

ELECTRICAL AND STARTING SYSTEM

141-6174 CIRCUIT BREAKER GP

FOR USE WITH 24 VOLT, 35 AMPERE ALTERNATOR
AN ATTACHMENT

SMCS-1420, 4461

i00670472

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	9Y-0951	1	CIRCUIT BREAKER AS (40 AMP)						
	9X-8486	2	SCREW-MACHINE (8-32X.75IN)						

ELECTRICAL AND STARTING SYSTEM

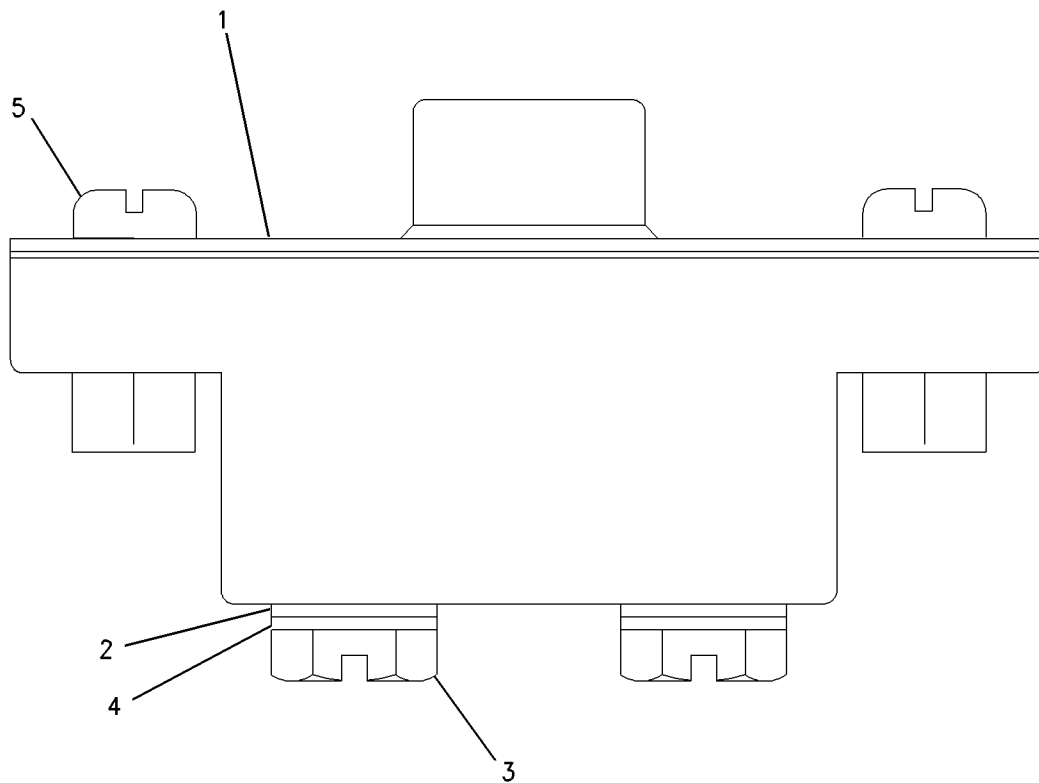
141-6175 CIRCUIT BREAKER GP

FOR USE WITH 24 VOLT, 60 AMPERE ALTERNATOR
AN ATTACHMENT

SMCS-1420, 4461

i01364965

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	135-8270	1	CIRCUIT BREAKER AS (70 AMP)						
	2	1	1H-3244	2	LOCKWASHER (NO.14)						
	3	1	7X-3182	2	BOLT (1/4-28X.5IN)						
	4	1	8T-4205	2	WASHER-HARD (2MM THK)						
	5	1	030-1193	2	SCREW-MACHINE						



GRAPHIC #1

g00720179

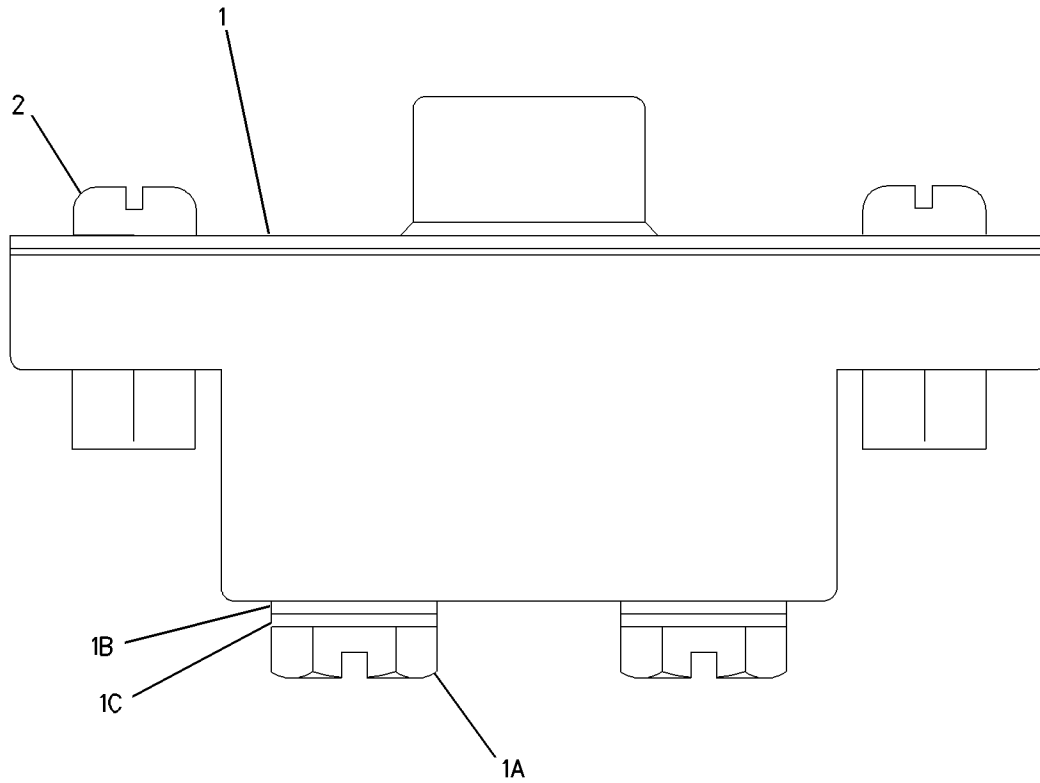
ELECTRICAL AND STARTING SYSTEM

177-0254 CIRCUIT BREAKER GP FOR USE WITH 24 VOLT, 35 AMPERE ALTERNATORS AN ATTACHMENT

SMCS-1420, 4461

i01364967

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2H-1507	1	CIRCUIT BREAKER AS (40 AMP)						
	1A	1	7X-3182	2	BOLT (1/4-28X.5IN)						
	1B	1	1H-3244	2	LOCKWASHER (NO.14)						
	1C	1	8T-4205	2	WASHER-HARD (2MM THK)						
	2	1	030-1193	2	SCREW-MACHINE						



GRAPHIC #1

g00720513

ELECTRICAL AND STARTING SYSTEM

137-6814 CONNECTION GP-ELECTRICAL

AN ATTACHMENT

SMCS - 1408

i00943319

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	8T-8729	3	PIN-CONNECTOR						
	8T-9834	1	PLUG AS-CONNECTOR						
	3E-4367	1	RING-RETAINING						
M	3E-8557	1	BOLT						
	9X-3132	2	SEAL-CONNECTOR						
	8T-8737	36	PLUG-SEAL						
	8T-8732	1	RECEPTACLE-CONNECTOR						
	8T-8730	33	SOCKET-CONNECTOR						

M-METRIC PART

ELECTRICAL AND STARTING SYSTEM

129-9193 CONTROL & MTG GP-ENGINE ELEK

FOR USE WITH ENGINES WITHOUT LH MOUNTED BLOCK SOUND PANEL

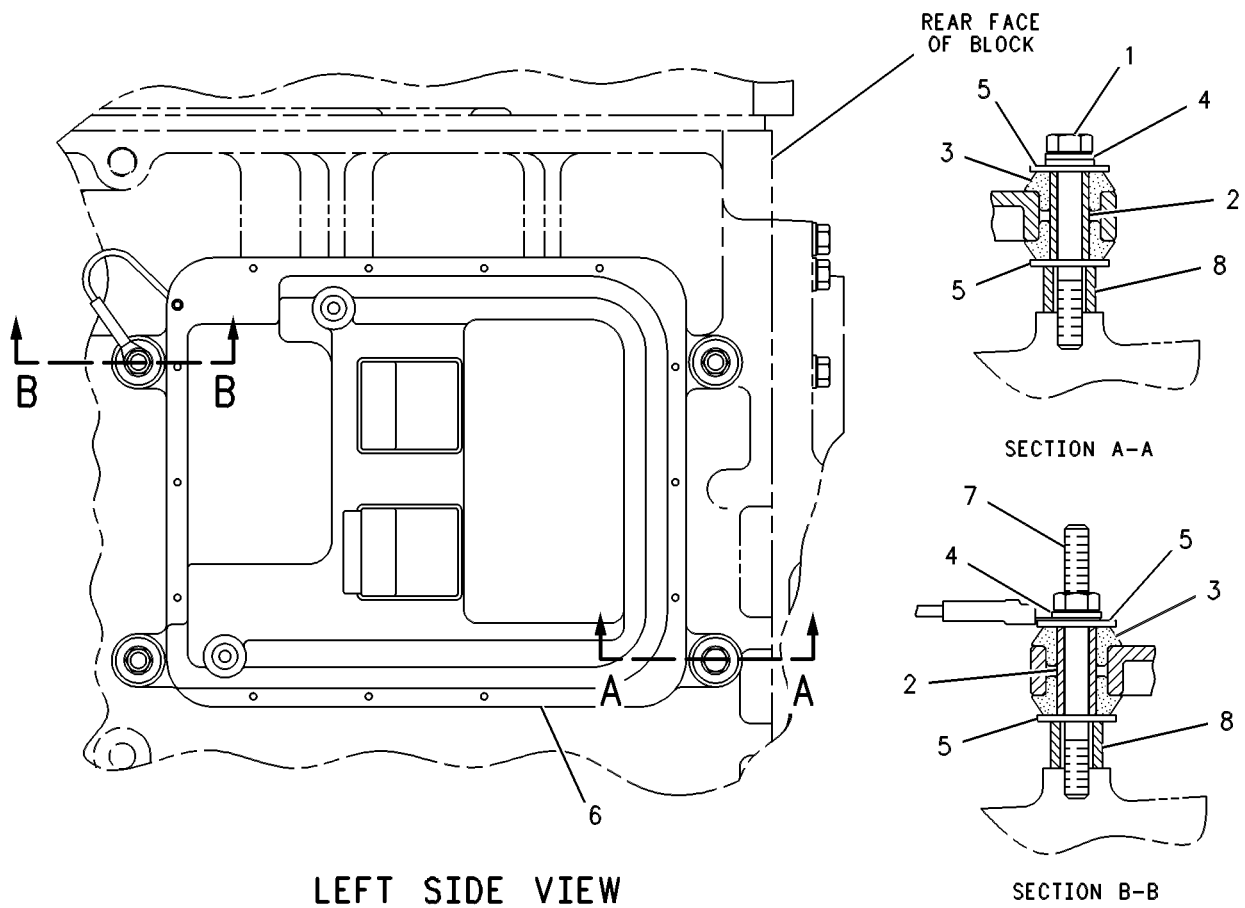
AN ATTACHMENT

SMCS-1900, 1901

i00671621

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1D-4539	1	BOLT (5/16-18X2.5IN)						
	2	1	6I-1418	4	SPACER						
	3	1	8T-9655	8	MOUNT						
	4	1	9M-1974	5	WASHER-HARD (2MM THK)						
	5	1	9N-0869	8	WASHER (2MM THK)						
Y	6	1	115-3055	1	CONTROL GP-ENGINE ELECTRONIC						286
	7	1	127-1570	3	STUD-BOLT						
	8	1	127-1991	4	SPACER						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00263277

ELECTRICAL AND STARTING SYSTEM

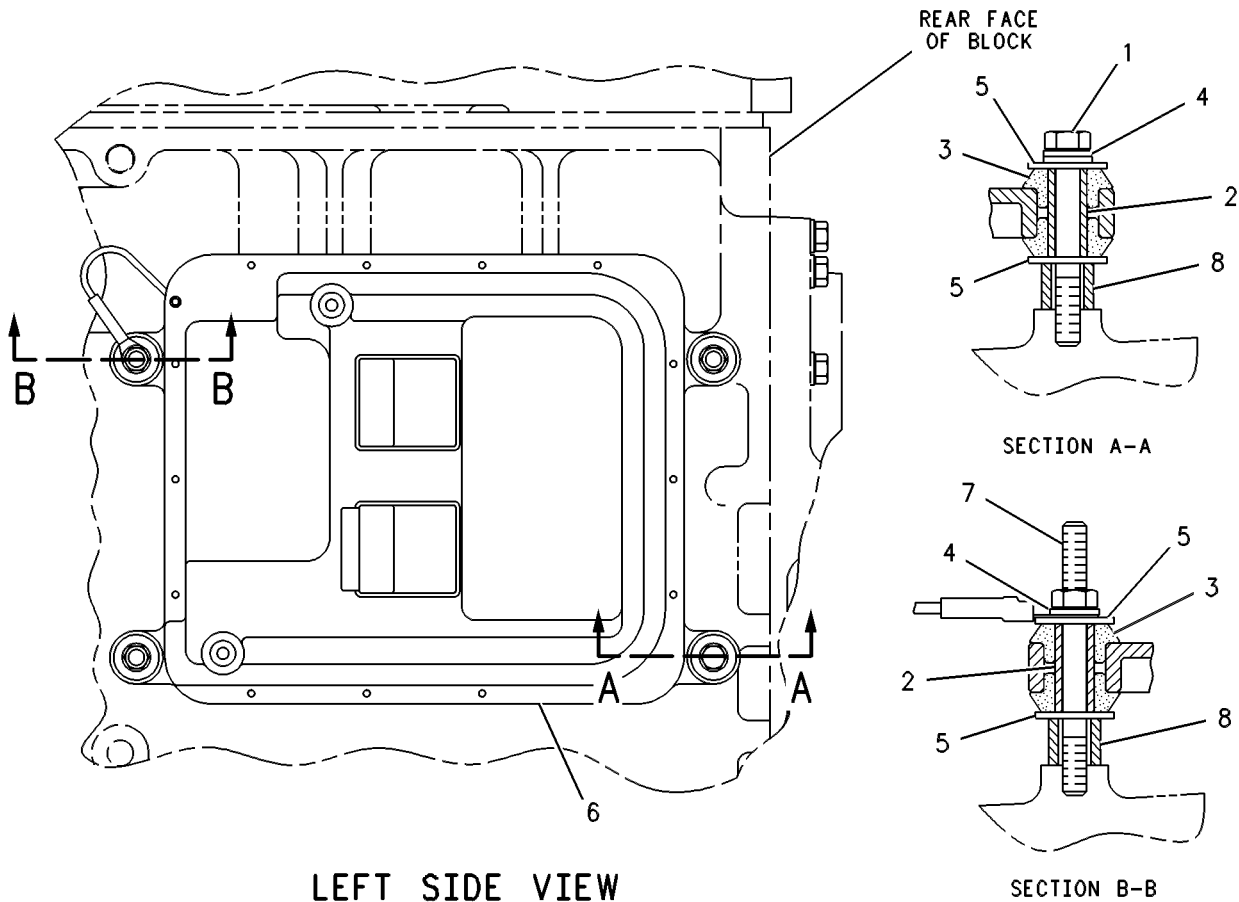
151-2415 CONTROL & MTG GP-ENGINE ELEK

PROVIDES 6X ECN CAPABLE OF SUPPORTING POWER DISPLAY
AN ATTACHMENT

SMCS-1900, 1901

i00964965

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1D-4539	1	BOLT (5/16-18X2.5IN)						
	2	1	6I-1418	4	SPACER						
	3	1	8T-9655	8	MOUNT						
	4	1	9M-1974	5	WASHER-HARD (2MM THK)						
	5	1	9N-0869	8	WASHER (2MM THK)						
	6	1	118-7630	1	CONTROL GP-ENGINE ELECTRONIC						
	7	1	127-1570	3	STUD-BOLT						
	8	1	127-1991	4	SPACER						



GRAPHIC #1

g00263277

MEMORANDA

ELECTRICAL AND STARTING SYSTEM

131-6202 CONTROL GP-AUTO START/STOP FOR USE WITH AIR START MOTOR ON DITA AND DITTA ENGINES ONLY AN ATTACHMENT

SMCS-1426, 4462

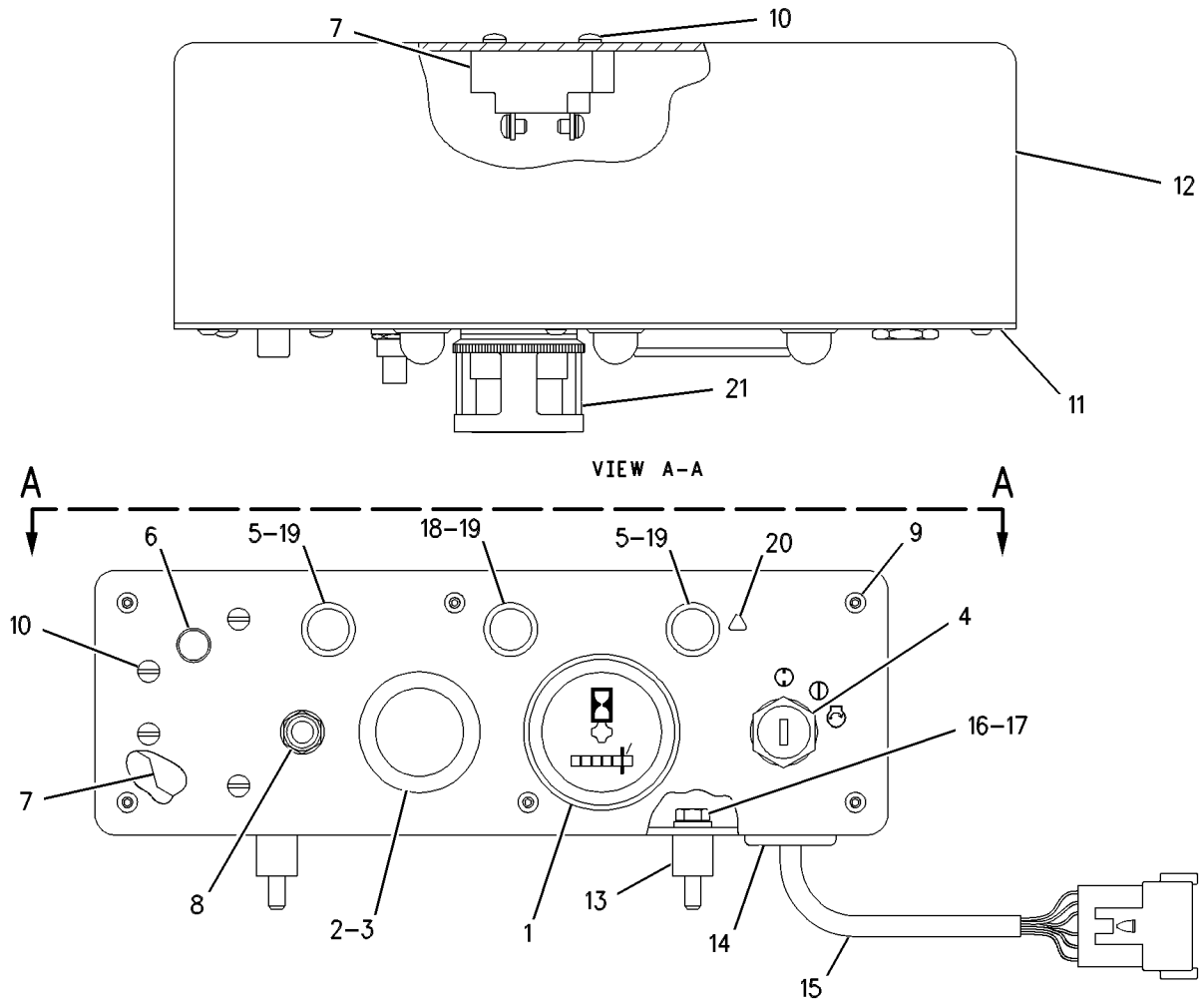
i01184302

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9W-1494	1	KIT-SERVICE METER (INCLUDES SERVICE METER AND FILM)						
	2	1	109-6507	1	SWITCH-OPERATOR (STOP)						
	3	1	111-1325	1	BLOCK-CONTACT						
	4	1	110-7887	1	SWITCH AS-START						
		1	3E-3377	1	WEDGE-RECEPTACLE LOCK						
		1	7T-6799	1	NUT-MOUNTING						
		1	8T-8729	4	PIN-CONNECTOR						
		1	102-8804	1	KIT-RECEPTACLE (4 PIN) (INCLUDES WEDGE AND RECEPTACLE AS.)						
	5	1	2N-2371	2	LAMP AS-INDICATOR (EACH INCLUDES)						
		1	2V-7088	1	LENS-RED						
		1	6V-8367	1	LOCKWASHER (1.17 MM THK)						
		1	6V-8382	1	NUT-HEX (11/16-27 THD)						
M		1	6V-8817	2	SCREW-MACHINE						
	6	1	6T-3643	1	CIRCUIT BREAKER AS (15 AMP)						
		1	6V-8376	2	SCREW-MACHINE (8-32X.25IN)						
		1	9B-7233	2	LOCKWASHER (NO.8)						
	7	1	3T-2662	2	CIRCUIT BREAKER AS (15 AMP)						
		1	6V-8376	2	SCREW-MACHINE (8-32X.25IN)						
		1	9B-7233	2	LOCKWASHER (NO.8)						
	8	1	3N-5716	1	SWITCH (MAINTENANCE INDICATOR RESET)						
	9	1	7D-0894	6	SCREW-HEAD						
	10	1	4B-1223	6	SCREW-MACHINE						
	11	1	126-6094	1	PLATE						
	12	1	131-6203	1	ENCLOSURE						
	13	1	130-9376	4	MOUNT-SHOCK						
	14	1	3K-9520	1	GROMMET						
	15	1	134-3453	1	HARNESS AS						
	16	1	8T-4205	4	WASHER-HARD (2MM THK)						
	17	1	6V-1322	4	BOLT (1/4-20X.375 IN)						
	18	1	141-9228	1	LAMP AS						
		1	2V-7087	1	LENS-AMBER						
		1	6V-8367	1	LOCKWASHER (1.17 MM THK)						
		1	6V-8382	1	NUT-HEX (11/16-27 THD)						
M		1	6V-8817	2	SCREW-MACHINE						
	19	1	7N-5876	3	LAMP (28 VOLT)						
	20	1	142-2244	1	FILM-CONTROL PANEL						
	21	1	124-3176	1	COVER						
M-METRIC PART											

ELECTRICAL AND STARTING SYSTEM

131-6202 CONTROL GP-AUTO START/STOP (contd.)

i01184302



GRAPHIC #1

g00591076

ELECTRICAL AND STARTING SYSTEM

131-8284 CONTROL GP-AUTO START/STOP

FOR USE WITH 12 VOLT ELECTRICAL SYSTEMS

AN ATTACHMENT

TYPE 1

SMCS-1426, 4462

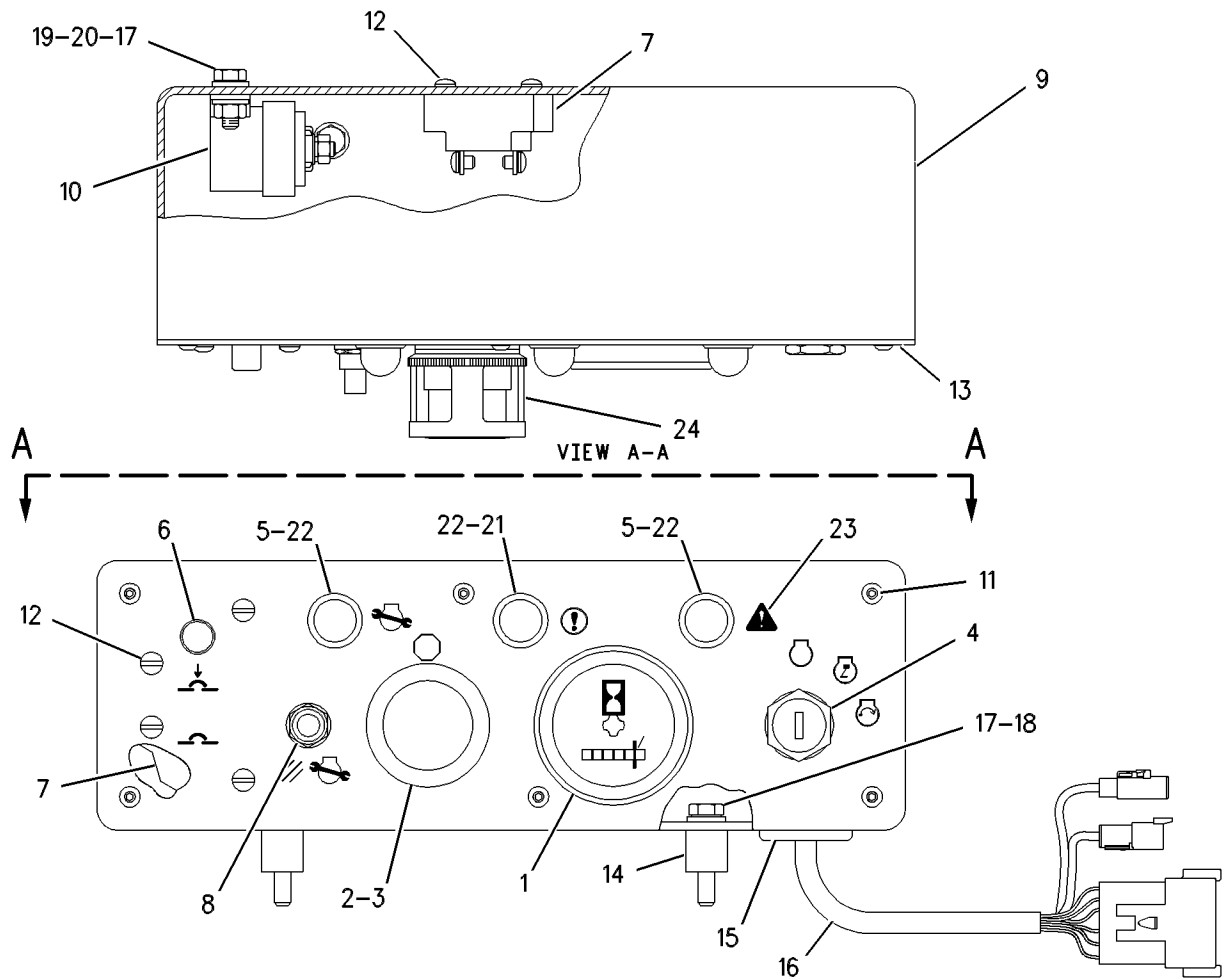
i01161985

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9W-1494	1	KIT-SERVICE METER						
	2	1	109-6507	1	SWITCH-OPERATOR (STOP)						
	3	1	111-1325	1	BLOCK-CONTACT						
	4	1	3E-0156	1	SWITCH AS-START						
		1	6V-8362	1	SCREW-MACHINE (8-32X.31IN)						
		1	7T-6799	1	NUT-MOUNTING						
		1	9B-7233	1	LOCKWASHER (NO.8)						
	5	1	2N-2371	2	LAMP AS-INDICATOR						
					(EACH INCLUDES)						
		1	2V-7088	1	LENS-RED						
		1	6V-8367	1	LOCKWASHER (1.17 MM THK)						
		1	6V-8382	1	NUT-HEX (11/16-27 THD)						
M		1	6V-8817	2	SCREW-MACHINE						
	6	1	6T-3643	1	CIRCUIT BREAKER AS (15 AMP)						
		1	6V-8376	2	SCREW-MACHINE (8-32X.25IN)						
		1	9B-7233	2	LOCKWASHER (NO.8)						
	7	1	3T-2662	1	CIRCUIT BREAKER AS (15 AMP)						
		1	6V-8376	2	SCREW-MACHINE (8-32X.25IN)						
		1	9B-7233	2	LOCKWASHER (NO.8)						
	8	1	3N-5716	1	SWITCH (MAINTENANCE INDICATOR RESET)						
	9	1	131-0129	1	ENCLOSURE						
	10	1	125-1303	1	SWITCH AS-MAGNETIC (STARTER MOTOR-12V)						
	11	1	7D-0894	6	SCREW-HEAD						
	12	1	4B-1223	6	SCREW-MACHINE						
	13	1	126-6094	1	PLATE						
	14	1	130-9376	4	MOUNT-SHOCK						
	15	1	3K-9520	1	GROMMET						
	16	1	131-8308	1	HARNES AS						
	17	1	8T-4205	8	WASHER-HARD (2MM THK)						
	18	1	6V-1322	4	BOLT (1/4-20X.375 IN)						
	19	1	6V-8185	2	NUT (1/4-20 THD)						
	20	1	4M-5281	2	BOLT (1/4-20X.750IN)						
	21	1	141-9228	1	LAMP AS						
	22	1	2N-2372	3	LAMP						
					(EACH INCLUDES)						
		1	2V-7087	1	LENS-AMBER						
		1	6V-8367	1	LOCKWASHER (1.17 MM THK)						
		1	6V-8382	1	NUT-HEX (11/16-27 THD)						
M		1	6V-8817	1	SCREW-MACHINE						
	23	1	142-2244	1	FILM-CONTROL PANEL						
	24	1	124-3176	1	COVER						
M-METRIC PART											

ELECTRICAL AND STARTING SYSTEM

131-8284 CONTROL GP-AUTO START/STOP (contd.)

i01161985



GRAPHIC #1

g00591109

ELECTRICAL AND STARTING SYSTEM

131-8284 CONTROL GP-AUTO START/STOP

FOR USE WITH 12 VOLT ELECTRICAL SYSTEMS

AN ATTACHMENT

TYPE 2

SMCS-1426, 4462

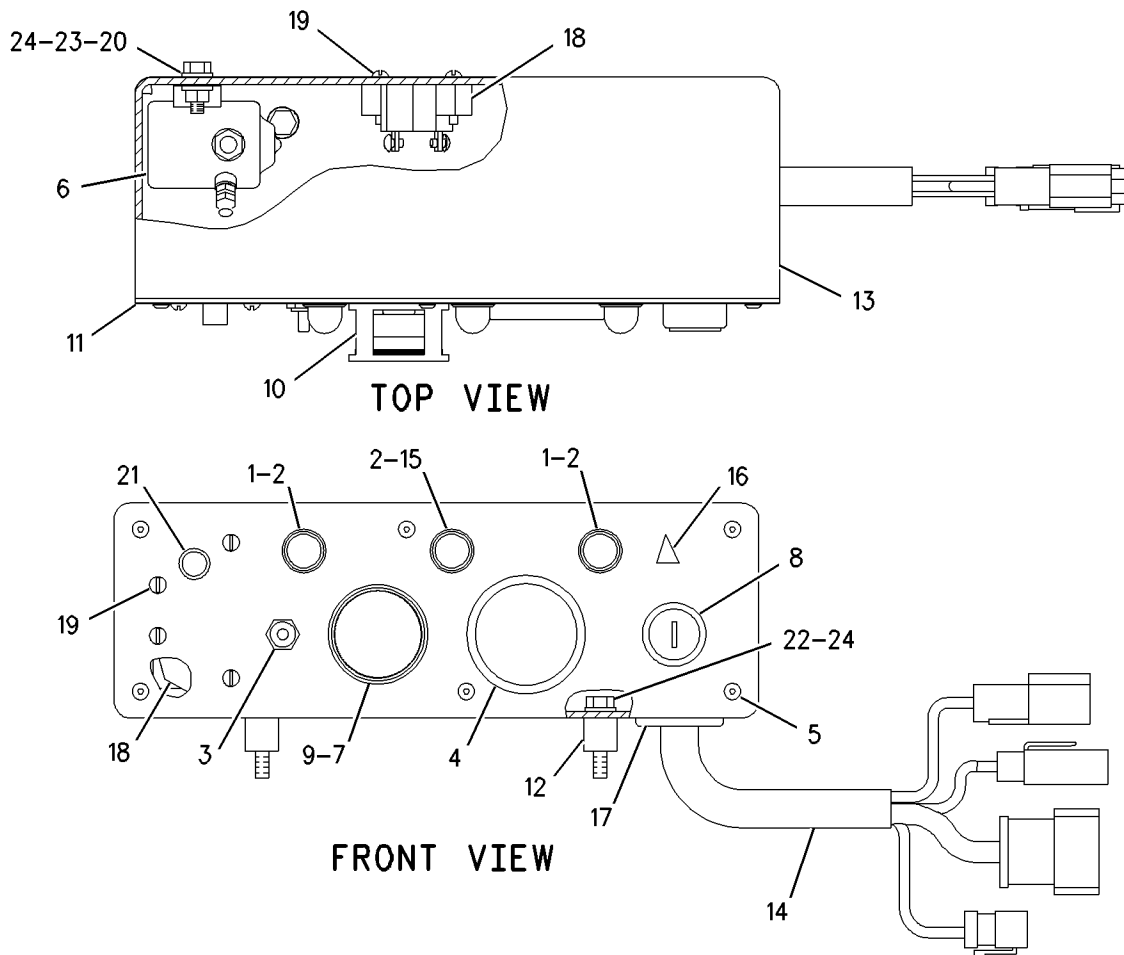
i01234625

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2N-2371	2	LAMP AS-INDICATOR						
					(EACH INCLUDES)						
		1	2V-7088	1	LENS-RED						
		1	6V-8367	1	LOCKWASHER (1.17 MM THK)						
		1	6V-8382	1	NUT-HEX (11/16-27 THD)						
M		1	6V-8817	2	SCREW-MACHINE						
	2	1	2N-2372	3	LAMP						
					(EACH INCLUDES)						
		1	2V-7087	1	LENS-AMBER						
		1	6V-8367	1	LOCKWASHER (1.17 MM THK)						
		1	6V-8382	1	NUT-HEX (11/16-27 THD)						
M		1	6V-8817	1	SCREW-MACHINE						
	3	1	3N-5716	1	SWITCH (MAINTENANCE INDICATOR RESET)						
	4	1	6T-7337	1	METER-SERVICE						
	5	1	7D-0894	6	SCREW-HEAD						
	6	1	030-2266	1	SWITCH AS-MAGNETIC (STARTER MOTOR-12V)						
	7	1	109-6507	1	SWITCH-OPERATOR (STOP)						
	8	1	110-7887	1	SWITCH AS-START						
		1	102-8804		KIT-RECEPTACLE (4 PIN)						
		1	3E-3377	1	WEDGE-RECEPTACLE LOCK						
		1	8T-8729	4	PIN-CONNECTOR						
		1	7T-6799	1	NUT-MOUNTING						
	9	1	111-1325	1	BLOCK-CONTACT						
	10	1	124-3176	1	COVER						
	11	1	126-6094	1	PLATE						
	12	1	130-9376	4	MOUNT-SHOCK						
	13	1	131-0129	1	ENCLOSURE						
	14	1	131-8308	1	HARNESS AS						
	15	1	141-9228	1	LAMP AS						
	16	1	142-2244	1	FILM-CONTROL PANEL						
	17	1	3K-9520	1	GROMMET						
	18	1	3T-2662	1	CIRCUIT BREAKER AS (15 AMP)						
		1	6V-8376	2	SCREW-MACHINE (8-32X.25IN)						
		1	9B-7233	2	LOCKWASHER (NO.8)						
	19	1	4B-1223	6	SCREW-MACHINE						
	20	1	4M-5281	2	BOLT (1/4-20X.750IN)						
	21	1	6T-3643	1	CIRCUIT BREAKER AS (15 AMP)						
		1	6V-8376	2	SCREW-MACHINE (8-32X.25IN)						
		1	9B-7233	2	LOCKWASHER (NO.8)						
	22	1	6V-1322	4	BOLT (1/4-20X.375 IN)						
	23	1	6V-8185	2	NUT (1/4-20 THD)						
	24	1	8T-4205	8	WASHER-HARD (2MM THK)						
M-METRIC PART											

ELECTRICAL AND STARTING SYSTEM

131-8284 CONTROL GP-AUTO START/STOP (contd.)

i01234625



GRAPHIC #1

g00665191

ELECTRICAL AND STARTING SYSTEM

115-3055 CONTROL GP-ENGINE ELECTRONIC

PART OF 129-9193 CONTROL & MTG GP-ENGINE ELEK

FIELD REPLACEMENT ORDER 145-7805-PAGE 291

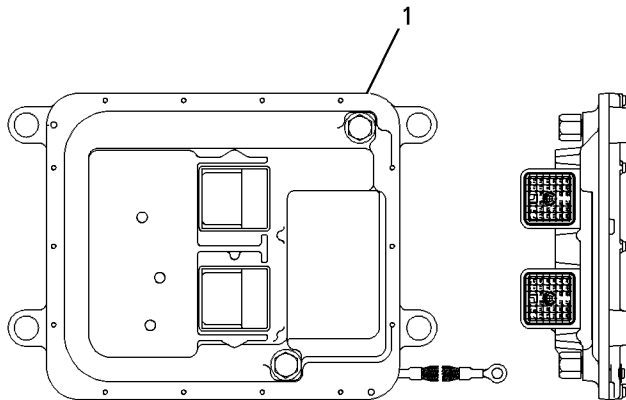
AN ATTACHMENT

SMCS-1900, 1901

i00693475

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	145-7806	1	CONTROL GP-ENGINE ELECTRONIC						292

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00282085

ELECTRICAL AND STARTING SYSTEM

121-7028 CONTROL GP-ENGINE ELECTRONIC

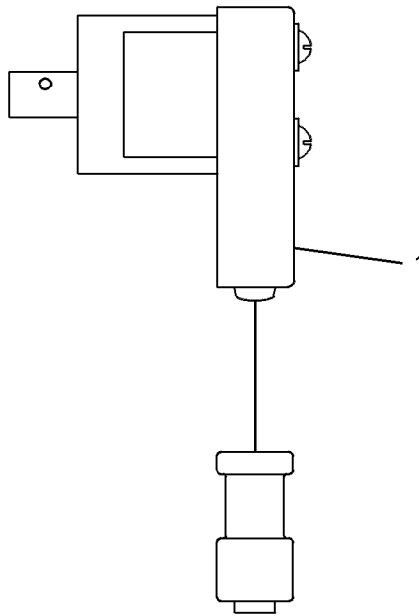
THROTTLE POSITION
AN ATTACHMENT

SMCS-1900, 1901

i00667939

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	121-7029	1	CONTROL GP-ENGINE ELECTRONIC						288

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00247870

ELECTRICAL AND STARTING SYSTEM

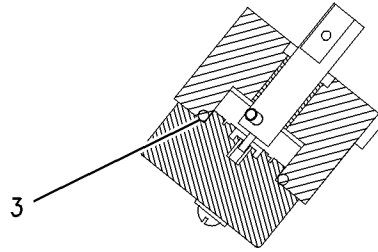
121-7029 CONTROL GP-ENGINE ELECTRONIC

THROTTLE POSITION
PART OF 121-7028 CONTROL GP-ENGINE ELECTRONIC
AN ATTACHMENT

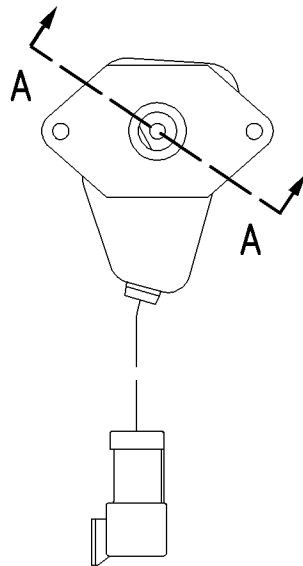
SMCS-1900, 1901

i01186775

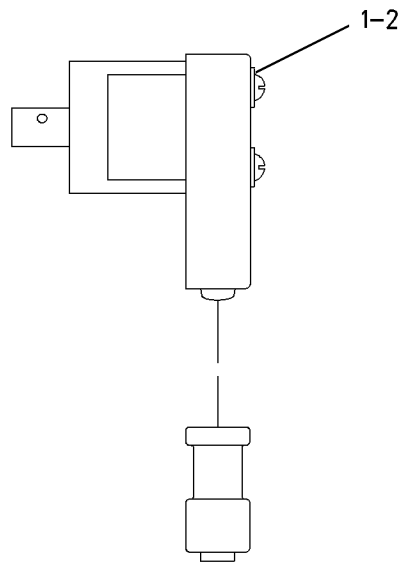
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	130-7769	2	SCREW						
	2	1	4B-4274	2	WASHER (1.2MM THK)						
	3	1	6V-0894	1	SEAL-O-RING (29.87MM ID)						



SECTION A-A



FRONT VIEW



RIGHT SIDE VIEW

GRAPHIC #1

g00635836

ELECTRICAL AND STARTING SYSTEM

127-7273 CONTROL GP-ENGINE ELECTRONIC

FIELD REPLACEMENT ORDER 129-0269-PAGE 290

FIELD INSTALLATION

SMCS-1900, 1901

i01159208

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
(NO SERVICED PARTS)									

ELECTRICAL AND STARTING SYSTEM

129-0269 CONTROL GP-ENGINE ELECTRONIC

339 KW AT 1800 RPM

FIELD REPLACEMENT FOR 127-7273-PAGE 289

FIELD INSTALLATION

SMCS-1900, 1901

i01159195

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
(NO SERVICED PARTS)									

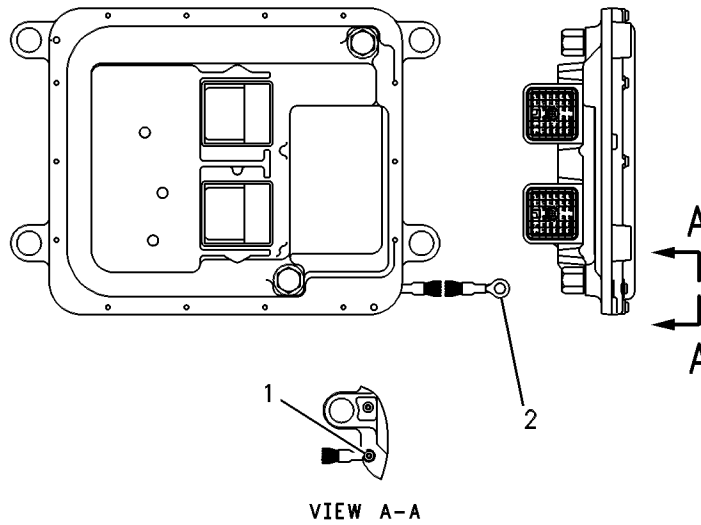
ELECTRICAL AND STARTING SYSTEM

145-7805 CONTROL GP-ENGINE ELECTRONIC FIELD REPLACEMENT FOR 115-3055-PAGE 286, 145-7806-PAGE 292

SMCS-1900, 1901

i01225644

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	126-7574	1	SCREW-PAN HEAD						
	2	1	7X-6315	1	STRAP-GROUNDING						
AVAILABLE REPAIR KIT(S) :											
M			6V-6703	2	KIT-RETAINING BOLT (INCLUDES BOLT, RING, AND SEALS)						
M-METRIC PART											



GRAPHIC #1

g00262561

ELECTRICAL AND STARTING SYSTEM

145-7806 CONTROL GP-ENGINE ELECTRONIC

PART OF 115-3055 CONTROL GP-ENGINE ELECTRONIC

FIELD REPLACEMENT ORDER 145-7805-PAGE 291

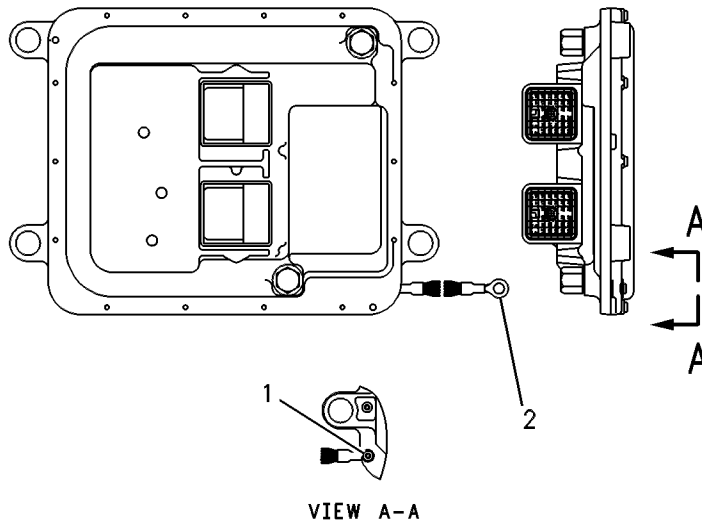
AN ATTACHMENT

SMCS-1900, 1901

i01070597

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	126-7574	1	SCREW-PAN HEAD						
	2	1	7X-6315	1	STRAP-GROUNDING						
AVAILABLE REPAIR KIT(S) :											
M			6V-6703	2	KIT-RETAINING BOLT						
(EACH INCLUDES BOLT, RETAINING RING AND 4 O-RING SEALS)											

M-METRIC PART



GRAPHIC #1

g00262561

ELECTRICAL AND STARTING SYSTEM

137-7167 CONTROL GP-ENGINE VISION

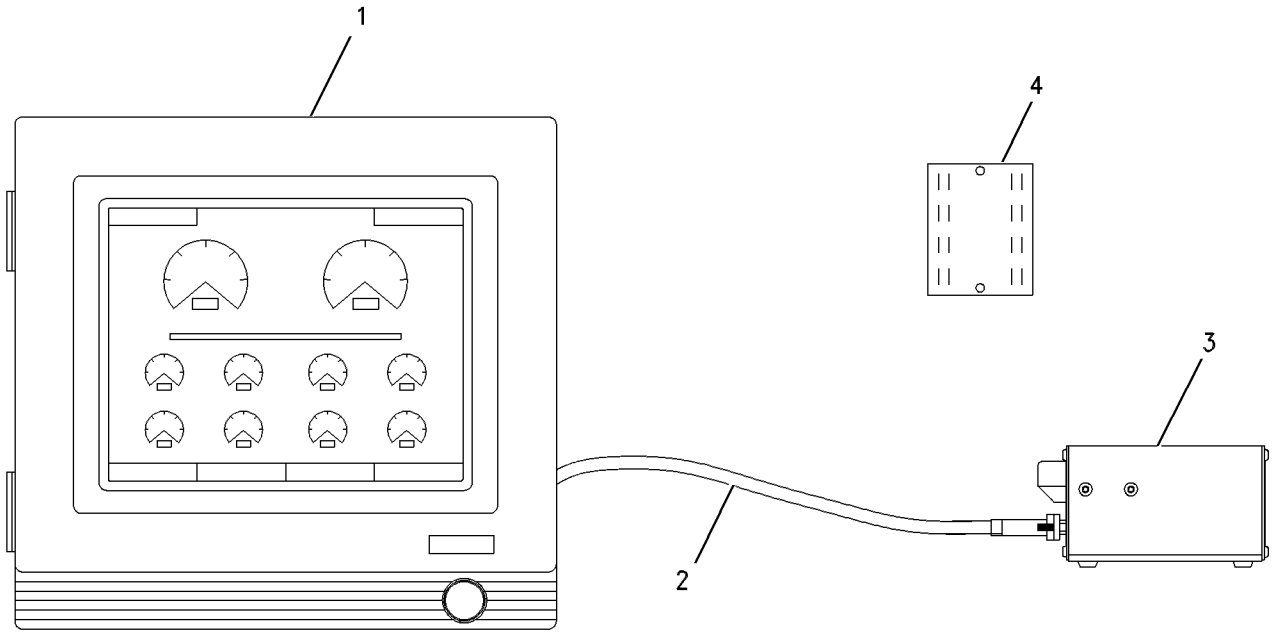
REAR MOUNT
AN ATTACHMENT

SMCS-1901, 7602

i01315635

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	137-7168	1	DISPLAY GP-ENGINE VISION						384
	2	1	132-0453	1	CABLE						
Y	3	1	130-6196	1	MODULE GP-SYSTEM COMMUNICATION (VISION)						401
	4	1	7C-2668	1	DIODE AS						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00630792

ELECTRICAL AND STARTING SYSTEM

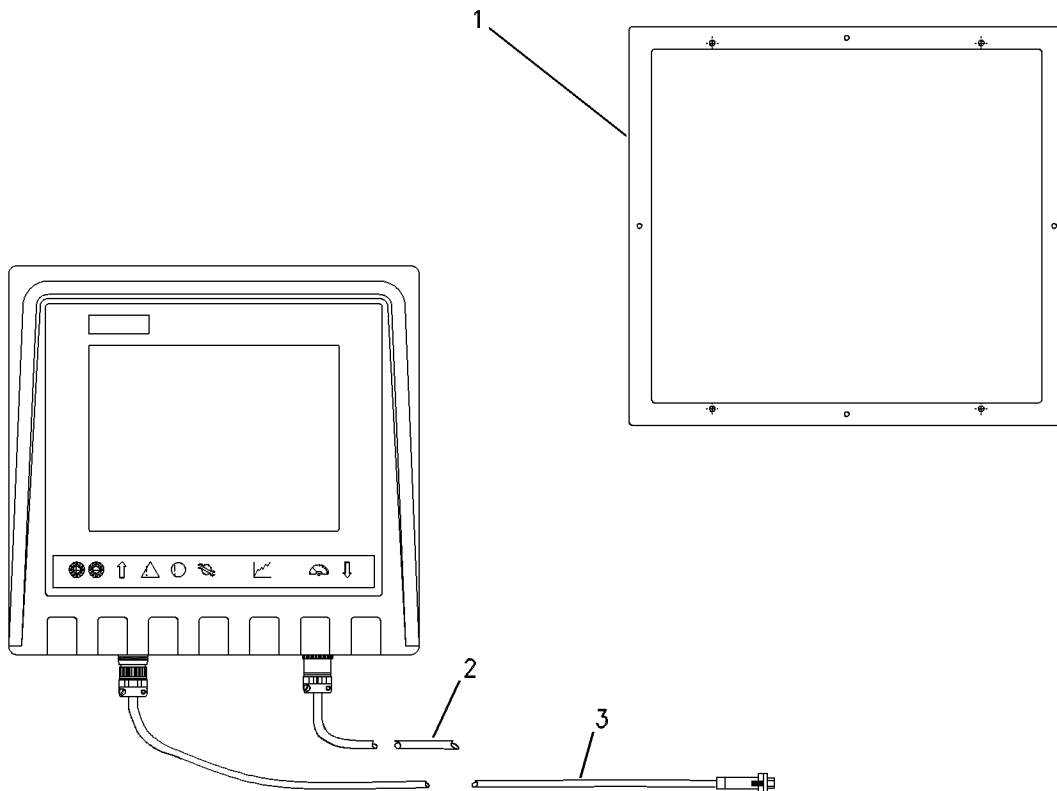
163-3970 CONTROL GP-ENGINE VISION

PANEL MOUNT
AN ATTACHMENT

SMCS-1901, 7602

i01305553

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	163-3972	1	KIT-MOUNTING (KIT INCLUDES MOUNTING PLATE, PLATE SCREWS AND DISPLAY SCREWS.)						
	2	1	163-3974	1	CABLE AS-POWER						
	3	1	163-3973	1	CABLE AS (DATA)						



GRAPHIC #1

g00538699

MEMORANDA

ELECTRICAL AND STARTING SYSTEM

131-8285 CONTROL GP-START/STOP

24 VOLT
AN ATTACHMENT

SMCS-7418

i01353466

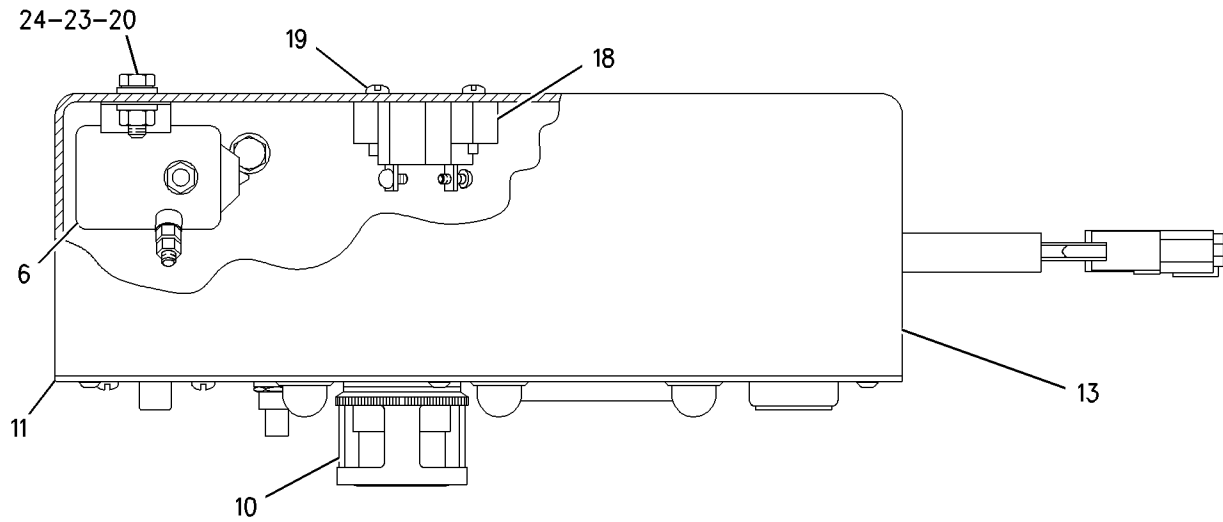
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2N-2371	2	LAMP AS-INDICATOR						
					(EACH INCLUDES)						
		1	2V-7088	1	LENS-RED						
		1	6V-8367	1	LOCKWASHER (1.17 MM THK)						
		1	6V-8382	1	NUT-HEX (11/16-27 THD)						
M		1	6V-8817	2	SCREW-MACHINE						
	2	1	3N-5716	1	SWITCH (MAINTENANCE INDICATOR RESET)						
	3	1	9W-1494	1	KIT-SERVICE METER						
					(INCLUDES METER & FILM)						
	5	1	7N-5876	3	LAMP (28 VOLT)						
	6	1	9F-3099	1	SWITCH AS-MAGNETIC (24 VOLT) (STARTER MOTOR-24V)						
		1	6V-8377	2	NUT (8-32 THD)						
E		1	3B-4501	2	LOCKWASHER (NO.8)						
		1	6V-8186	2	NUT-FULL (5/16-24 THD)						
		1	3F-9556	2	LOCKWASHER (8.4MM ID)						
	7	1	109-6507	1	SWITCH AS-PUSH (SECONDARY STOP)						
	8	1	110-7887	1	SWITCH GP-START						
		1	3E-3377	1	WEDGE-RECEPTACLE LOCK						
		1	7T-6799	1	NUT-MOUNTING						
		1	8T-8729	4	PIN-CONNECTOR						
		1	102-8804	1	KIT-RECEPTACLE (4 PIN)						
					(INCLUDES RECEPTACLE AS & WEDGE)						
	9	1	111-1325	1	BLOCK-CONTACT						
	10	1	124-3176	1	COVER						
	11	1	126-6094	1	PLATE						
	12	1	130-9376	4	MOUNT-SHOCK						
	13	1	131-0129	1	ENCLOSURE						
	14	1	131-8308	1	HARNESS AS						
	15	1	141-9228	1	LAMP AS						
	16	1	142-2244	1	FILM-CONTROL PANEL						
	17	1	3K-9520	1	GROMMET						
	18	1	3T-2662	2	CIRCUIT BREAKER AS (15 AMP)						
		1	6V-8376	2	SCREW-MACHINE (8-32X.25 IN)						
		1	9B-7233	2	LOCKWASHER (NO.8)						
	19	1	4B-1223	6	SCREW-MACHINE						
	20	1	4M-5281	2	BOLT (1/4-20X.750 IN)						
	21	1	6T-3643	1	CIRCUIT BREAKER AS (15 AMP)						
		1	6V-8376	2	SCREW-MACHINE (8-32X.25 IN)						
		1	9B-7233	2	LOCKWASHER (NO.8)						
	22	1	6V-1322	4	BOLT (1/4-20X.375 IN)						
	23	1	6V-8185	2	NUT (1/4-20 THD)						
	24	1	8T-4205	8	WASHER-HARD (2MM THK)						

E- ORDER BY THE CENTIMETER
M- METRIC PART

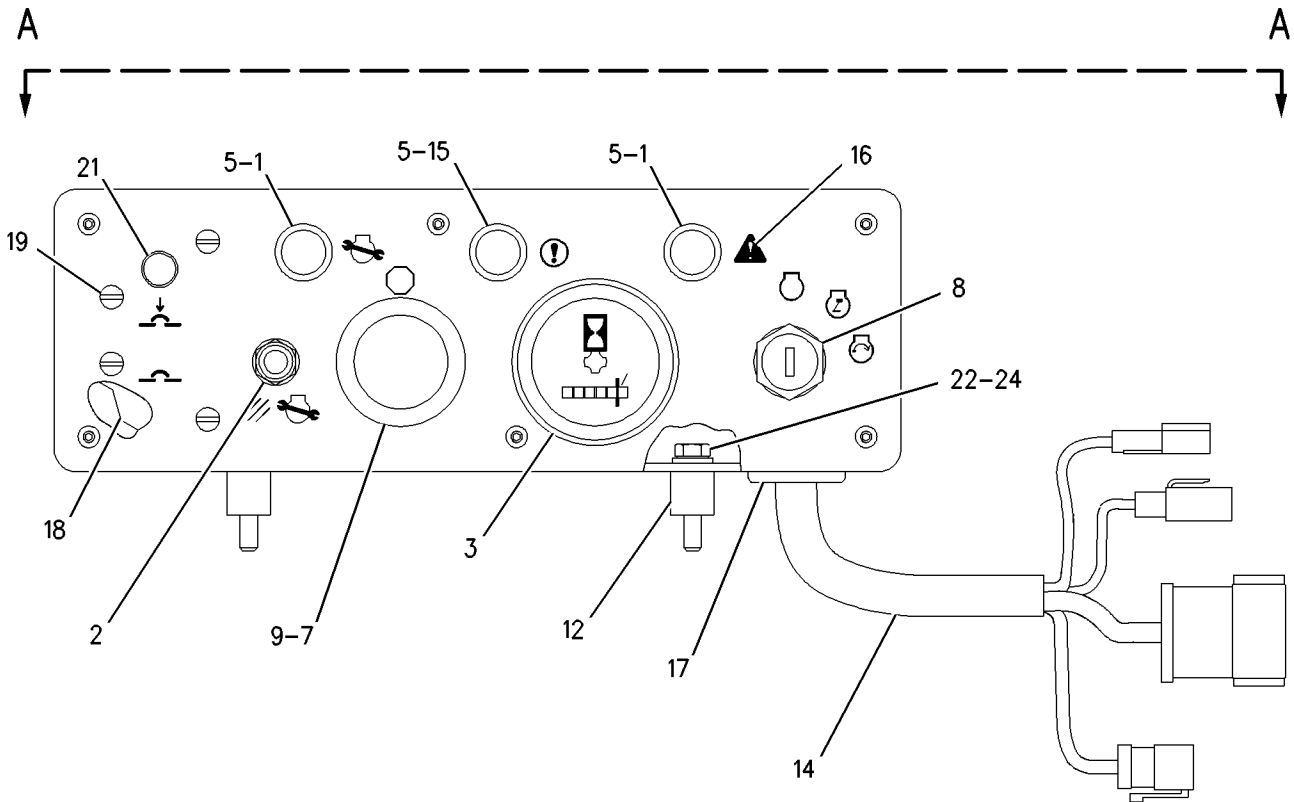
ELECTRICAL AND STARTING SYSTEM

131-8285 CONTROL GP - START / STOP (contd.)

i01353466



VIEW A-A



GRAPHIC #1

g00635239

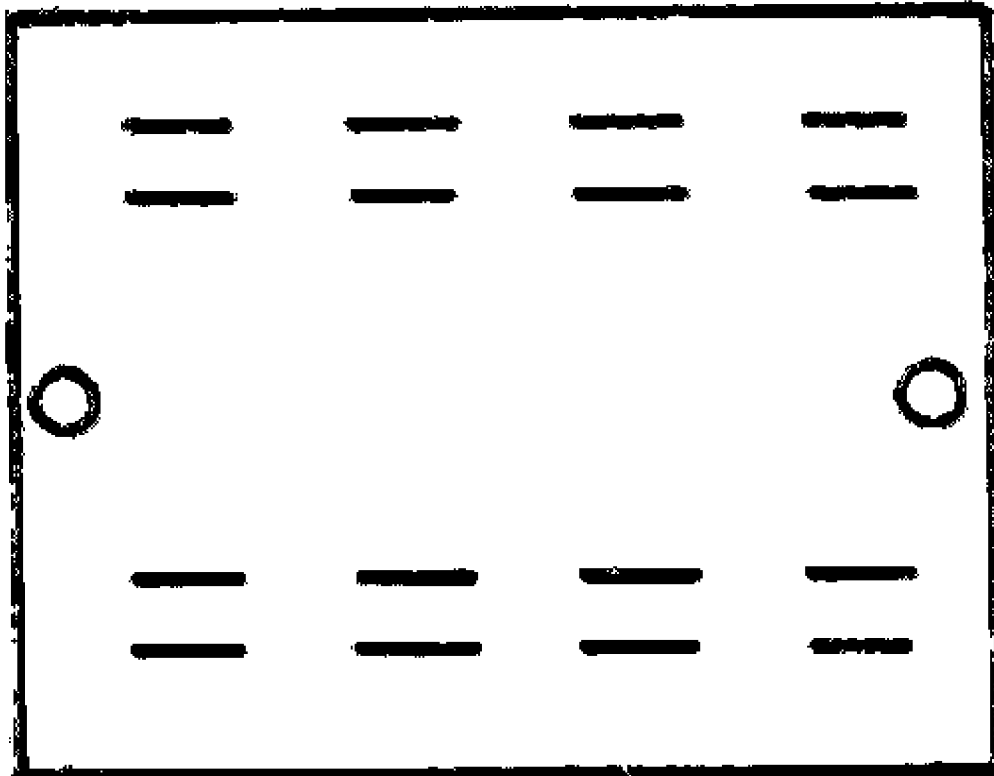
ELECTRICAL AND STARTING SYSTEM

7C-2668 DIODE AS AN ATTACHMENT

SMCS-1408

i01449082

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
(NO SERVICED PARTS)						



GRAPHIC #1

g00758724

ELECTRICAL AND STARTING SYSTEM

189-5599 HARNESS AS

FOR USE WITH TWIN SCREW APPLICATION

FOR USE WITH 190-3073-PAGE 300, 190-3074-PAGE 301, 190-3075-PAGE 302
AN ATTACHMENT

SMCS-1408

i01349028

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	102-8801	1	KIT-RECEPTACLE (12 PIN)						
			(INCLUDES RECEPTACLE AS & WEDGE)						

ELECTRICAL AND STARTING SYSTEM

190-3073 HARNESS AS FOR TWIN SCREW APPLICATION FOR USE WITH 189-5599-PAGE 299 AN ATTACHMENT

SMCS-1408

i01349030

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	155-2255	1	KIT-CONNECTING PLUG (12 PIN) (INCLUDES PLUG AS & WEDGE)						
	8T-9834	1	PLUG AS-CONNECTOR (40 PIN)						
	3E-4367	1	RING-RETAINING						
M	3E-8557	1	BOLT						
	9X-3132	2	SEAL-CONNECTOR						
M-METRIC PART									

ELECTRICAL AND STARTING SYSTEM

190-3074 HARNESS AS FOR TWIN SCREW APPLICATIONS FOR USE WITH 189-5599--PAGE 299 AN ATTACHMENT

SMCS-1408

i01349031

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	155-2255	1	KIT-CONNECTING PLUG (12 PIN) (INCLUDES PLUG AS & WEDGE)						
	8T-9834	1	PLUG AS-CONNECTOR (40 PIN)						
	3E-4367	1	RING-RETAINING						
M	3E-8557	1	BOLT						
	9X-3132	2	SEAL-CONNECTOR						
M-METRIC PART									

ELECTRICAL AND STARTING SYSTEM

190-3075 HARNESS AS FOR TWIN SCREW APPLICATIONS FOR USE WITH 189-5599-PAGE 299 AN ATTACHMENT

SMCS-1408

i01349033

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	155-2255	1	KIT-CONNECTING PLUG (12 PIN) (INCLUDES PLUG AS & WEDGE)						
	8T-9834	1	PLUG AS-CONNECTOR (40 PIN)						
	3E-4367	1	RING-RETAINING						
M	3E-8557	1	BOLT						
	9X-3132	2	SEAL-CONNECTOR						
M-METRIC PART									

ELECTRICAL AND STARTING SYSTEM

198-9159 HARNESS AS

FOR USE WITH TWIN SCREW APPLICATIONS, 190-3073-PAGE 300, 190-3074-PAGE 301,
190-3075-PAGE 302
AN ATTACHMENT

SMCS-1408

i01479159

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	102-8801	2	KIT-RECEPTACLE (12 PIN)						
			(EACH INCLUDES RECEPTACLE AS & WEDGE)						

ELECTRICAL AND STARTING SYSTEM

121-4017 HARNESS AS-WIRING

FOR USE WITH MAIN EMS UNIT TO TACHOMETER UNIT, QUAD-GAUGE UNIT AND REMOTE QUAD OR
TACHOMETER UNIT
AN ATTACHMENT

SMCS-1408

i00871230

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	102-8810	1	KIT-CONNECTING PLUG						
	102-8815	1	SEAL-INTERFACE						
	102-8811	1	KIT-PLUG						
	102-8816	1	SEAL-INTERFACE						
	102-8800	1	KIT-PLUG						
	102-8817	1	SEAL-INTERFACE						
	3E-4367	1	RING-RETAINING						
M	3E-8557	1	BOLT						
	9X-3132	2	SEAL-CONNECTOR						
	102-8801	1	KIT-RECEPTACLE (12 PIN)						
	102-8806	1	KIT-RECEPTACLE						

M-METRIC PART

ELECTRICAL AND STARTING SYSTEM

125-4350 HEATER GP - JACKET WATER

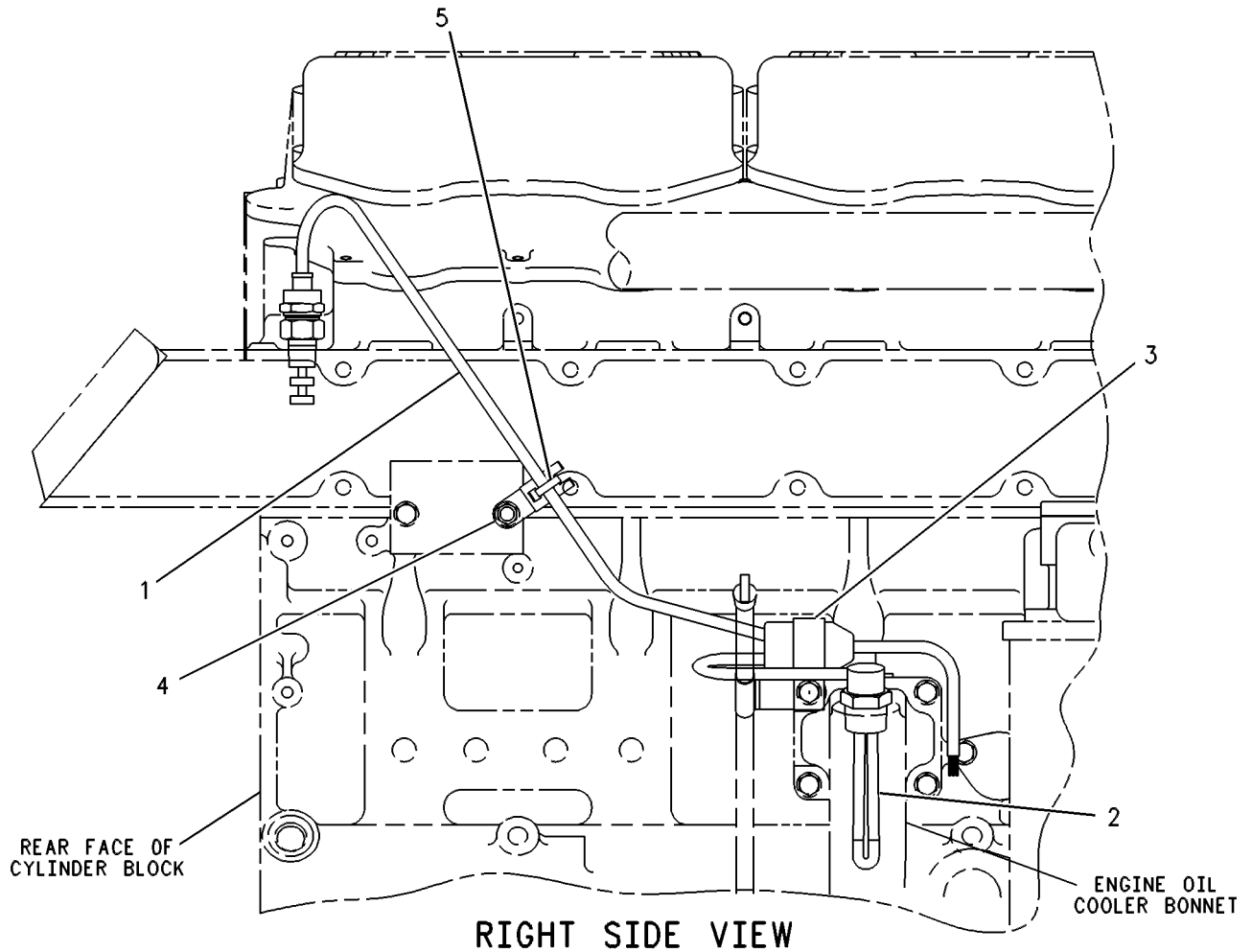
1500 WATT - 120 VOLT - 12.5 AMP

AN ATTACHMENT

SMCS - 1383

i00670959

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9Y-3742	1	CORD AS						
		1	7C-9008	1	THERMOSTAT						
		1	7C-9009	1	HOUSING-THERMOSTAT						
2		1	9G-6655	1	ELEMENT AS-JACKET WATER HEATER						
3		1	5K-5338	1	CLIP						
4		1	4P-7581	1	CLIP (10.5MM ID)						
5		1	3S-2093	1	STRAP-CABLE (1.75IN DIA)						



GRAPHIC #1

g00263641

ELECTRICAL AND STARTING SYSTEM

159-2624 HEATER GP - JACKET WATER

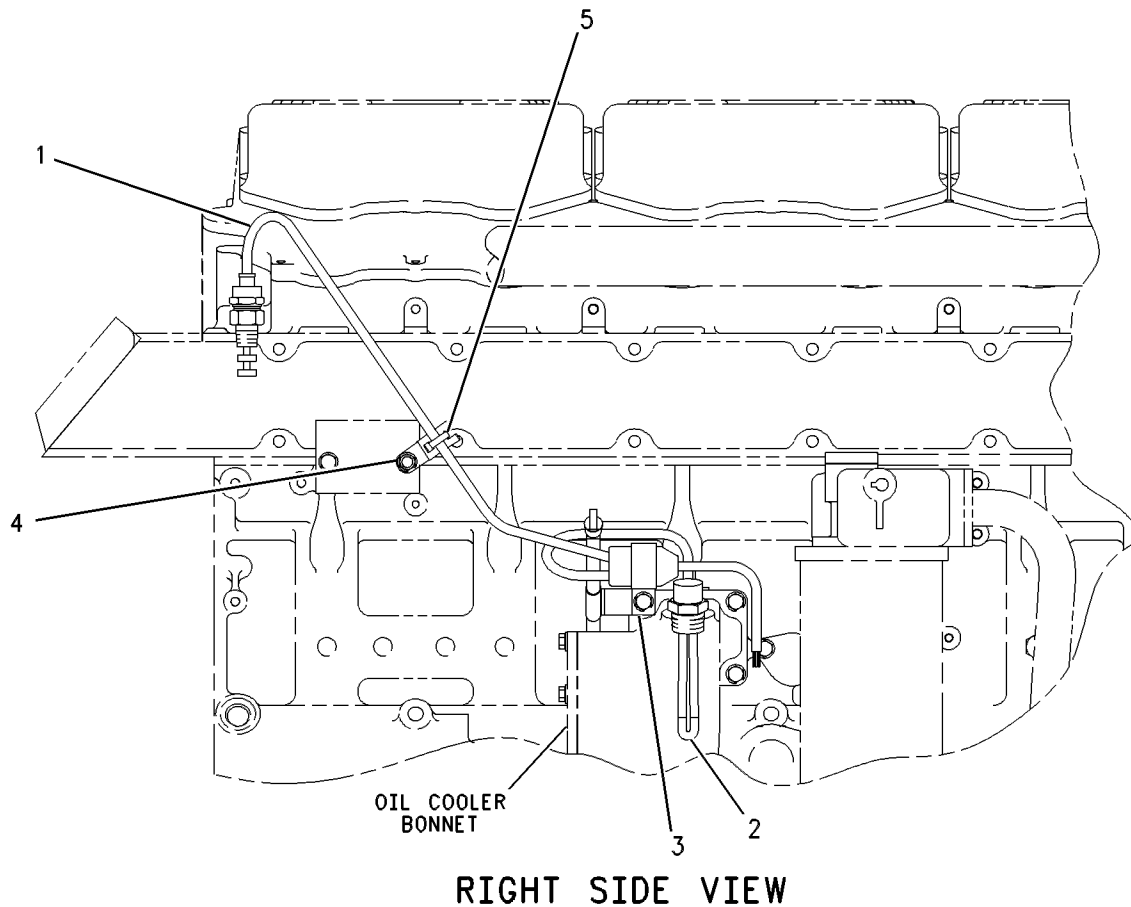
1500 WATT-240 VOLT-6.25 AMPS

AN ATTACHMENT

SMCS-1383

i101029708

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9Y-3742	1	CORD AS						
		1	7C-9008	1	THERMOSTAT						
		1	7C-9009	1	HOUSING-THERMOSTAT						
	2	1	6T-3764	1	ELEMENT AS-JACKET WATER HEATER						
	3	1	5K-5338	1	CLIP (19MM ID)						
	4	1	4P-7581	1	CLIP						
	5	1	3S-2093	1	STRAP-CABLE (1.75IN DIA)						



GRAPHIC #1

g00541133

ELECTRICAL AND STARTING SYSTEM

172-0208 LUBRICATOR GP-AIR MOTOR

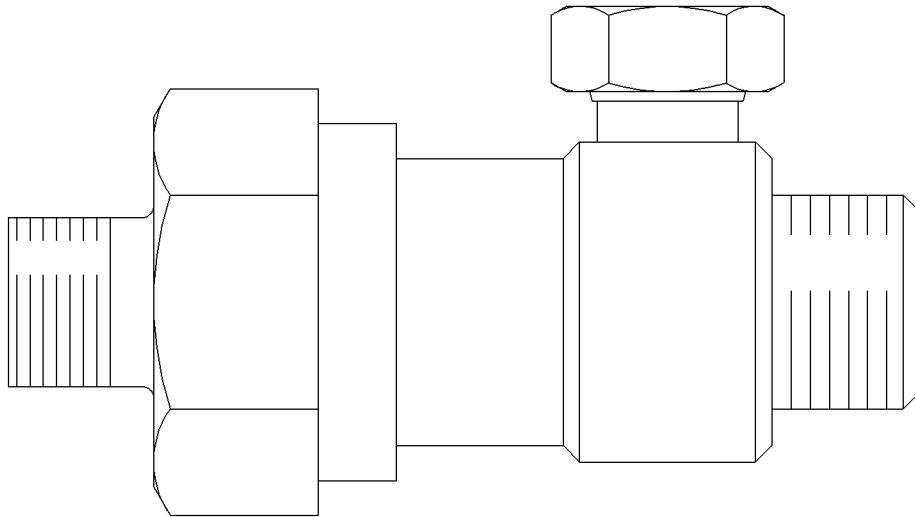
PART OF 130-1159 STARTING MOTOR GP-AIR

AN ATTACHMENT

SMCS-1451

i01394572

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
AVAILABLE REPAIR KIT(S) :											
			186-4180	1	KIT-SEAL						
(KIT INCLUDES SEAL-O-RINGS, FILTER, SEAL-U-CUP AND SPRING)											



GRAPHIC #1

g00673434

ELECTRICAL AND STARTING SYSTEM

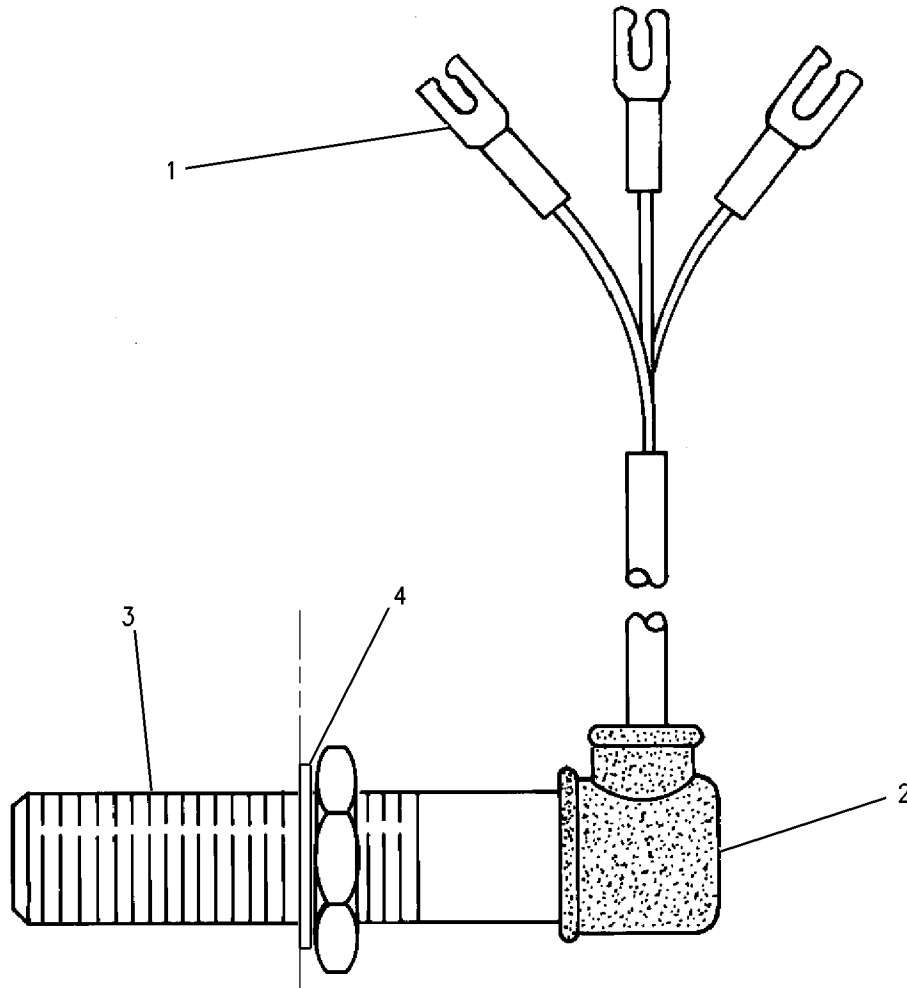
5N-8757 MAGNETIC PICKUP GP

CANNOT BE USED WITH DUAL SPEED SWITCH
AN ATTACHMENT

SMCS-1905, 1907

i01473824

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9G-3186	3	TERMINAL-SPADE (18 GAUGE, 4.17MM)						
	2	1	6L-3483	1	COVER-TERMINAL						
	3	1	5N-6753	1	MAGNETIC PICKUP AS (ENGINE SPEED)						
	4	1	4B-4281	1	WASHER (16.8X33X2.5MM THK)						



GRAPHIC #1

g00768824

ELECTRICAL AND STARTING SYSTEM

131-8306 MOUNTING GP-CIRCUIT BREAKER

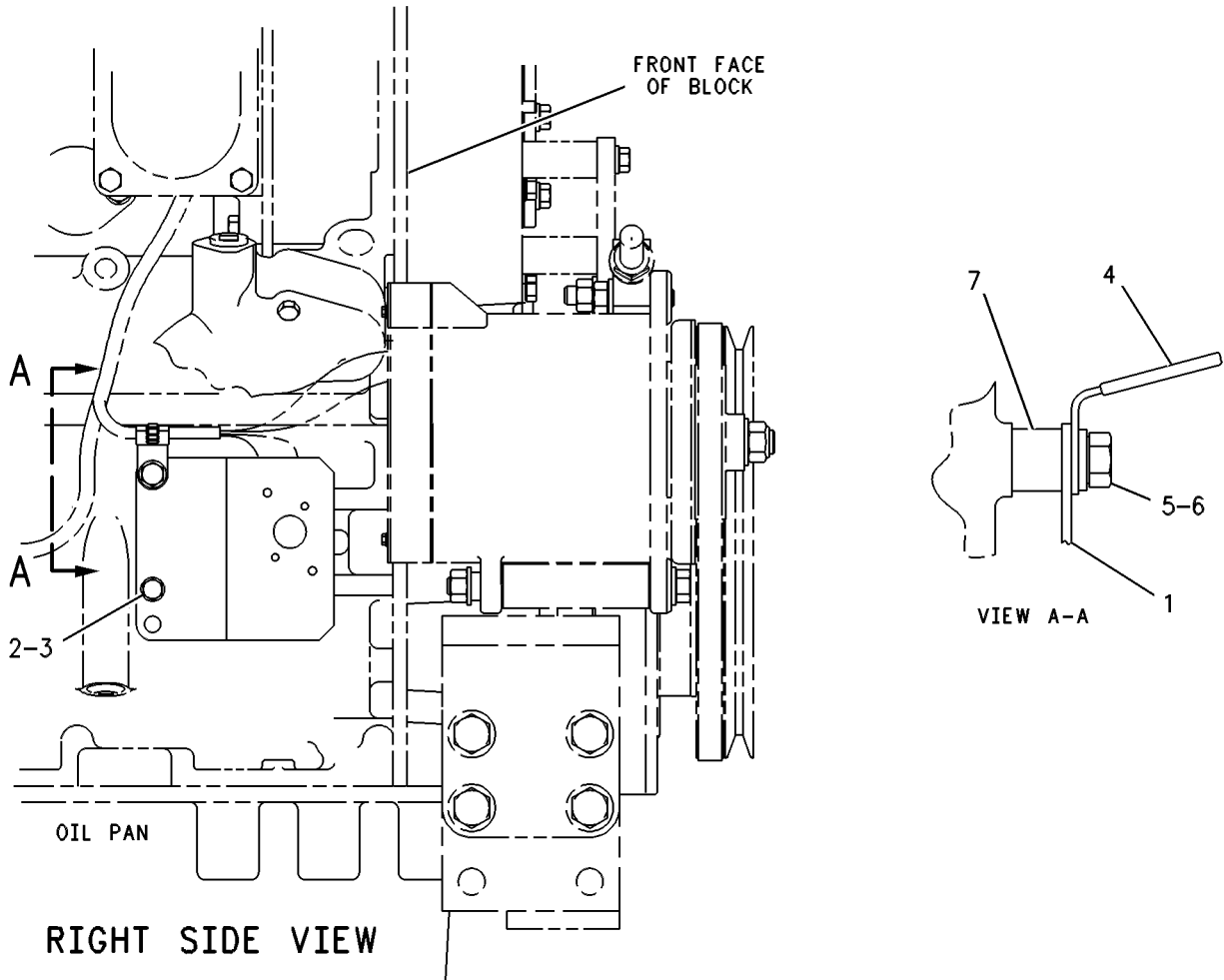
FOR USE WITH 124-3386-PAGE 90, 134-3460-PAGE 94

AN ATTACHMENT

SMCS-1420, 4461

i00671853

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	124-9047	1	BRACKET						
	2	1	9M-1974	1	WASHER-HARD (2MM THK)						
	3	1	0S-1617	1	BOLT (5/16-18X.75IN)						
	4	1	4P-8134	1	CLIP (10.5MM ID)						
	5	1	5M-2894	1	WASHER (2.5MM THK)						
	6	1	0S-1591	1	BOLT (3/8-16X1.5IN)						
	7	1	4N-0205	1	SPACER (15.24MM THK)						



GRAPHIC #1

g00272383

ELECTRICAL AND STARTING SYSTEM

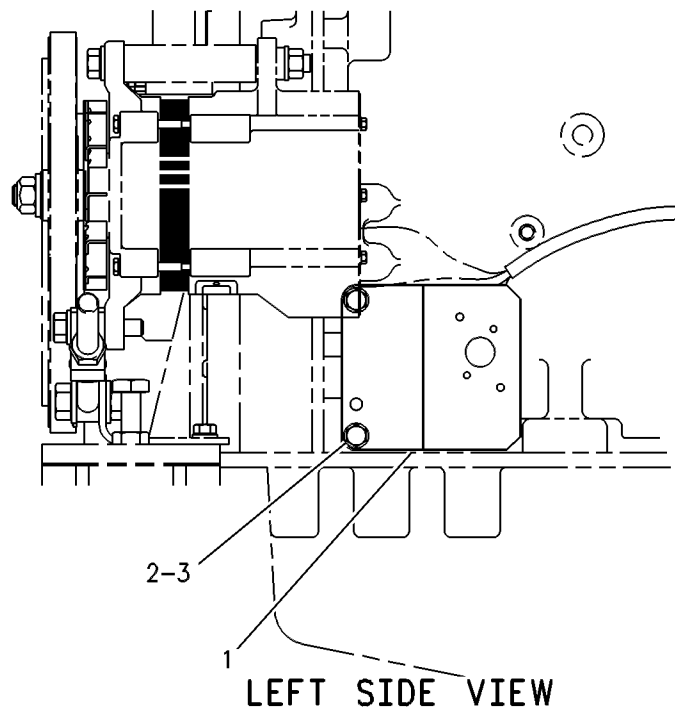
131-8307 MOUNTING GP-CIRCUIT BREAKER

FOR USE WITH FRONT PTO AUXILIARY DRIVE
AN ATTACHMENT

SMCS-1420, 4461

i00671856

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	124-9047	1	BRACKET						
	2	1	5M-2894	2	WASHER (2.5MM THK)						
	3	1	0S-0509	2	BOLT (3/8-16X.75IN)						



GRAPHIC #1

g00272467

ELECTRICAL AND STARTING SYSTEM

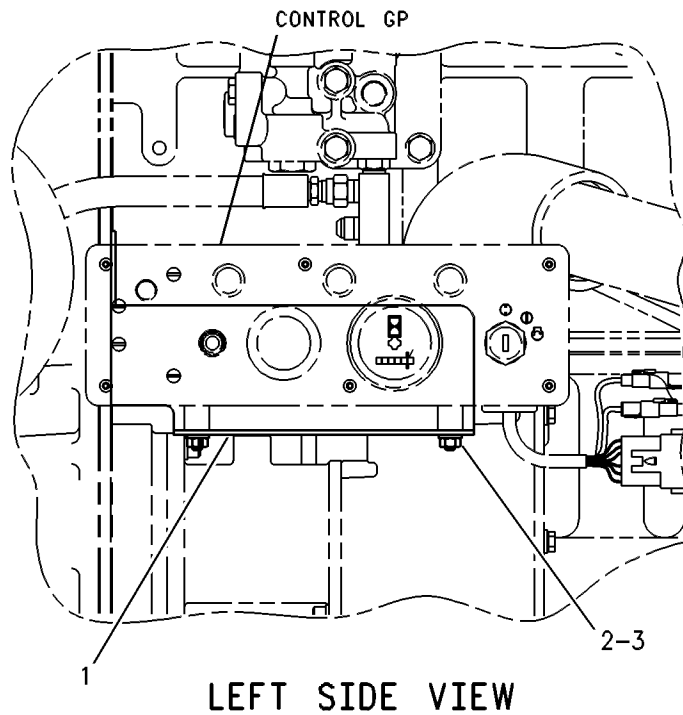
131-8296 MOUNTING GP-CONTROL

LH- HEAT EXCHANGER
AN ATTACHMENT

SMCS-1901

i00670880

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	125-4364	1	BRACKET AS						
	2	1	6V-8185	4	NUT (1/4-20 THD)						
	3	1	8T-4205	4	WASHER-HARD (2MM THK)						



GRAPHIC #1

g00263637

ELECTRICAL AND STARTING SYSTEM

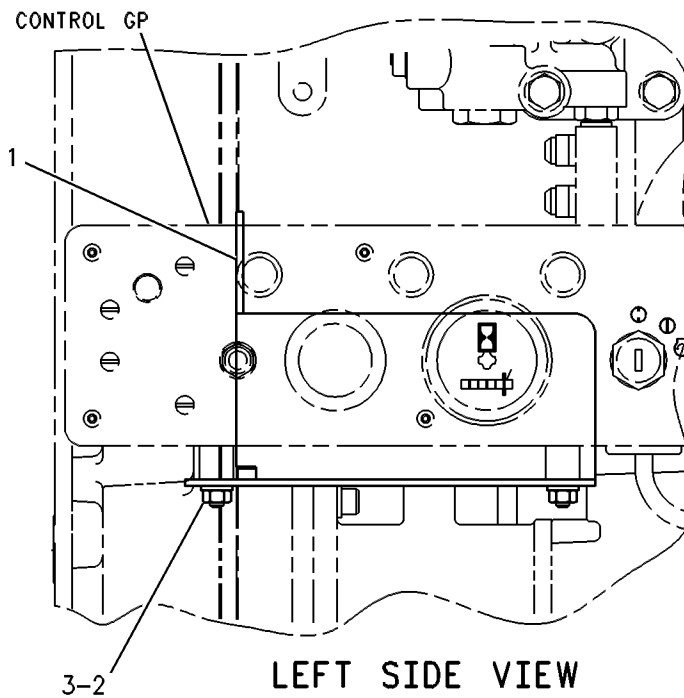
131-8297 MOUNTING GP-CONTROL

LH - KEEL COOLED
AN ATTACHMENT

SMCS-1901

i00670887

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	134-3454	1	BRACKET AS						
	2	1	6V-8185	4	NUT (1/4-20 THD)						
	3	1	8T-4205	4	WASHER-HARD (2MM THK)						



GRAPHIC #1

g00263638

ELECTRICAL AND STARTING SYSTEM

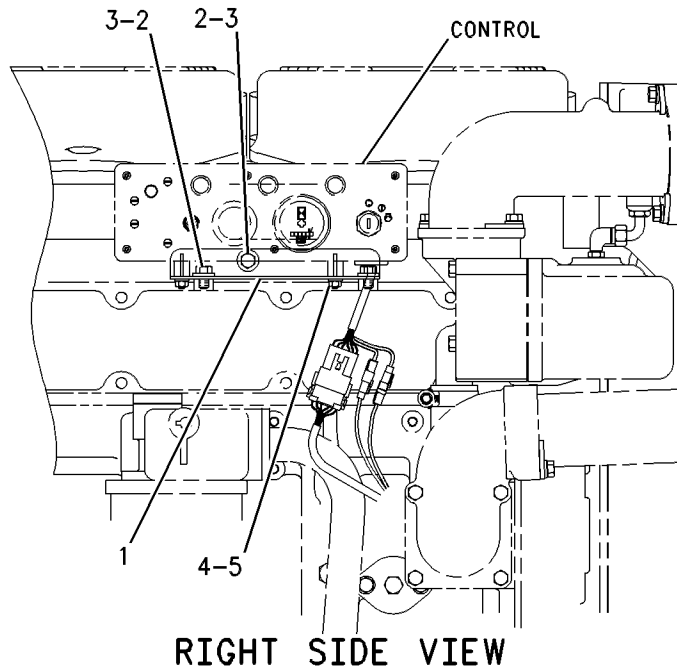
131-8298 MOUNTING GP-CONTROL

FOR USE WITH RH SERVICE ENGINES
AN ATTACHMENT

SMCS-1901

i00670892

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	141-1002	1	BRACKET AS						
	2	1	9X-6458	3	WASHER-HARD (3MM THK)						
	3	1	0T-0102	3	BOLT (3/8-16X0.625IN)						
	4	1	8T-4205	4	WASHER-HARD (2MM THK)						
	5	1	6V-8185	4	NUT (1/4-20 THD)						



GRAPHIC #1

g00278502

ELECTRICAL AND STARTING SYSTEM

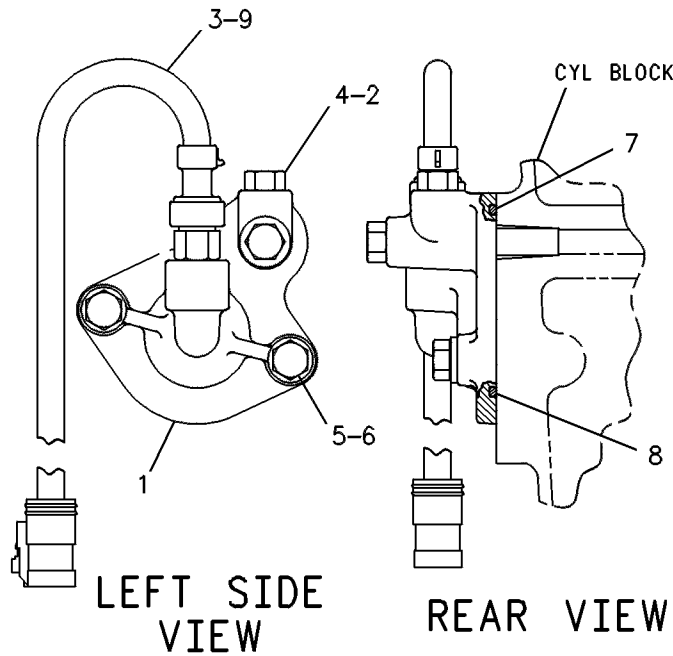
102-7664 SENSOR & MTG GP - PRESSURE ATMOSPHERIC PRESSURE. MOUNTS TO LH SIDE OF CYLINDER BLOCK AN ATTACHMENT

SMCS-1916, 1917, 1923, 1924, 1925

i01152569

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	103-6037	1	ADAPTER						
	2	1	6V-5048	2	SEAL-O-RING (8.92MM ID)						
CY	3	1	161-9925	1	SENSOR GP - PRESSURE (ATMOSPHERIC)						319
	4	1	9S-4182	2	PLUG (7/16-20 THD)						
	5	1	0S-1588	2	BOLT (3/8-16X1.25IN)						
	6	1	5M-2894	2	WASHER (2.5MM THK)						
	7	1	6V-3683	1	SEAL-O-RING (23.39MM ID)						
	8	1	8J-4351	1	SEAL-O-RING (44.04MM ID)						
	9	1	6V-5049	1	SEAL-O-RING (11.89MM ID)						

C- CHANGE FROM PREVIOUS TYPE
Y- SEPARATE ILLUSTRATION



GRAPHIC #1

g00237894

ELECTRICAL AND STARTING SYSTEM

165-6634 SENSOR GP-COOLANT LEVEL

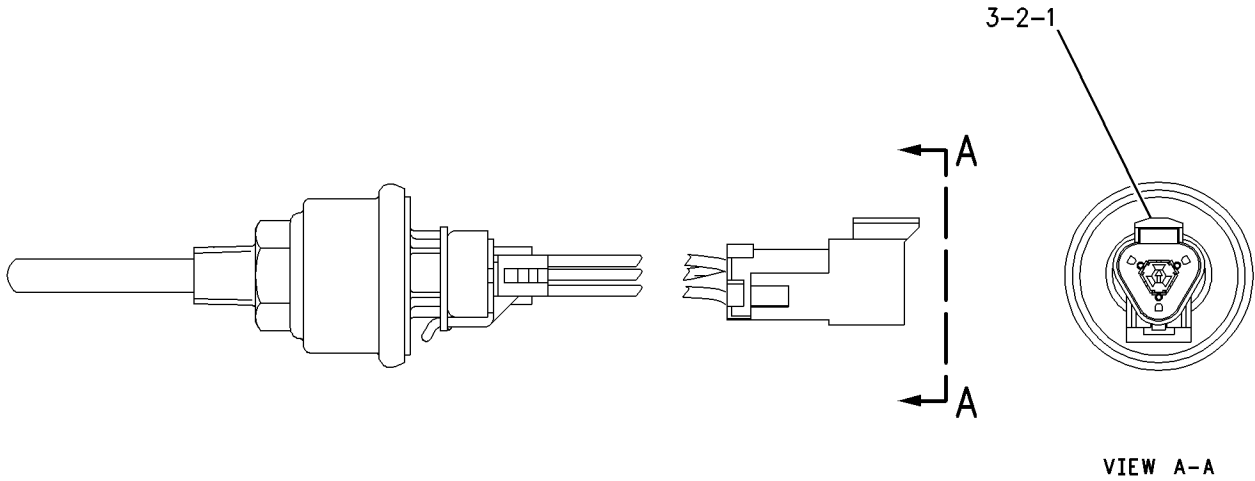
COOLANT LOSS

PART OF 130-8902, 136-6731 WIRING GP
AN ATTACHMENT

SMCS-7422

i01423199

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	102-8803	1	KIT-RECEPTACLE (3 PIN) (INCLUDES RECEPTACLE ASSEMBLY AND WEDGE)						
	2	1	3E-3371	1	WEDGE-RECEPTACLE LOCK (3 PIN)						
	3	1	186-3735	3	PIN-CONNECTOR						



GRAPHIC #1

g00753877

ELECTRICAL AND STARTING SYSTEM

9X-9647 SENSOR GP - POSITION

REMOTE MOUNTED

CANNOT BE USED WITH 121-7028-PAGE 287

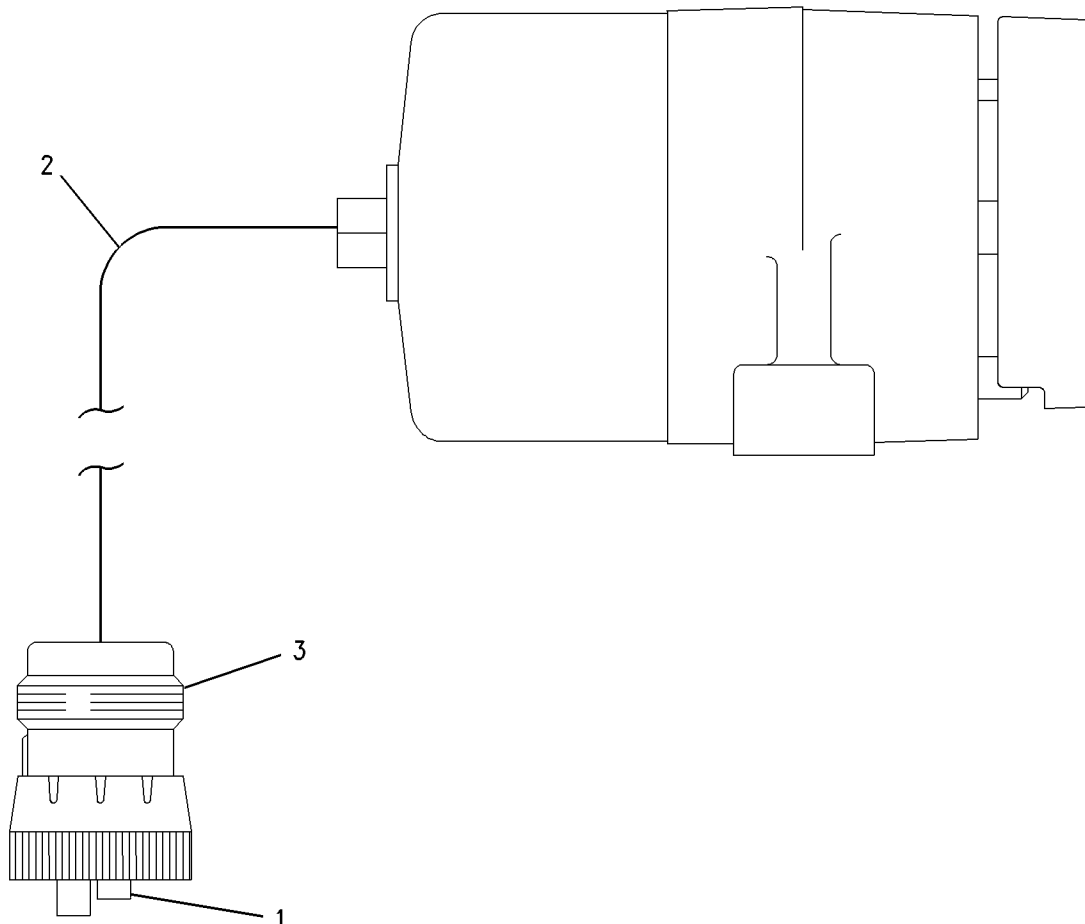
AN ATTACHMENT

SMCS-1905, 1911

i01315634

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-8730	3	SOCKET-CONNECTOR						
E	2	1	9X-1813		SLEEVE (BULK) (28CM)						
	3	1	8T-8731	1	PLUG-CONNECTOR						

E-ORDER BY THE CENTIMETER



GRAPHIC #1

g00683899

ELECTRICAL AND STARTING SYSTEM

9X-9648 SENSOR GP - POSITION

ROTARY POSITION

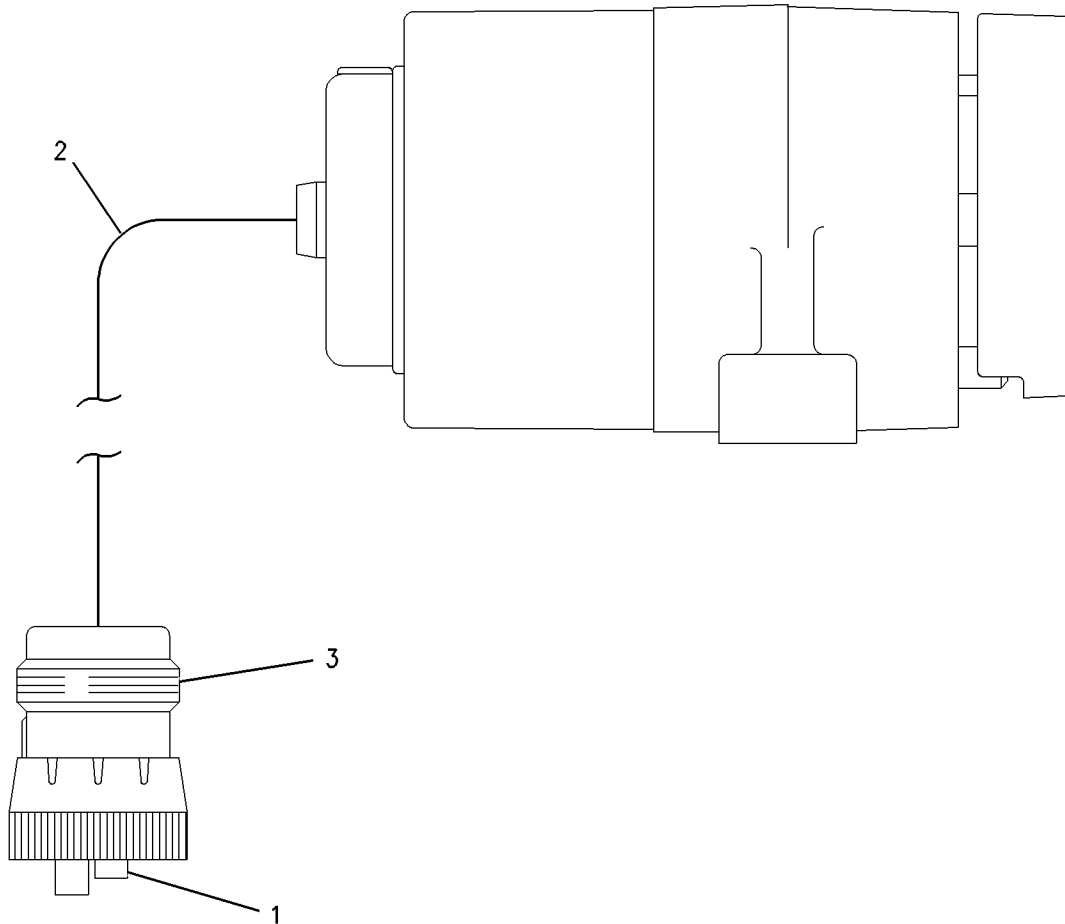
AN ATTACHMENT

SMCS-1905, 1911

i01341744

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-8730	3	SOCKET-CONNECTOR						
E	2	1	9X-1813		SLEEVE (BULK) (28 CM)						
	3	1	8T-8731	1	PLUG-CONNECTOR						

E-ORDER BY THE CENTIMETER



GRAPHIC #1

g00683901

ELECTRICAL AND STARTING SYSTEM

3E-6114 SENSOR GP - PRESSURE

OIL & FUEL

FIELD REPLACEMENT ORDER 161-9932-PAGE 321

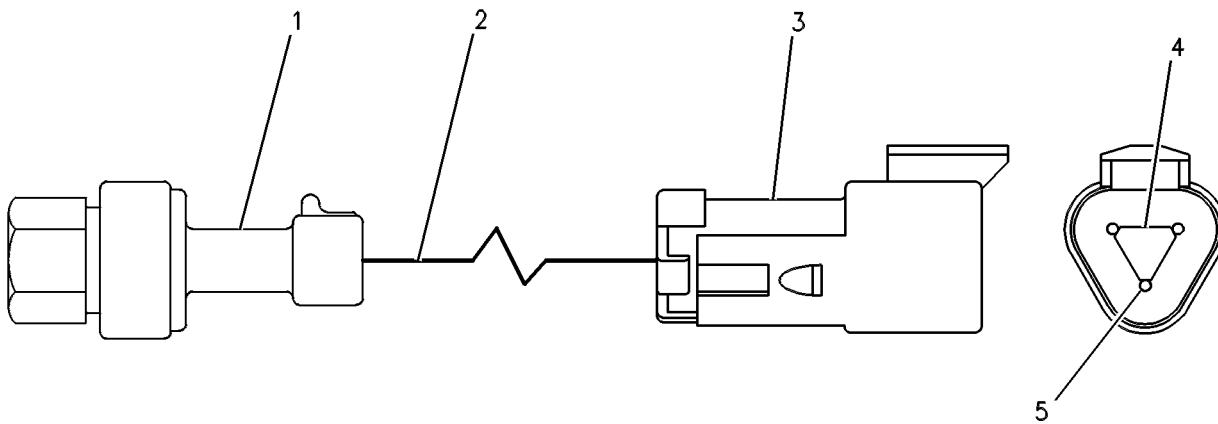
AN ATTACHMENT

SMCS-1916, 1917, 1923, 1924, 1925

i01315630

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9X-5275	1	SENSOR GP - PRESSURE (OIL & FUEL)						
E	2	1	9X-1386		SLEEVE (BULK) (15 CM)						
	3	1	102-8803	1	KIT-RECEPTACLE (3 PIN) (INCLUDES RECEPTACLE AS & WEDGE)						
	4	1	3E-3371	1	WEDGE-RECEPTACLE LOCK						
	5	1	8T-8729	3	PIN-CONNECTOR						

E-ORDER BY THE CENTIMETER



GRAPHIC #1

g00236916

ELECTRICAL AND STARTING SYSTEM

161-9925 SENSOR GP - PRESSURE

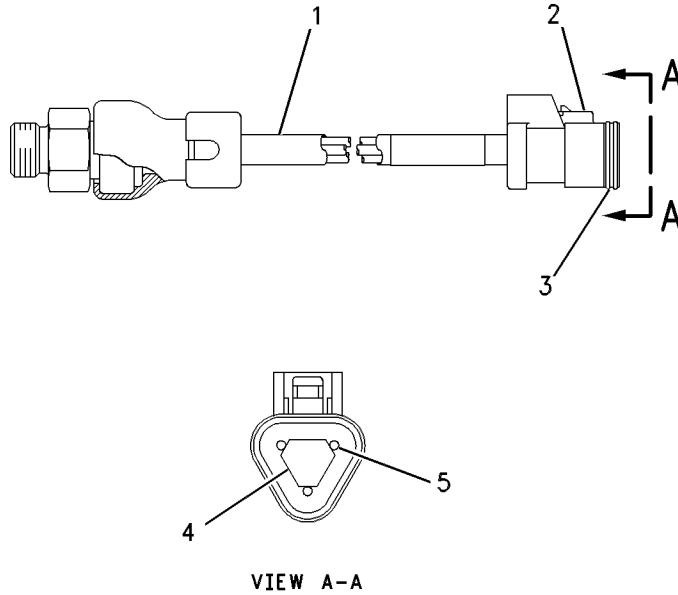
PART OF 102-7664 SENSOR & MTG GP - PRESSURE
 FIELD REPLACEMENT ORDER 194-6722-PAGE 323
 AN ATTACHMENT

SMCS-1916, 1917, 1923, 1924, 1925

i01458296

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
B	1	1	9X-1813		SLEEVE						
	2	1	155-2260	1	KIT-CONNECTING PLUG (3 PIN) (INCLUDES PLUG AS AND WEDGE)						
	3	1	102-8813	1	SEAL - INTERFACE						
	4	1	3E-3368	1	WEDGE - PLUG LOCK						
	5	1	8T-8730	3	SOCKET-CONNECTOR						

B-USE AS REQUIRED



GRAPHIC #1

g00545805

ELECTRICAL AND STARTING SYSTEM

161-9930 SENSOR GP - PRESSURE

S/N: 9WR489-UP

PART OF 150-8016 CYLINDER BLOCK GP, 139-3501 FILTER GP-FUEL, 124-3397 PUMP
GP-FUEL PRIMING

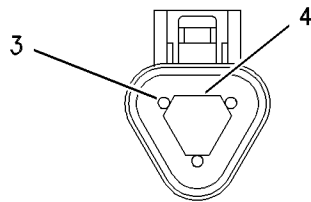
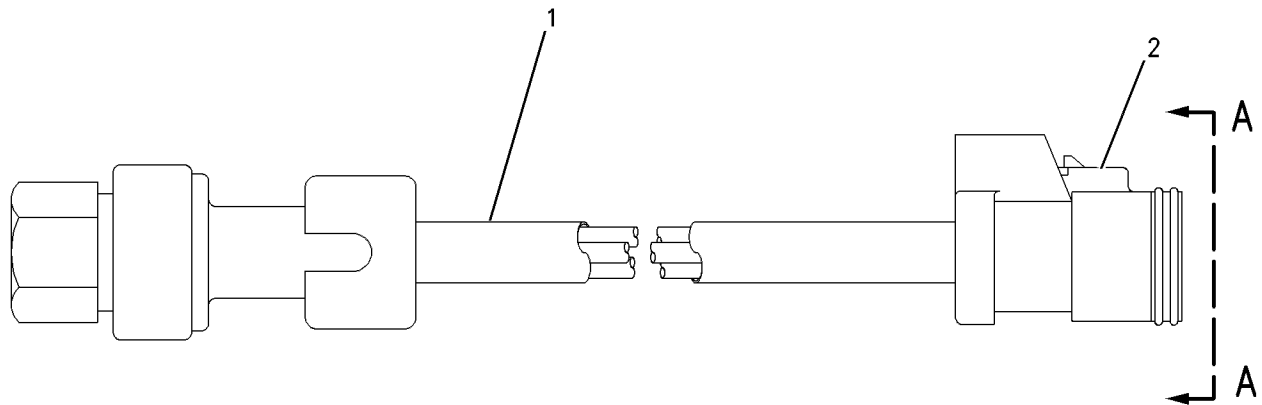
ALSO AN ATTACHMENT

SMCS-1916, 1917, 1923, 1924, 1925

i01370755

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
E	1	1	9X-1813		SLEEVE (34 CM)						
	2	1	102-8808	1	KIT-CONNECTING PLUG (3 PIN) (INCLUDES PLUG AS & WEDGE)						
	3	1	180-9340	3	SOCKET-CONNECTOR						
	4	1	3E-3368	1	WEDGE-PLUG LOCK						

E-ORDER BY THE CENTIMETER



VIEW A-A

GRAPHIC #1

g00571384

ELECTRICAL AND STARTING SYSTEM

161-9932 SENSOR GP - PRESSURE

FIELD REPLACEMENT FOR 3E-6114-PAGE 318

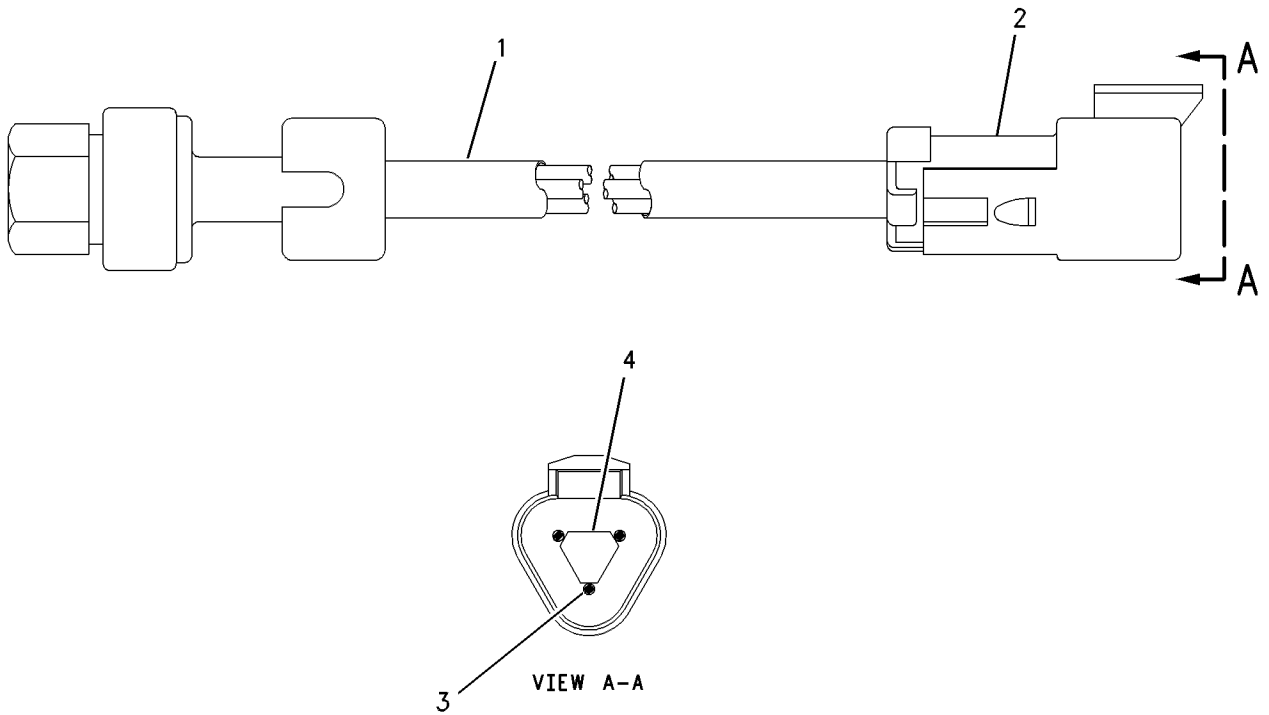
AN ATTACHMENT

SMCS-1916, 1917, 1923, 1924, 1925

i01364819

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
E	1	1	9X-1386		SLEEVE (15CM)						
	2	1	102-8803	1	KIT-RECEPTACLE (3 PIN) (INCLUDES RECEPTACLE AS. AND WEDGE)						
	3	1	9X-3401	3	PIN-CONNECTOR (FOR 16-18 GA WIRE) -OR-						
		1	126-1767	3	CONNECTOR-PIN (FOR 14 GA WIRE)						
	4	1	3E-3371	1	WEDGE-RECEPTACLE LOCK						

E-ORDER BY THE CENTIMETER



GRAPHIC #1

g00612982

ELECTRICAL AND STARTING SYSTEM

169-3725 SENSOR GP - PRESSURE

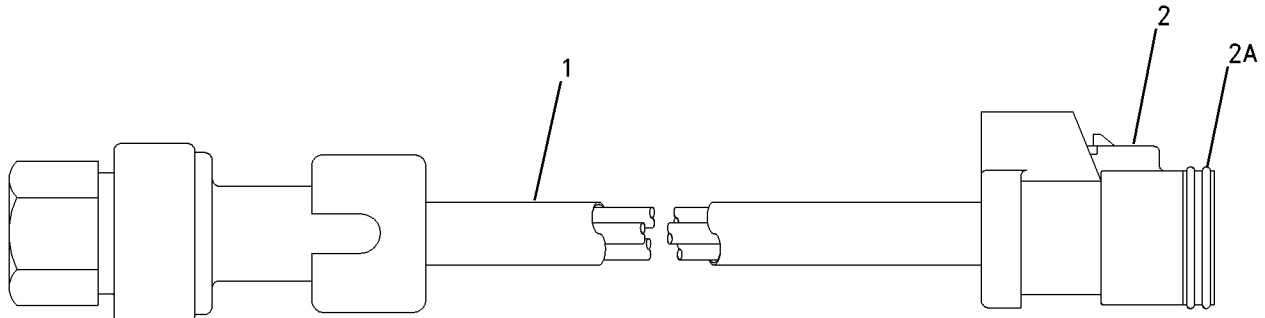
PART OF 123-6808 AFTERCooler GP
AN ATTACHMENT

SMCS-1916, 1917, 1923, 1924, 1925

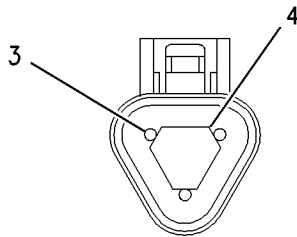
i01405766

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
BE	1	1	9X-1813		SLEEVE						
	2	1	155-2260	1	KIT-CONNECTING PLUG (3 PIN) (INCLUDES PLUG AS & WEDGE)						
	2A	1	102-8813	1	SEAL - INTERFACE						
	3	1	9X-3402	3	SOCKET - CONNECTOR						
	4	1	3E-3368	1	WEDGE - PLUG LOCK						

B - USE AS REQUIRED
E - ORDER BY THE CENTIMETER



LEFT SIDE VIEW



FRONT VIEW

GRAPHIC #1

g00700520

ELECTRICAL AND STARTING SYSTEM

194-6722 SENSOR GP - PRESSURE

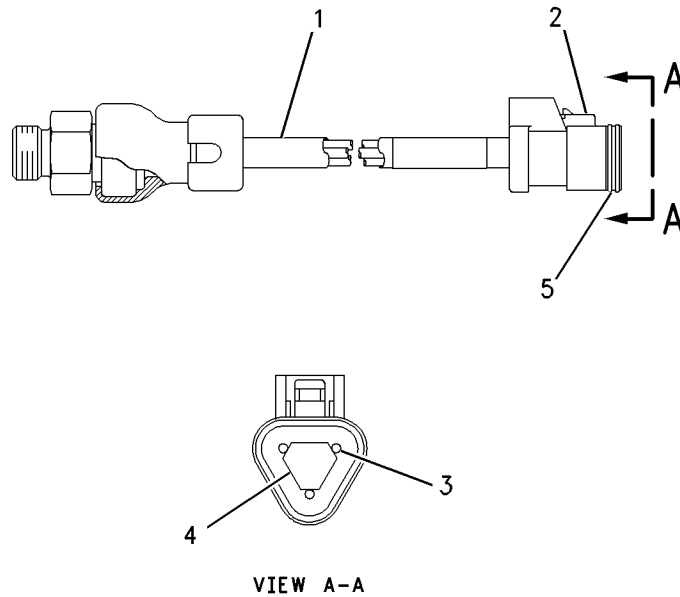
FIELD REPLACEMENT FOR 161-9925—PAGE 319

SMCS-1916, 1917, 1923, 1924, 1925

i01458311

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
B	1	1	9X-1813		SLEEVE						
	2	1	155-2260	1	KIT-CONNECTING PLUG (3 PIN) (INCLUDES PLUG AS AND WEDGE)						
	3	1	180-9340	3	SOCKET-CONNECTOR						
	4	1	3E-3368	1	WEDGE-PLUG LOCK						
	5	1	102-8813	1	SEAL-INTERFACE						

B-USE AS REQUIRED



GRAPHIC #1

g00755959

ELECTRICAL AND STARTING SYSTEM

129-6628 SENSOR GP - SPEED-ENGINE SPEED/TIMING

PART OF 127-1995 HOUSING GP-FRONT

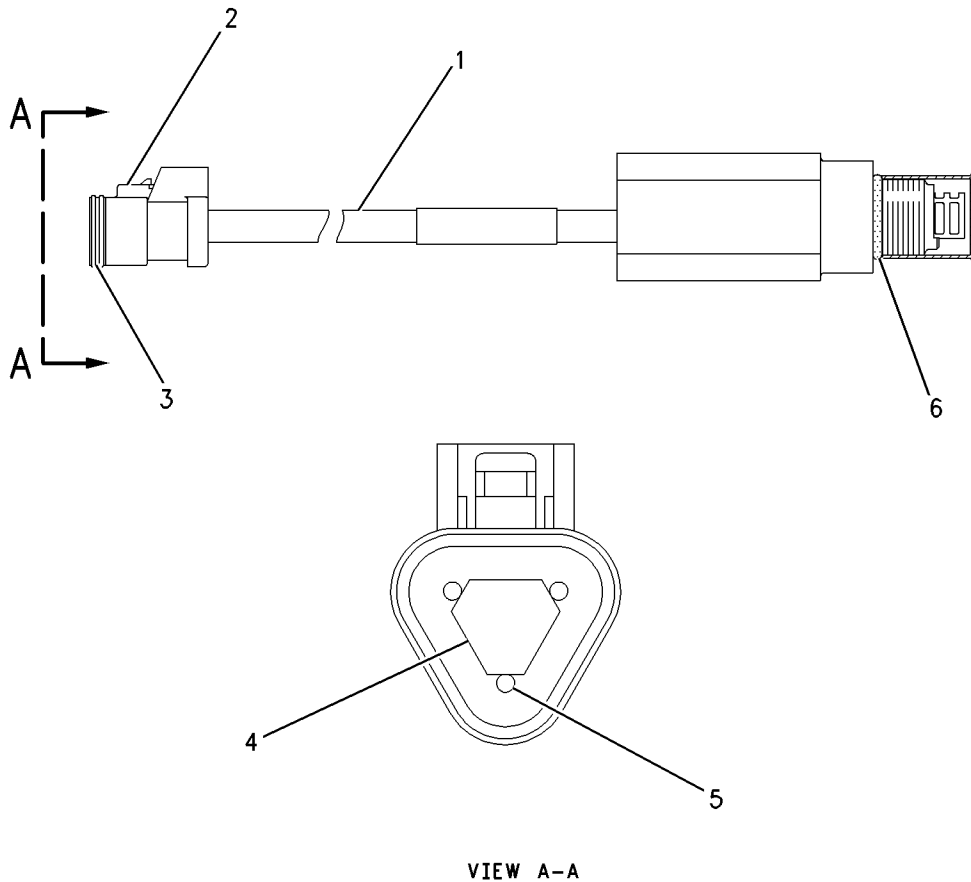
AN ATTACHMENT

SMCS-1907

i01352955

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
E	1	1	9X-1813		SLEEVE (31CM)						
	2	1	155-2260	1	KIT-CONNECTING PLUG (3 PIN) (INCLUDES PLUG AS. & WEDGE)						
	3	1	102-8813	1	SEAL-INTERFACE						
	4	1	3E-3368	1	WEDGE-PLUG LOCK						
	5	1	8T-8730	3	SOCKET-CONNECTOR						
	6	1	8L-2786	1	SEAL-O-RING (16.36MM ID)						

E-ORDER BY THE CENTIMETER



GRAPHIC #1

g00714038

ELECTRICAL AND STARTING SYSTEM

100-3055 SENSOR GP-TEMPERATURE

8 VOLT. PULSE WIDTH MODULATION

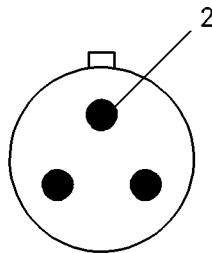
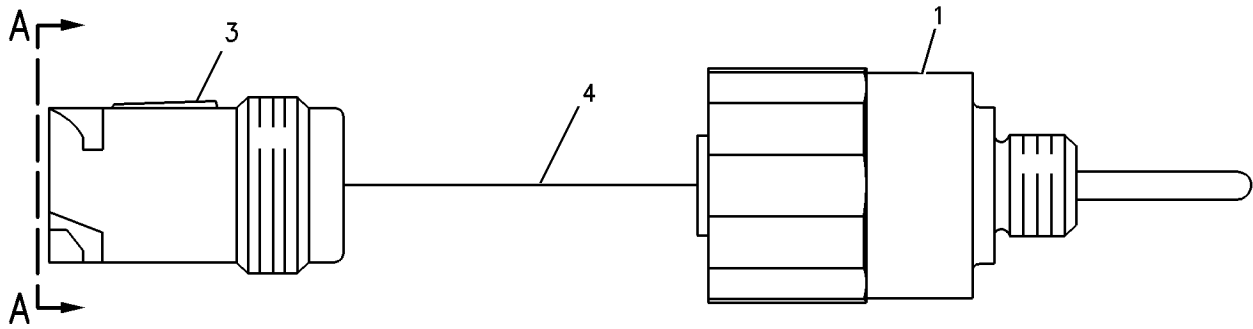
AN ATTACHMENT

SMCS-1906, 1919, 1921, 1922, 1928, 1929

i01372337

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Z	1	1		1	CONTROL AS-ELECTRONIC						
	2	1	8T-8729	3	PIN-CONNECTOR						
	3	1	8T-8732	1	RECEPTACLE-CONNECTOR						
E	4	1	9X-1813		SLEEVE (33CM)						

E-ORDER BY THE CENTIMETER
Z-NOT SERVICED SEPARATELY



VIEW A-A

GRAPHIC #1

g00681631

ELECTRICAL AND STARTING SYSTEM

105-5081 STARTING MOTOR GP-AIR*R

PART OF 130-1159 STARTING MOTOR GP-AIR

AN ATTACHMENT

SMCS-1451

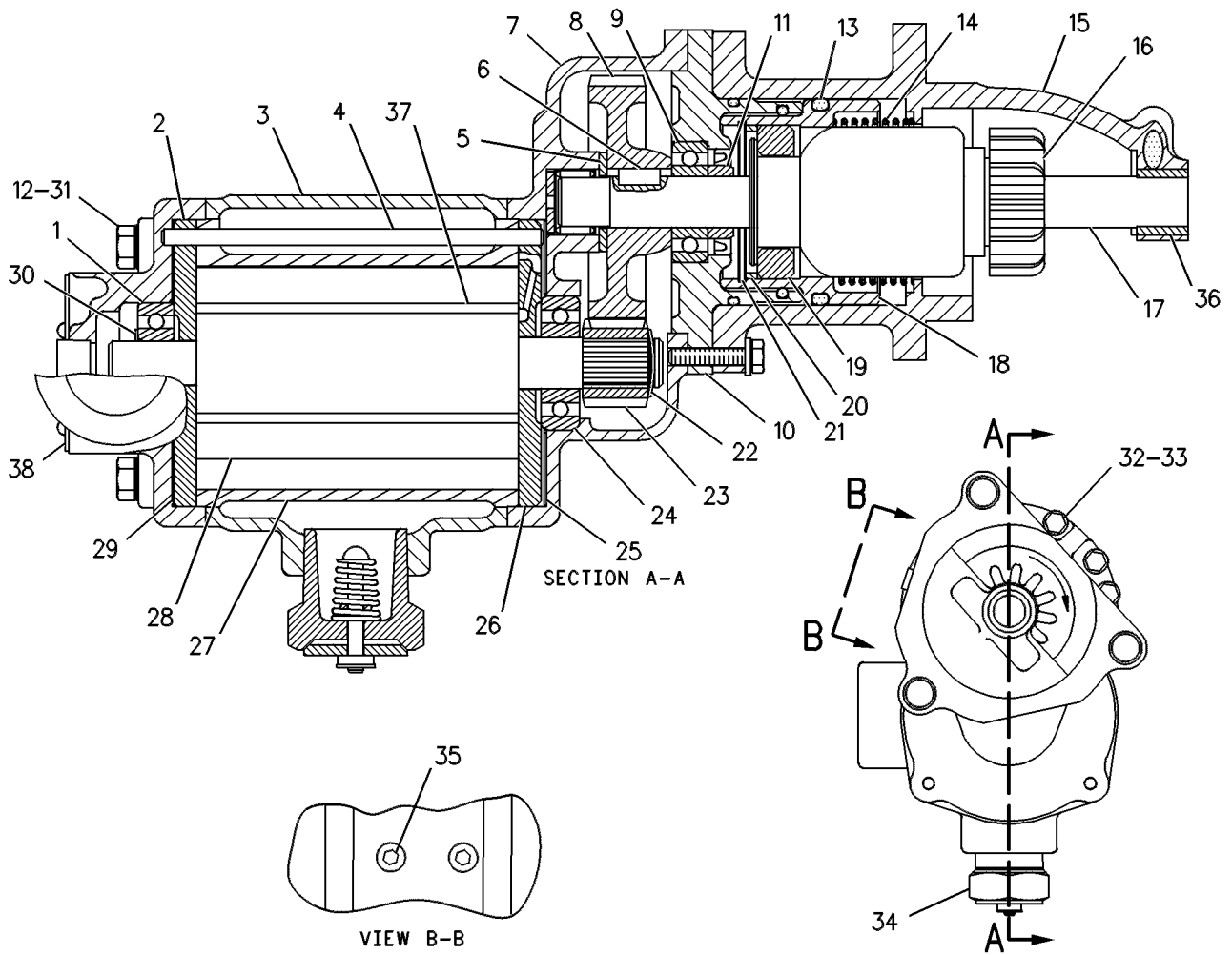
i01461390

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4N-4375	1	BALL BEARING						
	2	1	4N-4377	1	PLATE-REAR END						
	3	1	4N-4383	1	HOUSING-MOTOR						
	4	1	4N-4379	1	DOWEL-CYLINDER						
	5	1	4N-4390	1	WASHER-THRUST						
	6	1	4N-4391	1	KEY-GEAR						
	7	1	4N-4387	1	CASE AS-GEAR						
		1	4N-4388	1	WASHER-EJECTION						
		1	009-1436	1	BEARING						
	8	1	4N-4394	1	GEAR-DRIVE (45 TEETH)						
	9	1	5F-8651	1	BALL BEARING						
	10	1	4N-4392	1	COVER AS-CASE						
		1	4N-4393	1	SEAL-GREASE						
		1	6J-2244	1	SEAL-O-RING (66.27MM ID)						
		1	6V-1179	1	SEAL-O-RING (72.62MM ID)						
	11	1	4N-4397	1	COLLAR-DRIVE SHAFT						
	12	1	105-5136	4	WASHER						
	13	1	3P-0653	1	SEAL-O-RING						
	14	1	4N-4403	1	SPRING-RING						
	15	1	105-5138	1	HOUSING						
	16	1	4N-4405	1	CLUTCH AS-DRIVE						
	17	1	4N-4421	1	SHAFT-DRIVE						
	18	1	105-5137	1	PISTON						
	19	1	4N-4400	1	RING-SHIFT						
	20	1	4N-4402	1	SPACER-RING						
	21	1	052-0512	1	RING-RETAINING						
	22	1	4N-4386	1	RETAINER-PINION						
	23	1	4N-4413	1	PINION-ROTOR						
	24	1	9B-9774	1	BALL BEARING						
	25	1	4N-4384	1	GASKET-GEAR CASE						
	26	1	4N-4382	1	PLATE-FRONT END						
	27	1	4N-4378	1	CYLINDER						
	28	1	4N-4381	1	ROTOR						
	29	1	4N-4376	1	GASKET-HOUSING COVER						
	30	1	5L-4035	1	RING-RETAINING (EXTERNAL)						
	31	1	8F-8544	4	BOLT (3/8-16X6.25IN)						
	32	1	7B-2742	12	BOLT (1/4-20X1.25 IN)						
	33	1	5P-0537	12	WASHER-HARD (7.2X14.5X2MM THK)						
	34	1	4N-4409	1	DEFLECTOR AS						
	35	1	8T-6763	2	PLUG-PIPE						
	36	1	6D-3787	1	BEARING-ROLLER						
	37	1	4N-4380	1	KIT-VANE						
	38	1	4N-4371	1	COVER AS-HOUSING						
		1	7M-7410	1	PLUG (3/8-18 NPTF)						

ELECTRICAL AND STARTING SYSTEM

105-5081 STARTING MOTOR GP-AIR (contd.)

i01461390



GRAPHIC #1

g00246375

ELECTRICAL AND STARTING SYSTEM

130-1159 STARTING MOTOR GP-AIR

LH
AN ATTACHMENT

SMCS-1451

i01483232

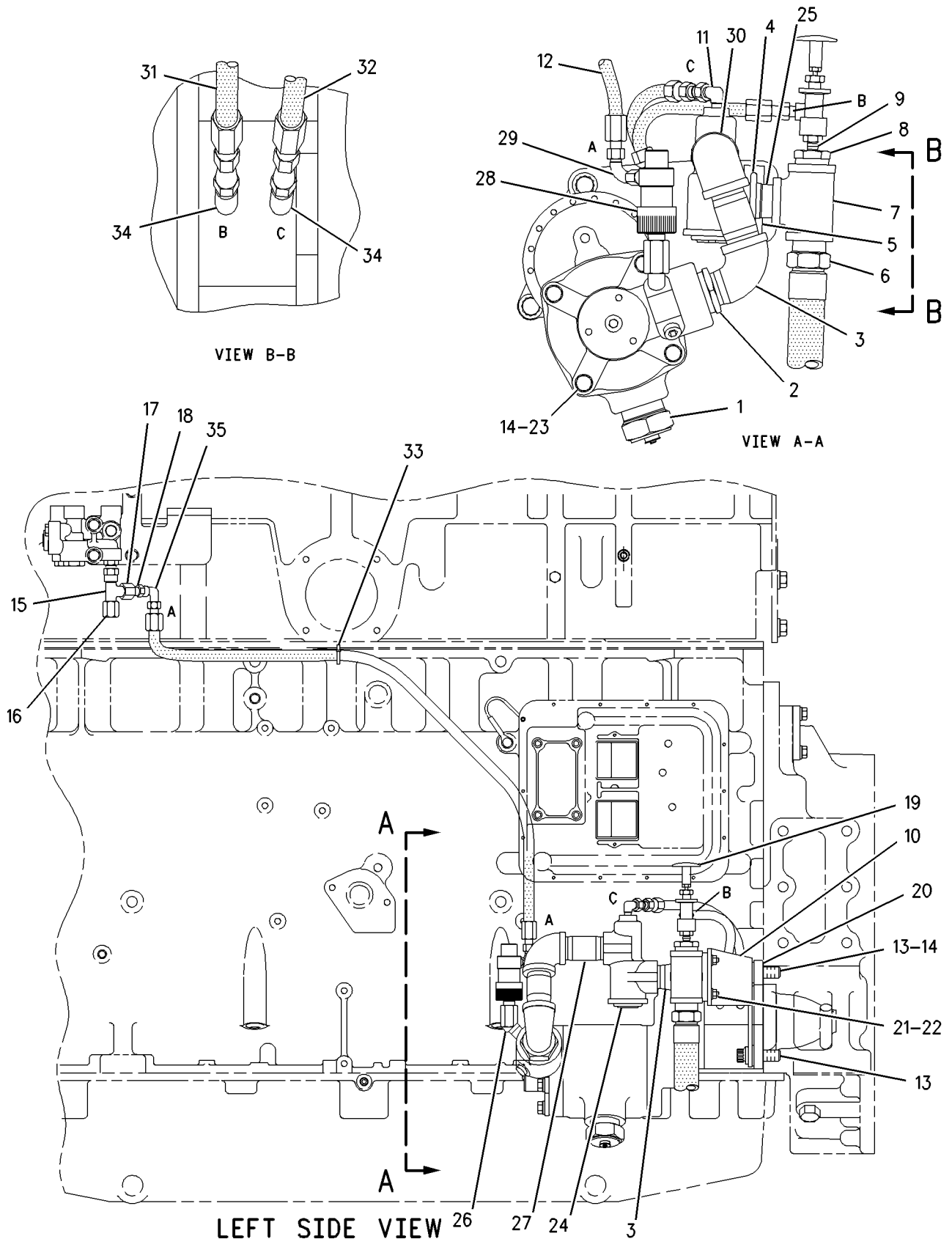
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE	
					1	2	3	4	5	6 (PRODUCT LEVEL)		
YR	1	1	105-5081	1	STARTING MOTOR GP-AIR						326	
	2	1	3B-7257	1	BUSHING-REDUCER							
	3	1	3B-6555	2	ELBOW							
	4	1	9S-5828	1	BOLT-UPPER (1/4 IN NC THD X 2 7/16)							
	5	1	6N-3899	1	SPACER							
I	6	1	9L-4652	1	HOSE AS							
	7	1	4B-7770	1	TEE (1 X 11 X 1/2 NPT)							
	8	1	4D-3967	1	BUSHING-REDUCER							
	9	1	6V-1813	1	NIPPLE-CLOSE							
	10	1	101-3998	1	BRACKET AS							
			2S-5658	2	WASHER-HARD (17X29X3MM THK)							
	11	1	6K-1972	1	ELBOW-FLARED							
	YI	12	1	3P-6048	1	HOSE AS						128
		13	1	8S-2331	2	BOLT-12 POINT HEAD (5/8-11 X 2 IN)						
		14	1	2S-5658	2	WASHER-HARD (17X29X3MM THK)						
15		1	061-9258	1	TEE							
16		1	8S-4950	1	CAP (37 DEGREE FLARED)							
17		1	3R-4437	1	NUT (9/16-18 THD)							
18		1	030-8142	1	REDUCER-FLARED							
19		1	4N-3410	1	VALVE AS-CONTROL (STARTER)							
			2W-0629	1	KNOB-ENGINE START							
20		1	4H-7869	1	GASKET							
21		1	9S-8750	2	NUT-FULL (1/4-20 THD)							
22		1	5P-0537	2	WASHER-HARD (7.2X14.5X2MM THK)							
23		1	8S-2332	1	BOLT-12 POINT HEAD (5/8-11X1.75 IN)							
24		1	7M-9544	1	VALVE (AIR STARTER)							
25	1	6B-8128	1	NIPPLE-PIPE								
26	1	1L-2279	1	ELBOW								
		6B-8129	2	NIPPLE-PIPE								
Y	28	1	172-0208	1	LUBRICATOR GP-AIR MOTOR						307	
	29	1	5P-4479	1	ELBOW							
	30	1	3B-6498	1	ELBOW							
I	31	1	4W-4536	1	HOSE AS							
I	32	1	7V-1037	1	HOSE AS							
	33	1	6K-0806	1	STRAP-CABLE							
	34	1	5J-7303	2	ELBOW							
	35	1	7K-9197	1	ELBOW-SWIVEL							

I-SEE HOSE FABRICATION GUIDE
R-REMFG PART MAY BE AVAILABLE
Y-SEPARATE ILLUSTRATION

ELECTRICAL AND STARTING SYSTEM

130-1159 STARTING MOTOR GP-AIR (contd.)

i01483232



GRAPHIC #1

g00769896

ELECTRICAL AND STARTING SYSTEM

3E-7863 STARTING MOTOR GP-ELECTRIC

12 VOLT

PART OF 101-8936 STARTING MOTOR GP-ELECTRIC
AN ATTACHMENT

SMCS-1453

i01455104

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	5S-7349	4	BOLT (1/4-20X0.5 IN)						
	2	1	3T-3434	6	PLUG						
	3	1	2H-3429	1	RING-RETAINING						
	4	1	4B-2049	3	NUT (10-32 THD)						
	5	1	8F-1434	2	LOCKWASHER						
	6	1	7T-3271	1	CONNECTOR						
	7	1	4B-4274	3	WASHER (5.5X13X1.2MM THK)						
	8	1	036-9823	5	BOLT						
	9	1	8T-8568	1	COIL AS-FIELD						
	10	1	3F-0379	8	SCREW-POLE SHOE						
	11	1	7T-3275	1	ARMATURE AS						
	12	1	8H-1141	4	SHOE-POLE						
	13	1	7T-3454	1	INSULATOR						
	14	1	7T-3279	1	HOUSING AS						
	15	1	8T-8570	1	HOLDER AS-BRUSH						
	16	1	3T-3422	1	WIRE AS						
	17	1	8T-8566	1	TERMINAL AS						
	18	1	8T-4205	1	WASHER-HARD (7.2X14.5X2MM THK)						
	19	1	6V-8188	4	NUT (1/2-13 THD)						
	20	1	7X-0562	4	WASHER-HARD (13.5X19X0.8MM THK)						
	21	1	9X-4824	1	COVER-STARTING MOTOR						
	22	1	7T-3451	1	INSULATOR-TERMINAL						
	23	1	8T-8569	1	INSULATOR-TERMINAL						
	24	1	3E-5449	1	SOLENOID AS-STARTING MOTOR (24 VOLT)						
	25	1	036-9821	1	WASHER						
	26	1	7T-3269	1	BOOT						
	27	1	7T-3270	1	PLUNGER AS						
	28	1	9M-7609	1	SPRING						
	29	1	4M-1828	1	RETAINER-SPRING						
	30	1	4M-1827	1	RETAINER-SPRING						
	31	1	4M-1831	1	PLUG-LEVER HOUSING						
	32	1	3E-7775	1	HOUSING AS						
	33	1	7T-3974	1	HOUSING AS-DRIVE						
	34	1	7X-3373	1	BOLT (5/16-18X0.88 IN)						
	35	1	6N-3826	1	DRIVE AS-MOTOR						
Z	36	1		1	HOUSING						
JZ	37	1		4	SPRING						
JZ	38	1		4	BRUSH						
JZ	39	1		4	SCREW						
JPZ	40	1		6	SCREW AS						
JPZ	41	1		2	SEAL						
LZ	42	1		3	INSULATOR						
LZ		1		1	BUSHING						
NZ	43	1		1	LEVER AS						
NZ	44	1		1	LEVER AS						
NPZ	45	1		1	NUT						
NPZ	46	1		1	SEAL						
PZ	47	1		1	SEAL						
NZ	48	1		1	RETAINER						
NPZ	49	1		1	GASKET						
PZ	50	1		1	BUSHING						
PZ	51	1		2	PLUG						
PZ	52	1		1	PLUG						
PZ	53	1		1	PLUG						
PZ	54	1		1	PLUG						

ELECTRICAL AND STARTING SYSTEM

3E-7863 STARTING MOTOR GP-ELECTRIC (contd.)

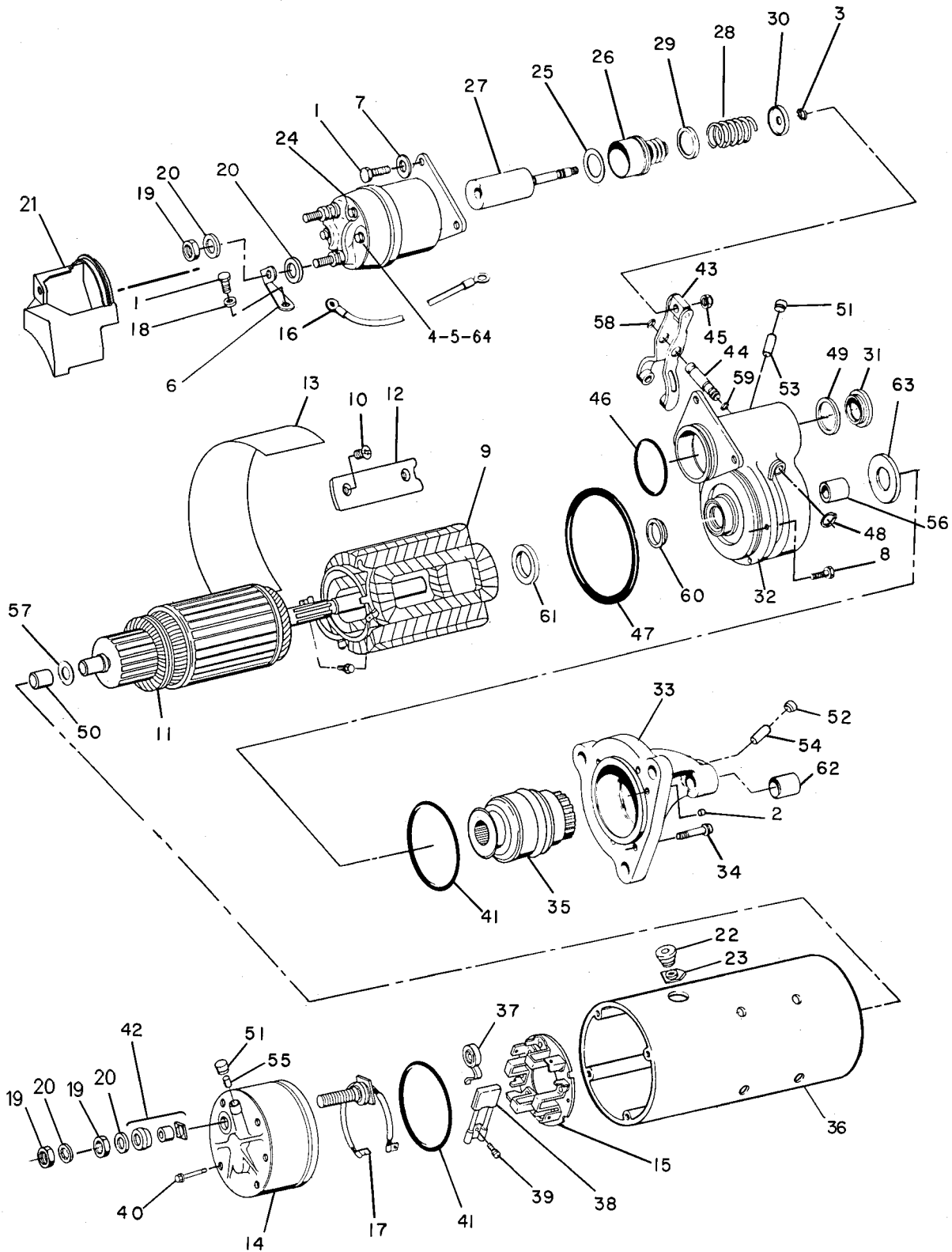
i01455104

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
PZ	55	1		1	PLUG						
PZ	56	1		1	BUSHING						
PZ	57	1		1	WASHER						
NZ	58	1		1	SEAL						
NZ	59	1		1	SEAL						
PZ	60	1		1	RETAINER						
PZ	61	1		1	SPACER						
PZ	62	1		1	BUSHING						
PZ	63	1		1	GASKET						
	64	1	8T-0328	3	WASHER-HARD (5.5X10X1MM THK)						
AVAILABLE REPAIR KIT(S) :											
J			8T-9885	1	KIT-BRUSH						
P			7T-3267	1	KIT-BUSHING (STARTING MOTOR)						
N			7T-3268	1	KIT-LEVER (STARTING MOTOR)						
L			8T-9884	1	KIT-INSULATOR (STARTING MOTOR)						
J - KIT MARKED J INCLUDES PARTS MARKED J L - KIT MARKED L INCLUDES PARTS MARKED L N - KIT MARKED N INCLUDES PARTS MARKED N P - KIT MARKED P INCLUDES PARTS MARKED P Z - NOT SERVICED SEPARATELY											

ELECTRICAL AND STARTING SYSTEM

3E-7863 STARTING MOTOR GP-ELECTRIC (contd.)

i01455104



GRAPHIC #1

g00235392

ELECTRICAL AND STARTING SYSTEM

3T-2650 STARTING MOTOR GP-ELECTRIC

24 VOLT

PART OF 131-3401 STARTING MOTOR GP-ELECTRIC

FIELD REPLACEMENT ORDER 6V-5539-PAGE 339, 6N-1889-PAGE 334

AN ATTACHMENT

SMCS-1453

i00977127

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	7T-0795	1	STARTING MOTOR GP-ELECTRIC						346
			-OR-						
Y	8C-3649	1	STARTING MOTOR GP-ELECTRIC						356
Y-SEPARATE ILLUSTRATION									

ELECTRICAL AND STARTING SYSTEM

6N-1889 STARTING MOTOR GP-ELECTRIC*R

24 VOLT

PART OF 131-8277 STARTING MOTOR GP-ELECTRIC

FIELD REPLACEMENT ORDER 6V-5539-PAGE 339. FIELD REPLACEMENT FOR 3T-2650-PAGE 333
AN ATTACHMENT

SMCS-1453

i01068440

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	8C-3644	1	STARTING MOTOR GP-ELECTRIC						352
			-OR-						
Y	7T-0794	1	STARTING MOTOR GP-ELECTRIC						344
			-OR-						
Y	9X-4452	1	STARTING MOTOR GP-ELECTRIC						360
Y-SEPARATE ILLUSTRATION									

MEMORANDA

ELECTRICAL AND STARTING SYSTEM

6V-4213 STARTING MOTOR GP - ELECTRIC*R

FIELD REPLACEMENT FOR 8C-3593-PAGE 348

FIELD INSTALLATION

SMCS-1453

i00654658

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	5S-7349	4	BOLT (1/4-20X0.5IN)						
	2	1	7L-2894	1	GASKET						
	3	1	2H-3429	1	RING-RETAINING						
	4	1	4B-2049	2	NUT (10-32 THD)						
	5	1	8F-1434	2	LOCKWASHER (5MM ID)						
	6	1	7T-3271	1	CONNECTOR						
	7	1	8T-4205	4	WASHER-HARD (2MM THK)						
	8	1	036-9823	5	BOLT						
	9	1	8T-8568	1	COIL AS-FIELD						
	10	1	3F-0379	8	SCREW-POLE SHOE						
	11	1	7T-3275	1	ARMATURE AS						
	12	1	8H-1141	4	SHOE-POLE						
	13	1	7T-3454	1	INSULATOR						
	14	1	7T-3279	1	HOUSING AS						
	15	1	8T-8570	1	HOLDER AS-BRUSH						
	16	1	3T-3422	1	WIRE AS						
	17	1	8T-8566	1	TERMINAL AS						
	18	1	6N-3826	1	DRIVE AS-MOTOR						
	19	1	6V-8188	4	NUT (1/2-13 THD)						
	20	1	7X-0562	4	WASHER-HARD (0.8MM THK)						
	21	1	8T-0328	2	WASHER-HARD (1MM THK)						
	22	1	7T-3451	1	INSULATOR-TERMINAL						
	23	1	8T-8569	1	INSULATOR-TERMINAL						
	24	1	3E-5449	1	SOLENOID AS-STARTING MOTOR (STARTER 24 VOLT)						
	25	1	036-9821	1	WASHER						
	26	1	7T-3269	1	BOOT						
	27	1	7T-3270	1	PLUNGER AS						
	28	1	9M-7609	1	SPRING						
	29	1	4M-1828	1	RETAINER-SPRING						
	30	1	4M-1827	1	RETAINER-SPRING						
	31	1	4M-1831	1	PLUG-LEVER HOUSING						
	32	1	3E-7775	1	HOUSING AS						
	33	1	110-5035	1	HOUSING AS						
	34	1	7X-3373	6	BOLT (5/16-18X.88IN)						
PZ	35	1		1	GASKET (WASHER)						
Z	36	1		1	HOUSING						
JZ	37	1		4	SPRING						
JZ	38	1		4	BRUSH						
JZ	39	1		4	SCREW						
JPZ	40	1		6	SCREW AS						
JPZ	41	1		2	SEAL (O-RING)						
LZ	42	1		3	INSULATOR						
LZ		1		1	BUSHING						
NZ	43	1		1	LEVER AS						
NZ	44	1		1	LEVER AS						
NPZ	45	1		1	NUT						
NPZ	46	1		1	SEAL (O-RING)						
PZ	47	1		1	SEAL (O-RING)						
NZ	48	1		1	RETAINER						
NPZ	49	1		1	GASKET						
PZ	50	1		1	BUSHING						
PZ	51	1		2	CUP (PLUG)						
PZ	52	1		1	CUP (PLUG)						
PZ	53	1		1	PLUG						
PZ	54	1		1	PLUG						
PZ	55	1		1	PLUG						

ELECTRICAL AND STARTING SYSTEM

6V-4213 STARTING MOTOR GP-ELECTRIC (contd.)

i00654658

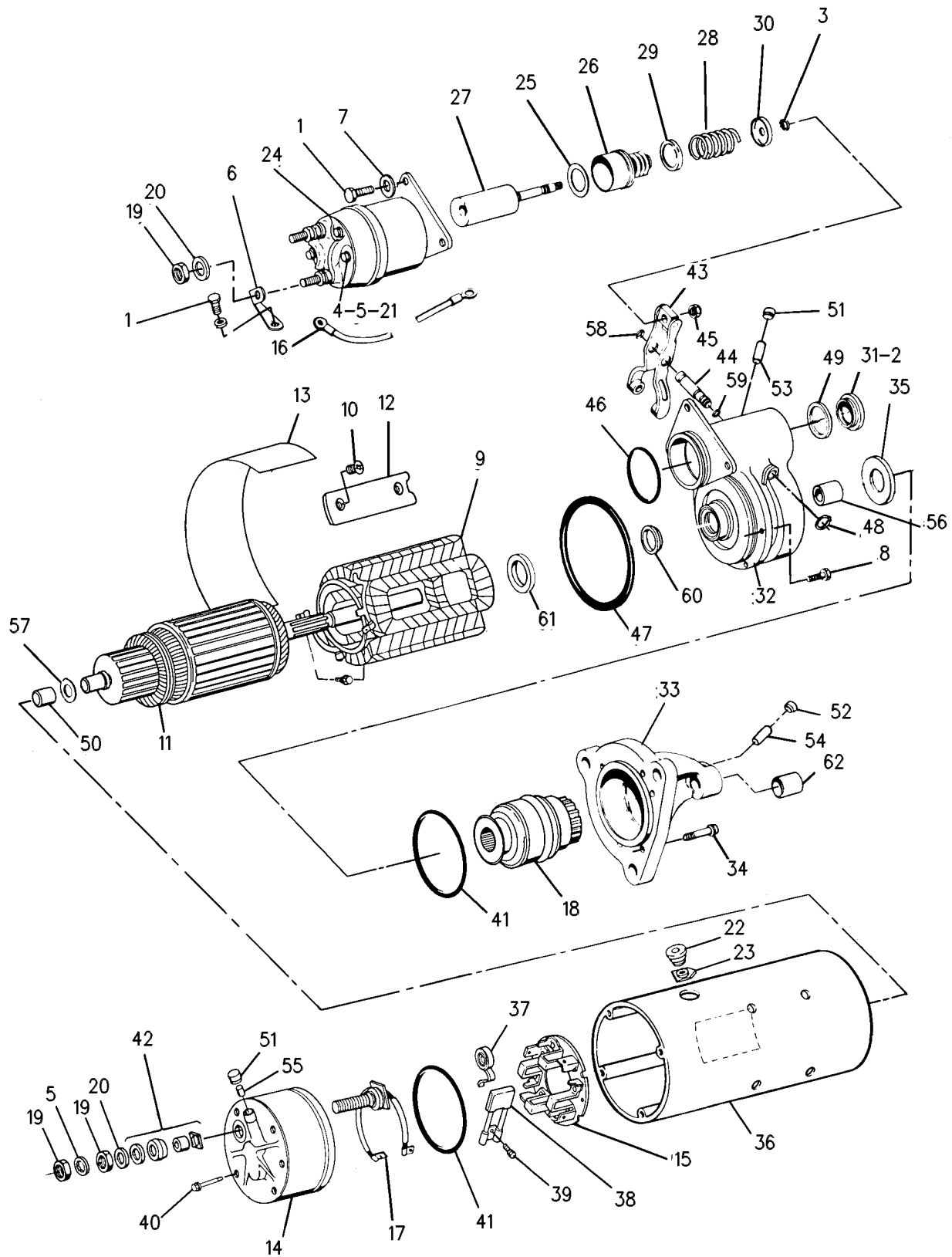
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
PZ	56	1		1	BUSHING						
PZ	57	1		1	WASHER						
NZ	58	1		1	SEAL (O-RING)						
NZ	59	1		1	SEAL (O-RING)						
PZ	60	1		1	RETAINER (SEAL)						
PZ	61	1		1	SPACER						
PZ	62	1		1	BUSHING						
AVAILABLE REPAIR KIT(S) :											
			8T-9885	1	KIT-BRUSH (INCLUDES PARTS MARKED J)						
			7T-3267	1	KIT-BUSHING (INCLUDES PARTS MARKED P)						
			7T-3268	1	KIT-LEVER (INCLUDES PARTS MARKED N)						
			8T-9884	1	KIT-INSULATOR (INCLUDES PARTS MARKED L)						

Z-NOT SERVICED SEPARATELY

ELECTRICAL AND STARTING SYSTEM

6V-4213 STARTING MOTOR GP-ELECTRIC (contd.)

i00654658



GRAPHIC #1

g00247777

ELECTRICAL AND STARTING SYSTEM

6V-5539 STARTING MOTOR GP-ELECTRIC*R

24 VOLT

FIELD REPLACEMENT FOR 6N-1889-PAGE 334: FOR 3T-2650-PAGE 333: FOR
8C-3649-PAGE 356: FOR 7T-0795-PAGE 346: FOR 8C-3644-PAGE 352: FOR
7T-0794-PAGE 344: FOR 9X-4452-PAGE 360
FIELD INSTALLATION

SMCS-1453

i01199648

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	6V-5540	1	STARTING MOTOR GP-ELECTRIC						340
			-OR-						
Y	6V-5582	1	STARTING MOTOR GP-ELECTRIC						342
			-OR-						
Y	106-8554	1	STARTING MOTOR GP-ELECTRIC						364
Y-SEPARATE ILLUSTRATION									

ELECTRICAL AND STARTING SYSTEM

6V-5540 STARTING MOTOR GP-ELECTRIC

24 VOLT

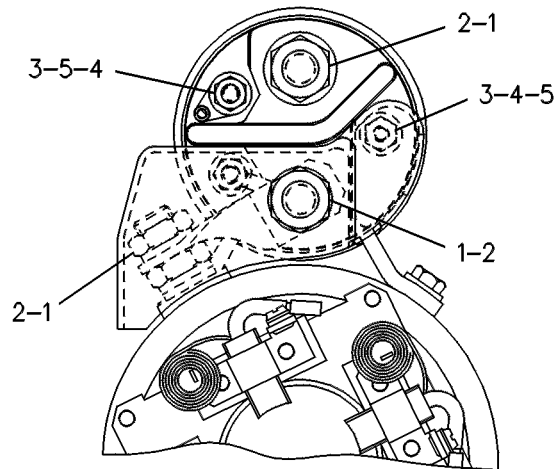
PART OF 6V-5539 STARTING MOTOR GP-ELECTRIC

SMCS-1453

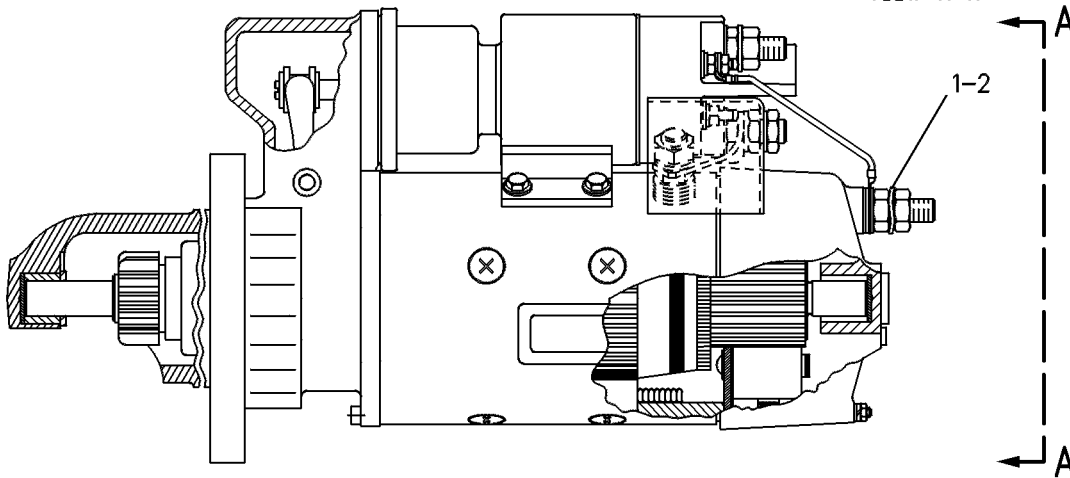
i00112093

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7X-0562	5	WASHER-HARD (0.8MM THK)						
M	2	1	8T-4244	5	NUT (M12X1.75 THD)						
M	3	1	5C-2874	2	NUT (M5X.8 THD)						
	4	1	8F-1434	2	LOCKWASHER (5MM ID)						
	5	1	8T-0328	2	WASHER-HARD (1MM THK)						

M-METRIC PART



VIEW A-A



GRAPHIC #1

g00084514

MEMORANDA

ELECTRICAL AND STARTING SYSTEM

6V-5582 STARTING MOTOR GP-ELECTRIC

24 VOLT

PART OF 6V-5539 STARTING MOTOR GP-ELECTRIC

SMCS-1453

i00112096

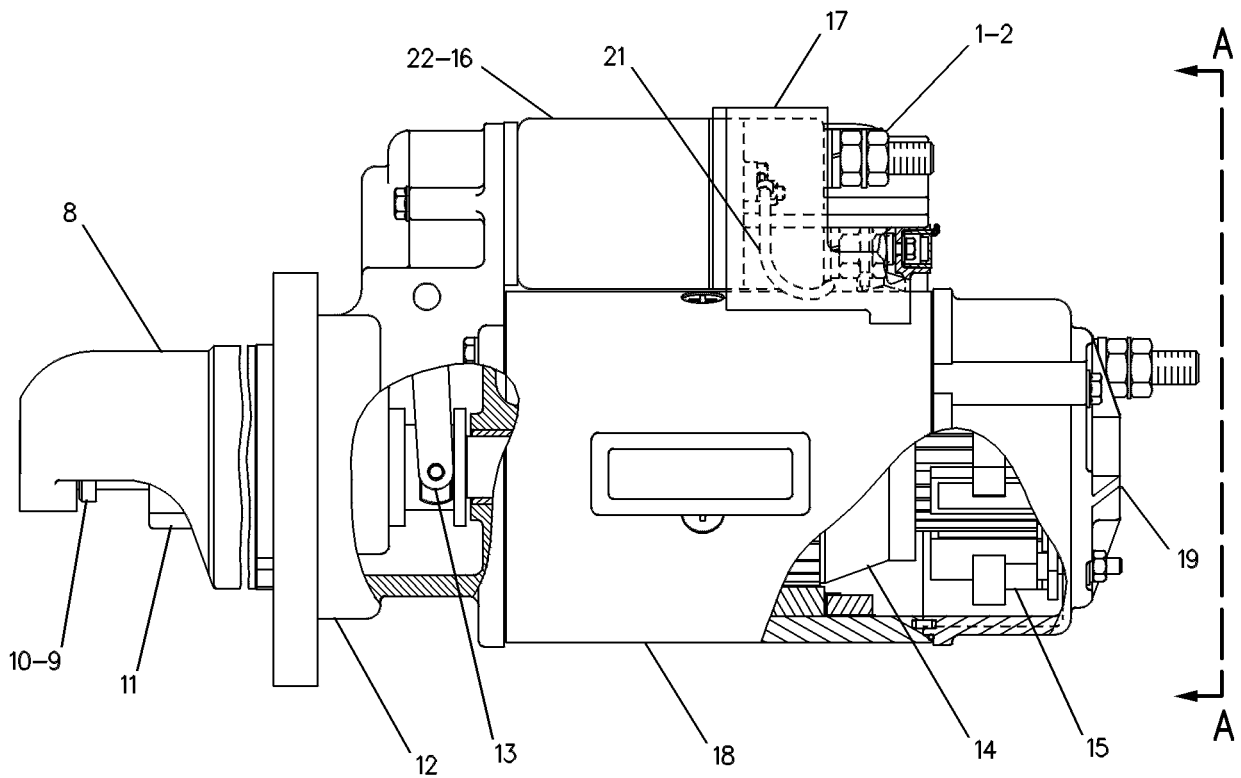
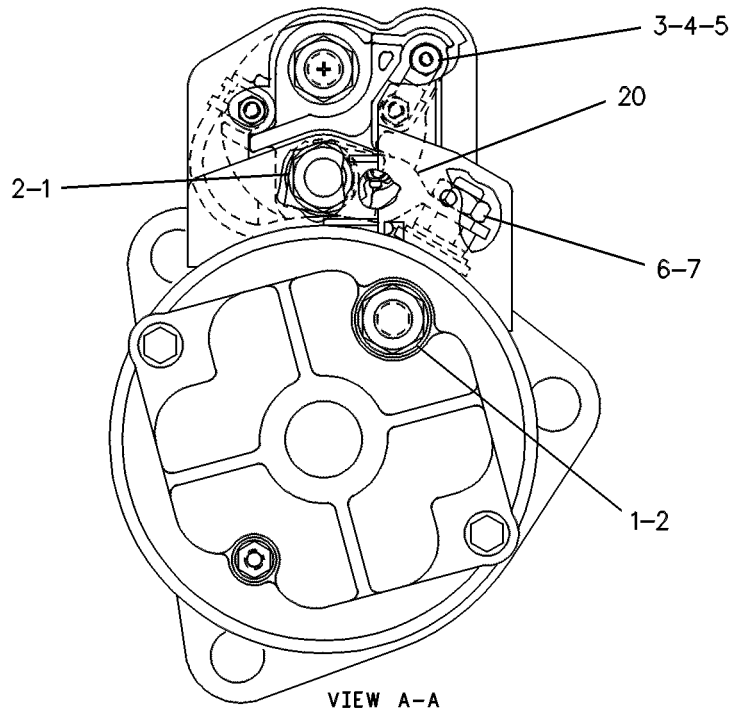
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6V-8188	3	NUT (1/2-13 THD)						
	2	1	7X-0562	3	WASHER-HARD (0.8MM THK)						
	3	1	4B-2049	1	NUT (10-32 THD)						
	4	1	8F-1434	1	LOCKWASHER (5MM ID)						
	5	1	8T-0328	1	WASHER-HARD (1MM THK)						
M	6	1	8T-4133	1	NUT (M10X1.50 THD)						
	7	1	8T-4121	1	WASHER (2.5MM THK)						
	8	1	3E-0142	1	HOUSING AS						
	9	1	3E-0141	1	STOP-STARTING MOTOR						
	10	1	4N-7521	1	LOCKRING						
	11	1	3E-0146	1	DRIVE AS-STARTING MOTOR						
	12	1	3E-0144	1	HOUSING AS						
	13	1	3E-0140	1	LEVER AS-STARTER						
	14	1	3E-0138	1	ARMATURE AS						
	15	1	3E-0137	1	HOLDER AS						
	16	1	3E-0135	1	SOLENOID AS						
	17	1	3E-0125	1	COVER AS-STARTING MOTOR						
	18	1	3E-0139	1	HOUSING AS						
	19	1	3E-0136	1	HOUSING AS						
	20	1	3E-0132	1	CONNECTOR						
	21	1	3E-0133	1	WIRE AS-STARTING MOTOR						
	22	1	3E-0134	1	COVER-PLUNGER						
					AVAILABLE REPAIR KIT(S) :						
			3E-0128	1	KIT-BRUSH (INCLUDES O-RINGS, SCREW, SPRING, & BRUSH)						
			3E-0131	1	KIT-WASHER (INCLUDES WASHERS)						
			3E-0127	1	KIT-BEARING (INCLUDES BEARINGS)						
			3E-0129	1	KIT-HARDWARE (INCLUDES WASHERS, BOLTS, LOCKWASHERS, NUTS, BUSHINGS, & PLATE)						
			3E-0130	1	KIT-STARTING MOTOR SEAL (INCLUDES SEALS & O-RINGS)						
			3E-0145	1	KIT-STARTING MOTOR PIN (INCLUDES O-RINGS, SHAFT, AND RING)						

M-METRIC PART

ELECTRICAL AND STARTING SYSTEM

6V-5582 STARTING MOTOR GP-ELECTRIC (contd.)

i00112096



GRAPHIC #1

g00084516

ELECTRICAL AND STARTING SYSTEM

7T-0794 STARTING MOTOR GP-ELECTRIC

24 VOLTS

PART OF 6N-1889 STARTING MOTOR GP-ELECTRIC

FIELD REPLACEMENT ORDER 6V-5539-PAGE 339

AN ATTACHMENT

SMCS-1453

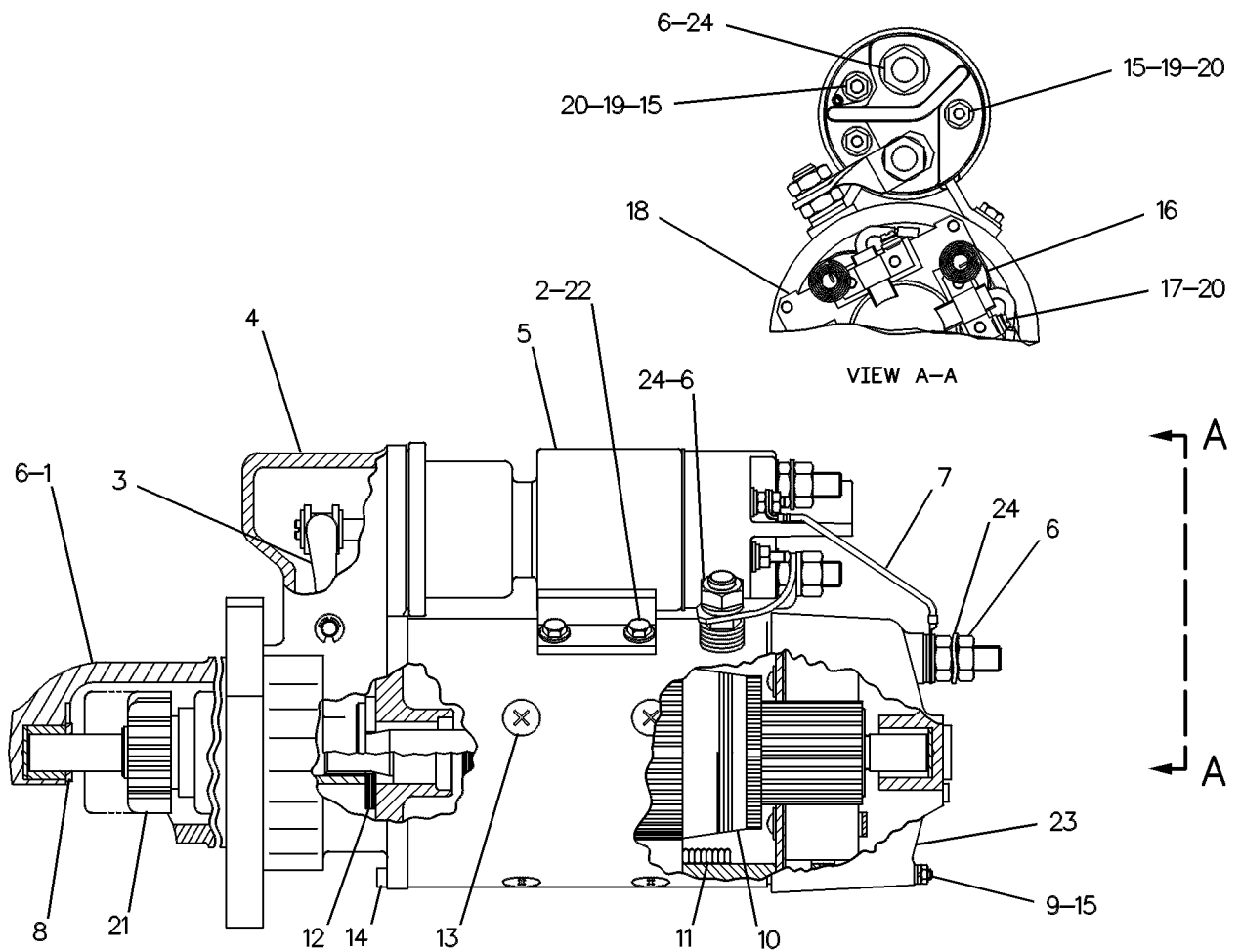
i01106312

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	3T-7022	1	HOUSING AS-DRIVE						
	2	1	8T-4205	4	WASHER-HARD (2MM THK)						
	3	1	3T-0863	1	LEVER-SHIFT						
	4	1	3T-0864	1	HOUSING AS-LEVER						
		1	3T-0842	1	BEARING AS						
	5	1	9X-0332	1	KIT-SOLENOID						
M	6	1	8T-4244	4	NUT (M12X1.75 THD)						
	7	1	3T-4716	1	WIRE AS						
	8	1	3T-7020	1	WASHER						
	9	1	3T-0847	4	SCREW						
	10	1	3T-0867	1	ARMATURE AS						
	11	1	3T-0865	1	COIL AS-FIELD						
	12	1	3T-7021	1	PLATE-BRAKE						
M	13	1	3T-0850	8	SCREW						
M	14	1	3T-0849	12	BOLT-SOCKET HEAD (M6X1X25MM)						
M	15	1	5C-2874	6	NUT (M5X.8 THD)						
	16	1	3T-0858	4	SPRING-BRUSH						
M	17	1	6V-9673	4	SCREW-MACHINE (M5X0.8X12MM)						
	18	1	3T-0862	1	PLATE AS-BRUSH						
	19	1	8F-1434	2	LOCKWASHER (0.51MM THK)						
	20	1	8T-0328	6	WASHER-HARD (1MM THK)						
	21	1	4N-4405	1	CLUTCH AS-DRIVE						
M	22	1	8T-4970	4	BOLT (M6X1X14MM)						
	23	1	3T-7025	1	COVER-END						
	24	1	7X-0562	4	WASHER-HARD (0.8MM THK)						
					AVAILABLE REPAIR KIT(S) :						
			3T-0844	1	KIT-BRUSH (INCLUDES BRUSHES)						
			3T-2768	1	KIT-SEAL (INCLUDES SEALS & RINGS)						
			3T-2769	1	KIT-HARDWARE (INCLUDES WIRE AS, NUTS, WASHERS, LOCKWASHERS, BUSHING & BAR)						
			3T-7017	1	KIT-BEARING (INCLUDES BEARINGS, SEAL, & SPACERS)						
			7T-2339	1	KIT-LEVER (INCLUDES LEVER, CLIP & SEALS)						
M-METRIC PART											

ELECTRICAL AND STARTING SYSTEM

7T-0794 STARTING MOTOR GP-ELECTRIC (contd.)

i01106312



GRAPHIC #1

g00114670

ELECTRICAL AND STARTING SYSTEM

7T-0795 STARTING MOTOR GP-ELECTRIC

24 VOLT

PART OF 3T-2650 STARTING MOTOR GP-ELECTRIC

FIELD REPLACEMENT ORDER 6V-5539-PAGE 339

AN ATTACHMENT

SMCS-1453

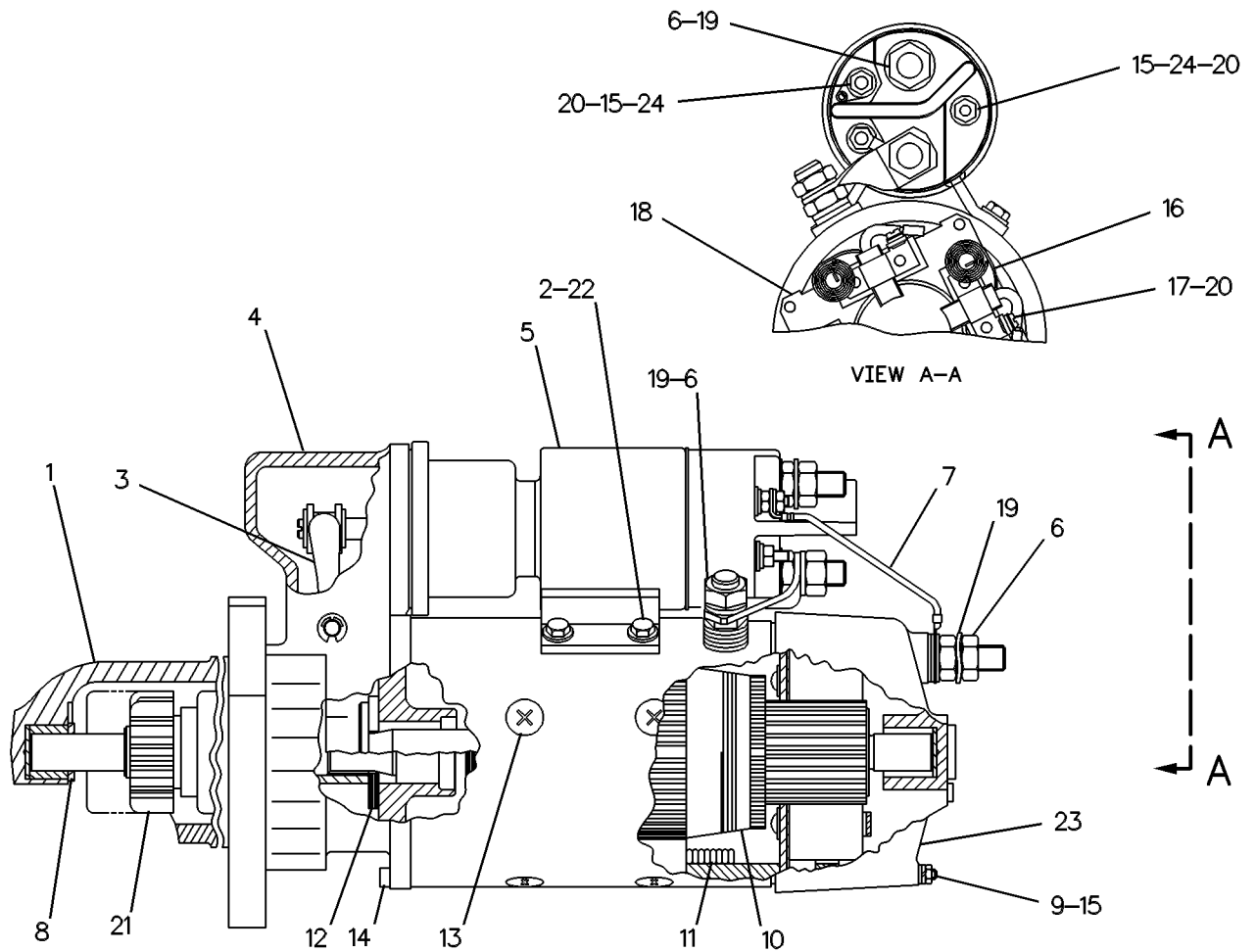
i00547794

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	3T-7022	1	HOUSING AS-DRIVE						
	2	1	8T-4205	4	WASHER-HARD (2MM THK)						
	3	1	3T-0863	1	LEVER-SHIFT						
	4	1	3T-0864	1	HOUSING AS-LEVER						
		1	3T-0842	1	BEARING AS						
	5	1	9X-0332	1	KIT-SOLENOID						
M	6	1	8T-4244	5	NUT (M12X1.75 THD)						
	7	1	3T-4716	1	WIRE AS						
	8	1	3T-7020	1	WASHER						
	9	1	3T-0847	4	SCREW						
	10	1	3T-0867	1	ARMATURE AS						
	11	1	3T-0865	1	COIL AS-FIELD						
	12	1	3T-7021	1	PLATE-BRAKE						
M	13	1	3T-0850	8	SCREW						
M	14	1	3T-0849	12	BOLT-SOCKET HEAD (7.59MM' ID)						
M	15	1	5C-2874	6	NUT (M5X.8 THD)						
	16	1	3T-0858	4	SPRING-BRUSH						
M	17	1	6V-9673	4	SCREW-MACHINE (M5X0.8 THD)						
	18	1	3T-0862	1	PLATE AS-BRUSH						
	19	1	7X-0562	5	WASHER-HARD (0.8MM THK)						
	20	1	8T-0328	6	WASHER-HARD (1MM THK)						
	21	1	4N-4405	1	CLUTCH AS-DRIVE						
M	22	1	8T-4970	4	BOLT (M6X1X14MM)						
	23	1	3T-7025	1	COVER-END						
	24	1	8F-1434	2	LOCKWASHER (5MM ID)						
					AVAILABLE REPAIR KIT(S) :						
			3T-0844	1	KIT-BRUSH (INCL BRUSHES)						
			3T-2768	1	KIT-SEAL (INCL SEALS & RINGS)						
			3T-2769	1	KIT-HARDWARE (INCL WIRE AS, NUTS, WASHERS, LOCKWASHERS, BUSHING & BAR)						
			3T-7017	1	KIT-BEARING (INCL BEARINGS, SEAL, & SPACERS)						
			7T-2339	1	KIT-LEVER (INCL LEVER, CLIP & SEALS)						
M-METRIC PART											

ELECTRICAL AND STARTING SYSTEM

7T-0795 STARTING MOTOR GP-ELECTRIC (contd.)

i00547794



GRAPHIC #1

g00239106

ELECTRICAL AND STARTING SYSTEM

8C-3593 STARTING MOTOR GP-ELECTRIC*R

12 VOLT

PART OF 131-4850 STARTING MOTOR GP-ELECTRIC

FIELD REPLACEMENT ORDER 6V-4213-PAGE 336

AN ATTACHMENT

SMCS-1453

i01354871

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	5S-7349	4	BOLT (1/4-20X0.5 IN)						
	2	1	7L-2894	1	GASKET						
	3	1	2H-3429	1	RING-RETAINING						
	4	1	4B-2049	2	NUT (10-32 THD)						
	5	1	8F-1434	2	LOCKWASHER (0.51MM THK)						
	6	1	7T-3271	1	CONNECTOR						
	7	1	8T-4205	4	WASHER-HARD (2MM THK)						
	8	1	036-9823	5	BOLT						
	9	1	8T-8568	1	COIL AS-FIELD						
	10	1	3F-0379	8	SCREW-POLE SHOE						
	11	1	7T-3275	1	ARMATURE AS						
	12	1	8H-1141	4	SHOE-POLE						
	13	1	7T-3454	1	INSULATOR						
	14	1	7T-3279	1	HOUSING AS						
	15	1	8T-8570	1	HOLDER AS-BRUSH						
	16	1	3T-3422	1	WIRE AS						
	17	1	8T-8566	1	TERMINAL AS						
J	18	1	3T-3434	6	PLUG (12.7MM OD SPHERE)						
	19	1	6V-8188	4	NUT (1/2-13 THD)						
	20	1	7X-0562	4	WASHER-HARD (0.8MM THK)						
	21	1	8T-0328	2	WASHER-HARD (1MM THK)						
	22	1	7T-3451	1	INSULATOR-TERMINAL						
	23	1	8T-8569	1	INSULATOR-TERMINAL						
	24	1	3E-5449	1	SOLENOID AS-STARTING MOTOR (24 VOLT)						
	25	1	036-9821	1	WASHER						
	26	1	7T-3269	1	BOOT						
	27	1	7T-3270	1	PLUNGER AS						
	28	1	9M-7609	1	SPRING						
	29	1	4M-1828	1	RETAINER-SPRING						
	30	1	4M-1827	1	RETAINER-SPRING						
	31	1	4M-1831	1	PLUG-LEVER HOUSING						
	32	1	7T-3973	1	HOUSING AS-LEVER						
	33	1	7T-3974	1	HOUSING AS-DRIVE						
	34	1	7X-3373	6	BOLT (5/16-18X.88 IN)						
	35	1	6N-3826	1	DRIVE AS-MOTOR						
Z	36	1		1	HOUSING						
JZ	37	1		4	SPRING						
JZ	38	1		4	BRUSH						
JZ	39	1		4	SCREW						
JPZ	40	1		6	SCREW AS						
JPZ	41	1		2	SEAL-O-RING						
LZ	42	1		3	INSULATOR						
LZ		1		1	BUSHING						
NZ	43	1		1	LEVER AS						
NZ	44	1		1	LEVER AS						
NPZ	45	1		1	NUT						
NPZ	46	1		1	SEAL-O-RING						
PZ	47	1		1	SEAL-O-RING						
NZ	48	1		1	RETAINER						
NPZ	49	1		1	GASKET						
PZ	50	1		1	BUSHING						
PZ	51	1		2	PLUG-CUP						
PZ	52	1		1	PLUG-CUP						
PZ	53	1		1	PLUG						

ELECTRICAL AND STARTING SYSTEM

8C-3593 STARTING MOTOR GP-ELECTRIC (contd.)

i01354871

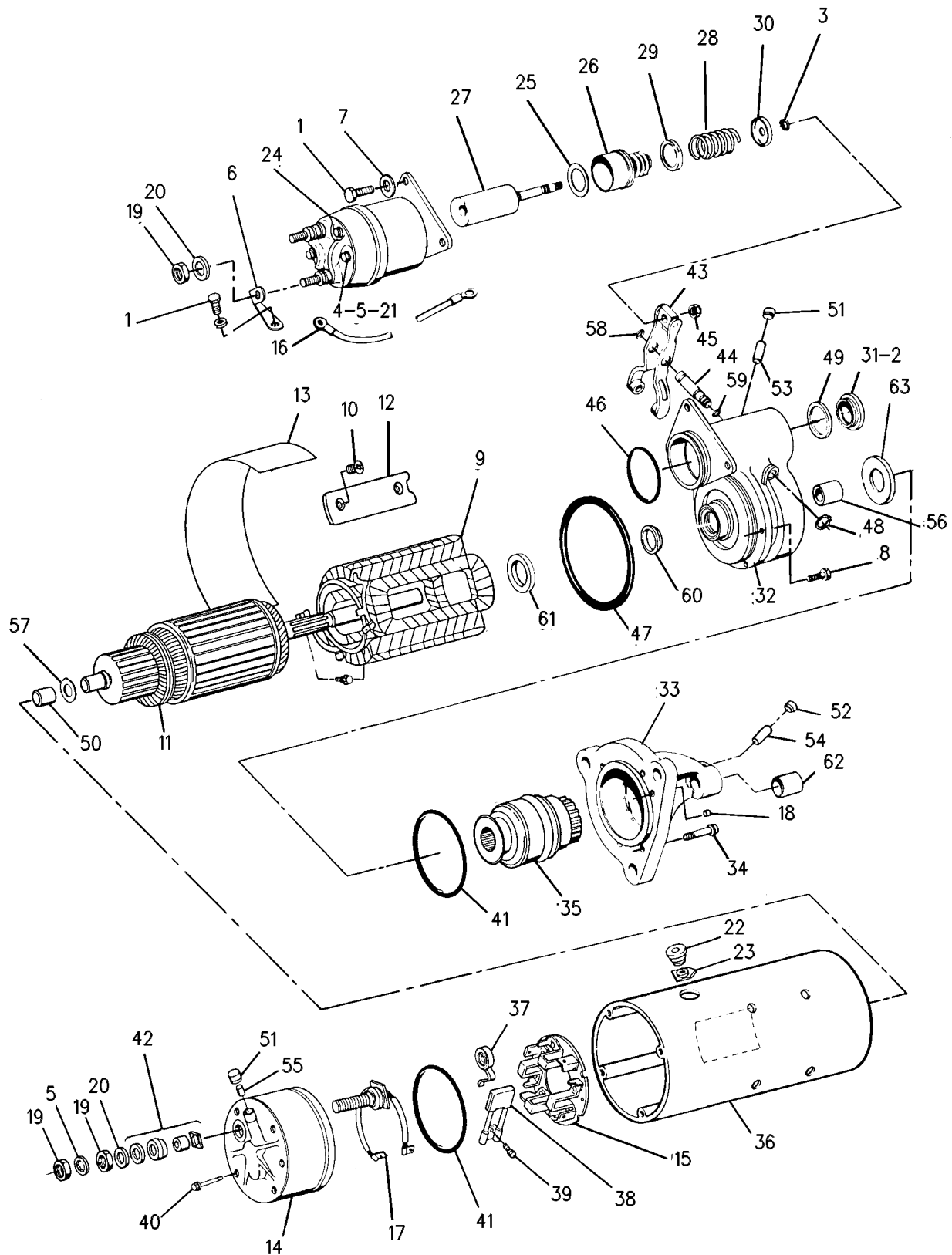
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
PZ	54	1		1	PLUG						
PZ	55	1		1	PLUG						
PZ	56	1		1	BUSHING						
PZ	57	1		1	WASHER						
NPZ	58	1		1	SEAL-O-RING						
NZ	59	1		1	SEAL-O-RING						
PZ	60	1		1	RETAINER (SEAL)						
PZ	61	1		1	SPACER						
PZ	62	1		1	BUSHING						
PZ	63	1		1	GASKET (WASHER)						
AVAILABLE REPAIR KIT(S) :											
J			8T-9885	1	KIT-BRUSH						
P			7T-3267	1	KIT-BUSHING						
N			7T-3268	1	KIT-LEVER						
L			8T-9884	1	KIT-INSULATOR						

J - KIT MARKED J INCLUDES PARTS MARKED J
 L - KIT MARKED L INCLUDES PARTS MARKED L
 N - KIT MARKED N INCLUDES PARTS MARKED N
 P - KIT MARKED P INCLUDES PARTS MARKED P
 Z - NOT SERVICED SEPARATELY

ELECTRICAL AND STARTING SYSTEM

8C-3593 STARTING MOTOR GP-ELECTRIC (contd.)

i01354871



GRAPHIC #1

g00244437

MEMORANDA

ELECTRICAL AND STARTING SYSTEM

8C-3644 STARTING MOTOR GP-ELECTRIC

24 VOLT

PART OF 6N-1889 STARTING MOTOR GP-ELECTRIC

FIELD REPLACEMENT ORDER 6V-5539-PAGE 339

AN ATTACHMENT

SMCS-1453

i00159433

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	5S-7349	4	BOLT (1/4-20X0.5IN)						
	2	1	7L-2894	1	GASKET						
	3	1	2H-3429	1	RING-RETAINING						
	4	1	4B-2049	2	NUT (10-32 THD)						
	5	1	8F-1434	2	LOCKWASHER (5MM ID)						
	6	1	7T-3271	1	CONNECTOR						
	7	1	8T-4205	4	WASHER-HARD (2MM THK)						
	8	1	036-9823	5	BOLT						
	9	1	7T-3277	1	COIL AS-FIELD						
	10	1	3F-0379	8	SCREW-POLE SHOE						
	11	1	7T-3276	1	ARMATURE AS						
	12	1	8H-1141	4	SHOE-POLE						
	13	1	7T-3454	1	INSULATOR						
	14	1	7T-3279	1	HOUSING AS						
	15	1	7T-3278	1	HOLDER AS-BRUSH						
	16	1	3T-3422	1	WIRE AS						
	17	1	8T-8566	1	TERMINAL AS						
	18	1	3T-3434	6	PLUG (12.7MM OD SPHERE)						
	19	1	6V-8188	4	NUT (1/2-13 THD)						
	20	1	7X-0562	4	WASHER-HARD (0.8MM THK)						
	21	1	8T-0328	2	WASHER-HARD (1MM THK)						
	22	1	7T-3451	1	INSULATOR-TERMINAL						
	23	1	8T-8569	1	INSULATOR-TERMINAL						
	24	1	9X-9511	1	SOLENOID AS						
	25	1	036-9821	1	WASHER						
	26	1	7T-3269	1	BOOT						
	27	1	7T-3270	1	PLUNGER AS						
	28	1	9M-7609	1	SPRING						
	29	1	4M-1828	1	RETAINER-SPRING						
	30	1	4M-1827	1	RETAINER-SPRING						
	31	1	4M-1831	1	PLUG-LEVER HOUSING						
	32	1	7T-3973	1	HOUSING AS-LEVER						
	33	1	7T-3974	1	HOUSING AS-DRIVE						
	34	1	7X-3373	6	BOLT (5/16-18X.88IN)						
	35	1	6N-3826	1	DRIVE AS-MOTOR						
Z	36	1		1	HOUSING						
JZ	37	1		4	SPRING						
JZ	38	1		4	BRUSH						
JZ	39	1		4	SCREW						
JPZ	40	1		6	SCREW AS						
JPZ	41	1		1	SEAL (O-RING)						
LZ	42	1		3	INSULATOR						
LZ		1		1	BUSHING						
NZ	43	1		1	LEVER AS						
NZ	44	1		1	LEVER AS						
NPZ	45	1		1	NUT						
NPZ	46	1		1	SEAL (O-RING)						
PZ	47	1		1	SEAL (O-RING)						
NZ	48	1		1	RETAINER						
PZ	49	1		1	GASKET (WASHER)						
PZ	50	1		1	BUSHING						
PZ	51	1		2	CUP (PLUG)						
PZ	52	1		1	CUP (PLUG)						
PZ	53	1		1	PLUG						

ELECTRICAL AND STARTING SYSTEM

8C-3644 STARTING MOTOR GP-ELECTRIC (contd.)

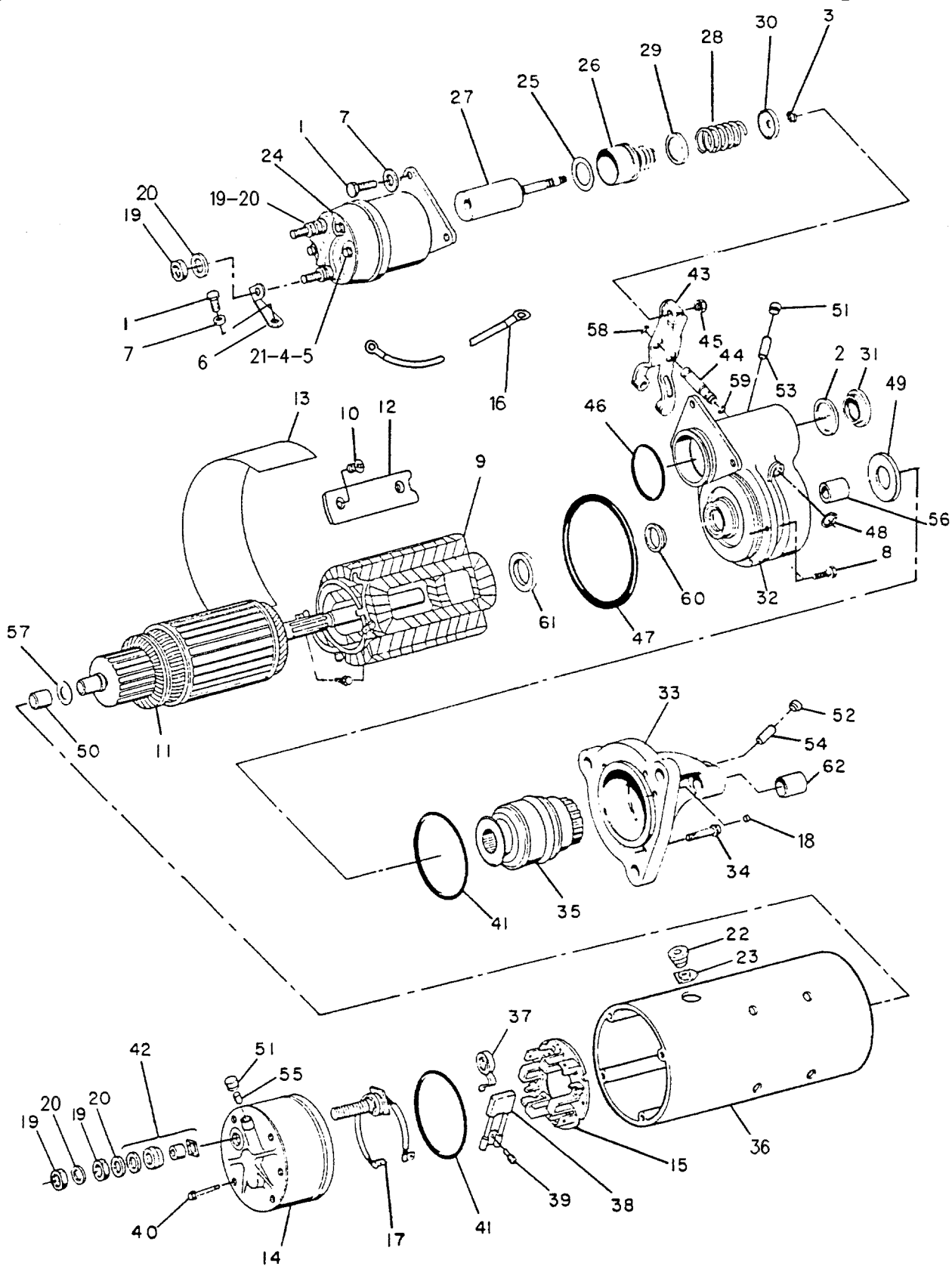
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NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
PZ	54	1		1	PLUG						
PZ	55	1		1	PLUG						
PZ	56	1		1	BUSHING						
PZ	57	1		1	WASHER						
NZ	58	1		1	SEAL (O-RING)						
NZ	59	1		1	SEAL (O-RING)						
PZ	60	1		1	RETAINER (SEAL)						
PZ	61	1		1	SPACER						
PZ	62	1		1	BUSHING						
AVAILABLE REPAIR KIT(S) :											
J			8C-3655	1	KIT-BRUSH						
P			7T-3267	1	KIT-BUSHING						
N			7T-3268	1	KIT-LEVER						
L			8T-9884	1	KIT-INSULATOR						
J-KIT MARKED J INCLUDES PART(S) MARKED J L-KIT MARKED L INCLUDES PART(S) MARKED L N-KIT MARKED N INCLUDES PART(S) MARKED N P-KIT MARKED P INCLUDES PART(S) MARKED P Z-NOT SERVICED SEPARATELY											

ELECTRICAL AND STARTING SYSTEM

8C-3644 STARTING MOTOR GP-ELECTRIC (contd.)

i00159433



GRAPHIC #1

g00114671

MEMORANDA

ELECTRICAL AND STARTING SYSTEM

8C-3649 STARTING MOTOR GP-ELECTRIC

24 VOLT

PART OF 3T-2650 STARTING MOTOR GP-ELECTRIC

FIELD REPLACEMENT ORDER 6V-5539-PAGE 339

AN ATTACHMENT

SMCS-1453

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NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	5S-7349	4	BOLT (1/4-20X0.5 IN)						
	2	1	3T-3434	6	PLUG (12.7MM OD SPHERE)						
	3	1	2H-3429	2	RING-RETAINING						
	4	1	4B-2049	2	NUT (10-32 THD)						
	5	1	8F-1434	2	LOCKWASHER (0.51MM THK)						
	6	1	7T-3271		CONNECTOR						
	7	1	8T-4205	4	WASHER-HARD (2MM THK)						
	8	1	036-9823	5	BOLT						
	9	1	7T-3277	1	COIL AS-FIELD						
	10	1	3F-0379	8	SCREW-POLE SHOE						
	11	1	7T-3276	1	ARMATURE AS (24 VOLT)						
	12	1	8H-1141	4	SHOE-POLE						
	13	1	7T-3454	1	INSULATOR						
	14	1	7T-3279	1	HOUSING AS						
	15	1	7T-3278	1	HOLDER AS-BRUSH						
	16	1	3T-3422	1	WIRE AS						
	17	1	8T-8566	1	TERMINAL AS						
NP	18	1	7L-2894	1	GASKET						
	19	1	6V-8188	4	NUT (1/2-13 THD)						
	20	1	7X-0562	4	WASHER-HARD (0.8MM THK)						
	21	1	8T-0328	2	WASHER-HARD (1MM THK)						
	22	1	7T-3451	1	INSULATOR-TERMINAL						
	23	1	8T-8569	1	INSULATOR-TERMINAL						
	24	1	9X-9511	1	SOLENOID AS (24 VOLT)						
	25	1	036-9821	1	WASHER						
	26	1	7T-3269	1	BOOT						
	27	1	7T-3270	1	PLUNGER AS						
	28	1	9M-7609	1	SPRING						
	29	1	4M-1828	1	RETAINER-SPRING						
	30	1	4M-1827	1	RETAINER-SPRING						
	31	1	4M-1831	1	PLUG-LEVER HOUSING						
	32	1	3E-7775	1	HOUSING AS						
	33	1	7T-3974	1	HOUSING AS-DRIVE						
	34	1	7X-3373	6	BOLT (5/16-18X.88 IN)						
	35	1	6N-3826	1	DRIVE AS-MOTOR						
Z	36	1		1	HOUSING						
JZ	37	1		4	SPRING						
JZ	38	1		4	BRUSH						
JZ	39	1		4	SCREW						
JPZ	40	1		6	SCREW AS						
JPZ	41	1		1	SEAL-O-RING						
LZ	42	1		3	INSULATOR						
LZ		1		1	BUSHING						
NZ	43	1		1	LEVER AS						
NPZ	45	1		1	NUT						
NPZ	46	1		1	SEAL-O-RING						
PZ	47	1		1	SEAL-O-RING						
NZ	48	1		1	RETAINER						
PZ	49	1		1	GASKET						
PZ	50	1		1	BUSHING						
PZ	51	1		2	PLUG-CUP						
PZ	52	1		1	PLUG-CUP						
PZ	53	1		1	PLUG						
PZ	54	1		1	PLUG						

ELECTRICAL AND STARTING SYSTEM

8C-3649 STARTING MOTOR GP-ELECTRIC (contd.)

i01354872

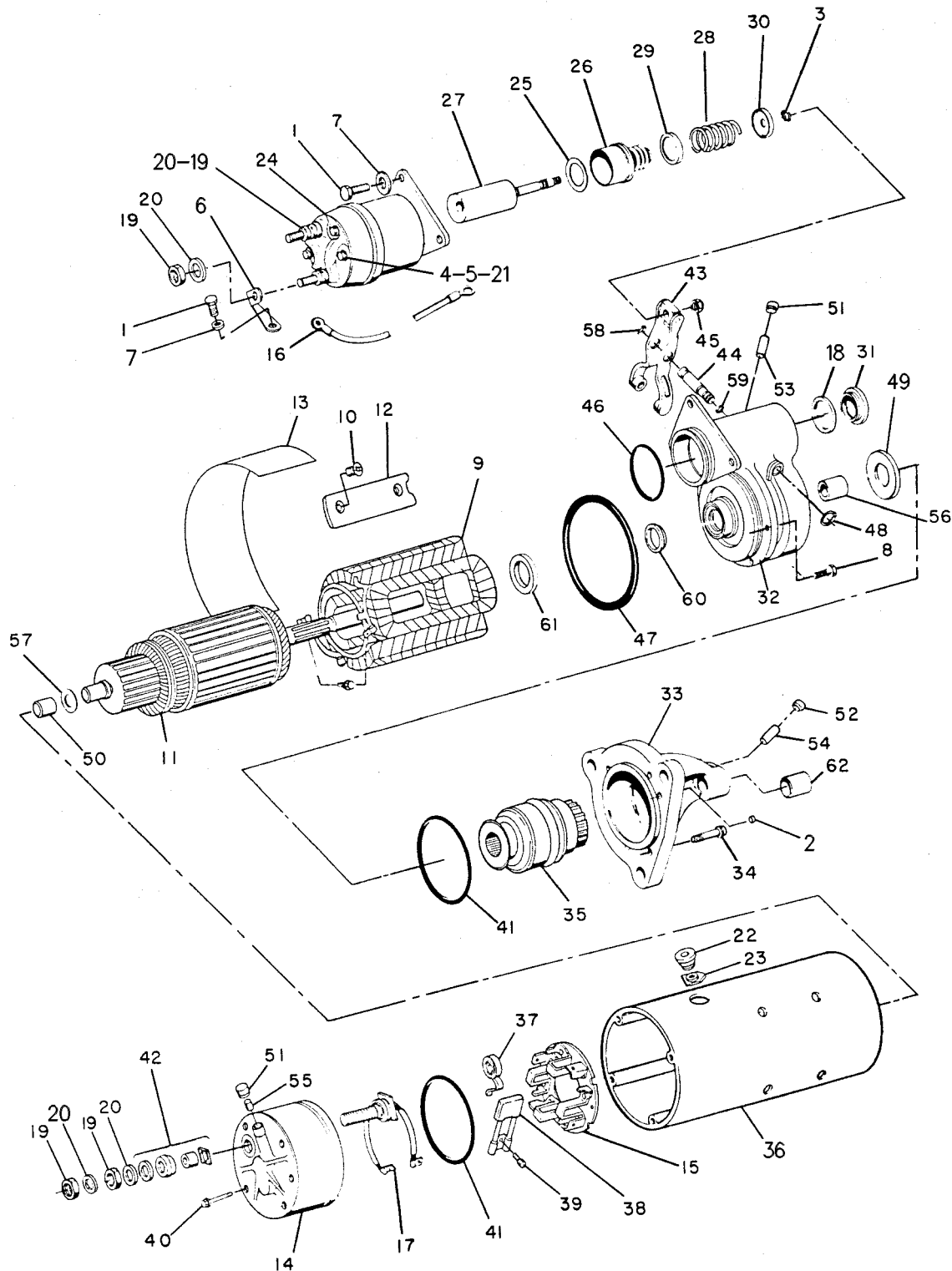
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
PZ	55	1		1	PLUG						
PZ	56	1		1	BUSHING						
PZ	57	1		1	WASHER						
NZ	58	1		1	SEAL-O-RING						
NZ	59	1		1	SEAL-O-RING						
PZ	60	1		1	RETAINER						
PZ	61	1		1	SPACER						
PZ	62	1		1	BUSHING						
AVAILABLE REPAIR KIT(S):											
J			8C-3655	1	KIT-BRUSH						
P			7T-3267	1	KIT-BUSHING						
N			7T-3268	1	KIT-LEVER						
L			8T-9884	1	KIT-INSULATOR						

J-KIT MARKED J INCLUDES PARTS MARKED J
 L-KIT MARKED L INCLUDES PARTS MARKED L
 N-KITS MARKED N INCLUDES PARTS MARKED N
 P-KITS MARKED P INCLUDES PARTS MARKED P
 Z-NOT SERVICED SEPARATELY

ELECTRICAL AND STARTING SYSTEM

8C-3649 STARTING MOTOR GP-ELECTRIC (contd.)

i01354872



GRAPHIC #1

g00239100

MEMORANDA

ELECTRICAL AND STARTING SYSTEM

9X-4452 STARTING MOTOR GP-ELECTRIC

24 VOLT

PART OF 6N-1889 STARTING MOTOR GP-ELECTRIC

FIELD REPLACEMENT ORDER 6V-5539-PAGE 339

AN ATTACHMENT

SMCS-1453

i01214681

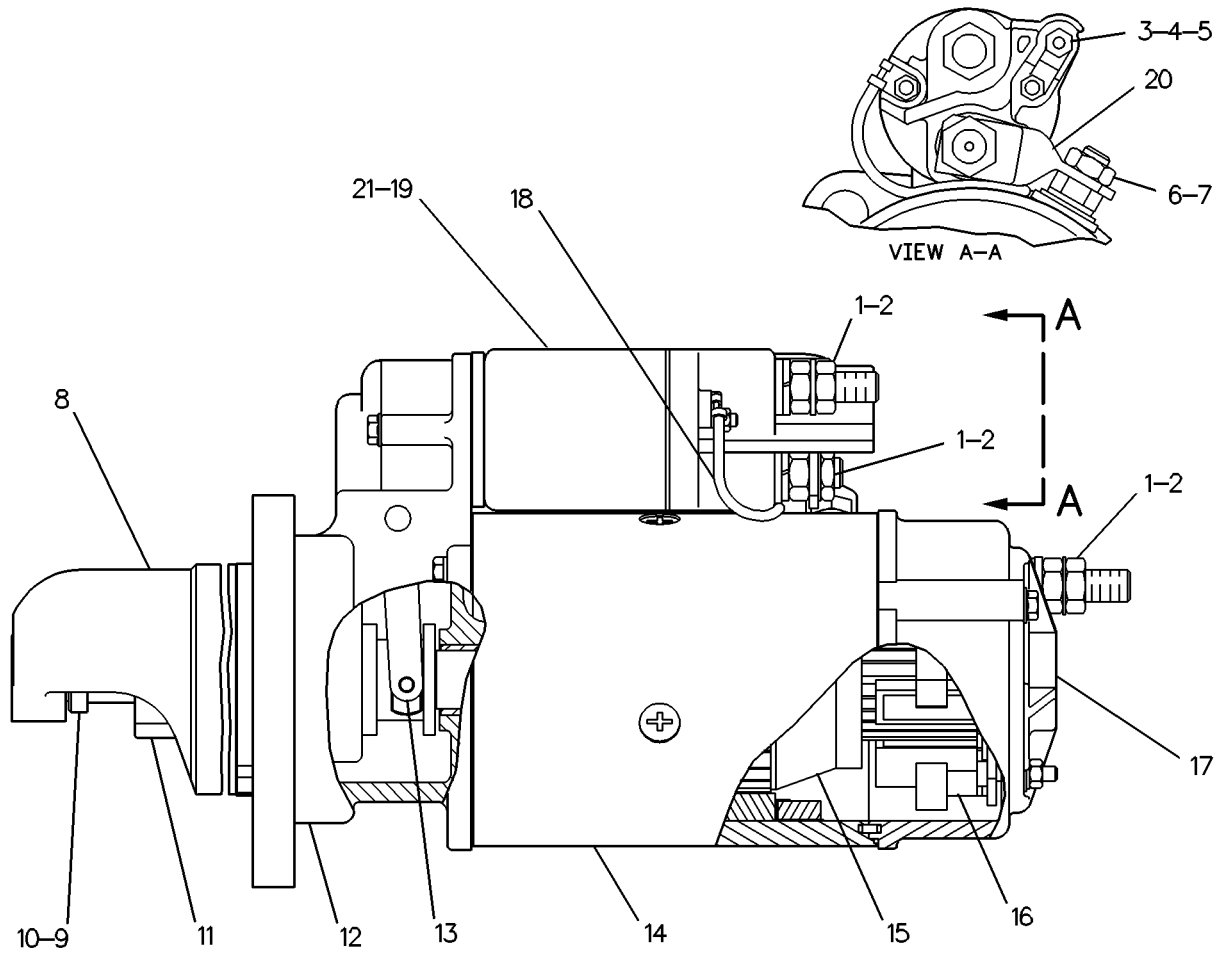
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6V-8188	3	NUT (1/2-13 THD)						
	2	1	7X-0562	3	WASHER-HARD (0.8MM THK)						
	3	1	4B-2049	1	NUT (10-32 THD)						
	4	1	8F-1434	1	LOCKWASHER (5.07MM ID)						
	5	1	8T-0328	1	WASHER-HARD (1MM THK)						
M	6	1	8T-4133	1	NUT (M10X1.50 THD)						
	7	1	8T-4121	1	WASHER-HARD (2.5MM THK)						
	8	1	3E-0142	1	HOUSING AS						
	9	1	3E-0141	1	STOP-STARTING MOTOR						
	10	1	4N-7521	1	LOCKRING						
	11	1	3E-0146	1	DRIVE AS-STARTING MOTOR						
	12	1	3E-0144	1	HOUSING AS						
	13	1	3E-0140	1	LEVER AS-STARTER						
	14	1	3E-0139	1	HOUSING AS						
	15	1	3E-0138	1	ARMATURE AS						
	16	1	3E-0137	1	HOLDER AS						
	17	1	3E-0136	1	HOUSING AS						
	18	1	3E-0133	1	WIRE AS-STARTING MOTOR						
	19	1	3E-0135	1	SOLENOID AS						
	20	1	3E-0132	1	CONNECTOR						
	21	1	3E-0134	1	COVER-PLUNGER						
					AVAILABLE REPAIR KIT(S) :						
			3E-0127	1	KIT-BEARING (INCLUDES SEAL, BUSHING & BEARING AS.)						
			3E-0128	1	KIT-BRUSH (INCLUDES O-RINGS, SCREWS, SPRINGS, & BRUSHES)						
			3E-0129	1	KIT-HARDWARE (INCLUDES BOLTS, NUTS, WASHERS, BUSHINGS & PLATE)						
			3E-0130	1	KIT-STARTING MOTOR SEAL (INCLUDES SEAL & O-RINGS)						
			3E-0131	1	KIT-WASHER (INCLUDES WASHERS)						
			3E-0145	1	KIT-STARTING MOTOR PIN (INCLUDES SHAFT, RING AND O-RINGS)						

M-METRIC PART

ELECTRICAL AND STARTING SYSTEM

9X-4452 STARTING MOTOR GP-ELECTRIC (contd.)

i01214681



GRAPHIC #1

g00114331

ELECTRICAL AND STARTING SYSTEM

101-8936 STARTING MOTOR GP-ELECTRIC

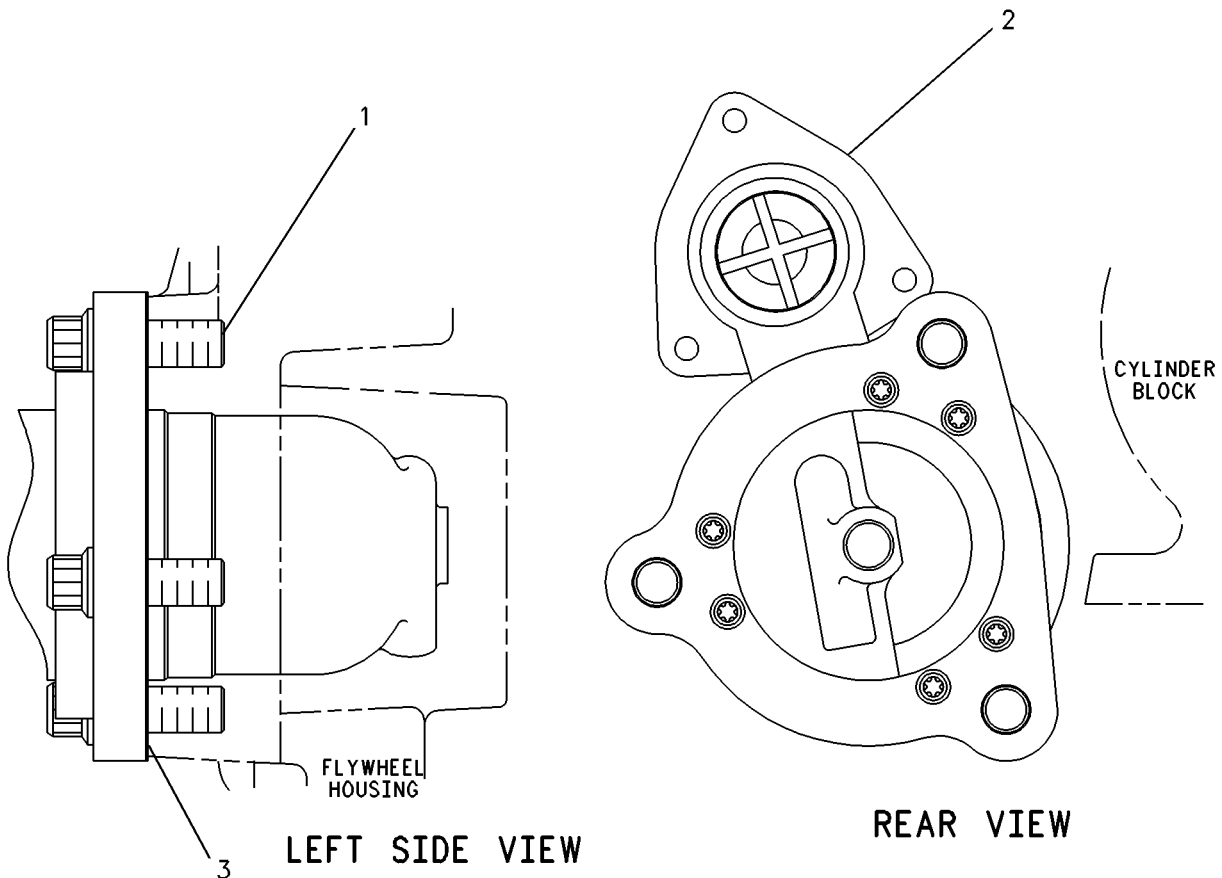
12 VOLT
AN ATTACHMENT

SMCS-1453

i01455105

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8S-2332	3	BOLT-12 POINT HEAD (5/8-11X1.75 IN)						
Y	2	1	3E-7863	1	STARTING MOTOR GP-ELECTRIC						330
	3	1	155-8725	1	GASKET						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00230172

MEMORANDA

ELECTRICAL AND STARTING SYSTEM

106-8554 STARTING MOTOR GP-ELECTRIC

24 VOLT

PART OF 6V-5539 STARTING MOTOR GP-ELECTRIC

SMCS-1453

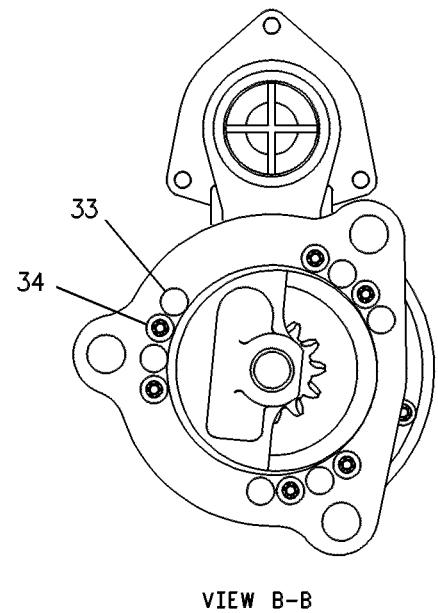
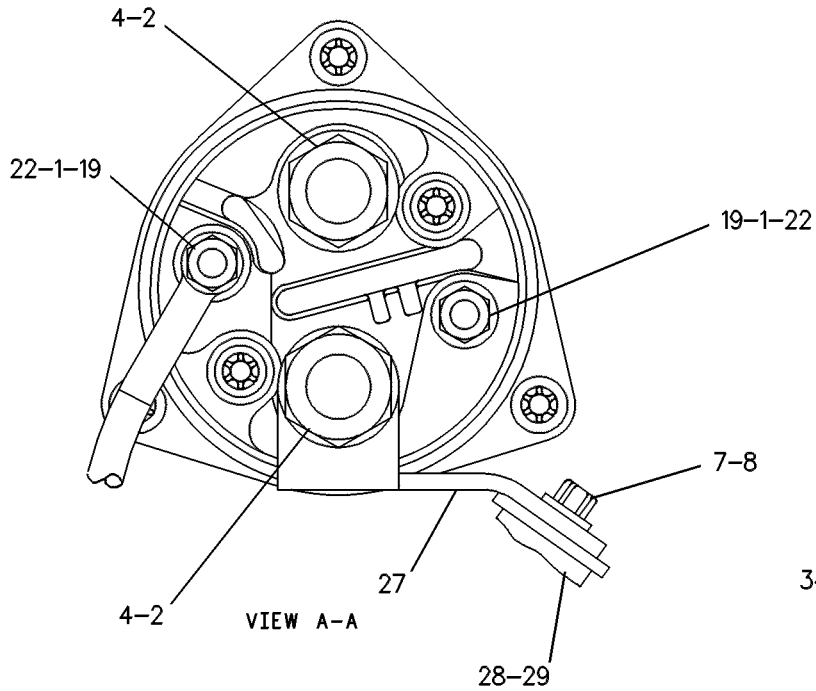
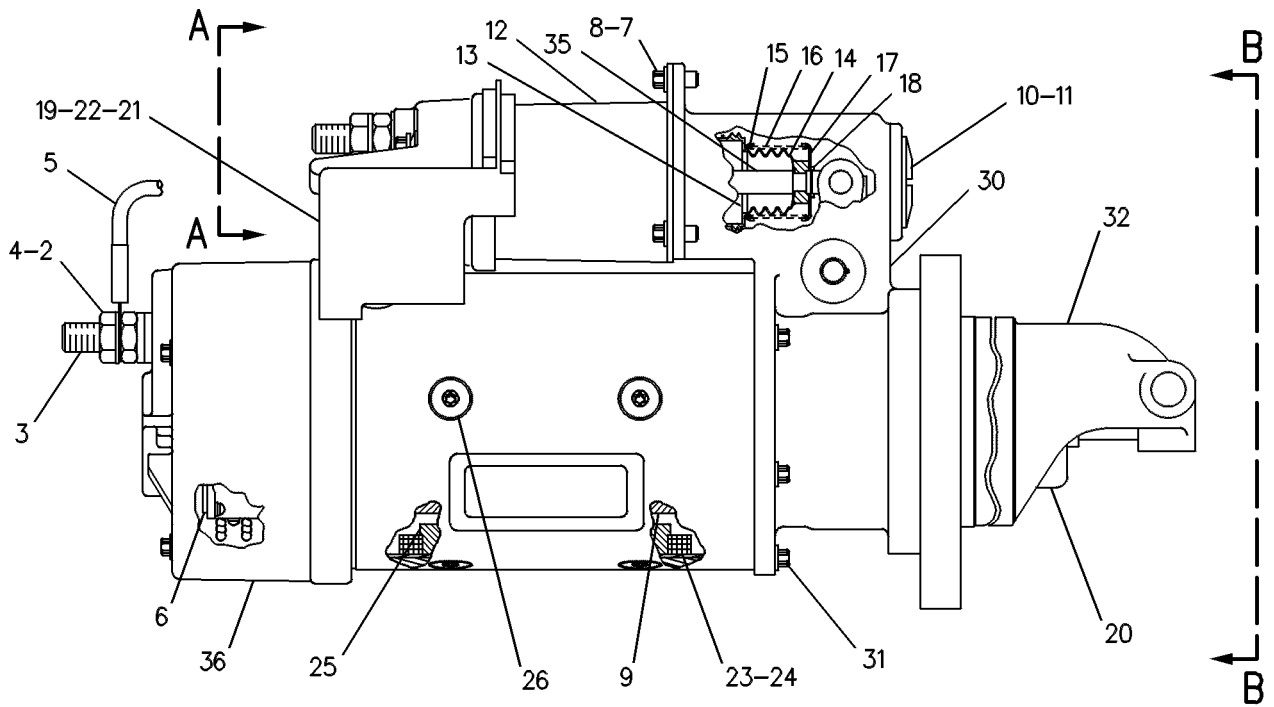
i01379349

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
1		1	8F-1434	2	LOCKWASHER (0.51MM THK)						
2		1	6V-8188	4	NUT (1/2-13 THD)						
3		1	8T-8566	1	TERMINAL AS						
4		1	7X-0562	4	WASHER-HARD (0.8MM THK)						
5		1	3T-3422	1	WIRE AS						
6		1	7T-3278	1	HOLDER AS-BRUSH						
7		1	5S-7349	4	BOLT (1/4-20X0.5 IN)						
8		1	8T-4205	4	WASHER-HARD (7.2X14.5X2MM THK)						
9		1	7T-3276	1	ARMATURE AS (24 VOLT)						
10		1	4M-1831	1	PLUG-LEVER HOUSING						
11		1	7L-2894	1	GASKET						
12		1	9X-9511	1	SOLENOID AS (24 VOLT)						
13		1	036-9821	1	WASHER						
14		1	7T-3269	1	BOOT						
15		1	4M-1828	1	RETAINER-SPRING						
16		1	9M-7609	1	SPRING						
17		1	4M-1827	1	RETAINER-SPRING						
18		1	2H-3429	1	RING-RETAINING						
19		1	4B-2049	3	NUT (10-32 THD)						
20		1	6N-3826	1	DRIVE AS-MOTOR						
21		1	9X-4824	1	COVER-STARTING MOTOR						
22		1	8T-0328	3	WASHER-HARD (1MM THK)						
23		1	7T-3277	1	COIL AS-FIELD						
24		1	7T-3454	1	INSULATOR						
25		1	8H-1141	4	SHOE-POLE						
26		1	3F-0379	8	SCREW-POLE SHOE						
27		1	7T-3271	1	CONNECTOR						
28		1	8T-8569	1	INSULATOR-TERMINAL						
29		1	7T-3451	1	INSULATOR-TERMINAL						
30		1	3E-7775	1	HOUSING AS						
31		1	036-9823	5	BOLT						
32		1	7T-3974	1	HOUSING AS-DRIVE						
33		1	3T-3434	6	PLUG (12.7MM OD SPHERE)						
34		1	7X-3373	6	BOLT (5/16-18X.88 IN)						
35		1	7T-3270	1	PLUNGER AS						
36		1	7T-3279	1	HOUSING AS						
					AVAILABLE REPAIR KIT(S) :						
			8C-3655	1	KIT-BRUSH (INCLUDES SPRINGS, BRUSH ASSEMBLIES, & SCREWS)						
			7T-3267	1	KIT-BUSHING						
			7T-3268	1	KIT-LEVER (INCLUDES RETAINER, LEVER ASSEMBLIES, NUT & SEALS)						
			8T-9884	1	KIT-INSULATOR (INCLUDES BUSHING & INSULATORS)						

ELECTRICAL AND STARTING SYSTEM

106-8554 STARTING MOTOR GP-ELECTRIC (contd.)

i01379349



GRAPHIC #1

g00084518

ELECTRICAL AND STARTING SYSTEM

131-3401 STARTING MOTOR GP-ELECTRIC

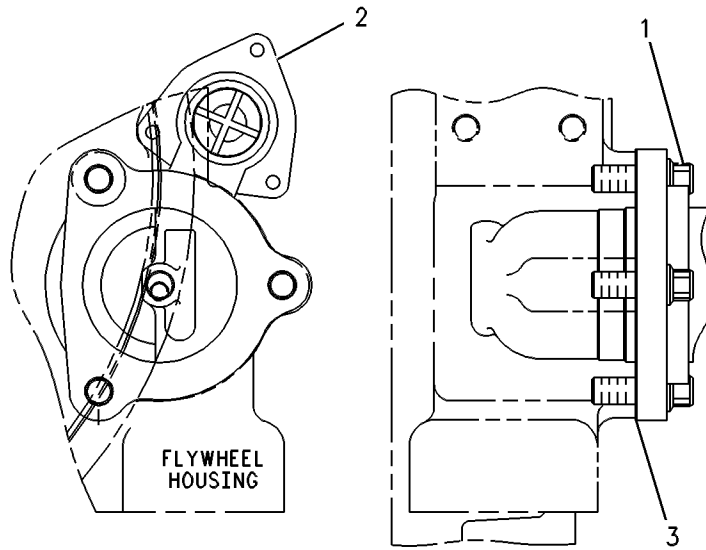
24 VOLT
AN ATTACHMENT

SMCS-1453

i00896289

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8S-2332	3	BOLT-12 POINT HEAD (5/8-11X1.75IN)						
Y	2	1	3T-2650	1	STARTING MOTOR GP-ELECTRIC						333
	3	1	155-8725	1	GASKET						

Y-SEPARATE ILLUSTRATION



REAR VIEW

RIGHT SIDE VIEW

GRAPHIC #1

g00262337

ELECTRICAL AND STARTING SYSTEM

131-4850 STARTING MOTOR GP-ELECTRIC

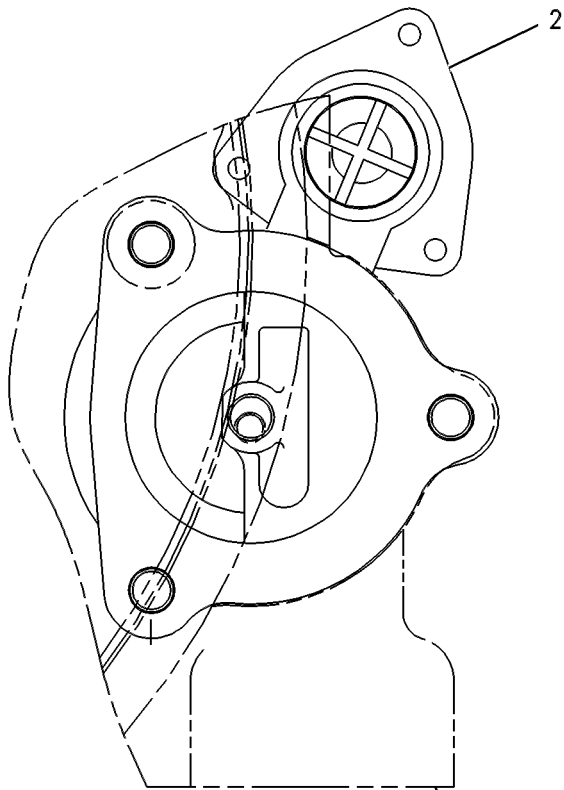
12 VOLT
AN ATTACHMENT

SMCS-1453

i00896292

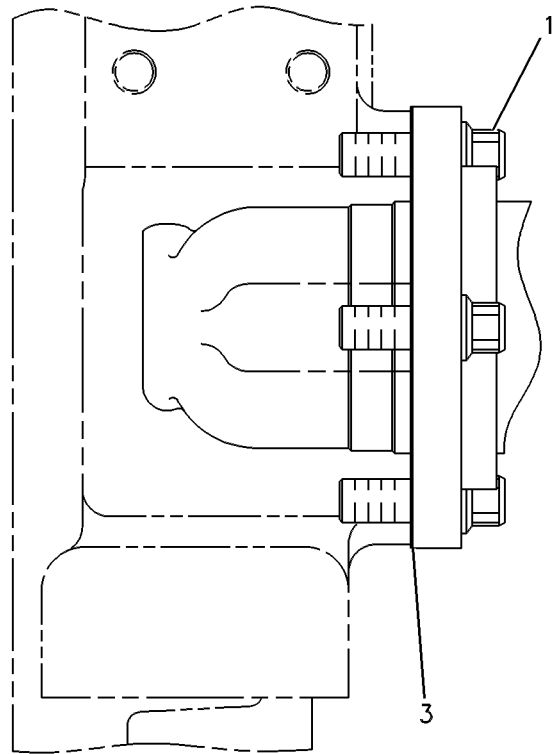
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8S-2332	3	BOLT-12 POINT HEAD (5/8-11X1.75IN)						
YR	2	1	8C-3593	1	STARTING MOTOR GP-ELECTRIC						348
	3	1	155-8725	1	GASKET						

R-REMFG PART MAY BE AVAILABLE
Y-SEPARATE ILLUSTRATION



REAR VIEW

FLYWHEEL HOUSING



RIGHT SIDE VIEW

GRAPHIC #1

g00262130

ELECTRICAL AND STARTING SYSTEM

131-8277 STARTING MOTOR GP-ELECTRIC

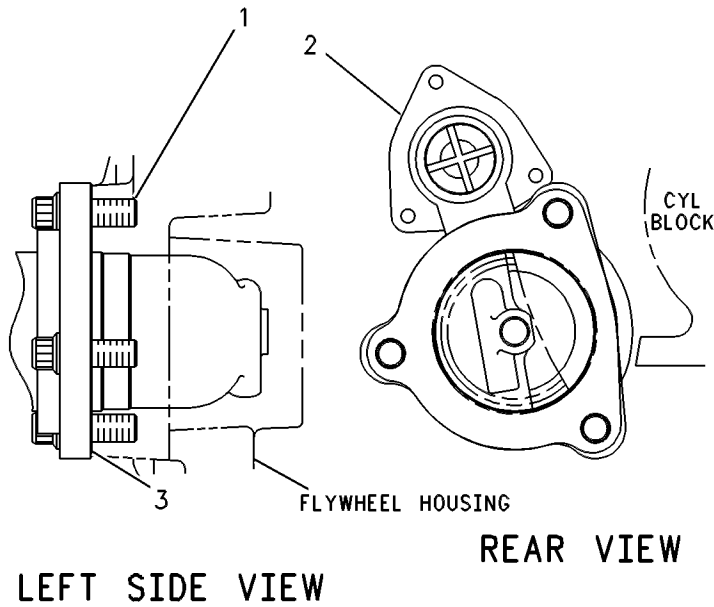
24 VOLT, LH
AN ATTACHMENT

SMCS-1453

i00942403

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8S-2332	3	BOLT-12 POINT HEAD (5/8-11X1.75IN)						
YR	2	1	<i>6N-1889</i>	1	STARTING MOTOR GP-ELECTRIC						334
	3	1	155-8725	1	GASKET						

R-REMG PART MAY BE AVAILABLE
Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00257267

ELECTRICAL AND STARTING SYSTEM

3N-8782 SWITCH GP-REMOTE STARTING

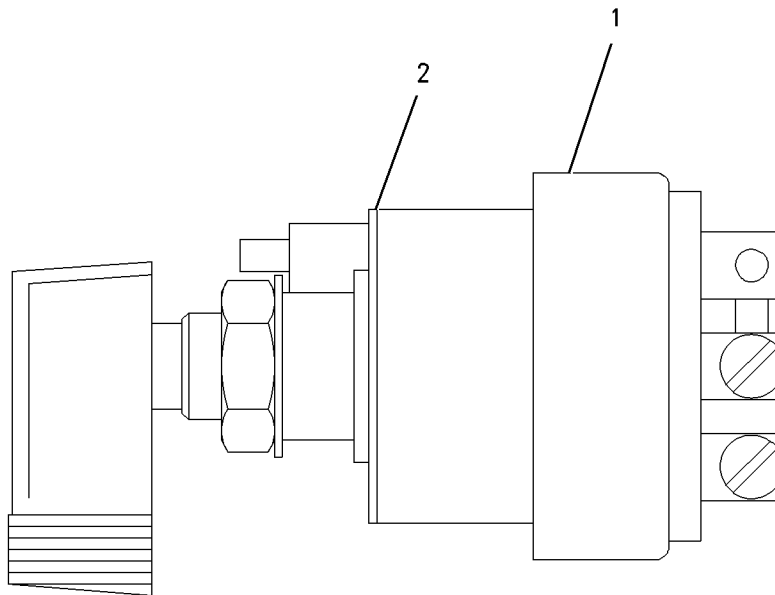
FOR USE WITH DIRECT INJECTION ENGINE
AN ATTACHMENT

SMCS-1416

i01408793

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	9W-1077	1	SWITCH GP-START						370
	2	1	8J-4785	1	PLATE-INSTRUCTION						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00742147

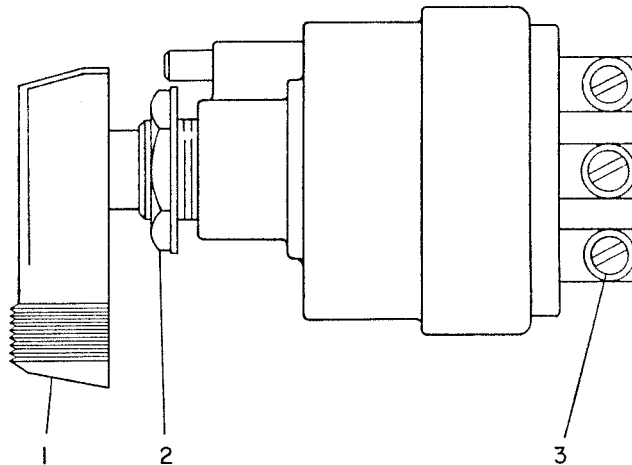
ELECTRICAL AND STARTING SYSTEM

9W-1077 SWITCH GP-START PART OF 3N-8782 SWITCH GP-REMOTE STARTING AN ATTACHMENT

SMCS-1416

i00638694

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8F-3437	1	LEVER-SWITCH						
		1	5L-7200	1	SCREW (8-32X.375IN)						
		1	3B-4501	1	LOCKWASHER (NO.8)						
	2	1	8C-6808	1	NUT						
		1	7M-0327	1	WASHER-THRUST						
	3	1	6V-8364	4	SCREW-MACHINE						
		1	8F-1434	4	LOCKWASHER (5MM ID)						



GRAPHIC #1

g00184487

ELECTRICAL AND STARTING SYSTEM

1L-5011 VALVE GP-AIR STARTING

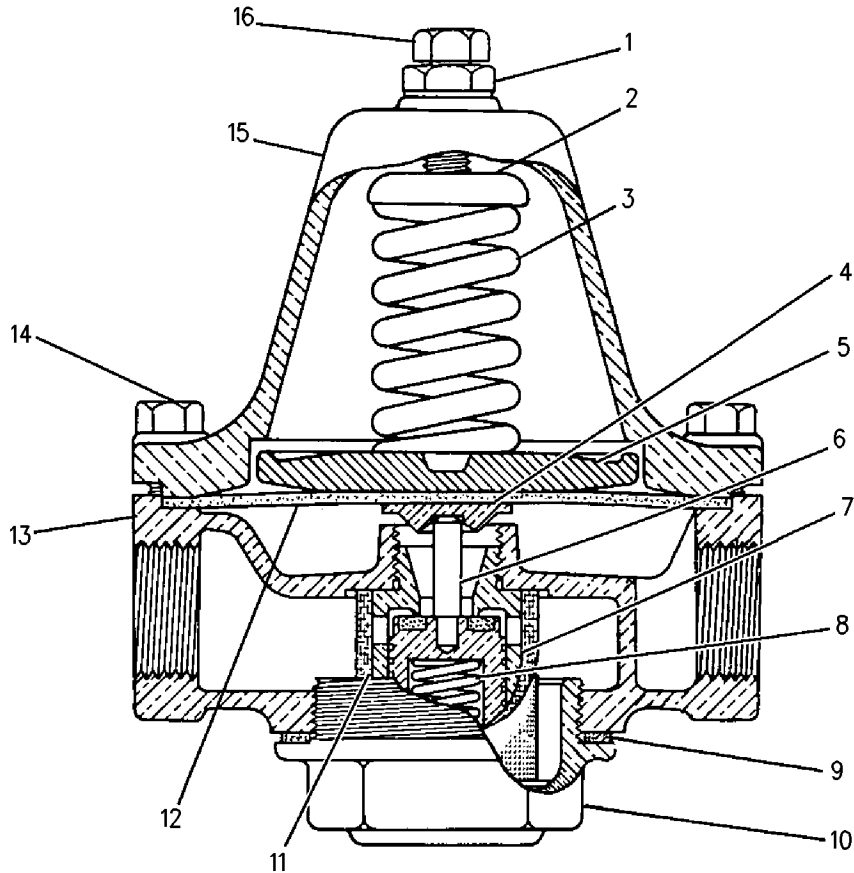
**REQUIRED WHEN AIR SUPPLY PRESSURE EXCEEDS 1034 KPA. REGULATING & PRESSURE REDUCING
FOR USE WITH AIR STARTING MOTOR
AN ATTACHMENT**

SMCS-1462

i01407265

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1L-9048	1	NUT-PLATED JAM (7/16-14 THD)						
	2	1	1H-9569	1	BUTTON-SPRING						
	3	1	1L-9049	1	SPRING-PRESSURE						
	4	1	1L-9060	1	BUTTON						
	5	1	1H-9572	1	PLATE-PRESSURE						
	6	1	1L-9064	1	PISTON AS						
	7	1	7L-8705	1	CYLINDER						
	8	1	1L-9067	1	SPRING-PISTON						
	9	1	1H-9580	1	GASKET-PLUG						
	10	1	1L-9069	1	PLUG AS-BOTTOM						
	11	1	1L-9066	1	SCREEN-STRAINER						
	12	1	1L-9063	1	DIAPHRAGM						
	13	1	1L-9068	1	BODY-VALVE						
	14	1	1L-9062	6	BOLT (3/8-24X1.5IN)						
		1	1L-9061	6	NUT-PLATED FULL (3/8-24 THD)						
	15	1	1L-9059	1	HOUSING-SPRING						
C	16	1	0T-0320	1	BOLT (7/16-14X1.25IN)						

C-CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

g00741516

ELECTRICAL AND STARTING SYSTEM

130-8902 WIRING GP FOR USE WITH RH SERVICE FUEL LINES AN ATTACHMENT

SMCS-1408

i01474842

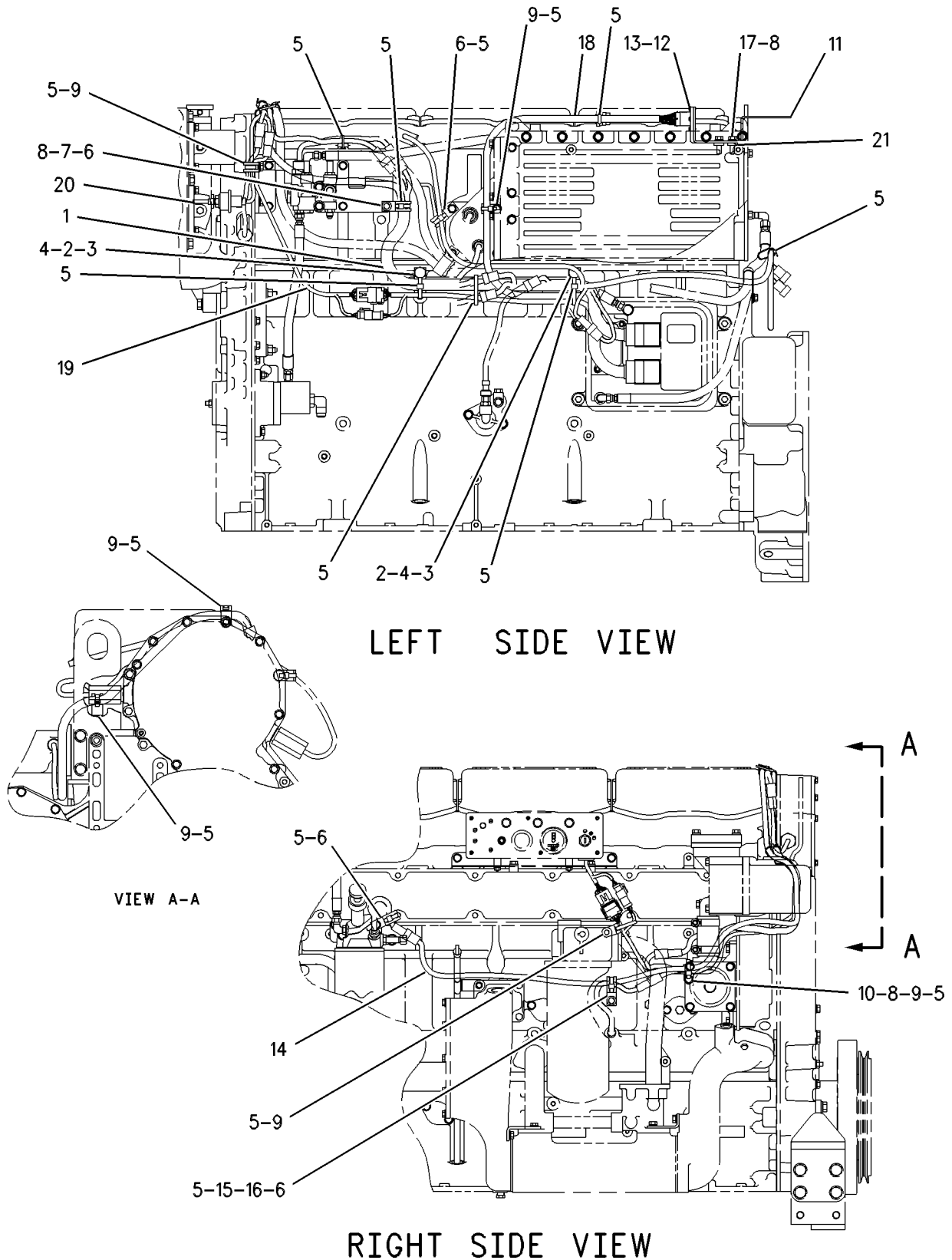
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	136-7354	1	HARNESS AS-WIRING						
	2	1	104-6202	2	CLIP						
	3	1	6F-7316	2	BOLT (5/8-18X1IN)						
	4	1	5P-8247	2	WASHER-HARD (17X32X3.5MM THK)						
	5	1	3S-2093	16	STRAP-CABLE						
	6	1	4P-7581	4	CLIP						
	7	1	0T-0102	1	BOLT (3/8-16X0.625 IN)						
	8	1	5M-2894	4	WASHER-HARD (10.2X18.5X2.5MM THK)						
	9	1	4P-8134	6	CLIP						
	10	1	0S-0509	1	BOLT (3/8-16X0.75 IN)						
	11	1	136-9504	1	BRACKET						
	12	1	9X-6258	4	SCREW-MACHINE (6-32X.50 IN)						
	13	1	4B-5324	4	WASHER (3.9X9.6X1.2MM THK)						
	14	1	136-9752	1	WIRE AS						
	15	1	2H-3755	1	BOLT (5/16-18X0.62 IN)						
	16	1	3E-4352	1	WASHER-HARD (8.8X20.5X2.5MM THK)						
	17	1	1A-2029	2	BOLT (3/8-16X1.125 IN)						
	18	1	136-7355	1	HARNESS AS						
	19	1	136-9505	1	HARNESS AS						
BY	20	1	165-6634	1	SENSOR GP-COOLANT LEVEL						315
		1	3E-3371	1	WEDGE-RECEPTACLE LOCK (3 PIN)						
		1	102-8803	1	KIT-RECEPTACLE (3 PIN)						
		1	186-3735	3	PIN-CONNECTOR						
	21	1	4H-1225	2	WASHER (11X22X6MM THK)						

B- USE AS REQUIRED
Y- SEPARATE ILLUSTRATION

ELECTRICAL AND STARTING SYSTEM

130-8902 WIRING GP (contd.)

i01474842



LEFT SIDE VIEW

RIGHT SIDE VIEW

VIEW A-A

ELECTRICAL AND STARTING SYSTEM

136-6731 WIRING GP FOR USE WITH LH SERVICE FUEL LINES AN ATTACHMENT

SMCS-1408

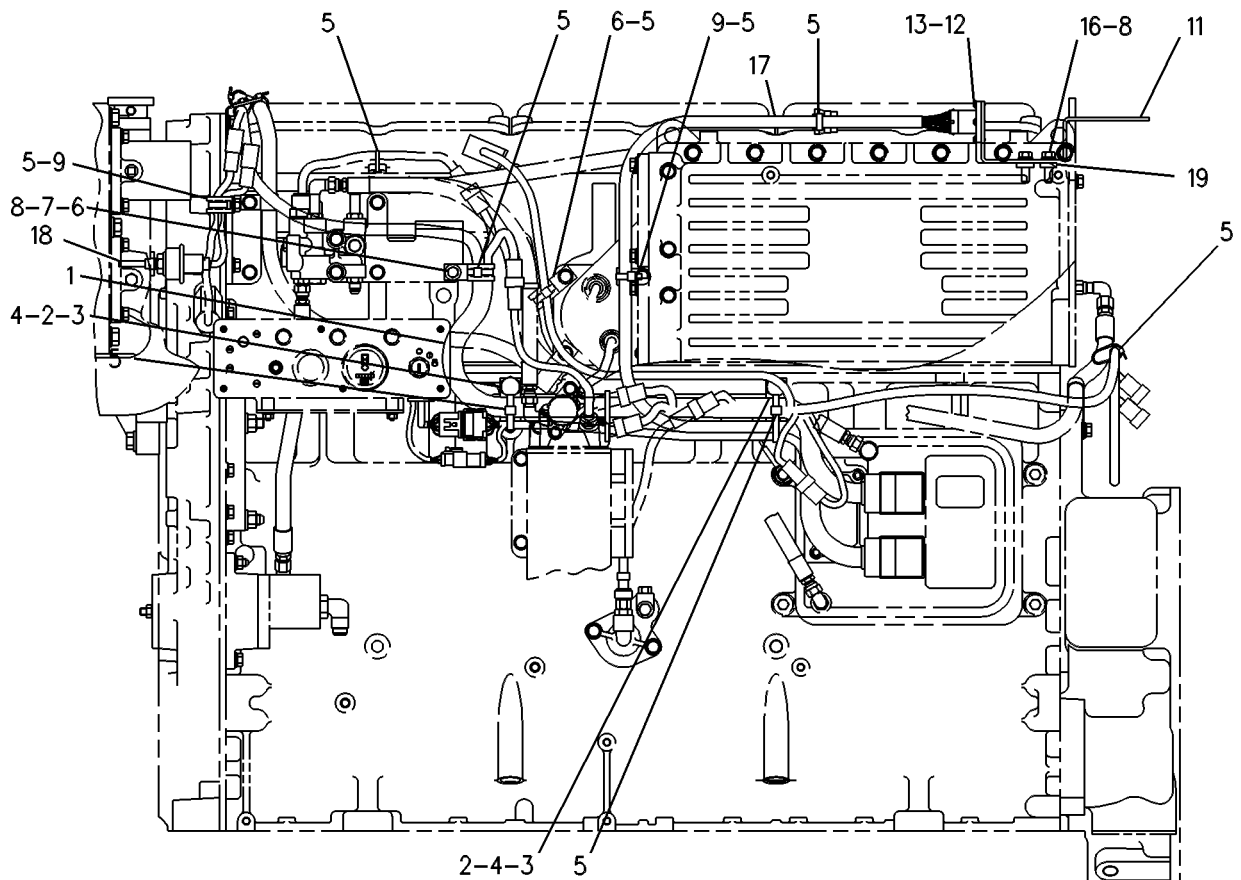
i01474819

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	136-7354	1	HARNESS AS-WIRING						
	2	1	104-6202	2	CLIP						
	3	1	6F-7316	2	BOLT (5/8-18X1IN)						
	4	1	5P-8247	2	WASHER-HARD (17X32X3.5MM THK)						
	5	1	3S-2093	14	STRAP-CABLE						
	6	1	4P-7581	3	CLIP						
	7	1	0T-0102	1	BOLT (3/8-16X0.625 IN)						
	8	1	5M-2894	4	WASHER-HARD (10.2X18.5X2.5MM THK)						
	9	1	4P-8134	5	CLIP						
	10	1	0S-0509	1	BOLT (3/8-16X0.75 IN)						
	11	1	136-9504	1	BRACKET						
	12	1	9X-6258	4	SCREW-MACHINE (6-32X.50 IN)						
	13	1	4B-5324	4	WASHER (3.9X9.6X1.2MM THK)						
	14	1	2H-3755	1	BOLT (5/16-18X0.62 IN)						
	15	1	3E-4352	1	WASHER-HARD (8.8X20.5X2.5MM THK)						
	16	1	1A-2029	2	BOLT (3/8-16X1.125 IN)						
	17	1	136-7355	1	HARNESS AS						
Y	18	1	165-6634	1	SENSOR GP-COOLANT LEVEL						315
	19	1	4H-1225	2	WASHER (11X22X6MM THK)						
Y-SEPARATE ILLUSTRATION											

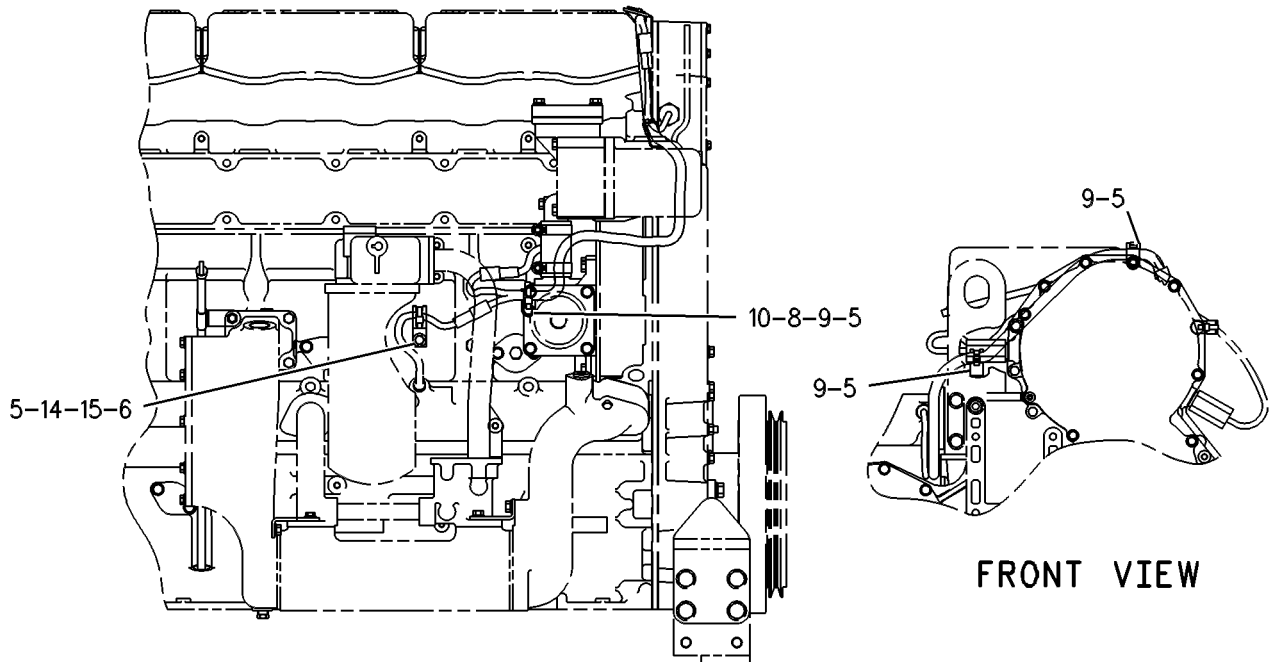
ELECTRICAL AND STARTING SYSTEM

136-6731 WIRING GP (contd.)

i01474819



LEFT SIDE VIEW



RIGHT SIDE VIEW

FRONT VIEW

GRAPHIC #1

g00282787

ELECTRICAL AND STARTING SYSTEM

131-8281 WIRING GP-ENGINE

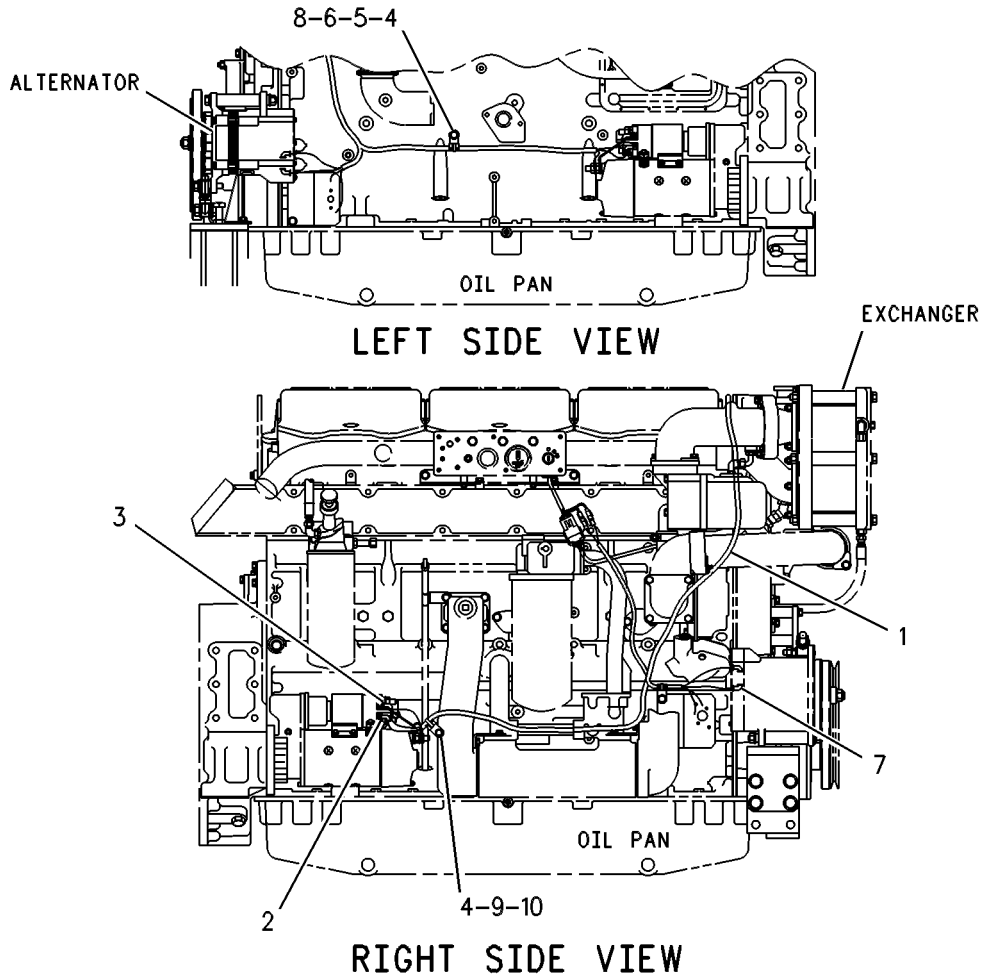
AN ATTACHMENT

SMCS-1000, 1408

i00942404

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	131-8282	1	HARNESS AS-WIRING						
	2	1	9G-8909	1	COVER (BLACK) (RING)						
	3	1	8N-0869	1	COVER (RED)						
	4	1	4P-8134	2	CLIP						
	5	1	5M-2894	1	WASHER (2.5MM THK)						
	6	1	0S-0509	1	BOLT (3/8X.75IN)						
	7	1	2L-0273	2	NIPPLE						
B	8	1	6K-0806	4	STRAP-CABLE						
	9	1	9M-1974	1	WASHER-HARD (2MM THK)						
	10	1	2H-3755	1	BOLT						

B-USE AS REQUIRED



GRAPHIC #1

g00450989

ELECTRICAL AND STARTING SYSTEM

165-0199 WIRING GP - INSTRUMENT

FOR USE WITH POWER DISPLAY ANALOG GAUGES, 165-0202-PAGE 270
AN ATTACHMENT

SMCS-1408, 7451

i01345511

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	165-0200	1	CABLE AS						
E	153-2707		CABLE (30CM)						
D	5P-6001		TUBE (0.1M)						
	8T-8730	4	SOCKET-CONNECTOR						
E	125-7876		TUBE-SHRINKABLE (10CM)						
	133-0969	2	CONNECTOR-SOCKET						
	148-5390	1	KIT-CONNECTING PLUG (INCLUDES PLUG AS & WEDGE)						
	165-0201	1	CABLE AS						
E	153-2707		CABLE (30CM)						
D	5P-6001		TUBE (0.1M)						
	8T-8730	4	SOCKET-CONNECTOR						
E	125-7876		TUBE-SHRINKABLE (10CM)						
	133-0969	2	CONNECTOR-SOCKET						
	148-5390	2	KIT-CONNECTING PLUG (INCLUDES PLUG AS & WEDGE)						
	133-0970	1	RECEPTACLE AS						
	134-2540	1	RECEPTACLE AS						

D-ORDER BY THE METER
E-ORDER BY THE CENTIMETER

ELECTRICAL AND STARTING SYSTEM

193-5582 WIRING GP-PANEL

REQUIRES 1532707 BULK CABLE FOR INSTALLATION AND MARINE POWER DISPLAY UNIT
AN ATTACHMENT

SMCS-4459

i01351199

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	165-0200	1	CABLE AS						
E	153-2707		CABLE (30 CM)						
	3E-3368	1	WEDGE-PLUG LOCK						
D	5P-6001	1	TUBE (0.1M)						
	8T-8730		SOCKET-CONNECTOR						
BE	125-7876		TUBE-SHRINKABLE						
	133-0969	2	CONNECTOR-SOCKET						
	148-5390	1	KIT-CONNECTING PLUG						
			(INCLUDES PLUG AS & WEDGE)						
	133-0970	1	RECEPTACLE AS						
	133-0974	2	WEDGE-PLUG LOCK						
B-USE AS REQUIRED D-ORDER BY THE METER E-ORDER BY THE CENTIMETER									

OPERATOR STATION

3E-9338 CONTROL GP-ENGINE MONITORING

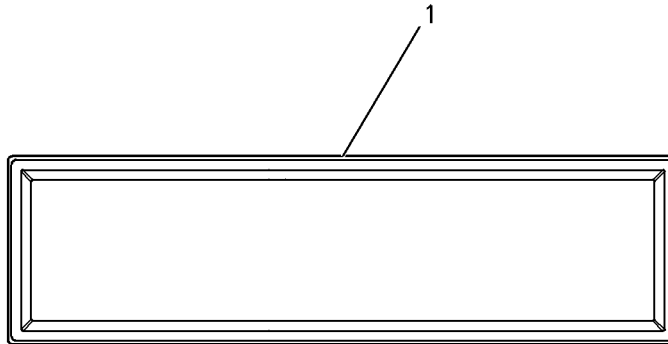
CMS (COMPUTERIZED MONITORING SYSTEM)

AN ATTACHMENT

SMCS-1901, 7490

i00638909

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	139-0102	1	CONTROL GP-CMS DISPLAY ELEK						
		1	3E-2130	1	GASKET						



GRAPHIC #1

g00246249

OPERATOR STATION

130-6190 CONTROL GP-ENGINE MONITORING

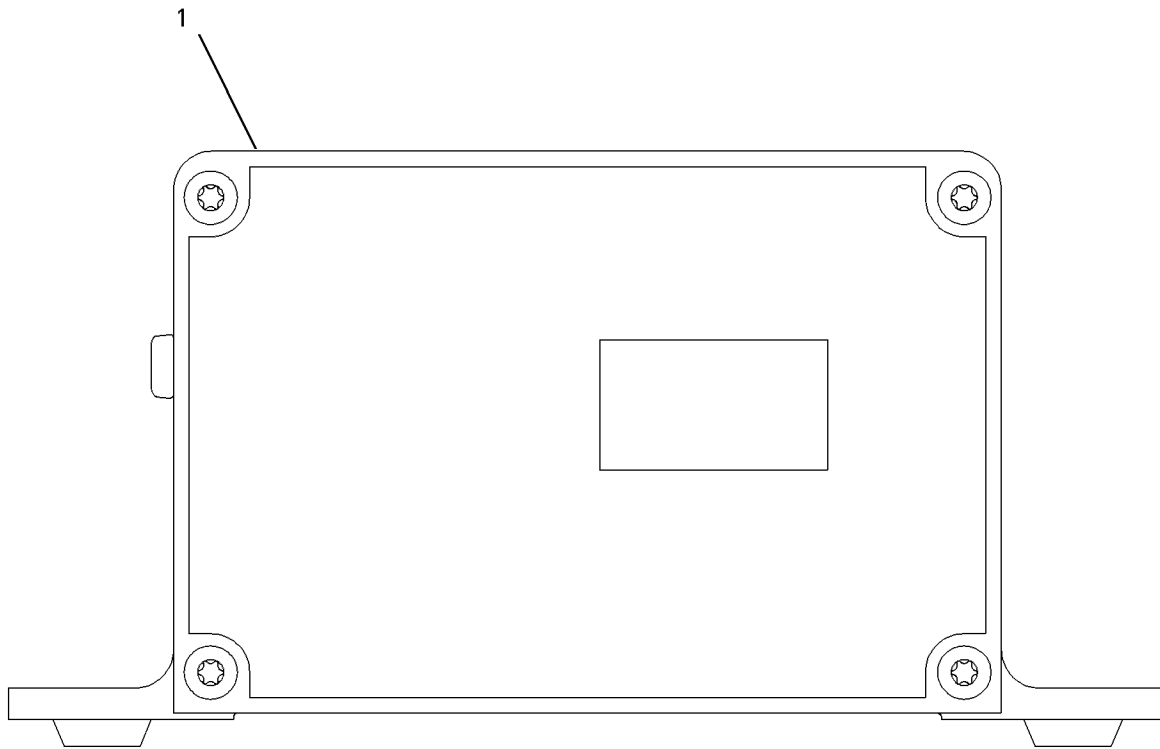
CUSTOMER COMMUNICATION MODULE

AN ATTACHMENT

SMCS-1901, 7490

i01178238

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	130-6191	1	MODULE GP-SYSTEM COMMUNICATION						400
Y - SEPARATE ILLUSTRATION											



GRAPHIC #1

g00630704

OPERATOR STATION

131-0209 CONTROL GP-MONITOR

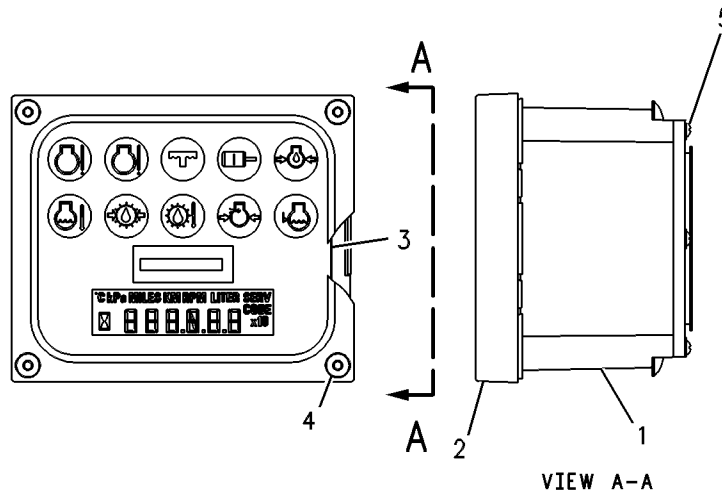
FOR USE WITH 117-9015-PAGE 389, 117-9016-PAGE 395, 121-4017-PAGE 304
AN ATTACHMENT

SMCS-7490

i01474829

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	198-9749	1	CONTROL GP-MONITOR (MARINE POWER DISPLAY)						
	2	1	117-6601	1	BEZEL						
	3	1	115-7580	1	FILM-MONITOR						
M	4	1	7Y-7388	4	SCREW-BUTTON HEAD (M5X0.8X12MM)						
M	5	1	8T-3992	3	SCREW (M6X1X12MM)						

M-METRIC PART



GRAPHIC #1

g00257846

OPERATOR STATION

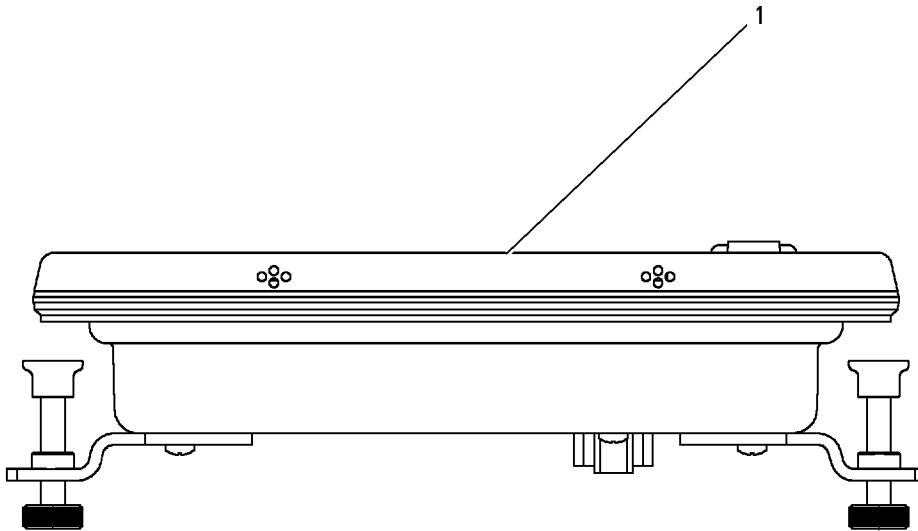
186-0195 CONTROL GP-MONITOR

POWER DISPLAY
AN ATTACHMENT

SMCS-7490

i01409801

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	196-5243	1	CONTROL GP - UNPROGRAMMED						



GRAPHIC #1

g00742137

OPERATOR STATION

127-8853 CONVERTER GP-ELECTRICAL

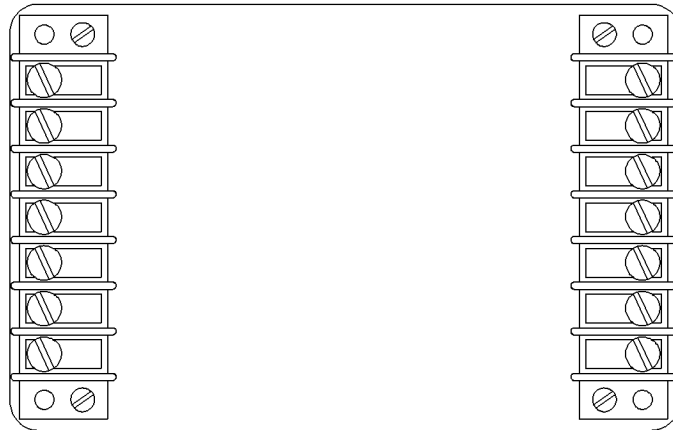
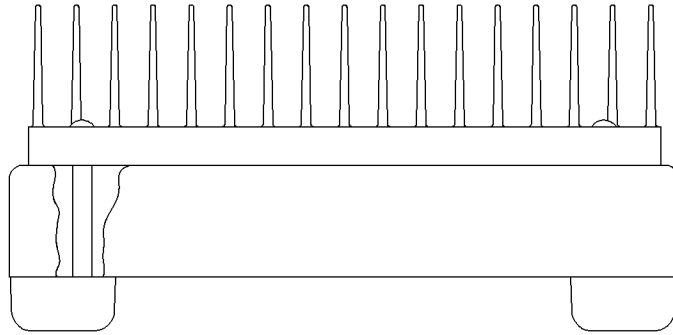
12 VDC TO 24 VDC CONVERTER

AN ATTACHMENT

SMCS-1421

i01302140

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
(NO SERVICED PARTS)											



GRAPHIC #1

g00691213

OPERATOR STATION

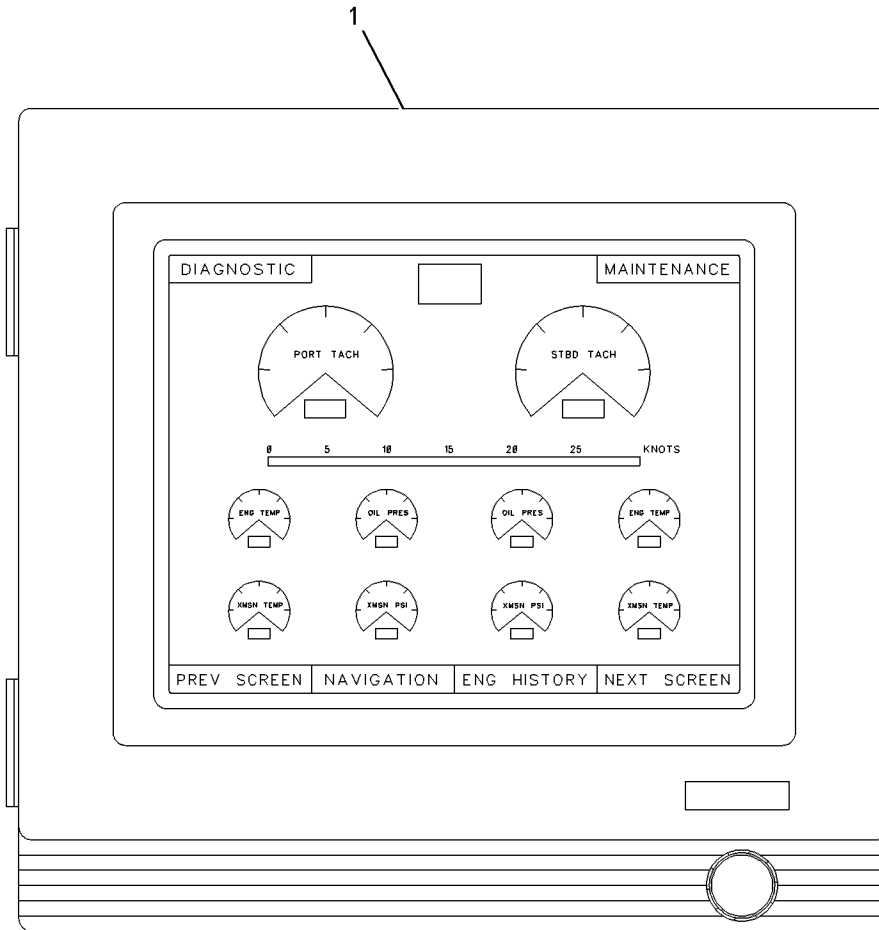
137-7168 DISPLAY GP-ENGINE VISION

LINE ENGINE VISION
PART OF 137-7167 CONTROL GP-ENGINE VISION
AN ATTACHMENT
TYPE 1

SMCS-1900, 7490

i01178419

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	137-7169	1	DISPLAY GP-ENGINE VISION						386
Y-SEPARATE ILLUSTRATION											



GRAPHIC #1

g00630797

OPERATOR STATION

137-7168 DISPLAY GP-ENGINE VISION

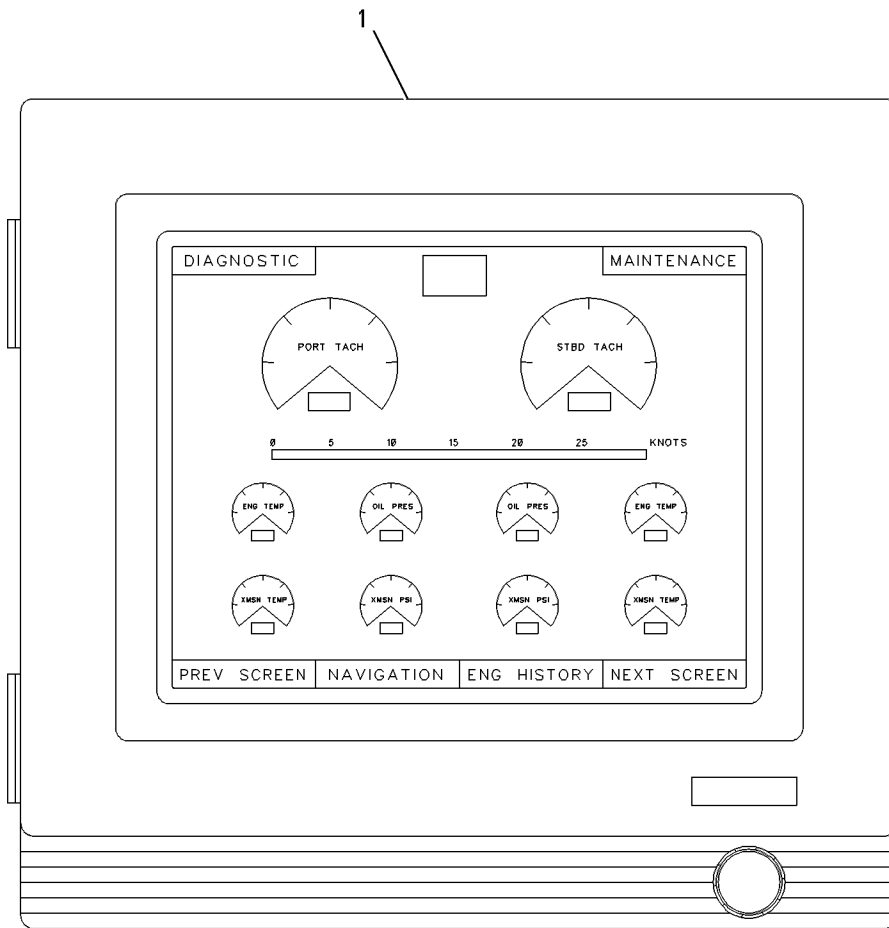
LINE ENGINE VISION
PART OF 137-7167 CONTROL GP-ENGINE VISION
AN ATTACHMENT
TYPE 2

SMCS-1900, 7490

i01315636

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
CY	1	1	145-2890	1	DISPLAY GP-ENGINE VISION						387

C- CHANGE FROM PREVIOUS TYPE
Y- SEPARATE ILLUSTRATION



GRAPHIC #1

g00630800

OPERATOR STATION

137-7169 DISPLAY GP-ENGINE VISION

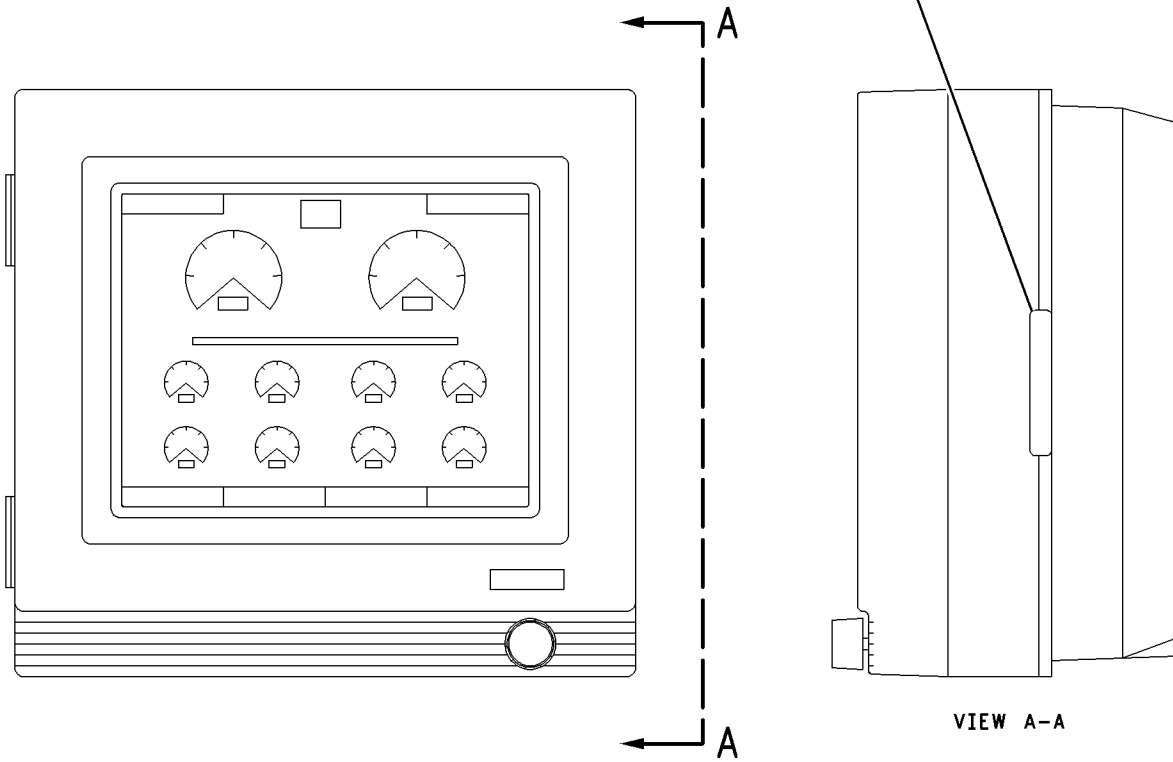
BASIC ENGINE VISION

PART OF 137-7168 DISPLAY GP-ENGINE VISION
AN ATTACHMENT

SMCS-1900, 7490

i01186419

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8C-6188	1	SEAL-SECURITY						



GRAPHIC #1

g00635301

OPERATOR STATION

145-2890 DISPLAY GP-ENGINE VISION

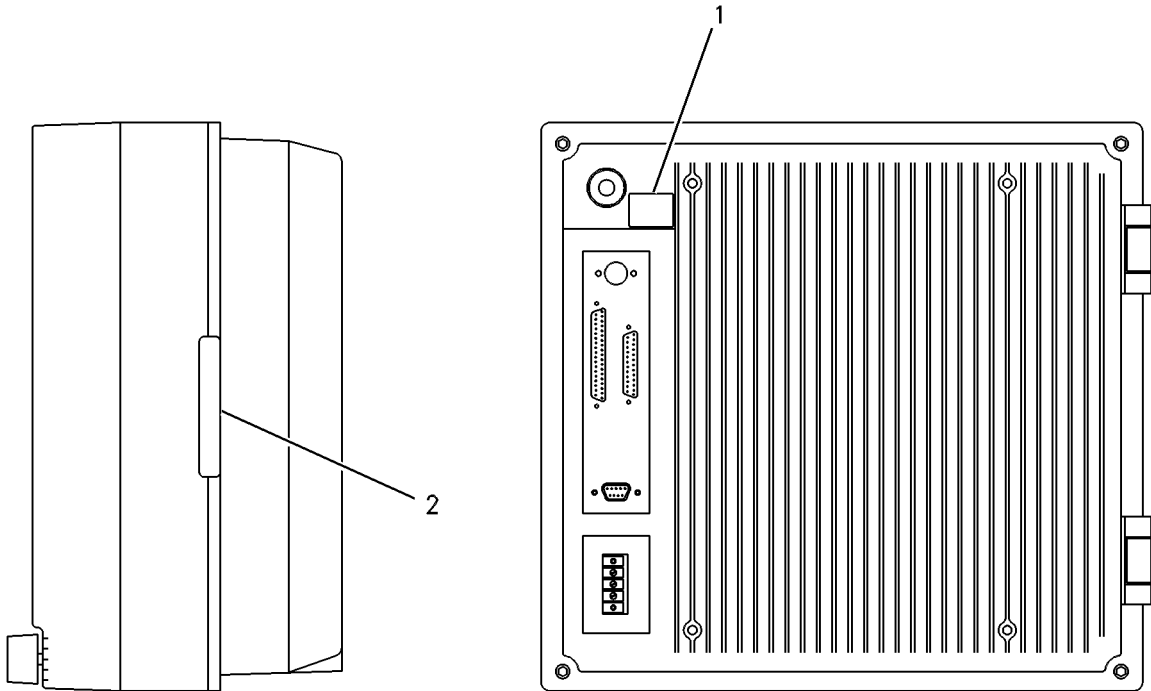
BASIC ENGINE VISION

PART OF 137-7168 DISPLAY GP-ENGINE VISION
AN ATTACHMENT

SMCS-1900, 7490

i00667085

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	3E-9199	1	LABEL - MARKING						
	2	1	8C-6188	1	SEAL - SECURITY						



GRAPHIC #1

g00283089

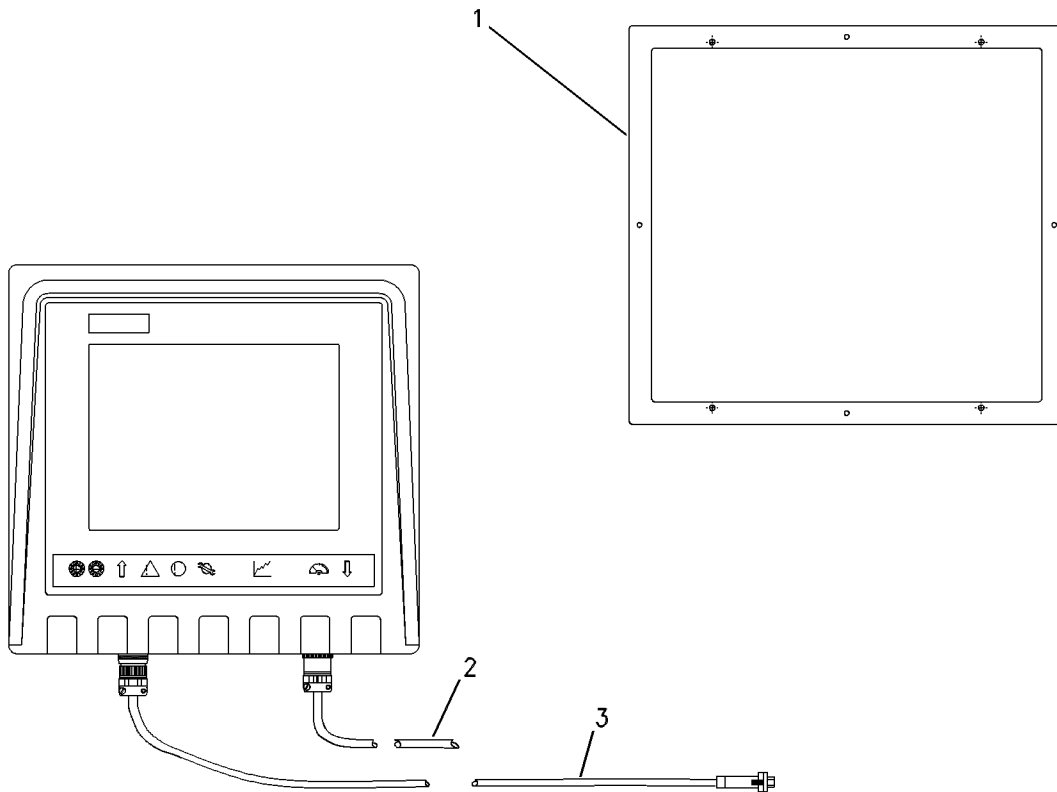
OPERATOR STATION

189-4750 DISPLAY GP-ENGINE VISION AN ATTACHMENT

SMCS-1900, 7490

i01316213

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	163-3972	1	KIT-MOUNTING (KIT INCLUDES MOUNTING PLATE, PLATE SCREWS AND DISPLAY SCREWS.)						
	2	1	163-3974	1	CABLE AS-POWER						
	3	1	163-3973	1	CABLE AS (DATA)						



GRAPHIC #1

g00538699

OPERATOR STATION

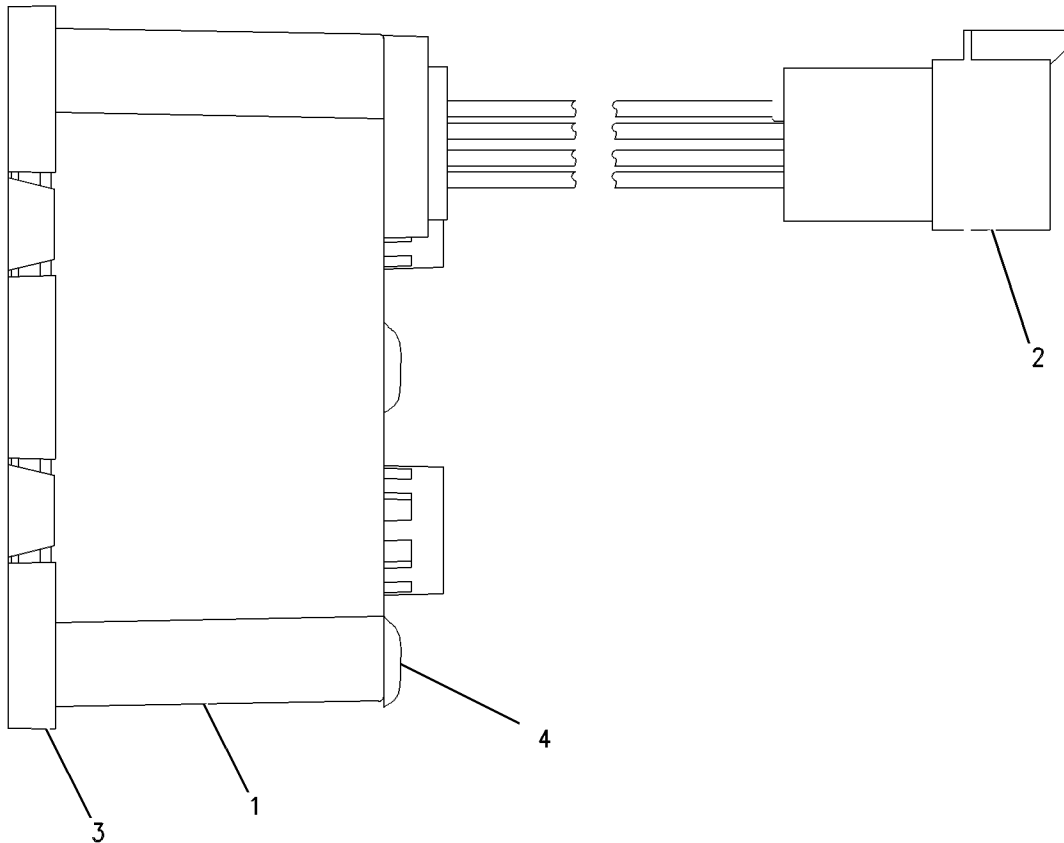
117-9015 MODULE GP-QUAD GAUGE ENGINE OIL & GEAR OIL PRESSURE - WATER & GEAR OIL TEMPERATURE AN ATTACHMENT TYPE 1

SMCS-7451, 7490

i01172689

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	118-8372	1	MODULE GP-QUAD GAUGE						
		1	115-5296	1	MODULE GP-QUAD GAUGE						
	2	1	102-8805	1	KIT-RECEPTACLE (6 PIN)						
	3	1	100-5566	1	BEZEL						
M		1	7Y-7388	4	SCREW-BUTTON HEAD (M5X0.8X12MM)						
M	4	1	8T-3992	4	SCREW (M6X1X12MM)						

M-METRIC PART



GRAPHIC #1

g00626196

OPERATOR STATION

117-9015 MODULE GP-QUAD GAUGE

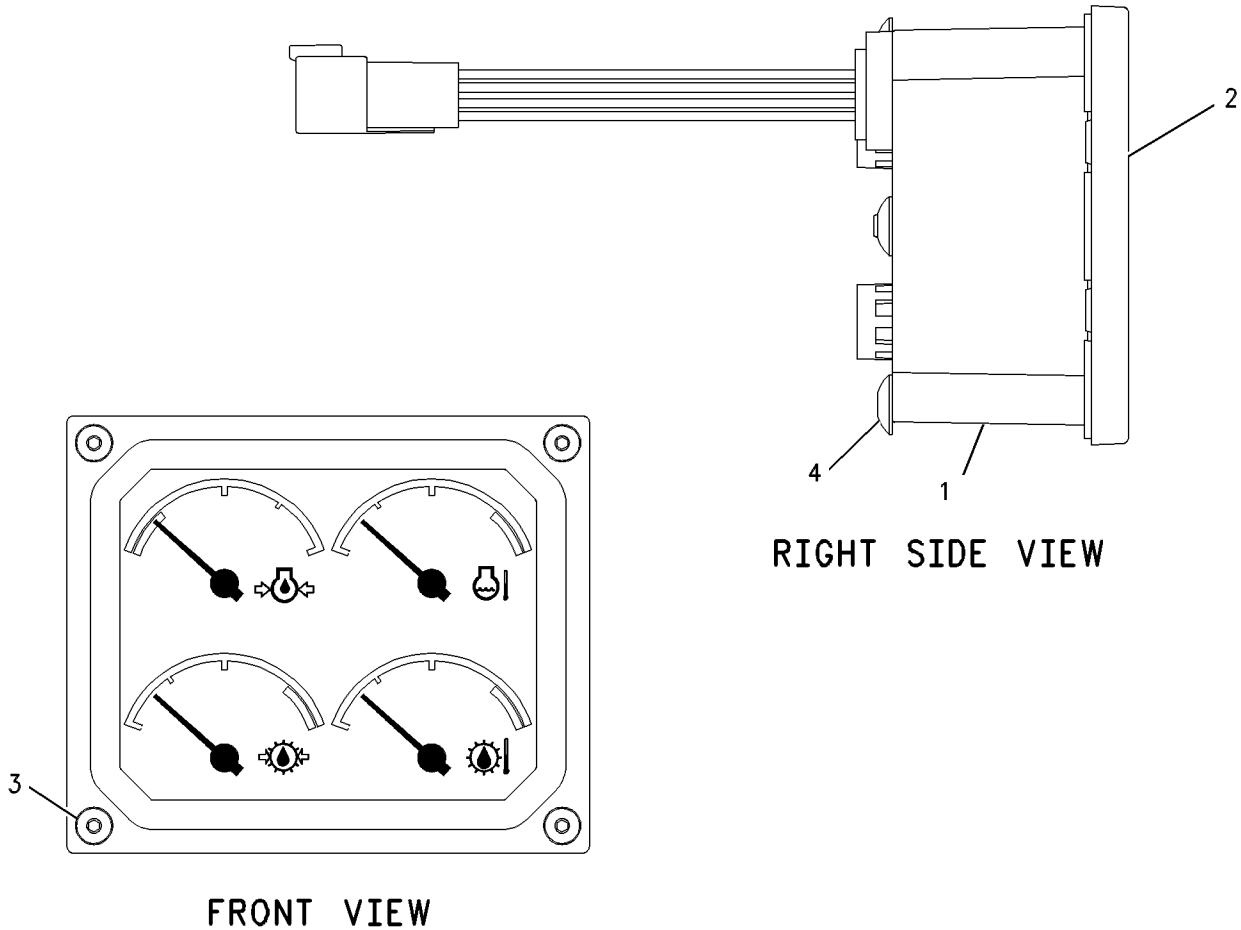
ENGINE OIL & GEAR OIL PRESSURE - WATER & GEAR OIL TEMPERATURE
AN ATTACHMENT
TYPE 2

SMCS-7451, 7490

i01271798

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	153-8055	1	MODULE GP-QUAD GAUGE						392
	2	1	117-6601	1	BEZEL						
M	3	1	7Y-7388	4	SCREW-BUTTON HEAD (M5X0.8X12MM)						
M	4	1	8T-3992	3	SCREW (M6X1X12MM)						

M- METRIC PART
Y- SEPARATE ILLUSTRATION



RIGHT SIDE VIEW

FRONT VIEW

GRAPHIC #1

g00625858

OPERATOR STATION

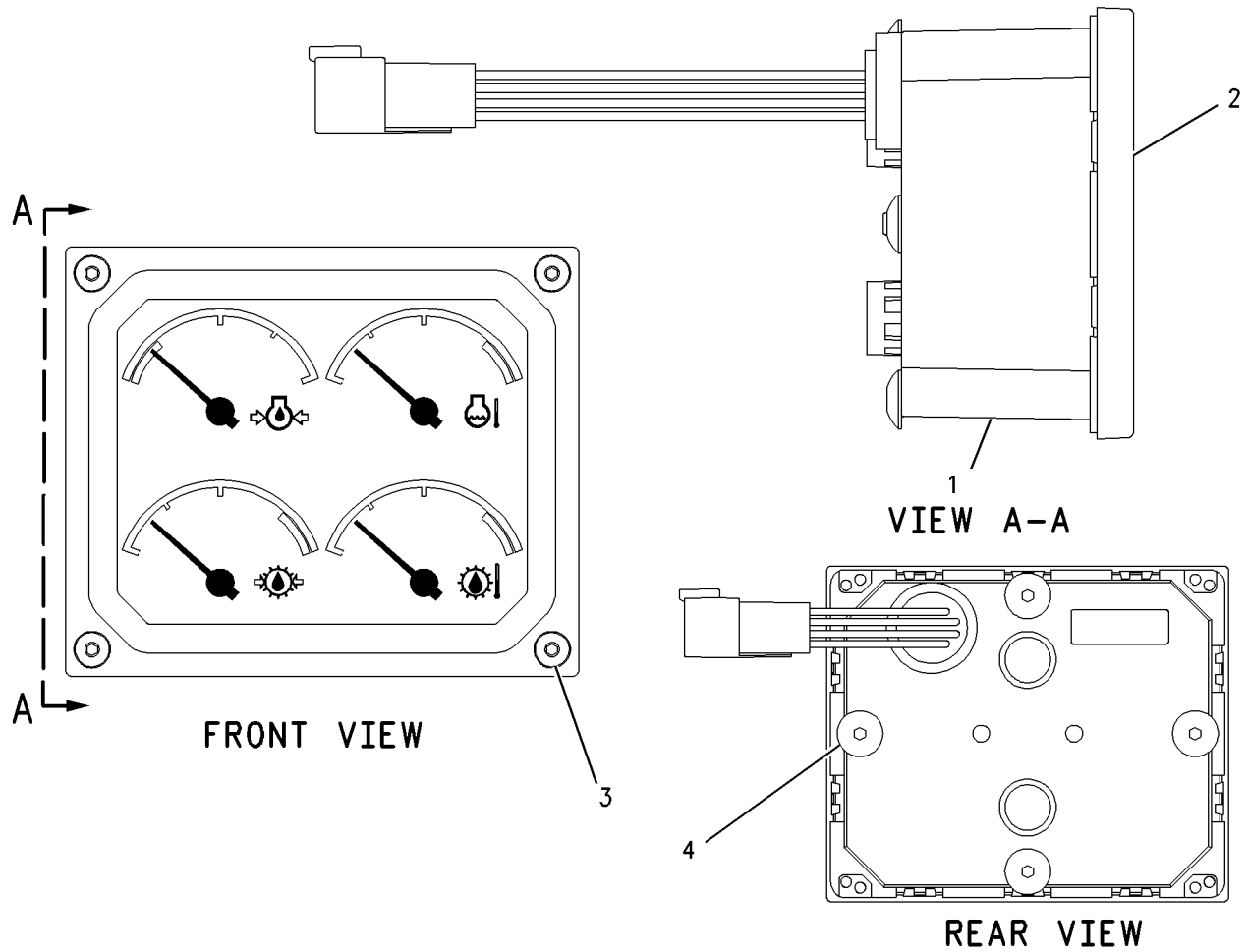
117-9015 MODULE GP-QUAD GAUGE ENGINE OIL & GEAR OIL PRESSURE - WATER & GEAR OIL TEMPERATURE AN ATTACHMENT TYPE 3

SMCS-7451, 7490

i01271780

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	166-6941	1	MODULE GP-QUAD GAUGE						393
	2	1	117-6601	1	BEZEL						
M	3	1	7Y-7388	4	SCREW-BUTTON HEAD (M5X0.8X12MM)						
M	4	1	8T-3992	4	SCREW (M6X1X12MM)						

M-METRIC PART
Y-SEPARATE ILLUSTRATION



GRAPHIC #1

g00675920

OPERATOR STATION

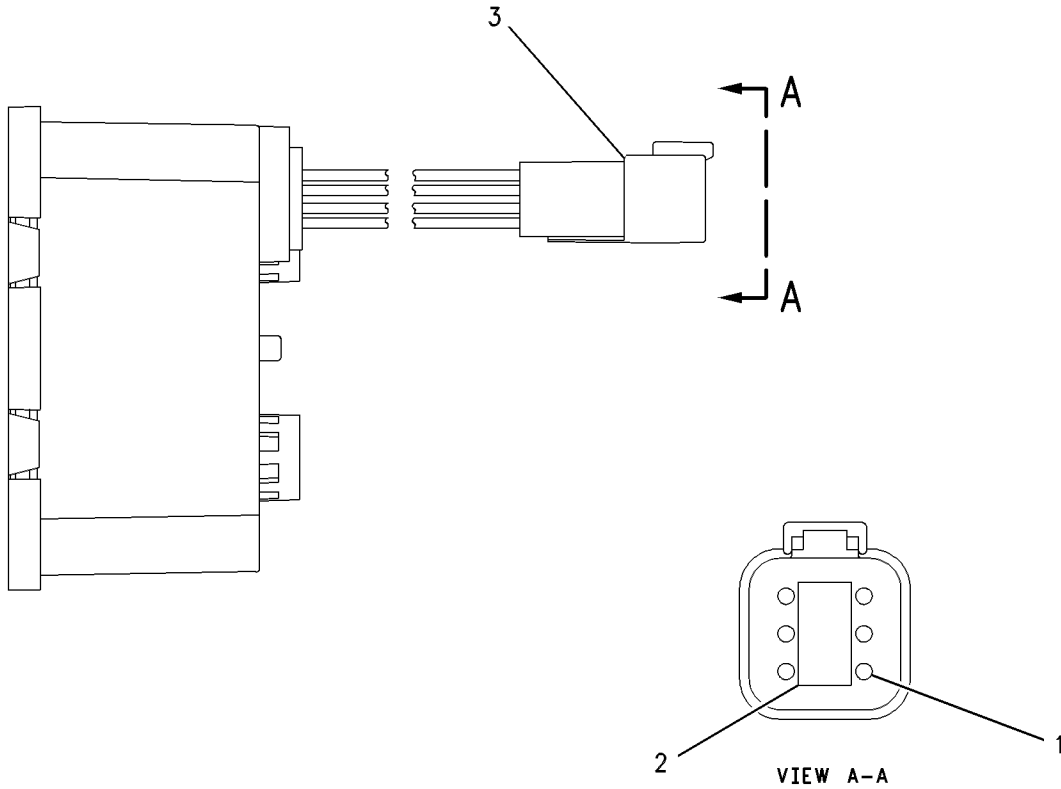
153-8055 MODULE GP-QUAD GAUGE

PART OF 117-9015 MODULE GP-QUAD GAUGE
 FIELD REPLACEMENT ORDER 166-6941-PAGE 393
 AN ATTACHMENT

SMCS-7451, 7490

i00989175

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-8729	6	PIN-CONNECTOR						
	2	1	3E-3383	1	WEDGE-RECEPTACLE LOCK						
	3	1	102-8805	1	KIT-RECEPTACLE (6 PIN)						
					(INCLUDES REC. AS. & WEDGE)						
		1	102-8810	1	KIT-CONNECTING PLUG (6 PINS)						
					(INCLUDES REC. AS. & WEDGE)						



GRAPHIC #1

g00395696

OPERATOR STATION

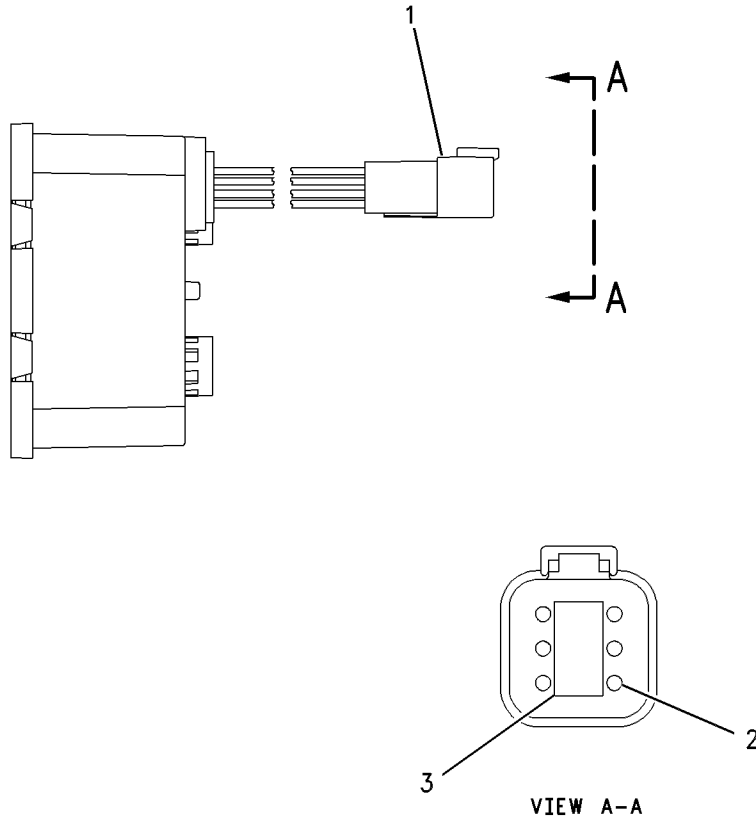
166-6941 MODULE GP-QUAD GAUGE

PART OF 117-9015 MODULE GP-QUAD GAUGE
 FIELD REPLACEMENT FOR 153-8055—PAGE 392
 AN ATTACHMENT

SMCS-7451, 7490

i01296997

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	102-8805	1	KIT-RECEPTACLE (6 PIN) (INCLUDES RECEPTACLE AS & WEDGE)						
	2	1	8T-8729	6	PIN-CONNECTOR						
	3	1	3E-3383	1	WEDGE-RECEPTACLE LOCK						



GRAPHIC #1

g00618270

OPERATOR STATION

100-5888 MODULE GP-SPEEDOMETER & TACH

PART OF 117-9016 MODULE GP-SPEEDOMETER & TACH

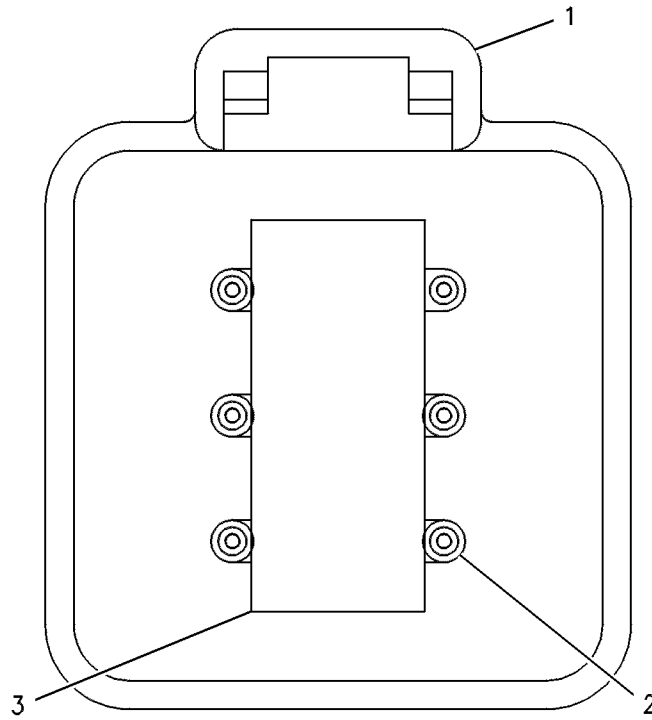
FIELD REPLACEMENT ORDER 153-8061-PAGE 399

AN ATTACHMENT

SMCS-7451, 7462, 7463, 7490

i01298552

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	102-8805	1	KIT-RECEPTACLE (6 PIN) (INCLUDES RECEPTACLE AS AND WEDGE)						
	2	1	8T-8729	6	PIN-CONNECTOR						
	3	1	3E-3383	1	WEDGE-RECEPTACLE LOCK						



GRAPHIC #1

g00120509

OPERATOR STATION

117-9016 MODULE GP - SPEEDOMETER & TACH

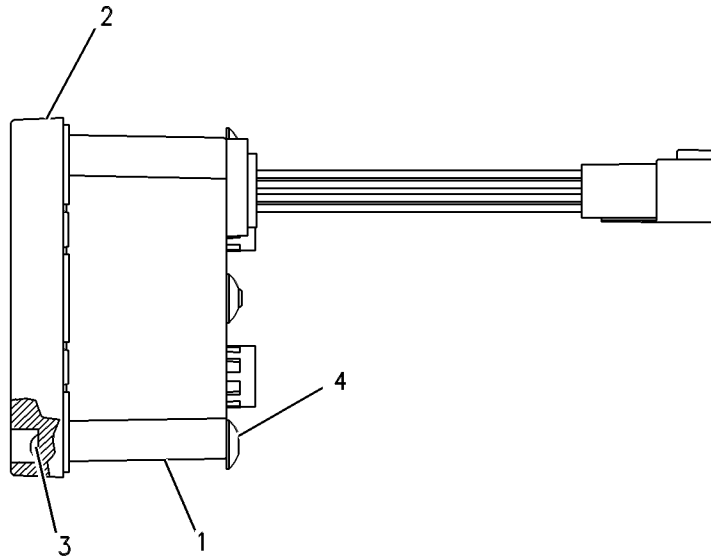
PROVIDES SPEED/TACH WITH NEGATIVE MODE (LIGHT TEXT/DARK BACKGROUND) DISPLAY
AN ATTACHMENT
TYPE 1

SMCS-7451, 7462, 7463, 7490

i01155960

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	100-5888	1	MODULE GP - SPEEDOMETER & TACH						394
	2	1	117-6601	1	BEZEL						
M	3	1	7Y-7388	4	SCREW - BUTTON HEAD (M5X0.8X12MM)						
M	4	1	8T-3992	4	SCREW (M6X1X12MM)						

M - METRIC PART
Y - SEPARATE ILLUSTRATION



GRAPHIC #1

g00261361

OPERATOR STATION

117-9016 MODULE GP - SPEEDOMETER & TACH

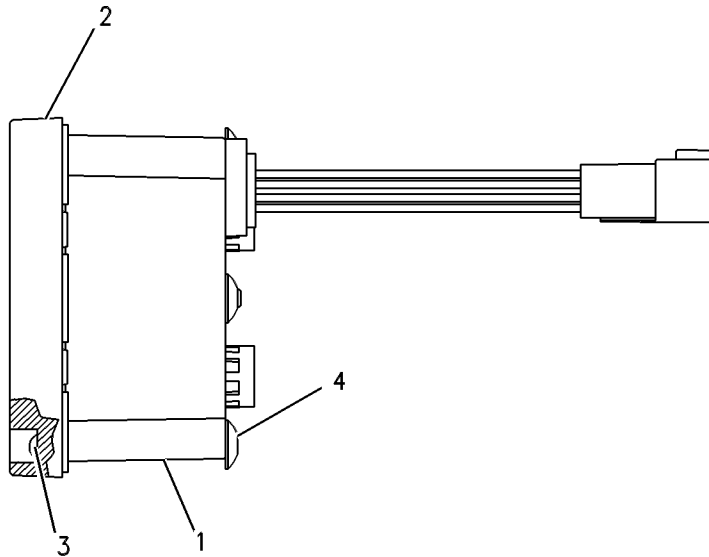
PROVIDES SPEED/TACH WITH NEGATIVE MODE (LIGHT TEXT/DARK BACKGROUND) DISPLAY
AN ATTACHMENT
TYPE 2

SMCS-7451, 7462, 7463, 7490

i00849397

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	153-8061	1	MODULE GP - SPEED/TACH ELEK						399
	2	1	117-6601	1	BEZEL						
M	3	1	7Y-7388	4	SCREW - BUTTON HEAD (M5X0.8X12MM)						
M	4	1	8T-3992	3	SCREW (M6X1X12MM)						

M - METRIC PART
Y - SEPARATE ILLUSTRATION



GRAPHIC #1

g00261361

OPERATOR STATION

144-0890 MODULE GP - SPEEDOMETER & TACH

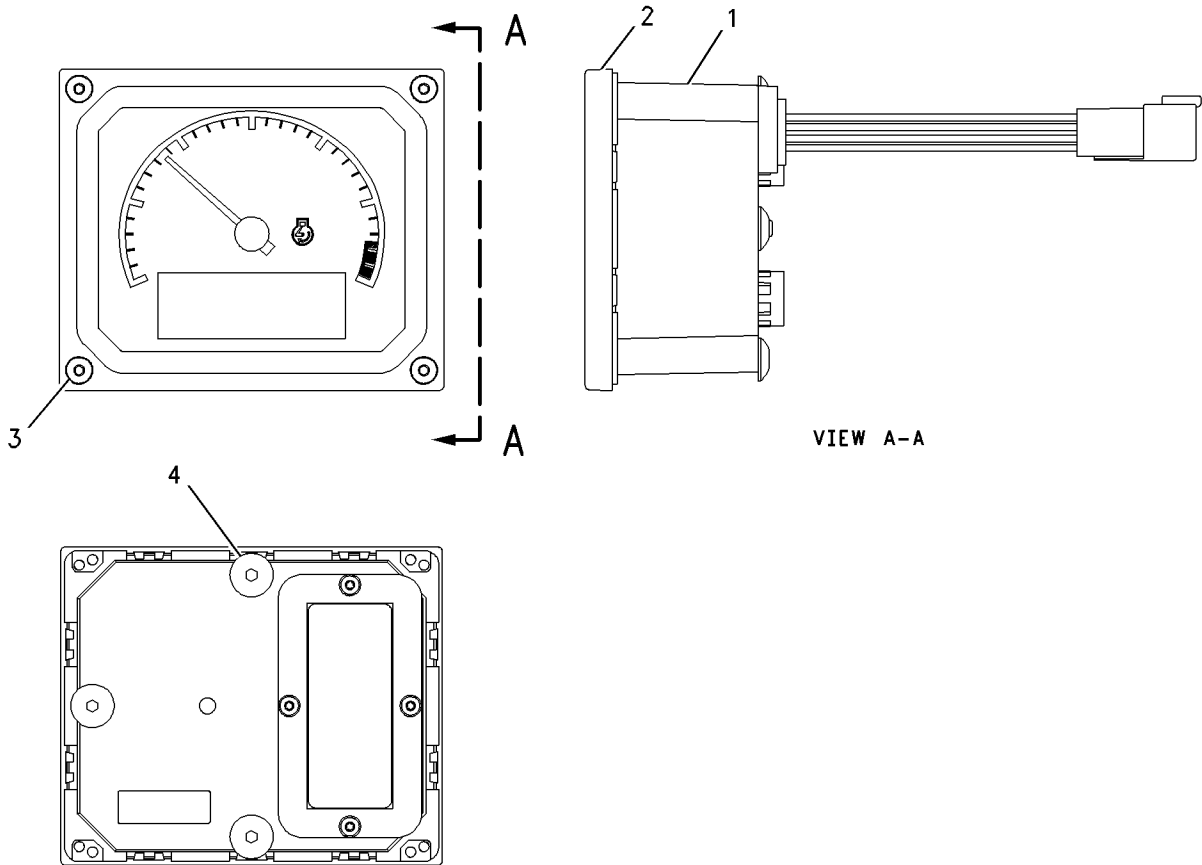
PROVIDES SPEED/TACH WITH POSITIVE MODE DISPLAY
AN ATTACHMENT

SMCS-7451, 7462, 7463, 7490

i01363997

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
Y	1	1	153-8059	1	MODULE GP - SPEEDOMETER & TACH	398
	2	1	117-6601	1	BEZEL	
M	3	1	7Y-7388	4	SCREW - BUTTON HEAD (M5X0.8X12MM)	
M	4	1	8T-3992	3	SCREW (M6X1X12MM)	

M - METRIC PART
Y - SEPARATE ILLUSTRATION



REAR VIEW

GRAPHIC #1

g00716017

OPERATOR STATION

153-8059 MODULE GP - SPEEDOMETER & TACH

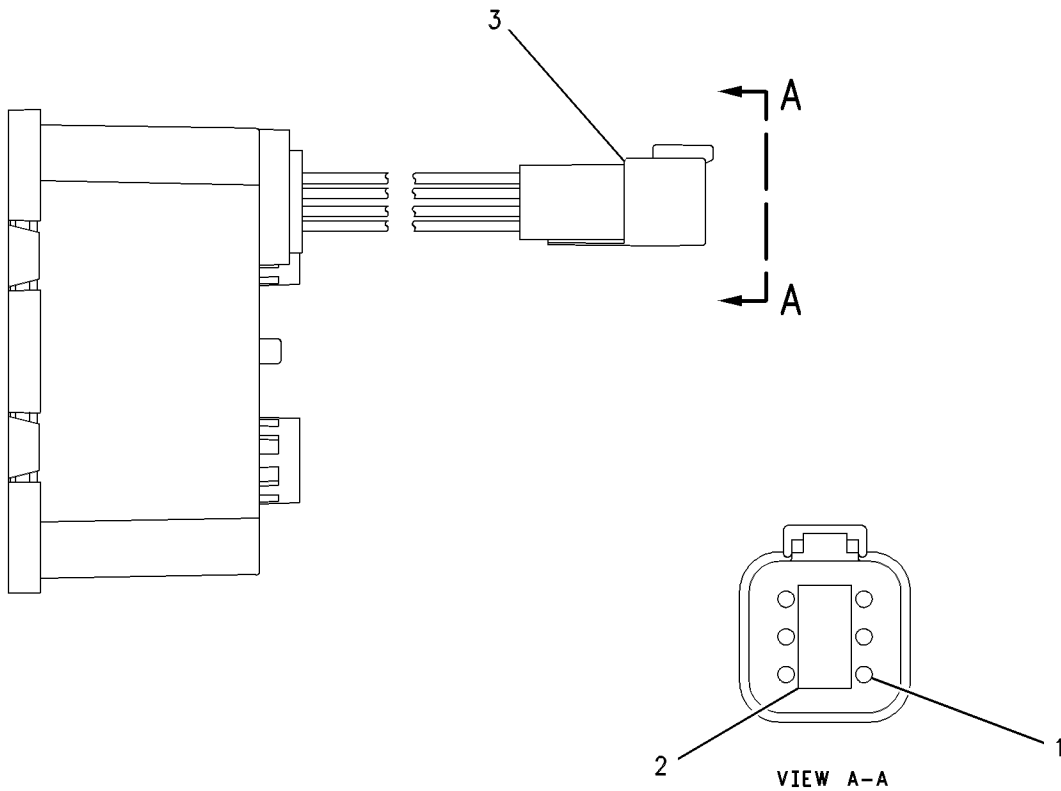
PART OF 144-0890 MODULE GP - SPEEDOMETER & TACH

AN ATTACHMENT

SMCS-7451, 7462, 7463, 7490

i01270536

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-8729	6	PIN-CONNECTOR						
	2	1	3E-3383	1	WEDGE-RECEPTACLE LOCK						
	3	1	102-8805	1	KIT-RECEPTACLE (6 PIN)						
(INCLUDES RECEPTACLE AS & WEDGE)											



GRAPHIC #1

g00395696

OPERATOR STATION

153-8061 MODULE GP-SPEEDOMETER & TACH

PART OF 117-9016 MODULE GP-SPEEDOMETER & TACH

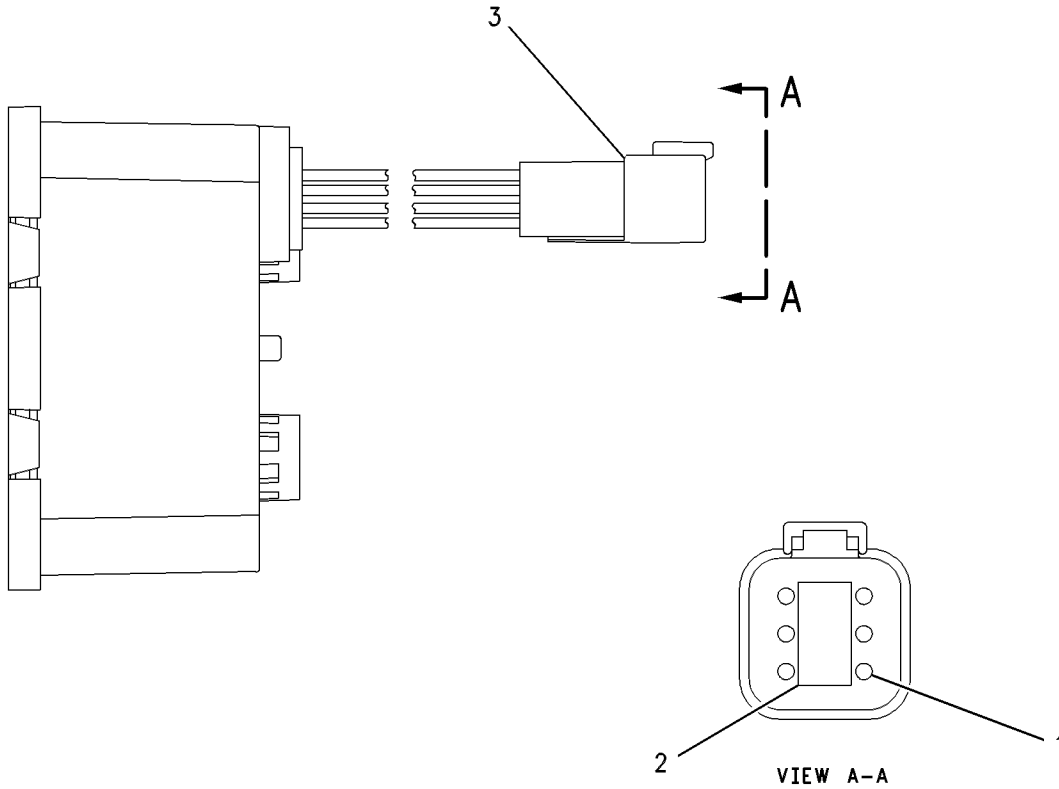
FIELD REPLACEMENT FOR 100-5888—PAGE 394

AN ATTACHMENT

SMCS-7451, 7462, 7463, 7490

i01319042

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-8729	6	PIN-CONNECTOR						
	2	1	3E-3383	1	WEDGE-RECEPTACLE LOCK						
	3	1	102-8805	1	KIT-RECEPTACLE (6 PIN)						
					(INCLUDES RECEPTACLE AS AND WEDGE)						
		1	155-2274	1	KIT-CONNECTING PLUG (6 PIN)						
					(INCLUDES PLUG AS AND WEDGE)						



GRAPHIC #1

g00395696

OPERATOR STATION

130-6191 MODULE GP-SYSTEM COMMUNICATION

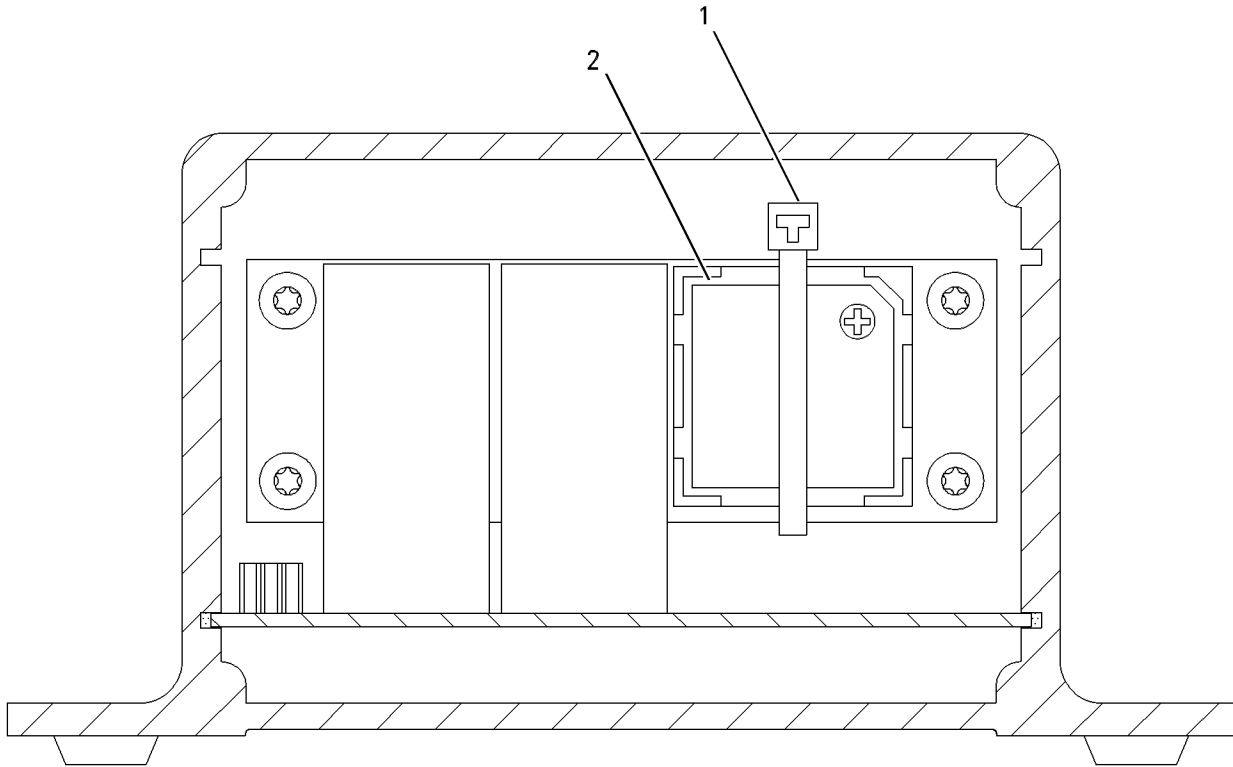
CUSTOMER COMMUNICATION MODULE
PART OF 130-6190 CONTROL GP-ENGINE MONITORING
AN ATTACHMENT

SMCS-1926

i01178256

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8L-8413	1	STRAP-CABLE (1.12IN DIA)						
	2	1	101-1785	1	BATTERY						
F		1	132-0451	1	FILM-CONTROL PANEL (FRONT)						
F		1	109-5738	1	FILM-INTERFACE (REAR)						

F-NOT SHOWN



GRAPHIC #1

g00630712

OPERATOR STATION

130-6196 MODULE GP-SYSTEM COMMUNICATION

CUSTOMER COMMUNICATION MODULE

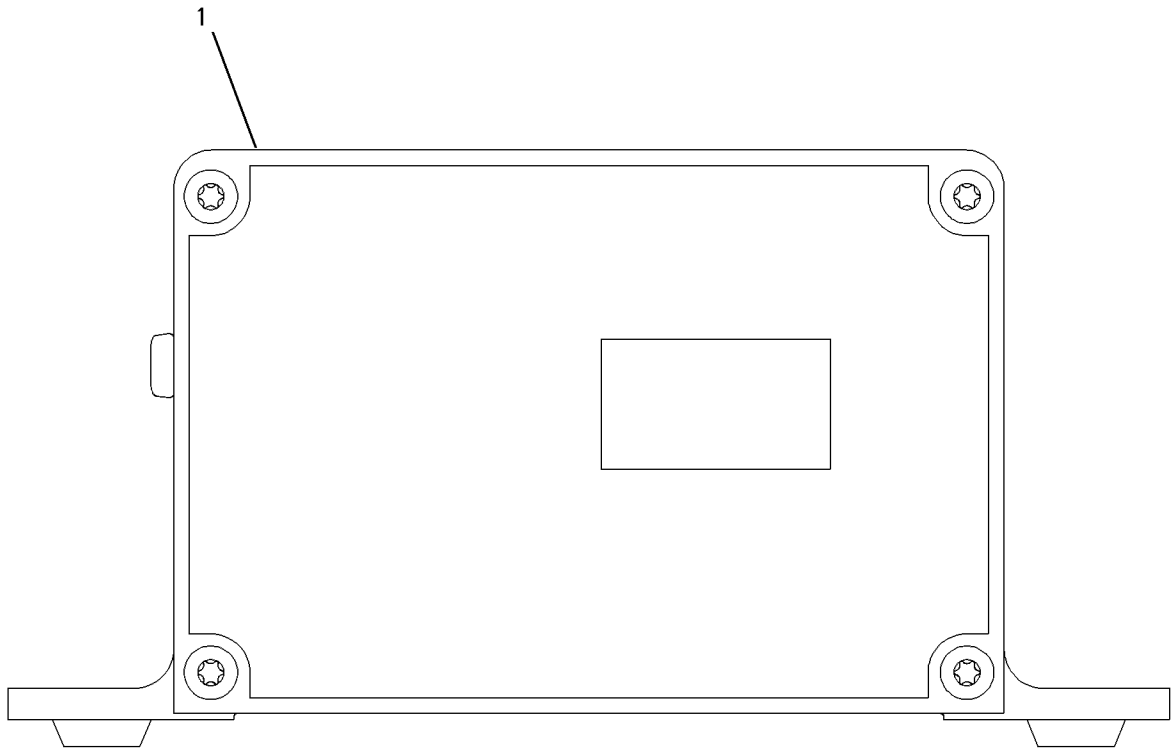
PART OF 137-7167 CONTROL GP-ENGINE VISION

FIELD REPLACEMENT ORDER 193-0258-PAGE 403. FOR USE WITH ENGINE VISION DISPLAY
AN ATTACHMENT

SMCS-1926

i01409242

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	193-0258	1	MODULE GP-SYSTEM COMMUNICATION (ENGINE VISION)						403
Y-SEPARATE ILLUSTRATION											



GRAPHIC #1

g00630720

OPERATOR STATION

130-6197 MODULE GP-SYSTEM COMMUNICATION

CUSTOMER COMMUNICATION MODULE

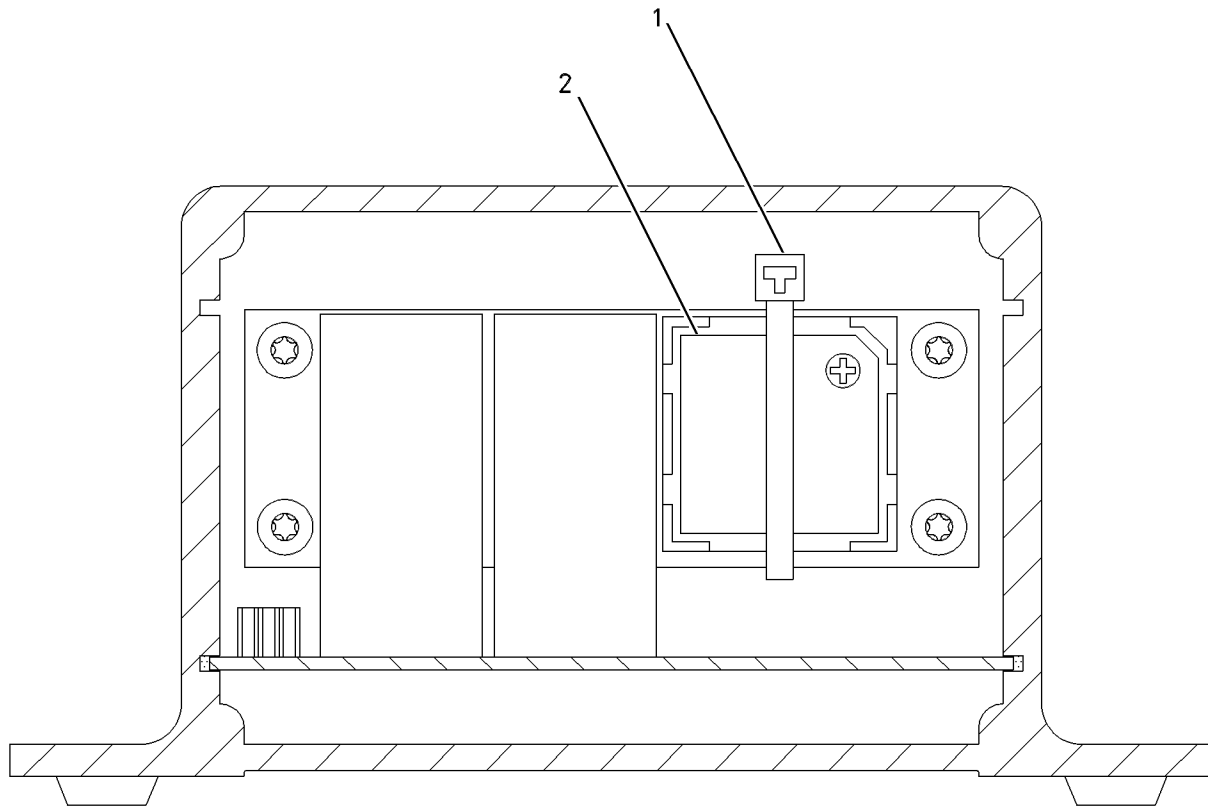
AN ATTACHMENT

SMCS-1926

i01178300

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8L-8413	1	STRAP-CABLE (1.12IN DIA)						
	2	1	101-1785	1	BATTERY						
F		1	132-0451	1	FILM-CONTROL PANEL (FRONT)						
F		1	109-5738	1	FILM-INTERFACE (REAR)						

F-NOT SHOWN



GRAPHIC #1

g00630736

OPERATOR STATION

193-0258 MODULE GP-SYSTEM COMMUNICATION

PART OF 130-6196 MODULE GP-SYSTEM COMMUNICATION

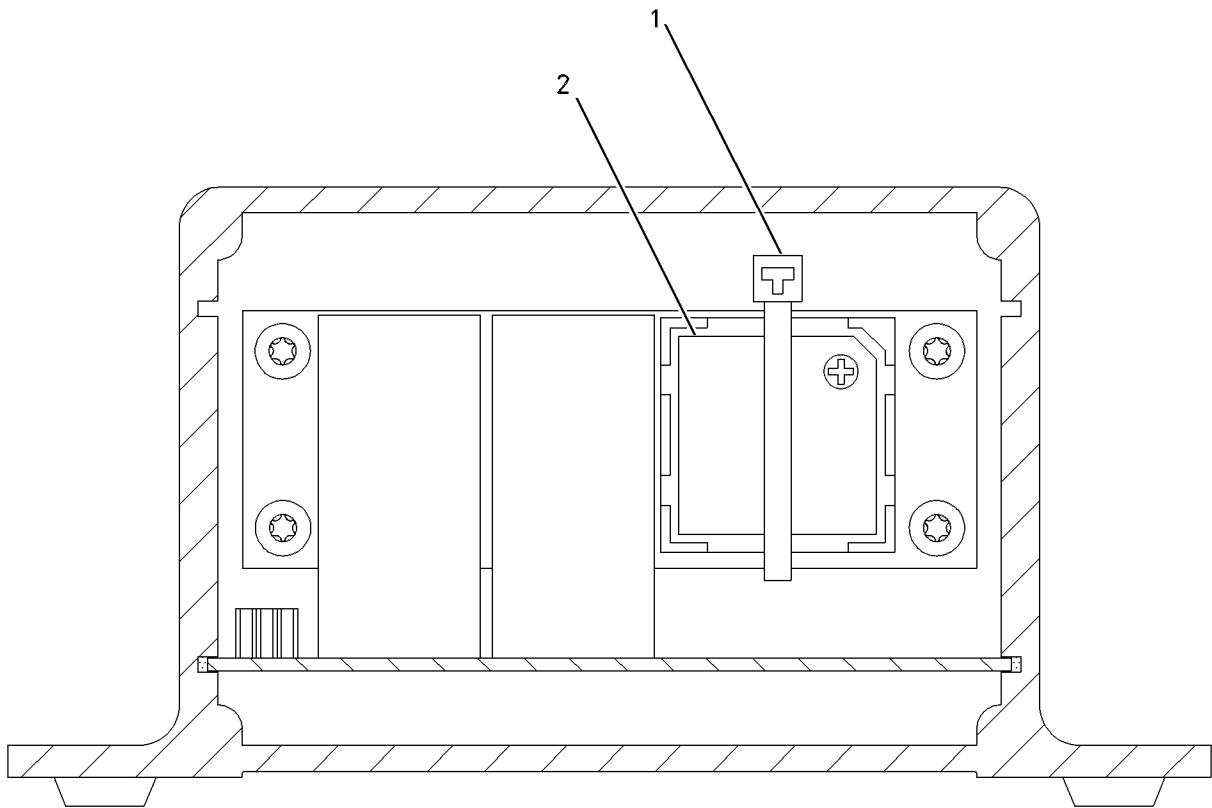
FIELD REPLACEMENT FOR 130-6196-PAGE 401

AN ATTACHMENT

SMCS-1926

i01409244

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8L-8413	1	STRAP-CABLE						
	2	1	101-1785	1	BATTERY						
F		1	109-5738	1	FILM-INTERFACE (REAR)						
F-NOT SHOWN											



GRAPHIC #1

g00630736

OPERATOR STATION

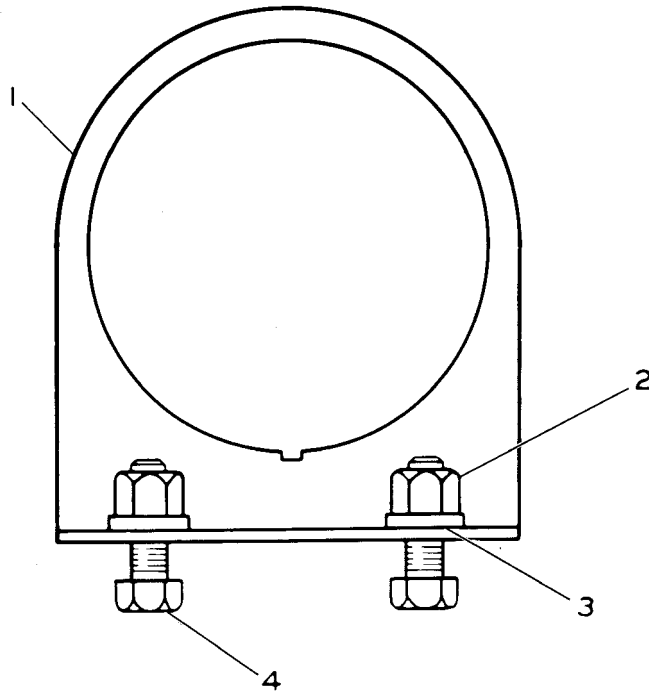
7L-4535 MOUNTING GP-TACHOMETER

FOR USE WITH ENGINE MOUNTED MECHANICAL TACHOMETERS, 1307298 ELECTRO-MECHANICAL
CONTROL PANEL
AN ATTACHMENT

SMCS-7462

i00637667

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7L-4536	1	BRACKET-TACHOMETER						
	2	1	6V-8189	2	NUT (5/16-18 THD)						
	3	1	8T-4224	2	WASHER-HARD (2MM THK)						
	4	1	5K-0906	2	BOLT (5/16-18X0.63IN)						



GRAPHIC #1

g00143412

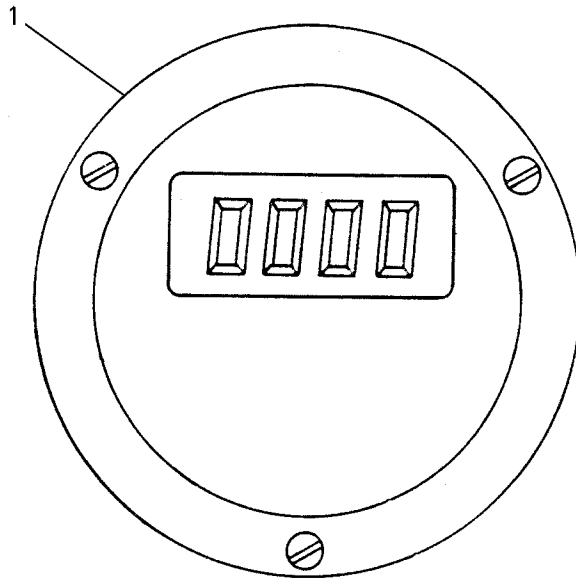
OPERATOR STATION

7C-1072 TACHOMETER GP-ELECTRIC FOR USE WITH NO. 1 SAE FLYWHEEL HOUSING AN ATTACHMENT

SMCS-7462

i00639021

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9X-1117	1	TACHOMETER						



GRAPHIC #1

g00214956

SERVICE EQUIPMENT AND SUPPLIES

6L-4502 CHART-PLATE & FILM

SMCS-7557

i00766334

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	7E-8070	1	FILM (INFO)						
			INSTALL ON RH SIDE OF ENGINE ON RH SIDE OF AFTER COOLER INLET PIPE						
	7E-2681	1	PLATE-IDENTIFICATION (CATERPILLAR)						
			INSTALL IN CENTER RH AND LH VALVE						
	9L-6531	1	PLATE-INFORMATION (ENGINE RATING)						
			ON TOP RH FRONT AFTERCOOLER COVER READABLE FROM REAR OF ENGINE						
	3L-2426	1	PLATE-INFORMATION						
			ON ENGINE MOUNTING PAD ON FLYWHEEL HOUSING						
	3N-3790	1	PLATE-SERIAL NUMBER (ENGINE)						
			ON LH SIDE OF CYLINDER BLOCK						
	8L-8413	1	STRAP-CABLE (1.12IN DIA)						
	125-9247	1	TAG (CERTIFICATION)						
			INSTALL ON RH OR LH SIDE ENGINE IN A VISIBLE LOCATION						
	3N-3469	1	TAG-INSTRUCTION (ENGINE PRESTART)						
			INSTALL ON RH OR LH OF ENGINE IN A VISIBLE LOCATION						

SERVICE EQUIPMENT AND SUPPLIES

8F-9866 GREASE GUN GP

PART OF 9S-7977 TOOL GP-HAND

AN ATTACHMENT

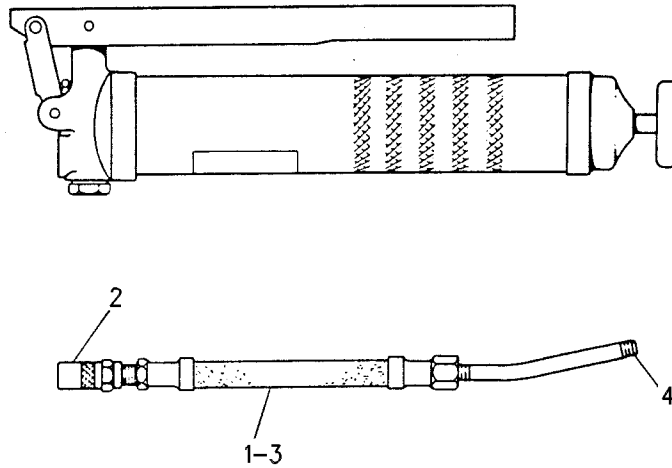
TYPE 1

SMCS-0646

i01134185

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9F-2636	1	NOZZLE AS						
	2	1	2M-2689	1	COUPLER AS						
I	3	1	9F-2638	1	HOSE AS						
	4	1	9F-2637	1	NIPPLE						

I-SEE HOSE FABRICATION GUIDE



GRAPHIC #1

g00600473

SERVICE EQUIPMENT AND SUPPLIES

8F-9866 GREASE GUN GP

PART OF 9S-7977 TOOL GP-HAND

AN ATTACHMENT

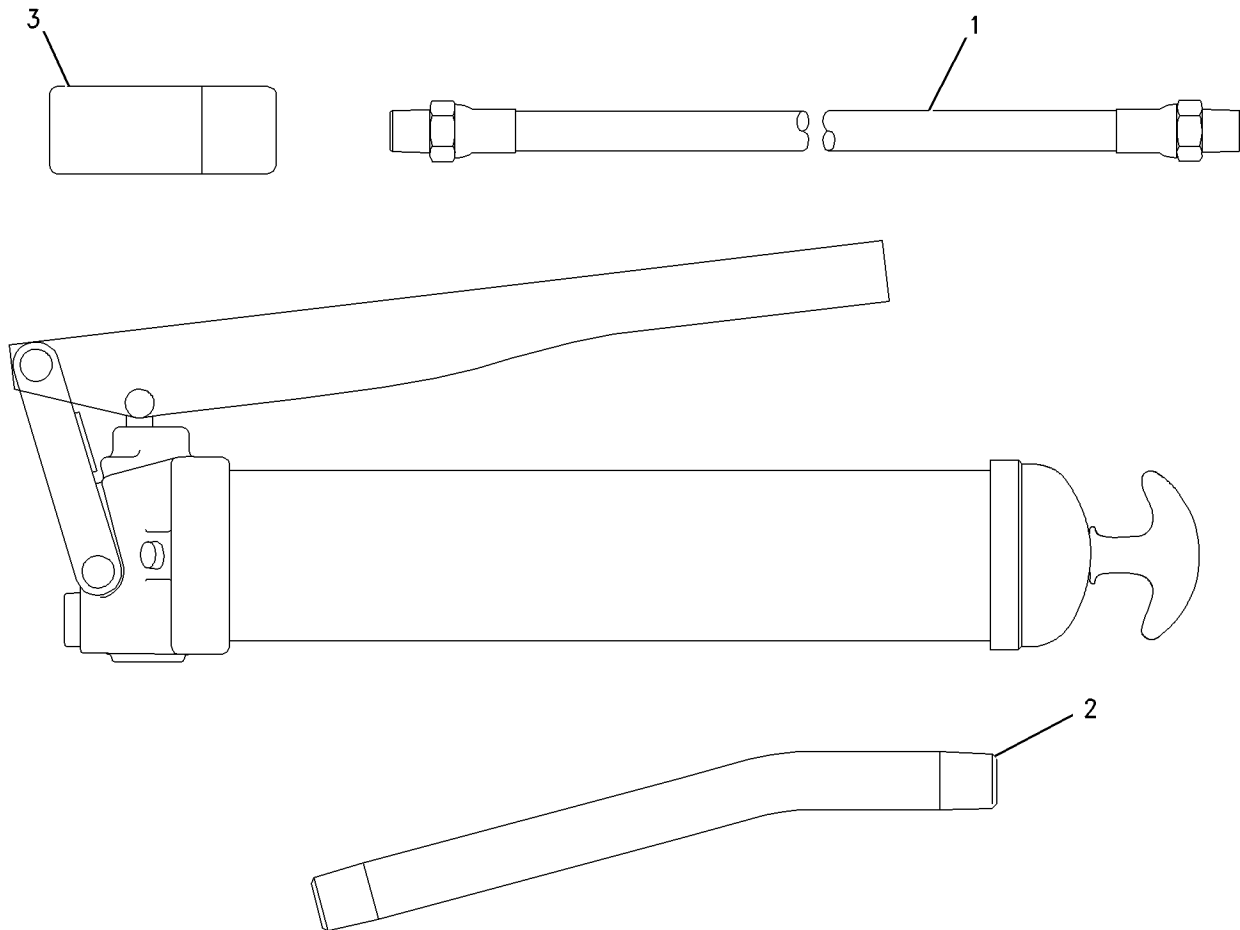
TYPE 2

SMCS-0646

i01432810

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
C	1	1	190-1669	1	HOSE AS						
	2	1	9F-2637	1	FITTING						
C	3	1	190-1668	1	COUPLER-GREASE						

C- CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

g00752624

SERVICE EQUIPMENT AND SUPPLIES

147-7847 KIT-CRUISE

FOR USE WITH SELF PRIMING SEAWATER PUMP, 12V STARTER & ALTERNATOR
AN ATTACHMENT

SMCS-1000

i01160134

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	1R-0716	1	FILTER AS-ENGINE OIL						
	1R-0749	1	FILTER AS-FUEL						
	5B-8473	1	V-BELT						
	6V-3542	1	COOLANT CONDITIONER GP						
			SACRIFICIAL ANODES (ZINC)						
	155-8724	3	ROD AS						
	6V-6640	1	SEALANT						
			JACKET WATER THERMOSTAT AND GASKET						
	4W-4794	1	REGULATOR-WATER TEMPERATURE (92 DEG C.)						
	5P-0763		HOSE						
	8T-4983	2	CLAMP-HOSE						
	124-9052	1	GASKET						
			AIR CLEANER ELEMENT						
	128-3698	4	SPRING						
	136-7353	1	ELEMENT-AIR CLEANER						
			SEAWATER PUMP SERVICE PARTS (SELF PRIMING)						
	2S-4080	1	GASKET-ADAPTER						
	3N-5632	1	SEAL AS						
	3N-7758	1	SEAL-SPLINE						
	5F-3106	1	SEAL-O-RING (126.59MM ID)						
	7E-3020	1	CAM						
	7E-3022	1	IMPELLER						
			12 VOLT DC MAGNETIC SWITCH ASSEMBLY						
	4M-5281	2	BOLT (1/4-20X.750IN)						
	6V-8185	2	NUT (1/4-20 THD)						
	8T-4205	4	WASHER-HARD (2MM THK)						
	125-1303	1	SWITCH AS-MAGNETIC (STARTER MOTOR-12V)						
	102-8802	1	KIT-RECEPTACLE (2 PIN)						
			(INCL. WEDGE & RECEPTACLE AS)						
			STAINLESS STEEL AFTERCOOLER DRAIN PLUG						
	6V-5049	1	SEAL-O-RING (11.89MM ID)						
	108-4155	1	PLUG-O-RING						

SERVICE EQUIPMENT AND SUPPLIES

147-7848 KIT-CRUISE

FOR USE WITH SELF PRIMING SEAWATER PUMP, 24V STARTER & ALTERNATOR
AN ATTACHMENT

SMCS-1000

i01160141

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	1R-0716	1	FILTER AS-ENGINE OIL						
	1R-0749	1	FILTER AS-FUEL						
	5B-8473	1	V-BELT						
	6V-3542	1	COOLANT CONDITIONER GP SACRIFICIAL ANODES (ZINC)						
	155-8724	3	ROD AS						
	6V-6640	1	SEALANT JACKET WATER THERMOSTAT AND GASKET						
	4W-4794	1	REGULATOR-WATER TEMPERATURE (92 DEG C.)						
	5P-0763		HOSE						
	8T-4983	2	CLAMP-HOSE						
	124-9052	1	GASKET AIR CLEANER ELEMENT						
	128-3698	4	SPRING						
	136-7353	1	ELEMENT-AIR CLEANER SEAWATER PUMP SERVICE PARTS (SELF PRIMING)						
	2S-4080	1	GASKET-ADAPTER						
	3N-5632	1	SEAL AS						
	3N-7758	1	SEAL-SPLINE						
	5F-3106	1	SEAL-O-RING (126.59MM ID)						
	7E-3020	1	CAM						
	7E-3022	1	IMPELLER 12 VOLT DC MAGNETIC SWITCH ASSEMBLY						
	4M-5281	2	BOLT (1/4-20X.750IN)						
	6V-8185	2	NUT (1/4-20 THD)						
	8T-4205	4	WASHER-HARD (2MM THK)						
	125-1302	1	SWITCH GP-MAGNETIC (STARTER MOTOR-24V)						
	102-8802	1	KIT-RECEPTACLE (2 PIN) (INCL. WEDGE & RECEPTACLE AS) STAINLESS STEEL AFTERCOOLER DRAIN PLUG						
	6V-5049	1	SEAL-O-RING (11.89MM ID)						
	108-4155	1	PLUG-O-RING						

SERVICE EQUIPMENT AND SUPPLIES

147-7849 KIT - CRUISE FOR USE WITH SELF PRIMING SEAWATER PUMP AN ATTACHMENT

SMCS - 1000

i00943406

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	1R-0716	1	FILTER AS-ENGINE OIL						
	1R-0749	1	FILTER AS-FUEL						
	6V-3542	1	COOLANT CONDITIONER GP						
			SACRIFICIAL ANODES (ZINC)						
	155-8724	3	ROD AS						
	6V-6640	1	SEALANT						
			JACKET WATER THERMOSTAT AND GASKET						
	4W-4794	1	REGULATOR-WATER TEMPERATURE (92 DEG C.)						
	5P-0763		HOSE						
	8T-4983	2	CLAMP-HOSE						
	124-9052	1	GASKET (AIR CLEANER ELEMENT)						
	128-3698	4	SPRING						
	136-7353	1	ELEMENT-AIR CLEANER						
			SEAWATER PUMP SERVICE PARTS (SELF PRIMING)						
	2S-4080	1	GASKET-ADAPTER						
	3N-5632	1	SEAL AS						
	3N-7758	1	SEAL-SPLINE						
	5F-3106	1	SEAL-O-RING (126.59MM ID)						
	7E-3020	1	CAM						
	7E-3022	1	IMPELLER						
			STAINLESS STEEL AFTER COOLER DRAIN PLUG						
	6V-5049	1	SEAL-O-RING (11.89MM ID)						
	108-4155	1	PLUG-O-RING						

SERVICE EQUIPMENT AND SUPPLIES

144-4588 KIT-FUEL LINES

FOR USE WITH LH SERVICE ENGINE, PROVIDES REPLACEMENT FLEXIBLE FUEL LINE HOSES
AN ATTACHMENT

SMCS-1274

i00670518

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	136-9488	1	HOSE						
I	116-0047	1	HOSE AS (1470MM)						
	124-9048	1	HOSE AS (1275MM)						
	125-4369	1	HOSE AS (450MM)						
	136-9491	1	HOSE AS (270MM)						
	136-9497	1	HOSE AS (390MM)						
	136-9506	1	HOSE AS (350MM)						
I-SEE HOSE FABRICATION GUIDE									

SERVICE EQUIPMENT AND SUPPLIES

144-4589 KIT-FUEL LINES

FOR USE WITH RH SERVICE ENGINE, PROVIDES REPLACEMENT FLEXIBLE FUEL LINE HOSES
AN ATTACHMENT

SMCS-1274

i00670542

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	136-9488	1	HOSE						
I	103-7473	1	HOSE AS (1170MM)						
I	116-0047	2	HOSE AS (1470MM)						
	124-9048	1	HOSE AS (1275MM)						
	136-9491	1	HOSE AS (270MM)						
	136-9497	1	HOSE AS (390MM)						

I-SEE HOSE FABRICATION GUIDE

SERVICE EQUIPMENT AND SUPPLIES

9S-7977 TOOL GP-HAND AN ATTACHMENT

SMCS-0600

i01306003

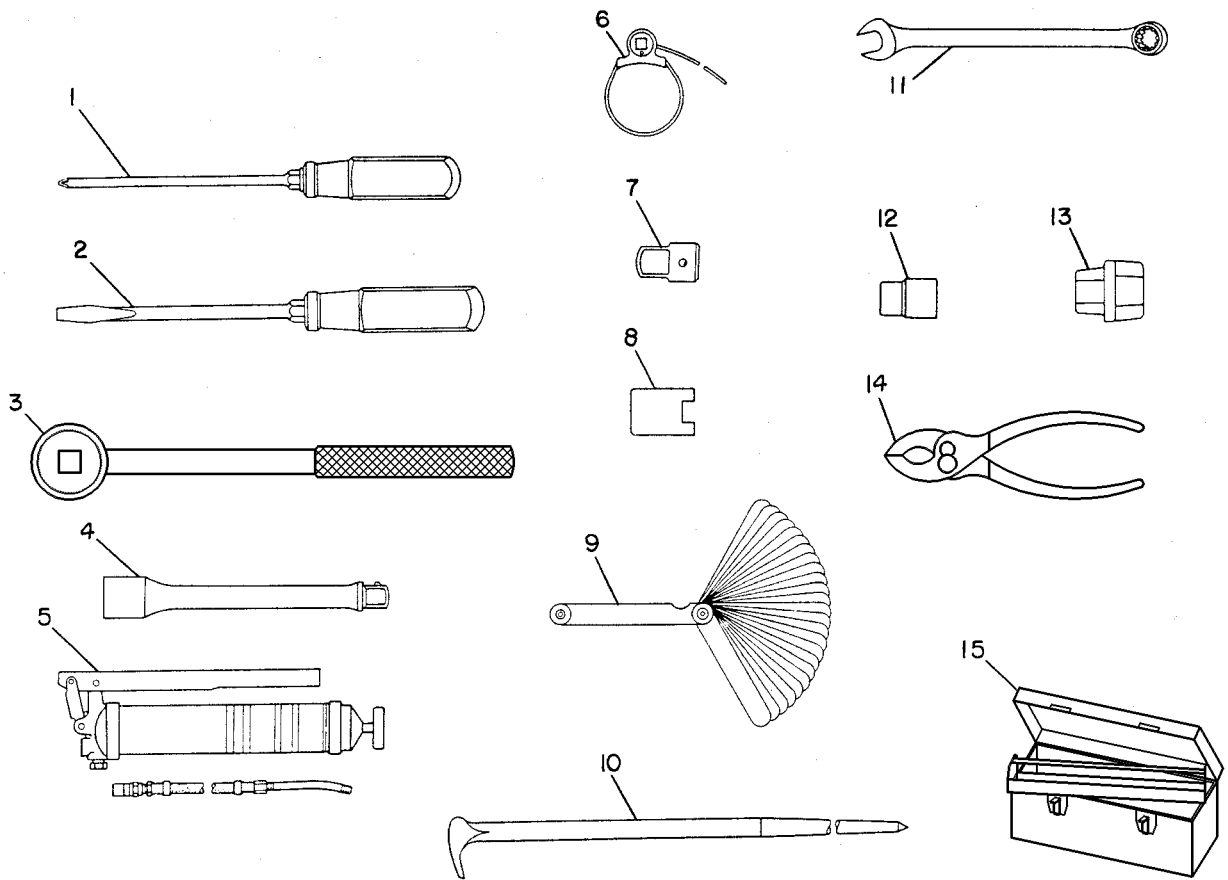
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1U-7267	1	SCREWDRIVER (NO. 2 PHILLIPS)						
	2	1	1U-7264	1	SCREWDRIVER						
	3	1	1U-7115	1	RATCHET-REVERSE						
	4	1	1U-7118	1	EXTENSION (SOCKET - 10 IN LG)						
		1	1U-7119	1	EXTENSION (SOCKET - 5 IN LG)						
Y	5	1	8F-9866	1	GREASE GUN GP (LEVER)						407
	6	1	185-3630	1	WRENCH AS-STRAP						
	7	1	5S-9568	1	SOCKET-DRAIN PLUG						
C	8	1	5P-1763	1	SOCKET-VALVE						
	9	1	1U-7234	1	GAUGE GP-FEELER						
	10	1	5F-4764	1	BAR-PRY						
	11	1	1U-7053	1	WRENCH (5/16 OPENING)						
		1	1U-7054	1	WRENCH (3/8 OPENING)						
		1	1U-7056	1	WRENCH-COMBINATION (1/2 IN)						
		1	1U-7057	1	WRENCH (9/16 IN.)						
		1	1U-7058	1	WRENCH						
		1	1U-7060	1	WRENCH (3/4 IN.)						
		1	1U-7062	1	WRENCH						
		1	1U-7064	1	WRENCH (1 IN OPENING)						
C	12	1	1U-7099	1	SOCKET (1/2 OPENING)						
		1	1U-7102	1	SOCKET (9/16 IN.)						
		1	1U-7107	1	SOCKET (7/8 IN.)						
		1	1U-7108	1	SOCKET						
		1	1U-7109	1	SOCKET (1 IN.)						
		1	1U-7111	1	SOCKET (1-1/8 OPENING)						
	13	1	5S-9569	1	SOCKET						
	14	1	9U-7509	1	PLIERS						
	15	1	9U-6219	1	TOOL BOX						

C- CHANGE FROM PREVIOUS TYPE
Y- SEPARATE ILLUSTRATION

SERVICE EQUIPMENT AND SUPPLIES

9S-7977 TOOL GP-HAND (contd.)

i01306003



GRAPHIC #1

g00237896

MEMORANDA

PART NUMBER INDEX

Part	Page	Part	Page	Part	Page	Part	Page
0							
			130		85		229
			133		90		231
OL-0639	14		198	OS-1601	72	1B-8704	256
OL-1143	111		200	OS-1608	222		258
	236		202	OS-1614	151	1B-8705	74
	238		206	OS-1615	160	1C-2251	198
	240		208		161		200
	242		222		164	1D-4539	277
OL-1351	100		314		165		278
	126	OS-1589	21	OS-1616	140	1D-4616	99
	130		22		142		110
	132	OS-1590	66	OS-1617	309	1F-7958	68
	156		111	OS-1618	149		172
	196		122	OS-1619	198		178
OL-2070	82		124		200		179
	100		236		219	1H-3244	252
	116		238		220		256
	118		240	OT-0055	82		258
	156		242		152		260
	158	OS-1591	14		156		272
	196		19		158		274
OS-0509	78		80		196		275
	92		82	OT-0065	90	1H-3337	206
	96		100		94		208
	100		127		156	1H-8647	11
	116		130		158	1H-9569	371
	118		132		196	1H-9572	371
	127		145	OT-0102	211	1H-9580	371
	146		156		313	1J-8668	92
	152		158		372		96
	163		187		374	1L-2279	206
	202		192	OT-0320	371		208
	236		194	OT-0573	80		328
	238		196			1L-4775	176
	240		228			1L-5011	▶ 371
	242		247			1L-8444	140
	310		309				142
	372	OS-1592	202			1L-8497	176
	374	OS-1594	16	1A-1135	187	1L-9048	371
	376		17		194	1L-9049	371
OS-0699	244		18		217	1L-9059	371
	248		67	1A-1345	171	1L-9060	371
OS-1566	140		84	1A-2029	99	1L-9061	371
	142		104		116	1L-9062	371
	223		116		118	1L-9063	371
OS-1571	74		118		130	1L-9064	371
	80		122		132	1L-9066	371
	82		124		134	1L-9067	371
	116		130		156	1L-9068	371
	118		133		158	1L-9069	371
	122		140		196	1L-9087	14
	124		142		372	1M-0644	135
OS-1585	94		146		374		136
	104		152	1A-9136	14		137
OS-1587	14		156	1B-2790	247	1M-6119	264
OS-1588	20		158	1B-3867	11		265
	80		196	1B-4205	171		266
	82		219	1B-4367	142		267
	84		220	1B-5357	218		268
	104		221	1B-5358	216		269
	113		229		217	1M-6120	264
	116		231		223		265
	118		240	1B-7182	187		266
	122		242		192		267
	124	OS-1595	78		194		268

PART NUMBER INDEX

Part	Page	Part	Page	Part	Page	Part	Page
1N-3789	269	1W-4846	96	2L-8262	14		240
	229	1W-5283	92	2M-2689	407	2S-2760	242
	231	1W-6135	50	2M-9780	219		135
	247		130		220		136
1N-3810	126		133	2N-0931	152		137
1N-9087	256	1W-6137	130		196	2S-4080	172
	258		133	2N-2371	280		178
1P-0436	229	1W-7238	137		282		179
	231	1W-7239	137		284		409
	247	1W-8793	90		296		410
1P-1367	124	1W-9302	38	2N-2372	282		411
	130				284	2S-5658	328
1P-4278	195			2N-2766	146	2V-2793	146
1P-7346	74				215		163
1R-0716	116				222	2V-7087	280
	118				224		282
	122	2A-0047	140		227		284
	124	2A-0762	138	2N-3323	206	2V-7088	280
	409		174		208		282
	410	2A-1162	80		208		284
	411	2A-2814	65	2N-3350	116		284
	411		99		118		296
1R-0749	229	2A-3746	105		130	2V-7397	264
	231	2A-4429	60		133		265
	247		61	2N-3385	202		266
	409	2A-4639	134	2N-7629	99		267
	410	2B-0858	54	2N-8908	138		268
	411	2B-1015	104		140		269
1S-0178	206	2B-2695	23		142	2W-0629	328
	208		24	2N-9363	14	2W-1733	38
1S-4589	92		25	2P-1289	162	2W-4338	140
	96		112	2P-1311	162		142
1S-7056	256		114	2P-2817	102	2W-6000	39
	258	2F-0808	225	2P-3203	100		40
1S-9540	42		226	2P-3205	135	2W-7847	216
	46	2H-1507	275		136	2W-7851	217
	48	2H-3429	330		137	2W-7860	218
1T-0765	244		336	2P-3760	116	2W-7861	218
	248		348		118	2W-7862	218
1U-7053	414		352		122	2Y-6448	158
1U-7054	414		356		124		196
1U-7056	414		364		130		
1U-7057	414	2H-3755	372		133		
1U-7058	414		374	2P-3761	116		
1U-7060	414		376		118		
1U-7062	414	2H-9091	140		122	3B-0623	50
1U-7064	414		142		124		51
1U-7099	414	2J-3118	74		130		52
1U-7102	414	2J-3506	99		133		53
1U-7107	414		104	2P-4301	116	3B-0645	50
1U-7108	414		110		118		51
1U-7109	414	2J-5245	174		122		52
1U-7111	414	2K-0337	174		124		53
1U-7115	414		176	2P-4304	116		225
1U-7118	414		180		118		226
1U-7119	414	2K-4821	252		122	3B-1915	116
1U-7234	414		260		124		118
1U-7264	414	2L-0273	376	2P-4305	116		158
1U-7267	414	2L-6243	126		118		196
1U-8846	80	2L-6267	14		122		198
1W-2636	156	2L-8075	252		124		200
	158		260	2P-5616	252	3B-4501	296
	196	2L-8256	14		260		370
1W-4795	225	2L-8257	14	2R-1236	174	3B-4504	151
	226	2L-8259	14	2R-6806	236	3B-4510	256
1W-4845	92	2L-8260	14		238		258

2

3

PART NUMBER INDEX

Part	Page	Part	Page	Part	Page	Part	Page
3B-4604	171		318		182	3N-7954	14
3B-6498	328		321	3F-9556	14	3N-7955	14
3B-6555	328		372		296	3N-8468	172
3B-7257	328	3E-3377	280	3H-5825	152		178
3B-7259	140		284	3H-5841	152		179
	142		296	3H-5844	152	3N-8473	99
3B-7270	140	3E-3383	392	3H-6622	212	3N-8782	▶369
	142		393	3J-1907	116	3N-9540	63
3B-7722	42		394		118		64
	46		398		122	3P-0649	198
3B-8489	14		399		124		200
3D-2824	54	3E-4352	372	3J-5389	211	3P-0653	326
	57		374		221	3P-0654	200
3E-0125	342	3E-4367	276	3J-7354	116	3P-1323	39
3E-0127	342		300		118		40
	360		301		122		41
3E-0128	342		302		124		44
	360		304		206	3P-1896	225
3E-0129	342	3E-5449	330	3K-6168	256		226
	360		336		258	3P-6048	▶128
3E-0130	342		348	3K-6175	23		328
	360	3E-5451	260		25	3P-8283	116
3E-0131	342	3E-6114	▶318	3K-9520	280		118
	360	3E-6747	42		282	3R-4437	328
3E-0132	342		44		284	3R-8530	142
	360		45		296	3S-2093	236
3E-0133	342		46	3L-2426	406		240
	360		48	3L-6789	176		242
3E-0134	342	3E-6772	54		180		305
	360		57	3N-1200	256		306
3E-0135	342		58		258		372
	360		59	3N-1202	256		374
3E-0136	342	3E-7428	152	3N-1203	258	3S-9643	156
	360		161	3N-1223	256		158
3E-0137	342		164		258		196
	360		172	3N-2704	94	3T-0842	344
3E-0138	342		178		96		346
	360		179	3N-3017	216	3T-0844	344
3E-0139	342	3E-7430	156	3N-3297	138		346
	360		158	3N-3298	138	3T-0847	344
3E-0140	342		196	3N-3299	138		346
	360	3E-7448	48	3N-3300	138	3T-0849	344
3E-0141	342	3E-7775	330	3N-3469	406		346
	360		336	3N-3790	406	3T-0850	344
3E-0142	342		356	3N-4863	174		346
	360		364	3N-4866	174	3T-0858	344
3E-0144	342	3E-7863	▶330	3N-5632	174		346
	360		362		409	3T-0862	344
3E-0145	342	3E-8044	82		410		346
	360	3E-8557	276		411	3T-0863	344
3E-0146	342		300	3N-5716	280		346
	360		301		282	3T-0864	344
3E-0156	282		302		284		346
3E-2130	379		304		296	3T-0865	344
3E-3368	198	3E-9199	387	3N-6059	62		346
	319	3E-9338	▶379	3N-7464	14	3T-0867	344
	320	3E-9854	176	3N-7758	174		346
	322		180		409	3T-2650	▶333
	323	3F-0379	330		410		366
	324		336		411	3T-2662	280
	378		348	3N-7759	174		282
3E-3371	198		352	3N-7841	▶14		284
	200		356		104		296
	238		364	3N-7952	14	3T-2768	344
	315	3F-4394	▶151	3N-7953	14		346

PART NUMBER INDEX

Part	Page	Part	Page	Part	Page	Part	Page
3T-2769	344		107	4N-0684	38		4
	346	4D-3704	21	4N-0698	▶130		5
3T-3422	330		22	4N-0699	16		6
	336		72		17		7
	348		140		18		8
	352		142	4N-0733	3		9
	356		202		4		10
	364	4D-3967	328		5		▶111
3T-3434	330	4D-6432	219		▶135	4N-2514	72
	348		220	4N-0745	▶122	4N-3410	328
	352	4D-7735	236	4N-0822	222	4N-3661	100
	356		238	4N-0826	116	4N-3955	211
	364		240		118		212
3T-4716	344		242		130	4N-3986	▶252
	346	4F-7957	11		133	4N-4075	▶162
3T-5760	265		12	4N-0827	122	4N-4371	326
3T-5857	264	4H-1225	372		124	4N-4375	326
3T-6354	252		374	4N-0835	104	4N-4376	326
3T-7017	344	4H-7869	328	4N-0879	▶202	4N-4377	326
	346	4K-0367	140	4N-0913	100	4N-4378	326
3T-7020	344		142		130	4N-4379	326
	346	4L-1267	148		132	4N-4380	326
3T-7021	344		149	4N-0914	100	4N-4381	326
	346	4L-4866	14		130	4N-4382	326
3T-7022	344	4L-5801	▶223		132	4N-4383	326
	346	4L-9337	76	4N-0932	225	4N-4384	326
3T-7025	344		77		226	4N-4386	326
	346	4M-1827	330	4N-0933	130	4N-4387	326
			336		133	4N-4388	326
			348		219	4N-4390	326
			352		220	4N-4391	326
			356	4N-0995	130	4N-4392	326
			364		132	4N-4393	326
4B-1223	280	4M-1828	330	4N-1040	202	4N-4394	326
	282		336	4N-1047	62	4N-4397	326
	284		348		65	4N-4400	326
	296		352	4N-1114	21	4N-4402	326
4B-2043	252		356		22	4N-4403	326
	260		364	4N-1128	▶132	4N-4405	326
4B-2047	256		330	4N-1156	156		344
	258	4M-1831	336		158		346
4B-2048	151		348		196	4N-4409	326
4B-2049	330		348		196	4N-4413	326
	336		352	4N-1171	202	4N-4421	326
	342		356	4N-1199	156	4N-4859	222
	348		364		158	4N-4967	211
	352	4M-5281	282		196	4N-4999	162
	356		284	4N-1215	116	4N-5857	39
	360		296		118		40
	364		409		130		41
4B-3388	148		410		133		41
4B-4274	288	4M-6425	94	4N-1216	116		44
	330		96		118	4N-6257	156
4B-4281	308	4M-8548	152		130		158
4B-4715	14	4N-0015	203		133		196
4B-4722	14	4N-0045	203	4N-1359	110	4N-7082	116
4B-4725	14	4N-0205	309	4N-1501	99		118
4B-4756	14	4N-0513	135		104		122
4B-4771	14		136	4N-1503	104		124
4B-4775	14		137	4N-1559	▶148	4N-7521	342
4B-4787	14	4N-0641	156	4N-1650	42		360
4B-5324	372		158		46	4N-7808	202
	374		196		48	4N-8150	116
4B-7255	14	4N-0683	42	4N-2481	1		118
4B-7770	328		46		2		122
4B-9782	106		48		3		124

4

PART NUMBER INDEX

Part	Page	Part	Page	Part	Page	Part	Page
	130	4W-5492	38	5K-9660	206		242
	133	4W-5698	38		208		244
4N-8734	1	4W-5699	38	5L-2264	223		247
	2	4W-5700	38	5L-3233	202		248
	3	4W-5701	38	5L-4035	326		309
	4	4W-8688	99	5L-4202	14		310
	5		104	5L-4398	218		314
	▶136	4W-8689	99	5L-6566	198		372
4P-1599	50		104		200		374
4P-2383	188	4W-9890	16	5L-7200	370		376
	189		18	5M-2894	16	5M-3038	172
	190	4W-9977	225		17		178
4P-4278	105				18		179
	106				19	5M-6213	221
	107				20	5M-6214	203
4P-4279	105				66	5M-7087	116
	106	5B-4855	140		67		118
	107		142		80	5M-9204	264
4P-4313	105	5B-5251	14		82		265
	106	5B-6159	14		84		266
4P-4661	55	5B-8473	90		90		268
	56		94		92	5M-9205	264
4P-4962	55		409		94		265
	56		410		96		266
	60	5C-2874	340		100		268
4P-5053	50		344		111	5N-2126	42
	51		346		113		46
4P-5892	▶65	5D-1026	206		116	5N-3789	14
4P-6771	63		208		118	5N-4739	217
	64	5D-2751	14		122	5N-6753	308
4P-6846	1	5E-8771	74		124	5N-8757	▶308
	2	5F-0304	80		126	5P-0537	12
	3	5F-1051	151		127		140
	4	5F-1053	151		130		142
	5	5F-3106	174		133		160
	6		409		134		161
	7		410		135		164
	8		411		136		165
	9	5F-4764	414		137		174
	10	5F-5041	171		140		229
	▶67	5F-5047	171		142		231
4P-7371	105	5F-5049	171		145		247
	106	5F-5061	171		146		326
	107	5F-5062	171		152		328
4P-7377	102	5F-8651	326		156	5P-0702	270
4P-7581	305	5H-0244	80		158	5P-0747	264
	306	5H-1504	54		163		265
	372		57		174		266
	374		58		196		267
4P-8134	309		59		198		268
	372	5H-3124	127		200		269
	374	5H-8331	216		202	5P-0763	156
	376		217		206		158
4P-9233	208		223		208		196
4P-9234	206	5J-5793	80		215		409
	208	5J-7303	328		219		410
4S-5780	94	5K-0906	404		220		411
4W-3087	114	5K-3338	236		221	5P-0840	42
4W-4536	328		238		222		46
4W-4794	156	5K-5338	240		228		48
	158		242		229		54
	196		305		231		57
	409		306		236		58
	410	5K-9090	116		238		59
	411		118		240	5P-0898	104

5

PART NUMBER INDEX

Part	Page	Part	Page	Part	Page	Part	Page
5P-1075	76		176		88	6L-2000	149
	77		180	6I-1940	1	6L-2001	148
	78	5R-0066	196		2	6L-2279	228
5P-1260	146	5S-0003	23		3	6L-2281	228
5P-1505	206		25		4	6L-2282	172
	208	5S-0581	187		5	6L-3104	172
5P-1763	414		192		6	6L-3483	308
5P-2424	96		194		7	6L-3960	14
5P-2755	198	5S-7349	330		8	6L-3964	14
	200		336		9	6L-3965	14
5P-3418	252		348		10	6L-3966	14
	260		352		▶86	6L-4502	▶406
5P-3419	252		356		▶87	6L-5151	14
	260		364		▶88	6L-5858	▶182
5P-3860	202	5S-7379	214	6I-2517	222	6L-5875	▶171
	206	5S-7383	76	6I-3137	204		182
	208		77	6I-3623	74	6L-7365	171
5P-4142	74	5S-9568	414	6I-3624	74	6L-7366	171
5P-4255	82	5S-9569	414	6I-3625	74	6L-7367	171
5P-4479	328			6I-3632	74	6L-7368	171
5P-5678	12			6I-3638	1	6L-7369	171
	26				2	6M-6853	240
	28				3		242
	29	6B-0430	148		4	6M-7476	134
	30	6B-1032	206		5	6N-0163	110
5P-5846	100		208		6	6N-0216	94
5P-5923	203	6B-3224	14		7	6N-0561	211
5P-6001	377	6B-4312	152		8	6N-0905	221
	378	6B-7440	151		9	6N-1856	252
5P-6836	256		171		10		260
	258	6B-8128	328		▶66	6N-1870	252
5P-7128	198	6B-8129	328	6I-3642	▶183		260
	200	6D-3787	326		▶184	6N-1871	252
5P-7530	134	6F-0253	14		▶185		260
5P-7807	252	6F-7316	372		▶186	6N-1872	252
	260		374	6I-3643	187		260
5P-7981	206	6H-7062	94		192	6N-1873	252
5P-8066	148	6I-0213	245		194		260
5P-8068	100		246	6I-3890	183	6N-1875	252
5P-8245	63	6I-0901	105		▶187		260
	64		106	6I-3949	▶229	6N-1876	252
	68		107	6I-3968	82		260
	78	6I-0928	55	6I-4420	54	6N-1889	▶334
	80		56	6I-4421	42		368
	85		60		46	6N-1925	252
	90		61		48		260
	94	6I-1001	1	6I-4575	11	6N-1931	135
	109		2	6J-2244	326		136
	110		3	6J-2245	134		137
	172		4	6K-0806	328	6N-1944	252
	178		5		376		260
	179		6	6K-1972	172	6N-1945	252
	218		7		178	6N-1946	252
5P-8247	62		8		179		260
	109		9		328	6N-1968	252
	116		10	6K-9194	236	6N-2283	127
	118		▶38		238	6N-3826	330
	216	6I-1055	42		240		336
	217		46		242		348
	372		48	6L-1650	146		352
	374	6I-1418	277		160		356
5P-8248	99		278		161		364
	104	6I-1453	38		163	6N-3899	328
	110	6I-1458	86		164	6N-5579	203
	174		87		165	6N-6093	▶211

6

PART NUMBER INDEX

Part	Page	Part	Page	Part	Page	Part	Page
6N-7249	130		314		33	7D-0894	280
	132	6V-5049	54		34		282
6N-7785	64		57		37		284
6N-7840	127		58		404	7D-7111	198
6N-8801	162		59	6V-8362	282		200
6N-9561	140		82	6V-8364	370	7E-1177	102
	142		198	6V-8367	280	7E-2681	406
6N-9908	225		200		282	7E-3019	174
6T-1395	▶256		251		284	7E-3020	174
6T-1396	▶258		314		296		409
6T-2031	256		409	6V-8376	280		410
	258		410		282		411
6T-3643	280		411		284	7E-3021	174
	282	6V-5050	58		296	7E-3022	174
	284		59	6V-8377	296		409
	296	6V-5100	28	6V-8382	280		410
6T-3645	271		30		282		411
6T-3764	306		33		284	7E-3024	174
6T-7337	284		34		296	7E-4035	114
6T-9446	256		37	6V-8635	116	7E-4195	102
	258	6V-5539	▶339		118	7E-5661	74
6V-0128	12	6V-5540	339	6V-8645	256	7E-6479	42
6V-0852	232		▶340		258	7E-6508	12
6V-0894	288	6V-5582	339	6V-8801	76	7E-8070	406
6V-1179	326		▶342		77	7E-9262	38
6V-1197	13	6V-5656	152		206	7F-7621	252
6V-1322	280		198		208		260
	282	6V-6640	409	6V-8817	280	7F-9090	116
	284		410		282		118
	296		411		284		122
6V-1813	328	6V-6703	291		296		124
6V-1903	198		292	6V-9673	344	7H-2079	256
	200	6V-6923	242		346		258
6V-3535	198		249			7H-5569	62
	200		250			7K-6128	104
6V-3542	409	6V-8001	174			7K-9197	172
	410	6V-8185	206				178
	411		208	7B-1598	127		179
6V-3631	152		256	7B-2742	229		219
6V-3683	314		258		231		220
6V-3917	221		282		247		328
6V-3965	232		284		326	7L-0116	14
6V-4213	▶336		296	7C-1072	▶405	7L-0520	222
6V-4365	198		311	7C-1445	24	7L-2894	336
	200		312	7C-1899	▶264		348
6V-4367	222		313	7C-1900	▶265		352
6V-4589	236		409	7C-1977	▶266		356
	238		410	7C-2668	293		364
	240	6V-8186	296		▶298	7L-3351	28
	242	6V-8187	252	7C-3039	144		33
	250		260	7C-4038	116		34
6V-5048	42	6V-8188	90		118		37
	46		92		122	7L-4535	▶404
	48		94		124	7L-4536	404
	198		96	7C-5479	187	7L-6443	152
	200		330	7C-6498	135	7L-7871	▶267
	229		336		136	7L-7872	▶268
	230		342	7C-9008	305	7L-8705	371
	231		348		306	7M-0327	370
	236		352	7C-9009	305	7M-7273	224
	238		356		306		227
	240		360	7C-9222	183	7M-7410	326
	242		364		184	7M-8485	116
	247	6V-8189	28		185		118
	251		30		186	7M-9544	328

7

PART NUMBER INDEX

Part	Page	Part	Page	Part	Page	Part	Page
7N-0060	266		356	7X-0326	94	8C-0624	113
	268		364	7X-0335	94	8C-3100	187
7N-0452	67	7T-3278	352		96	8C-3445	116
	206		356	7X-0338	90		118
	208		364	7X-0339	92		122
7N-2043	102	7T-3279	330	7X-0345	92		124
7N-2156	135		336		96	8C-3446	116
	136		348	7X-0346	90		118
	137		352		94		122
7N-3060	►72		356	7X-0448	90		124
7N-5876	280		364		92	8C-3593	►348
	296	7T-3451	330		94		367
			336		96	8C-3644	334
7N-7078	102		348	7X-0513	90		►352
7S-0687	202		352		94	8C-3649	333
7S-4411	►210		356	7X-0562	330		►356
7S-5005	38		364		336	8C-3655	353
7T-0676	256		364		340		357
	258	7T-3454	330		342		364
7T-0677	256		336		344	8C-3681	195
	258		348		346	8C-5917	267
7T-0794	334		352		348		269
	►344		356		352	8C-6163	►260
7T-0795	333		364		356	8C-6188	386
	►346	7T-3973	348		360		387
7T-0895	256		352		364	8C-6808	370
	258	7T-3974	330		372	8E-8292	195
7T-2339	344		348	7X-3182	274	8F-1434	256
	346		352		274		258
7T-3267	331		356		275		258
	337		364	7X-3373	330		330
	349	7T-6799	280		336		336
	353		282		348		340
	357		284		352		342
	364		296		356		344
7T-3268	331	7V-1037	152		364		346
	337		328	7X-4805	82		348
	349	7W-0408	►263	7X-6315	291		352
	353	7W-1248	72		292		356
	357	7W-1944	146	7X-7731	80		360
	364		152		140		364
7T-3269	330		163		142		370
	336	7W-2206	►144		156	8F-3030	80
	348	7W-2297	226		158	8F-3437	370
	352	7W-3145	221		170	8F-8544	326
	356	7W-5909	100		196	8F-9866	►407
	364	7W-6492	20	7X-7732	42		►408
7T-3270	330		42		44		414
	336		44		45	8H-1141	330
	348		45		46		336
	352		46		48		348
	356		48	7X-7958	152		352
	364		54	7Y-7388	381		356
7T-3271	330		57		389		364
	336		58		390	8H-3127	12
	348		59		391	8J-4351	314
	352		103		395	8J-4785	369
	356		122		396	8L-2777	105
	364		124		397		106
7T-3275	330		222				107
	336	7W-9094	116			8L-2786	54
	348		118				57
7T-3276	352		206				58
	356		208	8B-2664	140		59
	364		247		142		198
7T-3277	352	7X-0274	30	8B-7121	14		200

PART NUMBER INDEX

Part	Page	Part	Page	Part	Page	Part	Page
	236		367		282		59
	238		368		284		80
	240	8S-4950	236		296		116
	242		238		311		118
	324		240		312		130
8L-3282	234		242		313		133
8L-6557	172		328		330		222
	178	8S-5383	90		336	8T-6767	17
	179		92		344		46
	219		94		346		48
	220		96		348		156
8L-8413	266	8S-6511	137		352		158
	267	8S-7169	208		356		196
	268	8S-9092	216		364	8T-8566	330
	269	8S-9094	42		409		336
	400		44		410		348
	402		45	8T-4223	90		352
	403		46		92		356
	406		48		94		364
8L-9137	146	8S-9191	82		96	8T-8568	330
8L-9362	256		245	8T-4224	94		336
	258		246		96		348
8L-9654	256	8T-0328	252		404	8T-8569	330
	258		256	8T-4244	340		336
8L-9655	256		258		344		348
	258		260		346		352
8L-9656	256		331	8T-4835	92		356
	258		336	8T-4896	206		364
8L-9657	256		340		208	8T-8570	330
	258		342		214		336
8L-9661	256		344	8T-4970	344		348
	258		346		346		348
8L-9663	256		348	8T-4983	156	8T-8729	198
	258		352		158		200
8L-9859	▶213		356		196		238
8M-2773	240		360		409		276
	242		364		410		280
8M-5260	208	8T-3992	381		411		284
8M-6701	252		389	8T-4984	146		296
	260		390	8T-4988	204		318
8M-8489	135		391	8T-6703	166		325
	136		395	8T-6757	44		392
	137		396		45		393
8M-9024	100		397		45		394
8N-0869	376	8T-4121	342		50		398
8N-2104	100		360		51		399
	130	8T-4122	90		52	8T-8730	198
	132		92		53		270
8N-2825	140		94	8T-6761	70		276
	142		96		71		316
8N-4455	203	8T-4133	342		100		317
8N-4617	203		360		150		319
8N-5766	202	8T-4162	99	8T-6762	57		324
	▶203		104		58		377
8N-9102	140		110		59		378
	142	8T-4205	206		150	8T-8731	316
8N-9339	99		208	8T-6763	54		317
	104		208		57	8T-8732	276
	110		252		58		325
8R-8088	76		256		59	8T-8737	276
	77		258		326	8T-8919	90
8S-2331	328		260	8T-6764	219	8T-9527	66
8S-2332	328		272		220	8T-9655	277
	362		274	8T-6765	54		278
	366		275		57	8T-9757	267
			280		58		269

PART NUMBER INDEX

Part	Page	Part	Page	Part	Page	Part	Page
8T-9762	260		118	9N-0943	252	9S-7977	▶414
8T-9834	276	9L-5854	39		260	9S-8002	230
	300		40	9N-2038	225		236
	301	9L-6531	406		226		238
	302	9L-6643	96	9N-3388	252		240
8T-9884	331	9L-6645	92		260		242
	337	9L-7712	105	9N-5124	130	9S-8004	54
	349		106		132		57
	353		107	9S-1354	14		58
	357	9L-8439	112	9S-1366	63		59
	364		113	9S-2009	252		236
8T-9885	331	9L-8925	12		260		238
	337		29	9S-2014	252		240
	349	9L-9132	92	9S-2302	252		242
			96		260	9S-8005	54
		9M-0853	116	9S-2390	252		57
			118		260		58
			122	9S-2396	252		59
			133		260	9S-8750	328
9B-4202	140	9M-1974	23	9S-2544	252	9S-8752	66
	142		24		260		74
9B-7233	252		25	9S-2592	202		82
	260		28		206		90
	280		30		208		92
	282		33	9S-4167	229		94
	284		34		230		96
	296		37		231		116
9B-7237	206		112		247		118
	208		114	9S-4182	42		122
9B-9774	326		148		44		124
9F-0307	196		149		45		126
9F-2186	62		229		46		127
9F-2636	407		231		48		140
9F-2637	407		247		69		142
	408		277		100		145
9F-2638	407		278		196		146
9F-2978	100		309		198		228
9F-3099	296		376		200		240
9F-5644	14	9M-2904	206		229		242
9F-6641	99		208		236		244
	104	9M-3786	183		238		248
9G-0003	264		184		240	9U-6219	414
	265		185		242	9U-7509	414
	266		186		314	9W-1077	369
	267		188	9S-4183	54		▶370
	268		189		57	9W-1494	280
	269		190		58		282
9G-0004	264	9M-6527	187		59		296
	265		192	9S-4188	198	9W-4065	260
	266		194		200	9X-0261	198
	267	9M-7609	330	9S-4190	42		200
	268		336		44	9X-0262	231
	269		348		45		247
9G-3186	308		352		46	9X-0263	251
9G-4233	266		356		48	9X-0332	344
9G-5208	256		364	9S-4191	82		346
	258	9M-7961	206		116	9X-1117	405
9G-6655	305		208		118	9X-1386	318
9G-8909	376	9N-0869	277		122		321
9H-1031	39		278		124	9X-1813	198
	40	9N-0937	252		238		238
	41		260		242		316
	44	9N-0939	252	9S-4684	198		317
9L-1937	17	9N-0942	252		200		319
9L-4652	328		260	9S-5828	328		320
9L-5611	116						

9

PART NUMBER INDEX

Part	Page	Part	Page	Part	Page	Part	Page
	322	9X-9647	▶316		238		240
	323	9X-9648	▶317		240		242
	324	9X-9720	267		242	101-3998	328
	325	9X-9730	268	036-1865	152	101-8468	74
9X-2038	11	9Y-0951	273	036-9821	330	101-8936	▶362
9X-2068	198	9Y-1792	136		336	101-9640	174
	200		137		348		176
9X-2500	252	9Y-1800	135		352		180
	260	9Y-3742	305		356	102-2235	▶23
9X-3132	276		306		364	102-2240	158
	300	9Y-4632	135	036-9823	330		196
	301		136		336		236
	302	9Y-4633	135		348		238
	304		136		352		240
9X-3271	251	9Y-6054	102		356		242
9X-3401	321	9Y-6089	21		364	102-5861	74
9X-3402	322		22	052-0512	326	102-6229	55
9X-4452	334	9Y-7735	102	052-0572	219		56
	▶360				220		60
9X-4824	330			053-2313	152		61
	364			061-7540	116	102-7535	236
9X-5275	318				118		240
9X-6258	372	003-9163	152	061-9258	236		▶250
	374	004-7270	140		238	102-7664	▶314
9X-6451	100		142		240	102-7665	55
9X-6458	74	009-1436	326		242		56
	82	030-1193	272		328		60
	130		274	061-9455	24	102-8397	1
	132		275		112		2
	146	030-2266	284		114		3
	163	030-3215	174				4
	313	030-7937	236				5
9X-7317	245		240				6
	246	030-7942	240				7
9X-7378	42		242				8
	44	030-7946	152	100-3055	▶325		8
	45	030-7947	236	100-5072	245		9
	46		238		246		10
	48		240	100-5218	12		▶74
	69		242	100-5219	12	102-8633	29
	100	030-7948	236	100-5566	389	102-8800	304
	152		240	100-5888	▶394	102-8801	299
	196		242		395		303
9X-7418	245	030-7957	152	100-6423	206		304
	246	030-7961	220		208	102-8802	409
9X-7419	245	030-7962	236	100-6531	252		410
	246		240		260	102-8803	238
9X-7430	53	030-8142	328	100-6532	252		315
	108	030-8156	236		260		318
9X-8486	271		238	100-6816	225		321
	273		240		226		372
9X-8872	74		242	100-7399	42	102-8804	280
9X-8873	64	030-9612	260		44		284
9X-8876	104	031-0782	146		45		296
9X-8877	99		162		46	102-8805	389
	109	031-3185	74	100-7479	48		392
	110	032-9313	105		187		393
9X-8880	109		106	100-9347	▶188		394
	140		107		▶189		398
9X-8882	116	033-6033	242		▶190		399
	118		249	101-1785	400	102-8806	304
	140		250		402	102-8808	320
9X-9511	352	033-6042	232		403	102-8810	304
	356		233	101-3120	82		392
	364		236	101-3121	236	102-8811	304
					238	102-8813	270

0

1

PART NUMBER INDEX

Part	Page	Part	Page	Part	Page	Part	Page
	319	108-5912	50		118	117-8557	74
	322	108-7930	187	110-0005	25	117-8801	74
	323		192	110-1116	▶103	117-9015	▶389
	324		194	110-2220	39		▶390
102-8815	304	108-8756	▶233		40		▶391
102-8816	304	108-9382	▶68	110-5035	336	117-9016	▶395
102-8817	304	109-0072	130	110-7753	152		▶396
102-9089	13		132	110-7887	280	118-4728	238
102-9220	▶195		222		284	118-5068	126
102-9223	195	109-0073	116		296		127
103-4656	236		118	110-8314	152	118-7374	222
	238		130		198	118-7630	278
	240		133		200	118-8372	389
	242		222		212	118-8629	198
103-6037	314	109-0076	116	111-1325	280	118-9476	▶251
103-6045	23		118		282	119-0036	13
	25		130		284	120-4554	152
103-7473	240		133		296	120-8666	221
	242	109-0077	144	111-2350	42	120-9243	82
	413		156		46	120-9847	▶24
104-6202	372		158		198	121-0145	100
	374		183	112-4550	198	121-4017	▶304
104-9270	105		184		200	121-7028	▶287
	106		185	112-5282	158	121-7029	287
	107		186		196		▶288
105-2508	229		188	112-9217	74	121-7517	152
105-3762	252		189	113-5250	26	121-7518	152
	260		190	113-5251	▶26	121-7519	152
105-3785	187		196		27	121-7520	152
105-4985	187	109-0078	118	113-7696	219	121-7521	152
105-5081	▶326		130		220	121-7522	172
	328		132	114-4384	206		178
105-5136	326		133		208		179
105-5137	326	109-1223	▶18	114-4427	42	121-7745	160
105-5138	326	109-2322	▶170		44		161
106-1792	54	109-5321	180		45		164
	57	109-5322	176		46		165
	58		180		48	122-0447	52
	59	109-5323	176		134		53
106-8554	339		180	115-2324	50	122-1248	1
	▶364	109-5324	176		51		2
107-0583	74		180		52		3
107-2232	4	109-5325	176		▶108		4
	▶42		180	115-2421	269		5
107-5769	244	109-5326	176	115-3055	277		6
	248		180		▶286		7
107-6736	▶16	109-5330	176	115-5296	389		8
107-6737	▶17		180	115-7580	381		9
107-8618	198	109-5333	176	116-0047	236		10
	200		180		238		▶12
107-9343	233	109-5348	176		240	122-1472	12
108-1478	219		180		242	122-1486	12
	220	109-5738	400		412	122-3772	183
108-2312	▶232		402		413		184
108-3612	146		403	116-2578	234		185
	215	109-6507	280	116-3224	96		186
	222		282	117-4897	118		188
108-4155	409		284		152		189
	410		296	117-5254	247		190
	411	109-7423	▶19	117-6601	381	122-7375	50
108-4747	80	109-7424	19		390		51
108-5897	105		116		391		52
	106		118		395		53
108-5910	55	109-7425	19		396	122-8612	52
108-5911	55		116		397		53

PART NUMBER INDEX

Part	Page	Part	Page	Part	Page	Part	Page
123-0416	198		310	126-0559	27	130-0077	86
123-0492	176	124-9048	236	126-0911	225		▶105
	180		238	126-1756	74	130-0241	102
123-1373	269		240	126-1757	82	130-1159	▶328
123-3202	12		242	126-1767	321	130-2321	152
123-5205	198		412	126-4935	20		154
	200		413	126-5052	▶222	130-2958	▶134
123-6666	187	124-9052	156	126-6094	280	130-2960	▶230
123-6808	▶198		158		282	130-4698	74
	▶200		196		284	130-4701	74
123-6835	198		409		296	130-5371	134
	200		410	126-6875	134	130-5694	221
123-7045	30		411	126-6876	116	130-6045	168
	34	124-9523	152	126-6878	116	130-6046	168
123-8183	198	125-0995	28	126-6881	116	130-6047	168
123-9785	176		30		118	130-6190	▶380
	180		33	126-6886	▶116	130-6191	380
124-1854	54		34		▶118		▶400
	57		37	126-7574	291	130-6196	293
	58	125-0997	28		292		▶401
	59		30	126-8481	82	130-6197	▶402
124-1855	54		33	126-9138	100	130-6521	▶221
	57		34	126-9139	100	130-7769	288
	58		37	126-9140	▶100	130-8107	80
	59	125-1292	30	126-9141	100	130-8841	1
124-1961	234	125-1293	28	127-0291	230		2
124-3176	280		30	127-0563	85		3
	282		33	127-0564	▶85		4
	284		34	127-0890	183		5
	296		37	127-1570	277		6
124-3386	▶90	125-1302	410		278		7
124-3388	▶109	125-1303	282	127-1991	277		8
124-3389	109		409		278		9
124-3390	▶160	125-4350	▶305	127-1995	▶82		10
124-3391	160	125-4351	▶172	127-5728	▶21		▶102
	161	125-4352	172	127-6356	137	130-8880	158
124-3392	160		▶174	127-7273	▶289		196
	165	125-4353	174	127-8853	▶383	130-8901	▶133
124-3393	156	125-4354	174	128-0317	192	130-8902	▶372
	158	125-4355	174	128-2659	74	130-9376	280
	196	125-4356	172	128-2922	192		282
124-3395	▶204		178	128-3698	208		284
124-3397	▶247		179		409		296
124-3398	▶152	125-4357	172		410	130-9701	1
124-3399	▶156	125-4358	174		411		2
124-3401	156	125-4364	311	128-3854	82		3
	158	125-4369	236	128-4113	▶212		6
	196		238	128-4114	212		7
124-3402	156		412	128-8853	74		8
	158	125-5588	154	129-0269	▶290		▶245
	196	125-5590	152	129-0372	230	130-9709	13
124-3403	156		▶154	129-0373	230	130-9710	1
	158	125-5593	154	129-0375	230		2
	196		▶168	129-1386	174		3
124-3405	152	125-5596	168	129-1666	212		4
124-3414	236	125-5602	152	129-1667	212		5
	238	125-5603	▶126	129-5427	82		6
	240	125-7876	270	129-5428	82		7
	242		377	129-6628	82		8
124-6327	84		378		▶324		9
124-6328	▶84	125-8166	28	129-7517	194		10
124-9042	▶62	125-8170	28	129-9193	▶277		▶13
124-9043	▶196		33	129-9452	222	130-9724	1
124-9046	▶63		37	129-9907	192		2
124-9047	309	125-9247	406	130-0075	105		3

PART NUMBER INDEX

Part	Page	Part	Page	Part	Page	Part	Page
	6	131-8277	▶368	133-9906	11	136-9495	▶236
	7	131-8278	▶165	133-9907	▶11		▶238
	8	131-8279	164		66	136-9496	▶240
	▶224		165	134-2540	377		▶242
130-9725	224	131-8281	▶376	134-3452	206	136-9497	236
	▶225	131-8282	376		208		238
130-9726	225	131-8284	▶282	134-3453	280		240
131-0114	220		▶284	134-3454	312		242
131-0115	220	131-8285	▶296	134-3458	▶219		412
131-0117	109	131-8293	▶92	134-3459	▶220		413
131-0118	▶112	131-8294	▶158	134-3460	▶94	136-9500	▶104
131-0120	156	131-8295	▶64	134-3761	102	136-9501	92
131-0121	219	131-8296	▶311	134-5251	52	136-9502	96
	220	131-8297	▶312		53	136-9503	▶96
131-0122	219	131-8298	▶313	134-8277	258	136-9504	372
131-0123	219	131-8299	90	134-8278	256		374
131-0124	▶113		94	135-4918	192	136-9505	372
131-0125	113	131-8300	▶1		194	136-9506	236
131-0126	▶206	131-8301	▶2	135-4925	184		238
131-0127	206	131-8302	▶3		186		412
	208	131-8303	▶4		188	136-9507	▶127
131-0128	206	131-8304	▶5		190	136-9508	127
	208	131-8306	▶309		▶192	136-9509	126
131-0129	282	131-8307	▶310	135-4928	192	136-9752	372
	284	131-8308	282		194	137-2671	▶39
	296		284	135-5096	116		42
131-0130	▶27		296		118		46
131-0209	▶381	131-8687	▶226	135-5163	116	137-4060	106
131-3401	▶366		227		118	137-4361	87
131-3728	1	131-8688	226	135-5449	116		▶106
	2	131-8689	226		118	137-4493	▶50
	3	131-8690	226	135-7893	272		55
	4	132-0290	4	135-8270	274	137-5541	231
	5		5	136-1107	192		247
	▶54		9		194	137-6814	▶276
131-3815	187		10	136-3664	27	137-7167	▶293
131-4850	▶367		▶227		▶28	137-7168	293
131-6201	▶150	132-0451	400	136-3742	192		▶384
131-6202	▶280		402		194		▶385
131-6203	280	132-0453	293	136-5842	116	137-7169	384
131-6589	4	132-6756	194		118		▶386
	5	132-8594	148	136-6731	▶374	137-8467	▶40
	9	133-0969	270	136-7352	206		48
	10		377		208	137-8468	▶41
	▶246		378	136-7353	208		45
131-7123	74	133-0970	377		409	137-8469	▶45
131-7880	63		378		410	138-6744	192
	64	133-0974	378		411	139-0102	379
131-8264	▶76	133-3089	▶22	136-7354	372	139-3501	▶231
131-8265	76	133-3485	▶44		374	140-3004	256
131-8266	▶98	133-4897	1	136-7355	372		258
131-8267	▶163		6		374	140-3005	256
131-8268	163	133-4901	2	136-9486	154		258
131-8269	90		7	136-9487	154	140-3592	98
131-8270	▶248	133-4905	3	136-9488	152	140-3694	▶110
131-8271	▶178		8		412	140-5976	▶80
	▶179	133-4909	4		413	140-6325	▶140
131-8272	178		9	136-9489	152	140-6327	▶69
	▶180	133-4913	5	136-9490	176	140-6328	▶149
131-8273	178		10		180	140-6330	▶70
	179	133-6353	▶114	136-9491	412	140-6331	▶71
131-8274	▶164	133-9116	244		413	140-6332	▶142
131-8275	▶161		248	136-9492	77	140-6333	84
131-8276	161	133-9827	42	136-9493	▶77	140-9545	228
	164		46	136-9494	168	140-9583	▶166

PART NUMBER INDEX

Part	Page	Part	Page	Part	Page	Part	Page
140-9584	166	145-2890	385	152-8379	51	155-8725	362
141-0284	230		▶387	152-8380	56		366
141-0405	116	145-6700	102	153-1256	192		367
	118	145-6860	42		194		368
141-0406	116		46	153-2707	270	155-9818	82
	118	145-7805	▶291		377	156-4168	52
141-0998	180	145-7806	286		378	156-5783	238
141-0999	180		▶292	153-3290	34		242
141-1000	▶99	145-8859	1	153-3291	▶33		▶249
141-1001	146		2		35	156-6905	112
141-1002	313		3	153-3565	33	158-3416	74
141-1006	▶214		4		37	159-2624	▶306
141-1007	206		5	153-3597	▶34	160-5447	▶269
	208		▶46		36	160-8151	53
141-1011	▶78	145-9276	▶20	153-4219	▶56	161-4113	1
141-1012	78	145-9277	20		57		2
141-1013	78	146-2601	23	153-4220	▶51		3
141-1016	176	146-6258	185		56		4
	180		189	153-5498	1		5
141-1017	176		▶194		2		6
	180	146-8438	23		3		7
141-1018	180		25		4		8
141-1019	176	146-8924	▶25		5		9
	180	147-3396	238		6		10
141-1020	176		242		7		▶137
141-6172	▶271	147-7847	▶409		8	161-6193	▶52
141-6173	▶272	147-7848	▶410		9		60
141-6174	▶273	147-7849	▶411		10	161-6194	58
141-6175	▶274	148-3627	152		▶57		▶60
141-6436	221	148-5390	270		▶58	161-9297	▶124
141-8264	145		377		▶59	161-9925	314
141-8972	▶29		378	153-5627	▶35		▶319
141-9228	280	148-9767	176	153-5628	▶36	161-9930	48
	282		180	153-7023	60		231
	284	149-2367	▶208		61		247
	296	149-5268	68	153-7024	60		▶320
141-9240	54	149-7376	32		61	161-9932	▶321
	▶55	150-1156	46	153-8055	390	162-2264	▶37
142-1418	29	150-2557	31		▶392	162-9174	107
	▶30	150-3135	▶31	153-8059	397	162-9175	107
142-2244	280		36		▶398	163-3970	▶294
	282	150-3141	▶32	153-8061	396	163-3972	294
	284		35		▶399		388
	296	150-4104	221	153-9084	▶234	163-3973	294
142-2329	48	150-4279	▶244	153-9085	234		388
142-3949	▶146	150-4793	52	153-9653	57	163-3974	294
142-3951	▶215		53		58		388
142-4162	222	150-8016	1		59	163-7381	88
142-5696	146		2	155-2255	300		▶107
142-5700	200		3		301	164-0436	228
142-5703	▶145		4		302	164-0449	▶228
	146		5	155-2260	319	164-4537	154
142-5704	145		6		322	164-4538	154
142-5709	200		7		323	165-0199	▶377
142-6217	40		8		324	165-0200	377
142-7072	40		9	155-2274	399		378
142-7340	51		10	155-3629	82	165-0201	377
143-9759	258		▶48	155-5619	80	165-0202	▶270
143-9760	256	151-2415	▶278	155-6628	74	165-6170	126
144-0890	▶397	151-5925	102	155-8724	152		127
144-3288	200	151-5966	74		178	165-6634	▶315
144-4588	▶412	152-7582	51		179		372
144-4589	▶413		52		409		374
144-6652	152		53		410	166-2903	53
	154	152-7585	56		411	166-2904	53

PART NUMBER INDEX

Part	Page	Part	Page	Part	Page	Part	Page
	108	189-4750	▶388				
166-3739	53	189-5599	▶299				
	108	190-1668	408				
166-4387	154	190-1669	408				
166-4390	154	190-3073	▶300				
166-4392	154	190-3074	▶301				
166-6941	391	190-3075	▶302				
	▶393	190-3443	244				
166-9144	82		248				
167-8126	62	191-3006	246				
	63	191-3007	245				
	64	193-0258	401				
	65		▶403				
	99	193-1417	221				
168-4539	102	193-5582	▶378				
168-7246	102	194-6722	▶323				
169-3725	200	195-0763	176				
	▶322	196-5243	382				
170-8661	107	196-8895	▶176				
172-0208	▶307		179				
	328	196-8897	176				
172-8027	31	196-8898	176				
	32	196-8899	176				
	33	197-4870	176				
	34	198-9159	▶303				
	37	198-9749	381				
173-2390	31						
	32						
	33						
	34						
	37						
		2					
		200-7984	152				
173-3998	176						
175-3617	53						
175-7523	61						
175-7526	61						
176-9796	118						
177-0254	▶275						
177-4152	12						
177-4177	▶6						
177-4178	▶7						
177-4179	▶8						
177-4180	▶9						
177-4181	▶10						
177-9026	62						
	63						
	64						
	65						
	99						
177-9539	90						
	94						
180-5734	48						
180-7981	90						
180-9340	320						
	323						
183-7547	107						
185-2246	▶53						
	61						
185-3630	414						
186-0195	▶382						
186-2001	61						
186-3735	315						
	372						
186-4180	307						
187-2112	59						
	▶61						

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