

Parts Manual



See "General Information"
for New Parts Manual
Features.

3508C Marine Engine

TTB1-Up (Engine)

This Parts Manual is also available in .PDF Format on Compact Disc
(CD-ROM)-Caterpillar Form No. SERP4533

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: _____

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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

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 beginning each 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.

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.*) .

9. NON-SERVICED PARTS

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.

GENERAL INFORMATION

10. PARTS LIST REFERENCE NUMBERS

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 – Refer To Hydraulic Information System
M – Metric Part
R – Remfg Part May Be Available
Y – Separate Illustration
Z – Not Serviced Separately



14. DESCRIPTION OF TYPE CHANGES

Type - A type is defined as any configuration change that requires an additional Information Element for an Arrangement, Group, or Assembly. If serial number breaks for types are not available, a type # (Type 1, Type 2, etc.) will be displayed in the caption. These "type" changes are identified with a "C" note (change from previous type) in the Parts List. Only the "types" that apply to this Parts Manual will be included. Additional types may exist causing "C" notes to appear on an Information Element when no other types are shown.

15. <END>

This symbol indicates the end of an information element.

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.

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'inobservation 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 element" (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



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.



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).

GÉNÉRALITÉS

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 "Hydraulic Information System"
- 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

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 al principio de cada 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").

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

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

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 – Consulte el sistema de información hidráulica
- M – Pieza métrica
- R – Puede estar disponible como pieza remanufacturada
- Y – Ilustración separada
- Z – No se suministra por separado



Nueva Característica

14. DESCRIPCIÓN DE LOS CAMBIOS DE TIPO

Tipo – Un tipo se define como cualquier cambio de configuración que requiere un Elemento de información adicional de una Configuración, Grupo o Conjunto. Si el número de serie se clasifica por tipos que no están disponibles, se mostrará un número de tipo (Tipo 1, Tipo 2, etc.) en el comentario de la fotografía. Estos cambios de "tipo" se identifican con una nota "C" (cambio con respecto al tipo anterior) en la Lista de Piezas. Se incluirían sólo los "tipos" que aplican a este Manual de Piezas. Es posible que haya tipos adicionales que causen la aparición de notas "C" en el Elemento de Información cuando no se muestran otros tipos."

15. <END>

Este símbolo indica el final de un elemento de información.

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



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

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 no início de cada 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.

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*) .

INFORMAÇÃO GERAL

9. NÃO DISPONÍVEL SEPARADAMENTE

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 *itálico*, a fim de indicar que não estão disponíveis.

10. NÚMEROS DE REFERÊNCIA À LISTA DE PEÇAS

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. ABREVIações 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 – Consultar o Sistema de Informações Hidráulicas
- M – Peça métrica
- R – Peça remanufaturada pode estar disponível; consulte o seu revendedor Cat
- Y – Ilustração separada
- Z – Não disponível separadamente



14. <END>

Este símbolo indica o final de um elemento de informação.

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

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 am Anfang jeder 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.

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

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

Die Zahlen, die in der Spalte "Ref No" aufgeführt sind, stimmen mit den Zahlen in den beigefügten 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 Hydraulikinformationssystem
M – metrisches Teil
R – werküberholtes Teil unter Umständen lieferbar
Y – separate Abbildung
Z – nicht einzeln lieferbar



Neu im Parts Manual

14. BESCHREIBUNG DER TYPENÄNDERUNGEN

Typ-A bezieht sich auf alle Konfigurationsänderungen, die ein zusätzliches Informationselement für Ausführung, Gruppe oder Einheit benötigen. Wenn kein Seriennummernumbruch für Typen erhältlich ist, wird in der Überschrift eine Typennummer (Typ 1, Typ 2, etc.) angegeben. Diese "Typenänderungen" sind in der Teileliste mit der Anmerkung "C" (Änderung des vorherigen Typs) versehen. Es werden nur die für dieses Ersatzteilhandbuch relevanten "Typen" angegeben. Es können zusätzliche Typen vorhanden sein, was zu "C" Anmerkungen zu einem Informationselement führen kann, wenn keine anderen Typen angegeben werden.

15. <END>

Dieses Symbol zeigt das Ende eines Informationselements an.

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 Ersatzteibuch 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
DREHZAHLREGLER
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				
ELEMENT AS-PRIMARY (AIR)	8N-6309	1	AIR CLEANER GP	137
FILTER-SOOT (AIR CLEANER)	8N-2555	2	AIR CLEANER GP	138
BASIC ENGINE				
BELT-SERPENTINE (ALTERNATOR)	141-7116	1	MOUNTING GP-ALTERNATOR	48
PLUG-DRAIN (FRONT HOUSING)	2A-5220	6	HOUSING GP-FRONT	46
PLUG-OIL DRAIN (OIL PAN)	4B-2363	2	PAN GP-OIL	52
		2	PAN GP-OIL	54
SCREEN AS-SUCTION (OIL PAN)	1W-1564	1	PAN GP-OIL	52
		1	PAN GP-OIL	54
SEAL-VALVE COVER	272-0760	1	COVER GP-VALVE MECHANISM	12
COOLING SYSTEM				
CAP GP-COOLANT FILLER	294-9052	1	TANK GP-EXPANSION	129
		1	TANK GP-EXPANSION	131
CAP-PRESSURE (7-PSI) (EXPANSION TANK)	4N-3311	1	TANK GP-EXPANSION	129
GASKET-HOUSING COVER	7N-4927	1	REGULATOR GP-TEMPERATURE	125
PLUG-DRAIN (AUXILIARY WATER PUMP)	3F-1358	1	PUMP GP-AUXILIARY SEA WATER	117
REGULATOR-WATER TEMPERATURE (30-DEG C)	219-3240	2	VALVE GP-THERMOSTATIC	134
REGULATOR-WATER TEMPERATURE (92-DEG C)	6I-4950	4	REGULATOR GP-TEMPERATURE	125
ROD-ZINC (HEAT EXCHANGER)	116-7011	2	LINES GP-WATER	114
SEAL-LIP TYPE (WATER TEMPERATURE REGULATOR)	3S-9643	4	REGULATOR GP-TEMPERATURE	125
		2	VALVE GP-THERMOSTATIC	134
ELECTRICAL AND STARTING SYSTEM				
BATTERY GP (12-VOLT)	9X-9730	2	BATTERY GP	190
BREATHING AS (ATMOSPHERIC AIR)	9G-5127	1	WIRING GP-ENGINE	288
CIRCUIT BREAKER AS (20-AMPERE, DOUBLE POLE)	231-9866	3	BOX GP-JUNCTION	194
		1	BOX GP-JUNCTION	194
CIRCUIT BREAKER AS (40-AMPERE, DOUBLE POLE)	231-9864	1	BOX GP-JUNCTION	194
		1	BOX GP-JUNCTION	194
CIRCUIT BREAKER AS (70-AMPERE, DOUBLE POLE)	231-9863	1	BOX GP-JUNCTION	194
		1	BOX GP-JUNCTION	194
SCREEN-STRAINER (PRESSURE REDUCING VALVE)	252-9298	1	VALVE GP-PRESSURE REDUCING	283
FUEL SYSTEM				
FILTER ELEMENT AS-FUEL (HIGH EFFICIENCY)	1R-0756	5	FILTER GP-FUEL	158
		5	FILTER GP-FUEL	160
		7	FILTER GP-FUEL	162
GASKET (FUEL FILTER)	9Y-8389	1	FILTER GP-FUEL	162

MAINTENANCE PARTS

DESCRIPTION	PART NUMBER	QTY	WHERE USED	PAGE
LUBRICATION SYSTEM				
BREATHER AS (CRANKCASE)	4W-3027	2	BREATHER GP	62
CAP AS (OIL FILL)	262-6104	1	FILLER GP-ENGINE OIL	64
ELEMENT-BREATHER (FUMES DISPOSAL)	275-2276	1	FILTER GP-FUMES	75
			1 FILTER GP-FUMES	76
FILTER ELEMENT AS-ENGINE OIL	1R-0726	3	FILTER GP-ENGINE OIL	65
		4	FILTER GP-ENGINE OIL	67
		3	FILTER GP-ENGINE OIL	72
SEAL-VALVE COVER	272-0760	2	BREATHER GP	62
SEAL-VALVE COVER (ENGINE OIL FILL COVER)	272-0760	1	FILLER GP-ENGINE OIL	64
OPERATOR STATION				
BATTERY (LITHIUM)	101-1785	1	MODULE GP-SYSTEM COMMUNICATION	317
LAMP AS (AMBER) (24-VOLT)	162-0599	1	PANEL GP-PILOT HOUSE INSTR	320
LAMP AS (GREEN) (24-VOLT)	162-0601	1	PANEL GP-PILOT HOUSE INSTR	320
LAMP-LED (24-VOLT) (AMBER)	125-9956	1	BOX GP-INSTRUMENT PANEL	307
		1	BOX GP-INSTRUMENT PANEL	310
LAMP-LED (24-VOLT) (GREEN)	125-9957	1	BOX GP-INSTRUMENT PANEL	307
		1	BOX GP-INSTRUMENT PANEL	310
LAMP-LED (24-VOLT) (RED)	125-9955	2	BOX GP-INSTRUMENT PANEL	307
		2	BOX GP-INSTRUMENT PANEL	310

PIÈCES DE RECHANGE

DESCRIPTION	NUMÉRO DE PIÈCES	QTÉ	DOMAINE D'APPLICATION	PAGE
CIRCUIT DE CARBURANT				
ÉLÉMENT DE FILTRE (ENS)- CARBURANT (GRANDE EFFICACITÉ)	1R-0756	5	FILTRE A CARBURANT (ASS)	158
			FILTRE A CARBURANT (ASS)	160
			FILTRE A CARBURANT (ASS)	162
JOINT PLAT (FILTRE À CARBURANT)	9Y-8389	1	FILTRE A CARBURANT (ASS)	162
CIRCUIT DE GRAISSAGE				
CHAPEAU (ENS) (REPLISSAGE D'HUILE)	262-6104	1	BOUCHON DE REMPLISSAGE D'HUILE MOTEUR (ASS)	64
ÉLÉMENT DE FILTRE (ENS)-HUILE MOTEUR	1R-0726	3	FILTRE À HUILE MOTEUR (ASS)	65
			FILTRE À HUILE MOTEUR (ASS)	67
			FILTRE À HUILE MOTEUR (ASS)	72
ELEMENT DE RENIFLARD (ÉVACUATION DES GAZ DE CARTER)	275-2276	1	FILTRE D'ÉVACUATION DES VAPEURS (ASS)	75
			FILTRE D'ÉVACUATION DES VAPEURS (ASS)	76
JOINT DE CACHE-SOUPAPES	272-0760	2	RENIFLARD (ASS)	62
JOINT DE CACHE-SOUPAPES (COUVERCLE DE GOULOTTE DE REPLISSAGE D'HUILE MOTEUR)	272-0760	1	BOUCHON DE REMPLISSAGE D'HUILE MOTEUR (ASS)	64
RENIFLARD (ENS) (VILEBREQUIN)	4W-3027	2	RENIFLARD (ASS)	62
CIRCUIT DE REFROIDISSEMENT				
BOUCHON DE REMPLISSAGE DE LIQUIDE DE REFROIDISSEMENT	294-9052	1	RESERVOIR D'EXPANSION (ASS)	129
			RESERVOIR D'EXPANSION (ASS)	131
BOUCHON DE VIDANGE (POMPE À EAU AUXILIAIRE)	3F-1358	1	POMPE AUXILIAIRE D'EAU DE MER (ASS)	117
COUVERCLE DE BOÎTIER DE JOINT	7N-4927	1	RÉGULATEUR DE TEMPÉRATURE (ASS)	125
COUVERCLE DE PRESSION (7-PSI) (RÉSEROIR D'EXPANSION)	4N-3311	1	RESERVOIR D'EXPANSION (ASS)	129
THERMOSTAT-TEMPÉRATURE D'EAU (30-DEG C)	219-3240	2	SOUPAPE THERMOSTATIQUE (ASS)	134
THERMOSTAT-TEMPÉRATURE D'EAU (92-DEG C)	6I-4950	4	RÉGULATEUR DE TEMPÉRATURE (ASS)	125
TIGE-ZINC (ÉCHANGEUR THERMIQUE)	116-7011	2	CANALISATIONS D'EAU (ASS)	114
TYPE LÈVRE À JOINT (RÉGULATEUR DE TEMPÉRATURE D'EAU)	3S-9643	4	RÉGULATEUR DE TEMPÉRATURE (ASS)	125
			SOUPAPE THERMOSTATIQUE (ASS)	134

PIÈCES DE RECHANGE

DESCRIPTION	NUMÉRO DE PIÈCES	QTÉ	DOMAINE D'APPLICATION	PAGE
CIRCUIT ELECTRIQUE ET DE DEMARRAGE				
BATTERIE (ASS) (12 VOLTS)	9X-9730	2	BATTERIE (ASS)	190
CRÉPINE (RÉDUCTEUR DE PRESSION)	252-9298	1	SOUPAPE RÉDUCTRICE DE PRESSION (ASS)	283
DISJONCTEUR (ENS) (20A, PÔLE DOUBLE)	231-9866	3	COFFRE DE BRANCHEMENT	194
DISJONCTEUR (ENS) (40A, PÔLE DOUBLE)	231-9864	1	COFFRE DE BRANCHEMENT	194
DISJONCTEUR (ENS) (70A, PÔLE DOUBLE)	231-9863	1	COFFRE DE BRANCHEMENT	194
RENIFLARD (ENS) (AIR ATMOSPHÉRIQUE)	9G-5127	1	CABLAGE DE MOTEUR (ASS)	288
MOTEUR				
BOUCHON DE VIDANGE (CARTER AVANT)	2A-5220	6	CARTER AV (ASS)	46
BOUCHON DE VIDANGE D'HUILE (CARTER D'HUILE)	4B-2363	2	HUILE MOTEUR - CARTER (ASS)	52
COURROIE MULTIPLE (ALTERNATEUR)	141-7116	2	HUILE MOTEUR - CARTER (ASS)	54
	1W-1564	1	MONTAGE D'ALTERNATEUR (ASS)	48
FILTRE ASPIRANT (CARTER D'HUILE)	1W-1564	1	HUILE MOTEUR - CARTER (ASS)	52
JOINT DE CACHE-SOUPAPES	272-0760	1	HUILE MOTEUR - CARTER (ASS)	54
	272-0760	1	CACHE-SOUPAPES (ASS)	12
POSTE DE CONDUITE				
BATTERIE (LITHIUM)	101-1785	1	MODULE - SYSTÈME DE COMMUNICATION (ASS)	317
DIODE (24 VOLTS) (AMBRE)	125-9956	1	BOÎTIER DU PANNEAU DE COMMANDE (ASS)	307
	125-9956	1	BOÎTIER DU PANNEAU DE COMMANDE (ASS)	310
DIODE (24 VOLTS) (ROUGE)	125-9955	2	BOÎTIER DU PANNEAU DE COMMANDE (ASS)	307
	125-9955	2	BOÎTIER DU PANNEAU DE COMMANDE (ASS)	310
DIODE (24 VOLTS) (VERTE)	125-9957	1	BOÎTIER DU PANNEAU DE COMMANDE (ASS)	307
	125-9957	1	BOÎTIER DU PANNEAU DE COMMANDE (ASS)	310
LAMPE (ENS) (JAUNE) (24V)	162-0599	1	PANNEAU D'INSTRUMENTS (ASS)	320
LAMPE (ENS) (VERT) (24V)	162-0601	1	PANNEAU D'INSTRUMENTS (ASS)	320
SYSTEME D'ÉCHAPPEMENT ET D'ADMISSION D'AIR				
ÉLÉMENT PRINCIPAL (ENS) (AIR)	8N-6309	1	FILTRE A AIR (ASS)	137
FILTRE A SUIE (FILTRE À AIR)	8N-2555	2	FILTRE A AIR (ASS)	138

PIEZAS DE MANTENIMIENTO

DESCRIPCION	NUMERO DE PIEZA	CANT	SE UTILIZA EN	PAGINA
MOTOR BÁSICO				
CORREA-SERPENTIN (ALTERNADOR)	141 - 7116	1	MONTAJE DEL ALTERNADOR (GR)	48
REJILLA DE SUCCION (COLECTOR DE ACEITE)	1W - 1564	1	CÁRTER - COLECTOR DEL (GR)	52
		1	CÁRTER - COLECTOR DEL (GR)	54
SELLO - TAPA DE VÁLVULA	272 - 0760	1	TAPA DEL MECANISMO DE VÁLVULAS (GR)	12
TAPÓN DE DRENAJE (CAJA FRONTAL)	2A - 5220	6	CAJA DELANTERA (GR)	46
TAPON DE DRENAJE DE ACEITE (COLECTOR DE ACEITE)	4B - 2363	2	CÁRTER - COLECTOR DEL (GR)	52
		2	CÁRTER - COLECTOR DEL (GR)	54
PUESTO DEL OPERADOR				
BATERÍA (LITIO)	101 - 1785	1	MODULO DEL SISTEMA DE COMUNICACION (GR)	317
LÁMPARA (CONJ) (AMBAR) (24-VOLTIOS)	162 - 0599	1	TABLERO DE INSTRUMENTOS (GR)	320
LÁMPARA (CONJ) (VERDE) (24-VOLTIOS)	162 - 0601	1	TABLERO DE INSTRUMENTOS (GR)	320
LAMPARA-LED (24 VOLTIOS) (AMBAR)	125 - 9956	1	CAJA DEL TABLERO DE INSTRUMENTOS (GR)	307
		1	CAJA DEL TABLERO DE INSTRUMENTOS (GR)	310
LAMPARA-LED (24 VOLTIOS) (ROJO)	125 - 9955	2	CAJA DEL TABLERO DE INSTRUMENTOS (GR)	307
		2	CAJA DEL TABLERO DE INSTRUMENTOS (GR)	310
LAMPARA-LED (24 VOLTIOS) (VERDE)	125 - 9957	1	CAJA DEL TABLERO DE INSTRUMENTOS (GR)	307
		1	CAJA DEL TABLERO DE INSTRUMENTOS (GR)	310
SISTEMA DE ADMISION DE AIRE Y ESCAPE				
ELEMENTO PRIMARIO (CONJ) (AIRE)	8N - 6309	1	FILTRO DE AIRE (GR)	137
FILTRO DE HOLLÍN (FILTRO DE AIRE)	8N - 2555	2	FILTRO DE AIRE (GR)	138
SISTEMA DE COMBUSTIBLE				
ELEMENTO DE FILTRO DE COMBUSTIBLE (CONJ) (ALTA EFICIENCIA)	1R - 0756	5	FILTRO DE COMBUSTIBLE (GR)	158
		5	FILTRO DE COMBUSTIBLE (GR)	160
		7	FILTRO DE COMBUSTIBLE (GR)	162
EMPAQUETADURA (FILTRO DE COMBUSTIBLE)	9Y - 8389	1	FILTRO DE COMBUSTIBLE (GR)	162

* NO HAY TRADUCCION DISPONIBLE EN EL MOMENTO DE LA IMPRESION

PIEZAS DE MANTENIMIENTO

DESCRIPCION	NUMERO DE PIEZA	CANT	SE UTILIZA EN	PAGINA
SISTEMA DE ENFRIAMIENTO				
*CAP GP-COOLANT FILLER	294 - 9052	1	TANQUE DE EXPANSIÓN (GR)	129
		1	TANQUE DE EXPANSIÓN (GR)	131
EMPAQUETADURA-CUBIERTA DE RECINTO	7N - 4927	1	TEMPERATURA - REGULADOR DE (GR)	125
REGULADOR DE TEMPERATURA DEL AGUA (30-GRADOS C)	219 - 3240	2	VÁLVULA TERMOSTÁTICA (GR)	134
REGULADOR DE TEMPERATURA DEL AGUA (92 GRADOS CENTÍGRADOS)	6I - 4950	4	TEMPERATURA - REGULADOR DE (GR)	125
SELLO DE LABIO (REGULADOR DE TEMPERATURA DEL AGUA)	3S - 9643	4	TEMPERATURA - REGULADOR DE (GR)	125
		2	VÁLVULA TERMOSTÁTICA (GR)	134
TAPA DE PRESION (7 LB/PULG2) (TANQUE DE EXPANSION)	4N - 3311	1	TANQUE DE EXPANSIÓN (GR)	129
TAPÓN DE DRENAJE (BOMBA DE AGUA AUXILIAR)	3F - 1358	1	BOMBA AUXILIAR DE AGUA DE MAR (GR)	117
VARILLA DE CINK (INTERCAMBIADOR DE CALOR)	116 - 7011	2	TUBERÍAS DEL AGUA (GR)	114
SISTEMA DE LUBRICACIÓN				
ELEMENTO DE FILTRO DE ACEITE DE MOTOR (CONJ)	1R - 0726	3	FILTRO DE ACEITE DEL MOTOR (GR)	65
		4	FILTRO DE ACEITE DEL MOTOR (GR)	67
		3	FILTRO DE ACEITE DEL MOTOR (GR)	72
ELEMENTO DEL RESPIRADERO (ELIMINACION DE GASES)	275 - 2276	1	FILTRO DE VAPORES (GR)	75
		1	FILTRO DE VAPORES (GR)	76
RESPIRADERO (CONJ) (CÁRTER DEL MOTOR)	4W - 3027	2	RESPIRADERO (GR)	62
SELLO - TAPA DE VÁLVULA	272 - 0760	2	RESPIRADERO (GR)	62
SELLO - TAPA DE VÁLVULA (*ENGINE OIL FILL COVER)	272 - 0760	1	TUBO DE LLENADO DE ACEITE (GR)	64
TAPÓN (CONJ) (LLENADO DE ACEITE)	262 - 6104	1	TUBO DE LLENADO DE ACEITE (GR)	64
SISTEMA ELECTRICO Y DE ARRANQUE				
BATERÍA (GR) (12 VOLTIOS)	9X - 9730	2	BATERÍA (GR)	190
DISYUNTOR (CONJ) (20 AMPERIOS, 2 POLOS)	231 - 9866	3	CAJA DE EMPALMES (GR)	194
DISYUNTOR (CONJ) (40 AMPERIOS, 2 POLOS)	231 - 9864	1	CAJA DE EMPALMES (GR)	194
DISYUNTOR (CONJ) (70 AMPERIOS, 2 POLOS)	231 - 9863	1	CAJA DE EMPALMES (GR)	194
FILTRO COLADOR (VÁLVULA REDUCTORA DE PRESIÓN)	252 - 9298	1	VÁLVULA REDUCTORA DE PRESIÓN (GR)	283
RESPIRADERO (CONJ) (AIRE ATMOSFERICO)	9G - 5127	1	CABLES DEL MOTOR (GR)	288

* NO HAY TRADUCCION DISPONIBLE EN EL MOMENTO DE LA IMPRESION

PEÇAS DE MANUTENÇÃO

DESCRIÇÃO	NÚMERO DE PEÇA	QUANT	UTILIZADA EM	PÁGINA
MOTOR BÁSICO				
BUJÃO - DRENAGEM DO ÓLEO (RESERVATÓRIO DE ÓLEO)	4B-2363	2	CÁRTER DO ÓLEO DO MOTOR	52
		2	CÁRTER DO ÓLEO DO MOTOR	54
BUJÃO DO DRENO (ALOJAMENTO DIANTEIRO)	2A-5220	6	CAIXA DIANTEIRA	46
CORREIA- SERPENTINA (ALTERNADOR)	141-7116	1	MONTAGEM - ALTERNADOR	48
RETENTOR - TAMPA DA VÁLVULA	272-0760	1	TAMPA - MECANISMO DAS VÁLVULAS	12
TELA FILTRANTE DE SUCCÇÃO (RESERVATÓRIO DE ÓLEO)	1W-1564	1	CÁRTER DO ÓLEO DO MOTOR	52
		1	CÁRTER DO ÓLEO DO MOTOR	54
POSIÇÃO DE MARCHA À RÉ, INDICADOR DE FALHA				
BATERIA (12-VOLTS)	9X-9730	2	BATERIA	190
DISJUNTOR AUTOMÁTICO DE CIRCUITO (20 AMPÈRES, PÓLO DUPLO)	231-9866	3	CAIXA DE JUNÇÃO	194
DISJUNTOR AUTOMÁTICO DE CIRCUITO (40 AMPÈRES, PÓLO DUPLO)	231-9864	1	CAIXA DE JUNÇÃO	194
DISJUNTOR AUTOMÁTICO DE CIRCUITO (70 AMPÈRES. PÓLO DUPLO)	231-9863	1	CAIXA DE JUNÇÃO	194
RESPIRO (AR ATMOSFÉRICO)	9G-5127	1	CABOS/FIOS ELÉTRICOS - MOTOR	288
TELA FILTRANTE (VÁLVULA DE REDUÇÃO DA PRESSÃO)	252-9298	1	VÁLVULA DE REDUÇÃO DE PRESSÃO	283
POSTO DO OPERADOR				
BATERIA (LÍTIO)	101-1785	1	MÓDULO DE COMUNICAÇÃO DO SISTEMA	317
LÂMPADA - LED (24 VOLTS) (ÂMBAR)	125-9956	1	CAIXA DO PAINEL DE INSTRUMENTOS	307
		1	CAIXA DO PAINEL DE INSTRUMENTOS	310
LÂMPADA - LED (24 VOLTS) (VERDE)	125-9957	1	CAIXA DO PAINEL DE INSTRUMENTOS	307
		1	CAIXA DO PAINEL DE INSTRUMENTOS	310
LÂMPADA - LED (24 VOLTS) (VERMELHO)	125-9955	2	CAIXA DO PAINEL DE INSTRUMENTOS	307
		2	CAIXA DO PAINEL DE INSTRUMENTOS	310
LÂMPADA (ÂMBER) (24 VOLTS)	162-0599	1	PAINEL DE INSTRUMENTOS DO ALOJAMENTO PILOTO	320
LÂMPADA (VERDE) (24 VOLTS)	162-0601	1	PAINEL DE INSTRUMENTOS DO ALOJAMENTO PILOTO	320
SISTEMA DE ADMISSÃO E ESCAPE				
ELEMENTO - PRIMÁRIO (AR)	8N-6309	1	PURIFICADOR DE AR	137
FILTRO DE FULIGEM (PURIFICADOR DE AR)	8N-2555	2	PURIFICADOR DE AR	138

PEÇAS DE MANUTENÇÃO

DESCRIÇÃO	NÚMERO DE PEÇA	QUANT	UTILIZADA EM	PÁGINA
SISTEMA DE ARREFECIMENTO				
BUJÃO DO DRENO (BOMBA DE ÁGUA AUXILIAR)	3F - 1358	1	BOMBA AUXILIAR DE ÁGUA DO MAR	117
HASTE-ZINCO (PERMUTADOR DE CALOR)	116 - 7011	2	TUBOS - ÁGUA	114
JUNTA - TAMPA DO ALOJAMENTO	7N - 4927	1	TERMOSTATO	125
REGULADOR DE TEMPERATURA DA ÁGUA (30 GRAUS C)	219 - 3240	2	VÁLVULA TERMOSTÁTICA	134
REGULADOR DE TEMPERATURA DA ÁGUA (92 GRAUS C)	6I - 4950	4	TERMOSTATO	125
TAMPA-BOCAL DE ENCHIMENTO DO LÍQUIDO ARREFECEDOR	294 - 9052	1	TANQUE DE EXPANSÃO	129
			1 TANQUE DE EXPANSÃO	131
TAMPA DE PRESSÃO (7 PSI) (TANQUE DE EXPANSÃO)	4N - 3311	1	TANQUE DE EXPANSÃO	129
VEDADOR TIPO LABIO (REGULADOR DA TEMPERATURA DA ÁGUA)	3S - 9643	4	TERMOSTATO	125
			2 VÁLVULA TERMOSTÁTICA	134
SISTEMA DE COMBUSTÍVEL				
ELEMENTO - FILTRO DE COMBUSTÍVEL (ALTA EFICIÊNCIA)	1R - 0756	5	FILTRO - COMBUSTÍVEL	158
			5 FILTRO - COMBUSTÍVEL	160
			7 FILTRO - COMBUSTÍVEL	162
JUNTA (FILTRO DE COMBUSTÍVEL)	9Y - 8389	1	FILTRO - COMBUSTÍVEL	162
SISTEMA DE LUBRIFICAÇÃO				
ELEMENTO - RESPIRO (ELIMINAÇÃO DE VAPORES)	275 - 2276	1	FILTRO - VAPORES	75
			1 FILTRO - VAPORES	76
ELEMENTO FILTRANTE - ÓLEO DO MOTOR	1R - 0726	3	FILTRO - ÓLEO DO MOTOR	65
			4 FILTRO - ÓLEO DO MOTOR	67
			3 FILTRO - ÓLEO DO MOTOR	72
RESPIRO (CÁRTER)	4W - 3027	2	RESPIRO	62
RETENTOR - TAMPA DA VÁLVULA	272 - 0760	2	RESPIRO	62
RETENTOR - TAMPA DA VÁLVULA (TAMPA DO BOCAL DE ENCHIMENTO DO ÓLEO DO MOTOR)	272 - 0760	1	BOCAL DE ENCHIMENTO DE ÓLEO DO MOTOR	64
TAMPA (ENCHIMENTO DE ÓLEO)	262 - 6104	1	BOCAL DE ENCHIMENTO DE ÓLEO DO MOTOR	64

WARTUNGSTEILE

BESCHREIBUNG	ERSATZTEIL- NUMMER	MENGE	VERWENDET IN	SEITE
BEDIENUNGSSTAND				
BATTERIE (LITHIUM)	101 - 1785	1	SYSTEMKOMMUNIKATIONSMODUL	317
BELEUCHTUNGSANLAGE (GELB) (24 V)	162 - 0599	1	STEUERHAUS-INSTRUMENTEN-BRETT	320
BELEUCHTUNGSANLAGE (GRÜN) (24 V)	162 - 0601	1	STEUERHAUS-INSTRUMENTEN-BRETT	320
LEUCHTE, ROT (24 V) (GELB)	125 - 9956	1	INSTRUMENTENKASTEN	307
		1	INSTRUMENTENKASTEN	310
LEUCHTE, ROT (24 V) (GRÜN)	125 - 9957	1	INSTRUMENTENKASTEN	307
		1	INSTRUMENTENKASTEN	310
LEUCHTE, ROT (24 V) (ROT)	125 - 9955	2	INSTRUMENTENKASTEN	307
		2	INSTRUMENTENKASTEN	310
ELEKTRISCHE ANLAGE UND STARTSYSTEM				
BATTERIE (12 V)	9X - 9730	2	BATTERIE	190
ENTLÜFTER (AUSSENLUFT)	9G - 5127	1	MOTORVERDRAHTUNG	288
SIEB (DRUCKMINDERVENTIL)	252 - 9298	1	DRUCKREDUZIERVENTIL	283
UNTERBRECHER (20 A, DOPPELPOL)	231 - 9866	3	ABZWEIGKASTEN	194
UNTERBRECHER (40 A, DOPPELPOL)	231 - 9864	1	ABZWEIGKASTEN	194
UNTERBRECHER (70 A, DOPPELPOL)	231 - 9863	1	ABZWEIGKASTEN	194
KRAFTSTOFFSYSTEM				
DICHTUNG (KRAFTSTOFFFILTER)	9Y - 8389	1	KRAFTSTOFFFILTER	162
KRAFTSTOFFFILTEREINSATZ (HOCHLEISTUNG)	1R - 0756	5	KRAFTSTOFFFILTER	158
		5	KRAFTSTOFFFILTER	160
		7	KRAFTSTOFFFILTER	162
KÜHLSYSTEM				
ABLASSSTOPFEN (ZUSATZWASSER-PUMPE)	3F - 1358	1	ZUSATZSEEWASSERPUMPE	117
DRUCKKAPPE (7 PSI) (AUSGLEICHSTANK)	4N - 3311	1	AUSGLEICHSBEHÄLTER	129
GEHÄUSEDECKELDICHTUNG	7N - 4927	1	TEMPERATURREGLER	125
KÜHLMITTELFILTERKAPPE	294 - 9052	1	AUSGLEICHSBEHÄLTER	129
		1	AUSGLEICHSBEHÄLTER	131
LIPPENDICHTUNG (KÜHLWASSERTHERMOSTAT)	3S - 9643	4	TEMPERATURREGLER	125
		2	VENTIL (THERMOSTATGESTEUERT)	134
WASSERTEMPERATURREGLER (30 GRAD C)	219 - 3240	2	VENTIL (THERMOSTATGESTEUERT)	134
WASSERTEMPERATURREGLER (92 GRAD)	6I - 4950	4	TEMPERATURREGLER	125
ZINKSTAB (WÄRMETAUSCHER)	116 - 7011	2	KÜHLWASSERLEITUNGEN	114
LUFTANSAUG- UND ABGASSYSTEM				
HAUPTFILTER (LUFTFILTER)	8N - 6309	1	LUFTREINIGER	137
RUSSFILTER (LUFTREINIGER)	8N - 2555	2	LUFTREINIGER	138

* ÜBERSETZUNG ZUM ZEITPUNKT DER DRUCKLEGUNG NICHT VORHANDEN

WARTUNGSTEILE

BESCHREIBUNG	ERSATZTEIL- NUMMER	MENGE	VERWENDET IN	SEITE
MOTOR (GRUNDAUSFÜHRUNG)				
ABLASSSTOPFEN (VORDERES GEHÄUSE)	2A-5220	6	STIRNRADGEHÄUSE	46
ANSAUGSIEB (ÖLWANNE)	1W-1564	1	ÖLWANNE	52
		1	ÖLWANNE	54
ÖLABLASSSCHRAUBE (ÖLWANNE)	4B-2363	2	ÖLWANNE	52
		2	ÖLWANNE	54
SERPENTINENFÖRMIGER RIEMEN (DREHSTROMGENERATOR)	141-7116	1	DREHSTROMGENERATOR - BEFESTIGUNG	48
VENTILDECKELDICHTUNG	272-0760	1	VENTILDECKEL	12
SCHMIERSYSTEM				
ENTLÜFTER (KURBELGEHÄUSE)	4W-3027	2	ENTLÜFTER	62
ENTLÜFTERELEMENT (ENTDUNSTER)	275-2276	1	DUNSTFILTER	75
		1	DUNSTFILTER	76
KAPPE (ÖLEINFÜLLUNG)	262-6104	1	MOTORÖLEINFÜLLSTUTZEN	64
MOTORÖLFILTERELEMENT	1R-0726	3	ÖLFILTER	65
		4	ÖLFILTER	67
		3	ÖLFILTER	72
VENTILDECKELDICHTUNG	272-0760	2	ENTLÜFTER	62
VENTILDECKELDICHTUNG (*ENGINE OIL FILL COVER)	272-0760	1	MOTORÖLEINFÜLLSTUTZEN	64

* ÜBERSETZUNG ZUM ZEITPUNKT DER DRUCKLEGUNG NICHT VORHANDEN

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* ÜBERSETZUNG ZUM ZEITPUNKT DER DRUCKLEGUNG NICHT VORHANDEN

MEMORANDA

ENGINE ARRANGEMENT

116-6893 CONVERSION AR - CRANK ROTATION

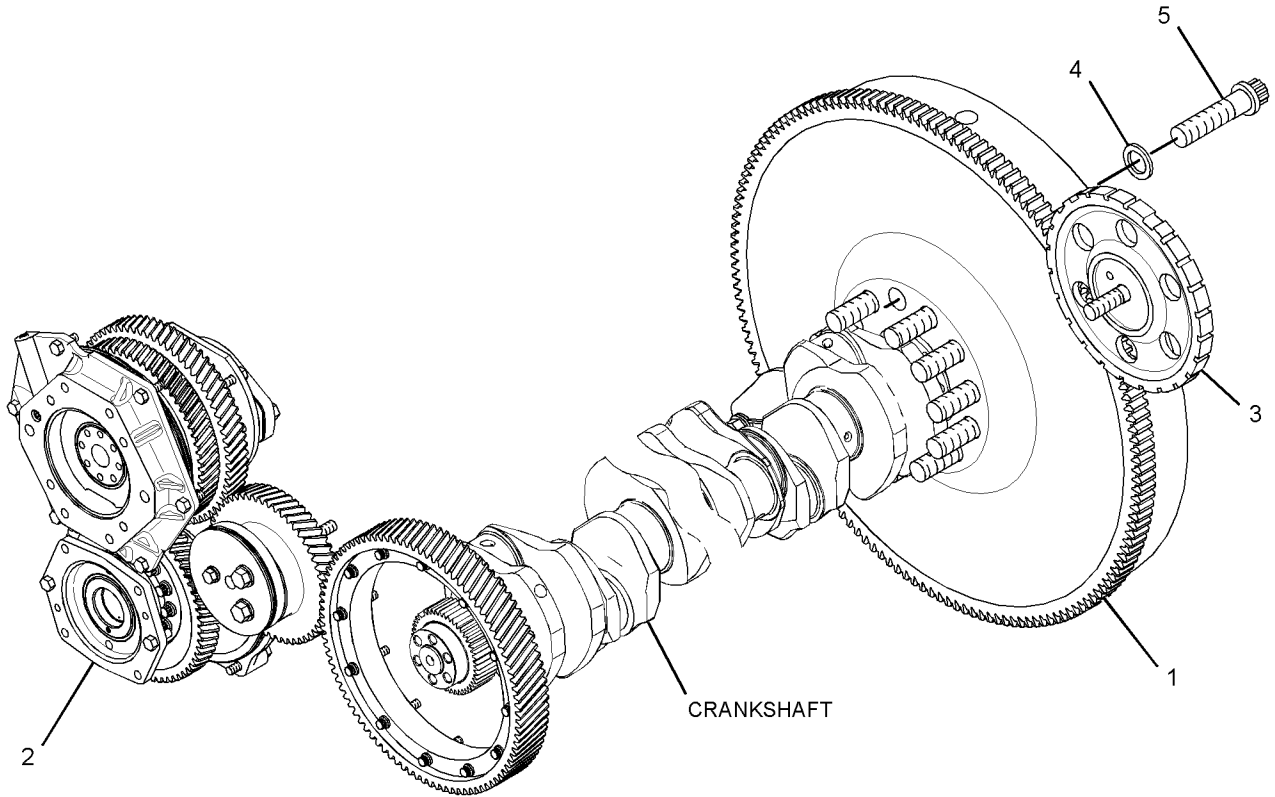
AN ATTACHMENT

SMCS-1000, 1202

i02635305

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1N-3770	1	FLYWHEEL AS						
		1	1N-3784	1	GEAR-FLYWHEEL (REVERSE)						
Y	2	1	<i>8N-5768</i>	1	GEAR GP-FRONT						33
Y	3	1	<i>116-6905</i>	1	GEAR GP-REAR (REVERSE ROTATION)						40
	4	1	5P-8839	12	WASHER-HARD (28X42X4-MM THK)						
	5	1	9S-8893	12	BOLT-12 POINT HEAD (1-14X4-IN)						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01339653

ENGINE ARRANGEMENT

282 - 9662 ENGINE AR RATED SPEED 1600-RPM

SMCS - 1000

i02673715

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	283-9840	1	AFTERCOOLER GP - TREATED WATER						136
Y	101-0833	1	BALANCER GP						3
Y	101-0838	1	BREATHER GP (CRANKCASE)						62
Y	106-4582	1	CAMSHAFT GP						6
Y	8N-8993	1	CONNECTION GP - WATER						96
Y	220-2677	1	CONTROL & MTG GP - ENGINE ELEK (PRIMARY)						202
Y	231-7069	1	CONTROL & MTG GP - ENGINE ELEK (SECONDARY)						203
Y	4W-5893	1	COOLER GP - ENGINE OIL						97
Y	271-7784	1	COVER GP - CYLINDER BLOCK (CENTRAL STRUCTURE)						7
Y	138-0505	1	COVER GP - FLYWHEEL HOUSING						9
Y	107-0278	1	COVER GP - FRONT HOUSING						11
Y	101-0831	5	COVER GP - VALVE MECHANISM						12
Y	101-0336	1	CRANKSHAFT GP						13
Y	237-7957	1	CYLINDER BLOCK GP						17
Y	299-3521	8	CYLINDER HEAD GP						23
Y	8N-7182	1	DAMPER GP						24
Y	7E-7647	1	DRIVE GP - ACCESSORY (LOWER, LH)						25
Y	112-6033	1	FILLER GP - ENGINE OIL						64
Y	112-4921	1	FILTER GP - ENGINE OIL						65
Y	7W-9741	1	FILTER GP - FUEL						158
Y	7N-7784	1	FLYWHEEL GP						32
Y	7C-6366	1	GAUGE GP - OIL LEVEL (DIPSTICK)						81
Y	8N-7174	1	GEAR GP - FRONT						36
Y	101-0834	1	GEAR GP - REAR						38
Y	107-7177	1	HOUSING GP - FLYWHEEL						44
Y	4P-5426	1	HOUSING GP - FRONT (ACCESSORY DRIVE)						46
Y	7E-6872	1	LIFTING GP - ENGINE						47
Y	268-0015	1	LINES GP - AIR						144
Y	245-3678	1	LINES GP - ENGINE OIL						84
Y	234-8722	1	LINES GP - FUEL INJECTION						167
Y	112-5010	1	LINES GP - TURBOCHARGER OIL						87
Y	107-0476	1	LINES GP - WATER (UPPER)						102
Y	115-7849	1	LINES GP - WATER (LOWER)						104
Y	116-9870	1	LINES GP - WATER (TURBOCHARGER)						106
Y	289-0282	1	LINES GP - WATER (AFTERCOOLER)						108
Y	285-5345	1	MANIFOLD GP - EXHAUST						147
Y	7C-6887	1	PAN GP - OIL						50
Y	281-6141	8	PISTON & ROD GP						56
Y	7N-8715	1	PUMP GP - ENGINE OIL						89
Y	274-0053	8	PUMP GP - FUEL INJECTION						172
Y	8N-6151	1	PUMP GP - FUEL TRANSFER (1 - SECTION GEAR)						180
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Y	9Y-8175	1	PUMP GP - WATER (AFTERCOOLER)						123
Y	8N-7643	1	REGULATOR GP - TEMPERATURE						125
Y	7W-3813	1	SEAL GP - CRANKSHAFT						58
Y	285-5356	1	SHIELD GP - EXHAUST						149
Y	296-3996	1	SHIELD GP - HEAT						152
Y	119-7334	1	TANK GP - EXPANSION						129
Y	291-3912	1	TURBOCHARGER GP						156
Y	281-6160	8	VALVE MECHANISM GP						60
	292-1892	1	ELECTRONICS GP - ENGINE RATINGS						

PLEASE USE THE GASKET KIT LINK IN SIS OR CONTACT
YOUR LOCAL DEALER FOR THE LATEST GASKET KIT
INFORMATION

Y - SEPARATE ILLUSTRATION

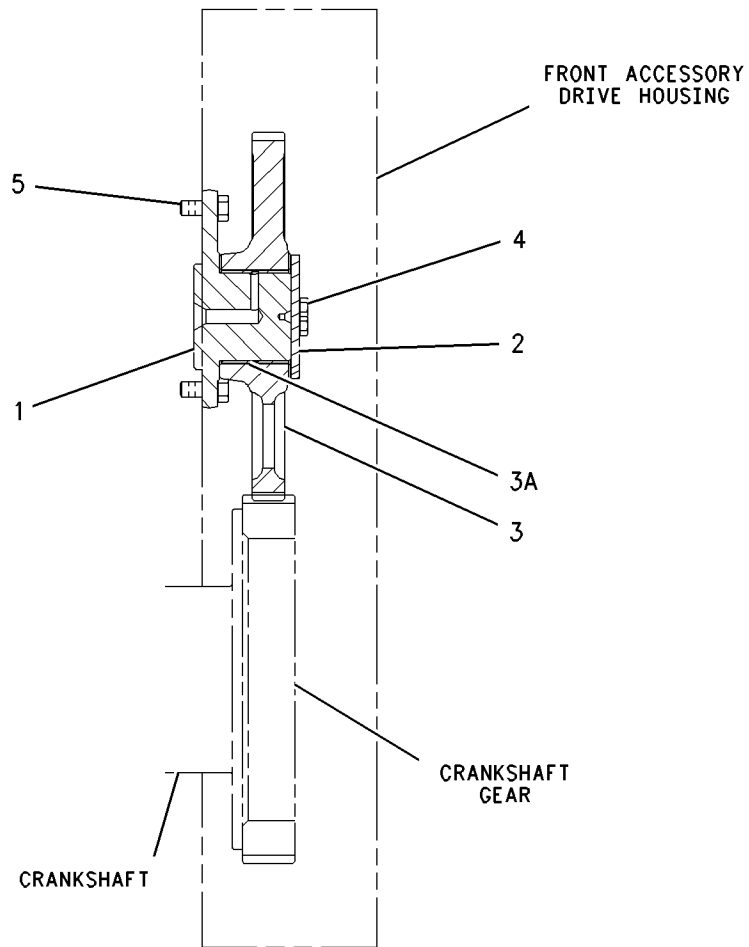
BASIC ENGINE

101-0833 BALANCER GP-FRONT

SMCS - 1220

i01909750

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4W-4998	1	SHAFT - GEAR						
	2	1	101-1365	1	PLATE - THRUST						
	3	1	101-9043	1	GEAR AS - BALANCER (92 TEETH)						
	3A	1	7N-6983	1	BEARING - SLEEVE						
	4	1	0L-1351	4	BOLT (3/8 - 16X0.875 - IN)						
	5	1	8M-2530	4	BOLT - 12 POINT HEAD (1/2 - 13X1.25 - IN)						



RIGHT SIDE VIEW

<END>

GRAPHIC #1

g00995181

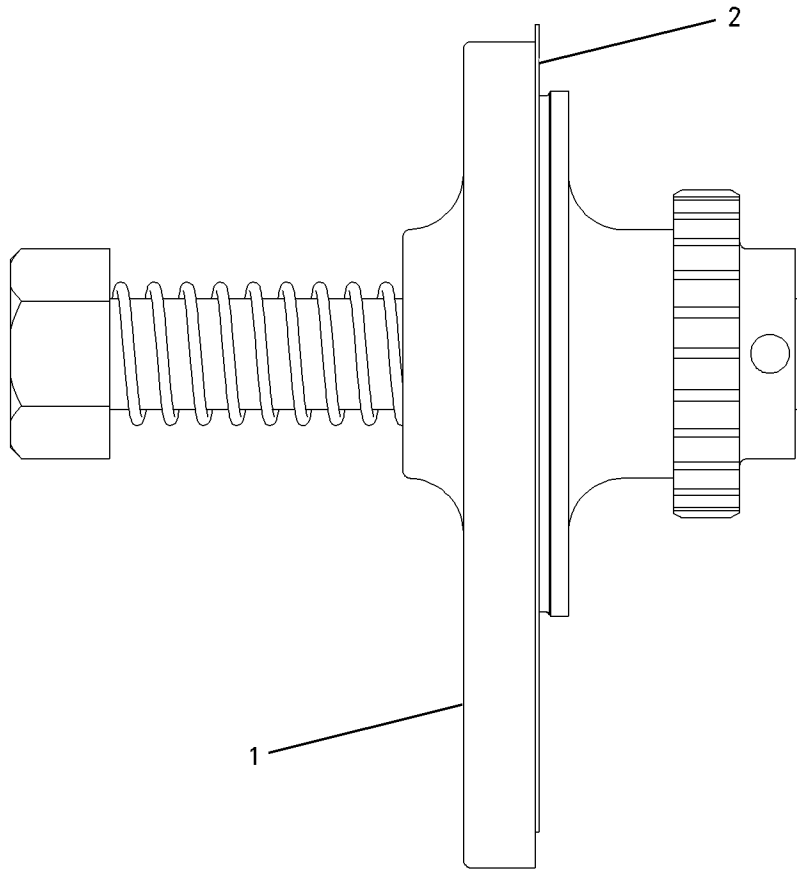
BASIC ENGINE

253-2468 BARRING GP-RH AN ATTACHMENT

SMCS - 1235

i02113355

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	3R-1937	1	TOOL - BARRING						
	2	1	4H-7869	1	GASKET						



GRAPHIC #1

<END>

g00824462

BASIC ENGINE

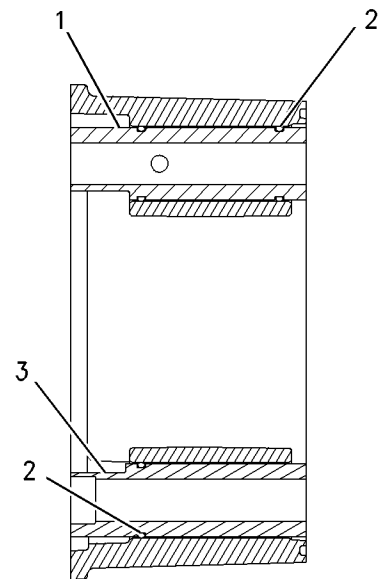
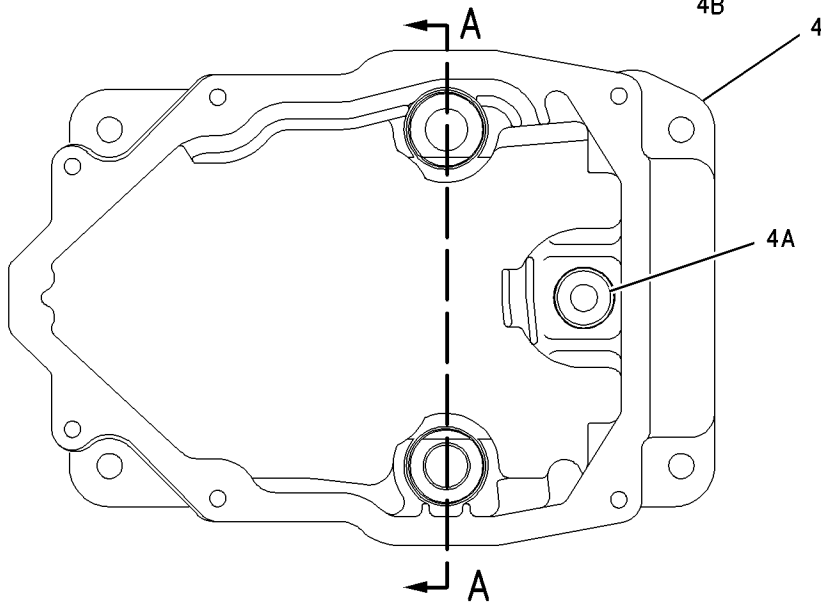
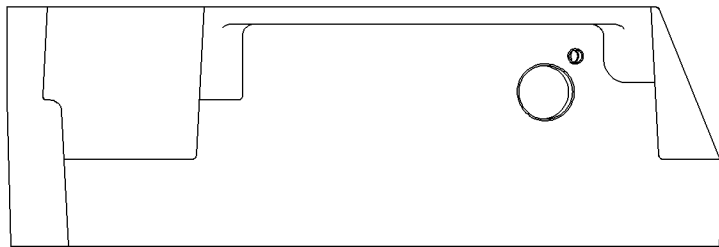
247-8341 BASE GP-VALVE COVER

PART OF 281-6160 VALVE MECHANISM GP

SMCS-1120

i02685870

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	119-0839	1	SPACER (17.5X30.94X98-MM)						
	2	1	6V-6228	3	SEAL-O-RING						
	3	1	119-0838	1	SPACER (17.5X30.94X98-MM)						
	4	1	247-8340	1	BASE AS						
	4A	1	120-4339	1	WASHER-SPRING						
	4B	1	261-0195	1	DOWEL-HOLLOW						



SECTION A-A

GRAPHIC #1

<END>

g00842340

BASIC ENGINE

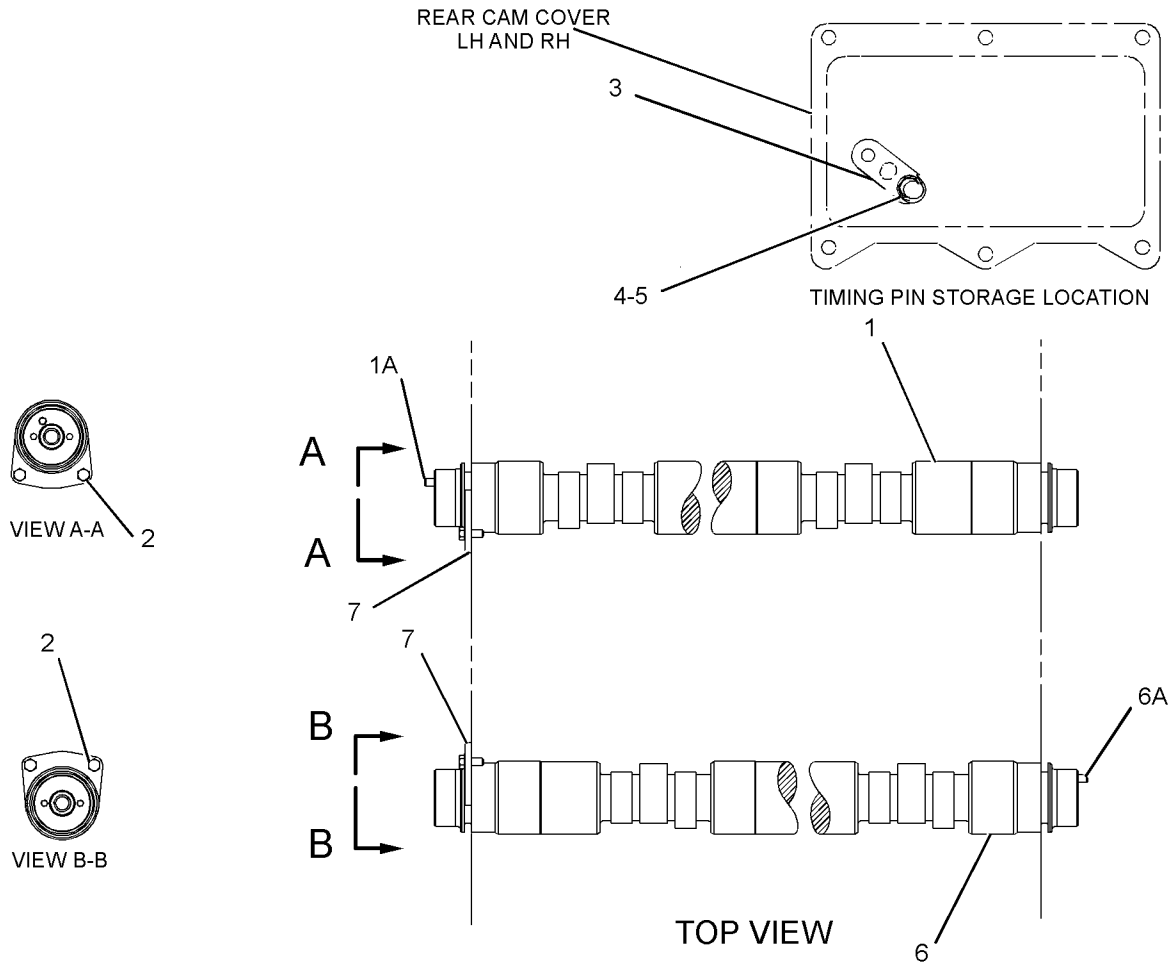
106-4582 CAMSHAFT GP

SMCS-1210

i02693144

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	1 2 3 4 5 6 (PRODUCT LEVEL)						SEE PAGE
R	1	1	127-5404	1	CAMSHAFT AS (LH)							
	1A	1	5B-5821	1	DOWEL							
C	2	1	0L-1351	4	BOLT (3/8-16X0.875-IN)							
	3	1	4W-6664	2	PLATE AS-TIMING							
	4	1	0S-0509	2	BOLT (3/8-16X0.75-IN)							
	5	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5-MM THK)							
R	6	1	133-4079	1	CAMSHAFT AS (RH)							
	6A	1	5B-5821	1	DOWEL							
C	7	1	7N-3218	2	WASHER-THRUST							

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



GRAPHIC #1

<END>

g01351081

BASIC ENGINE

271 - 7784 COVER GP - CYLINDER BLOCK - CENTRAL STRUCTURE

SMCS - 1201

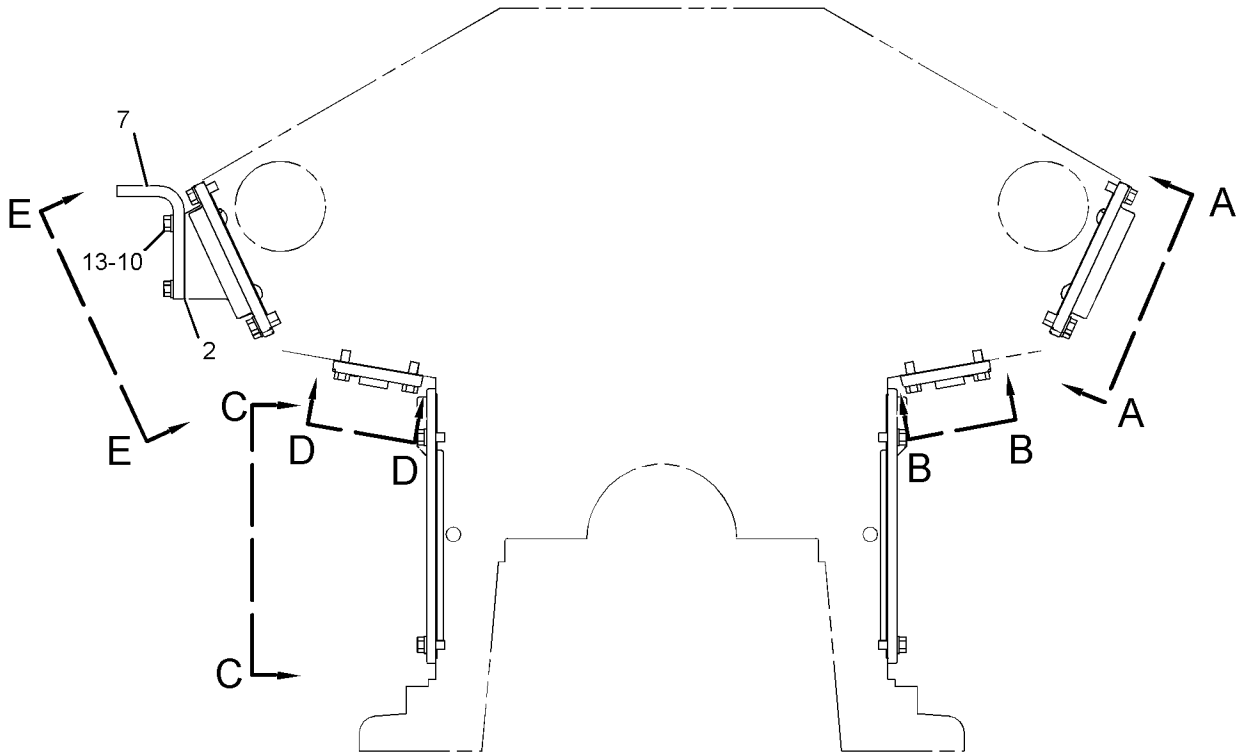
i02324257

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1N-2914	8	COVER - CYLINDER BLOCK SIDE						
	2	1	2W-0752	1	GASKET						
	3	1	7N-3298	3	COVER - BLOCK						
	4	1	7N-4945	3	GASKET						
	5	1	8N-9992	7	COVER - CAMSHAFT						
	6	1	8N-9993	1	COVER - CAMSHAFT						
	7	1	117-0066	1	BRACKET - MOUNTING						
	8	1	272-0758	8	SEAL						
	9	1	272-0759	8	SEAL						
	10	1	0S-1588	4	BOLT (3/8 - 16X1.25 - IN)						
	11	1	0S-1594	12	BOLT (3/8 - 16X1 - IN)						
	12	1	1A-2029	48	BOLT (3/8 - 16X1.125 - IN)						
	13	1	5M-2894	84	WASHER - HARD (10.2X18.5X2.5 - MM THK)						
	14	1	8T-6761	2	PLUG - PIPE						
	15	1	9X-8872	32	BOLT - LOCKING (3/8 - 16X0.875 - IN)						

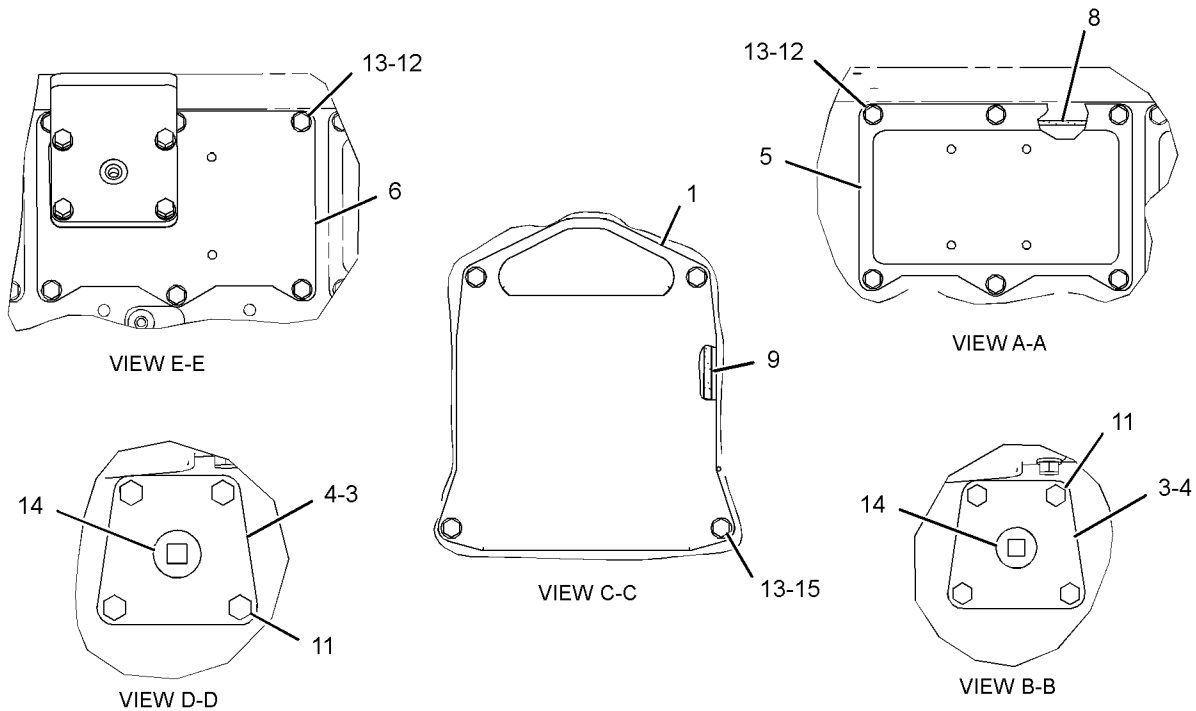
BASIC ENGINE

271-7784 COVER GP-CYLINDER BLOCK (contd.)

i02324257



FRONT VIEW



GRAPHIC #1

<END>

g01352109

BASIC ENGINE

138-0505 COVER GP - FLYWHEEL HOUSING

FOR USE WITH SAE "0" FLYWHEEL

SMCS-1157

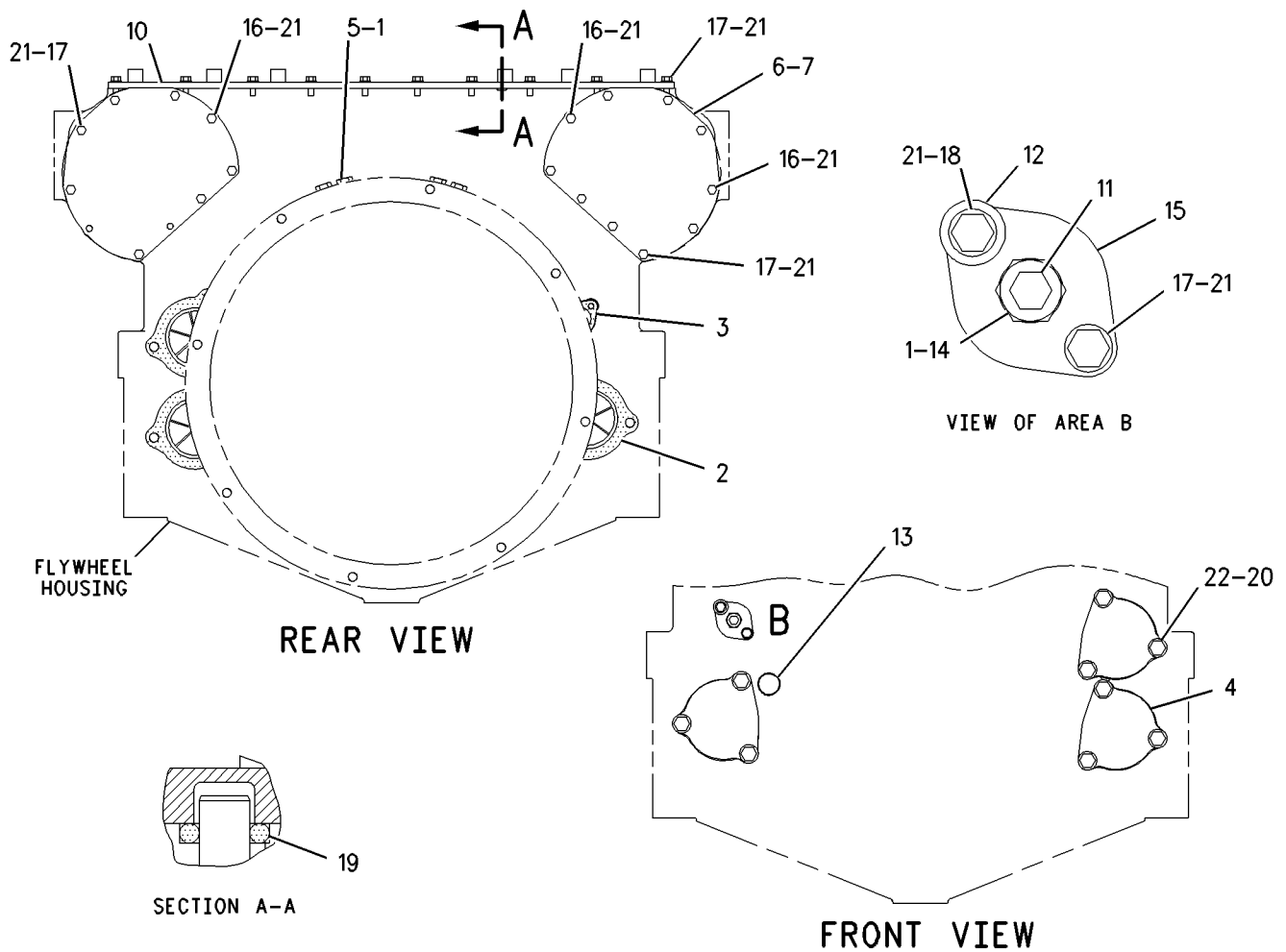
i02698930

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4B-8407	5	GASKET - COPPER						
	2	1	4H-7869	3	GASKET						
	3	1	234-8937	1	SEAL - INTEGRAL						
	4	1	4N-1114	3	COVER						
	5	1	5F-0304	4	PLUG						
	6	1	7N-4319	2	COVER						
	7	1	7N-4320	2	GASKET						
	10	1	8N-9211	1	COVER AS - FLYWHEEL HOUSING						
		1	6H-3609	12	BOSS						
	11	1	8T-6765	1	PLUG - PIPE						
	12	1	9L-4234	1	SPACER (0.406X1X0.962 - IN THK)						
	13	1	9S-1343	1	PLUG - CUP						
	14	1	104-4767	1	ADAPTER						
	15	1	104-4768	1	COVER						
	16	1	0S-1591	3	BOLT (3/8-16X1.5 - IN)						
	17	1	0S-1594	36	BOLT (3/8-16X1 - IN)						
	18	1	0T-0055	1	BOLT (3/8-16X4.25 - IN)						
	19	1	2J-6274	1	SEAL - O-RING						
	20	1	4B-4043	9	BOLT (5/8-11X1.375 - IN)						
	21	1	5M-2894	40	WASHER - HARD (10.2X18.5X2.5 - MM THK)						
	22	1	5P-8247	9	WASHER - HARD (17X32X3.5 - MM THK)						

BASIC ENGINE

138-0505 COVER GP-FLYWHEEL HOUSING (contd.)

i02698930



GRAPHIC #1

<END>

g00825958

BASIC ENGINE

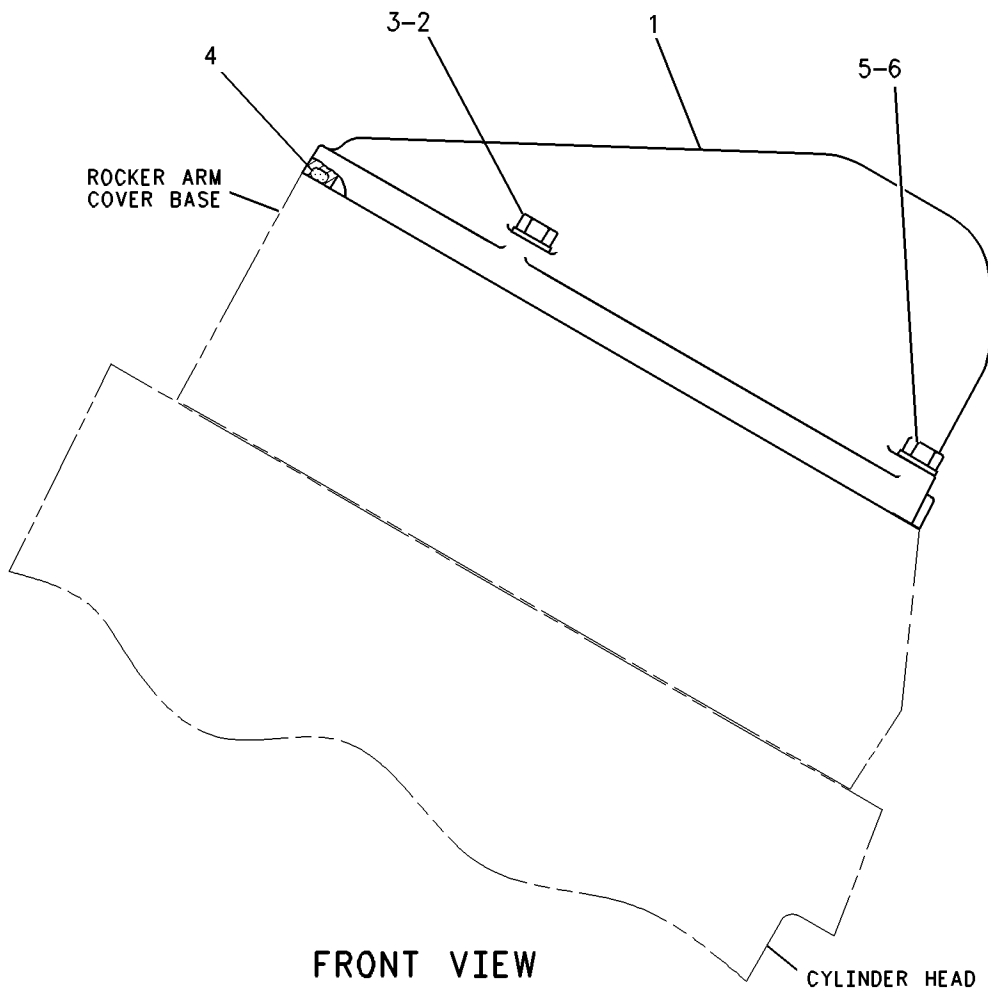
101-0831 COVER GP - VALVE MECHANISM

SMCS-1107

i02668025

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	101-4197	1	COVER						
	2	1	1A-9579	3	BOLT (5/16-18X1.5-IN)						
	3	1	9M-1974	3	WASHER-HARD (8.8X16X2-MM THK)						
	4	1	272-0760	1	SEAL-VALVE COVER						
B	5	1	1A-9579	1	BOLT (5/16-18X1.5-IN)						
B	6	1	9M-1974	1	WASHER-HARD (8.8X16X2-MM THK)						

B- USE AS REQUIRED



GRAPHIC #1

<END>

g00773092

BASIC ENGINE

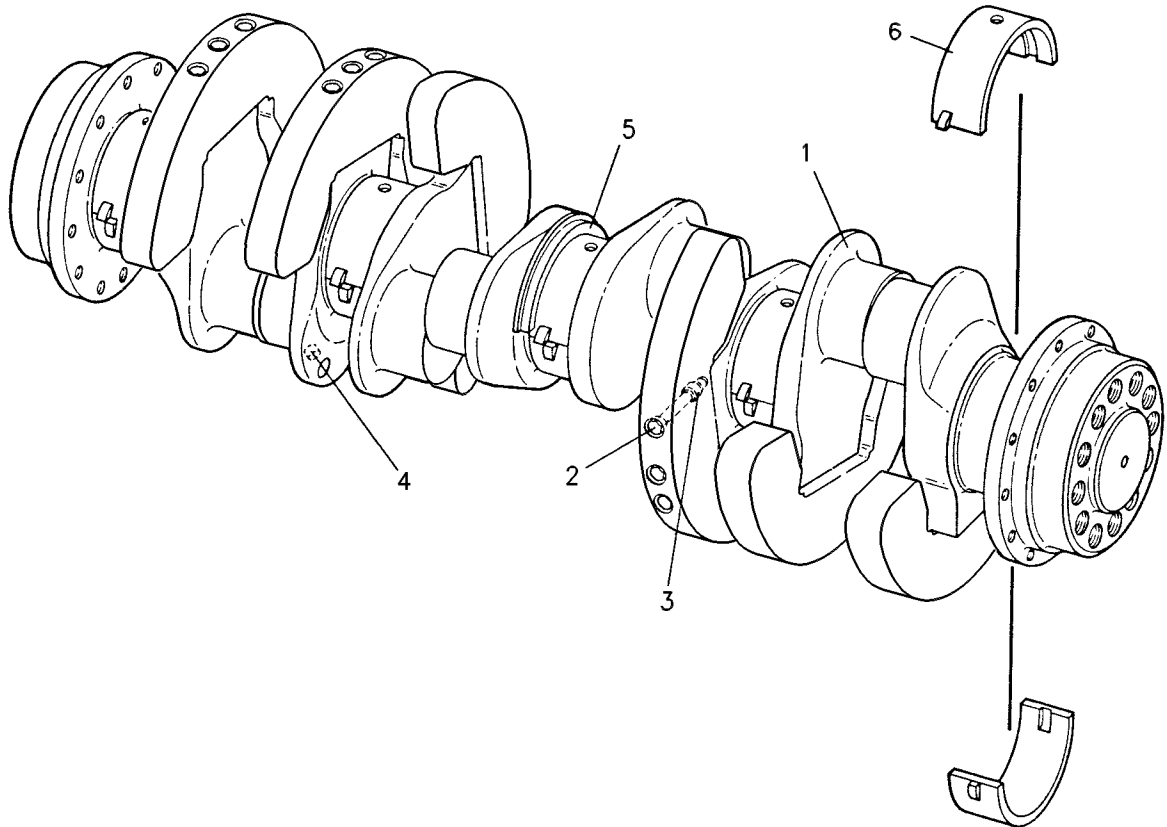
101-0336 CRANKSHAFT GP

SMCS-1202

i02698929

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
R	1	1	152-7625	1	CRANKSHAFT AS						
	2	1	128-4845	18	BOLT AS						
	3	1	7N-2003	12	DOWEL						
	4	1	2W-2288	8	PLUG						
J	5	1	7C-6209	2	PLATE - THRUST						
CJ	6	1	149-6031	5	BEARING AS - MAIN (STANDARD)						
ABC		1	149-6032		BEARING - MAIN (0.63-MM US ID)						
ABC		1	149-6033		BEARING - MAIN (1.27-MM US ID)						
ABC		1	149-6034		BEARING - MAIN (0.63-MM OS OD)						
ABC		1	149-6035		BEARING - MAIN (0.63-MM US ID - 0.63-MM OS OD)						
					AVAILABLE REPAIR KIT(S) :						
J			196-9527		KIT - BASIC ENGINE REPAIR (MAIN BEARING)						
					(INCLUDES THRUST PLATES AND MAIN BEARINGS)						

A - NOT PART OF THIS GROUP
 B - USE AS REQUIRED
 C - CHANGE FROM PREVIOUS TYPE
 J - KIT MARKED J INCLUDES PARTS MARKED J
 R - REMFG PART MAY BE AVAILABLE



GRAPHIC #1

<END>

g00338016

BASIC ENGINE

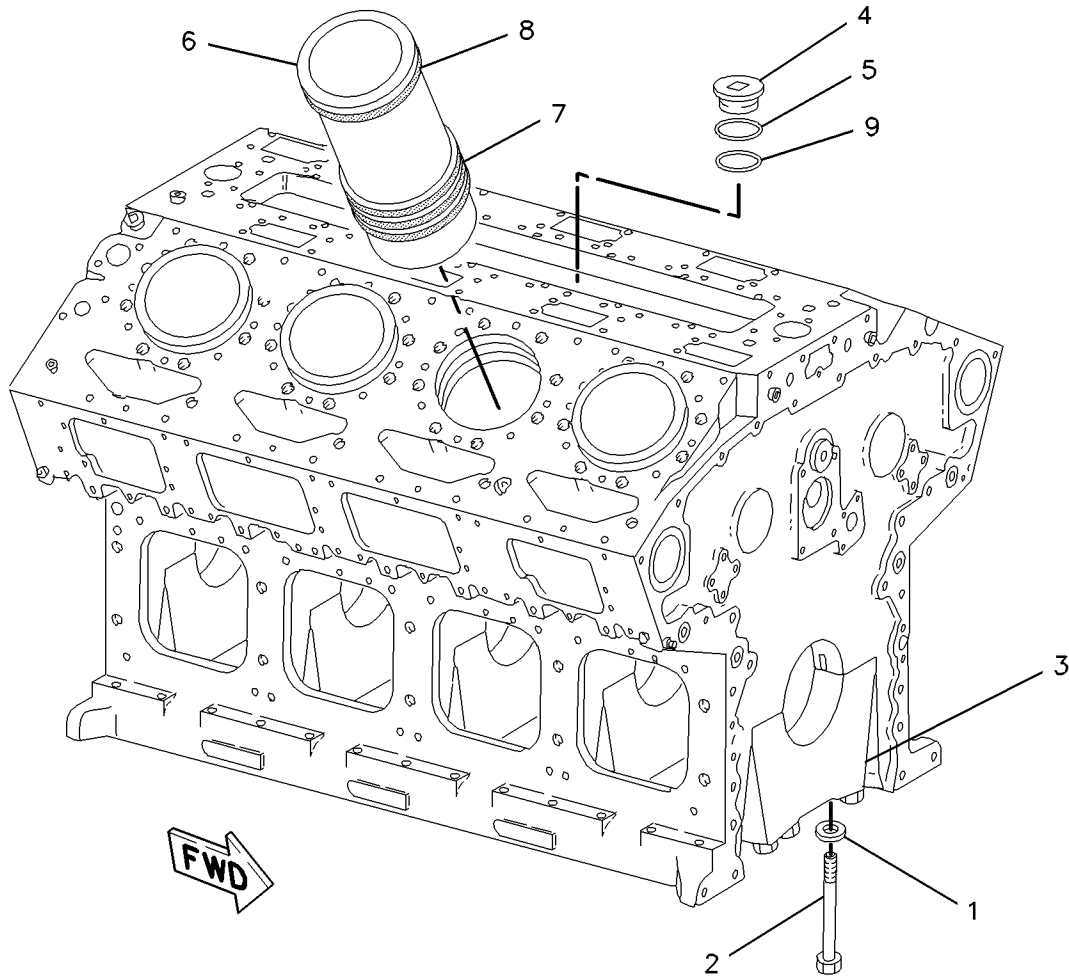
101-1171 CYLINDER BLOCK AS

PART OF 237-7957 CYLINDER BLOCK GP
FIELD REPLACEMENT ORDER 115-3503-PAGE 16

SMCS-1201

i02445670

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	5P-8249	20	WASHER-HARD (24X41.5X4-MM THK)						
	2	1	7X-7925	20	BOLT (7/8-14X11-IN)						
	3	1	223-1696	5	CAP-CRANKSHAFT BEARING						
	4	1	4W-4813	2	PLUG						
	5	1	8T-2929	2	SEAL-O-RING						
	6	1	211-7826	8	LINER-CYLINDER						
	7	1	7N-2046	24	SEAL-O-RING						
	8	1	8N-4707	8	BAND-FILLER						
	9	1	8T-2928	2	SEAL-O-RING						



GRAPHIC #1

<END>

g00728242

BASIC ENGINE

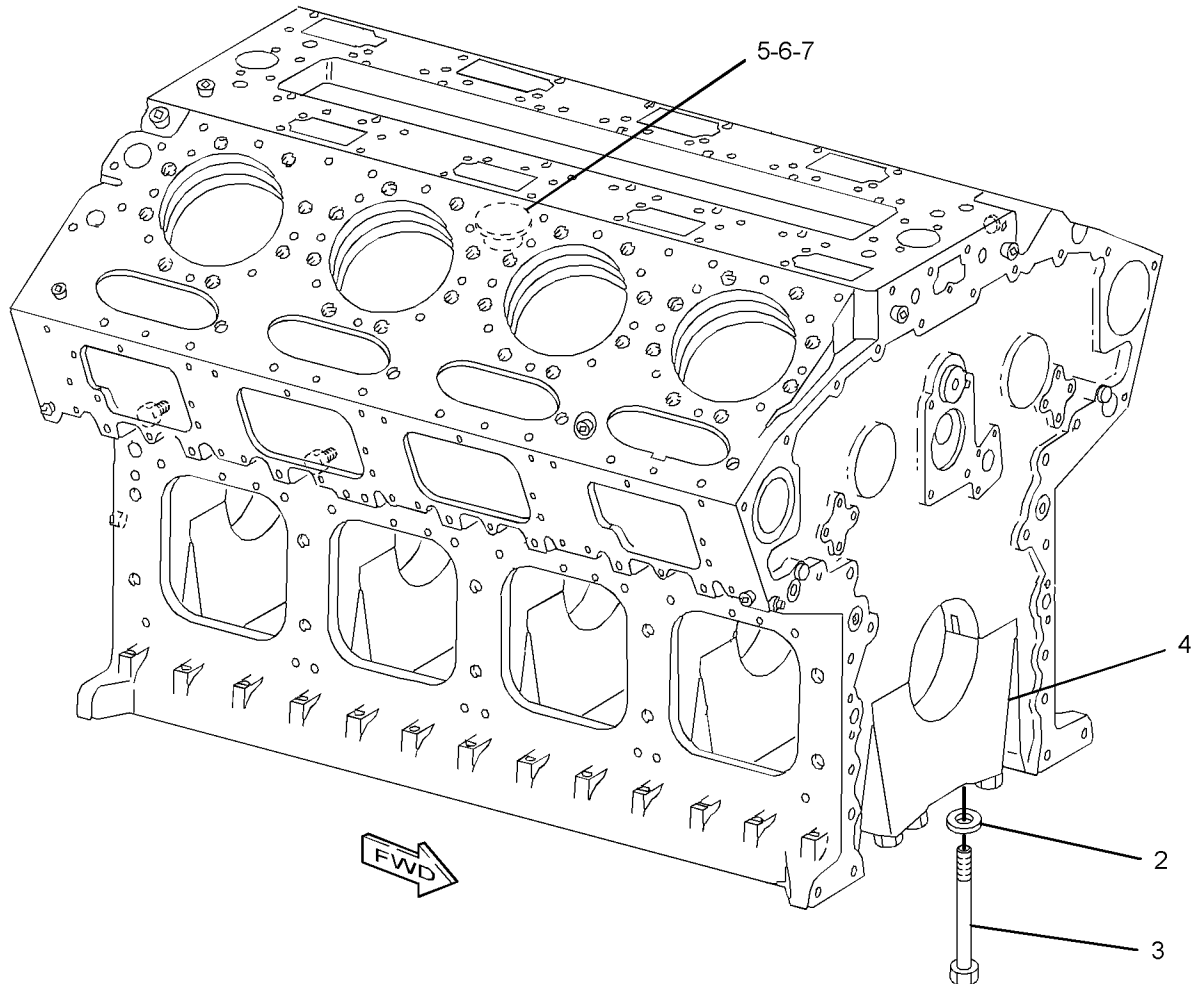
106-2778 CYLINDER BLOCK AS

PART OF 115-3503 CYLINDER BLOCK GP

SMCS-1201

i02664991

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	2	1	5P-8249	20	WASHER-HARD (24X41.5X4-MM THK)						
	3	1	7X-7925	20	BOLT (7/8-14X11-IN)						
	4	1	223-1696	5	CAP-CRANKSHAFT BEARING						
	5	1	4W-4813	2	PLUG						
	6	1	8T-2929	2	SEAL-O-RING						
	7	1	8T-2928	2	SEAL-O-RING						



GRAPHIC #1

<END>

g01339131

BASIC ENGINE

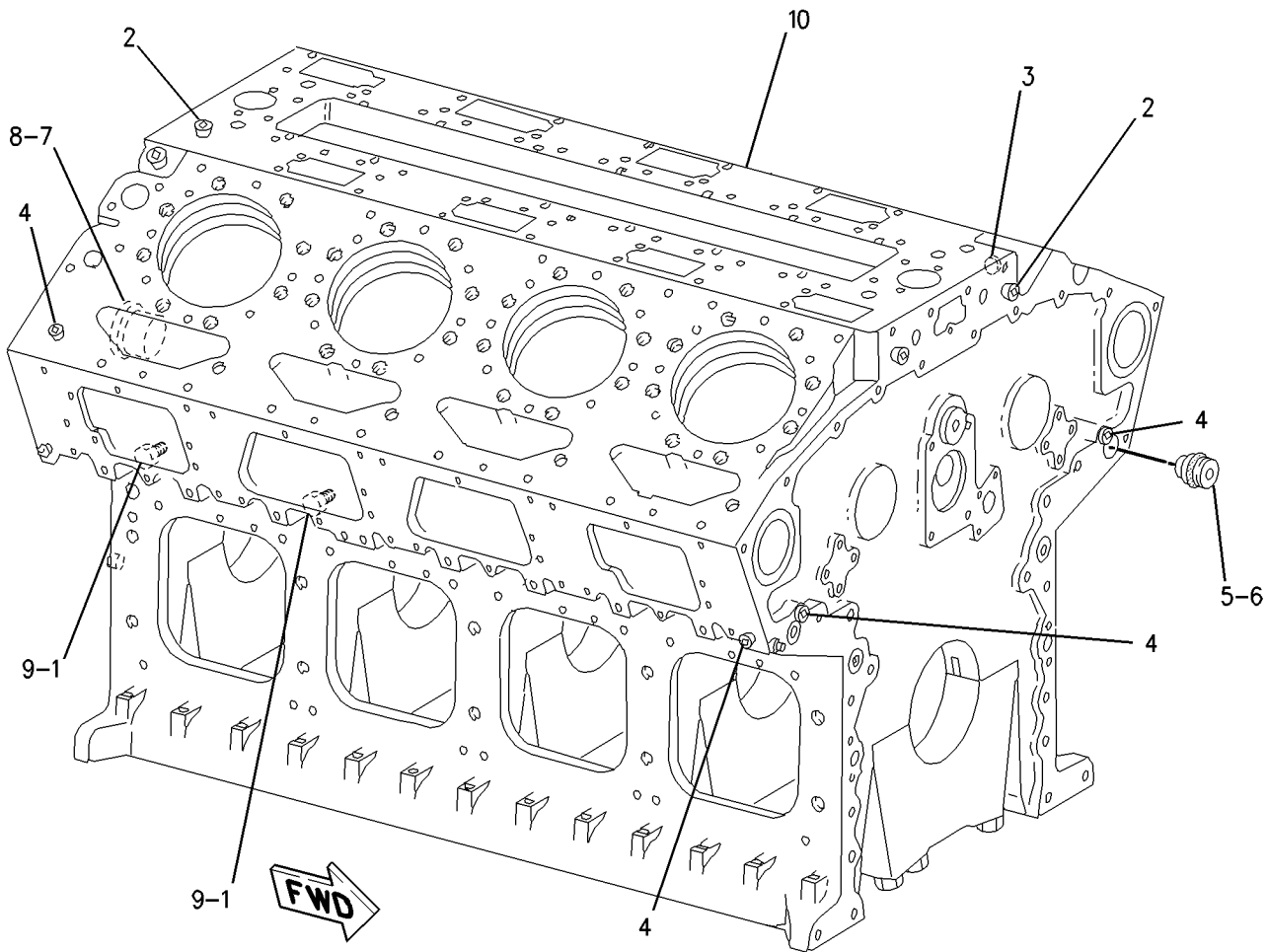
115-3503 CYLINDER BLOCK GP FIELD REPLACEMENT FOR 101-1171-PAGE 14

SMCS-1201

i01909884

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9S-4191	6	PLUG-O-RING						
	2	1	8T-6762	4	PLUG-PIPE						
	3	1	7X-7731	2	PLUG-PIPE						
	4	1	8T-6763	18	PLUG-PIPE						
	5	1	2W-2940	8	PLUG						
	6	1	6V-3348	8	SEAL-O-RING						
	7	1	7N-5641	2	PLUG-MANIFOLD						
	8	1	5F-9657	4	SEAL-O-RING						
	9	1	033-6042	6	SEAL-O-RING						
Y	10	1	106-2778	1	CYLINDER BLOCK AS						15

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00995238

BASIC ENGINE

237-7957 CYLINDER BLOCK GP

SMCS-1201

i02693079

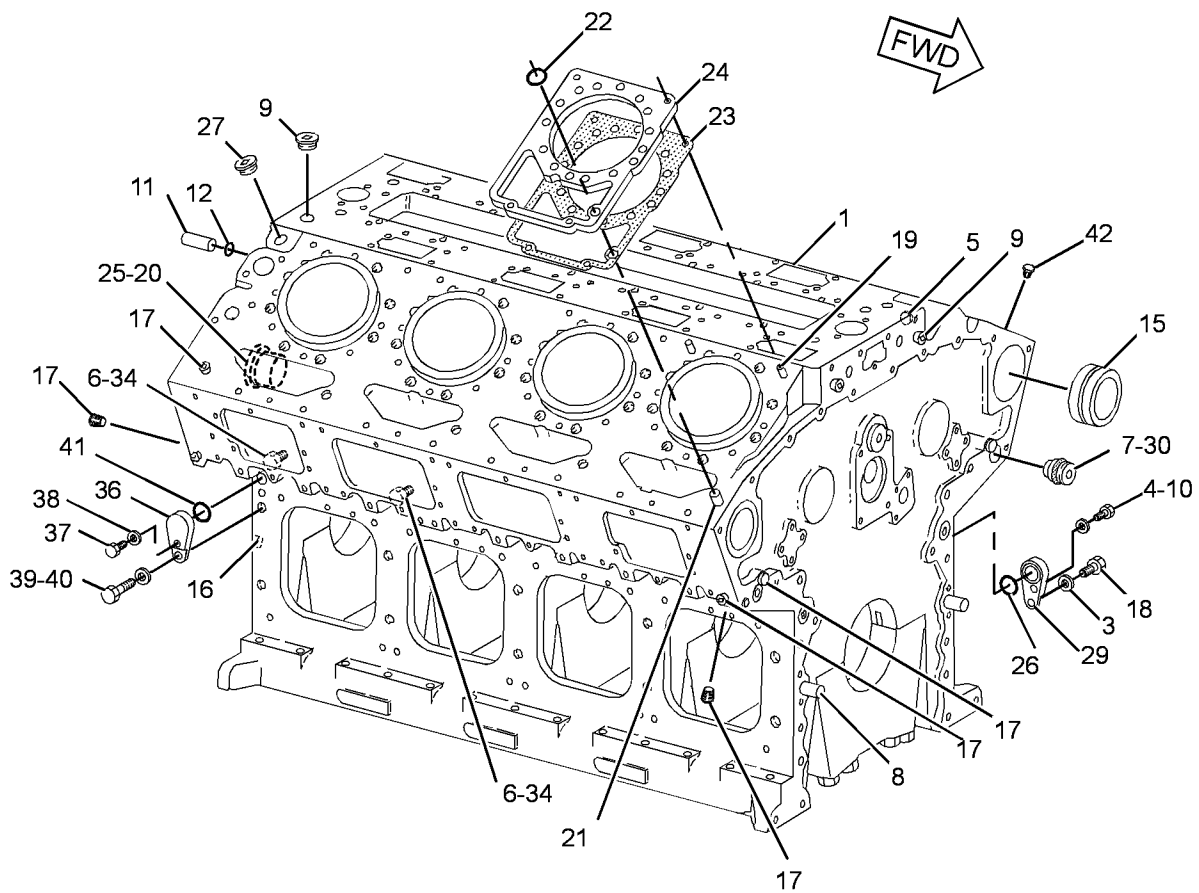
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	101-1171	1	CYLINDER BLOCK AS						14
	3	1	5P-8245	1	WASHER-HARD (13.5X25.5X3-MM THK)						
	4	1	1A-2029	1	BOLT (3/8-16X1.125-IN)						
B	5	1	7X-7731	1	PLUG-PIPE						
	6	1	9S-4191	6	PLUG-O-RING						
	7	1	2W-2940	8	PLUG (OIL MANIFOLD)						
	8	1	7N-2044	2	DOWEL						
	9	1	8T-6762	4	PLUG-PIPE						
	10	1	5M-2894	1	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	11	1	7N-2047	3	DOWEL						
	12	1	7X-4805	3	SEAL-O-RING						
	15	1	101-1198	10	BEARING-CAMSHAFT						
	16	1	4N-0683	2	DOWEL						
	17	1	8T-6763	17	PLUG-PIPE						
	18	1	0S-1595	1	BOLT (1/2-13X1.25-IN)						
	19	1	8T-0099	16	DOWEL						
	20	1	7N-5641	2	PLUG-MANIFOLD						
	21	1	197-7008	8	DOWEL						
	22	1	5P-0840	16	SEAL-O-RING						
	23	1	144-5692	8	GASKET-PLATE						
	24	1	110-6994	8	PLATE-SPACER						
	25	1	5F-9657	4	SEAL-O-RING						
	26	1	5P-8210	1	SEAL-O-RING						
	27	1	7X-7731	1	PLUG-PIPE						
	29	1	8N-8056	1	COVER						
	30	1	6V-3348	8	SEAL-O-RING						
	34	1	153-4906	6	SEAL-O-RING						
B	36	1	8N-8056	1	COVER						
B	37	1	1A-2029	1	BOLT (3/8-16X1.125-IN)						
B	38	1	5M-2894	1	WASHER-HARD (10.2X18.5X2.5-MM THK)						
B	39	1	5P-8245	1	WASHER-HARD (13.5X25.5X3-MM THK)						
B	40	1	0S-1595	1	BOLT (1/2-13X1.25-IN)						
B	41	1	5P-8210	1	SEAL-O-RING						
B	42	1	8T-6763	1	PLUG-PIPE						

B- USE AS REQUIRED
Y- SEPARATE ILLUSTRATION

BASIC ENGINE

237-7957 CYLINDER BLOCK GP (contd.)

i02693079



GRAPHIC #1

<END>

g01222252

BASIC ENGINE

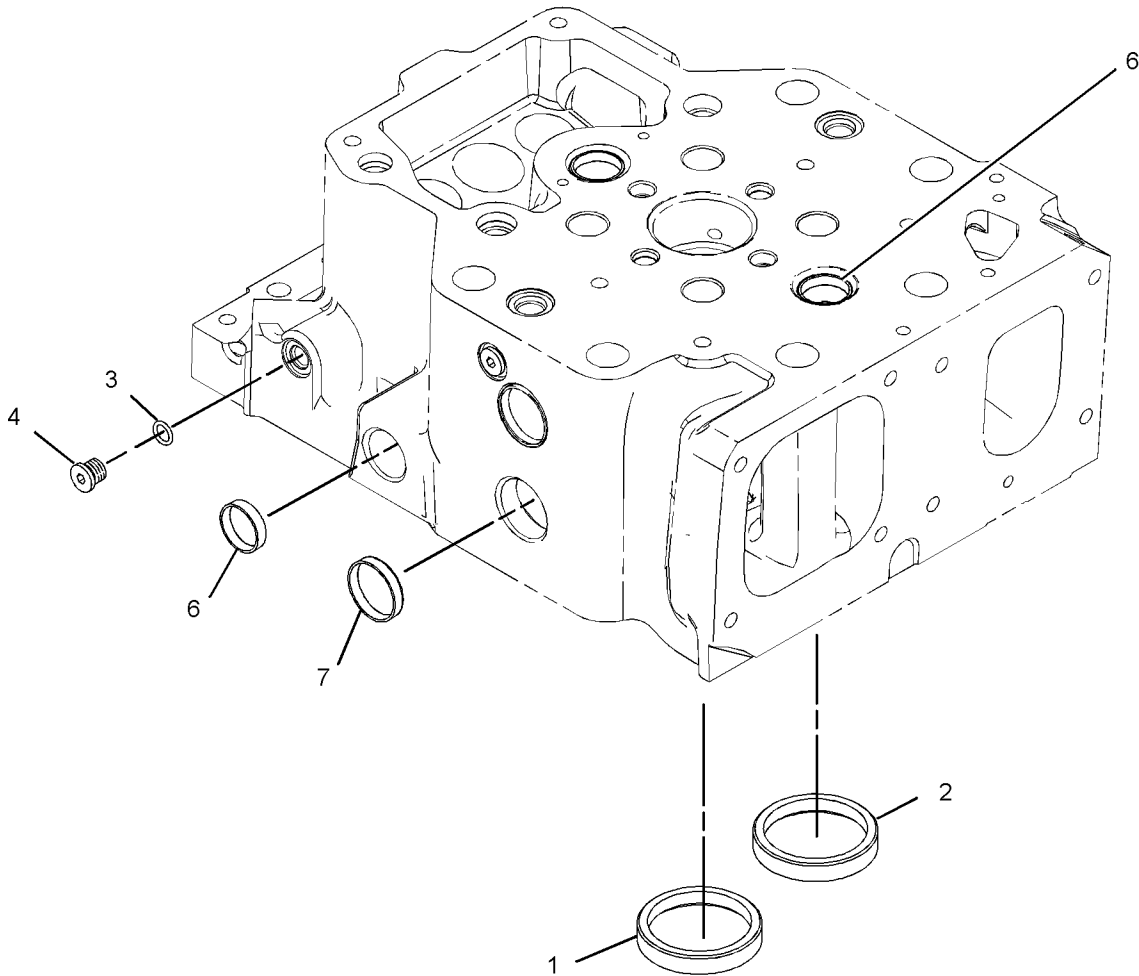
290-1351 CYLINDER HEAD AS

PART OF 299-3519 CYLINDER HEAD AS, 290-1352 CYLINDER HEAD GP
FIELD REPLACEMENT ORDER 299-3519—PAGE 20

SMCS-1100, 1101

i02625615

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	183-8809	2	INSERT-VALVE SEAT (INTAKE)						
	2	1	289-9745	2	INSERT-VALVE SEAT (EXHAUST)						
	3	1	3J-7354	4	SEAL-O-RING						
	4	1	9S-8002	4	PLUG						
	6	1	3B-0623	5	PLUG-CUP						
	7	1	3B-0645	5	PLUG-CUP						



GRAPHIC #1

<END>

g01205314

BASIC ENGINE

299-3519 CYLINDER HEAD AS

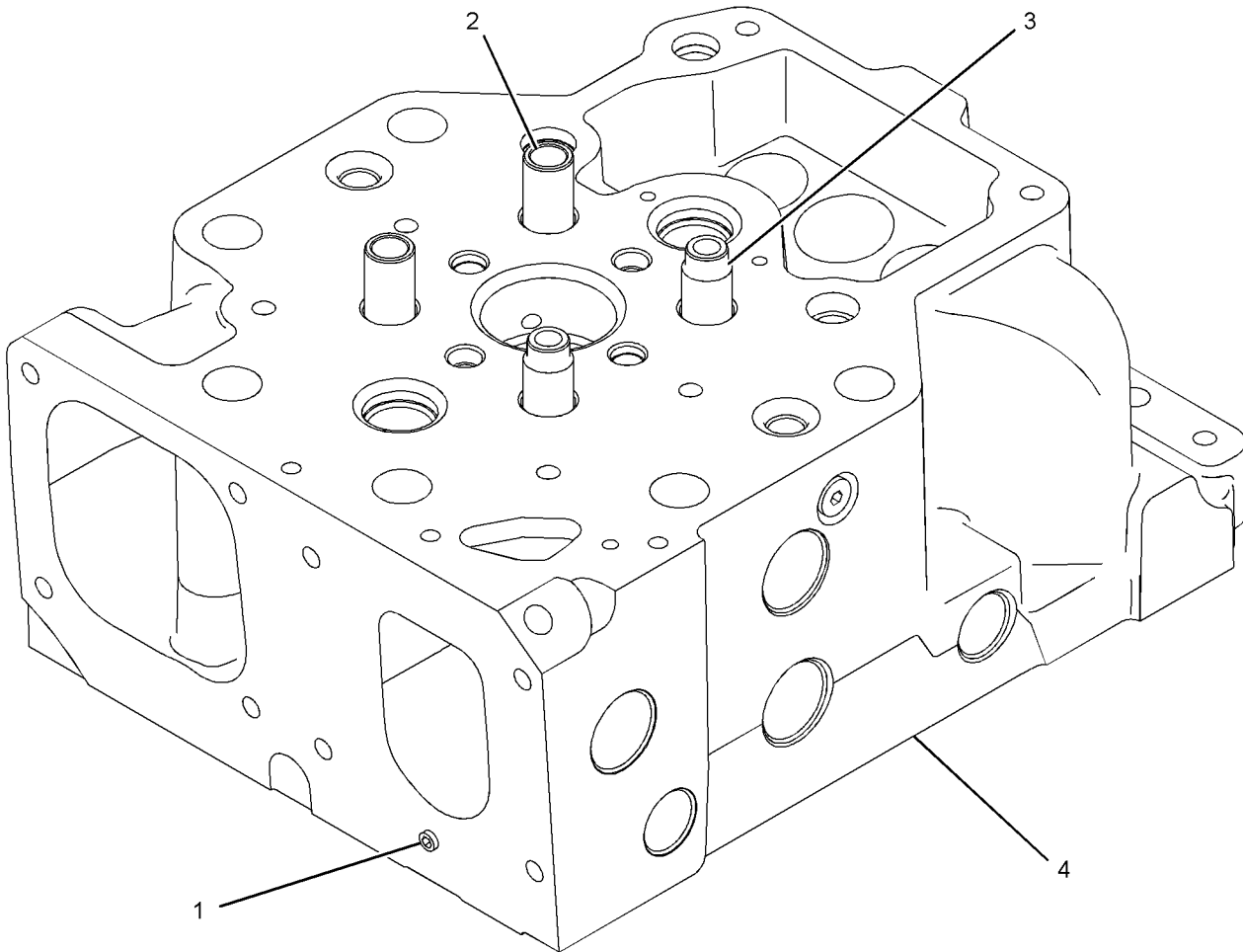
FIELD REPLACEMENT FOR 290-1351—PAGE 19

SMCS-1100, 1101

i02687075

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-6759	1	PLUG-PIPE						
R	2	1	133-9306	2	GUIDE-VALVE (STANDARD) (INTAKE)						
AB		1	149-1982		GUIDE-VALVE (0.508-MM OS OD) (INLET)						
AB		1	273-3553		GUIDE-VALVE (0.127-MM OS OD) (INLET)						
AB		1	273-3554		GUIDE-VALVE (0.254-MM OS OD) (INLET)						
AB		1	301-9248		GUIDE-VALVE (0.381-MM OS OD) (INLET)						
R	3	1	197-6995	2	GUIDE-VALVE (STANDARD) (EXHAUST)						
AB		1	276-3875		GUIDE-VALVE (0.127-MM OS OD) (EXHAUST)						
AB		1	276-3876		GUIDE-VALVE (0.254-MM OS OD) (EXHAUST)						
Y	4	1	<i>290-1351</i>	1	CYLINDER HEAD AS						19

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



GRAPHIC #1

<END>

g01350415

BASIC ENGINE

290-1352 CYLINDER HEAD GP PART OF 299-3521 CYLINDER HEAD GP

SMCS-1100

i02625612

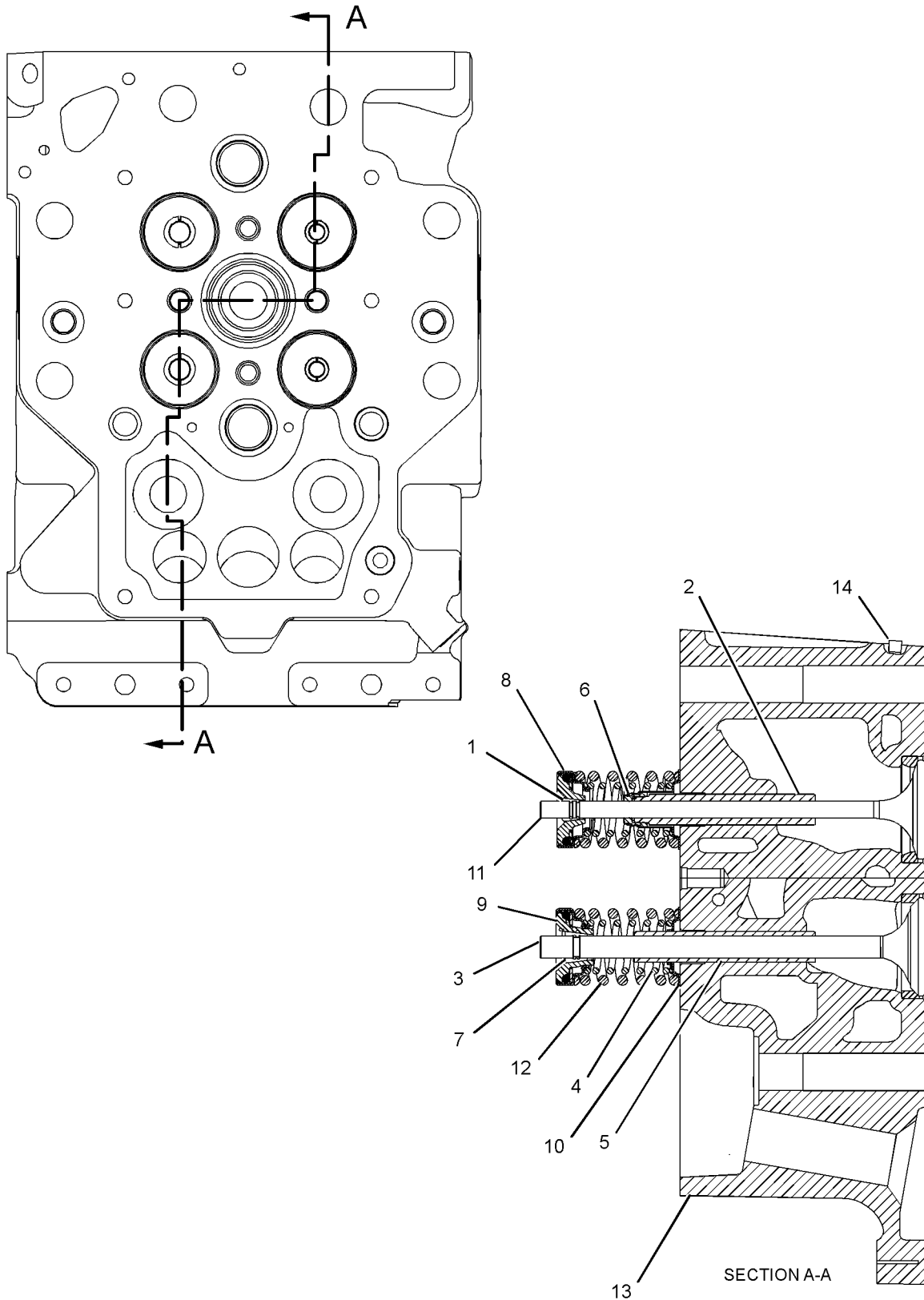
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2A-4429	4	LOCK-RETAINER						
R	2	1	133-9306	2	GUIDE-VALVE (STANDARD) (INLET)						
AB		1	149-1982	2	GUIDE-VALVE (0.508-MM OS OD) (INLET)						
AB		1	273-3553	1	GUIDE-VALVE (0.127-MM OS OD) (INLET)						
AB		1	273-3554	1	GUIDE-VALVE (0.254-MM OS OD) (INLET)						
AB		1	301-9248	1	GUIDE-VALVE (0.381-MM OS OD) (INLET)						
	3	1	194-4897	2	VALVE-EXHAUST						
	4	1	194-4902	4	SPRING-VALVE						
R	5	1	197-6995	2	GUIDE-VALVE (STANDARD) (EXHAUST)						
AB		1	276-3875	1	GUIDE-VALVE (0.127-MM OS OD) (EXHAUST)						
AB		1	276-3876	1	GUIDE-VALVE (0.254-MM OS OD) (EXHAUST)						
	6	1	197-7006	2	SEAL-VALVE STEM						
	7	1	197-7055	4	LOCK-RETAINER						
	8	1	197-7062	2	ROTOCOIL AS						
	9	1	197-7063	2	ROTOCOIL AS						
	10	1	209-0962	2	WASHER (17.8X45X7.29-MM THK)						
	11	1	210-2542	2	VALVE-INLET						
	12	1	281-6157	4	SPRING						
Y	13	1	<i>290-1351</i>	1	CYLINDER HEAD AS						19
	14	1	8T-6759	1	PLUG-PIPE						

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

BASIC ENGINE

290 - 1352 CYLINDER HEAD GP (contd.)

i02625612



GRAPHIC #1

<END>

g01324364

BASIC ENGINE

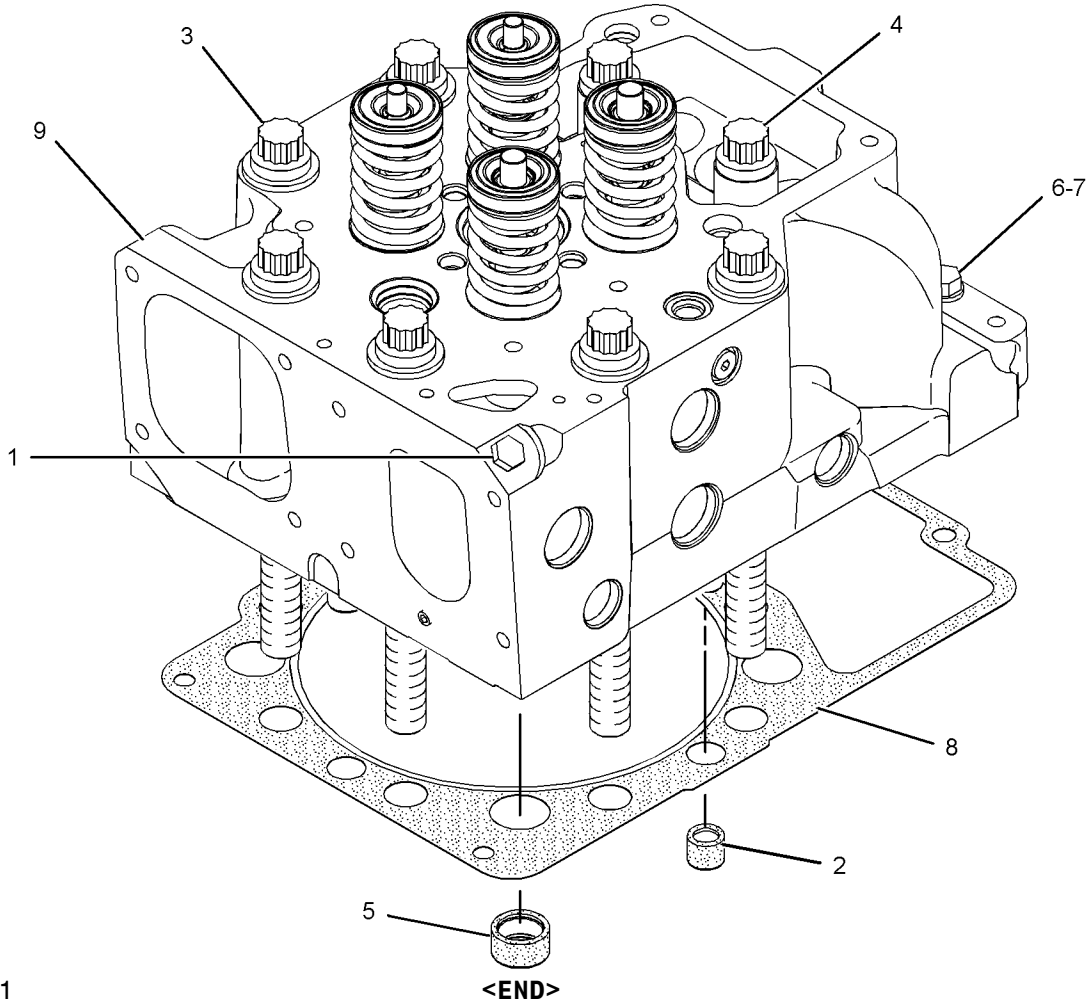
299-3521 CYLINDER HEAD GP

SMCS-1100

i02698943

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
B	1	1	5B-7890	1	PLUG-PIPE						21
	2	1	204-5426	4	SEAL (WATER)						
	3	1	131-0420	6	FASTENER GP-CYLINDER HEAD (EACH INCLUDES)						
		1	7N-1961	1	BOLT-12 POINT HEAD (3/4-16X8.5-IN)						
		1	187-7738	1	WASHER-HARD (21X36.5X3.5-MM THK)						
	4	1	131-0421	2	FASTENER GP-CYLINDER HEAD (EACH INCLUDES)						
		1	7N-1961	1	BOLT-12 POINT HEAD (3/4-16X8.5-IN)						
		1	9Y-0635	1	SPACER (19.35X30.18X45-MM THK)						
		1	187-7738	1	WASHER-HARD (21X36.5X3.5-MM THK)						
	5	1	204-5427	4	SEAL (WATER)						
	6	1	5B-0213	2	BOLT (3/8-16X2.375-IN)						
	7	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	8	1	274-8567	1	GASKET-CYLINDER HEAD						
Y	9	1	290-1352	1	CYLINDER HEAD GP						

B- USE AS REQUIRED
Y- SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01324449

BASIC ENGINE

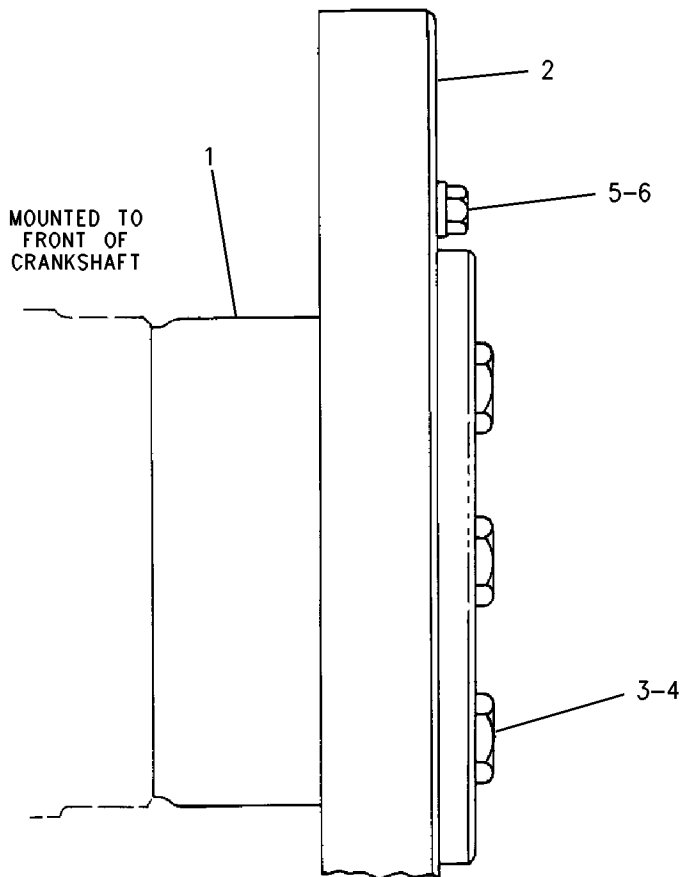
8N-7182 DAMPER GP

SMCS-1205

i02220737

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
C	1	1	7E-0854	1	ADAPTER - DAMPER						
R	2	1	193-3288	1	DAMPER AS						
	3	1	8S-4757	6	BOLT (1-14X8-IN)						
	4	1	5P-8250	6	WASHER (28X49X5-MM THK)						
	5	1	7B-3235	10	BOLT (1/2-13X1.375-IN)						
	6	1	2M-0849	10	WASHER-HARD (13.5X25.5X5-MM THK)						

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



RIGHT SIDE VIEW

GRAPHIC #1

<END>

g00995346

BASIC ENGINE

7E-7647 DRIVE GP-ACCESSORY-LOWER, LH STANDARD ROTATION

SMCS-1207

i02292418

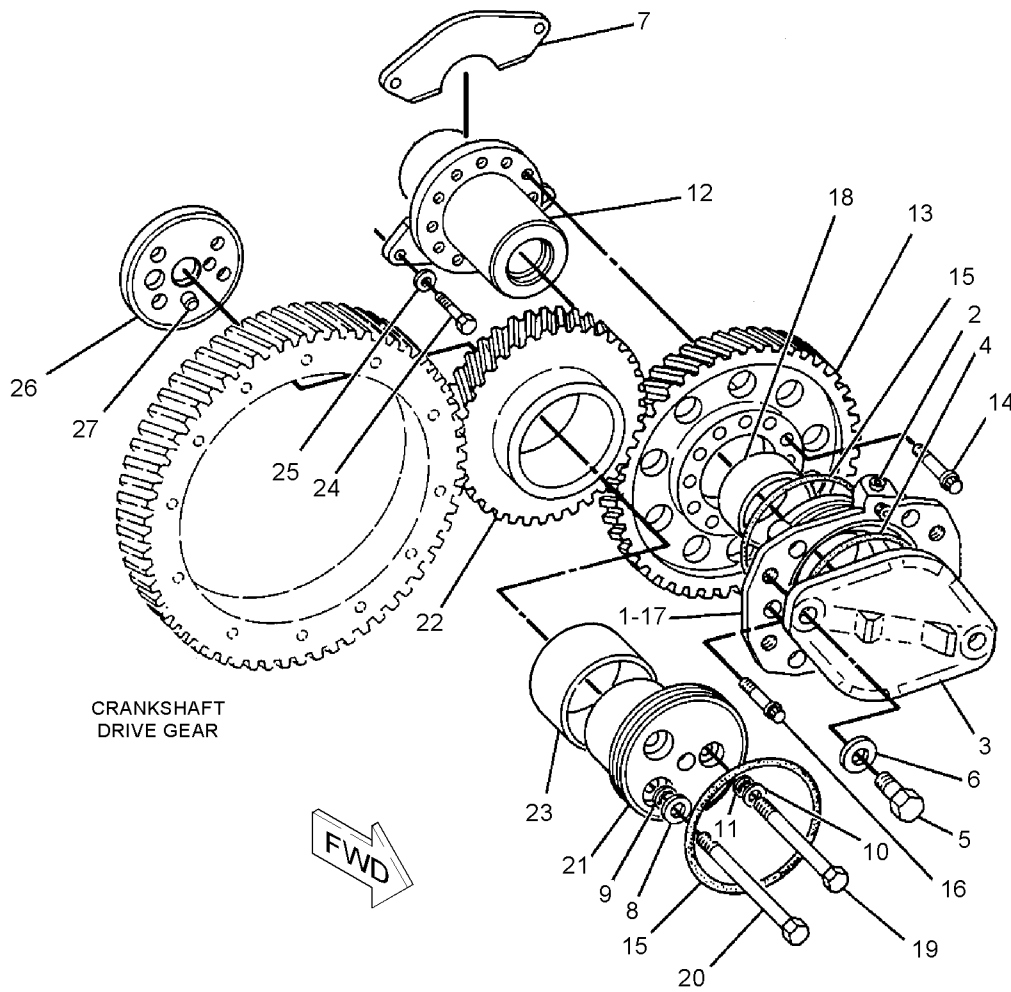
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	5P-0840	1	SEAL-O-RING						
C	2	1	8T-6759	2	PLUG-PIPE						
	3	1	7N-8374	1	COVER-PUMP						
	4	1	9X-7371	1	SEAL-O-RING						
	5	1	0S-1592	2	BOLT (5/8-11X1.25-IN)						
	6	1	5P-8247	2	WASHER-HARD (17X32X3.5-MM THK)						
	7	1	7N-7539	2	WASHER-THRUST						
	8	1	5P-8245	2	WASHER-HARD (13.5X25.5X3-MM THK)						
	9	1	5R-7137	2	WASHER-SEALING						
	10	1	5M-2894	1	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	11	1	5R-7136	1	WASHER-SEALING						
	12	1	7N-5874	1	SHAFT-AUXILIARY DRIVE						
	13	1	7E-0275	1	GEAR-WATER PUMP DRIVE (69-TEETH)						
	14	1	6K-3771	12	BOLT-12 POINT HEAD (7/16-14X1.5-IN)						
	15	1	235-3548	2	SEAL-O-RING						
	16	1	1T-0765	6	BOLT (3/8-16X1-IN)						
	17	1	8N-8210	1	ADAPTER AS						
	18	1	127-5400	1	BEARING-SLEEVE						
	19	1	0T-0055	1	BOLT (3/8-16X4.25-IN)						
	20	1	9X-8879	2	BOLT (1/2-13X5.5-IN)						
	21	1	7C-3260	1	SHAFT						
C	22	1	144-8263	1	GEAR AS-IDLER (53-TEETH)						
	23	1	140-9597	1	BEARING-SLEEVE						
	24	1	2B-2695	4	BOLT (5/16-18X0.875-IN)						
	25	1	9M-1974	4	WASHER-HARD (8.8X16X2-MM THK)						
	26	1	7C-3258	1	WASHER AS-THRUST						
	27	1	7N-2047	1	DOWEL						

C- CHANGE FROM PREVIOUS TYPE

BASIC ENGINE

7E-7647 DRIVE GP-ACCESSORY (contd.)

i02292418



GRAPHIC #1

<END>

g01148334

BASIC ENGINE

8N-5743 DRIVE GP-ACCESSORY-UPPER LH REVERSE ROTATION AN ATTACHMENT

SMCS-1207

i02292877

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	235-3548	2	SEAL-O-RING						
	2	1	6V-3348	1	SEAL-O-RING						
	3	1	7E-0275	1	GEAR-WATER PUMP DRIVE (69-TEETH)						
C	4	1	144-8263	1	GEAR AS-IDLER (53-TEETH)						
	4A	1	140-9597	1	BEARING-SLEEVE						
	5	1	5P-0840	1	SEAL-O-RING						
	6	1	7N-5874	1	SHAFT-AUXILIARY DRIVE						
	7	1	6K-3772	12	BOLT-12 POINT HEAD (7/16-14X2.25-IN)						
	8	1	7N-8374	2	COVER-PUMP						
	9	1	9M-1974	4	WASHER-HARD (8.8X16X2-MM THK)						
	10	1	8T-6757	1	PLUG-PIPE						
B	10A	1	8T-6757	1	PLUG-PIPE						
	11	1	1T-0765	6	BOLT (3/8-16X1-IN)						
	12	1	9X-7371	2	SEAL-O-RING						
	13	1	0S-1592	4	BOLT (5/8-11X1.25-IN)						
	14	1	5P-8247	4	WASHER-HARD (17X32X3.5-MM THK)						
	15	1	8N-8210	1	ADAPTER AS						
	15A	1	127-5400	1	BEARING-SLEEVE						
	16	1	2B-2695	4	BOLT (5/16-18X0.875-IN)						
	17	1	7N-7539	2	WASHER-THRUST						
	18	1	235-3546	1	SEAL-O-RING						
	19	1	0S-1594	6	BOLT (3/8-16X1-IN)						
	20	1	7N-5279	1	ADAPTER AS						
	20A	1	127-5400	1	BEARING-SLEEVE						
	22	1	7C-3260	1	SHAFT						
	23	1	7C-3258	1	WASHER AS-THRUST						
	23A	1	7N-2047	1	DOWEL						
	24	1	9X-8879	2	BOLT (1/2-13X5.5-IN)						
	25	1	0T-0055	1	BOLT (3/8-16X4.25-IN)						
C	26	1	8T-6759	2	PLUG-PIPE						
	27	1	5P-8245	2	WASHER-HARD (13.5X25.5X3-MM THK)						
	28	1	5R-7137	2	WASHER-SEALING						
	29	1	5M-2894	1	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	30	1	5R-7136	1	WASHER-SEALING						

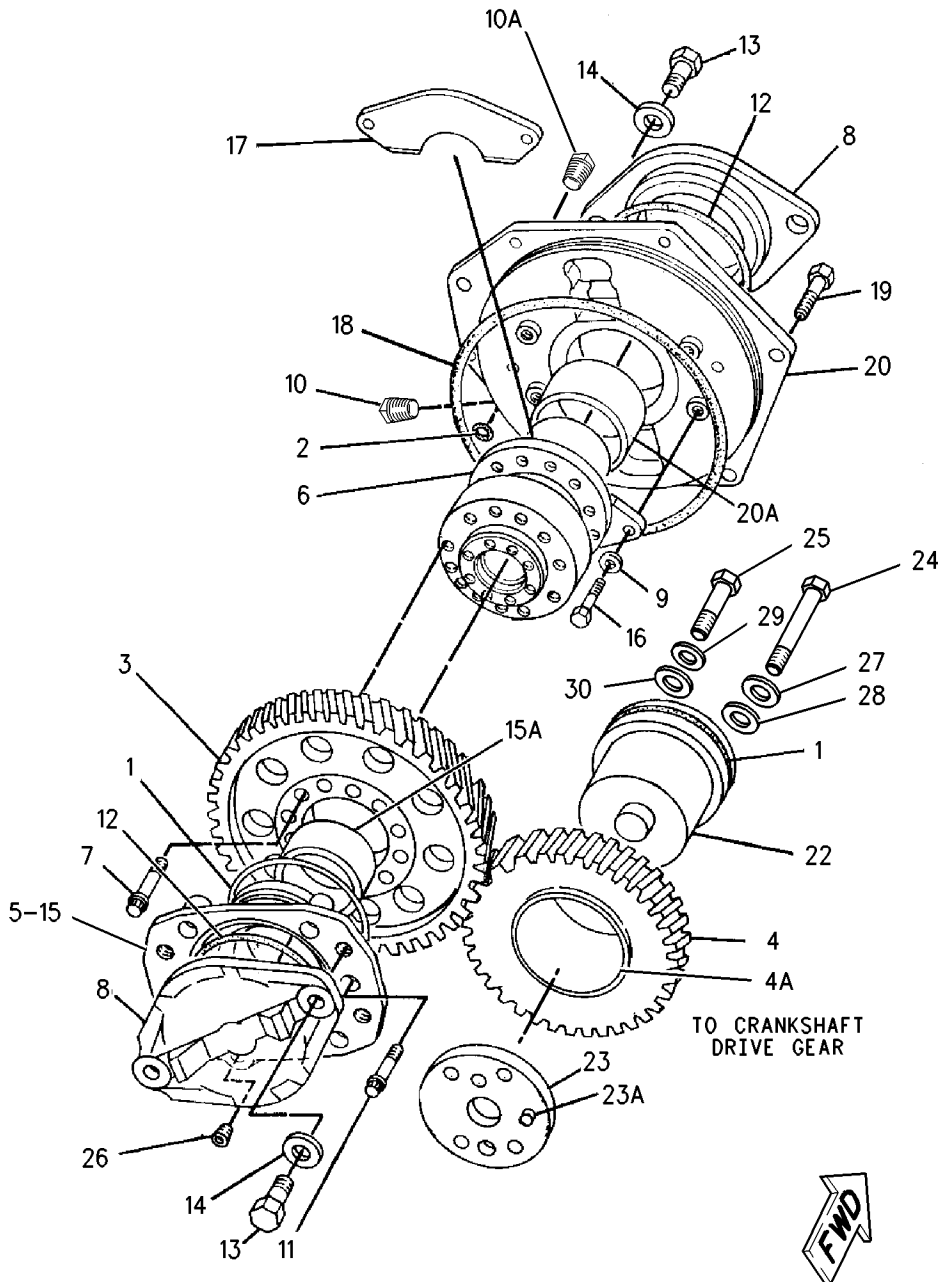
B- USE AS REQUIRED

C- CHANGE FROM PREVIOUS TYPE

BASIC ENGINE

8N-5743 DRIVE GP-ACCESSORY (contd.)

i02292877



GRAPHIC #1

<END>

g00895064

BASIC ENGINE

107-7361 DRIVE GP-ACCESSORY-UPPER, RH

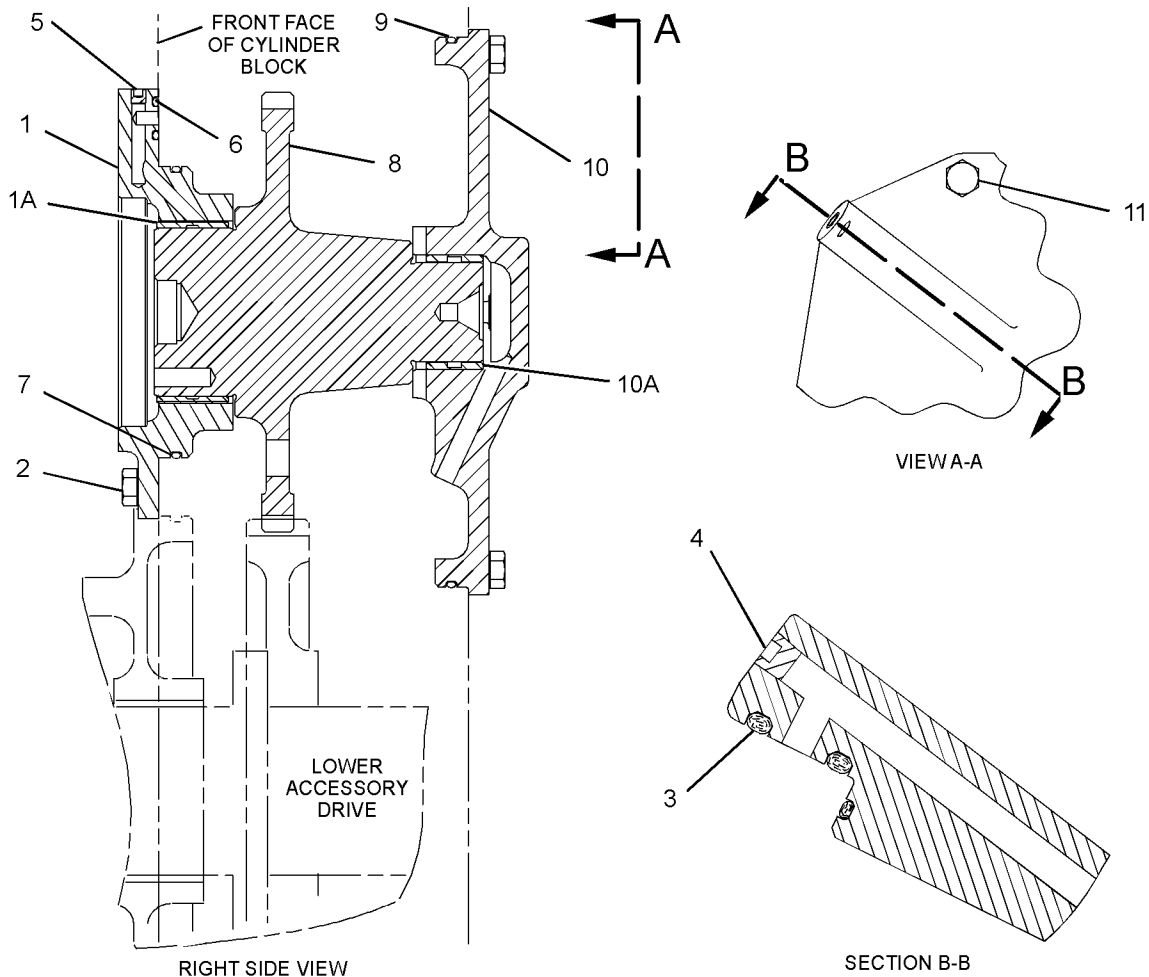
STANDARD ROTATION

CANNOT BE USED WITH MECHANICAL GOVERNOR
AN ATTACHMENT

SMCS-1207

i02686118

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7C-4165	1	ADAPTER AS						
	1A	1	7N-5244	1	BEARING-SLEEVE						
	2	1	0L-1351	4	BOLT (3/8-16X0.875-IN)						
	3	1	6V-3348	1	SEAL-O-RING						
	4	1	8T-6757	1	PLUG-PIPE						
	5	1	8T-6759	1	PLUG-PIPE						
	6	1	5P-0840	1	SEAL-O-RING						
	7	1	235-3548	1	SEAL-O-RING						
	8	1	107-0466	1	GEAR-ACCESSORY DRIVE (55-TEETH)						
	9	1	235-3546	1	SEAL-O-RING						
	10	1	107-7362	1	COVER AS						
	10A	1	2S-7056	1	BEARING-SLEEVE						
	11	1	0S-1594	6	BOLT (3/8-16X1-IN)						



GRAPHIC #1

<END>

g01351431

BASIC ENGINE

184-2445 DRIVE GP-ACCESSORY-LOWER LH

REVERSE ROTATION
FOR USE WITH ENGINES WITH SCAC PUMP
AN ATTACHMENT

SMCS-1207

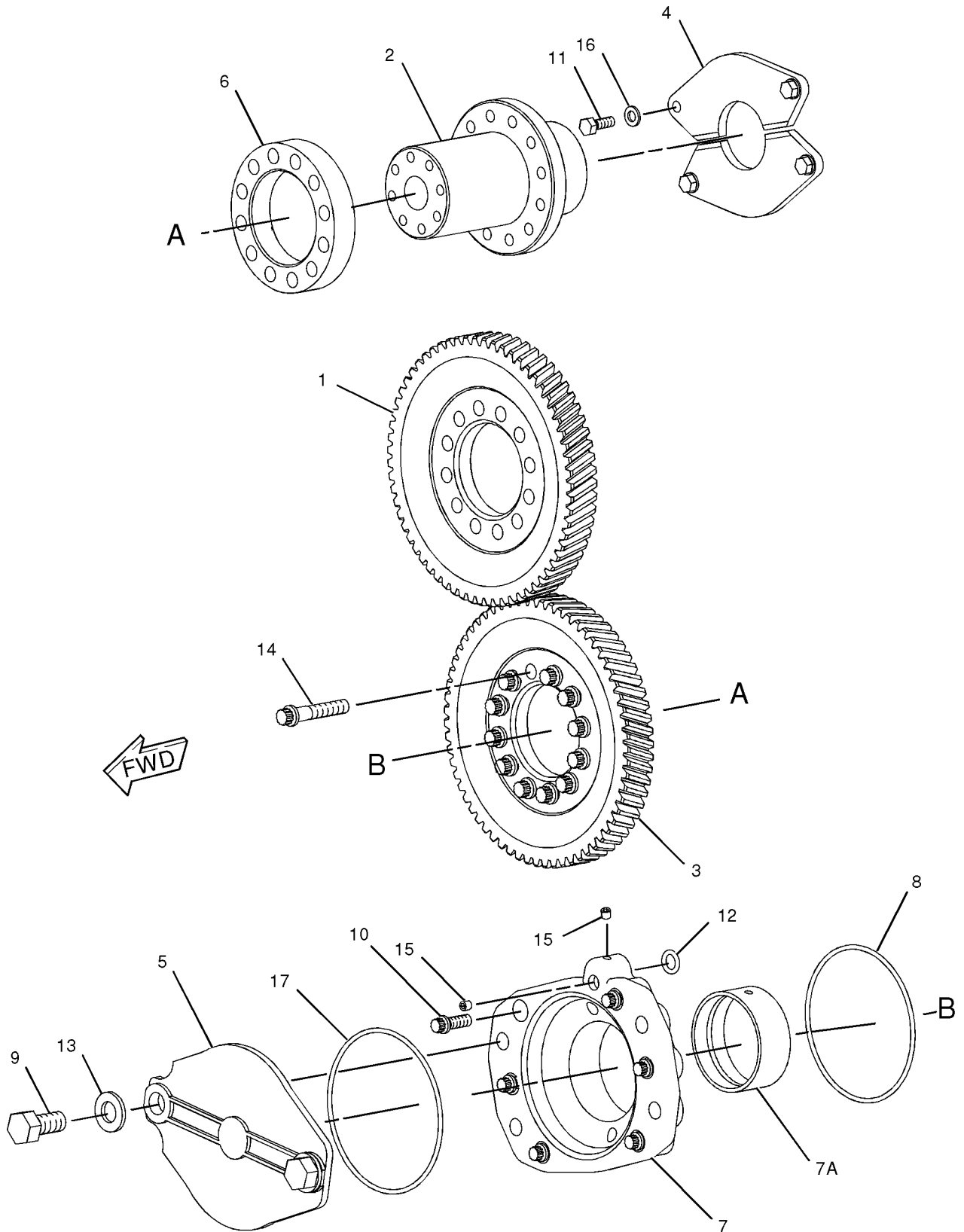
i01973890

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7N-5248	1	GEAR-AUXILIARY DRIVE (63-TEETH)						
	2	1	7N-5874	1	SHAFT-AUXILIARY DRIVE						
	3	1	7N-5875	1	GEAR-AUXILIARY DRIVE (63-TEETH)						
	4	1	7N-7539	2	WASHER-THRUST						
	5	1	7N-8374	1	COVER-PUMP						
	6	1	8N-5771	1	SPACER (76X121X22.5-MM THK)						
	7	1	8N-8210	1	ADAPTER AS						
	7A	1	127-5400	1	BEARING-SLEEVE						
	8	1	235-3548	1	SEAL-O-RING						
	9	1	0S-1592	2	BOLT (5/8-11X1.25-IN)						
	10	1	1T-0765	6	BOLT (3/8-16X1-IN)						
	11	1	2B-2695	4	BOLT (5/16-18X0.875-IN)						
	12	1	5P-0840	1	SEAL-O-RING						
	13	1	5P-8247	2	WASHER-HARD (17X32X3.5-MM THK)						
	14	1	6K-3772	12	BOLT-12 POINT HEAD (7/16-14X2.25-IN)						
	15	1	8T-6759	2	PLUG-PIPE						
	16	1	9M-1974	4	WASHER-HARD (8.8X16X2-MM THK)						
	17	1	9X-7371	1	SEAL-O-RING						

BASIC ENGINE

184-2445 DRIVE GP-ACCESSORY (contd.)

i01973890



GRAPHIC #1

<END>

g01024470

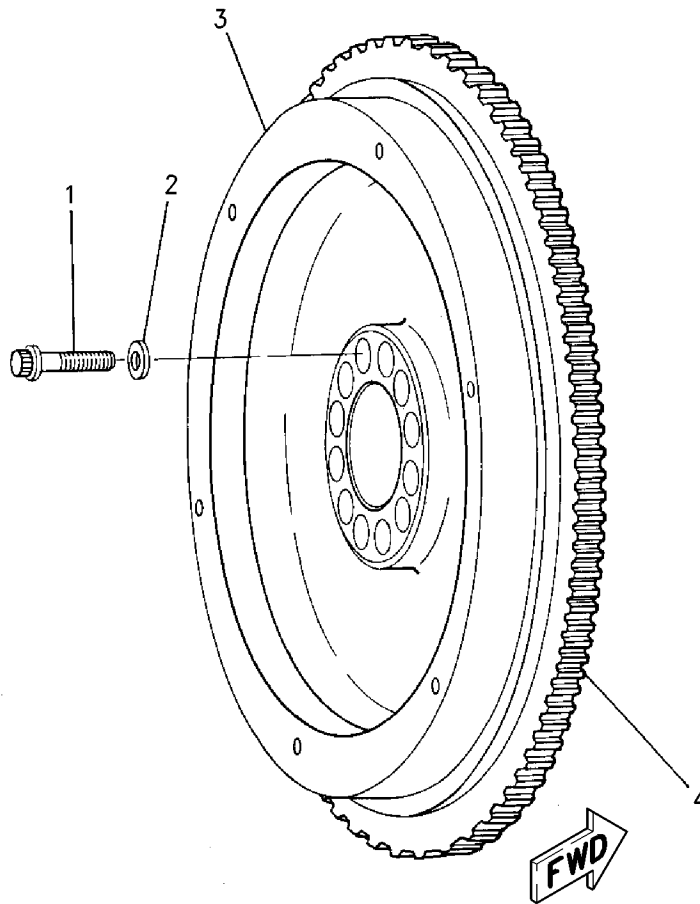
BASIC ENGINE

7N-7784 FLYWHEEL GP FOR USE WITH SAE 0 FLYWHEEL HOUSING

SMCS-1156

i01909815

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9S-8893	12	BOLT-12 POINT HEAD (1-14X101.6MM)						
	2	1	5P-8839	12	WASHER-HARD (28X42X4MM THK)						
	3	1	7N-7732	1	FLYWHEEL AS						
	4	1	8N-0896	1	GEAR (151 TEETH)						



GRAPHIC #1

<END>

g00995207

BASIC ENGINE

8N-5768 GEAR GP-FRONT-RH REVERSE ROTATION, HIGH SPEED PART OF 116-6893 CONVERSION AR-CRANK ROTATION AN ATTACHMENT

SMCS-1151, 1162, 1206

i02405458

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2W-2895	1	GEAR-CRANKSHAFT (92-TEETH)						
	2	1	5R-7136	1	WASHER-SEALING						
	3	1	5R-7137	2	WASHER-SEALING						
	4	1	7C-3258	1	WASHER AS-THRUST						
	4A	1	7N-2047	1	DOWEL						
	5	1	7C-3260	1	SHAFT						
	6	2	7C-4165	1	ADAPTER AS						
	6A	2	127-5400	1	BEARING-SLEEVE						
	8	2	7E-0275	1	GEAR-WATER PUMP DRIVE (69-TEETH)						
	9	2	7J-8114	1	GASKET						
	10	2	7N-5239	1	SHAFT AS-PUMP DRIVE						
	10A	2	8T-2153	1	SETSCREW-SOCKET (1/4-28X0.31-IN)						
	11	2	7N-5245	1	ADAPTER AS-PUMP						
	11A	2	127-5400	1	BEARING-SLEEVE						
	12	2	7N-5246	2	WASHER-THRUST						
	13	2	7N-5248	1	GEAR-AUXILIARY DRIVE (63-TEETH)						
	14	2	278-4287	1	ADAPTER AS-PUMP						
	14A	2	127-5400	1	BEARING-SLEEVE						
	15	2	7N-5279	1	ADAPTER AS						
	15A	2	127-5400	1	BEARING-SLEEVE						
	16	2	7N-5874	1	SHAFT-AUXILIARY DRIVE						
	17	2	7N-5875	1	GEAR-AUXILIARY DRIVE (63-TEETH)						
	18	2	7N-7539	2	WASHER-THRUST						
	19	2	8N-5771	1	SPACER (76X121X22.5-MM THK)						
	20	2	8P-1438	1	COVER						
C	21	1	144-8263	1	GEAR AS-IDLER (53-TEETH)						
	21A	1	140-9597	1	BEARING-SLEEVE						
	22	2	0L-1351	4	BOLT (3/8-16X0.875-IN)						
	23	2	0S-1590	5	BOLT (3/8-16X2-IN)						
	24	2	0S-1594	8	BOLT (3/8-16X1-IN)						
	25	2	0S-1595	2	BOLT (1/2-13X1.25-IN)						
	26	1	0T-0055	1	BOLT (3/8-16X4.25-IN)						
	27	2	235-3546	2	SEAL-O-RING						
	28	2	2B-2695	4	BOLT (5/16-18X0.875-IN)						
	29	2	5P-0840	1	SEAL-O-RING						
	30	2	6V-3348	2	SEAL-O-RING						
	31	1	3S-1307	12	BOLT-12 POINT HEAD (3/8-16X2-IN)						
	32	2	4B-3388	4	BOLT (5/16-18X1.125-IN)						
	33	1,2	5M-2894	6	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	34	1,2	5P-8245	4	WASHER-HARD (13.5X25.5X3-MM THK)						
	35	2	6K-3772	24	BOLT-12 POINT HEAD (7/16-14X2.25-IN)						
	36	1,2	235-3548	3	SEAL-O-RING						
	37	2	8T-6757	1	PLUG-PIPE						
C	38	2	8T-6759	1	PLUG-PIPE						
	39	2	9M-1974	8	WASHER-HARD (8.8X16X2-MM THK)						
	40	1	9X-8879	2	BOLT (1/2-13X5.5-IN)						
B	41	2	8T-6757	1	PLUG-PIPE						

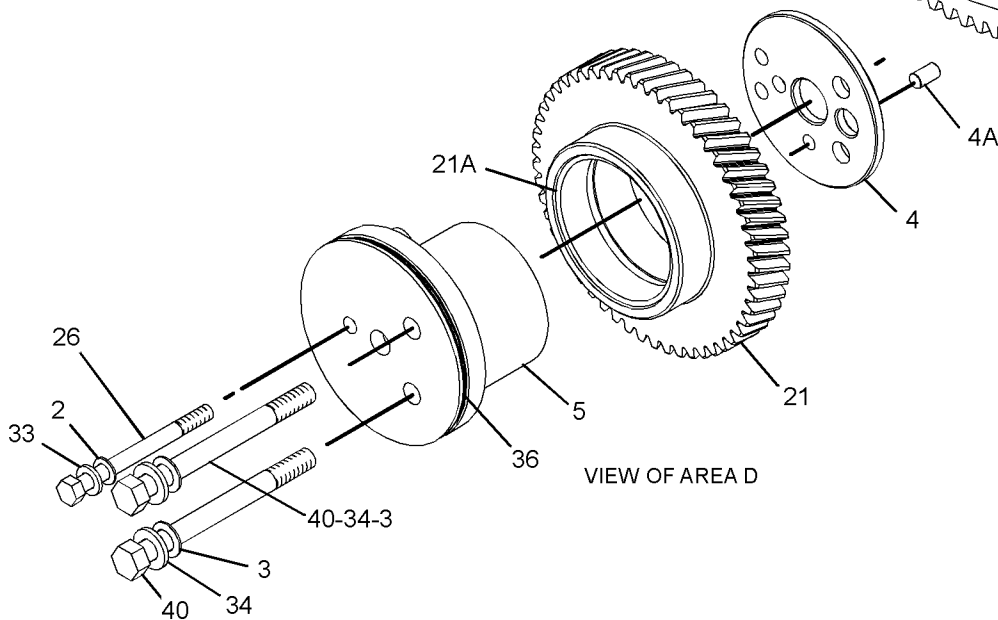
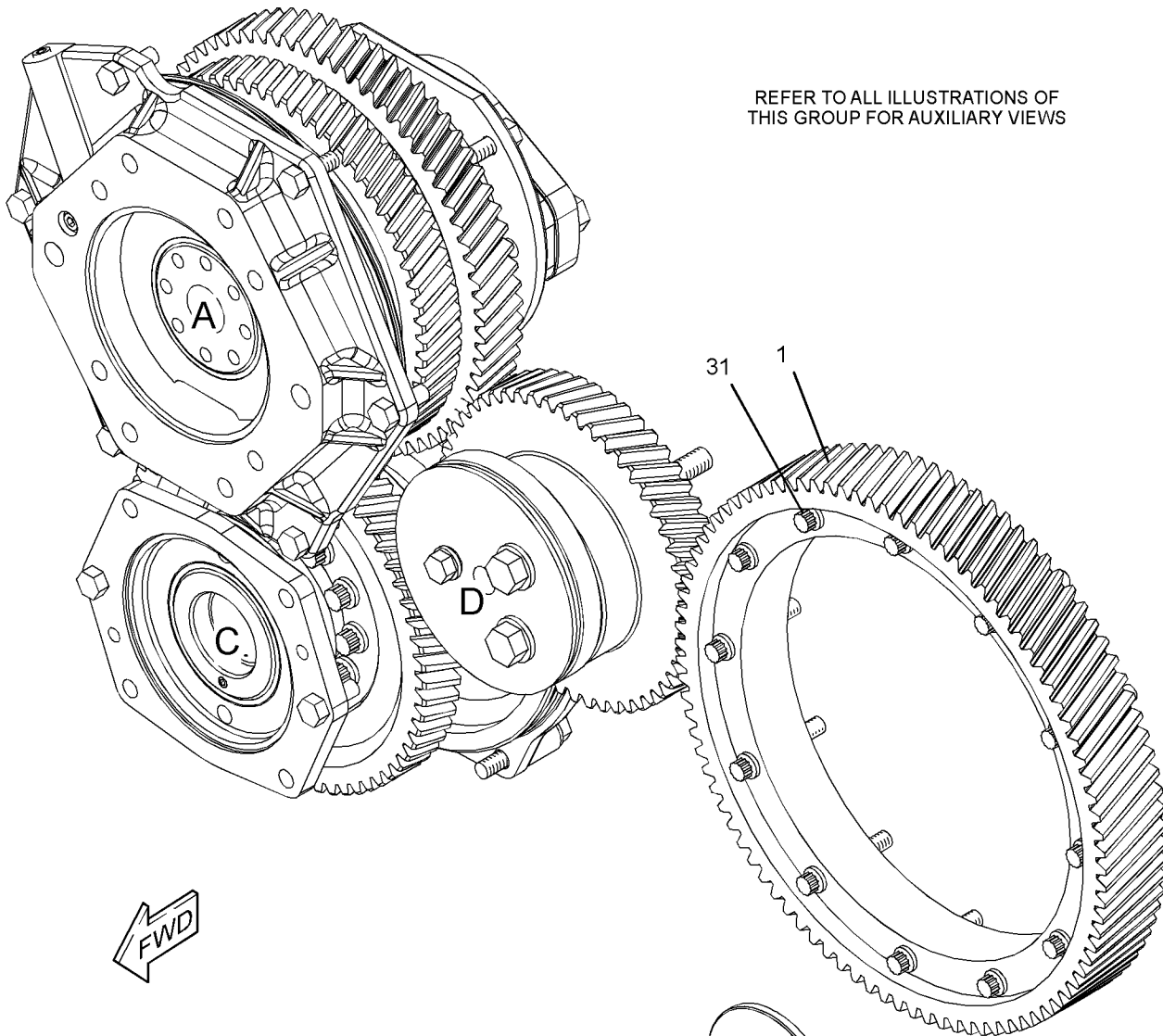
B- USE AS REQUIRED

C- CHANGE FROM PREVIOUS TYPE

BASIC ENGINE

8N-5768 GEAR GP - FRONT (contd.)

i02405458



GRAPHIC #1

g01202635

BASIC ENGINE

8N-7174 GEAR GP - FRONT - STANDARD ROTATION

SMCS-1151, 1162, 1206

i02405456

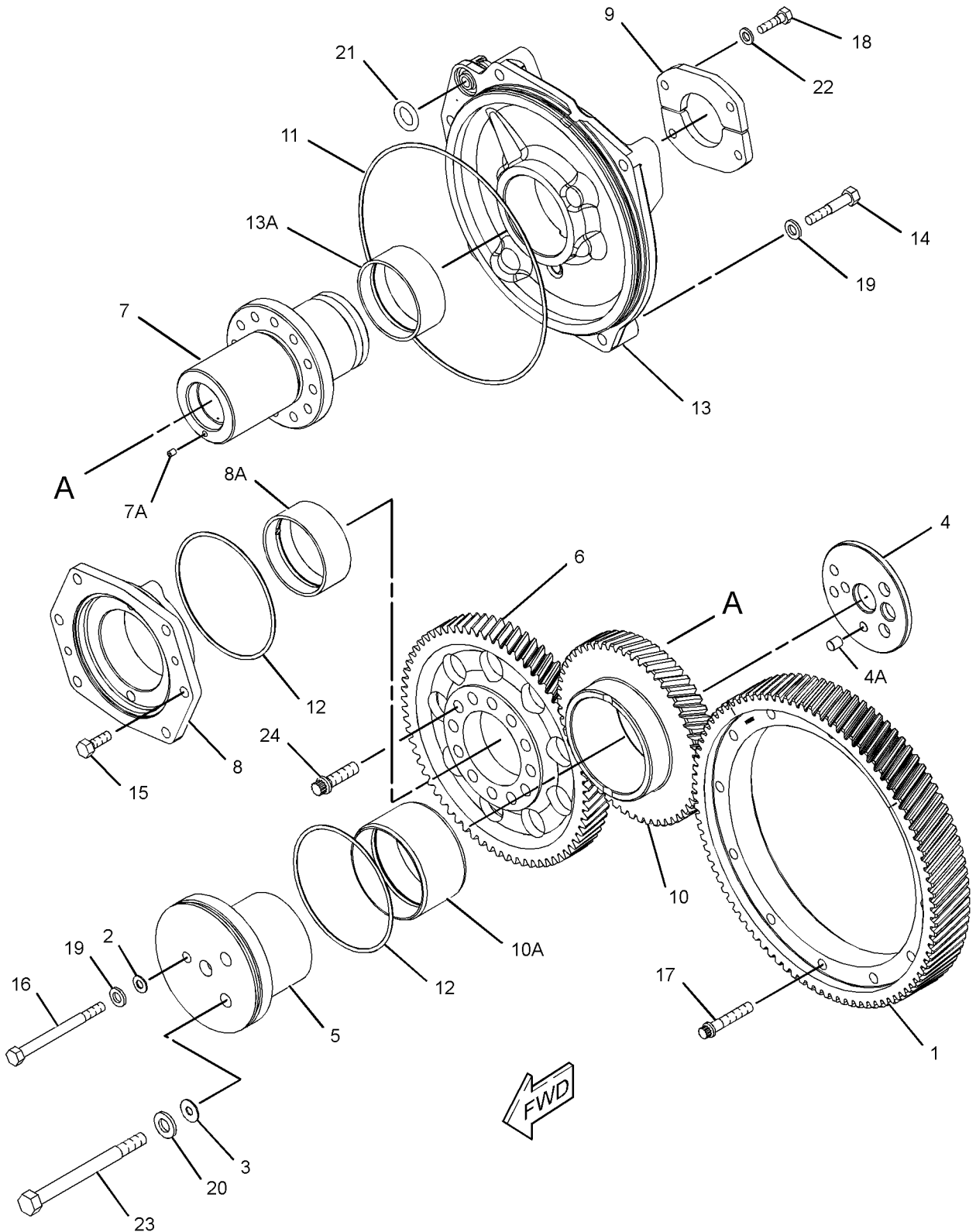
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2W-2895	1	GEAR-CRANKSHAFT (92-TEETH)						
	2	1	5R-7136	1	WASHER-SEALING						
	3	1	5R-7137	2	WASHER-SEALING						
	4	1	7C-3258	1	WASHER AS-THRUST						
	4A	1	7N-2047	1	DOWEL						
	5	1	7C-3260	1	SHAFT						
	6	1	7E-0275	1	GEAR-WATER PUMP DRIVE (69-TEETH)						
	7	1	7N-5239	1	SHAFT AS-PUMP DRIVE						
	7A	1	8T-2153	1	SETSCREW-SOCKET (1/4-28X0.31-IN)						
	8	1	7N-5245	1	ADAPTER AS-PUMP (WATER)						
	8A	1	127-5400	1	BEARING-SLEEVE						
	9	1	7N-5246	2	WASHER-THRUST						
C	10	1	144-8263	1	GEAR AS-IDLER (53-TEETH)						
	10A	1	140-9597	1	BEARING-SLEEVE						
	11	1	235-3546	1	SEAL-O-RING						
	12	1	235-3548	2	SEAL-O-RING						
	13	1	278-4287	1	ADAPTER AS-PUMP (OIL)						
	13A	1	127-5400	1	BEARING-SLEEVE						
	14	1	0S-1590	5	BOLT (3/8-16X2-IN)						
	15	1	0S-1594	2	BOLT (3/8-16X1-IN)						
	16	1	0T-0055	1	BOLT (3/8-16X4.25-IN)						
	17	1	3S-1307	12	BOLT-12 POINT HEAD (3/8-16X2-IN)						
	18	1	4B-3388	4	BOLT (5/16-18X1.125-IN)						
	19	1	5M-2894	6	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	20	1	5P-8245	2	WASHER-HARD (13.5X25.5X3-MM THK)						
	21	1	6V-3348	1	SEAL-O-RING						
	22	1	9M-1974	4	WASHER-HARD (8.8X16X2-MM THK)						
	23	1	9X-8879	2	BOLT (1/2-13X5.5-IN)						
BC	24	1	6K-3771	12	BOLT-12 POINT HEAD (7/16-14X1.5-IN)						

B- USE AS REQUIRED
C- CHANGE FROM PREVIOUS TYPE

BASIC ENGINE

8N-7174 GEAR GP - FRONT (contd.)

i02405456



GRAPHIC #1

<END>

g01202529

BASIC ENGINE

101-0834 GEAR GP - REAR

SMCS - 1204

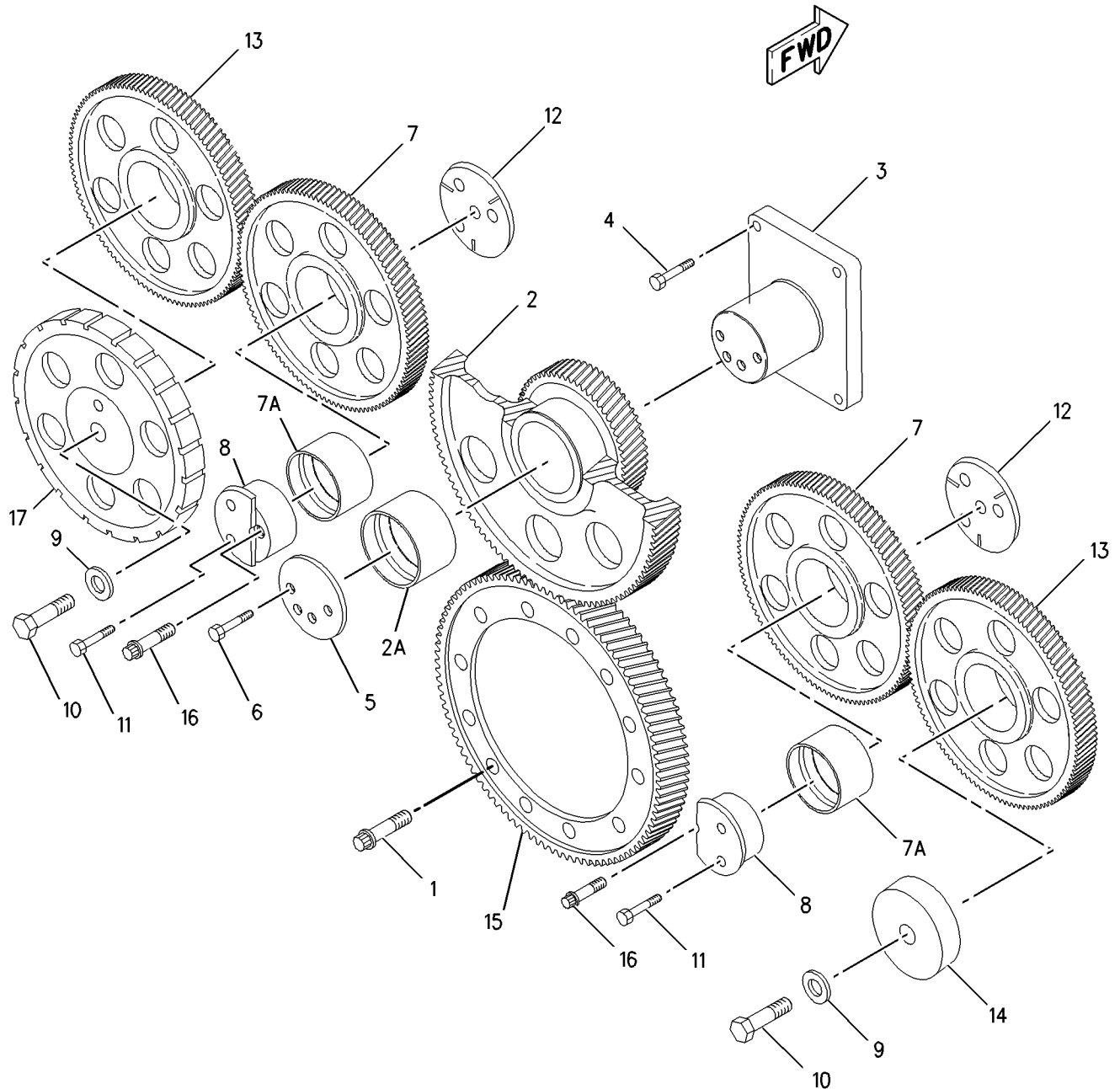
i01980071

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	3S-1307	12	BOLT-12 POINT HEAD (3/8-16X2 IN)						
	2	1	101-1363	1	GEAR AS-BALANCER (92/35 TEETH) (CLUSTER IDLER - REAR)						
	2A	1	101-1372	1	BEARING-SLEEVE						
	3	1	101-1366	1	SHAFT-GEAR (CLUSTER)						
	4	1	8M-2530	4	BOLT-12 POINT HEAD (1/2-13X1.25 IN)						
	5	1	101-1365	1	PLATE-THRUST						
	6	1	0L-1351	4	BOLT (3/8-16X0.875 IN)						
	7	1	101-1364	2	GEAR AS-IDLER (69 TEETH) (EACH INCLUDES)						
	7A	1	125-9751	1	BEARING-SLEEVE						
	8	1	101-1367	2	SHAFT-IDLER						
	9	1	5P-8248	2	WASHER-HARD (20X36.5X3.5MM THK)						
	10	1	9X-8887	2	BOLT (3/4-10X3 IN)						
	11	1	1B-4367	4	BOLT (5/8-11X3 IN)						
	12	1	101-1368	2	WASHER-THRUST (19.50 X 106 X 1.9MM THK)						
	13	1	101-1369	2	GEAR-CAMSHAFT DRIVE (70 TEETH)						
	14	1	4W-4586	1	PLATE						
	15	1	101-1370	1	GEAR-CRANKSHAFT (92 TEETH)						
	16	1	8S-2331	2	BOLT-12 POINT HEAD (5/8-11 X 2 IN)						
	17	1	7E-5324	1	RING						

BASIC ENGINE

101-0834 GEAR GP - REAR (contd.)

i01980071



GRAPHIC #1

<END>

g00662923

BASIC ENGINE

116-6905 GEAR GP - REAR-REVERSE ROTATION

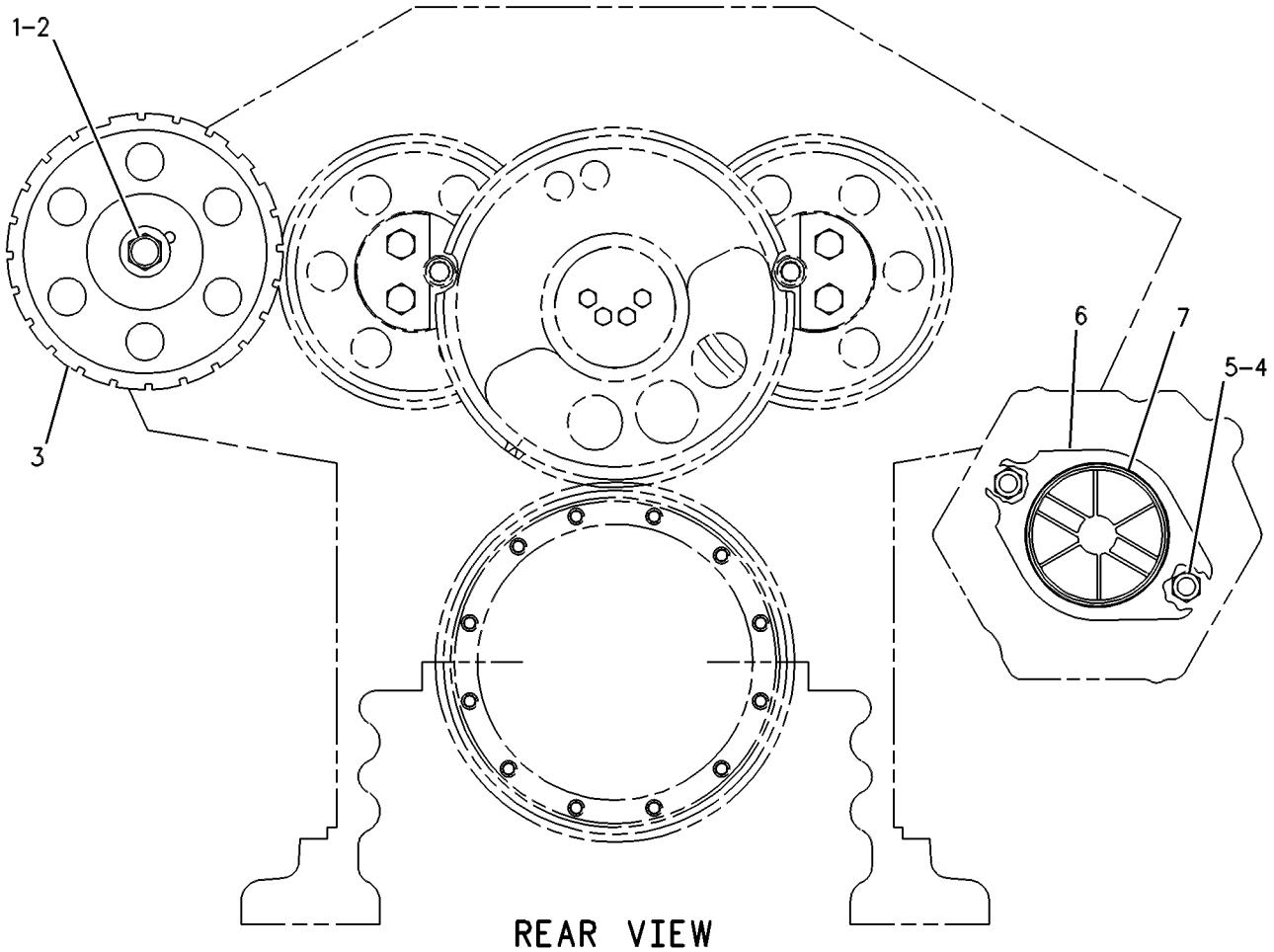
PART OF 116-6893 CONVERSION AR-CRANK ROTATION

CANNOT BE USED WITH 3516 LONG STROKE
AN ATTACHMENT

SMCS-1204

i01958144

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	5P-8248	1	WASHER-HARD (20X36.5X3.5-MM THK)						
	2	1	9X-8887	1	BOLT (3/4-10X3-IN)						
	3	1	113-4649	1	RING						
	4	1	5P-8247	2	WASHER-HARD (17X32X3.5-MM THK)						
	5	1	0S-1592	2	BOLT (5/8-11X1.25-IN)						
	6	1	7N-8374	1	COVER-PUMP						
	7	1	9X-7371	1	SEAL-O-RING						



GRAPHIC #1

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g00249076

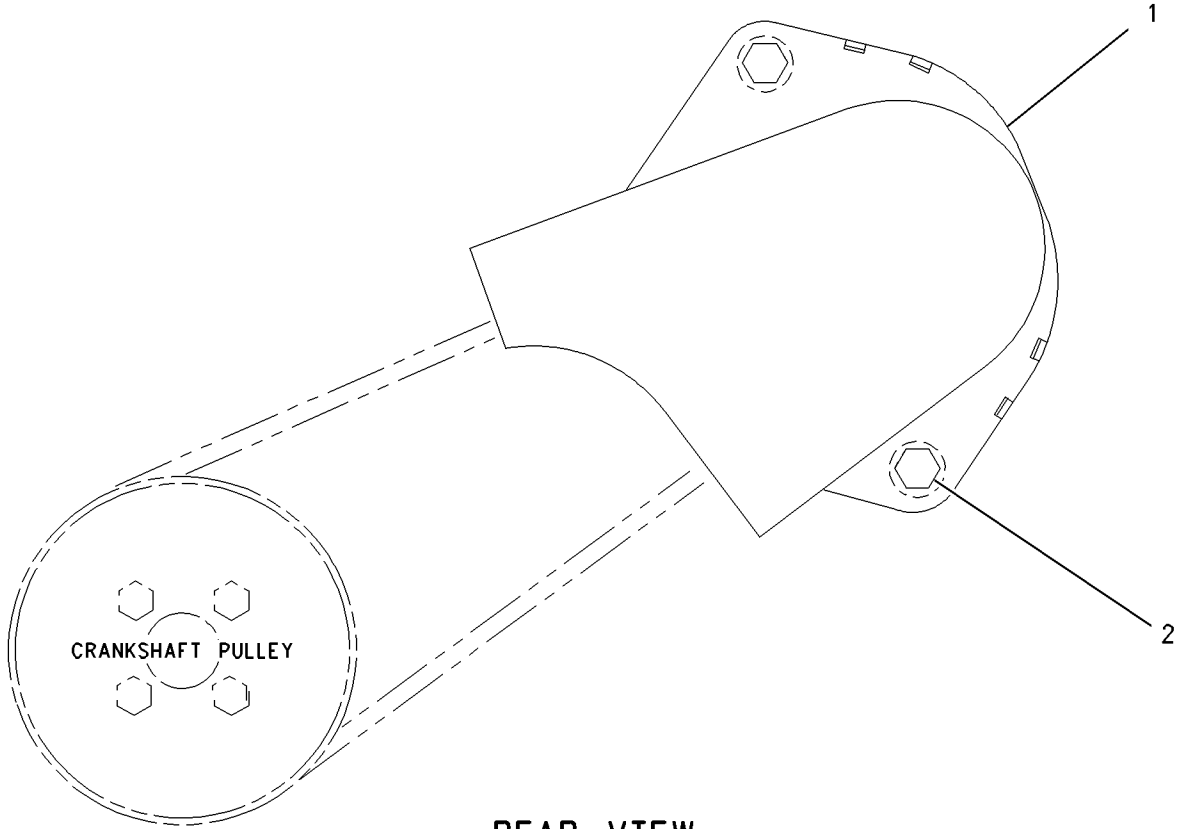
BASIC ENGINE

7W-5780 GUARD GP - BELT-ALTERNATOR AN ATTACHMENT

SMCS-7174

i02562778

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	288-6174	1	GUARD AS-ALTERNATOR						
	2	1	278-0535	2	SPACER (13.87X21.34X11-MM THK)						



REAR VIEW

GRAPHIC #1

<END>

g00899240

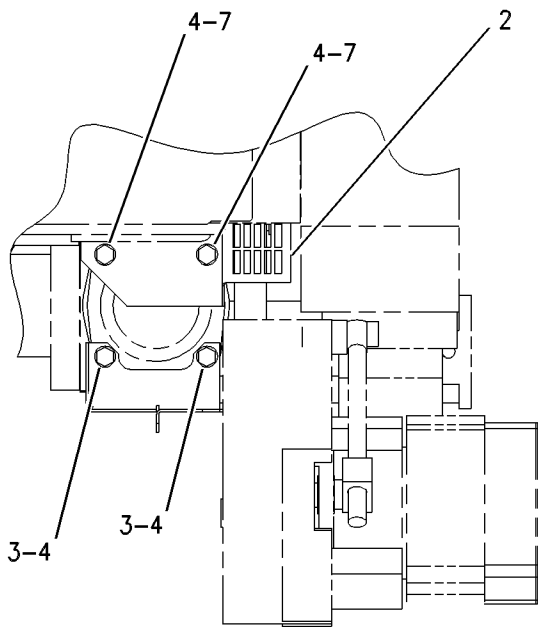
BASIC ENGINE

151-9229 GUARD GP - BELT-ALTERNATOR AN ATTACHMENT

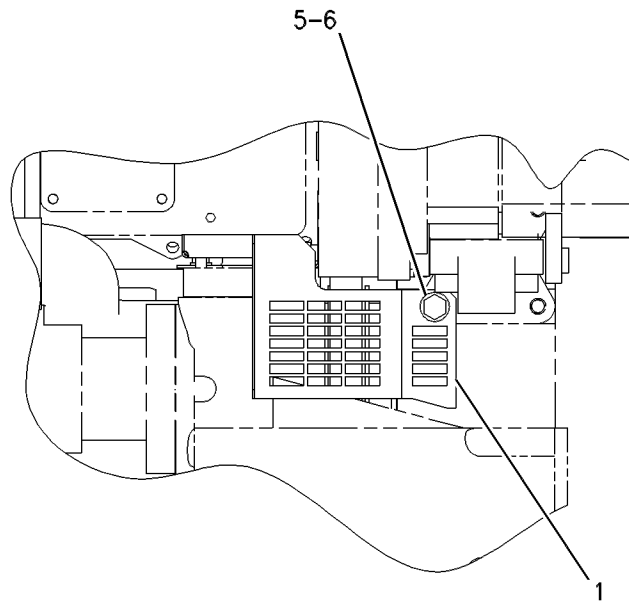
SMCS-7174

i01499571

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	171-1359	1	GUARD AS-BELT						
	2	1	171-1360	1	GUARD-BELT						
	3	1	8T-2501	2	BOLT (3/8-16X2-IN)						
	4	1	8T-4896	4	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	5	1	5P-2566	1	BOLT (1/2-13X1.5-IN)						
	6	1	8T-4223	1	WASHER-HARD (13.5X25.5X3-MM THK)						
	7	1	8T-2502	2	BOLT (3/8-16X1.125-IN)						



TOP VIEW



RIGHT SIDE VIEW

GRAPHIC #1

<END>

g00323272

BASIC ENGINE

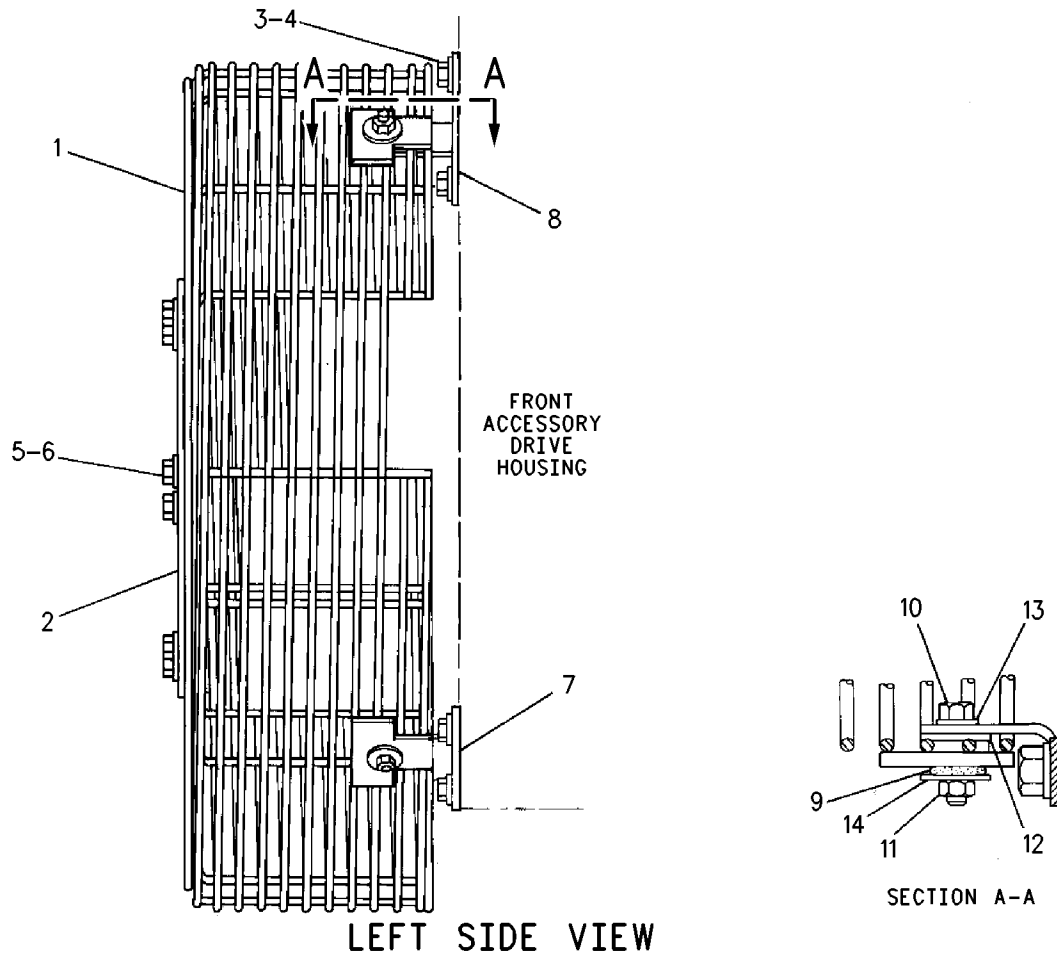
8N-9639 GUARD GP-DAMPER FOR USE WITH FRONT ACCESSORY DRIVE HOUSING AN ATTACHMENT

SMCS-1205

i02139071

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1W-4923	1	DAMPER & GUARD AS						
		1	1V-8638	6	NUT (3/8-16 THD)						
	2	1	8J-8919	1	COVER						
	3	1	0S-1621	8	BOLT (1/2-13X1-IN)						
	4	1	5P-8245	8	WASHER-HARD (13.5X25.5X3-MM THK)						
	5	1	030-8535	6	BOLT-LOCKING (3/8-16X0.875-IN)						
	6	1	5P-1075	6	WASHER-HARD (10.2X22.5X3-MM THK)						
C	7	1	7W-3031	2	BRACKET						
C	8	1	7W-3032	2	BRACKET						
C	9	1	1P-7115	4	GROMMET AS						
C	10	1	0S-1591	4	BOLT (3/8-16X1.5-IN)						
C	11	1	9S-8752	4	NUT-FULL (3/8-16-THD)						
C	12	1	3F-1417	4	WASHER (10.3X30.2X3-MM THK)						
C	13	1	5M-2894	4	WASHER-HARD (10.2X18.5X2.5-MM THK)						
C	14	1	9L-9132	4	WASHER (10.2X25.5X2.5-MM THK)						

C- CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

<END>

g00908882

BASIC ENGINE

107-7177 HOUSING GP - FLYWHEEL

FOR USE WITH SAE "0" FLYWHEEL

SMCS-1157

i02274457

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
C	1	1	222-9933	1	HOUSING AS - FLYWHEEL						
		1	7N-2047	3	DOWEL						
	2	1	1D-4574	6	BOLT (1/2-13X6-IN)						
	3	1	1D-4593	12	BOLT (5/8-11X5.5-IN)						
	4	1	1D-4597	2	BOLT (5/8-11X6.5-IN)						
	5	1	1D-4602	2	BOLT (5/8-11X9.5-IN)						
	6	1	3K-0360	2	SEAL-O-RING						
	7	1	5P-8245	18	WASHER-HARD (13.5X25.5X3-MM THK)						
	8	1	5P-8247	16	WASHER-HARD (17X32X3.5-MM THK)						
	9	1	8T-6765	1	PLUG-PIPE						
	10	1	9S-4185	2	PLUG-O-RING						
	11	1	9X-8873	8	BOLT (1/2-13X2.25-IN)						
B	12	1	9X-8874	2	BOLT (1/2-13X3-IN)						
	13	1	9X-8878	4	BOLT (1/2-13X5.25-IN)						
B	14	1	5P-8245	2	WASHER-HARD (13.5X25.5X3-MM THK)						

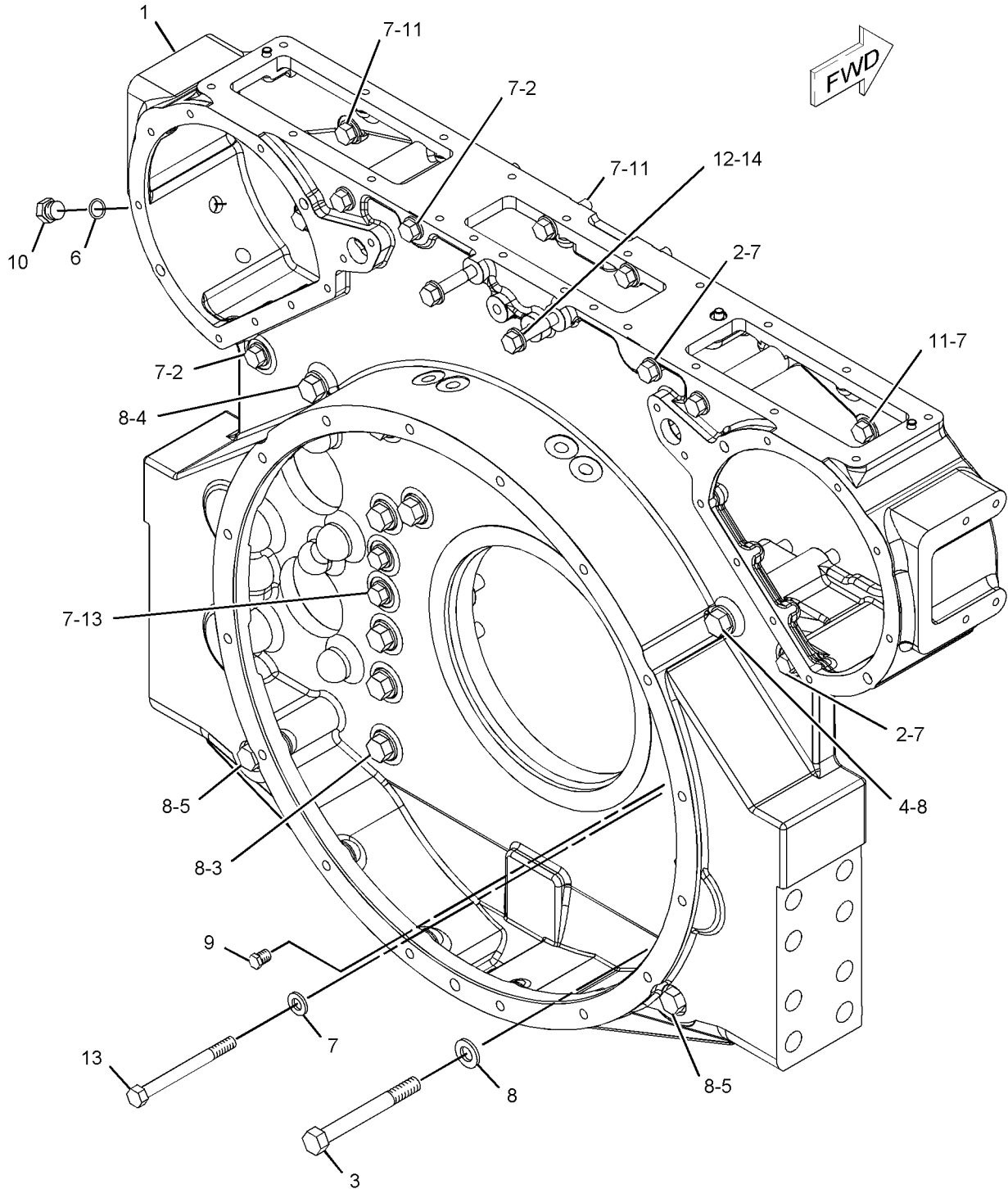
B - USE AS REQUIRED

C - CHANGE FROM PREVIOUS TYPE

BASIC ENGINE

107-7177 HOUSING GP - FLYWHEEL (contd.)

i02274457



GRAPHIC #1

<END>

g01148940

BASIC ENGINE

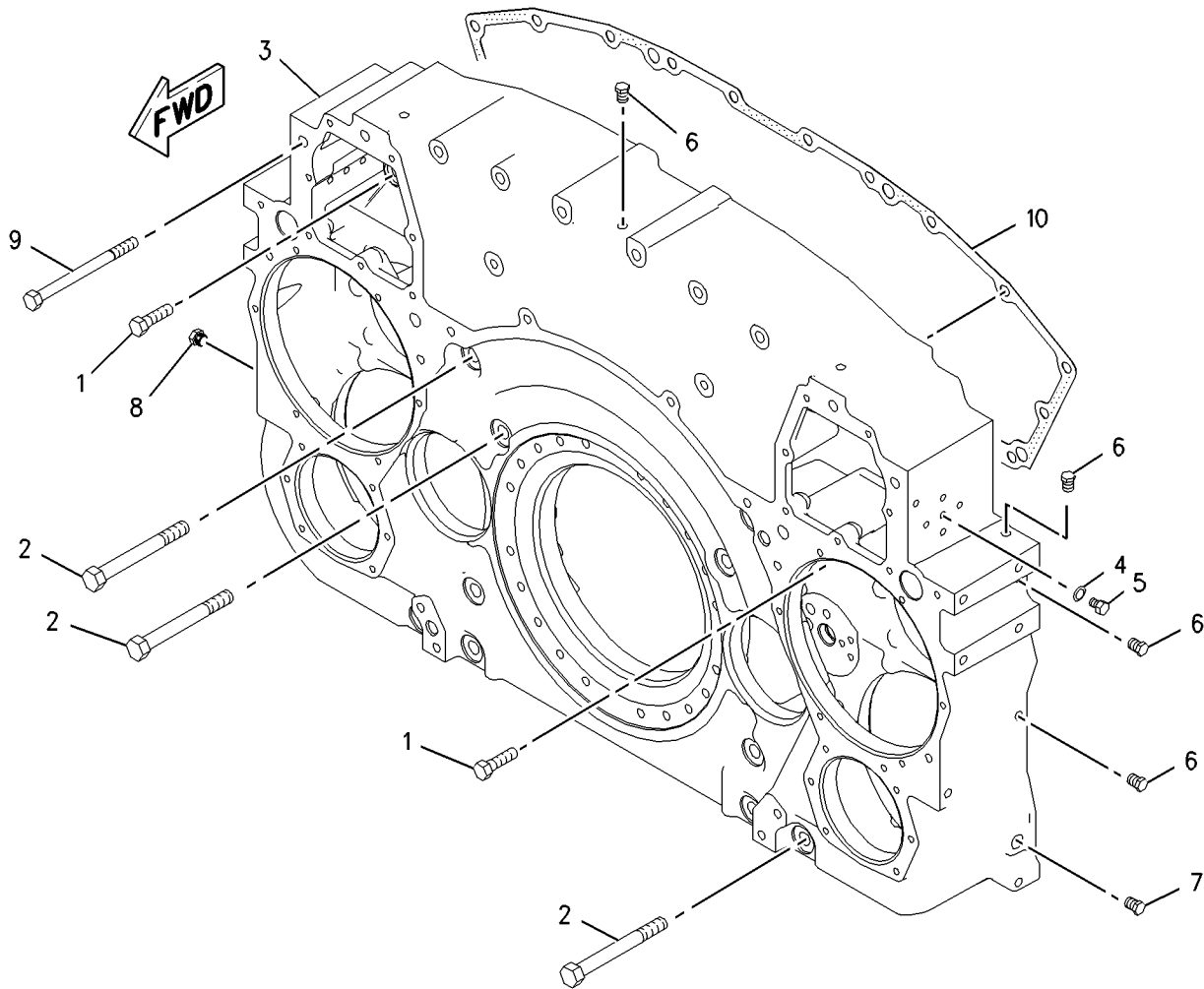
4P-5426 HOUSING GP-FRONT

SMCS-1151, 1162, 1206

i02430692

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1587	4	BOLT (1/2-13X1.75-IN)						
	2	1	1D-4593	10	BOLT (5/8-11X5.5-IN)						
	3	1	102-8634	1	HOUSING-ACCESSORY DRIVE						
	4	1	1B-4218	6	WASHER (0.39X0.625X0.064-IN THK)						
	5	1	2A-5220	6	PLUG-DRAIN (FRONT HOUSING)						
B	6	1	8T-6765	7	PLUG-PIPE						
	7	1	8T-6762	1	PLUG-PIPE						
	8	1	8T-6758	1	PLUG-PIPE						
	9	1	9H-8260	4	BOLT (1/2-13X6.25-IN)						
	10	1	7N-3049	1	GASKET						

B- USE AS REQUIRED



GRAPHIC #1

<END>

g00995169

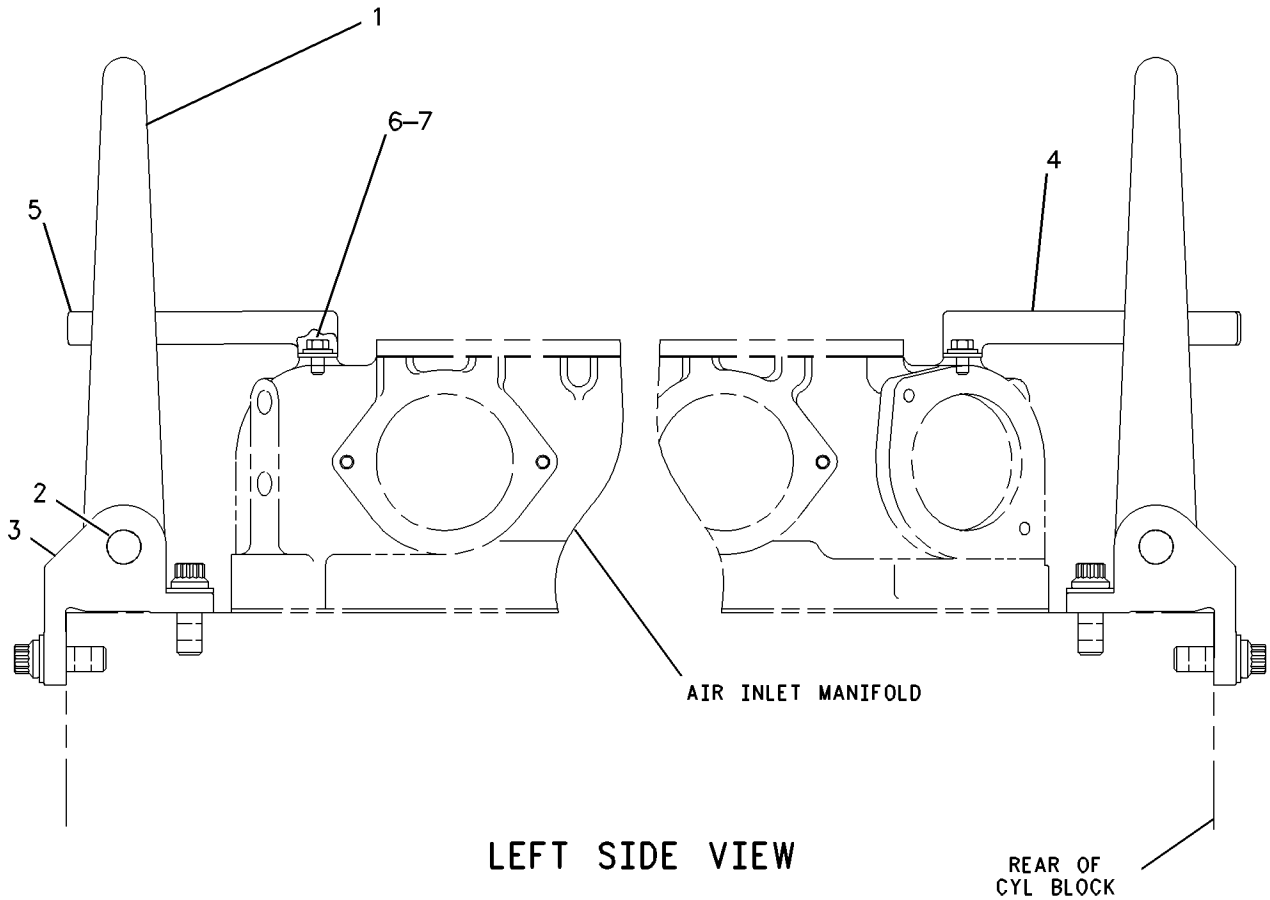
BASIC ENGINE

7E-6872 LIFTING GP-ENGINE

SMCS-1122

i02327558

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7N-2326	2	EYE-LIFTING						
	2	1	7N-2328	4	DOWEL						
	3	1	155-0726	2	BRACKET AS						
	4	1	193-3286	1	RETAINER-EYE (REAR)						
	5	1	4P-4642	1	RETAINER-EYE (FRONT)						
	6	1	0S-0509	4	BOLT (3/8-16X0.75-IN)						
	7	1	5P-1075	4	WASHER-HARD (10.2X22.5X3-MM THK)						



GRAPHIC #1

<END>

g00799817

BASIC ENGINE

7E-4836 MOUNTING GP-ALTERNATOR AN ATTACHMENT

SMCS-1154, 1405

i02188088

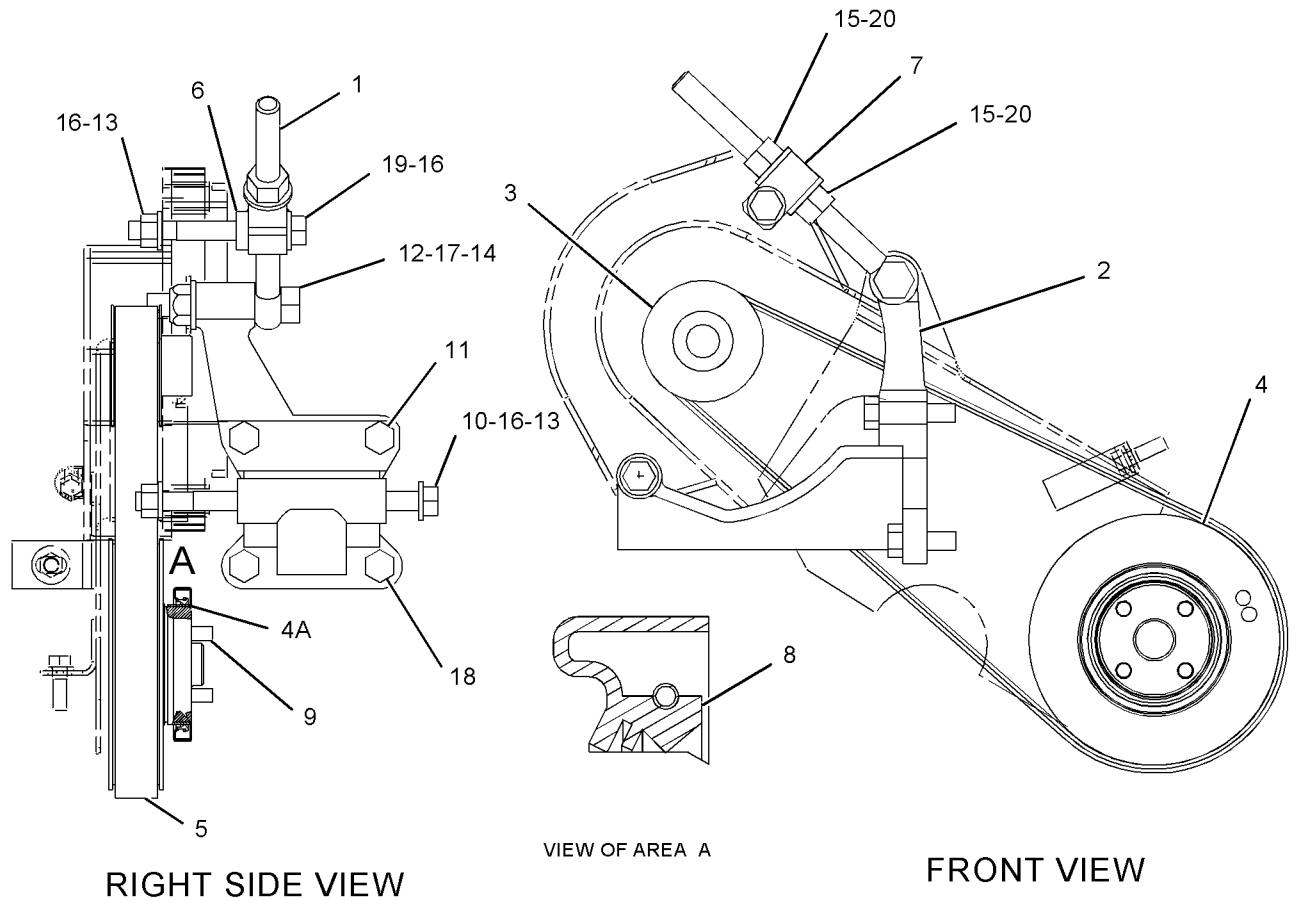
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
C	1	1	252-6498	1	ROD						
	2	1	4P-5211	1	SUPPORT-ALTERNATOR						
	3	1	7E-4839	1	PULLEY						
	4	1	7E-4838	1	PULLEY						
	4A	1	053-5065	1	SLEEVE						
	5	1	141-7116	1	BELT-SERPENTINE (ALTERNATOR)						
	6	1	7N-2597	1	SPACER (13.5X25.4X8.08-MM THK)						
C	7	1	252-6464	1	BLOCK						
	8	1	235-2484	1	SEAL-LIP TYPE						
	9	1	0S-1571	4	BOLT (3/8-16X1.75-IN)						
	10	1	1A-0168	1	BOLT (1/2-13X7.5-IN)						
	11	1	1A-1460	2	BOLT (1/2-13X2-IN)						
	12	1	1D-4586	1	BOLT (5/8-11X3.5-IN)						
	13	1	1F-7958	2	NUT-FULL (1/2-13-THD)						
	14	1	3K-2889	1	LOCKNUT (5/8-11-THD)						
C	15	1	2J-3506	2	NUT-FULL (3/4-10-THD)						
	16	1	5P-8245	4	WASHER-HARD (13.5X25.5X3-MM THK)						
C	17	1	5P-8247	1	WASHER-HARD (17X32X3.5-MM THK)						
	18	1	7B-3235	2	BOLT (1/2-13X1.375-IN)						
	19	1	7D-9766	1	BOLT (1/2-13X4.25-IN)						
C	20	1	5P-8248	2	WASHER-HARD (20X36.5X3.5-MM THK)						

C- CHANGE FROM PREVIOUS TYPE

BASIC ENGINE

7E-4836 MOUNTING GP-ALTERNATOR (contd.)

i02188088



RIGHT SIDE VIEW

VIEW OF AREA A

FRONT VIEW

GRAPHIC #1

<END>

g01109005

BASIC ENGINE

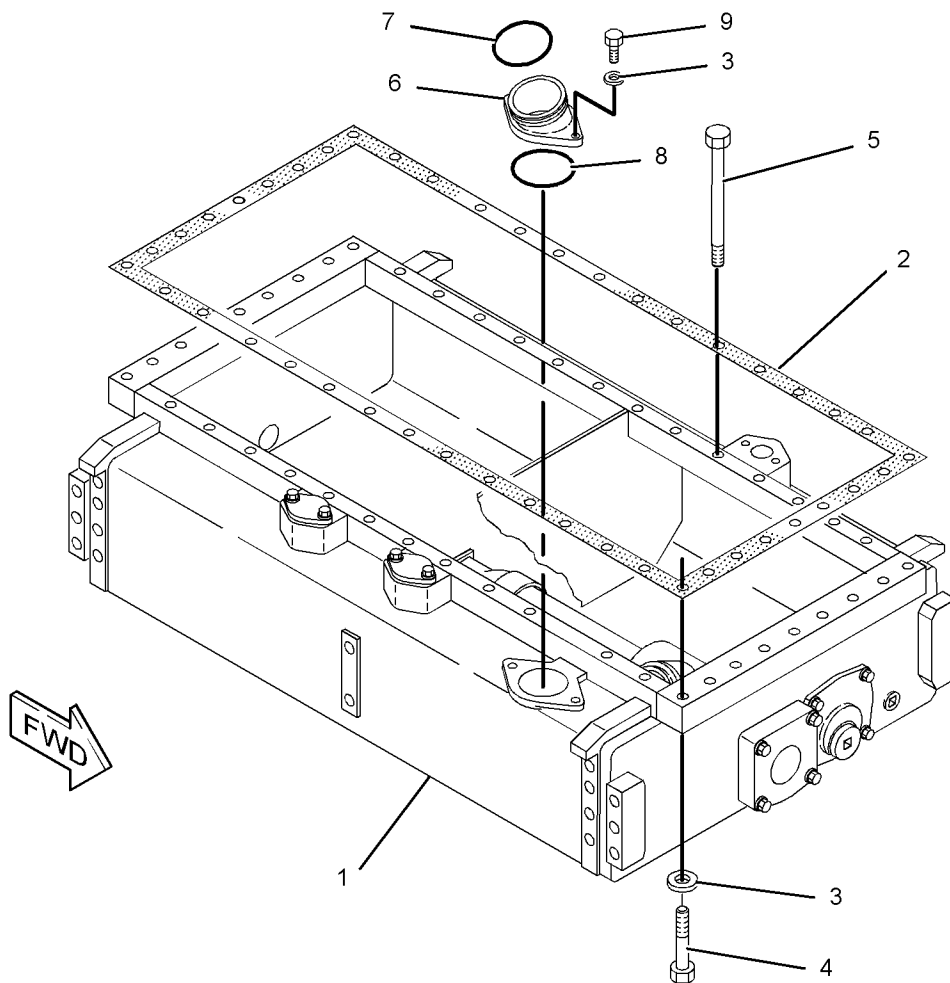
7C-6887 PAN GP-OIL

SMCS-1302

i02348285

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	9Y-3086	1	PAN GP-OIL						54
	2	1	7E-2631	1	GASKET-OIL PAN						
	3	1	5M-2894	20	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	4	1	0L-2070	18	BOLT (3/8-16X2.25-IN)						
	5	1	0T-0065	26	BOLT (3/8-16X3.5-IN)						
	6	1	7W-0129	1	FLANGE						
	7	1	6V-5101	1	SEAL-O-RING						
	8	1	3P-0654	1	SEAL-O-RING						
	9	1	0S-1588	2	BOLT (3/8-16X1.25-IN)						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01173165

BASIC ENGINE

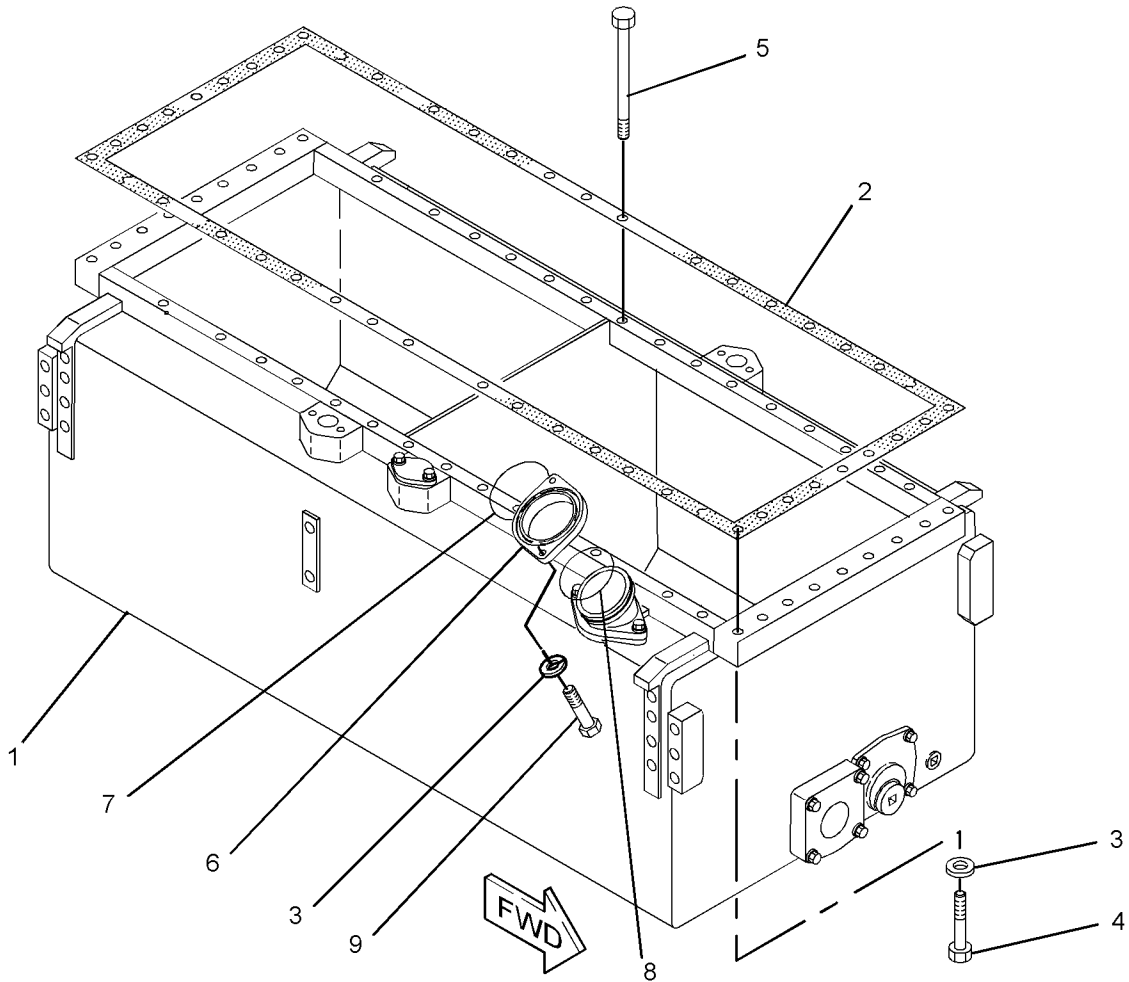
7C-7185 PAN GP-OIL-DEEP SUMP AN ATTACHMENT

SMCS-1302

i02665238

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	9Y-3083	1	PAN GP-OIL						52
	2	1	7E-2631	1	GASKET-OIL PAN						
	3	1	5M-2894	20	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	4	1	0L-2070	18	BOLT (3/8-16X2.25-IN)						
	5	1	0T-0065	26	BOLT (3/8-16X3.5-IN)						
	6	1	7W-0129	1	FLANGE						
	7	1	6V-5101	1	SEAL-O-RING						
	8	1	3P-0654	1	SEAL-O-RING						
	9	1	0S-1588	2	BOLT (3/8-16X1.25-IN)						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01339307

BASIC ENGINE

9Y-3083 PAN GP-OIL-DEEP SUMP

PART OF 7C-7185 PAN GP-OIL

AN ATTACHMENT

SMCS-1302

i02325245

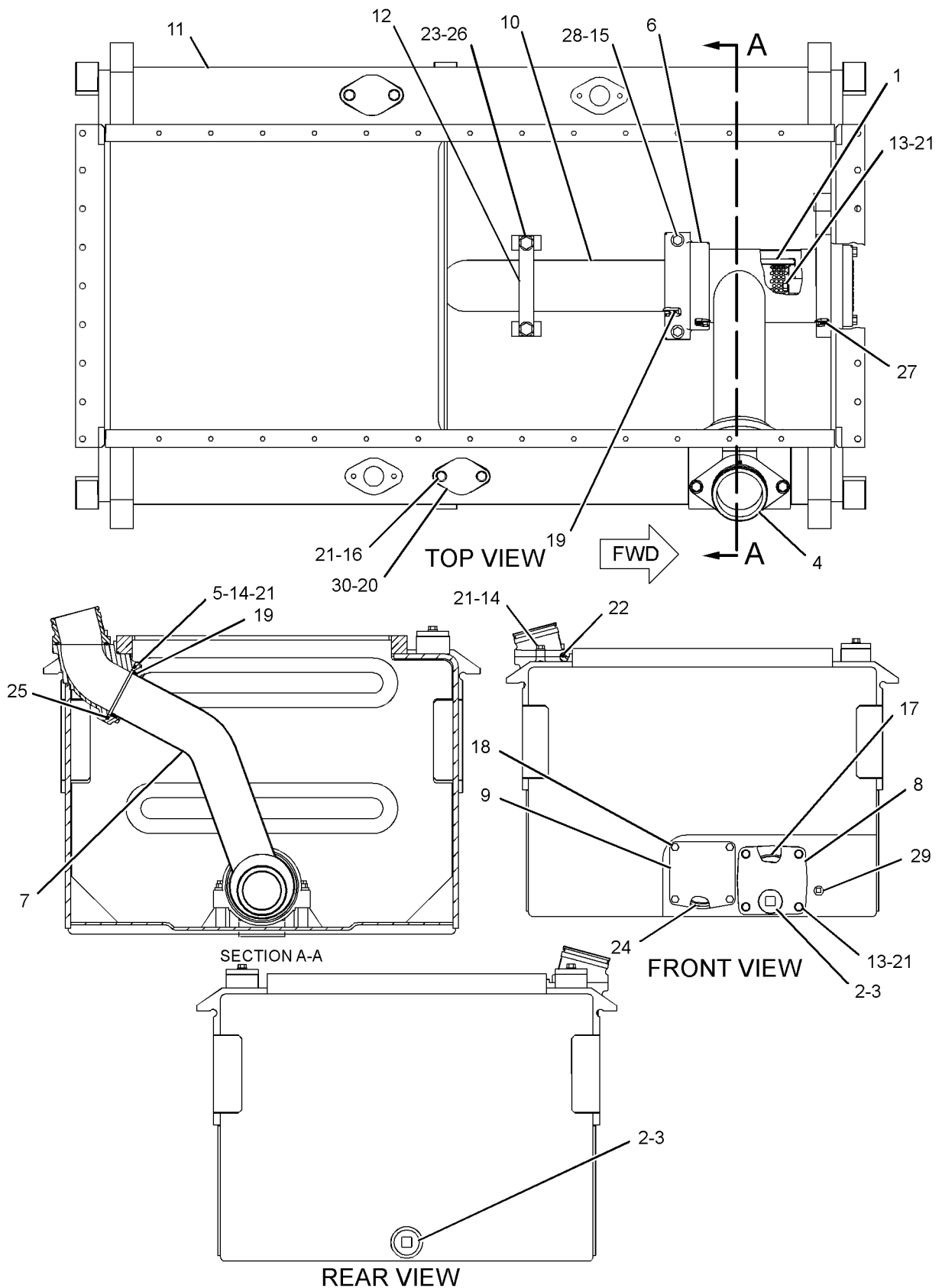
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
C	1	1	1W-1564	1	SCREEN AS-SUCTION (OIL PAN)						
	2	1	4B-2363	2	PLUG-OIL DRAIN (OIL PAN)						
	3	1	6F-4868	2	GASKET						
	4	1	7C-4715	1	CONNECTOR						
	5	1	7W-0129	1	FLANGE						
	6	1	111-2081	1	HOUSING-OIL						
	7	1	114-2413	1	TUBE AS						
	8	1	149-9298	1	COVER						
C	9	1	228-8926	1	ADAPTER						
C	10	1	229-8874	1	TUBE-SUCTION						
C	11	1	229-9546	1	PAN AS-OIL						
C	12	1	231-5867	2	CLAMP						
C	13	1	0L-1351	5	BOLT (3/8-16X0.875-IN)						
	14	1	0S-1588	4	BOLT (3/8-16X1.25-IN)						
	15	1	0S-1590	2	BOLT (3/8-16X2-IN)						
	16	1	0S-1594	4	BOLT (3/8-16X1-IN)						
	17	1	125-9794	1	SEAL-O-RING						
C	18	1	1A-2029	4	BOLT (3/8-16X1.125-IN)						
C	19	1	3P-0654	2	SEAL-O-RING						
	20	1	4B-3140	2	COVER						
C	21	1	5M-2894	13	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	22	1	5P-7818	1	SEAL-O-RING						
C	23	1	5P-8245	2	WASHER-HARD (13.5X25.5X3-MM THK)						
	24	1	5P-8872	1	SEAL-O-RING						
	25	1	6V-5101	1	SEAL-O-RING						
C	26	1	7B-3235	2	BOLT (1/2-13X1.375-IN)						
	27	1	7X-1547	2	SEAL-O-RING						
	28	1	8M-9024	2	WASHER-HARD (10.2X22.5X5-MM THK)						
	29	1	8T-6762	1	PLUG-PIPE						
	30	1	9L-1480	2	GASKET						

C- CHANGE FROM PREVIOUS TYPE

BASIC ENGINE

9Y-3083 PAN GP-OIL (contd.)

i02325245



GRAPHIC #1

<END>

g01192658

BASIC ENGINE

9Y-3086 PAN GP-OIL

PART OF 7C-6887 PAN GP-OIL

SMCS-1302

i02325248

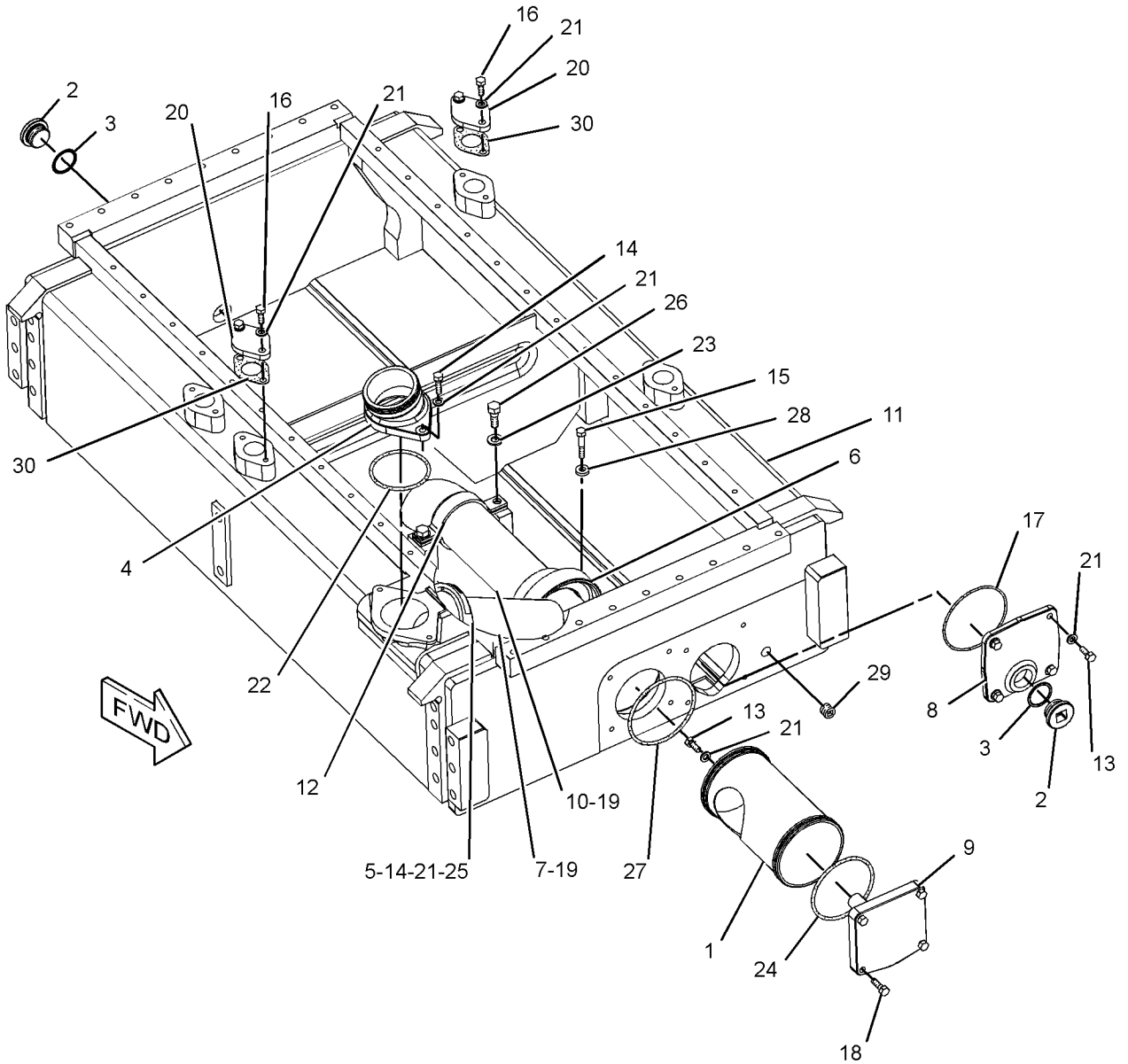
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
C	1	1	1W-1564	1	SCREEN AS-SUCTION (OIL PAN)						
	2	1	4B-2363	2	PLUG-OIL DRAIN (OIL PAN)						
	3	1	6F-4868	2	GASKET						
	4	1	7C-4715	1	CONNECTOR						
	5	1	7W-0129	1	FLANGE						
	6	1	111-2081	1	HOUSING-OIL						
	7	1	114-2414	1	TUBE AS						
	8	1	149-9298	1	COVER						
C	9	1	228-8926	1	ADAPTER						
C	10	1	229-8874	1	TUBE-SUCTION						
C	11	1	229-9545	1	PAN AS-OIL						
C	12	1	231-5867	2	CLAMP						
C	13	1	0L-1351	5	BOLT (3/8-16X0.875-IN)						
	14	1	0S-1588	4	BOLT (3/8-16X1.25-IN)						
	15	1	0S-1590	2	BOLT (3/8-16X2-IN)						
	16	1	0S-1594	4	BOLT (3/8-16X1-IN)						
	17	1	125-9794	1	SEAL-O-RING						
C	18	1	1A-2029	4	BOLT (3/8-16X1.125-IN)						
C	19	1	3P-0654	2	SEAL-O-RING						
	20	1	4B-3140	2	COVER						
C	21	1	5M-2894	13	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	22	1	5P-7818	1	SEAL-O-RING						
	23	1	5P-8245	2	WASHER-HARD (13.5X25.5X3-MM THK)						
	24	1	5P-8872	1	SEAL-O-RING						
	25	1	6V-5101	1	SEAL-O-RING						
C	26	1	7B-3235	2	BOLT (1/2-13X1.375-IN)						
	27	1	7X-1547	2	SEAL-O-RING						
	28	1	8M-9024	2	WASHER-HARD (10.2X22.5X5-MM THK)						
	29	1	8T-6762	1	PLUG-PIPE						
	30	1	9L-1480	2	GASKET						

C- CHANGE FROM PREVIOUS TYPE

BASIC ENGINE

9Y-3086 PAN GP-OIL (contd.)

i02325248



GRAPHIC #1

<END>

g01164857

BASIC ENGINE

281-6141 PISTON & ROD GP

SMCS - 1225

i02419469

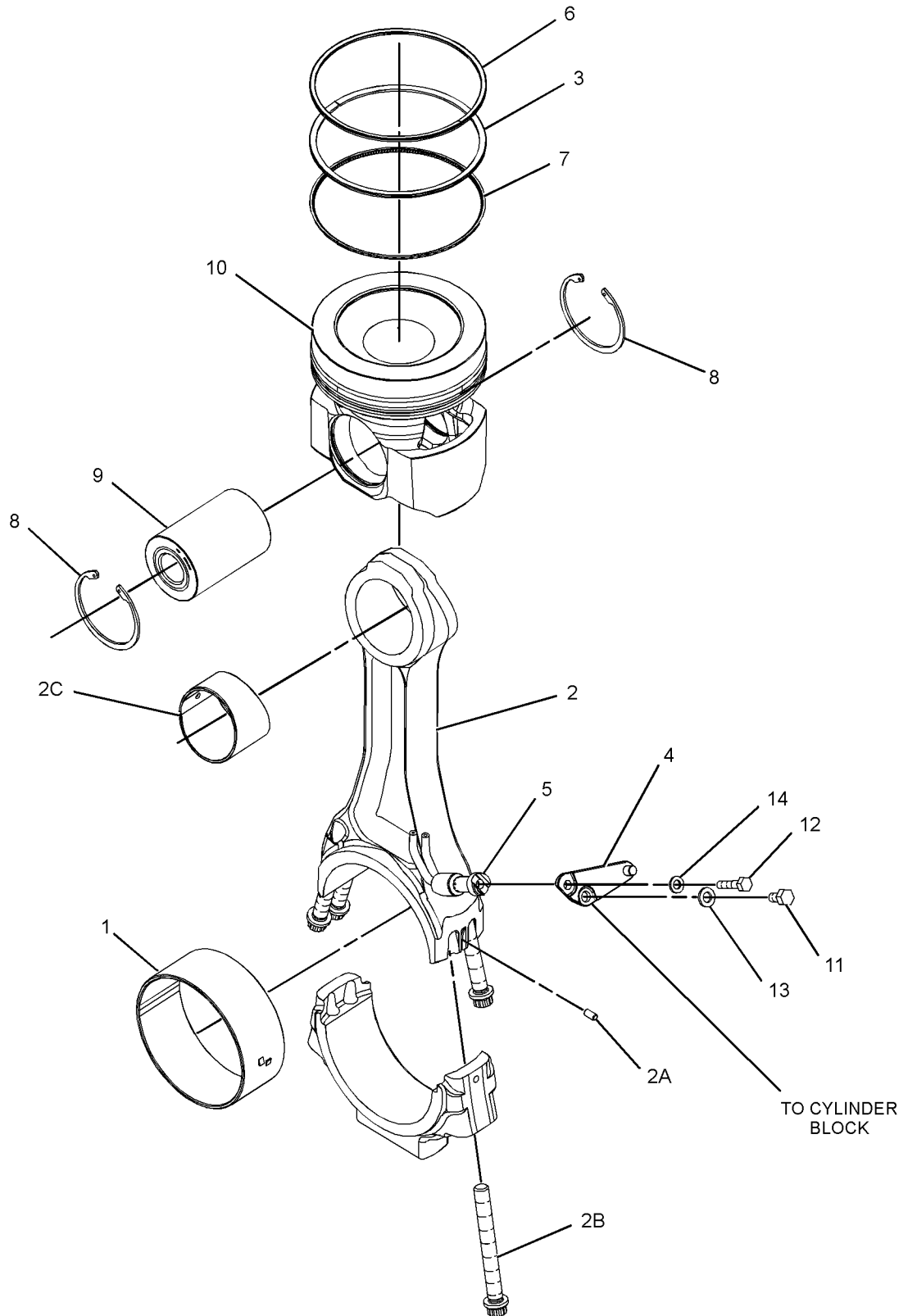
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	107-7330	1	BEARING-CONNECTING ROD (STANDARD)						
AB		1	107-7331	1	BEARING-CONNECTING ROD (0.63-MM US ID)						
AB		1	107-7332	1	BEARING-CONNECTING ROD (1.27-MM US ID)						
AB		1	107-7333	1	BEARING-CONNECTING ROD (0.25-MM OS OD)						
AB		1	107-7334	1	BEARING-CONNECTING ROD (0.63-MM US ID, 0.25-MM OS OD)						
AB		1	107-7335	1	BEARING-CONNECTING ROD (1.27-MM US ID, 0.25-MM OS OD)						
R	2	1	144-0725	1	ROD AS						
	2A	1	7N-2043	1	DOWEL						
	2B	1	7N-2405	4	BOLT-CONNECTING ROD						
	2C	1	118-1655	1	BEARING-SLEEVE						
	3	1	144-5695	1	RING-PISTON (INTERMEDIATE)						
	4	1	193-3282	1	RETAINER AS						
		1	6V-3537	1	DOWEL						
	5	1	204-5447	1	JET AS-PISTON COOLING						
	6	1	214-6066	1	RING-PISTON (TOP)						
	7	1	223-6361	1	RING-PISTON (OIL)						
	8	1	253-1238	2	RETAINER-PIN						
	9	1	263-8955	1	PIN-PISTON						
	10	1	281-6140	1	PISTON AS						
	11	1	0T-0102	1	BOLT (3/8-16X0.625-IN)						
	12	1	1B-2790	1	BOLT (5/16-18X1.375-IN)						
	13	1	5M-2894	1	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	14	1	9M-1974	1	WASHER-HARD (8.8X16X2-MM THK)						

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

BASIC ENGINE

281-6141 PISTON & ROD GP (contd.)

i02419469



GRAPHIC #1

<END>

g01212022

BASIC ENGINE

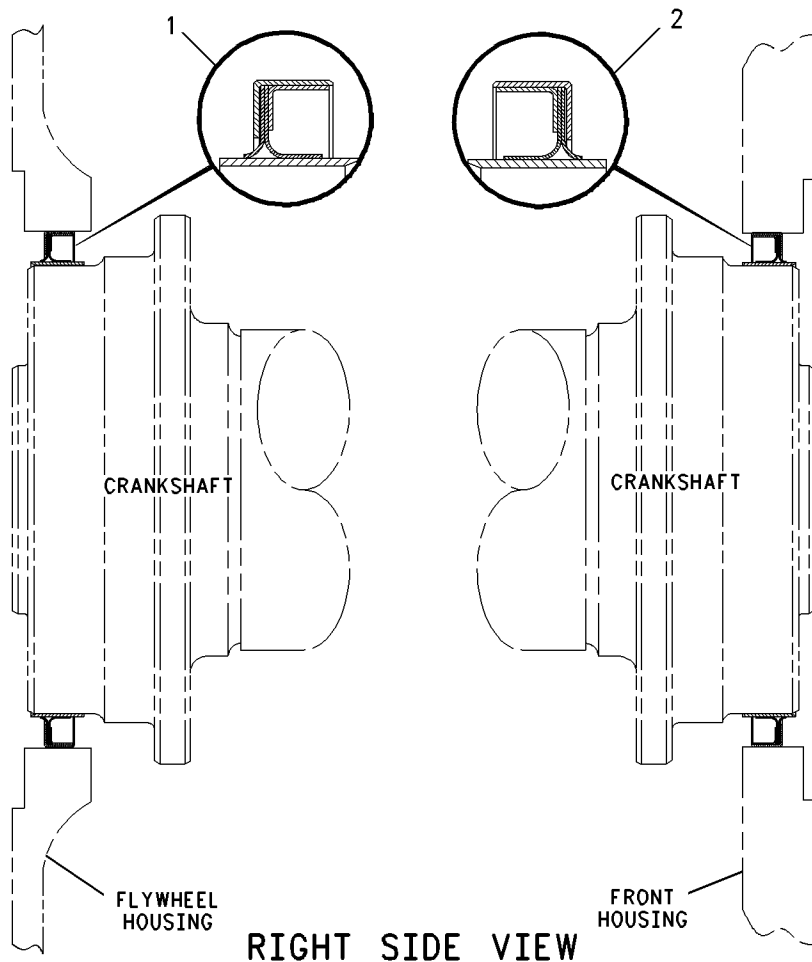
7W-3813 SEAL GP - CRANKSHAFT

SMCS-1160, 1161

i02390835

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
C	1	1	113-8433	1	SEAL GP-CRANKSHAFT (CCW ROTATION)						
(INSTALL IN FLYWHEEL HOUSING ON STANDARD ROTATION ENGINES & IN FRONT HOUSING ON REVERSE ROTATION ENGINES)											
C	2	1	113-8432	1	SEAL GP-CRANKSHAFT (CW ROTATION)						
(INSTALL IN FRONT HOUSING ON STANDARD ROTATION ENGINES & IN FLYWHEEL HOUSING ON REVERSE ROTATION ENGINES)											

C - CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

<END>

g00899342

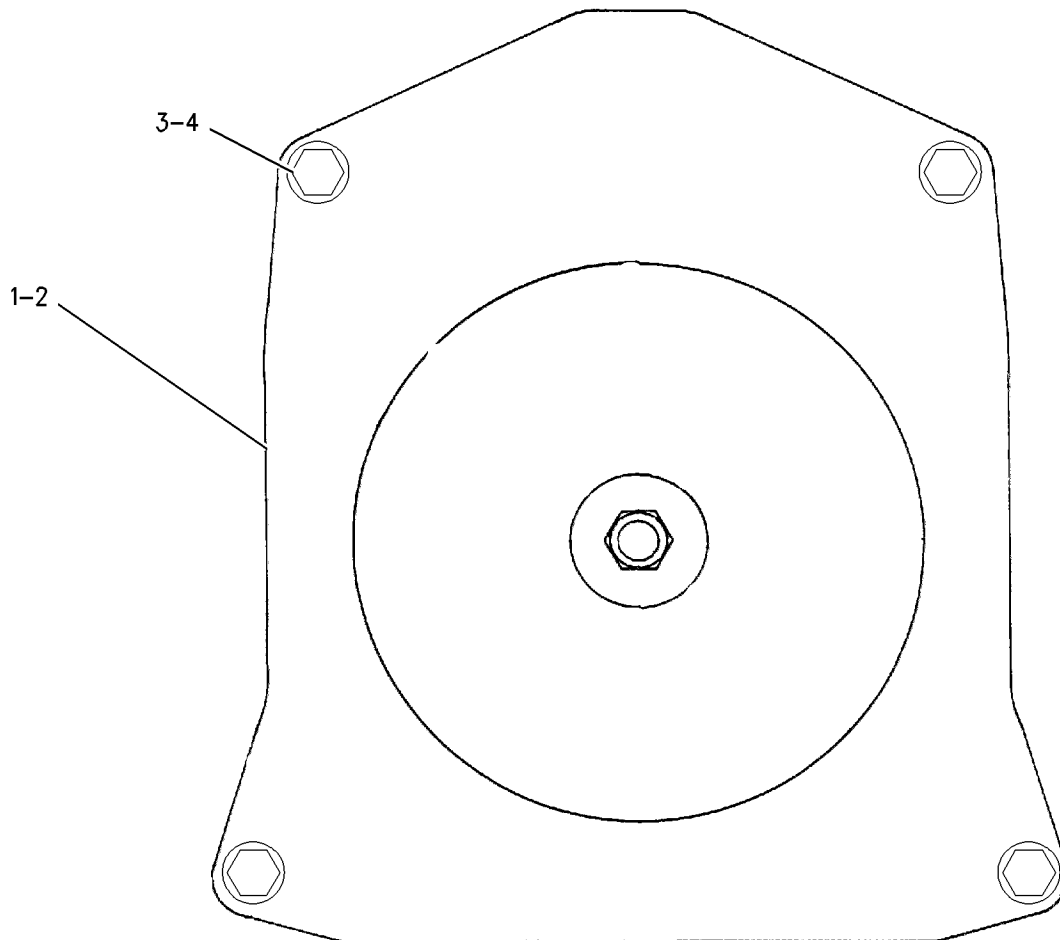
BASIC ENGINE

5N-4830 VALVE GP-EXPLOSION RELIEF-CRANKCASE AN ATTACHMENT

SMCS-1233

i02613254

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
J	1	1	8N-8509	1	VALVE GP-EXPLOSION RELIEF (CRANKCASE)						
	2	1	272-0759	1	SEAL						
	3	1	5M-2894	4	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	4	1	9X-8872	4	BOLT-LOCKING (3/8-16X0.875-IN)						
AVAILABLE REPAIR KIT(S):											
J			2W-3584	1	KIT-REPAIR (EXPLOSION RELIEF) (CRANKCASE) (INCLUDES VALVE PLATE & SPINDLE O-RINGS)						
J - KIT MARKED J SERVICES PART MARKED J											



GRAPHIC #1

<END>

g00857887

BASIC ENGINE

281 - 6160 VALVE MECHANISM GP

SMCS-1102, 1121, 1123

i02426365

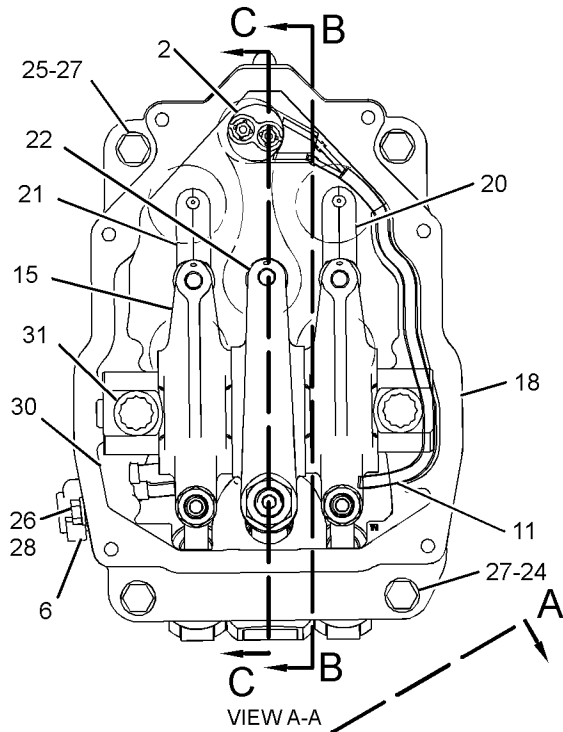
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	3J-9196	2	NUT-JAM (1/2-20-THD)						
	2	1	7E-6508	1	CAP AS						
	3	1	7N-4782	2	SPRING-LIFTER GUIDE						
	4	1	9F-7707	3	RING-RETAINING						
	5	1	9S-1354	1	NUT (5/8-18-THD)						
	6	1	9X-0352	1	RECEPTACLE AS						
	7	1	100-3877	1	RETAINER-SPRING						
	8	1	100-3878	1	SPRING-INJECTOR						
	9	1	100-3879	1	PUSHROD-INJECTOR						
	10	1	100-3880	2	PUSHROD-VALVE						
	11	1	132-6469	1	HARNES AS-WIRING (VALVE MECHANISM)						
		1	155-2270	1	KIT-CONNECTING PLUG (2-PIN) (INCLUDES PLUG AS AND WEDGE)						
	12	1	154-6389	3	BUTTON						
	13	1	200-2003	2	SCREW-ADJUSTMENT						
	14	1	230-2619	1	SCREW-ADJUSTMENT						
R	15	1	230-2621	2	ROCKER ARM AS (EACH INCLUDES)						
		1	8N-7197	1	SOCKET-ARM						
		1	230-2620	1	BEARING-SLEEVE						
	16	1	230-2633	1	SHAFT AS						
		1	155-4094	1	PIN-SPRING						
	17	1	240-7032	1	SEAL						
Y	18	1	247-8341	1	BASE GP-VALVE COVER						5
	19	1	263-6674	2	LIFTER AS-VALVE						
	20	1	265-7537	1	BRIDGE (INLET)						
	21	1	265-7538	1	BRIDGE (EXHAUST)						
R	22	1	281-6159	1	ROCKER ARM AS						
		1	8N-7197	1	SOCKET-ARM						
		1	230-2620	1	BEARING-SLEEVE						
	23	1	282-7944	1	LIFTER AS-INJECTOR						
	24	1	0L-2070	2	BOLT (3/8-16X2.25-IN)						
	25	1	0S-1590	2	BOLT (3/8-16X2-IN)						
	26	1	0S-1615	1	BOLT (1/4-20X0.75-IN)						
	27	1	5M-2894	4	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	28	1	5P-0537	1	WASHER-HARD (7.2X14.5X2-MM THK)						
	29	1	5P-7530	1	SEAL-O-RING						
	30	1	6J-2245	1	SEAL-O-RING						
	31	1	8D-7942	2	BOLT-12 POINT HEAD (5/8-11X6.5-IN)						

R - REMFG PART MAY BE AVAILABLE
Y - SEPARATE ILLUSTRATION

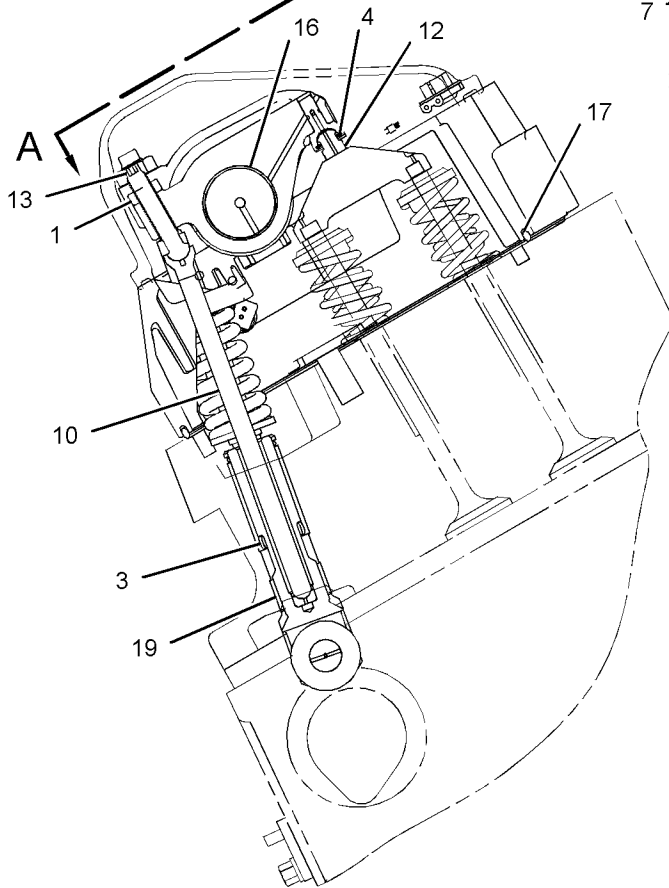
BASIC ENGINE

281-6160 VALVE MECHANISM GP (contd.)

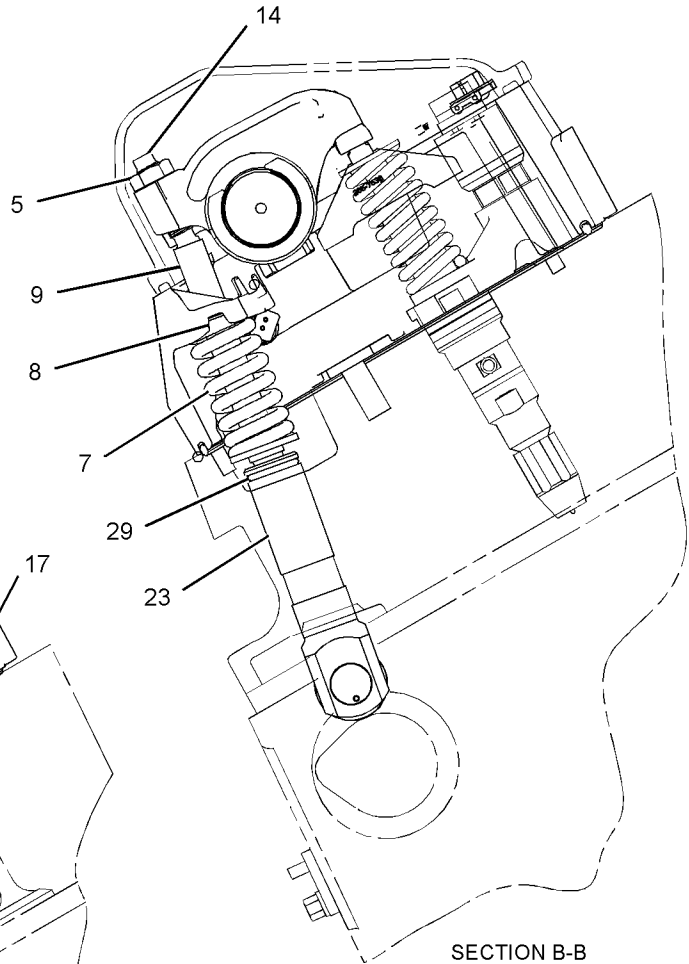
i02426365



VIEW A-A



SECTION C-C



SECTION B-B

GRAPHIC #1

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g01214471

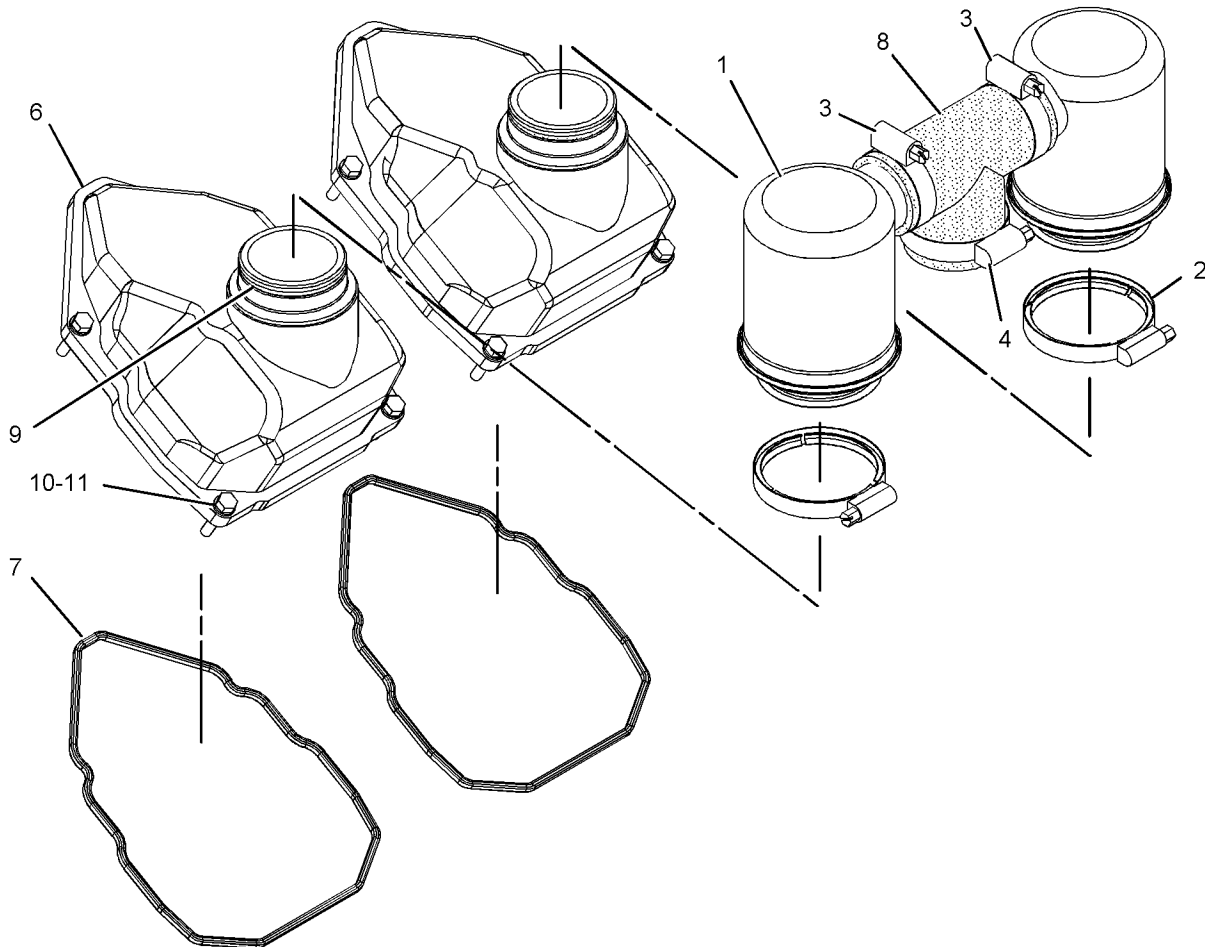
LUBRICATION SYSTEM

101-0838 BREATHER GP-CRANKCASE

SMCS-1317

i02668023

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4W-3027	2	BREATHER AS (CRANKCASE)						
	2	1	4W-3034	2	CLAMP-HOSE						
	3	1	5P-0597	2	CLAMP-HOSE						
	4	1	180-3007	1	CLAMP-HOSE						
	6	1	101-4199	2	COVER AS						
	7	1	272-0760	2	SEAL-VALVE COVER						
	8	1	217-6692	1	HOSE-TEE						
	9	1	033-6031	2	SEAL-O-RING						
	10	1	1A-9579	8	BOLT (5/16-18X1.5-IN)						
	11	1	9M-1974	8	WASHER-HARD (8.8X16X2-MM THK)						



GRAPHIC #1

<END>

g01070427

LUBRICATION SYSTEM

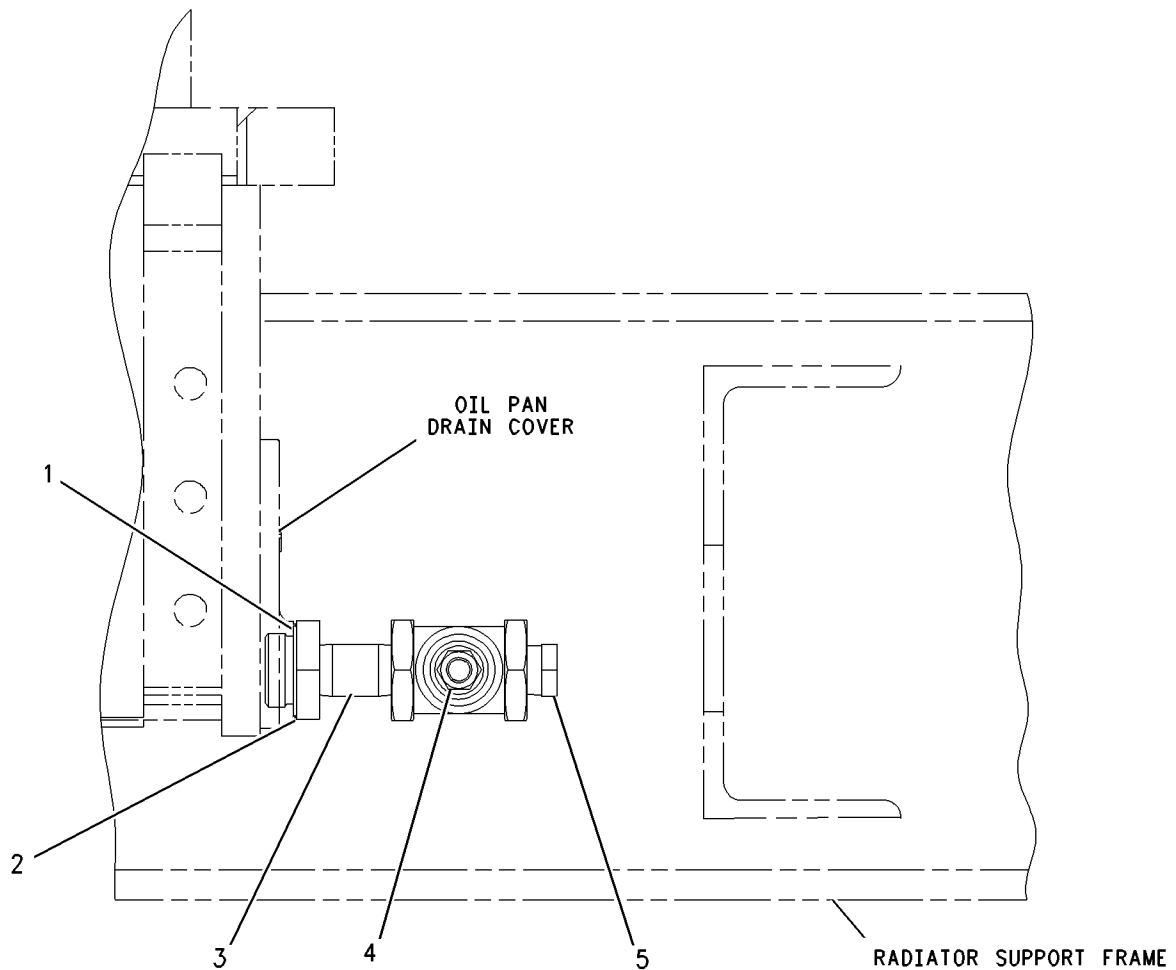
9Y-7876 DRAIN GP-OIL-PAN AN ATTACHMENT

SMCS-1372

i02509881

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6F-4868	1	GASKET						
	2	1	7N-6511	1	ADAPTER						
	3	1	1F-6660	1	NIPPLE-PIPE						
	4	1	9B-4202	1	VALVE-DRAIN (ENGINE OIL)						
B	5	1	3E-7430	1	PLUG-PIPE						

B- USE AS REQUIRED



GRAPHIC #1

<END>

g00825656

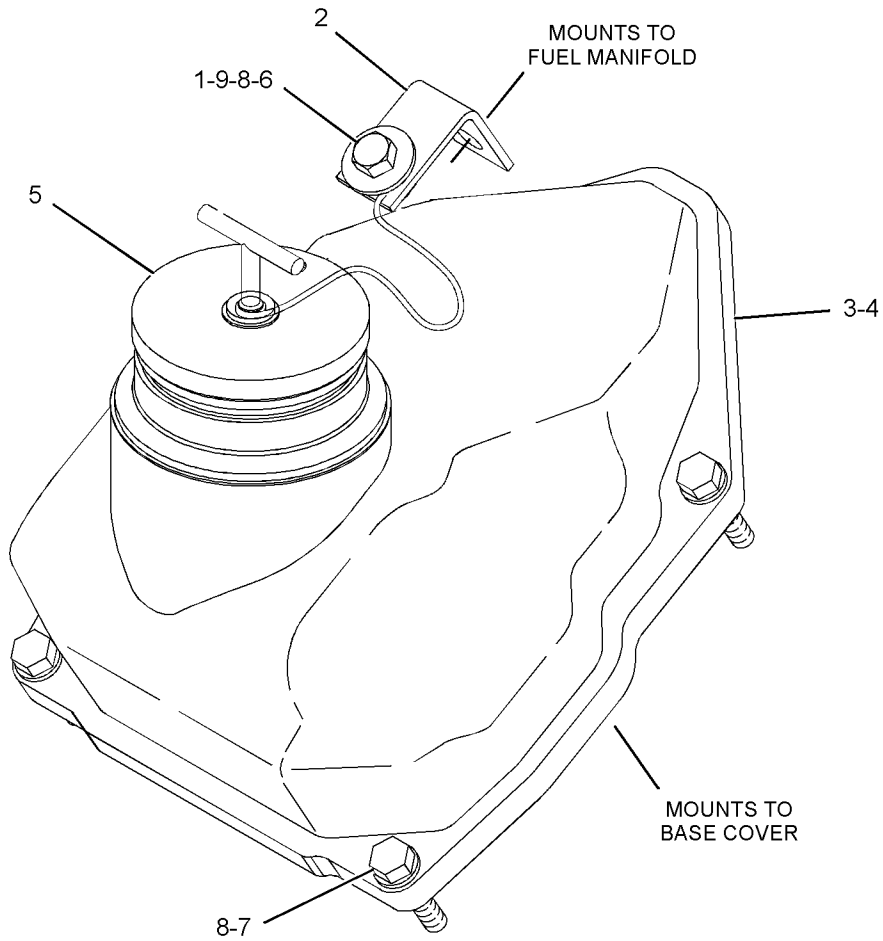
LUBRICATION SYSTEM

112-6033 FILLER GP-ENGINE OIL

SMCS-1316

i02668020

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2B-2695	1	BOLT (5/16-18X0.875-IN)						
	2	1	4P-9226	1	BRACKET						
	3	1	101-4199	1	COVER AS						
	4	1	272-0760	1	SEAL-VALVE COVER (ENGINE OIL FILL COVER)						
	5	1	262-6104	1	CAP AS (OIL FILL)						
	6	1	031-4155	1	LOCKNUT (5/16-18-THD)						
	7	1	1A-9579	4	BOLT (5/16-18X1.5-IN)						
	8	1	9M-1974	5	WASHER-HARD (8.8X16X2-MM THK)						
	9	1	9N-0869	1	WASHER-HARD (8.8X25.5X2-MM THK)						



GRAPHIC #1

<END>

g01167696

LUBRICATION SYSTEM

112-4921 FILTER GP-ENGINE OIL-RH

SMCS-1306, 1308

i02496796

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8N-9482	1	SUPPORT-OIL FILTER						
	2	1	5P-4624	2	BOLT (3/4-10X11.5-IN)						
	3	1	4S-5882	2	BOLT (1/2-13X7.25-IN)						
	4	1	278-1082	1	HOUSING AS-FILTER (ENGINE OIL)						
		1	4V-7412	1	BOSS (3/8-16-THD)						
	5	1	0S-1588	8	BOLT (3/8-16X1.25-IN)						
	6	1	2S-5100	1	VALVE AS-MANUAL (ENGINE OIL DRAIN)						
C	7	1	4W-5592	1	COVER						
	8	1	4W-8459	1	COVER						
C	9	1	4W-6387	1	HOUSING AS (BYPASS)						
		1	7N-2043	3	DOWEL						
	10	1	133-9313	1	PLATE						
	11	1	0L-1351	3	BOLT (3/8-16X0.875-IN)						
	12	1	5M-2894	15	WASHER-HARD (10.2X18.5X2.5-MM THK)						
C	13	1	2W-1969	1	VALVE-BYPASS (ENGINE OIL)						
C	14	1	155-1690	1	ADAPTER AS						
		1	154-1581	1	RING-RETAINING						
	15	1	2W-1635	1	SPRING						
	16	1	1R-0726	3	FILTER ELEMENT AS-ENGINE OIL						
C	17	1	5P-4892	4	SEAL-O-RING						
	18	1	0S-1571	2	BOLT (3/8-16X1.75-IN)						
	19	1	9S-8752	2	NUT-FULL (3/8-16-THD)						
	20	1	6V-3907	4	SEAL-O-RING						
	21	1	157-0443	1	COVER AS						
		1	7N-2043	1	DOWEL						
	22	1	7F-0192	3	BOLT (3/8-16X2-IN)						
	24	1	5D-5957	1	SEAL-O-RING						
	25	1	8T-6762	1	PLUG-PIPE						
	26	1	4W-6960	1	SUPPORT-HOUSING						
C	27	1	6V-5048	6	SEAL-O-RING						
C	28	1	9S-4182	6	PLUG-O-RING						
C	29	1	1M-0644	3	BOLT (3/8-16X2.25-IN)						
C	30	1	0S-1619	2	BOLT (3/8-16X3-IN)						
C	31	1	6V-8001	1	SEAL-O-RING						
C	32	1	111-8639	1	COVER-BYPASS VALVE						
	33	1	0T-0573	3	BOLT (3/8-16X2.75-IN)						
B	34	1	0T-0573	1	BOLT (3/8-16X2.75-IN)						
B	35	1	1D-4574	2	BOLT (1/2-13X6-IN)						
B	36	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5-MM THK)						
B	37	1	5P-5421	4	BOLT (1/2-13X11.5-IN)						
B	38	1	9S-8752	1	NUT-FULL (3/8-16-THD)						
	39	1	165-3931	3	BOLT (3/8-16X1.75-IN)						

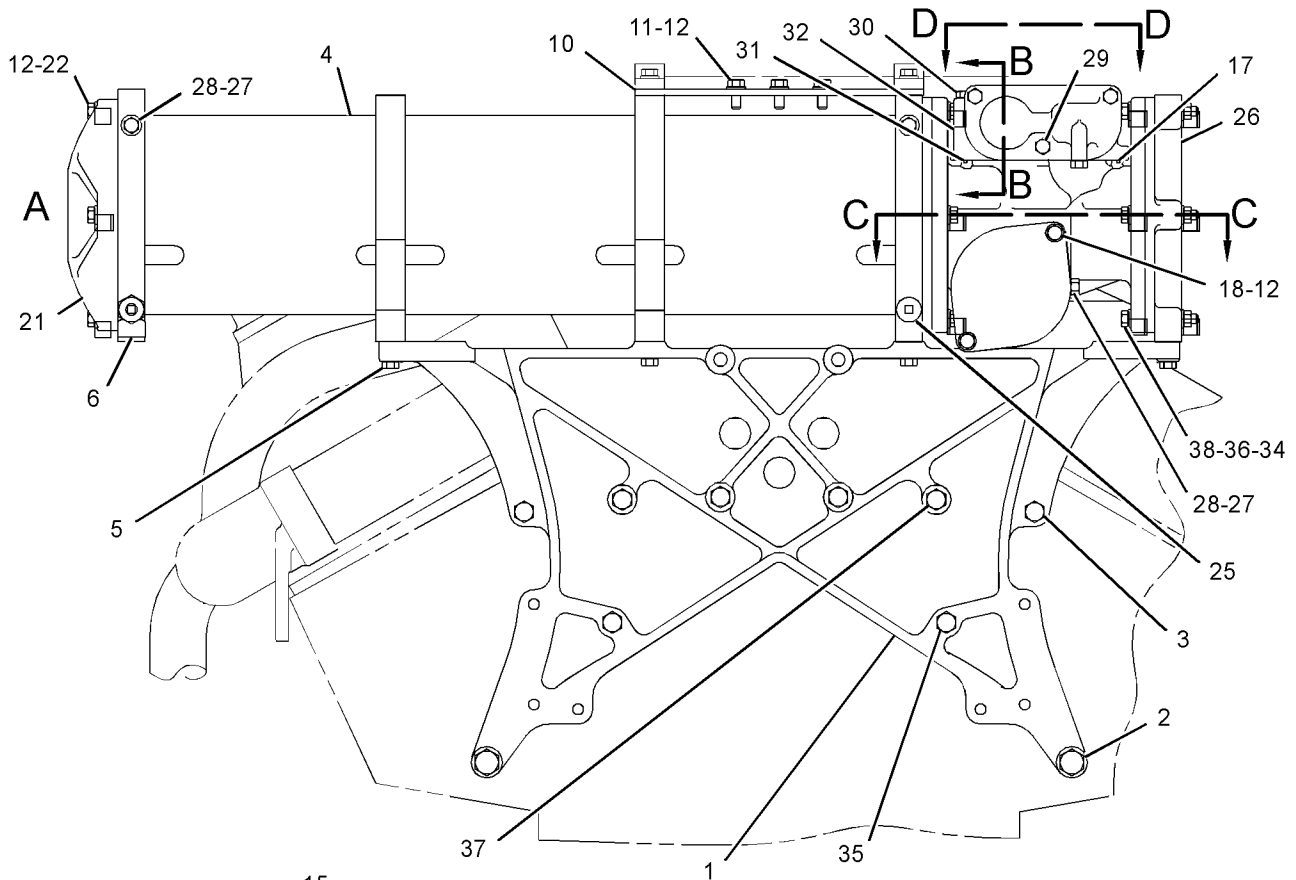
B- USE AS REQUIRED

C- CHANGE FROM PREVIOUS TYPE

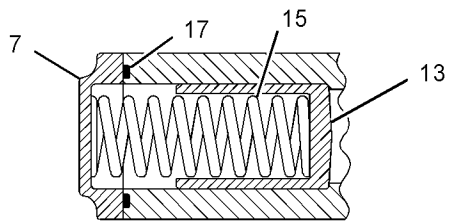
LUBRICATION SYSTEM

112-4921 FILTER GP-ENGINE OIL (contd.)

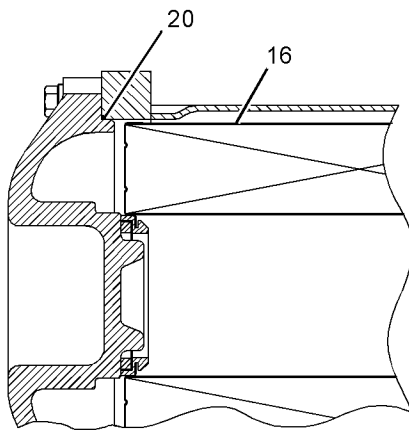
i02496796



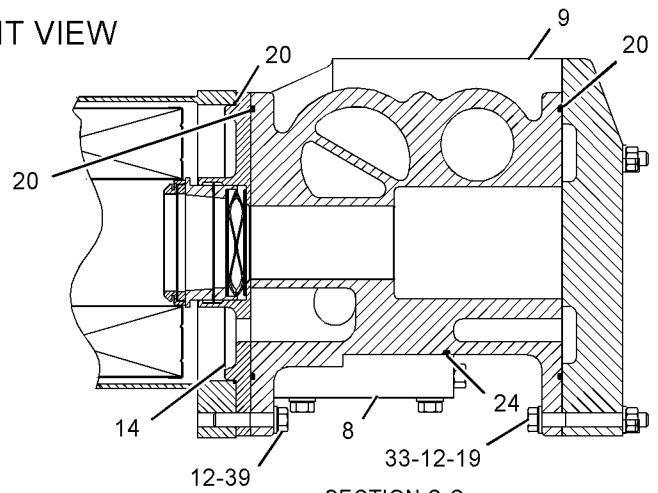
FRONT VIEW



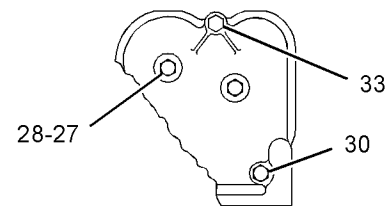
SECTION B-B



SECTION VIEW OF AREA A



SECTION C-C



VIEW D-D

GRAPHIC #1

<END>

g01277752

LUBRICATION SYSTEM

120-4501 FILTER GP-ENGINE OIL-DUPLEX

**CANNOT BE USED WITH ENGINE MOUNTED FANS OR WHERE FAN IS MOUNTED IN CLOSE PROXIMITY
TO THE ENGINE
AN ATTACHMENT**

SMCS-1306, 1308

i02538462

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	3	1R-0726	4	FILTER ELEMENT AS-ENGINE OIL						
	2	1,2	2S-5100	2	VALVE AS-MANUAL						
	3	2	2W-1635	1	SPRING						
	4	2	2W-1969	1	VALVE-BYPASS						
	5	3	2W-9209	1	VALVE AS-CHECK						
	6	1	3D-9777	1	LEVER						
	7	3	3J-9173	1	BOLT-SHOULDER (1/2-13X1.25-IN)						
	8	1	3L-5389	1	TIE ROD						
	9	2	4W-0090	1	BLOCK						
	10	2	4W-0096	1	LEVER						
	11	1	4W-0288	1	TUBE AS						
	12	1	4W-0289	1	TUBE AS						
	13	2	4W-0290	1	VALVE AS-TOGGLE						
	14	2	4W-0334	1	PLUNGER AS-BALL						
	15	2	4W-0343	1	BRACKET						
	16	2	4W-5592	1	COVER						
	17	2	5B-9079	2	NUT-JAM (3/8-24-THD)						
	18	1,2	7F-0192	6	BOLT (3/8-16X2-IN)						
Y	19	3	7W-3816	1	VALVE GP-FLUID CONTROL						94
	20	1	8N-9482	1	SUPPORT-OIL FILTER						
	21	3	9K-6540	1	WASHER-SPRING (0.63X1.25X0.04-IN THK)						
	22	1	111-8639	1	COVER-BYPASS VALVE						
	23	1	133-9313	1	PLATE						
C	24	3	155-1690	2	ADAPTER AS						
					(EACH INCLUDES)						
		3	154-1581	1	RING-RETAINING						
C	25	3	157-0443	2	COVER AS						
					(EACH INCLUDES)						
		3	7N-2043	1	DOWEL						
	26	1	278-1072	1	HOUSING AS-ACTUATOR						
		1	4V-7412	1	BOSS (3/8-16-THD)						
C	27	1	278-1083	1	HOUSING AS-FILTER (AUXILIARY)						
	28	2	002-6453	1	ELBOW						
	29	3	165-3931	3	BOLT (3/8-16X1.75-IN)						
	30	2	0L-1143	1	BOLT (3/8-16X2.5-IN)						
	31	1	0L-1351	3	BOLT (3/8-16X0.875-IN)						
	32	1,2	0S-1571	3	BOLT (3/8-16X1.75-IN)						
	33	1	0S-1588	8	BOLT (3/8-16X1.25-IN)						
	34	1	0S-1594	1	BOLT (3/8-16X1-IN)						
C	35	1,2	0S-1619	2	BOLT (3/8-16X3-IN)						
C	36	3	0T-0573	2	BOLT (3/8-16X2.75-IN)						
	37	2	1A-9252	2	END-ADJUSTMENT ROD						
	38	1	1B-8706	1	KEY-WOODRUFF						
	39	1	1D-4574	2	BOLT (1/2-13X6-IN)						
	40	1	1M-0644	3	BOLT (3/8-16X2.25-IN)						
	41	2	3B-4615	2	PIN-COTTER						
	42	1	4S-5882	2	BOLT (1/2-13X7.25-IN)						
	43	1,2,3	5M-2894	21	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	44	1	5P-4624	2	BOLT (3/4-10X11.5-IN)						
	45	1,2	5P-4892	4	SEAL-O-RING						
	46	1	5P-5421	4	BOLT (1/2-13X11.5-IN)						
	47	3	5P-8245	1	WASHER-HARD (13.5X25.5X3-MM THK)						
	48	2	6K-9194	1	ELBOW-FLARED						
	49	3	6V-3907	6	SEAL-O-RING (FUEL FILTER)						
	50	1,2	6V-5048	5	SEAL-O-RING						

LUBRICATION SYSTEM

120-4501 FILTER GP-ENGINE OIL (contd.)

i02538462

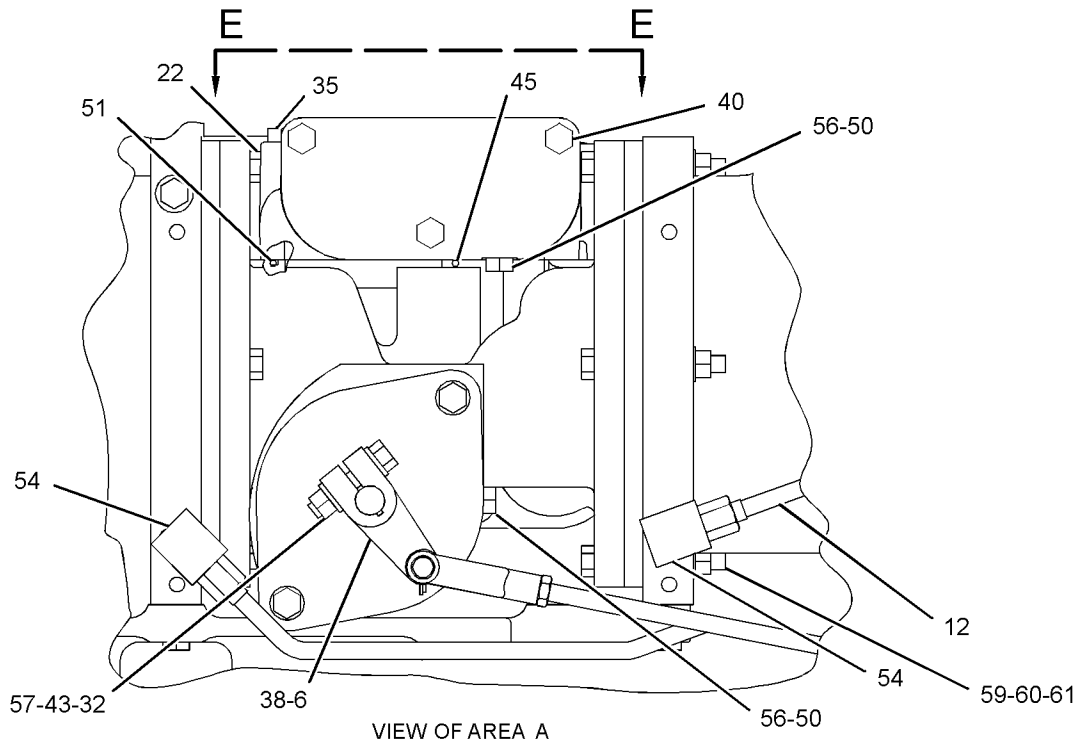
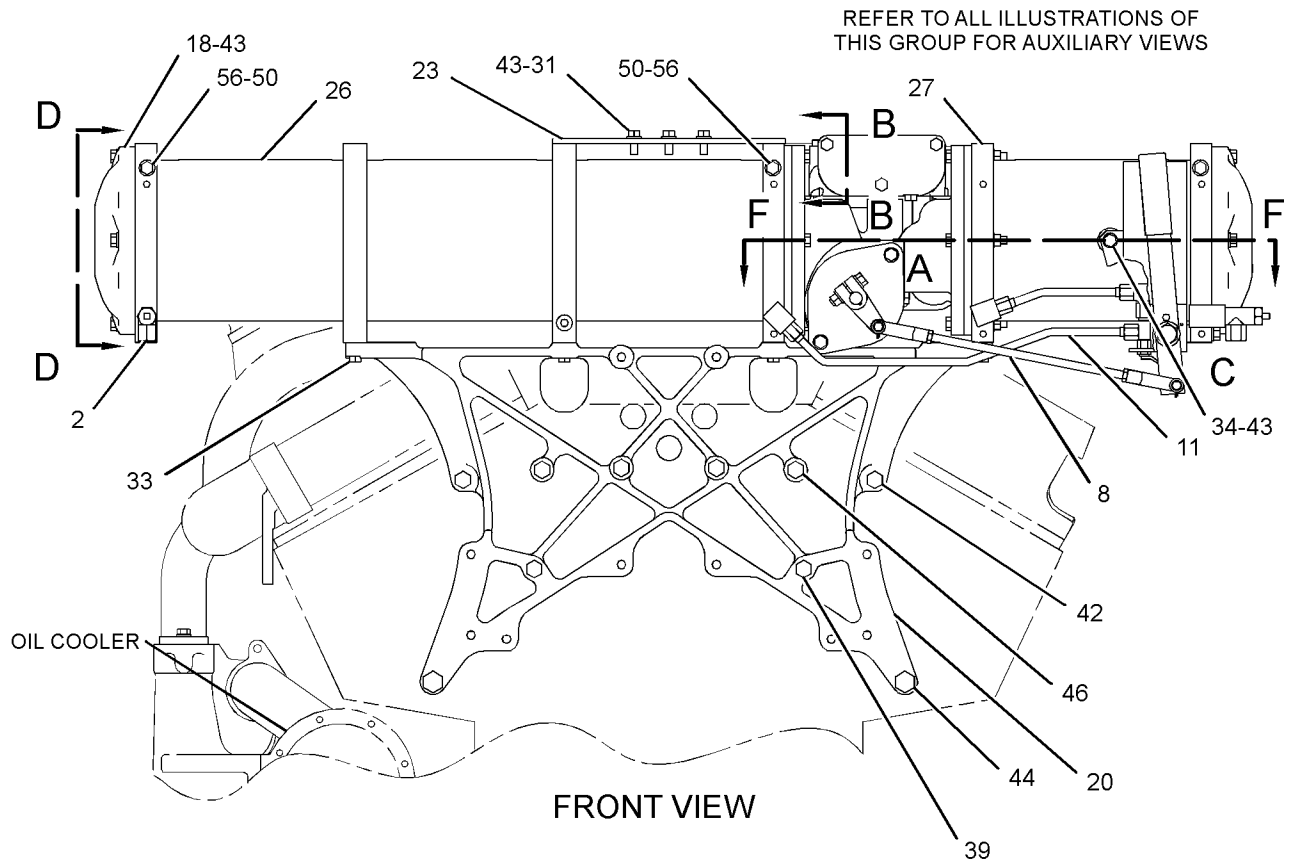
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	51	1	6V-8001	1	SEAL-O-RING						
	52	3	6V-8002	1	SEAL-O-RING						
	53	3	6V-8823	1	WASHER-HARD (19.25X27X2-MM THK)						
	54	1	7D-8793	2	ELBOW-FLARED						
	55	2	9H-6673	2	PIN						
	56	1,2	9S-4182	5	PLUG-O-RING						
	57	1,3	9S-8752	3	NUT-FULL (3/8-16-THD)						
BC	59	1	0T-0573	1	BOLT (3/8-16X2.75-IN)						
B	60	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5-MM THK)						
B	61	1	9S-8752	1	NUT-FULL (3/8-16-THD)						

B-USE AS REQUIRED
 C-CHANGE FROM PREVIOUS TYPE
 Y-SEPARATE ILLUSTRATION

LUBRICATION SYSTEM

120-4501 FILTER GP-ENGINE OIL (contd.)

i02538462



GRAPHIC #1

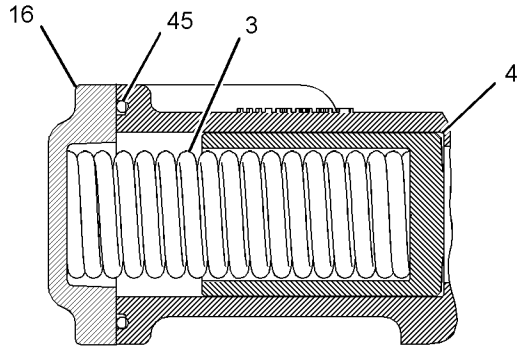
g01276325

LUBRICATION SYSTEM

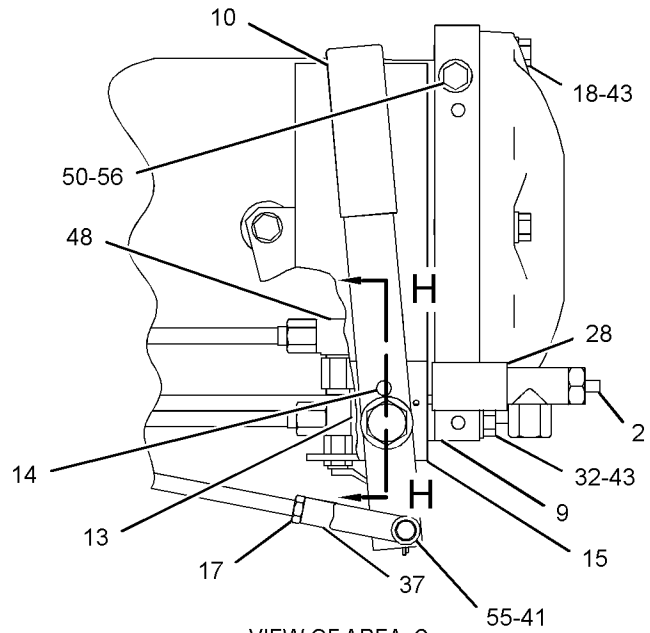
120-4501 FILTER GP-ENGINE OIL (contd.)

i02538462

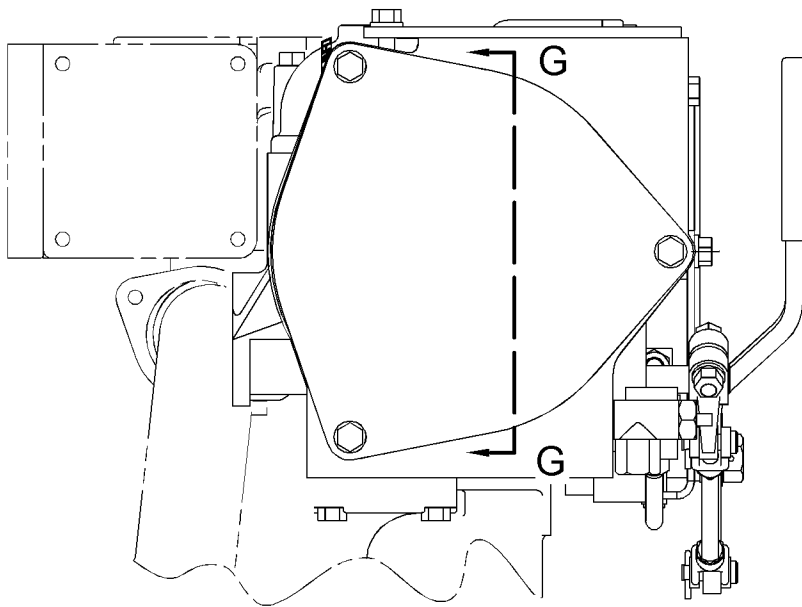
REFER TO ALL ILLUSTRATIONS OF THIS GROUP FOR AUXILIARY VIEWS



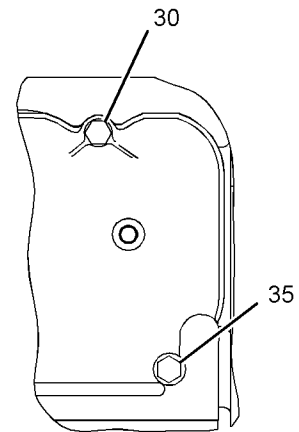
SECTION B-B



VIEW OF AREA C



VIEW D-D



VIEW E-E

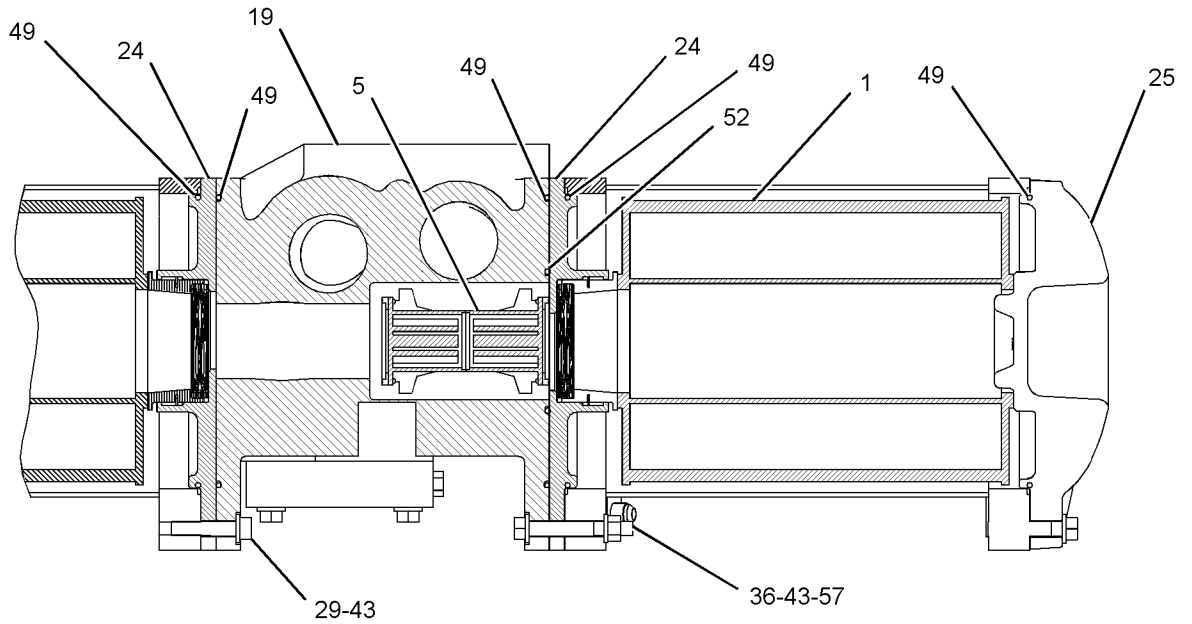
GRAPHIC #2

g01276326

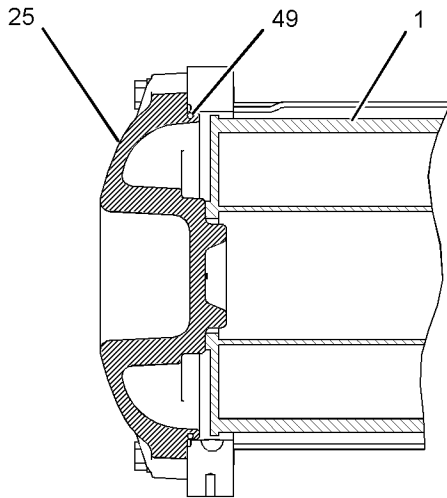
LUBRICATION SYSTEM

120-4501 FILTER GP-ENGINE OIL (contd.)

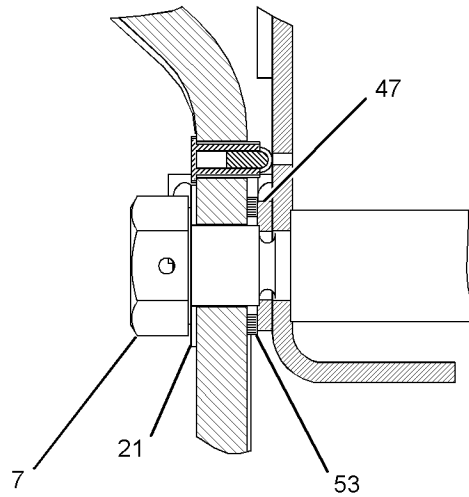
i02538462



SECTION F-F



SECTION G-G



SECTION H-H

GRAPHIC #3

<END>

g01276327

LUBRICATION SYSTEM

242-6278 FILTER GP-ENGINE OIL-LH AN ATTACHMENT

SMCS-1306, 1308

i02476159

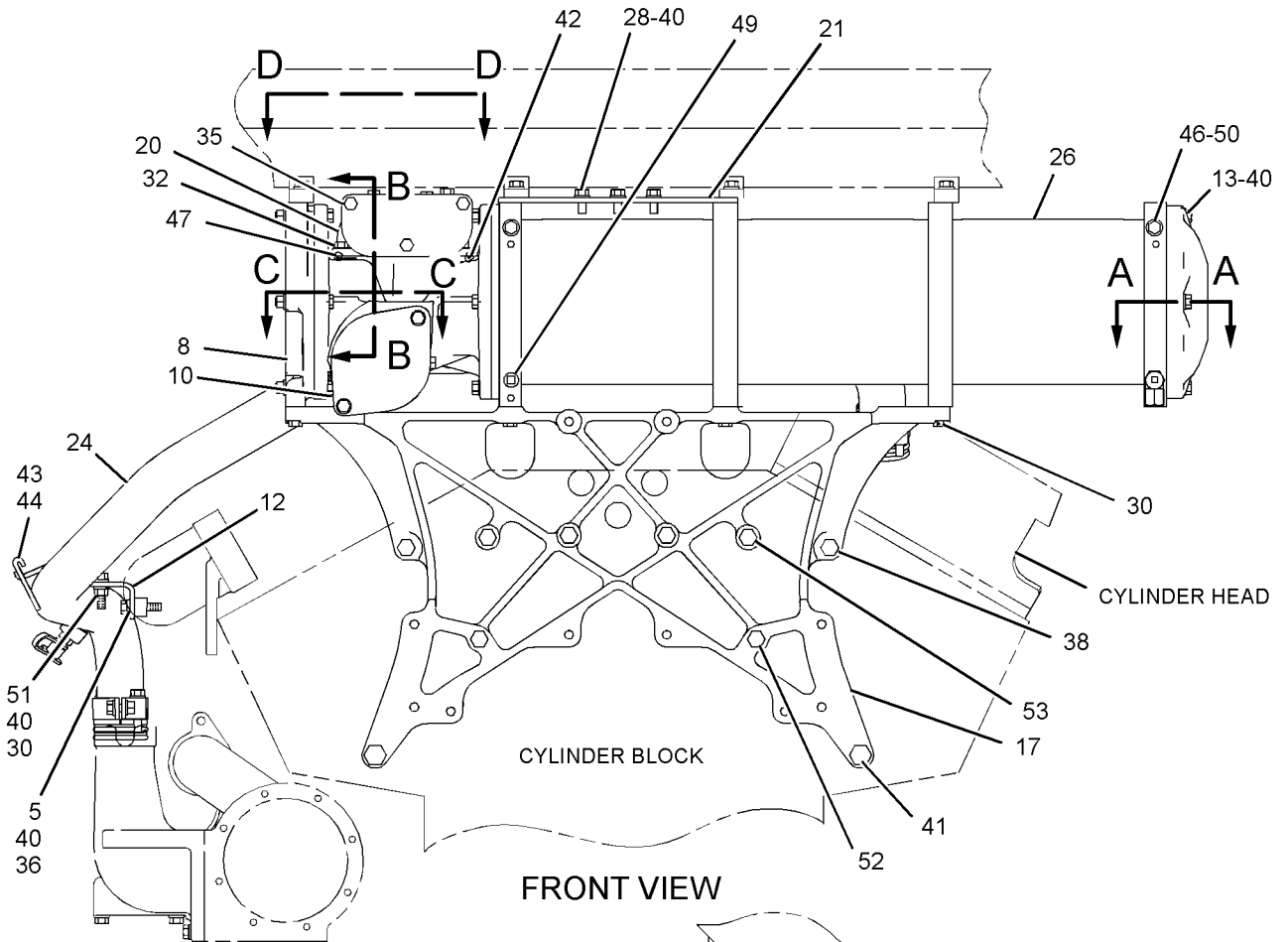
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	2	1R-0726	3	FILTER ELEMENT AS-ENGINE OIL						
	2	1	2S-5100	1	VALVE AS-MANUAL						
	3	1	2W-1635	1	SPRING						
	4	1	2W-1969	1	VALVE-BYPASS						
B	5	1	4S-5719	1	SPACER (10.31X25X12.7-MM THK)						
	6	1	4W-5592	1	COVER						
	7	2	4W-6387	1	HOUSING AS (BYPASS)						
		2	7N-2043	3	DOWEL						
	8	1	4W-6491	1	SUPPORT-HOUSING						
	9	2	4W-6492	1	ADAPTER						
	10	1	4W-8459	1	COVER						
	11	1	4W-8467	1	TUBE						
B	12	1	7E-6369	1	BRACKET						
	13	1	7F-0192	3	BOLT (3/8-16X2-IN)						
C	14	2	8C-3445	1	CAP-DUST						
	15	2	8N-1991	1	RING-RETAINING						
	16	2	8N-1992	2	RETAINER						
	17	1	8N-9482	1	SUPPORT-OIL FILTER						
	18	2	100-8075	2	CLAMP AS						
	19	1,2	111-3820	2	RING-RETAINING						
	20	1	111-8639	1	COVER-BYPASS VALVE						
	21	1	133-9313	1	PLATE						
	22	2	155-1690	1	ADAPTER AS						
		2	154-1581	1	RING-RETAINING						
	23	2	157-0443	1	COVER AS						
		2	7N-2043	1	DOWEL						
C	24	1	253-4778	1	TUBE AS						
	25	2	264-0450	2	CLAMP AS						
	26	1	278-1082	1	HOUSING AS-FILTER (ENGINE OIL)						
		1	4V-7412	1	BOSS (3/8-16-THD)						
	27	2	0L-1143	4	BOLT (3/8-16X2.5-IN)						
	28	1	0L-1351	3	BOLT (3/8-16X0.875-IN)						
	29	1,2	0S-1571	6	BOLT (3/8-16X1.75-IN)						
B	30	1	0S-1588	9	BOLT (3/8-16X1.25-IN)						
	31	1,2	0S-1594	6	BOLT (3/8-16X1-IN)						
	32	1,2	0S-1619	5	BOLT (3/8-16X3-IN)						
	33	1	109-2332	4	SEAL-O-RING						
	34	2	165-3931	3	BOLT (3/8-16X1.75-IN)						
	35	1	1M-0644	3	BOLT (3/8-16X2.25-IN)						
B	36	1	3B-1915	1	BOLT (3/8-16X1.375-IN)						
C	37	2	3J-7354	1	SEAL-O-RING						
	38	1	4S-5882	2	BOLT (1/2-13X7.25-IN)						
	39	2	5D-5957	1	SEAL-O-RING						
B	40	1,2	5M-2894	30	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	41	1	5P-4624	2	BOLT (3/4-10X11.5-IN)						
	42	1,2	5P-4892	6	SEAL-O-RING						
B	43	1	6V-0267	1	CLIP (TAB)						
B	44	1	6V-0268	1	CLIP (SLOT)						
	45	2	6V-3907	4	SEAL-O-RING						
	46	1,2	6V-5048	6	SEAL-O-RING						
	47	1	6V-8001	1	SEAL-O-RING						
C	48	2	8C-3446	1	VALVE-FLUID SAMPLING						
	49	1	8T-6762	1	PLUG-PIPE						
	50	1,2	9S-4182	6	PLUG-O-RING						
B	51	1,2	9S-8752	4	NUT-FULL (3/8-16-THD)						
B	52	1	1D-4574	2	BOLT (1/2-13X6-IN)						
B	53	1	5P-5421	4	BOLT (1/2-13X11.5-IN)						

LUBRICATION SYSTEM

242-6278 FILTER GP-ENGINE OIL (contd.)

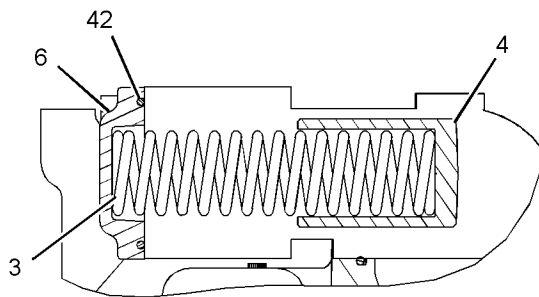
i02476159

B - USE AS REQUIRED
C - CHANGE FROM PREVIOUS TYPE

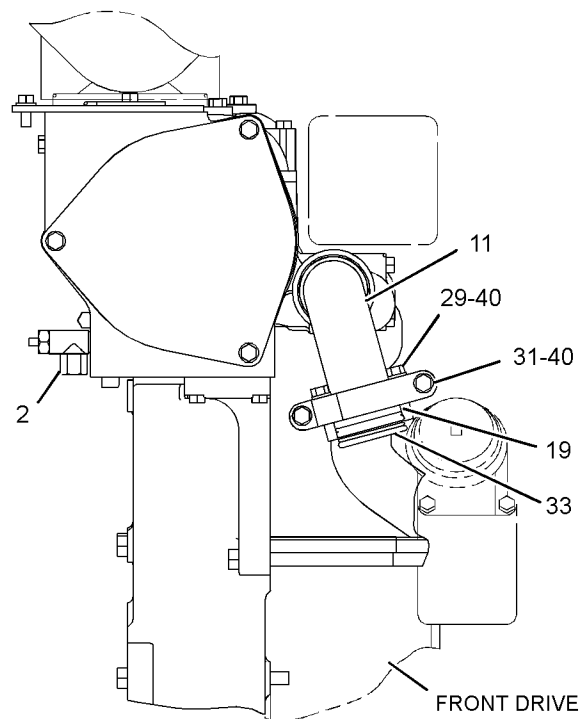


FRONT VIEW

REFER TO ALL ILLUSTRATIONS OF THIS GROUP FOR AUXILIARY VIEWS



SECTION B-B



LEFT SIDE VIEW

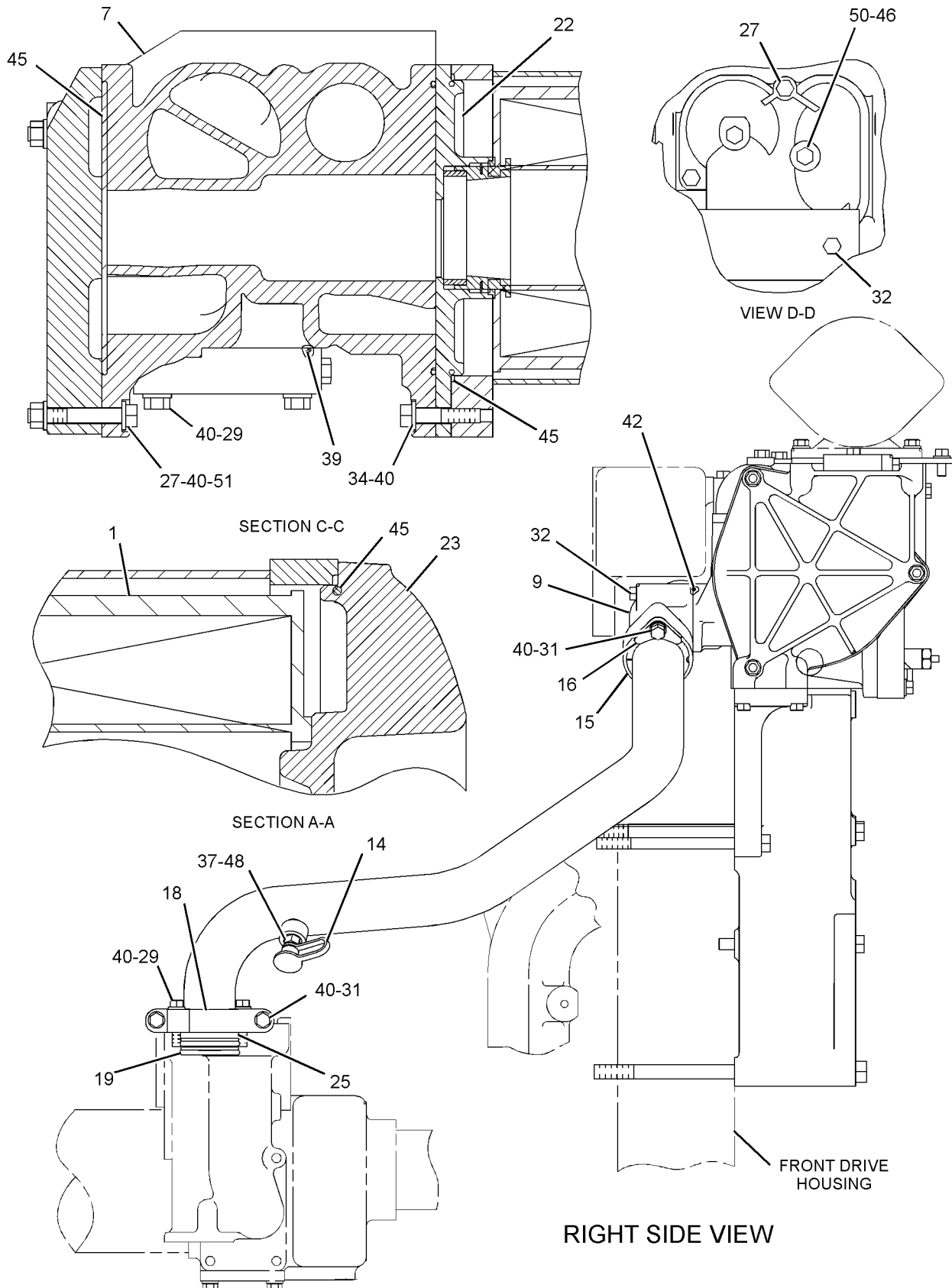
GRAPHIC #1

g01271194

LUBRICATION SYSTEM

242-6278 FILTER GP-ENGINE OIL (contd.)

i02476159



GRAPHIC #2

<END>

g01271234

LUBRICATION SYSTEM

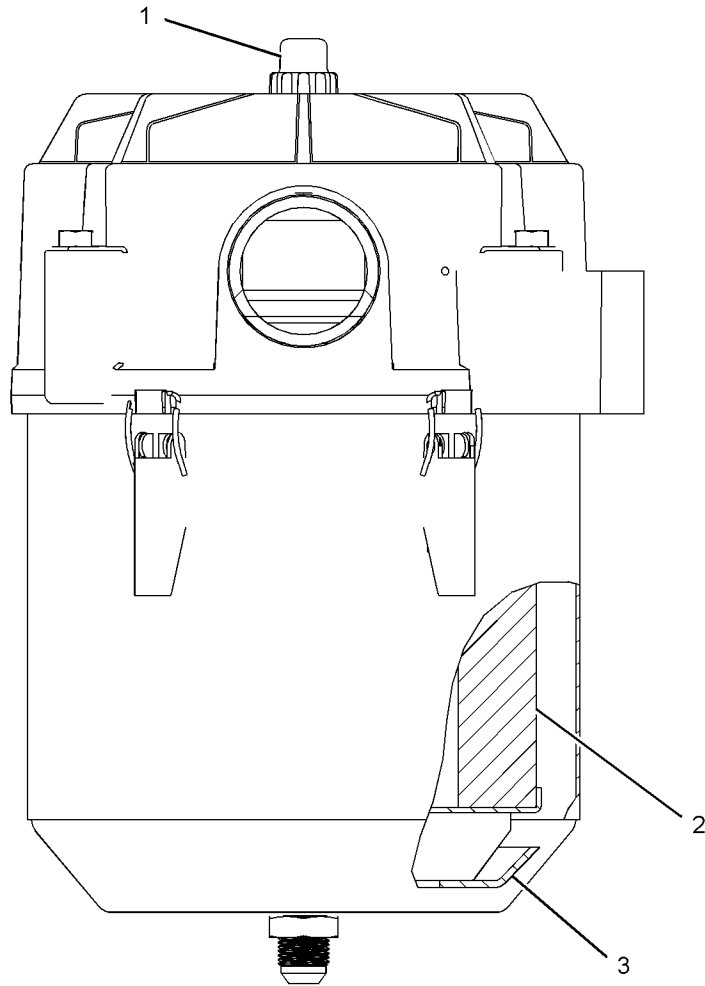
279-2475 FILTER GP - FUMES

PART OF 297-1020 FILTER GP - FUMES
AN ATTACHMENT

SMCS-1317

i02710353

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	195-4550	1	CAP						
	2	1	275-2276	1	ELEMENT-BREATHER (FUMES DISPOSAL)						
	3	1	291-9125	1	PAD						



GRAPHIC #1

<END>

g01303885

LUBRICATION SYSTEM

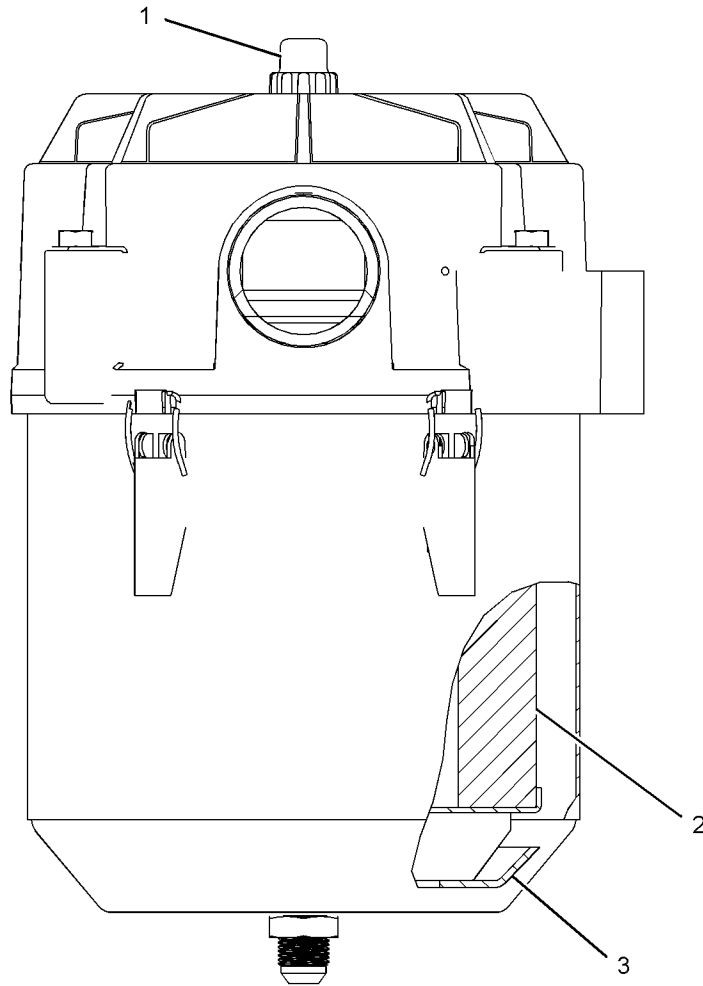
282-5367 FILTER GP-FUMES

PART OF 297-1019 FILTER GP-FUMES
AN ATTACHMENT

SMCS-1317

i02710354

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	195-4550	1	CAP						
	2	1	275-2276	1	ELEMENT-BREATHER (FUMES DISPOSAL)						
	3	1	291-9125	1	PAD						



GRAPHIC #1

<END>

g01303885

LUBRICATION SYSTEM

297-1019 FILTER GP-FUMES-RH FOR USE WITH CLOSED CRANKCASE VENTILATION AN ATTACHMENT

SMCS-1317

i02665331

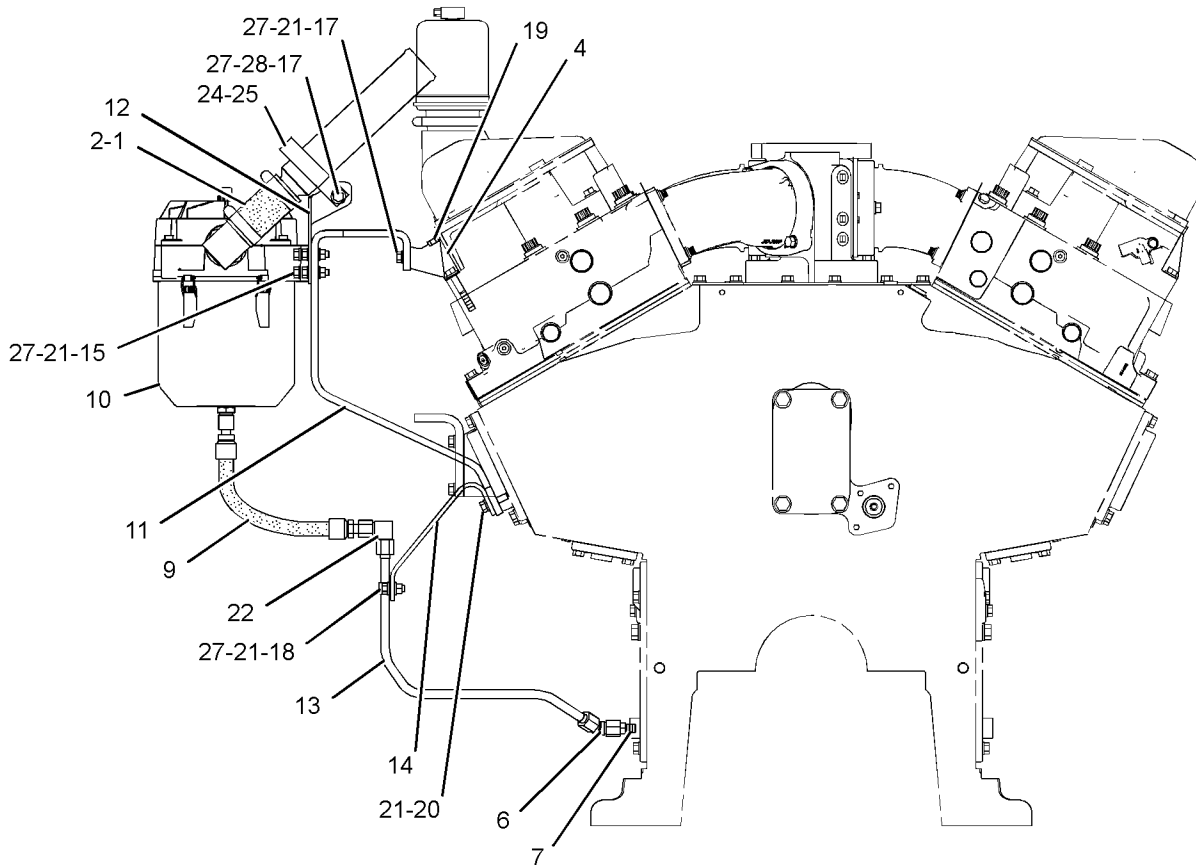
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
E	1	1	5P-1291	1	HOSE (10.16-CM)						
	2	1	5P-0597	2	CLAMP-HOSE						
	3	1	5P-1947	1	CONNECTOR						
	4	1	7N-6986	1	SUPPORT						
	5	1	8C-9020	1	STEM AS						
	6	1	153-7487	1	ELBOW						
	7	1	158-6457	1	VALVE-CHECK						
	8	1	278-0155	1	TUBE AS						
I	9	1	279-2482	1	HOSE AS						
Y	10	1	282-5367	1	FILTER GP-FUMES						76
	11	1	284-4169	1	BRACKET						
	12	1	284-4171	1	BRACKET						
	13	1	291-6549	1	TUBE AS						
	14	1	297-3279	1	BRACKET						
	15	1	0S-1571	4	BOLT (3/8-16X1.75-IN)						
	16	1	0S-1588	2	BOLT (3/8-16X1.25-IN)						
	17	1	0S-1591	3	BOLT (3/8-16X1.5-IN)						
	18	1	0S-1594	2	BOLT (3/8-16X1-IN)						
	19	1	1A-5964	2	BOLT (3/8-16X4.5-IN)						
	20	1	3B-1915	1	BOLT (3/8-16X1.375-IN)						
	21	1	5M-2894	20	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	22	1	5P-6399	1	ELBOW-FLARED						
	23	1	6K-6307	2	SEAL-O-RING						
	24	1	6V-0267	1	CLIP (TAB)						
	25	1	6V-0268	1	CLIP (SLOT)						
	26	1	8M-2770	1	CLIP						
	27	1	9S-8752	10	NUT-FULL (3/8-16-THD)						
	28	1	9X-6458	2	WASHER-HARD (10.2X22.5X3-MM THK)						

E - ORDER BY THE CENTIMETER
I - REFER TO HYDRAULIC INFORMATION SYSTEM
Y - SEPARATE ILLUSTRATION

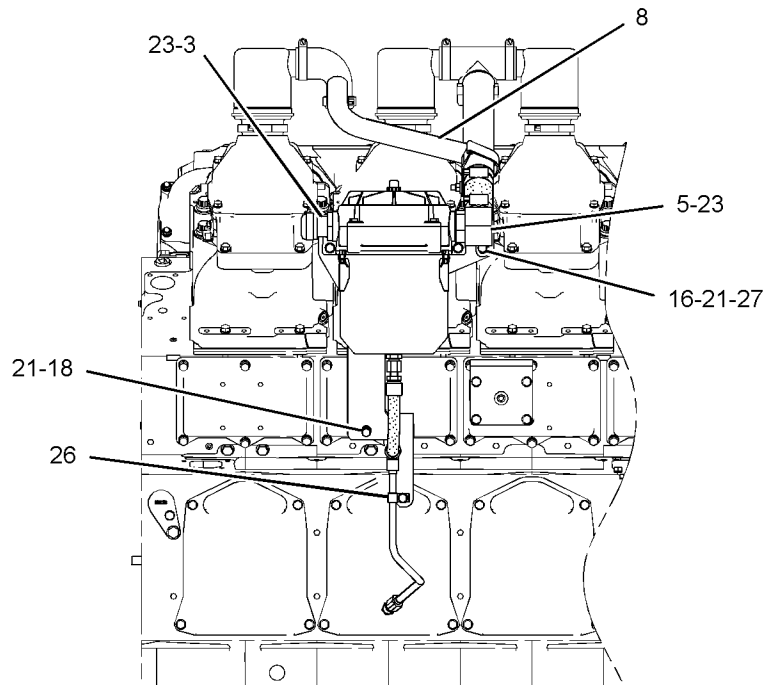
LUBRICATION SYSTEM

297-1019 FILTER GP - FUMES (contd.)

i02665331



FRONT VIEW OF ENGINE



RIGHT SIDE VIEW OF ENGINE

GRAPHIC #1

<END>

g01345424

LUBRICATION SYSTEM

297-1020 FILTER GP-FUMES-LH FOR USE WITH CLOSED CRANKCASE VENTILATION AN ATTACHMENT

SMCS-1317

i02665333

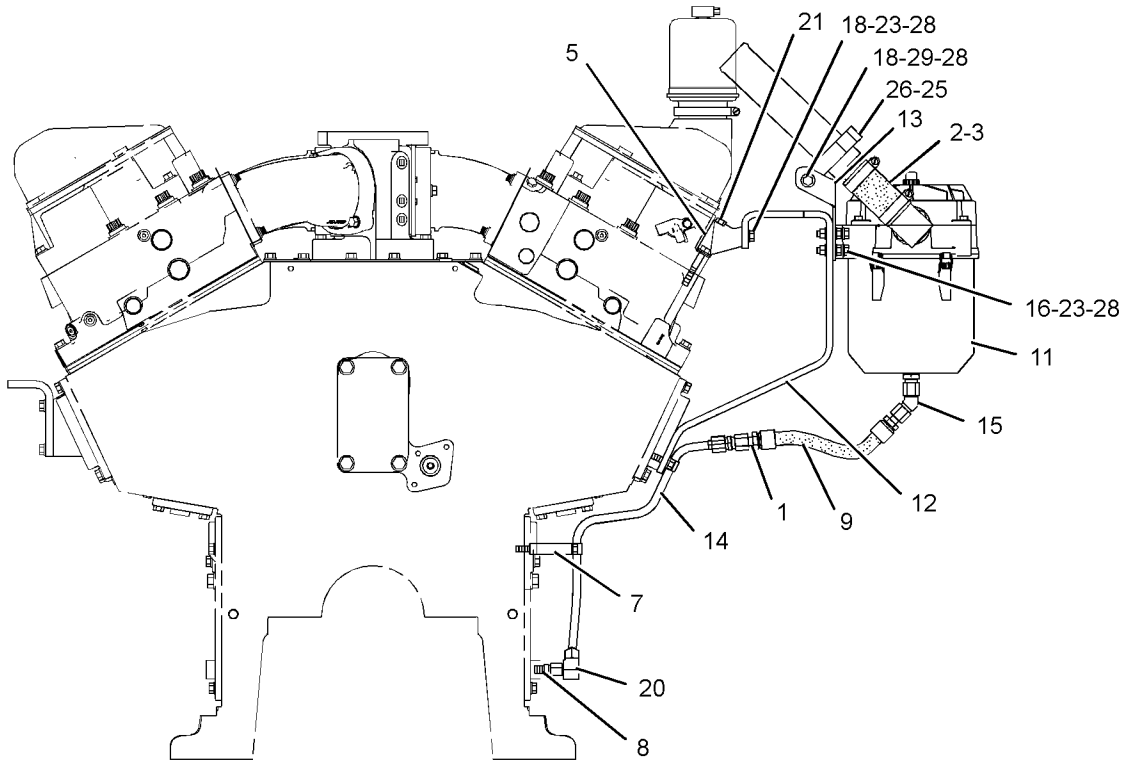
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	3R-2704	1	UNION-FLARED						
E	2	1	5P-1291	1	HOSE (10.16-CM)						
	3	1	5P-0597	2	CLAMP-HOSE						
	4	1	5P-1947	1	CONNECTOR						
	5	1	7N-6986	1	SUPPORT						
	6	1	8C-9020	1	STEM AS						
	7	1	126-3005	1	PIPE						
	8	1	158-6457	1	VALVE-CHECK						
I	9	1	244-3732	1	HOSE AS						
	10	1	278-0155	1	TUBE AS						
Y	11	1	279-2475	1	FILTER GP-FUMES						75
	12	1	284-4169	1	BRACKET						
	13	1	284-4171	1	BRACKET						
	14	1	291-6550	1	TUBE AS						
	15	1	030-7963	1	ELBOW-FLARED						
	16	1	0S-1571	4	BOLT (3/8-16X1.75-IN)						
	17	1	0S-1588	3	BOLT (3/8-16X1.25-IN)						
	18	1	0S-1591	3	BOLT (3/8-16X1.5-IN)						
	19	1	0S-1594	1	BOLT (3/8-16X1-IN)						
	20	1	112-4387	1	ELBOW						
	21	1	1A-5964	2	BOLT (3/8-16X4.5-IN)						
	22	1	2M-3403	1	BOLT (3/8-16X3.63-IN)						
	23	1	5M-2894	18	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	24	1	6K-6307	2	SEAL-O-RING						
	25	1	6V-0267	1	CLIP (TAB)						
	26	1	6V-0268	1	CLIP (SLOT)						
	27	1	8M-2770	2	CLIP						
	28	1	9S-8752	9	NUT-FULL (3/8-16-THD)						
	29	1	9X-6458	2	WASHER-HARD (10.2X22.5X3-MM THK)						

E - ORDER BY THE CENTIMETER
I - REFER TO HYDRAULIC INFORMATION SYSTEM
Y - SEPARATE ILLUSTRATION

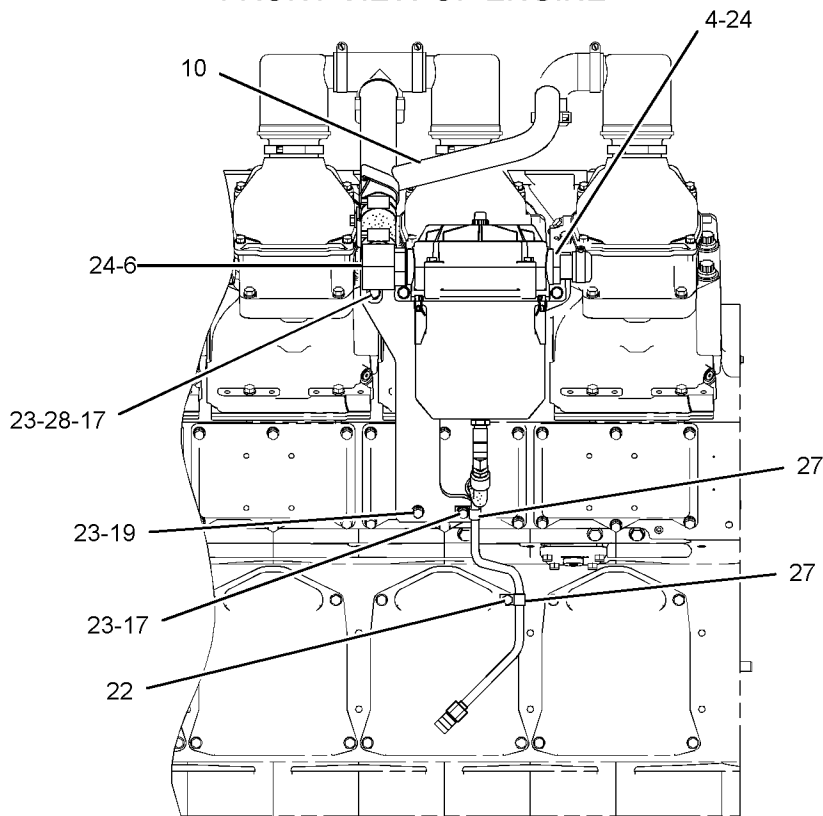
LUBRICATION SYSTEM

297-1020 FILTER GP-FUMES (contd.)

i02665333



FRONT VIEW OF ENGINE



LEFT SIDE VIEW OF ENGINE

GRAPHIC #1

<END>

g01345434

LUBRICATION SYSTEM

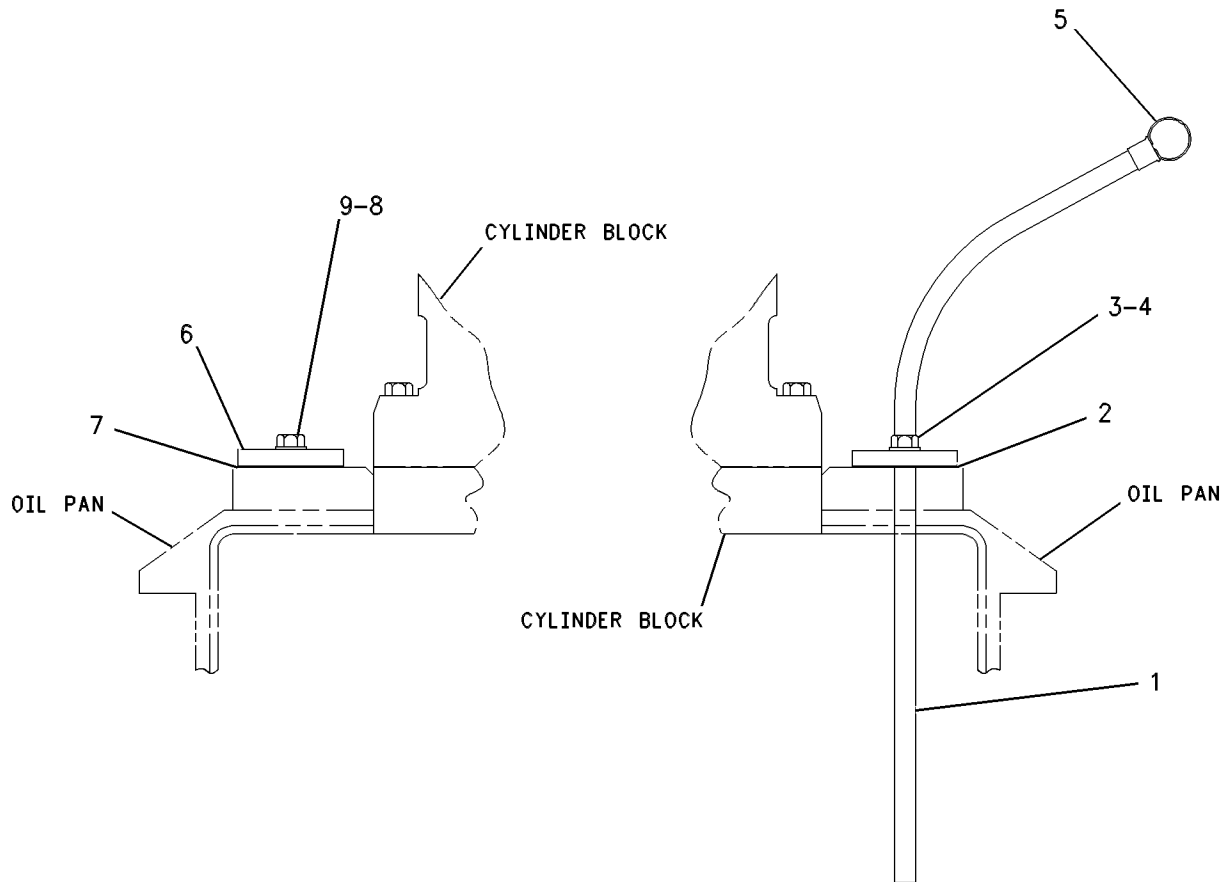
7C-6366 GAUGE GP-OIL LEVEL (DIPSTICK)

SMCS-1326

i02449728

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7E-0467	1	TUBE AS-OIL LEVEL						
	2	1	9L-1480	1	GASKET						
	3	1	0S-1594	2	BOLT (3/8-16X1-IN)						
	4	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	5	1	4P-3784	1	GAUGE AS-OIL LEVEL (DIPSTICK)						
B	6	1	4B-3140	1	COVER						
B	7	1	9L-1480	1	GASKET						
B	8	1	0S-1594	2	BOLT (3/8-16X1-IN)						
B	9	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5-MM THK)						

B-USE AS REQUIRED



GRAPHIC #1

<END>

g00614582

LUBRICATION SYSTEM

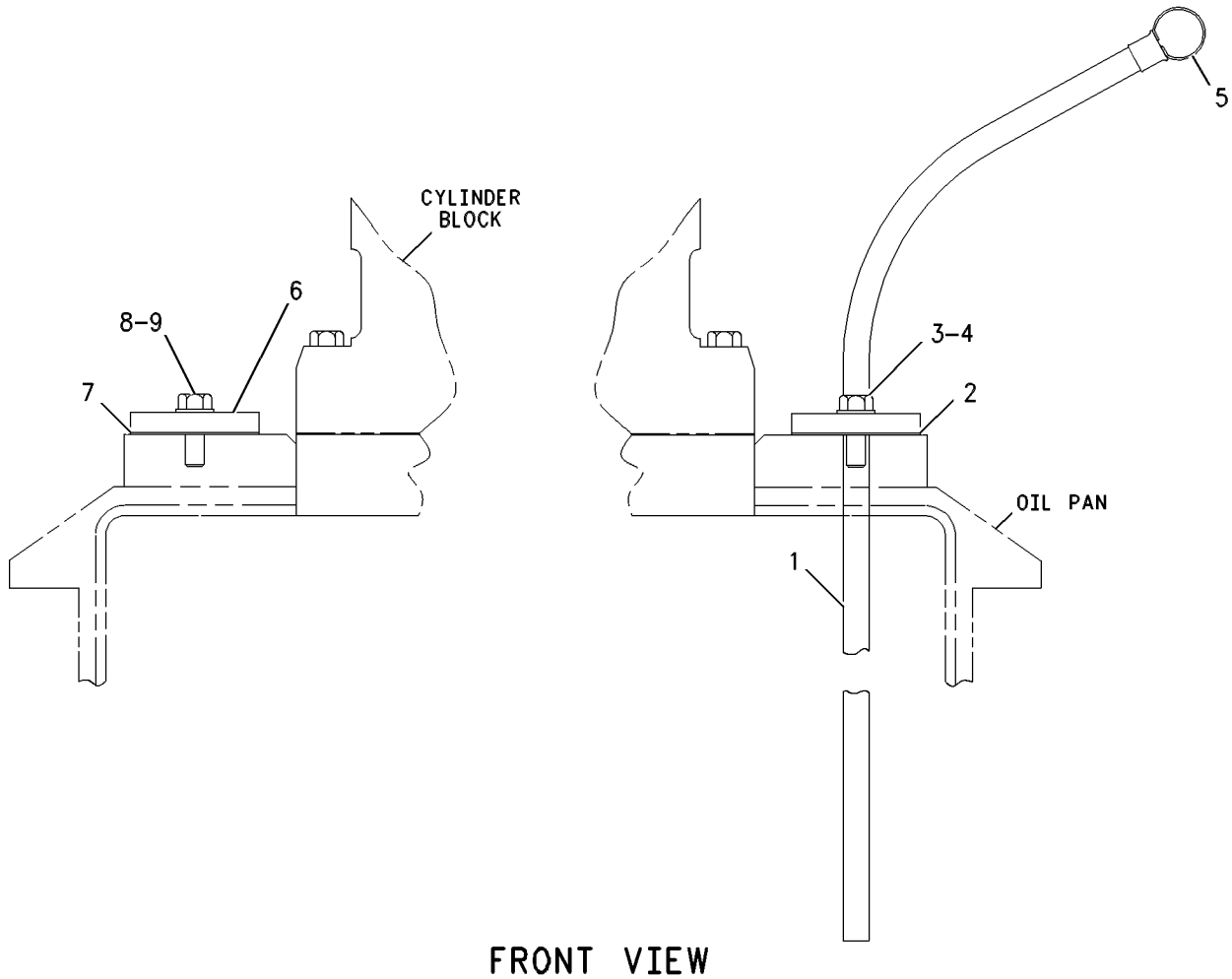
7C-9784 GAUGE GP-OIL LEVEL (DIPSTICK)-DEEP SUMP AN ATTACHMENT

SMCS-1326

i02458978

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7E-0467	1	TUBE AS-OIL LEVEL						
	2	1	9L-1480	1	GASKET						
	3	1	0S-1594	2	BOLT (3/8-16X1-IN)						
	4	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	5	1	7C-9786	1	GAUGE AS-OIL LEVEL (DIPSTICK) (DEEP SUMP)						
B	6	1	4B-3140	1	COVER						
B	7	1	9L-1480	1	GASKET						
B	8	1	0S-1594	2	BOLT (3/8-16X1-IN)						
B	9	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5-MM THK)						

B-USE AS REQUIRED



GRAPHIC #1

<END>

g00618660

LUBRICATION SYSTEM

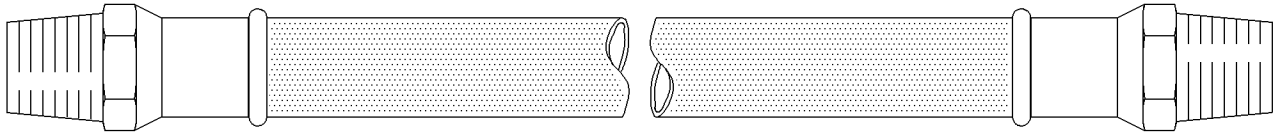
3N-4868 HOSE AS*I

915-MM LENGTH
AN ATTACHMENT

SMCS-1307

i01305109

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

<END>

g00691548

LUBRICATION SYSTEM

245-3678 LINES GP-ENGINE OIL

SMCS-1307

i02577753

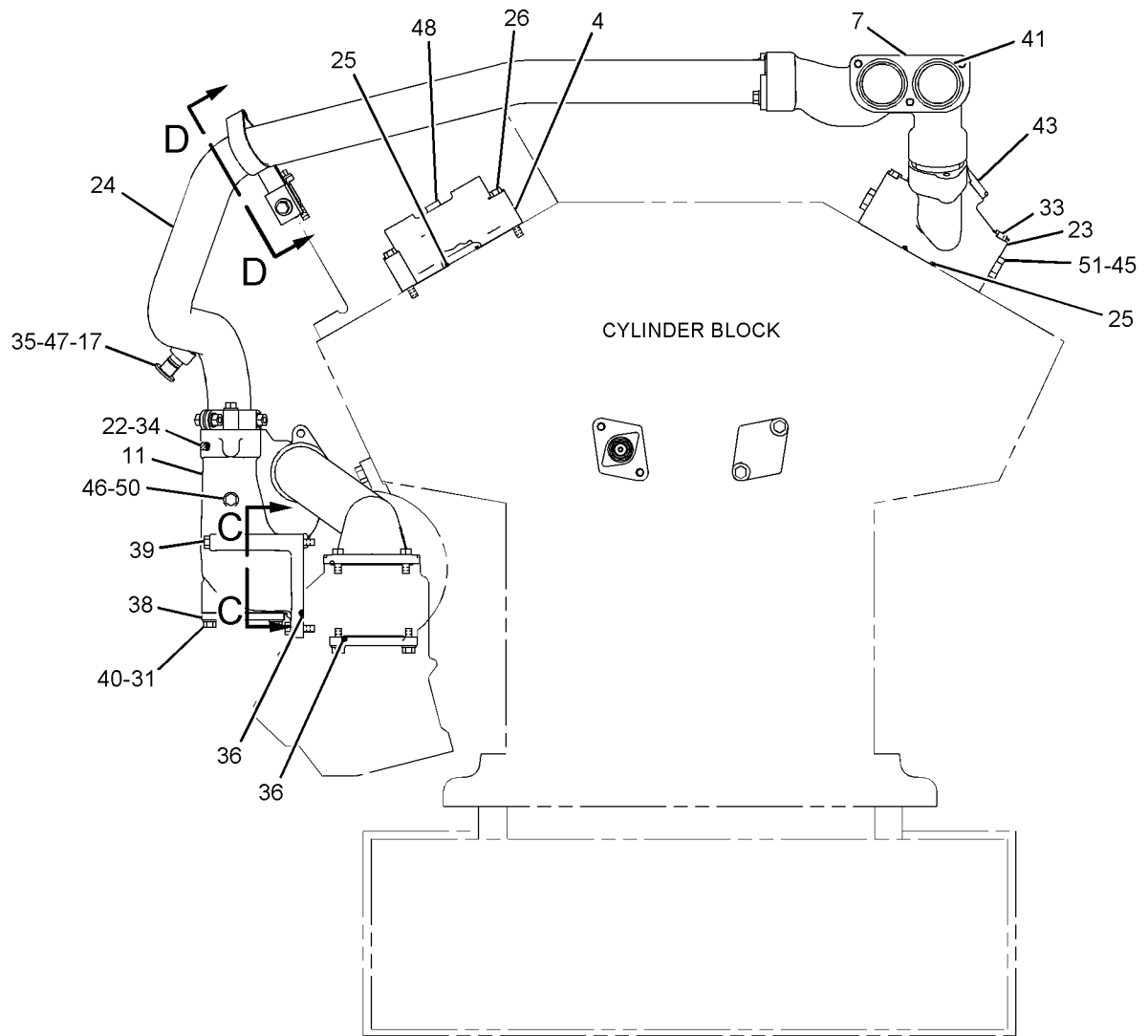
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	2	1N-3333	1	TUBE						
	2	1	2W-1635	1	SPRING						
	3	1	2W-1969	1	VALVE-BYPASS						
	4	1	2W-7226	1	ADAPTER						
	5	1	3H-7131	1	LUG						
	6	1	4P-8097	1	BRACKET						
	7	1	4W-4313	1	ADAPTER						
	8	2	4W-4677	1	TUBE						
	9	2	4W-5597	1	COVER						
	10	2	6B-9202	2	SPRING						
	11	1	7C-9217	1	ELBOW						
	12	1	7E-6602	1	CLIP (SLOT)						
	13	1	7E-6603	1	CLIP (TAB)						
	14	2	7N-5413	1	ELBOW						
	15	2	7N-5416	1	ELBOW						
	16	2	7N-7697	2	PLUNGER AS						
					(EACH INCLUDES)						
		2	7M-1808	1	DOWEL						
	17	1	8C-3445	1	CAP-DUST						
	18	2	8N-1991	1	RING-RETAINING						
	19	2	8N-1992	2	RETAINER						
	20	2	8N-2929	2	COVER						
	21	2	100-8075	1	CLAMP AS						
	22	1	111-3820	1	RING-RETAINING						
	23	1	116-1352	1	ADAPTER						
	24	1	253-4777	1	TUBE AS						
	25	1	061-9456	4	SEAL-O-RING						
	26	1	0L-1143	5	BOLT (3/8-16X2.5-IN)						
	27	2	0L-1352	1	BOLT (3/8-16X3.25-IN)						
	28	1,2	0S-1571	3	BOLT (3/8-16X1.75-IN)						
	29	2	0S-1588	10	BOLT (3/8-16X1.25-IN)						
	30	2	0S-1590	2	BOLT (3/8-16X2-IN)						
	31	1	0S-1591	2	BOLT (3/8-16X1.5-IN)						
	32	2	0S-1594	14	BOLT (3/8-16X1-IN)						
	33	1	0T-0065	4	BOLT (3/8-16X3.5-IN)						
	34	1,2	109-2332	6	SEAL-O-RING						
	35	1,2	3J-7354	1	SEAL-O-RING						
	36	1,2	3P-0655	3	SEAL-O-RING						
	37	2	4B-3140	1	COVER						
	38	1	4W-5596	1	COVER						
	39	1	5F-4899	1	BOLT (3/8-16X5.5-IN)						
	40	1,2	5M-2894	14	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	41	1,2	5P-4892	3	SEAL-O-RING						
	42	2	5P-5846	1	SEAL-O-RING						
	43	1	5P-7817	1	SEAL-O-RING						
	44	2	6V-3908	1	SEAL-O-RING						
	45	1	6V-4589	2	SEAL-O-RING						
	46	1	6V-5048	1	SEAL-O-RING						
	47	1	8C-3446	1	VALVE-FLUID SAMPLING						
B	48	1	8T-6762	1	PLUG-PIPE						
	49	2	8T-6765	1	PLUG-PIPE						
	50	1	9S-4182	1	PLUG-O-RING						
	51	1	9S-4190	2	PLUG-O-RING						
	52	1	9S-8752	1	NUT-FULL (3/8-16-THD)						
	53	1	9X-6458	3	WASHER-HARD (10.2X22.5X3-MM THK)						
	54	2	264-0450	1	CLAMP AS						
	55	2	6B-0933	4	SPACER (10.31X19.05X6.35-MM THK)						

B-USE AS REQUIRED

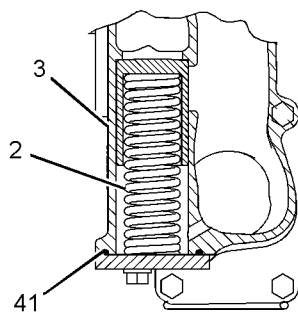
LUBRICATION SYSTEM

245 - 3678 LINES GP - ENGINE OIL (contd.)

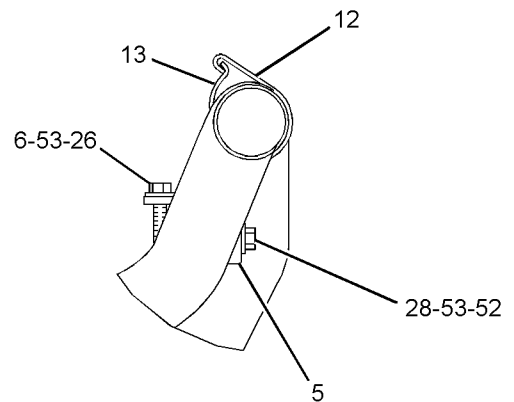
i02577753



FRONT VIEW



SECTION C-C



SECTION D-D

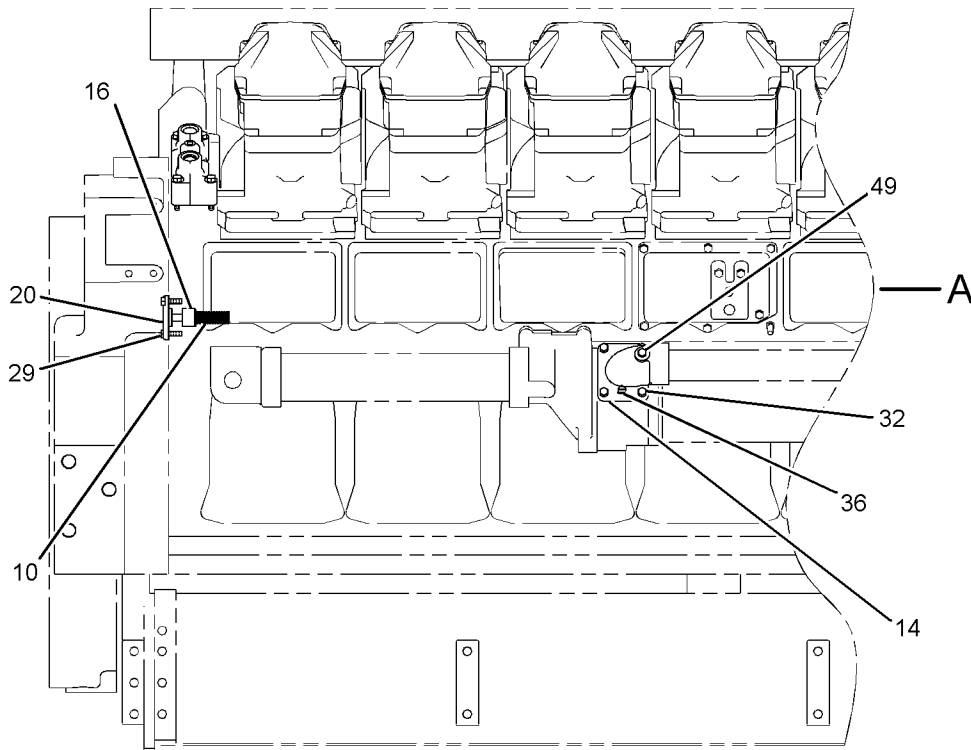
GRAPHIC #1

g01104735

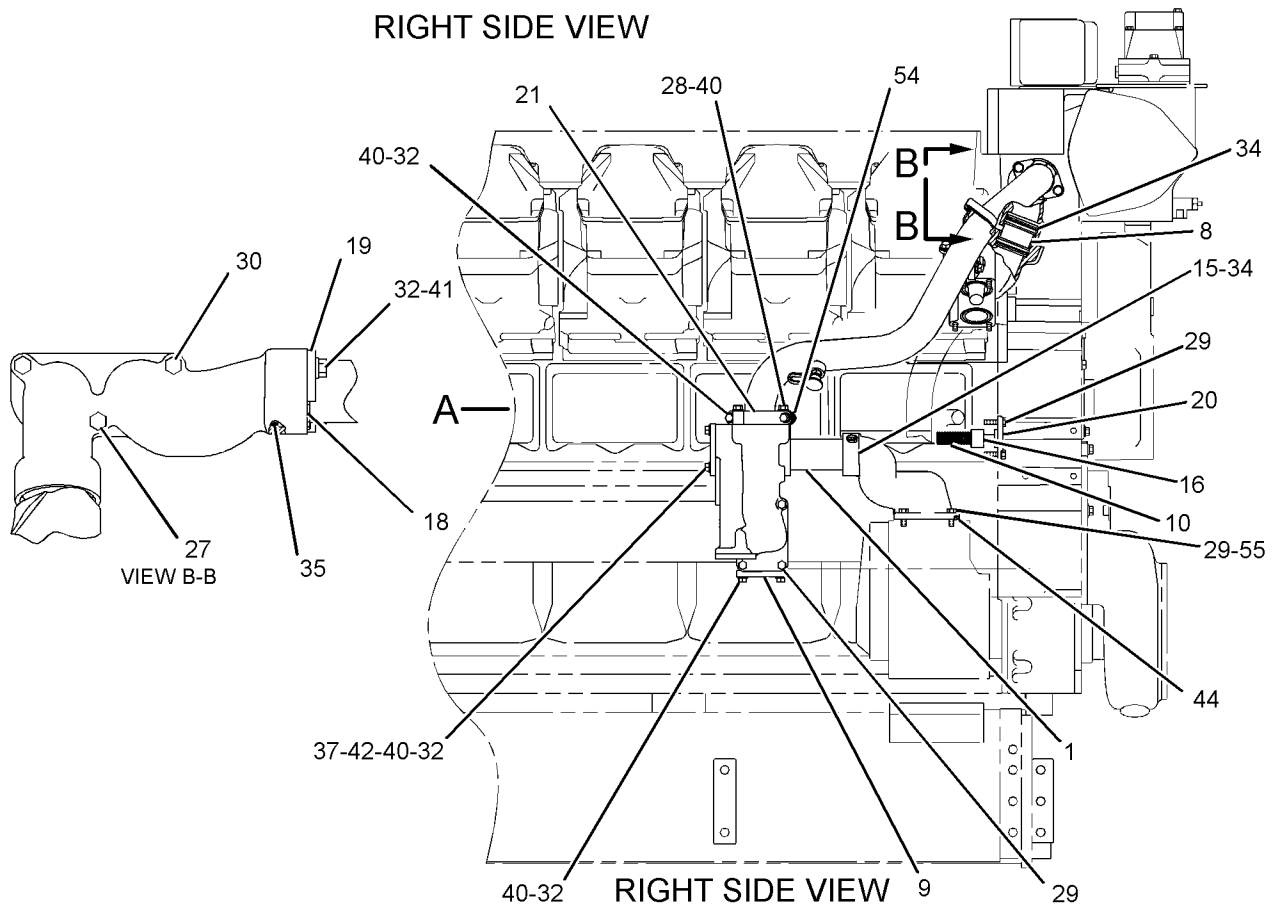
LUBRICATION SYSTEM

245 - 3678 LINES GP - ENGINE OIL (contd.)

i02577753



RIGHT SIDE VIEW



RIGHT SIDE VIEW

<END>

GRAPHIC #2

g01291354

LUBRICATION SYSTEM

112-5010 LINES GP - TURBOCHARGER OIL

SMCS-1052, 1307

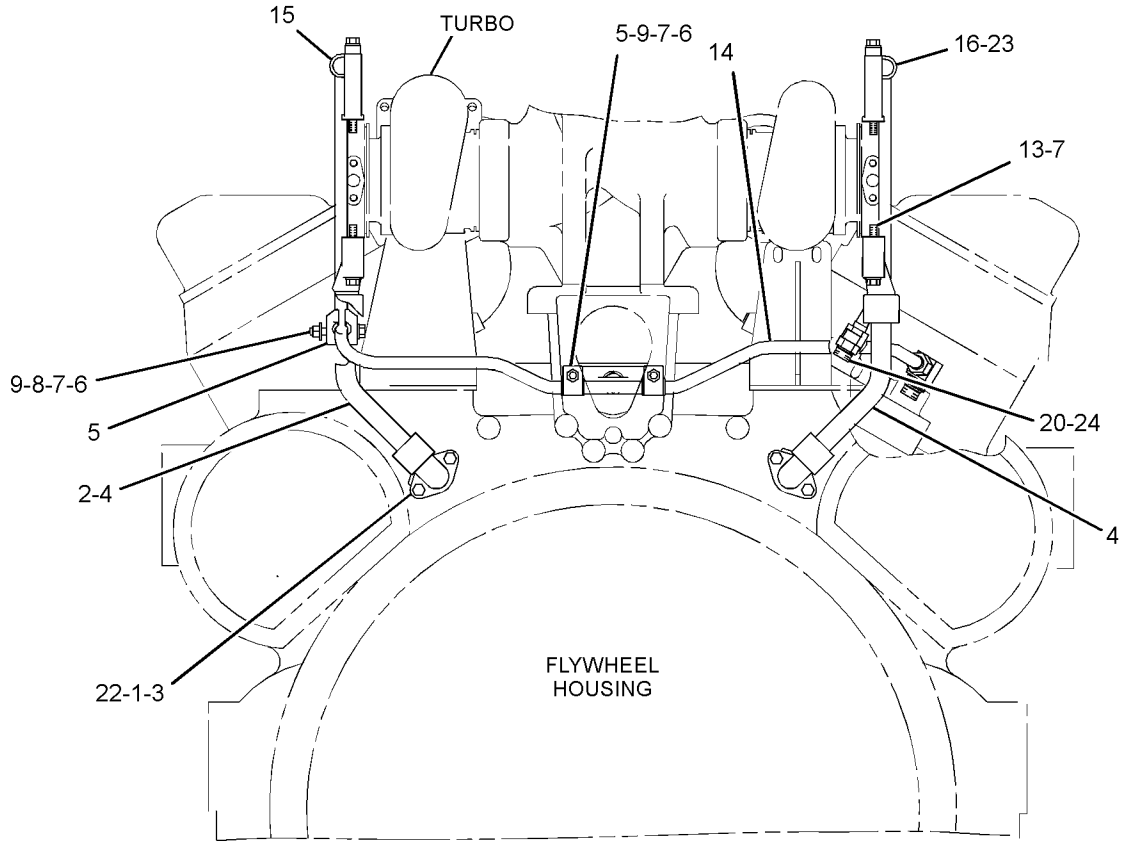
i02696249

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1594	4	BOLT (3/8-16X1-IN)						
	2	1	5P-9890	4	SEAL-O-RING						
	3	1	1W-7214	2	ELBOW-DRAIN						
	4	1	113-4646	2	TUBE AS						
	5	1	4P-0692	6	CLAMP AS						
					(EACH INCLUDES)						
		1	108-1434	1	GROMMET						
	6	1	0L-1143	3	BOLT (3/8-16X2.5-IN)						
	7	1	5M-2894	11	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	8	1	9X-6458	1	WASHER-HARD (10.2X22.5X3-MM THK)						
	9	1	9S-8752	3	NUT-FULL (3/8-16-THD)						
	10	1	1A-5964	4	BOLT (3/8-16X4.5-IN)						
	11	1	7N-7559	2	GASKET						
	12	1	113-4648	2	ELBOW						
	13	1	0T-0573	4	BOLT (3/8-16X2.75-IN)						
	14	1	113-4642	1	TUBE AS						
	15	1	6I-0804	1	ADAPTER-TURBOCHARGER OIL (LH)						
	16	1	6I-0805	1	ADAPTER-TURBOCHARGER OIL (RH)						
	17	1	8L-2786	2	SEAL-O-RING						
	18	1	2P-7636	2	CONNECTOR (FLARED)						
	19	1	130-2602	1	TUBE AS						
	20	1	9M-4584	1	CONNECTOR						
	21	1	250-1498	1	ELBOW AS						
		1	6V-4589	1	SEAL-O-RING						
		1	250-1497	1	ELBOW						
	22	1	252-8374	2	GASKET						
	23	1	4P-4460	2	GASKET						
	24	1	6V-4589	1	SEAL-O-RING						
	25	1	7W-6333	4	SPACER (10.5X20X10.7-MM THK)						

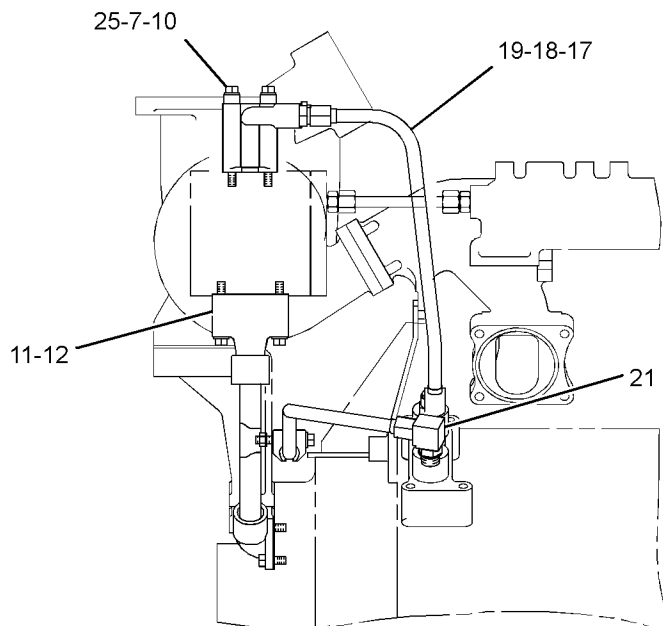
LUBRICATION SYSTEM

112-5010 LINES GP - TURBOCHARGER OIL (contd.)

i02696249



REAR VIEW OF ENGINE



RIGHT SIDE VIEW OF ENGINE

GRAPHIC #1

<END>

g01354302

LUBRICATION SYSTEM

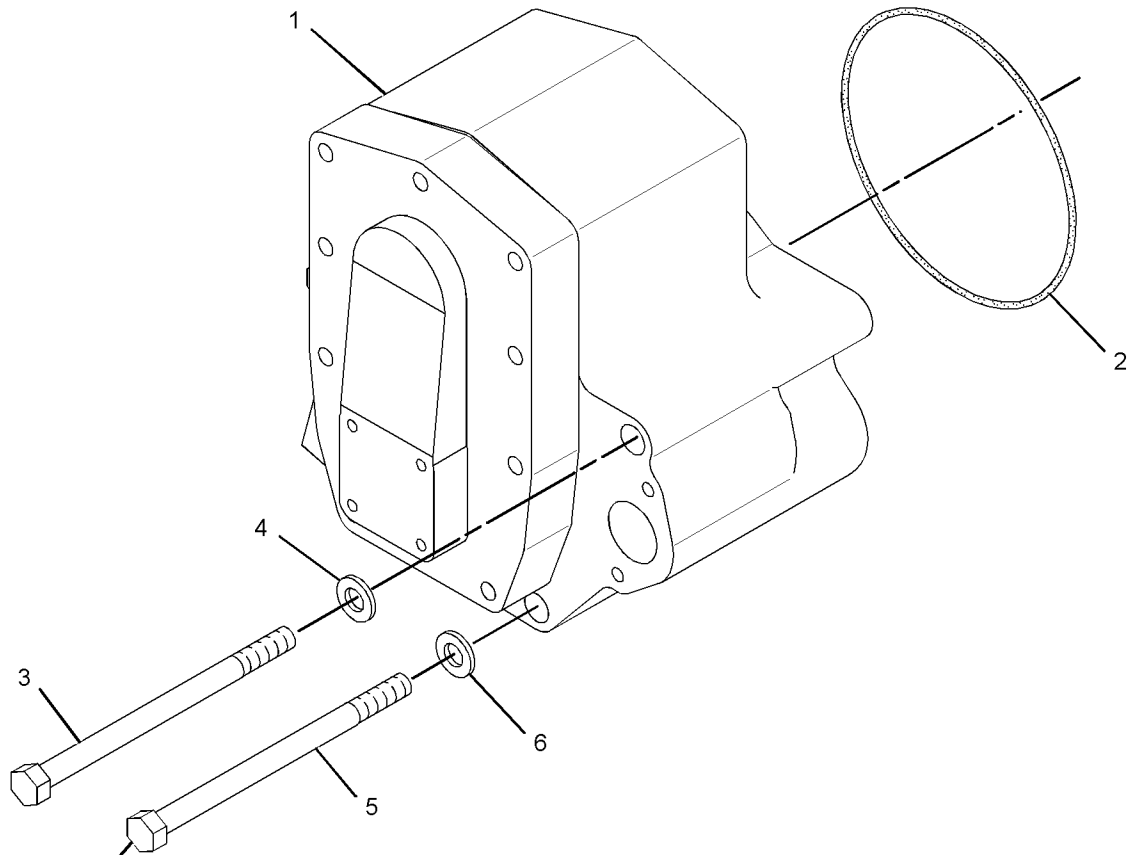
7N-8715 PUMP GP-ENGINE OIL TWO-SECTION GEAR

SMCS-1304, 1315

i02687176

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
CYR	1	1	7W-0053	1	PUMP GP-ENGINE OIL						90
C	2	1	298-6387	1	SEAL-O-RING						
	3	1	4S-5882	1	BOLT (1/2-13X7.25-IN)						
	4	1	5P-8245	1	WASHER-HARD (13.5X25.5X3-MM THK)						
B	5	1	4S-5882	2	BOLT (1/2-13X7.25-IN)						
B	6	1	5P-8245	2	WASHER-HARD (13.5X25.5X3-MM THK)						

B- USE AS REQUIRED
 C- CHANGE FROM PREVIOUS TYPE
 R- REMFG PART MAY BE AVAILABLE
 Y- SEPARATE ILLUSTRATION



MOUNTS TO
FRONT DRIVE
ACCESSORY
HOUSING

GRAPHIC #1

<END>

g01350464

LUBRICATION SYSTEM

7W-0053 PUMP GP-ENGINE OIL*R

TWO-SECTION GEAR

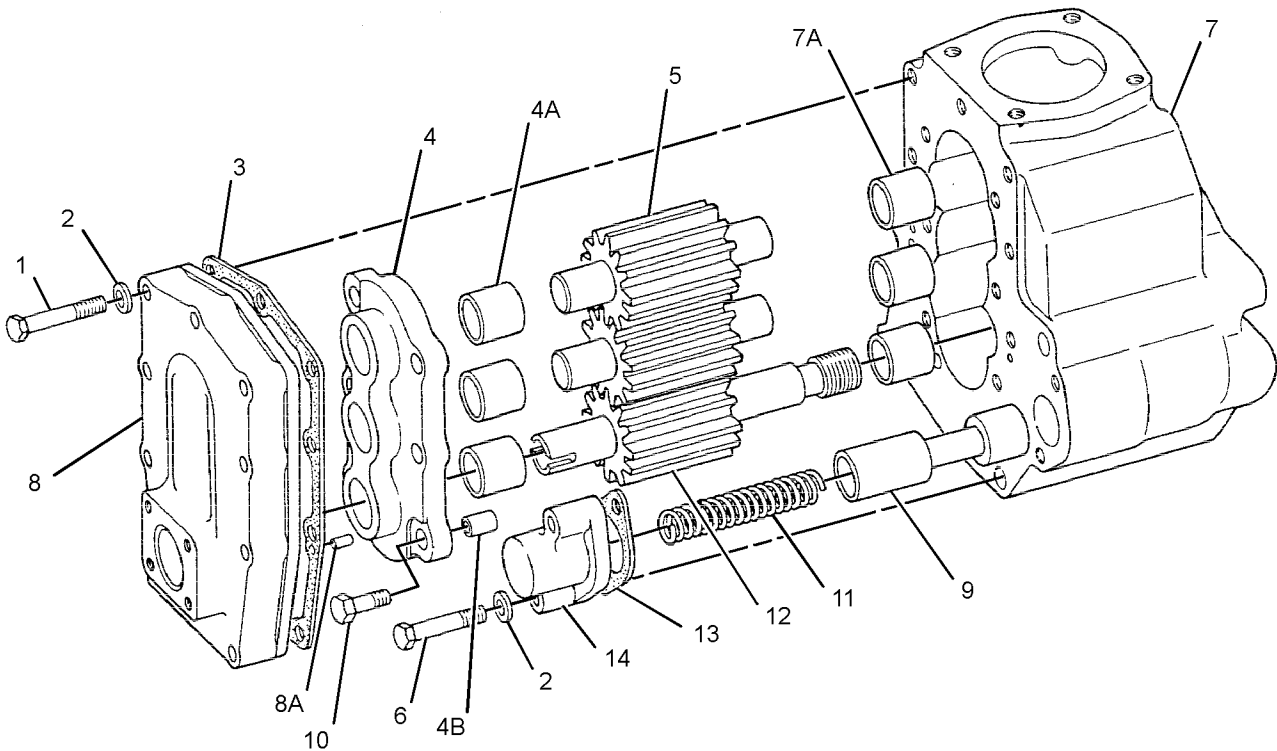
PART OF 7N-8715 PUMP GP-ENGINE OIL

SMCS-1304, 1315

i02693106

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1590	9	BOLT (3/8-16X2-IN)						
	2	1	5M-2894	11	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	3	1	7N-5057	1	GASKET						
	4	1	7W-0050	1	COVER AS-PUMP						
	4A	1	1W-6005	3	BEARING-SLEEVE						
	4B	1	4M-3248	2	DOWEL-HOLLOW						
	5	1	2W-5476	2	SHAFT AS-IDLER						
	6	1	7F-1866	2	BOLT (3/8-16X3-IN)						
	7	1	7W-0051	1	BODY AS-OIL PUMP						
C	7A	1	1W-6005	3	BEARING-SLEEVE						
	8	1	1N-4637	1	COVER AS-PUMP						
	8A	1	7N-2043	2	DOWEL						
	9	1	7N-5449	1	SPOOL-PRESSURE RELIEF						
	10	1	0S-1585	6	BOLT (1/2-13X1.5-IN)						
	11	1	2S-2760	1	SPRING						
	12	1	2W-6619	1	SHAFT AS-PUMP DRIVE						
	13	1	111-1349	1	GASKET						
	14	1	7N-5049	1	COVER-RELIEF VALVE						

C- CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

<END>

g01351092

LUBRICATION SYSTEM

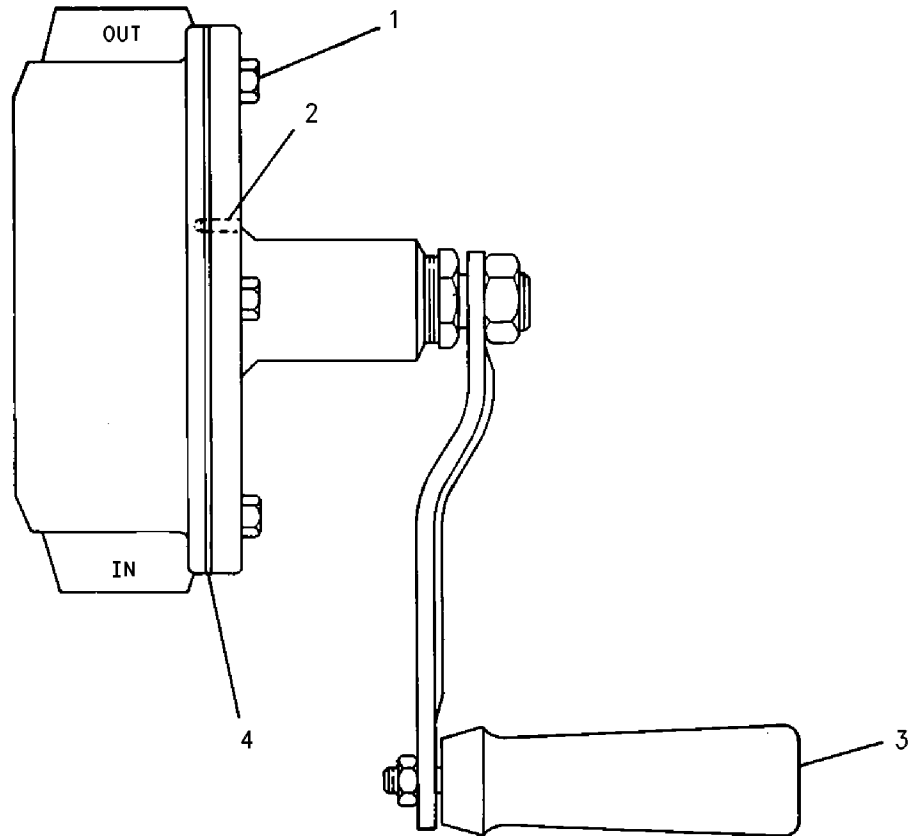
5N-6237 PUMP GP - SUMP

PART OF 7N-7069 PUMP GP - SUMP
AN ATTACHMENT

SMCS - 1324

i02656698

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 (1/4-20X0.625-IN)						
	2	1	3N-3297	2	PIN-TAPERED						
	3	1	5N-6255	1	HANDLE AS						
B	4	1	3N-3299	1	GASKET SET (INCLUDES 4 GASKETS)						
					AVAILABLE REPAIR KIT(S) :						
			3N-3300	1	KIT-PUMP (SUMP) (INCLUDES VANE, SPRING, PACKING, NUT & GASKET)						
B-USE AS REQUIRED											



GRAPHIC #1

<END>

g00621010

LUBRICATION SYSTEM

7N - 7069 PUMP GP - SUMP AN ATTACHMENT

SMCS - 1324

i02211933

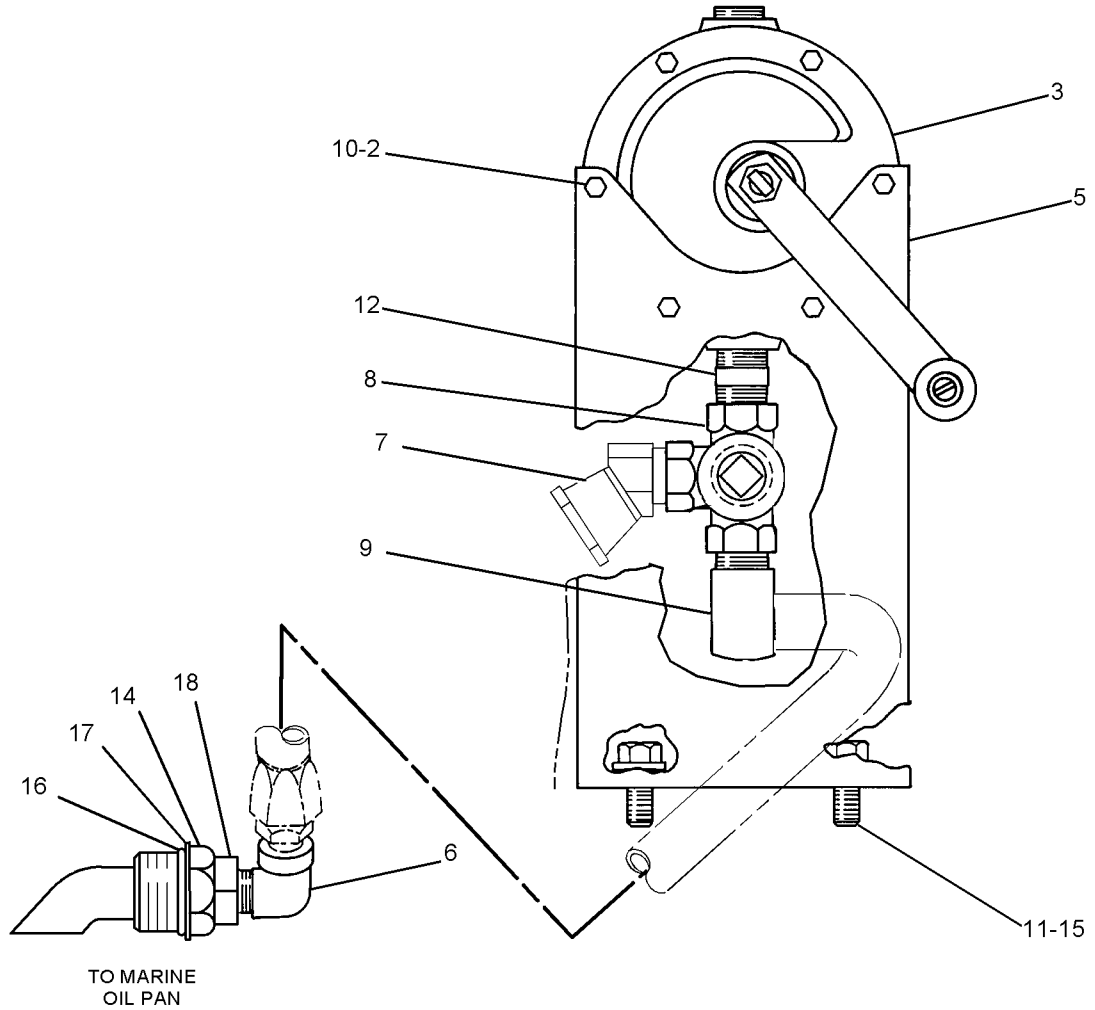
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	2	1	8T-4205	8	WASHER-HARD (7.2X14.5X2-MM THK)						
Y	3	1	5N-6237	1	PUMP GP-SUMP						91
	5	1	5N-6236	1	BRACKET						
	6	1	003-9163	1	ELBOW						
	7	1	6H-8297	1	ELBOW						
	8	1	3N-7057	1	VALVE AS (3-WAY)						
	9	1	2H-3939	1	ELBOW						
	10	1	7X-2501	4	BOLT (1/4-20X1.25-IN)						
	11	1	5P-8245	2	WASHER-HARD (13.5X25.5X3-MM THK)						
	12	1	3B-7270	1	NIPPLE-PIPE						
	14	1	0L-0701	1	NUT (1-1/2-12-THD)						
	15	1	0S-1595	2	BOLT (1/2-13X1.25-IN)						
	16	1	4J-0521	1	SEAL-O-RING						
	17	1	1U-4738	1	WASHER (39.3X60X6-MM THK)						
	18	1	4P-5242	1	PICKUP AS-OIL						

Y-SEPARATE ILLUSTRATION

LUBRICATION SYSTEM

7N-7069 PUMP GP-SUMP (contd.)

i02211933



GRAPHIC #1

<END>

g01124632

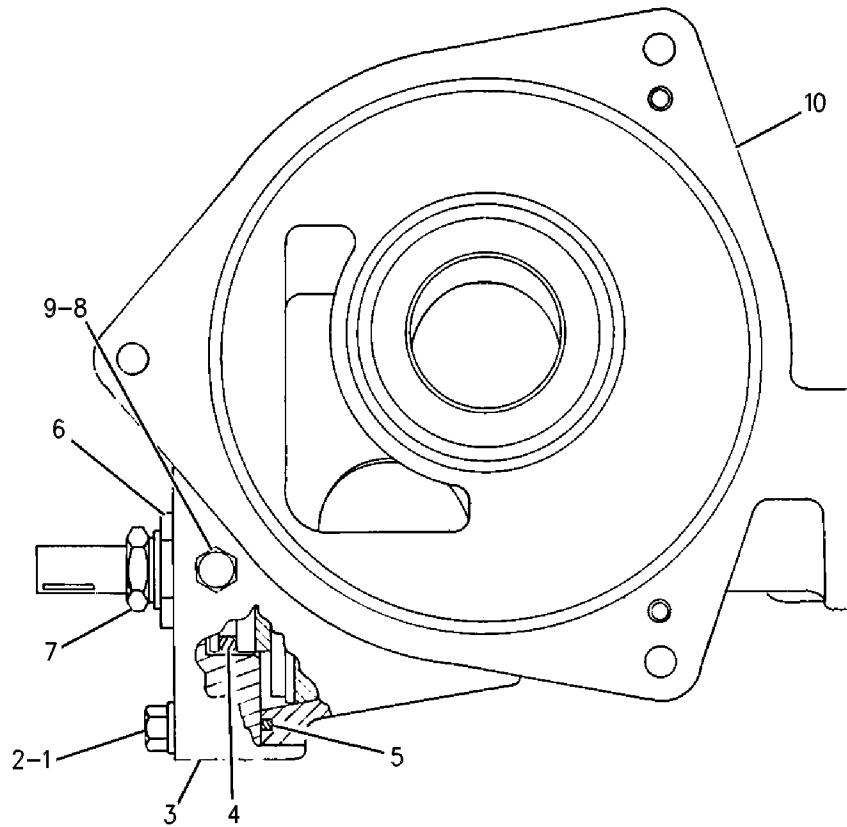
LUBRICATION SYSTEM

7W-3816 VALVE GP-FLUID CONTROL-DUPLEX OIL PART OF 120-4501 FILTER GP-ENGINE OIL AN ATTACHMENT

SMCS-7560

i02640558

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 (3/8-16X1.75-IN)						
	2	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	3	1	2W-0013	1	COVER AS						
		1	7S-2245	1	DOWEL						
		1	3H-2617	1	PIN-SPRING						
4	1	1	9M-2610	1	SEAL-O-RING						
5	1	1	5D-5957	1	SEAL-O-RING						
6	1	1	3B-7329	1	NUT (1-14-THD)						
7	1	1	5H-7225	1	NUT-RETAINER (1-11/16-THD)						
8	1	1	9S-4182	1	PLUG-O RING						
9	1	1	6V-5048	1	SEAL-O-RING						
10	1	1	2W-9210	1	VALVE AS-OIL (DUPLEX)						
		1	4H-6996	1	PIN-SPRING						
		1	7N-2043	3	DOWEL						



GRAPHIC #1

<END>

g00623922

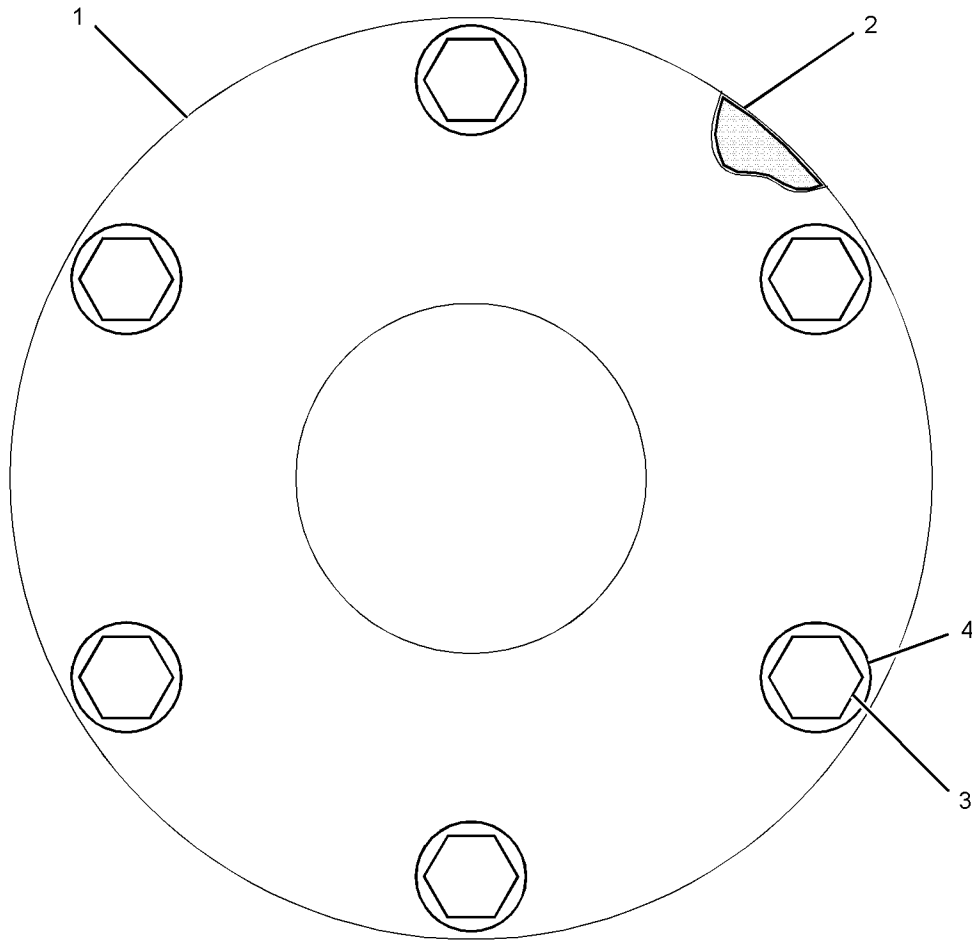
COOLING SYSTEM

3N-2652 CONNECTION GP - EXPANSION TANK-AUXILIARY AN ATTACHMENT

SMCS - 1354

i02346068

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2N-7604	1	FLANGE						
	2	1	3H-5939	2	GASKET - HEAT EXCHANGER						
	3	1	0S-1594	6	BOLT (3/8-16X1-IN)						
	4	1	3V-3308	6	WASHER-HARD (10.2X20.5X2.5-MM THK)						



GRAPHIC #1

<END>

g01172854

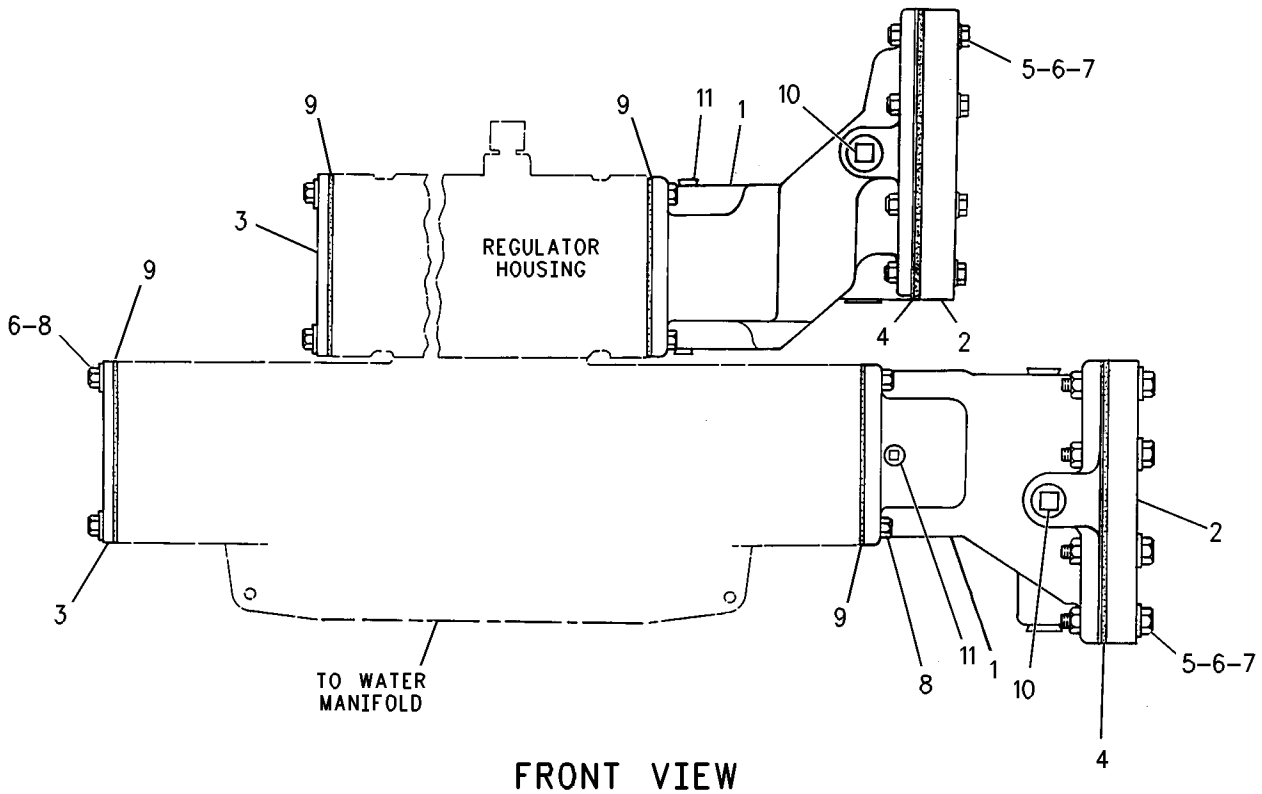
COOLING SYSTEM

8N-8993 CONNECTION GP-WATER-INLET, LH

SMCS-1380

i02356688

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1W-2639	2	ADAPTER-EXCHANGER						
	2	1	7N-7009	2	FLANGE						
	3	1	7E-6017	2	COVER						
	4	1	1S-5772	2	GASKET						
	5	1	0S-1590	16	BOLT (3/8-16X2-IN)						
	6	1	5M-2894	24	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	7	1	9S-8752	16	NUT-FULL (3/8-16-THD)						
	8	1	0S-1594	16	BOLT (3/8-16X1-IN)						
	9	1	7E-6016	4	GASKET						
	10	1	8T-6762	6	PLUG-PIPE						
	11	1	8T-6758	4	PLUG-PIPE						



GRAPHIC #1

<END>

g00863463

COOLING SYSTEM

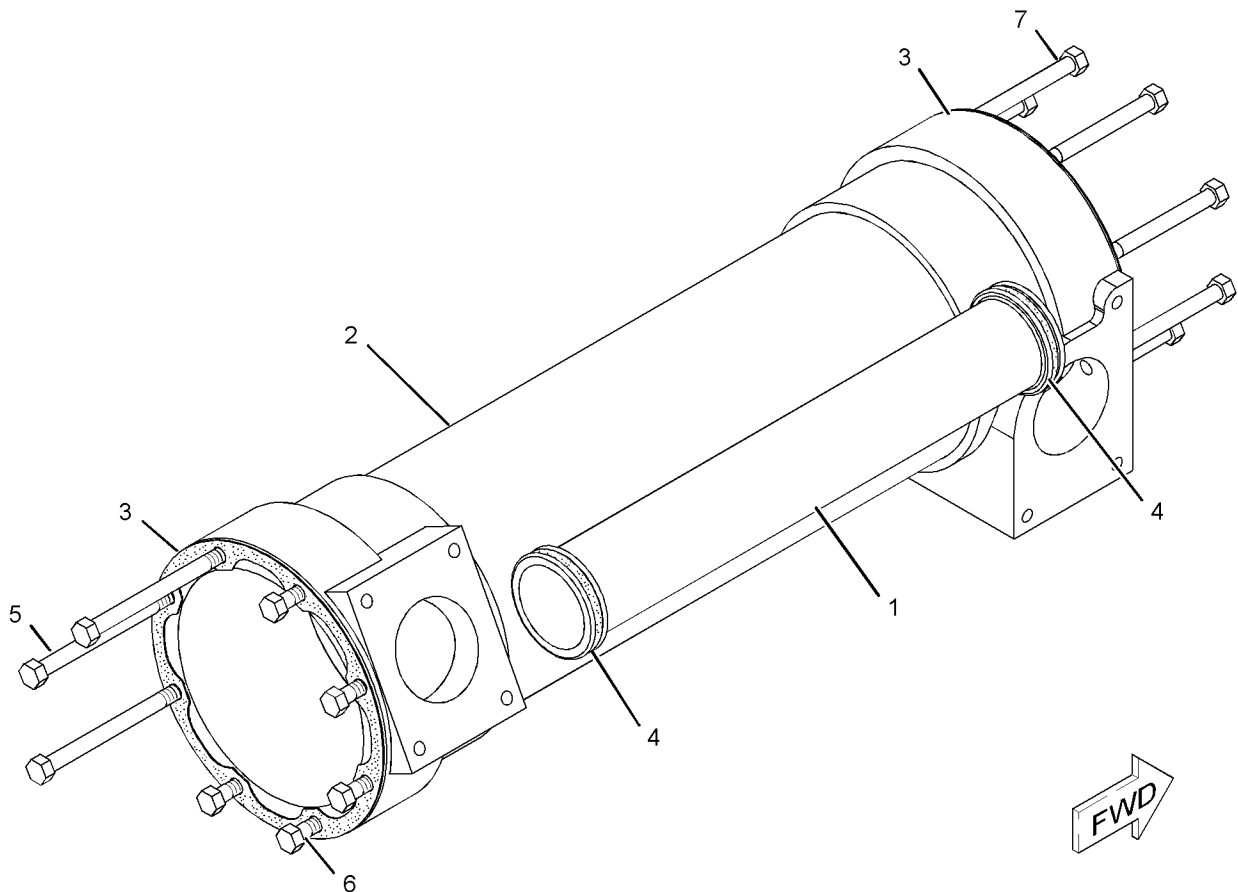
4W-5893 COOLER GP-ENGINE OIL

SMCS-1378

i02100008

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7W-1928	1	TUBE						
CR	2	1	124-5142	1	CORE AS-OIL COOLER						
		1	9S-4185	1	PLUG-O RING						
		1	8L-2786	1	SEAL-O-RING						
	3	1	247-3796	2	GASKET						
	4	1	109-2332	2	SEAL-O-RING						
	5	1	1A-5183	3	BOLT (3/8-16X4.75-IN)						
	6	1	3B-1915	5	BOLT (3/8-16X1.375-IN)						
	7	1	8S-9191	8	BOLT (3/8-16X4-IN)						

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



GRAPHIC #1

<END>

g01048195

COOLING SYSTEM

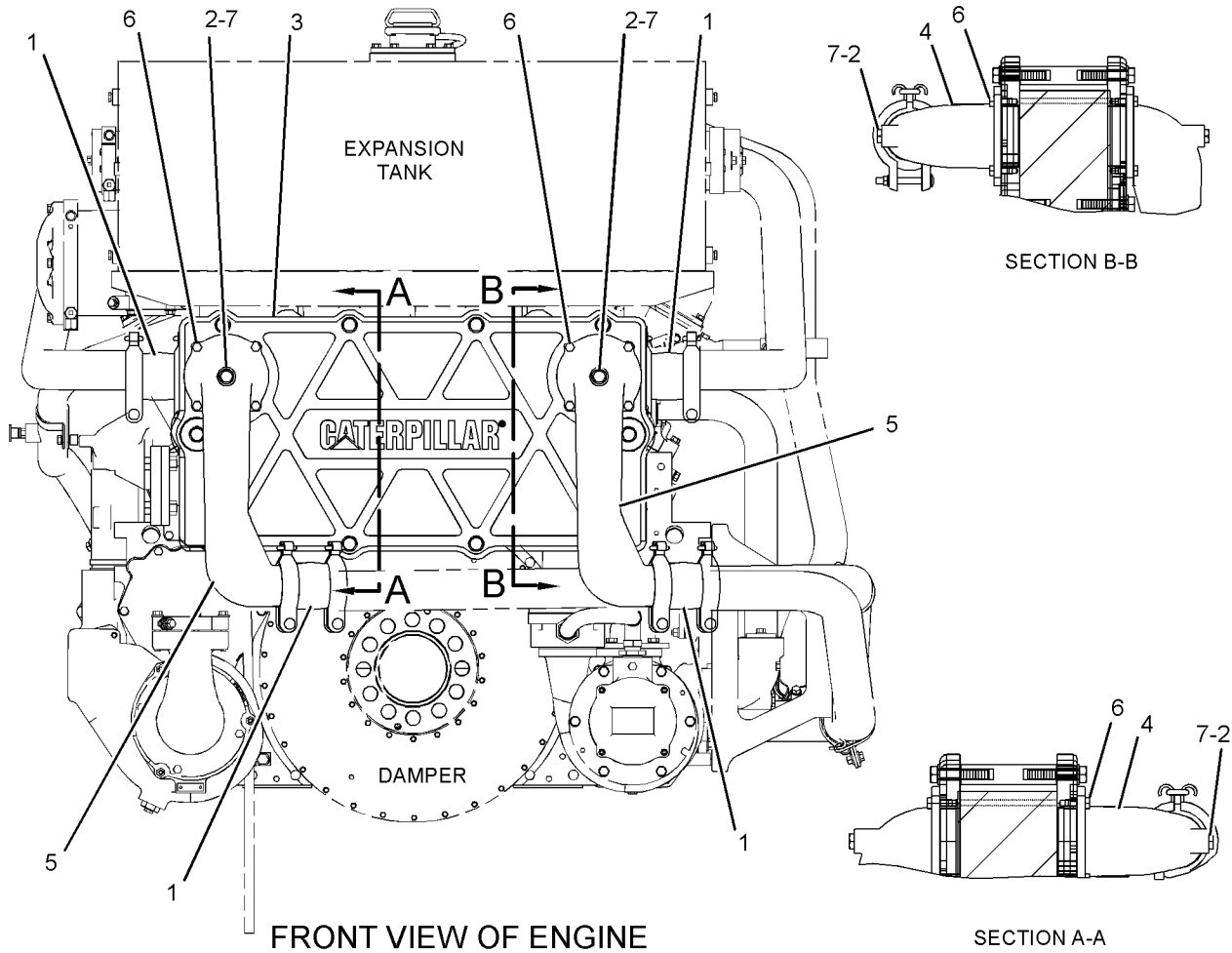
293 - 3396 HEAT EXCHANGER GP AN ATTACHMENT

SMCS - 1379

i02707436

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7L-3201	4	JOINT AS-TUBE						
					(EACH INCLUDES)						
		1	8L-8585	2	SEAL						
	2	1	287-7296	4	PLUG-BRASS						
	3	1	300-5617	1	HEAT EXCHANGER GP-SEA WATER						
	4	1	304-4498	2	ELBOW						
	5	1	304-4499	2	ELBOW						
M	6	1	6V-4248	16	BOLT (M10X1.5X25-MM)						
	7	1	8T-7877	4	SEAL-O-RING						

M-METRIC PART



GRAPHIC #1

<END>

g01337829

COOLING SYSTEM

7C-9247 LINES GP-AUXILIARY FRESH WATER

FOR USE WITH MARINE GEAR
AN ATTACHMENT

SMCS-1380

i01441606

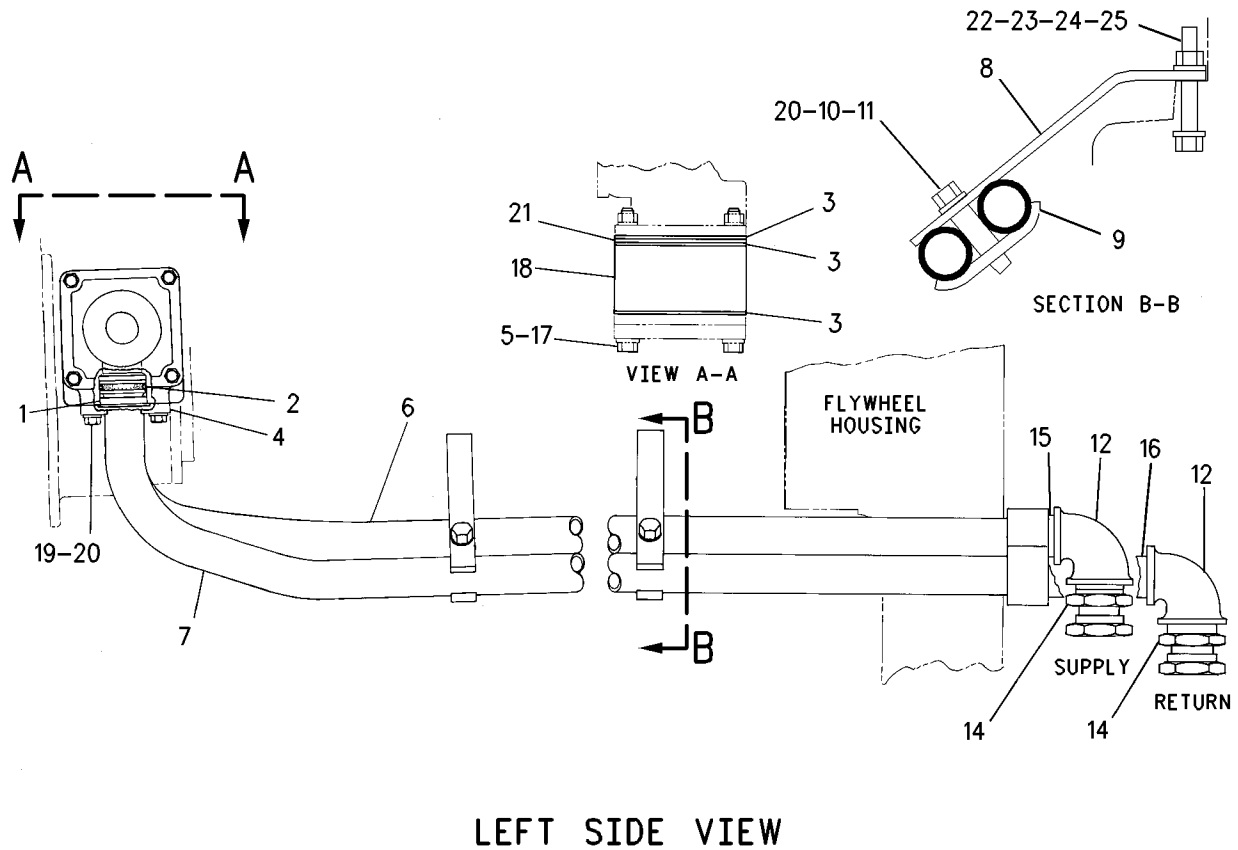
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8N-5873	2	RING-RETAINING						
	2	1	4F-7389	2	SEAL-O-RING						
	3	1	3P-6061	6	GASKET						
	4	1	8N-5872	4	RETAINER						
	5	1	1A-5964	4	BOLT (3/8-16X4.5-IN)						
	6	1	5N-5898	1	TUBE AS						
	7	1	5N-5900	1	TUBE AS						
	8	1	143-5171	2	BRACKET						
	9	1	143-5170	2	CLAMP						
	10	1	0L-1143	2	BOLT (3/8-16X2.5-IN)						
	11	1	3H-4656	2	SPACER (1.5-IN THK)						
	12	1	6L-4382	2	ELBOW						
	14	1	1L-1722	2	CONNECTOR-PIPE						
	15	1	3B-7750	1	FITTING						
	16	1	2R-3538	1	FITTING						
	17	1	0T-0055	4	BOLT (3/8-16X4.25-IN)						
	18	1	7C-9117	1	ADAPTER-WATER						
	19	1	0S-1594	4	BOLT (3/8-16X1-IN)						
	20	1	5M-2894	6	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	21	1	5N-2205	1	PLATE-ORIFICE						
B	22	1	1A-5964	2	BOLT (3/8-16X4.5-IN)						
B	23	1	5P-1075	2	WASHER-HARD (10.2X22.5X3-MM THK)						
B	24	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5-MM THK)						
B	25	1	9S-8752	2	NUT-FULL (3/8-16-THD)						

B-USE AS REQUIRED

COOLING SYSTEM

7C-9247 LINES GP-AUXILIARY FRESH WATER (contd.)

i01441606



GRAPHIC #1

<END>

g00755845

COOLING SYSTEM

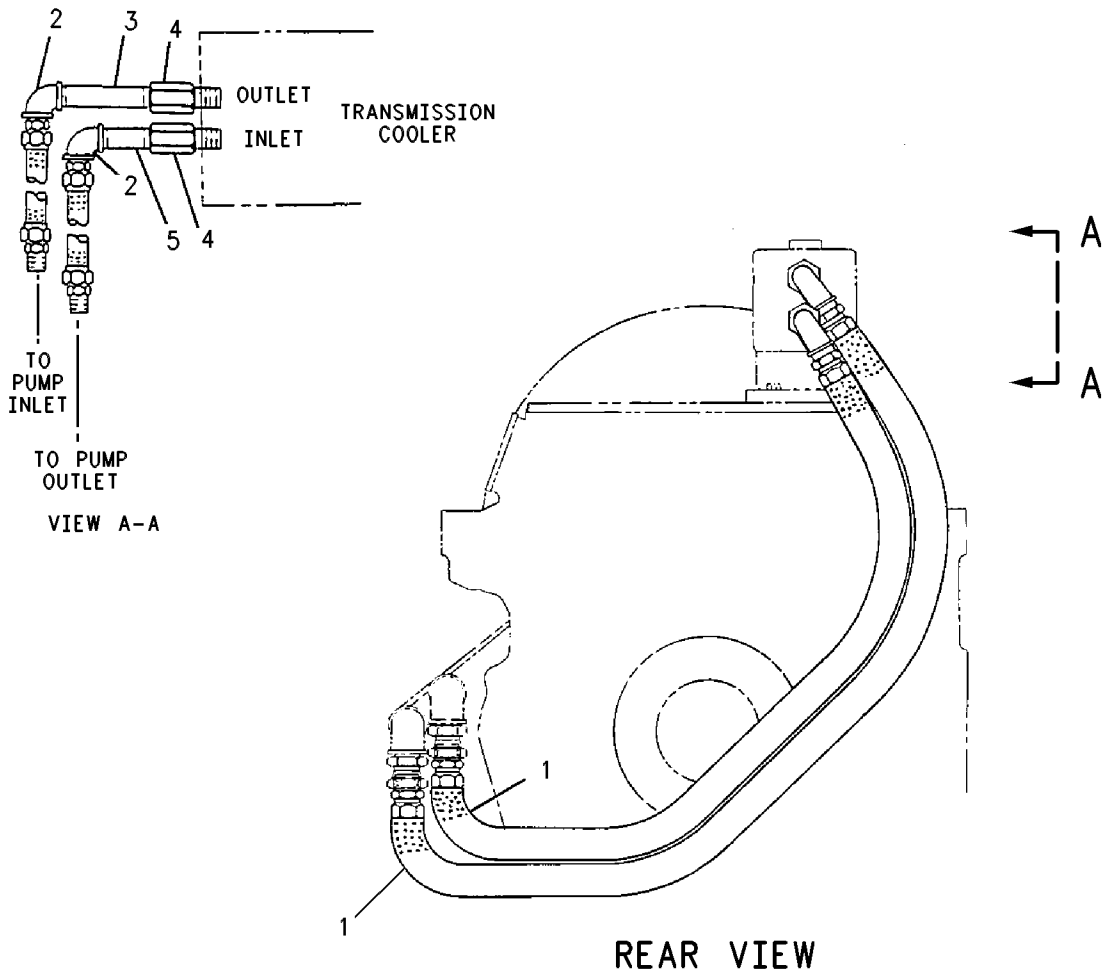
7E-2627 LINES GP-WATER-TRANSMISSION COOLER AN ATTACHMENT

SMCS-1355, 1380, 1393

i01925180

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
I	1	1	7N-1831	2	HOSE AS						
	2	1	8C-7566	2	ELBOW						
	3	1	2N-2012	1	FITTING						
	4	1	7X-0485	2	ADAPTER						
	5	1	8C-7567	1	NIPPLE-PIPE						

I - SEE HOSE FABRICATION GUIDE



GRAPHIC #1

<END>

g00621770

COOLING SYSTEM

107-0476 LINES GP-WATER-UPPER

SMCS-1355, 1380, 1393

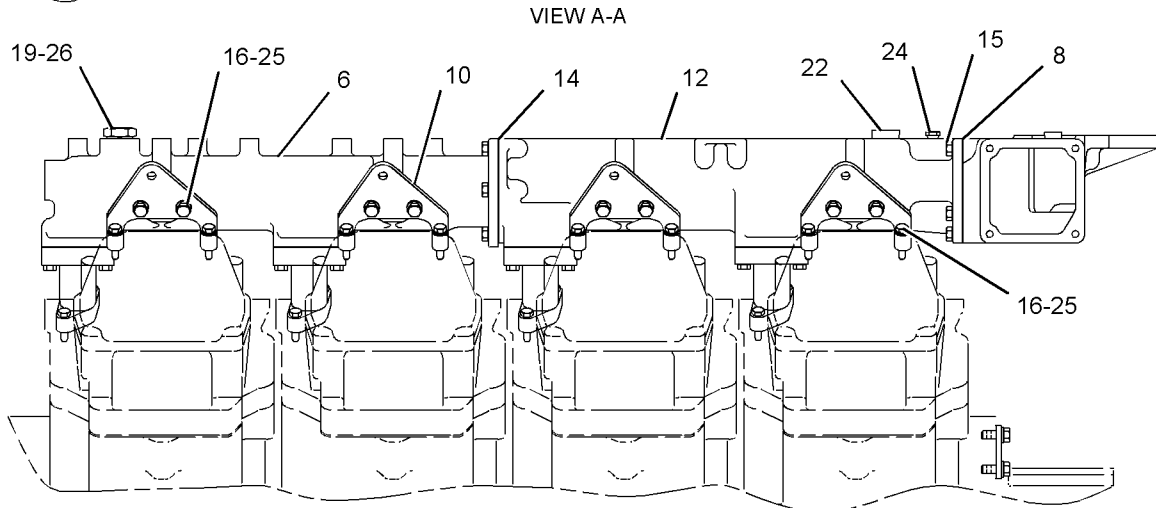
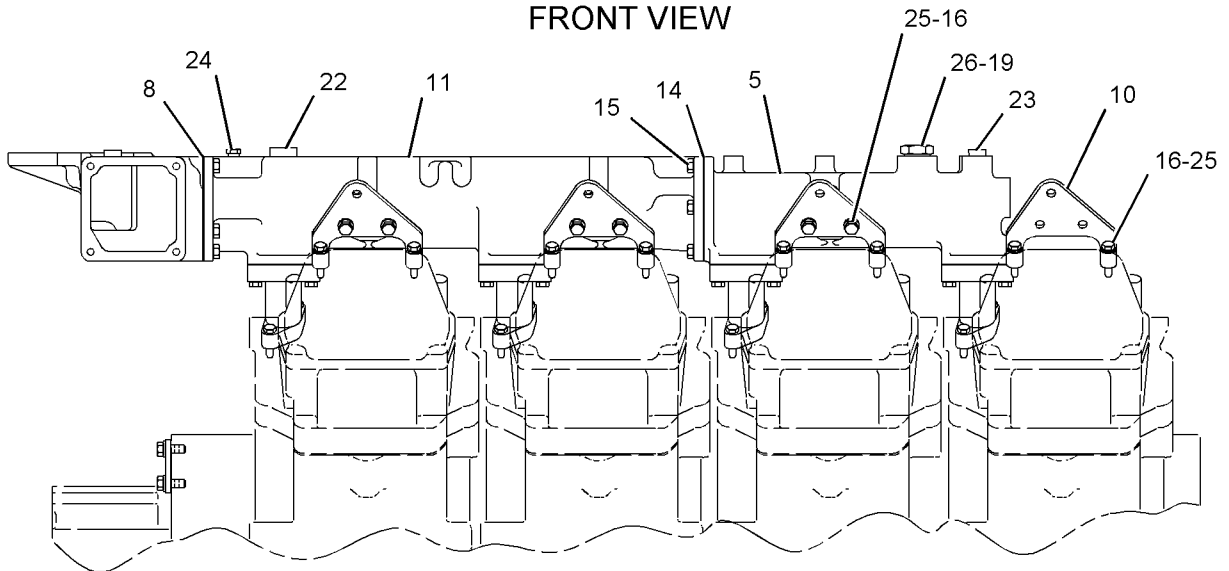
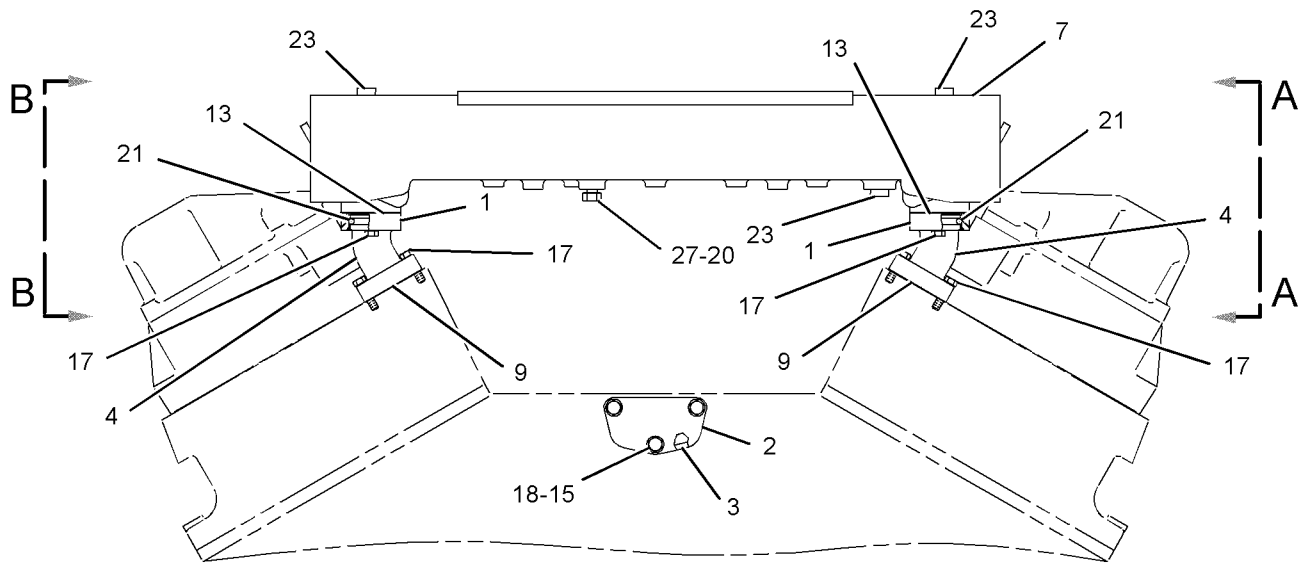
i02665756

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2W-3146	8	FLANGE						
	2	1	7N-3297	1	COVER						
	3	1	7N-3368	1	GASKET						
	4	1	8N-7639	8	ELBOW						
	5	1	111-8276	1	MANIFOLD (REAR, LH)						
	6	1	111-8277	1	MANIFOLD (REAR, RH)						
	7	1	111-9374	1	HOUSING-REGULATOR						
	8	1	122-8856	2	GASKET						
	9	1	127-2176	8	SEAL-INTEGRAL						
	10	1	133-8382	8	BRACKET						
	11	1	154-1616	1	MANIFOLD (FRONT, LH)						
	12	1	154-1617	1	MANIFOLD (FRONT, RH)						
	13	1	241-5928	8	GASKET						
	14	1	243-2288	2	GASKET						
	15	1	0S-1594	19	BOLT (3/8-16X1-IN)						
	16	1	0S-1618	30	BOLT (5/16-18X1-IN)						
	17	1	1B-7182	32	BOLT (5/16-18X1.25-IN)						
	18	1	5M-2894	3	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	19	1	6V-5064	2	SEAL-O-RING						
	20	1	6V-9027	1	SEAL-O-RING						
	21	1	6V-9769	8	SEAL-O-RING						
	22	1	8T-6761	2	PLUG-PIPE						
	23	1	8T-6762	4	PLUG-PIPE						
	24	1	8T-6765	2	PLUG-PIPE						
	25	1	9M-1974	30	WASHER-HARD (8.8X16X2-MM THK)						
	26	1	9S-4181	2	PLUG-O-RING						
	27	1	9S-4182	1	PLUG-O-RING						

COOLING SYSTEM

107-0476 LINES GP-WATER (contd.)

i02665756



GRAPHIC #1

VIEW B-B
<END>

g01067953

COOLING SYSTEM

115-7849 LINES GP-WATER-LOWER

SMCS-1355, 1380, 1393

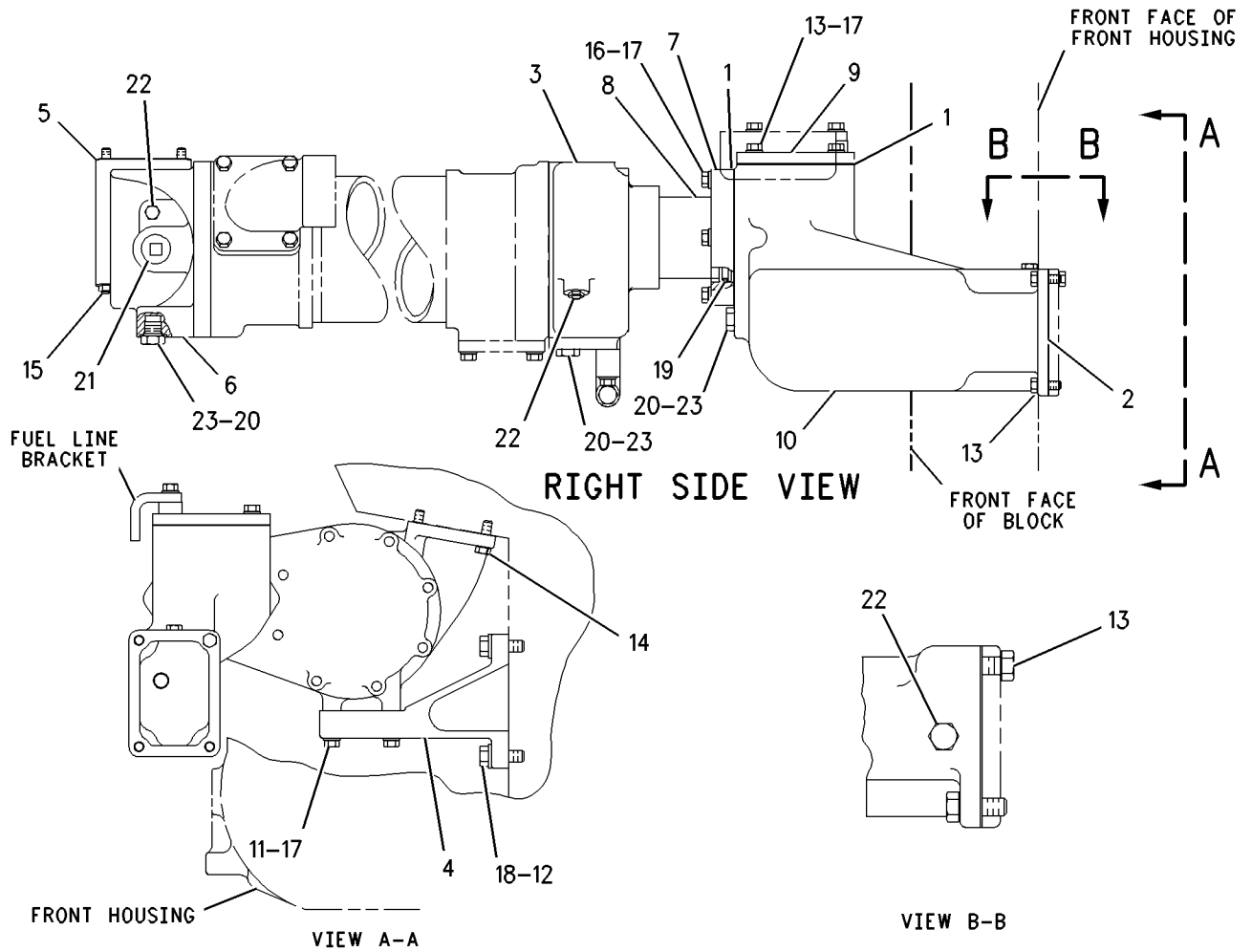
i01701324

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4N-1320	2	GASKET						
	2	1	7N-4932	1	GASKET						
	3	1	7N-4939	1	BONNET-OIL COOLER						
	4	1	7N-4940	1	BRACKET						
	5	1	7N-4945	1	GASKET						
	6	1	7N-6426	1	BONNET-OIL COOLER						
	7	1	8N-0386	1	FLANGE						
	8	1	8N-7641	1	TUBE						
	9	1	115-7848	1	PLATE-COVER						
	10	1	120-7421	1	ADAPTER						
	11	1	0S-1571	2	BOLT (3/8-16X1.75-IN)						
	12	1	0S-1585	2	BOLT (1/2-13X1.5-IN)						
	13	1	0S-1594	6	BOLT (3/8-16X1-IN)						
	14	1	1A-2029	2	BOLT (3/8-16X1.125-IN)						
	15	1	1D-4706	2	BOLT (3/8-16X6-IN)						
	16	1	2A-4639	4	BOLT (3/8-16X1.625-IN)						
	17	1	5M-2894	8	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	18	1	5P-8245	2	WASHER-HARD (13.5X25.5X3-MM THK)						
	19	1	6V-5066	2	SEAL-O-RING						
	20	1	6V-6609	3	SEAL-O-RING						
	21	1	8T-6761	1	PLUG-PIPE						
	22	1	8T-6765	3	PLUG-PIPE						
	23	1	9S-4185	3	PLUG-O-RING						

COOLING SYSTEM

115-7849 LINES GP-WATER (contd.)

i01701324



GRAPHIC #1

<END>

g00876145

COOLING SYSTEM

116-9870 LINES GP-WATER-TURBOCHARGER

SMCS-1355, 1380, 1393

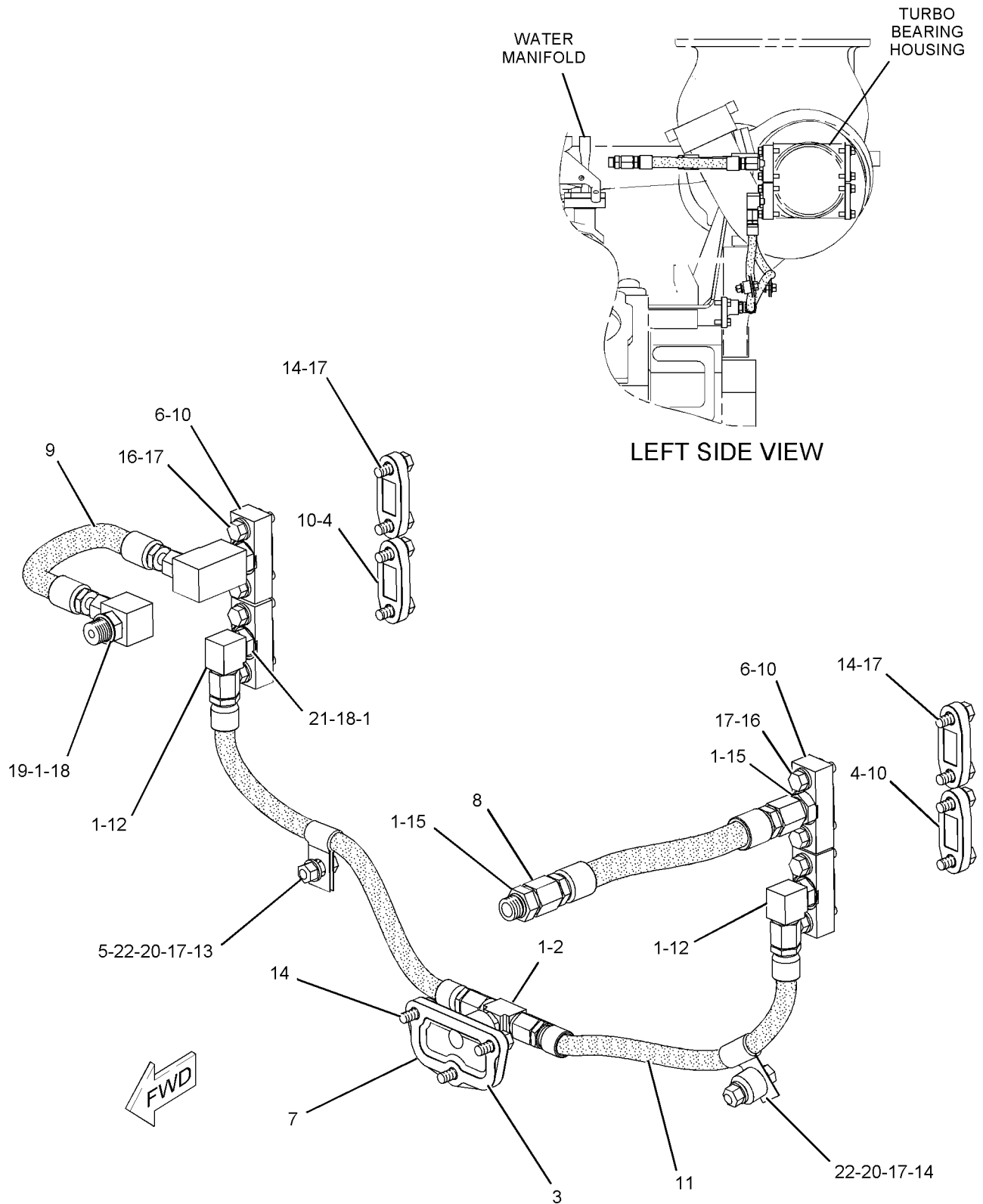
i02253286

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	3K-0360	7	SEAL-O-RING						
	2	1	4S-4869	1	TEE						
	3	1	7N-3368	1	GASKET						
	4	1	7N-7878	4	PLATE-COVER						
	5	1	9G-8140	1	SPACER (10.5X25X15-MM THK)						
	6	1	107-0744	4	BLOCK						
	7	1	113-4647	1	ADAPTER						
	8	1	139-1577	1	HOSE AS						
	9	1	188-5140	1	HOSE AS						
	10	1	241-3283	8	GASKET						
	11	1	252-5658	2	HOSE AS						
	12	1	030-7948	2	ELBOW						
	13	1	0S-1591	1	BOLT (3/8-16X1.5-IN)						
	14	1	0S-1594	12	BOLT (3/8-16X1-IN)						
	15	1	2P-7636	2	CONNECTOR						
	16	1	3B-1915	8	BOLT (3/8-16X1.375-IN)						
	17	1	5M-2894	20	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	18	1	6V-8397	3	SEAL-O-RING						
	19	1	6V-8723	1	ELBOW (FACE SEAL)						
	20	1	6V-8801	2	NUT (3/8-16-THD)						
	21	1	8T-1683	1	ELBOW						
	22	1	9X-8606	2	CLIP						

COOLING SYSTEM

116-9870 LINES GP-WATER (contd.)

i02253286



GRAPHIC #1

<END>

g01134776

COOLING SYSTEM

289-0282 LINES GP-WATER-AFTERCOOLER

SMCS-1355, 1380, 1393

i02625606

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1N-3872	1	SUPPORT						
	2	2	2W-5225	2	FLANGE						
	3	2	3P-6061	1	GASKET						
	4	1	4W-0530	1	RING-RETAINING						
	5	2	4W-0531	2	RETAINER						
	6	1,2	7C-9597	2	FLANGE						
	7	1	7N-6986	1	SUPPORT						
	8	2	9Y-6893	2	GASKET						
	9	2	109-0642	1	BRACKET						
	10	1	110-6995	1	PLATE						
	11	1	110-9538	1	TUBE						
	12	1	111-5056	1	CONNECTOR						
	13	2	114-2040	1	ELBOW						
	14	2	129-3082	1	ELBOW						
	15	1,2	153-9481	6	CLAMP AS						
	16	1,2	153-9963	3	RING						
I	17	1	194-0325	1	HOSE AS						
	18	2	214-0731	1	BRACKET						
	19	2	230-1072	2	GASKET						
	20	1	268-0038	1	TUBE						
Y	21	2	282-8537	1	VALVE GP- THERMOSTATIC						134
	22	1	283-4377	1	BRACKET AS- TUBE						
	23	2	0L-1351	8	BOLT (3/8-16X0.875- IN)						
	24	2	0S-1571	4	BOLT (3/8-16X1.75- IN)						
	25	1,2	0S-1588	3	BOLT (3/8-16X1.25- IN)						
	26	2	0S-1591	2	BOLT (3/8-16X1.5- IN)						
	27	1,2	0S-1594	10	BOLT (3/8-16X1- IN)						
	28	2	0S-1618	2	BOLT (5/16-18X1- IN)						
	29	1	0S-1619	2	BOLT (3/8-16X3- IN)						
	30	1	0T-0055	2	BOLT (3/8-16X4.25- IN)						
	31	2	0T-0065	2	BOLT (3/8-16X3.5- IN)						
	32	2	116-3258	1	COVER						
	33	1	193-2120	1	GROMMET						
	34	1	1A-2029	2	BOLT (3/8-16X1.125- IN)						
	35	1	1A-5822	2	BOLT (1/2-13X2.75- IN)						
	36	1	1C-2251	2	BOLT (3/8-16X1.87- IN)						
	37	2	1F-7958	8	NUT-FULL (1/2-13-THD)						
	38	1	3D-2824	1	SEAL-O-RING						
	39	1	3J-7354	1	SEAL-O-RING						
	40	2	3V-3308	14	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	41	2	5B-0841	4	BOLT (5/8-18X1.75- IN)						
	42	2	5B-2638	2	BOLT (3/8-16X5.25- IN)						
	43	2	5B-4399	1	SEAL-O-RING						
	44	1,2	5M-2894	15	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	45	2	5P-8245	8	WASHER-HARD (13.5X25.5X3-MM THK)						
	46	2	6H-6698	1	COVER						
	47	1,2	6J-2680	3	SEAL-O-RING						
	48	1	6V-1581	1	CLIP (SLOT)						
	49	1	6V-1582	1	CLIP (TAB)						
	50	1	6V-1867	1	CLIP (SLOT)						
	51	1	6V-1868	1	CLIP (TAB)						
	52	1,2	6V-8397	2	SEAL-O-RING						
	53	2	6V-8556	1	NUT (1-3/16-12-THD)						
	54	2	6V-8777	1	TEE-FACE SEAL						
	55	2	6V-8941	1	REDUCER						
	56	2	6V-9746	2	SEAL-O-RING						
	57	2	6V-9832	1	CAP AS						
	58	2	7W-6492	1	PLUG-PIPE						

COOLING SYSTEM

289-0282 LINES GP-WATER (contd.)

i02625606

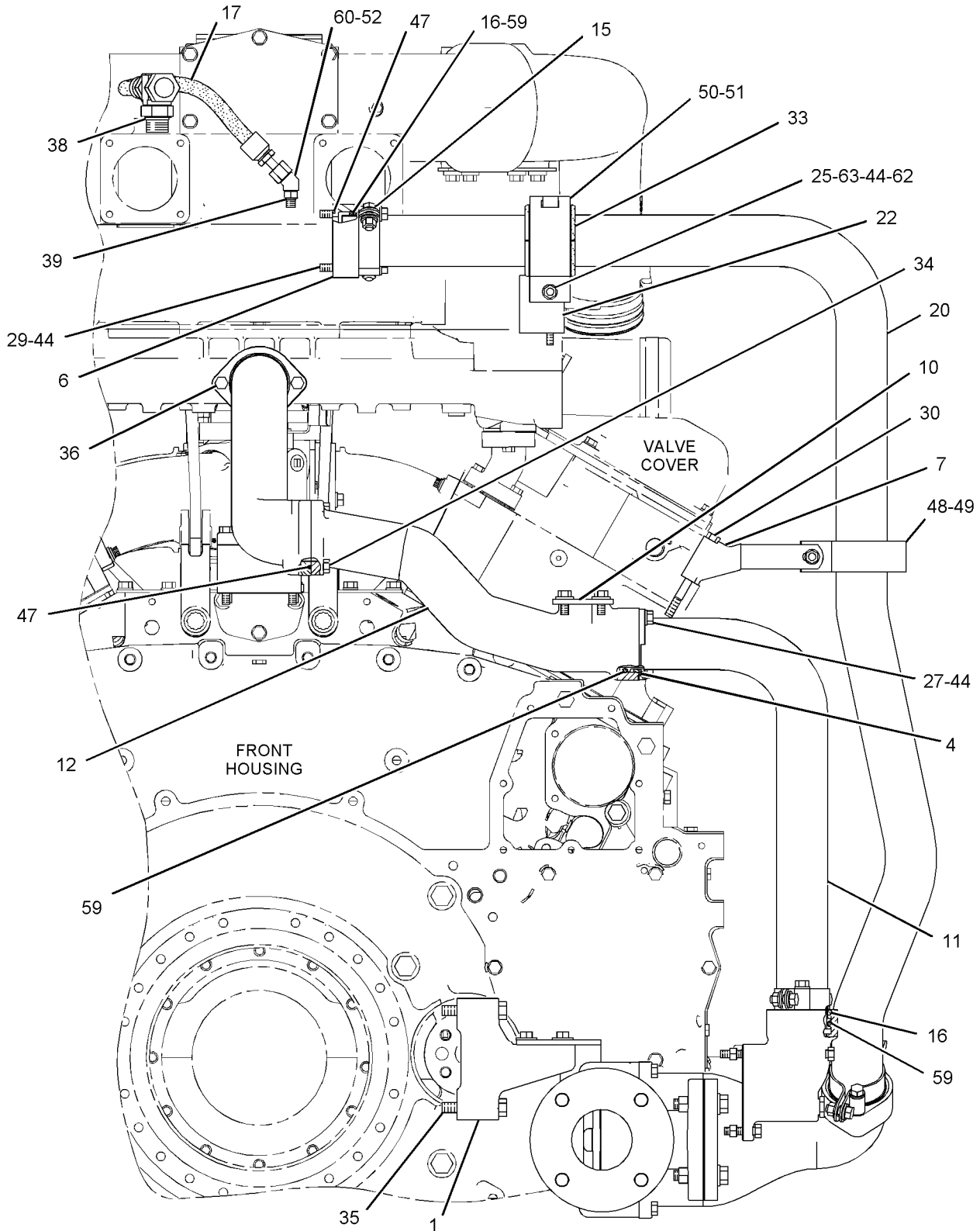
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	59	1,2	8T-1919	4	SEAL-O-RING						
	60	1	8T-7546	1	ELBOW						
	61	2	9L-9132	2	WASHER (10.2X25.5X2.5-MM THK)						
	62	1,2	9S-8752	13	NUT-FULL (3/8-16-THD)						
	63	1,2	9X-6458	7	WASHER-HARD (10.2X22.5X3-MM THK)						
	64	2	9X-8873	8	BOLT (1/2-13X2.25-IN)						

I - REFER TO HYDRAULIC INFORMATION SYSTEM
 Y - SEPARATE ILLUSTRATION

COOLING SYSTEM

289-0282 LINES GP-WATER (contd.)

i02625606



FRONT VIEW OF ENGINE

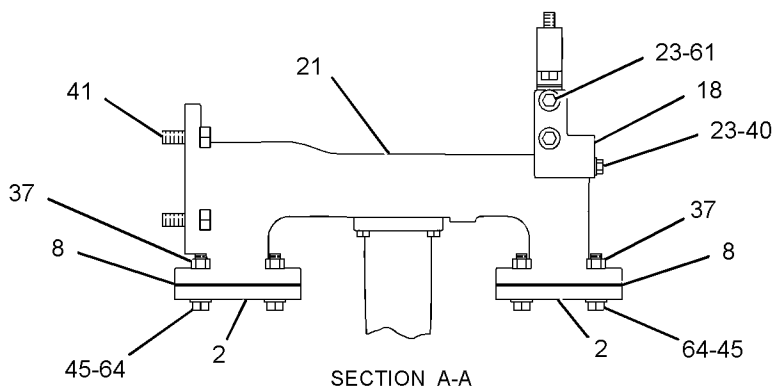
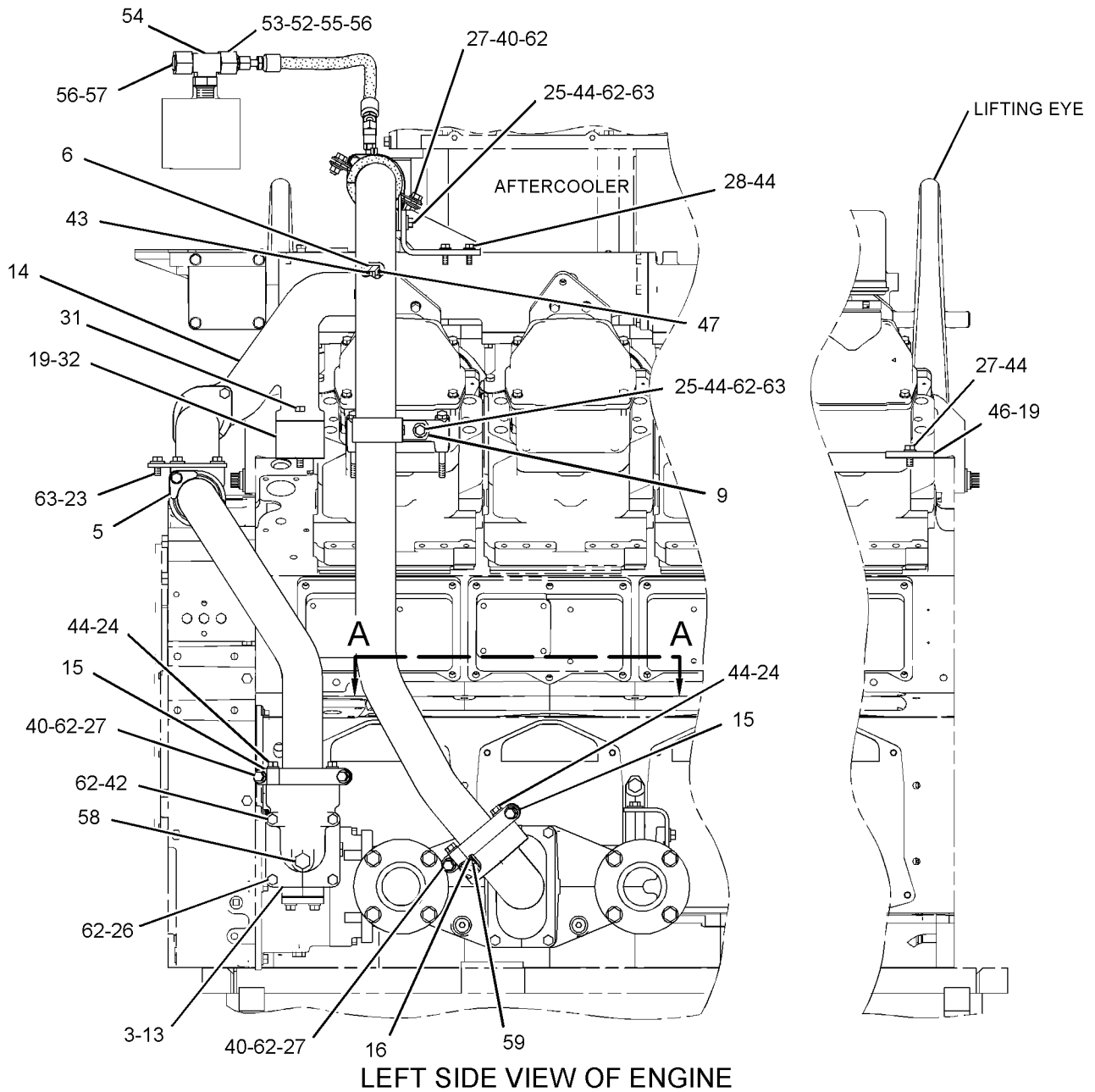
GRAPHIC #1

g01325914

COOLING SYSTEM

289-0282 LINES GP-WATER (contd.)

i02625606



<END>

GRAPHIC #2

g01325915

COOLING SYSTEM

293-3410 LINES GP-WATER-SEPARATE CIRCUIT AFTERCOOLER AN ATTACHMENT

SMCS-1355, 1380, 1393

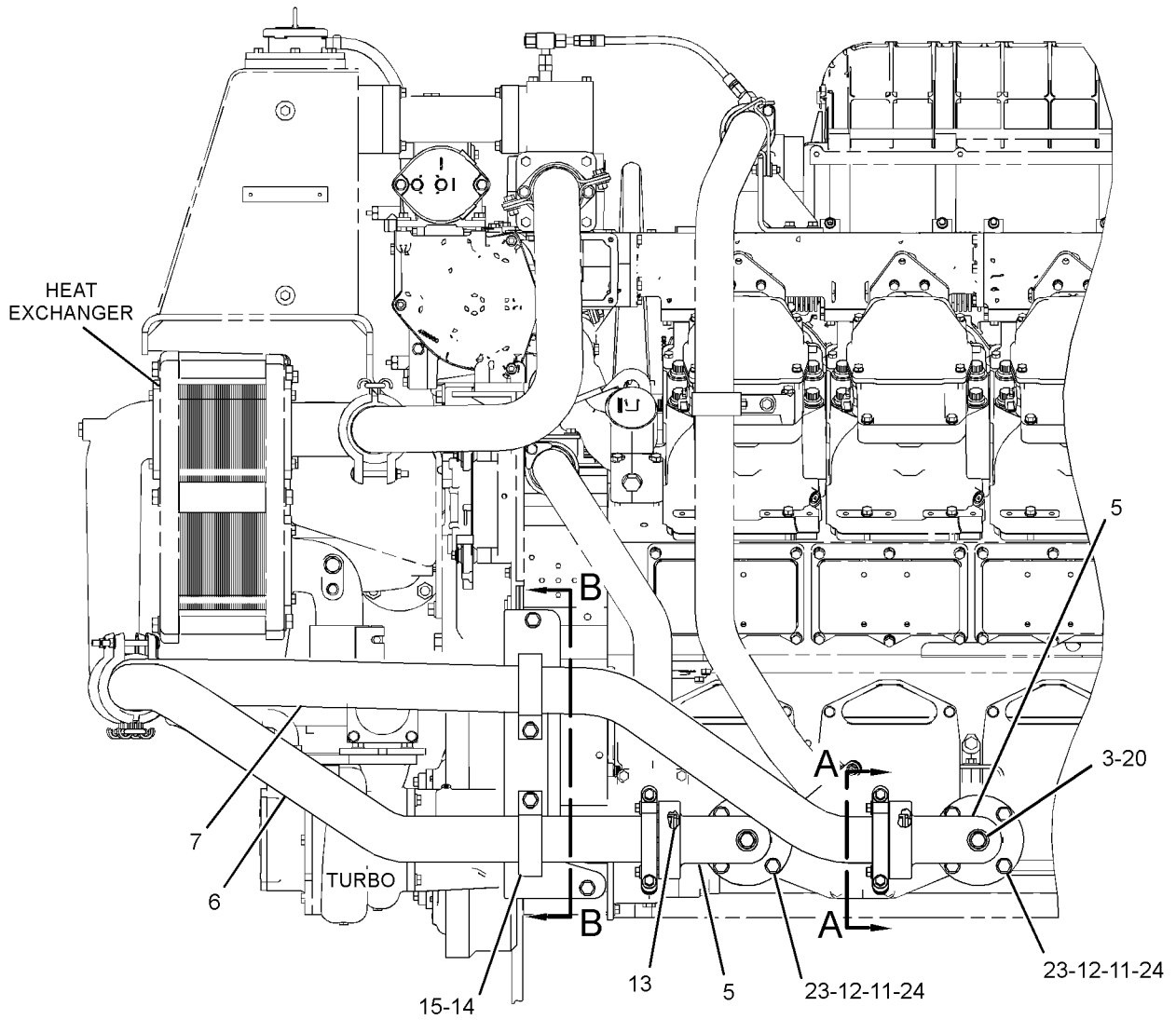
i02651618

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1W-4099	2	RING-RETAINING						
	2	1	124-6333	4	CLAMP AS						
	3	1	287-7296	2	PLUG-BRASS						
	4	1	293-3411	1	BRACKET						
	5	1	293-3413	2	ELBOW						
	6	1	304-4420	1	TUBE						
	7	1	304-4423	1	TUBE						
	8	1	0S-1571	4	BOLT (3/8-16X1.75-IN)						
	9	1	0S-1594	4	BOLT (3/8-16X1-IN)						
	10	1	0S-1595	3	BOLT (1/2-13X1.25-IN)						
	11	1	1F-7958	8	NUT-FULL (1/2-13-THD)						
	12	1	5P-8245	19	WASHER-HARD (13.5X25.5X3-MM THK)						
	13	1	6V-1454	2	SEAL-O-RING						
	14	1	6V-5039	2	CLIP (SLOT)						
	15	1	6V-5040	2	CLIP (TAB)						
	16	1	6V-5839	4	WASHER (11X21X2.5-MM THK)						
	17	1	6V-8188	2	NUT (1/2-13-THD)						
	18	1	7X-0325	2	BOLT (1/2-13X2.5-IN)						
	19	1	8T-4223	4	WASHER-HARD (13.5X25.5X3-MM THK)						
	20	1	8T-7877	2	SEAL-O-RING						
	21	1	9S-8752	4	NUT-FULL (3/8-16-THD)						
	22	1	9X-6458	8	WASHER-HARD (10.2X22.5X3-MM THK)						
	23	1	9X-8873	8	BOLT (1/2-13X2.25-IN)						
	24	1	9Y-6893	2	GASKET						

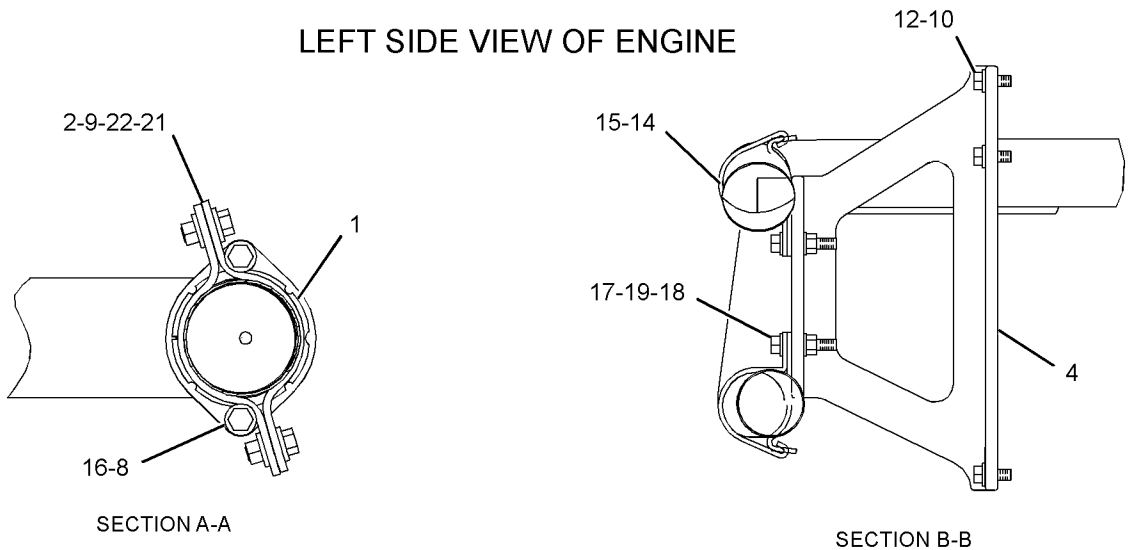
COOLING SYSTEM

293-3410 LINES GP-WATER (contd.)

i02651618



LEFT SIDE VIEW OF ENGINE



SECTION A-A

SECTION B-B

GRAPHIC #1

<END>

g01334069

COOLING SYSTEM

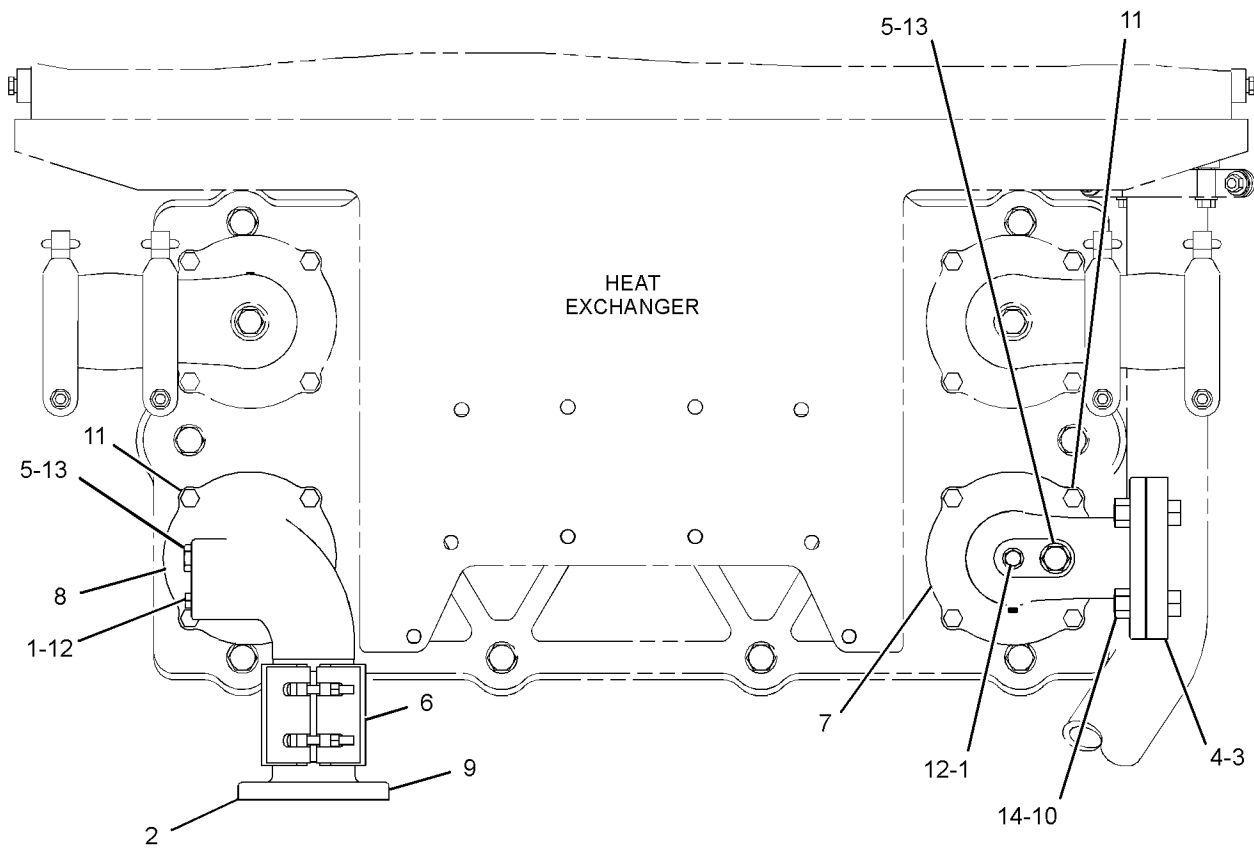
302-4519 LINES GP-WATER-HEAT EXCHANGER AN ATTACHMENT

SMCS-1355, 1380, 1393

i02651575

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	116-7011	2	ROD-ZINC (HEAT EXCHANGER)						
	2	1	144-6074	1	GASKET						
	3	1	161-6244	1	GASKET						
	4	1	201-4670	1	COVER						
	5	1	287-7296	2	PLUG-BRASS						
	6	1	300-6871	1	COUPLING AS						
	7	1	304-4418	1	ELBOW						
	8	1	304-4419	1	ELBOW						
	9	1	304-4500	1	FLANGE						
	10	1	4K-0367	4	NUT-FULL (5/8-11-THD)						
M	11	1	6V-4248	8	BOLT (M10X1.5X25-MM)						
	12	1	6V-9027	2	SEAL-O-RING						
	13	1	8T-7877	2	SEAL-O-RING						
	14	1	9X-8880	4	BOLT (5/8-11X2-IN)						

M-METRIC PART



REAR VIEW OF ENGINE

GRAPHIC #1

<END>

g01333937

COOLING SYSTEM

302-5307 LINES GP-WATER-JACKET WATER HEATER AN ATTACHMENT

SMCS-1355, 1380, 1393

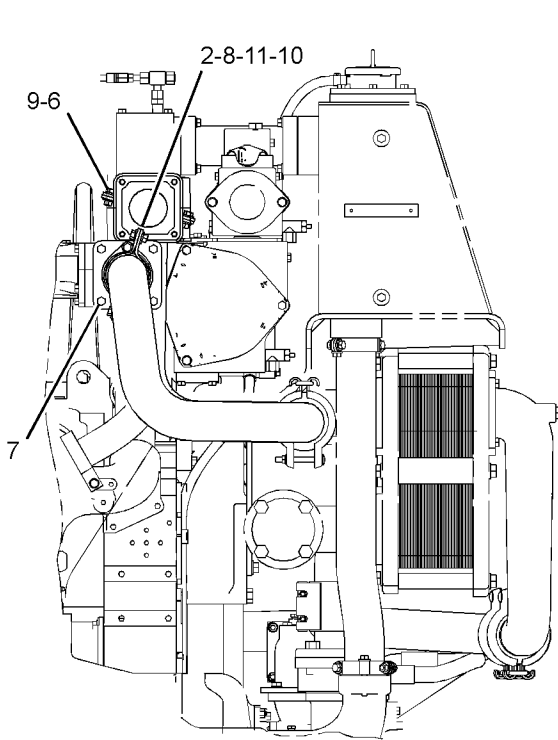
i02651567

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7E-6016	2	GASKET						
	2	1	124-6333	4	CLAMP AS						
	3	1	293-3412	2	FLANGE						
	4	1	304-4424	1	TUBE						
	5	1	304-4497	1	TUBE						
	6	1	0S-1571	4	BOLT (3/8-16X1.75-IN)						
	7	1	0S-1588	8	BOLT (3/8-16X1.25-IN)						
	8	1	0S-1594	4	BOLT (3/8-16X1-IN)						
	9	1	6V-5839	4	WASHER (11X21X2.5-MM THK)						
	10	1	9S-8752	4	NUT-FULL (3/8-16-THD)						
	11	1	9X-6458	8	WASHER-HARD (10.2X22.5X3-MM THK)						

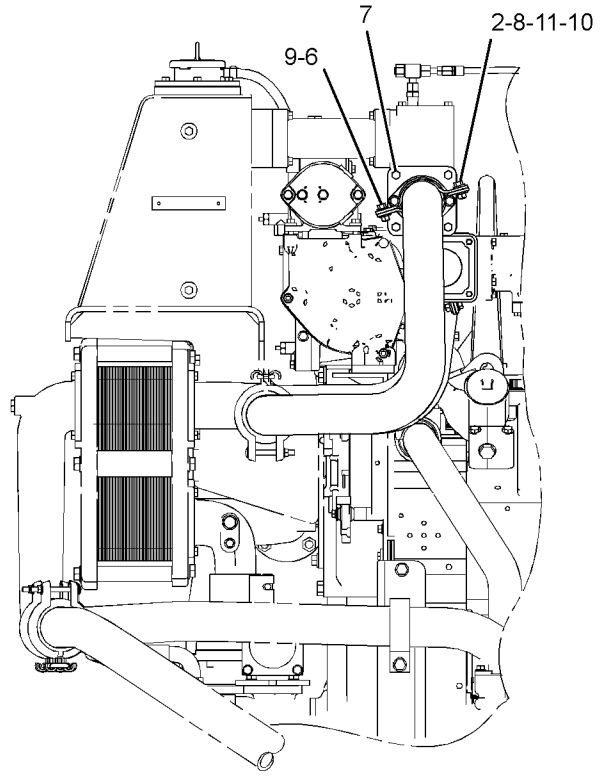
COOLING SYSTEM

302-5307 LINES GP-WATER (contd.)

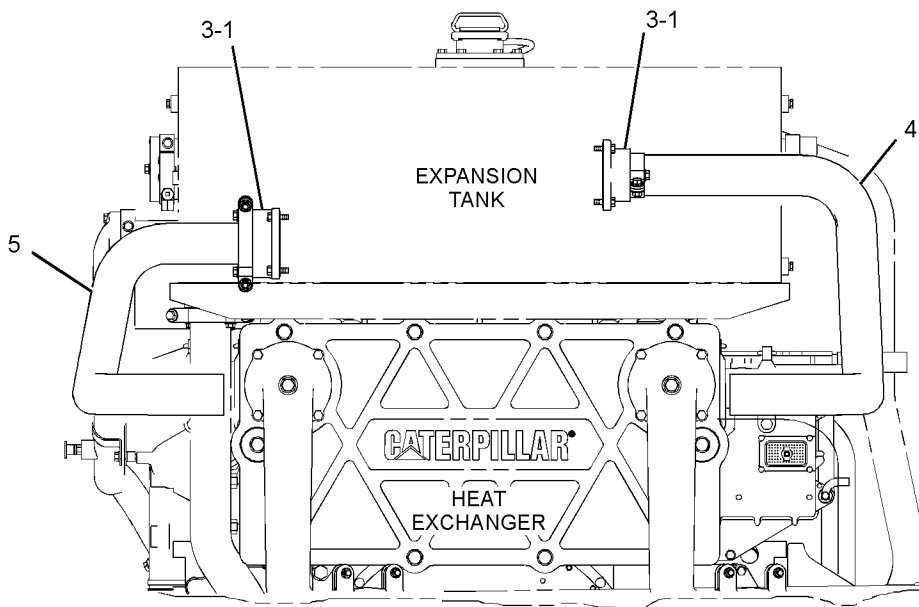
i02651567



RIGHT SIDE VIEW OF ENGINE



LEFT SIDE VIEW OF ENGINE



FRONT VIEW OF ENGINE

GRAPHIC #1

<END>

g01334048

COOLING SYSTEM

8N-8465 PUMP GP-AUXILIARY SEA WATER

PART OF 8N-8466 PUMP GP-AUXILIARY SEA WATER

AN ATTACHMENT

SMCS-1371

i02495332

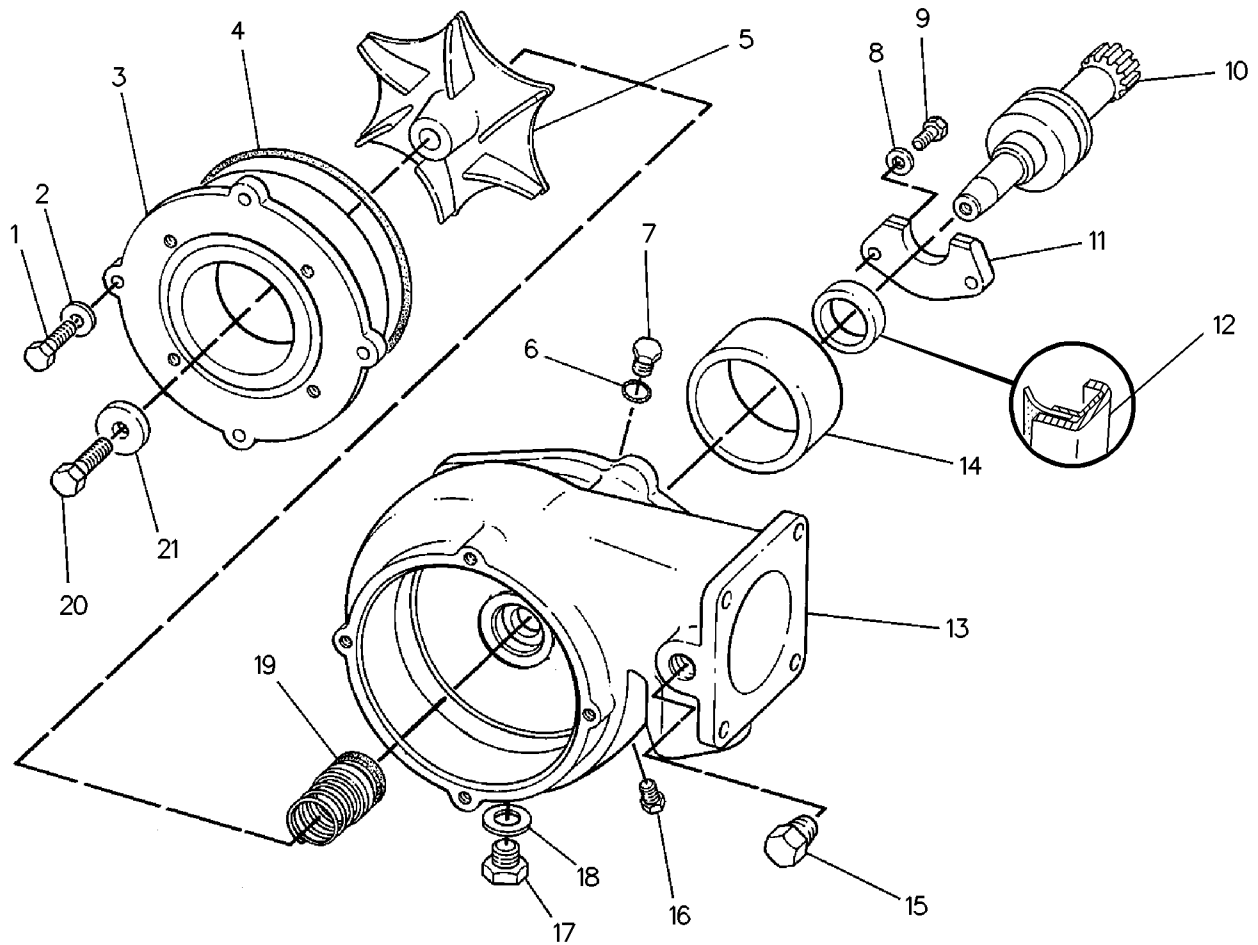
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1588	4	BOLT (3/8-16X1.25-IN)						
	2	1	5M-2894	4	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	3	1	8N-8461	1	ADAPTER						
	4	1	9M-3786	1	SEAL-O-RING						
	5	1	8N-8455	1	IMPELLER-PUMP						
	6	1	7J-0204	1	SEAL-O-RING						
	7	1	1N-5999	1	PLUG						
	8	1	9M-1974	2	WASHER-HARD (8.8X16X2-MM THK)						
	9	1	0S-1618	2	BOLT (5/16-18X1-IN)						
	10	1	8N-8460	1	SHAFT AS						
	11	1	7N-4758	1	WASHER-THRUST						
C	12	1	8C-5236	1	SEAL-LIP TYPE						
	13	1	8N-8464	1	HOUSING AS						
	14	1	8M-9321	1	BEARING-SLEEVE						
	15	1	8T-6766	1	PLUG-PIPE						
	16	1	8T-6764	1	PLUG-PIPE						
	17	1	3F-1358	1	PLUG-DRAIN (AUXILIARY WATER PUMP)						
	18	1	2A-1162	1	GASKET						
C	19	1	262-4378	1	SEAL AS-WATER PUMP						
	20	1	3H-5844	1	BOLT (3/8-16X1.5-IN)						
	21	1	8N-8456	1	WASHER (10.2X28.5X5-MM THK)						

C- CHANGE FROM PREVIOUS TYPE

COOLING SYSTEM

8N-8465 PUMP GP-AUXILIARY SEA WATER (contd.)

i02495332



GRAPHIC #1

<END>

g00224054

COOLING SYSTEM

8N-8466 PUMP GP-AUXILIARY SEA WATER

FOR USE WITH 5N-6055 SEAL GP-WATER PUMP

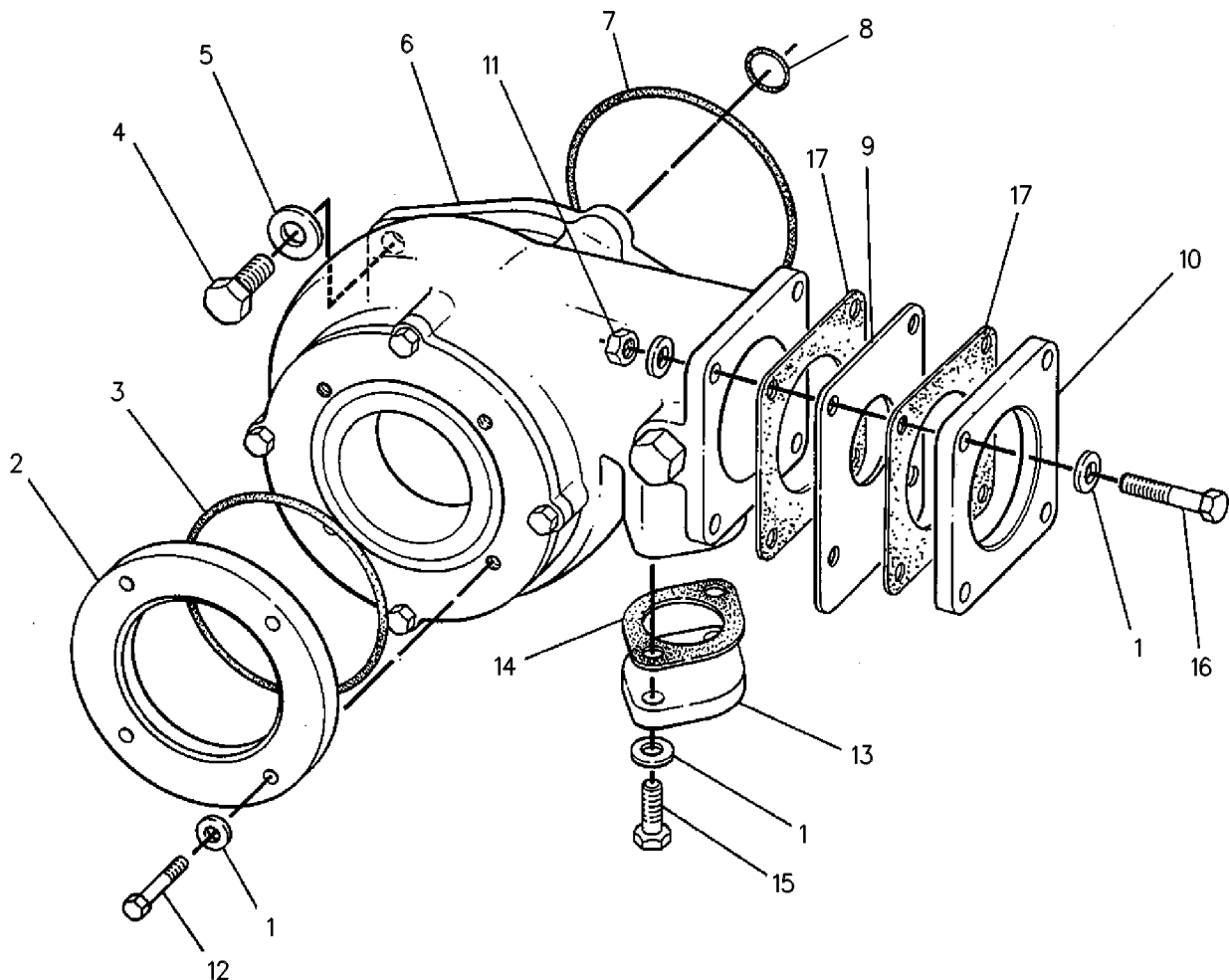
AN ATTACHMENT

SMCS-1371

i01978992

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	5M-2894	14	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	2	1	8N-8462	1	FLANGE						
	3	1	4F-7387	1	SEAL-O-RING						
	4	1	OS-1566	4	BOLT (5/8-11X1.5-IN)						
	5	1	5P-8247	4	WASHER-HARD (17X32X3.5-MM THK)						
Y	6	1	8N-8465	1	PUMP GP-AUXILIARY SEA WATER						117
	7	1	5F-3106	1	SEAL-O-RING						
	8	1	2M-4453	1	SEAL-O-RING						
	9	1	5N-0408	1	PLATE-ORIFICE						
	10	1	5N-1845	1	FLANGE						
	11	1	9S-8752	4	NUT-FULL (3/8-16-THD)						
	12	1	OS-1588	4	BOLT (3/8-16X1.25-IN)						
	13	1	5N-1941	1	COVER						
	14	1	5N-1940	1	GASKET						
	15	1	OS-1594	2	BOLT (3/8-16X1-IN)						
	16	1	OS-1571	4	BOLT (3/8-16X1.75-IN)						
	17	1	3P-6061	2	GASKET						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00237826

COOLING SYSTEM

291-4311 PUMP GP-AUXILIARY WATER-FRESH WATER*R PART OF 9Y-8175 PUMP GP-WATER

SMCS-1371

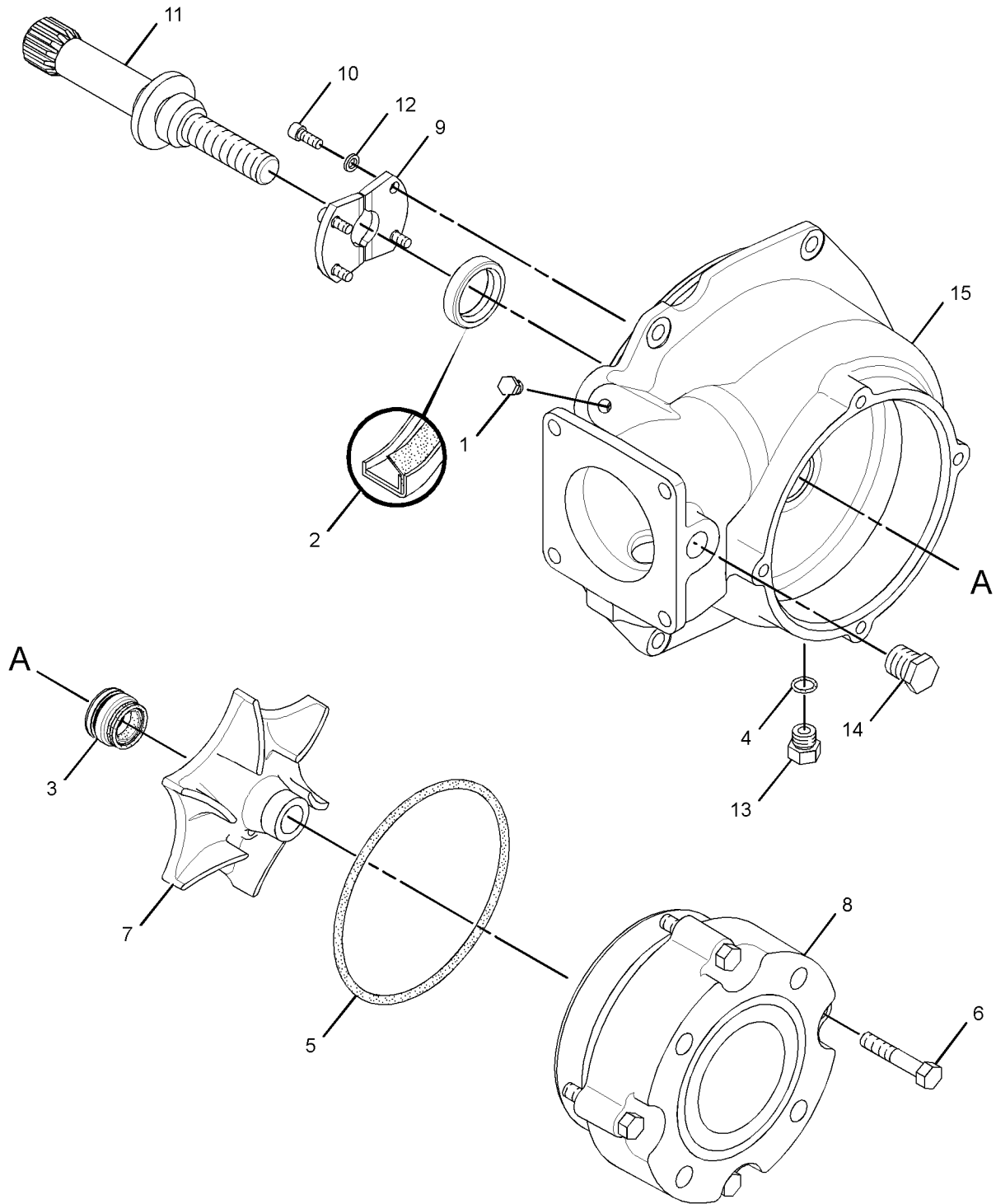
i02567068

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-6764	1	PLUG-PIPE						
	2	1	9X-4594	1	SEAL-LIP TYPE						
	3	1	262-4378	1	SEAL AS-WATER PUMP						
	4	1	3J-1907	1	SEAL-O-RING						
	5	1	9M-3786	1	SEAL-O-RING						
	6	1	0S-1590	4	BOLT (3/8-16X2-IN)						
	7	1	212-8183	1	IMPELLER						
	8	1	9Y-8067	1	ADAPTER						
	9	1	5N-4383	2	WASHER-THRUST						
	10	1	8H-3128	4	BOLT-SOCKET HEAD (1/4-20X0.625-IN)						
	11	1	212-8179	1	SHAFT (14-TEETH)						
	12	1	8M-2933	4	SHIM-CARRIER (0.078-IN THK)						
	13	1	9S-4191	1	PLUG-O-RING						
	14	1	7W-6492	1	PLUG-PIPE						
	15	1	291-4309	1	HOUSING AS						
		1	8T-6759	1	PLUG-PIPE						
		1	127-5400	1	BEARING-SLEEVE						

COOLING SYSTEM

291-4311 PUMP GP-AUXILIARY WATER (contd.)

i02567068



GRAPHIC #1

<END>

g01286255

COOLING SYSTEM

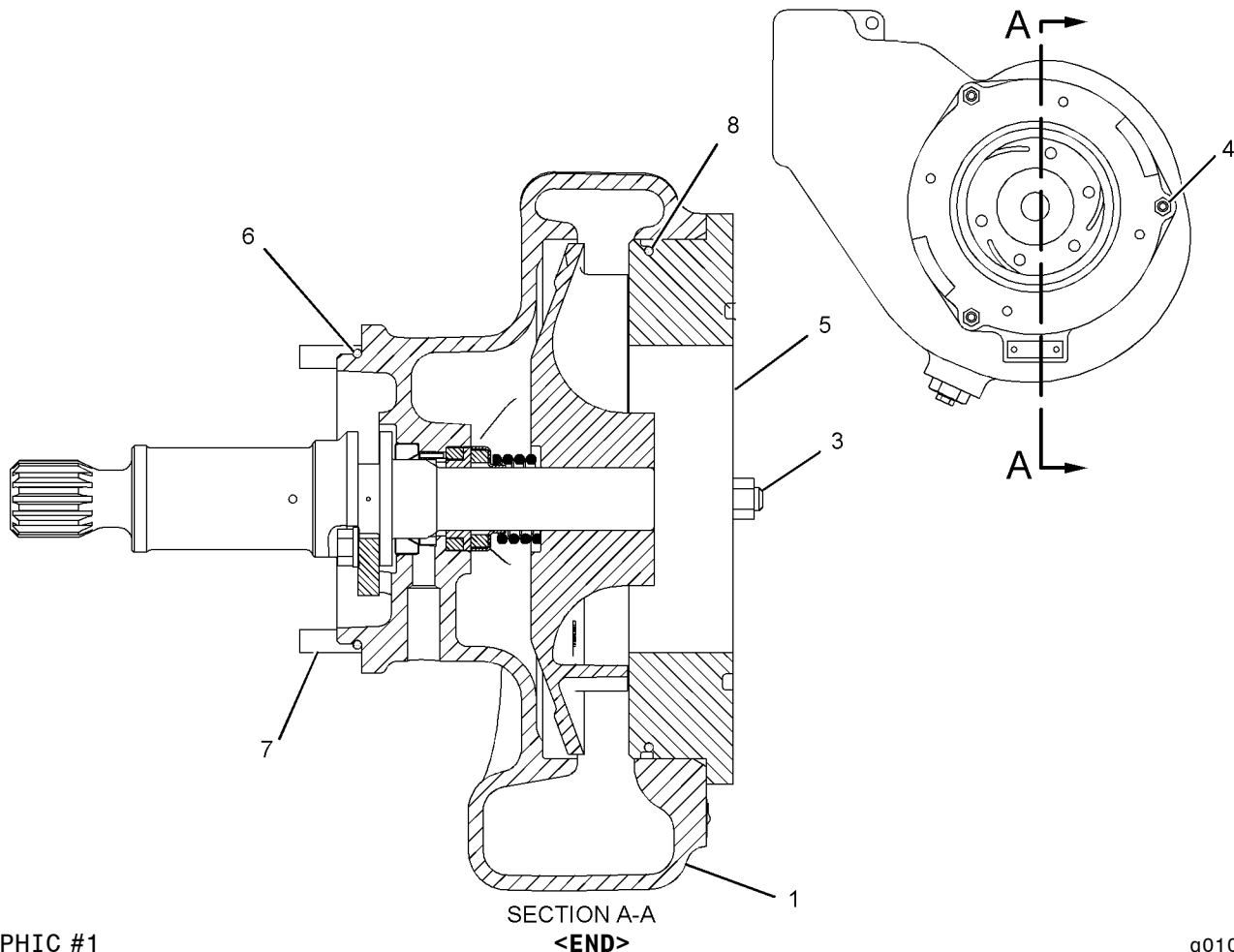
2W-9726 PUMP GP-WATER-ENGINE COOLANT

SMCS-1361

i02684453

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
CYR	1	1	212-8176	1	PUMP GP-WATER						124
	3	1	9M-2151	3	STUD-TAPERLOCK (3/8-16X1.378-IN)						
	4	1	9S-8752	3	NUT-FULL (3/8-16-THD)						
	5	1	8N-6423	1	COVER (WATER INLET)						
	6	1	5H-6734	1	SEAL-O-RING						
	7	1	3B-1915	4	BOLT (3/8-16X1.375-IN)						
	8	1	149-5462	1	SEAL-O-RING						
					AVAILABLE REPAIR KIT(S) :						
			222-5153	KIT-REBUILD (WATER PUMP)							
(INCLUDES BOLTS, SEAL-O-RING, FILTERS, WASHERS, SEAL-LIP TYPE, WASHERS, RING AS, SEAL GP, PUMP SHAFT, AND IMPELLER)											

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



GRAPHIC #1

g01028209

COOLING SYSTEM

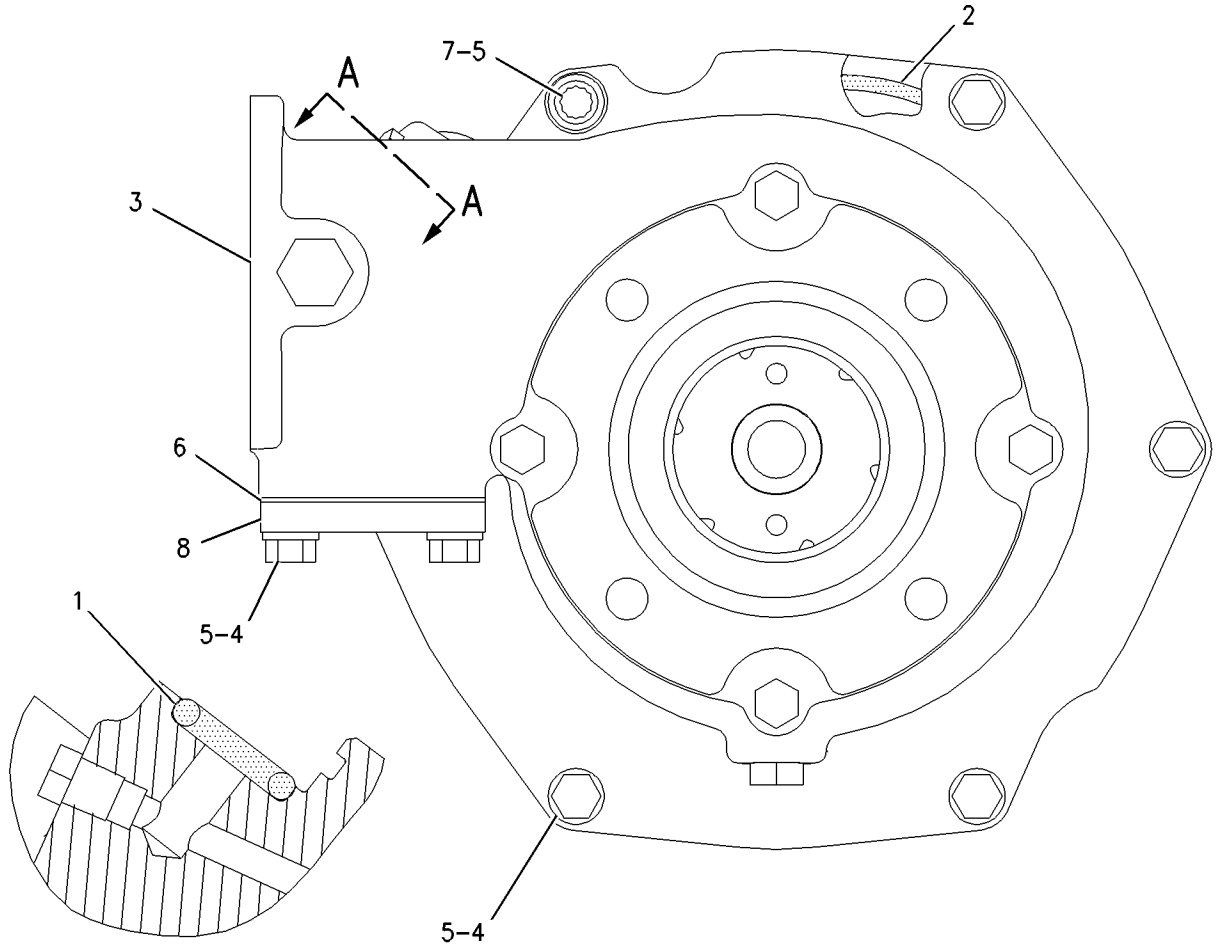
9Y-8175 PUMP GP-WATER-AFTERCOOLER

SMCS-1361

i02640413

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	3B-8453	1	SEAL-O-RING						
	2	1	235-3546	1	SEAL-O-RING						
CYR	3	1	291-4311	1	PUMP GP-AUXILIARY WATER						120
	4	1	0S-1594	7	BOLT (3/8-16X1-IN)						
	5	1	5M-2894	8	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	6	1	5N-1940	1	GASKET						
	7	1	1T-0765	1	BOLT (3/8-16X1-IN)						
	8	1	5N-1939	1	COVER						

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



SECTION A-A

GRAPHIC #1

<END>

g00912687

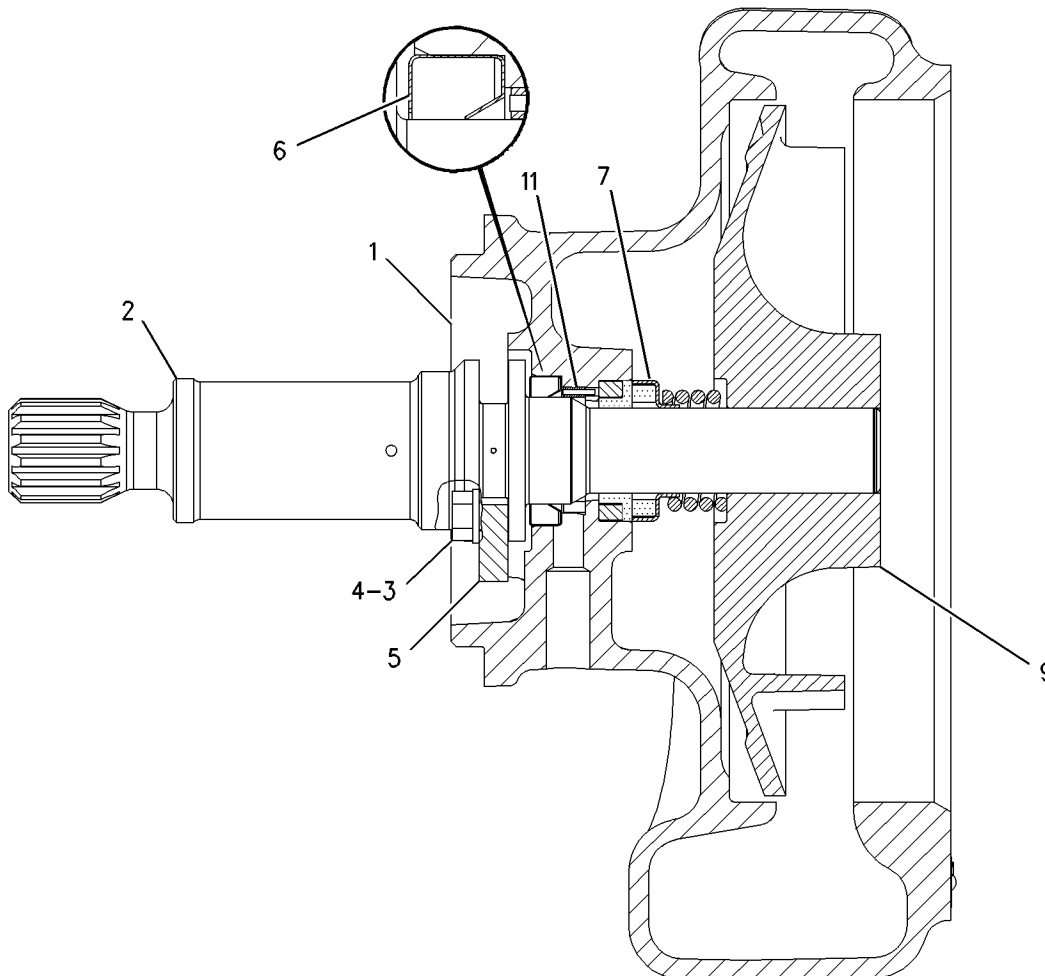
COOLING SYSTEM

212-8176 PUMP GP - WATER-ENGINE COOLANT*R PART OF 2W-9726 PUMP GP - WATER

SMCS-1361

i02698933

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7N-4756	1	HOUSING AS - PUMP						
J		1	3D-2824	1	SEAL - O-RING						
J		1	4N-5834	2	FILTER-BREATHER (WATER PUMP HOUSING)						
		1	7G-8478	1	ADAPTER						
		1	8T-6765	1	PLUG-PIPE						
J	2	1	212-8180	1	SHAFT						
		1	4B-9782	1	BALL						
J	3	1	OS-1618	2	BOLT (5/16-18X1-IN)						
J	4	1	9M-1974	2	WASHER-HARD (8.8X16X2-MM THK)						
J	5	1	7N-4758	1	WASHER-THRUST						
J	6	1	8C-5236	1	SEAL-LIP TYPE						
J	7	1	166-4376	1	SEAL GP-WATER PUMP						
J	9	1	212-8187	1	IMPELLER						
J	11	1	166-4374	1	RING AS						
		1	1L-5316	1	PIN-SPRING						
AVAILABLE REPAIR KIT(S) :											
J			222-5153		KIT-REBUILD (WATER PUMP)						
J - KIT MARKED J INCLUDES PARTS MARKED J											



GRAPHIC #1

<END>

g00905564

COOLING SYSTEM

8N-7643 REGULATOR GP - TEMPERATURE-WATER HOUSING AND INLET CONTROL FOR USE WITH EXPANSION TANK AND STANDBY GENERATOR ENGINE

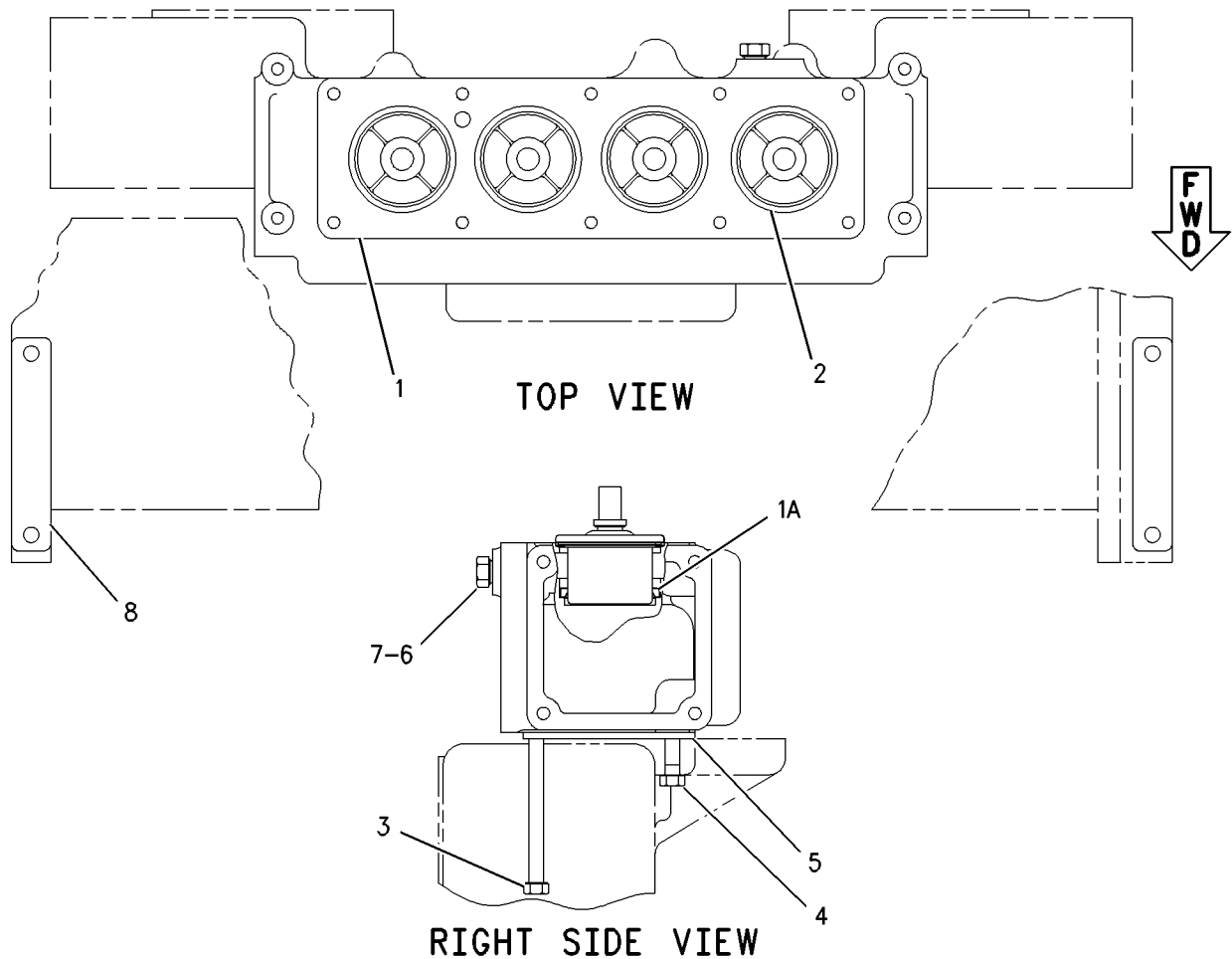
SMCS-1355

i02710357

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7E-6466	1	HOUSING AS-REGULATOR						
	1A	1	3S-9643	4	SEAL-LIP TYPE (WATER TEMPERATURE REGULATOR)						
C	2	1	6I-4950	4	REGULATOR-WATER TEMPERATURE (92-DEG C)						
	3	1	1A-5183	5	BOLT (3/8-16X4.75-IN)						
	4	1	0S-1588	5	BOLT (3/8-16X1.25-IN)						
	5	1	7N-4927	1	GASKET-HOUSING COVER						
C	6	1	9S-4182	1	PLUG-O-RING						
C	7	1	6V-9027	1	SEAL-O-RING						
BC	8	1	106-3512	2	PLATE						

B- USE AS REQUIRED

C- CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

<END>

g00994923

COOLING SYSTEM

4P-5767 SEPARATOR GP-AIR FOR USE WITH HEAT EXCHANGER OR KEEL COOLER AN ATTACHMENT

SMCS - 139S

i01794861

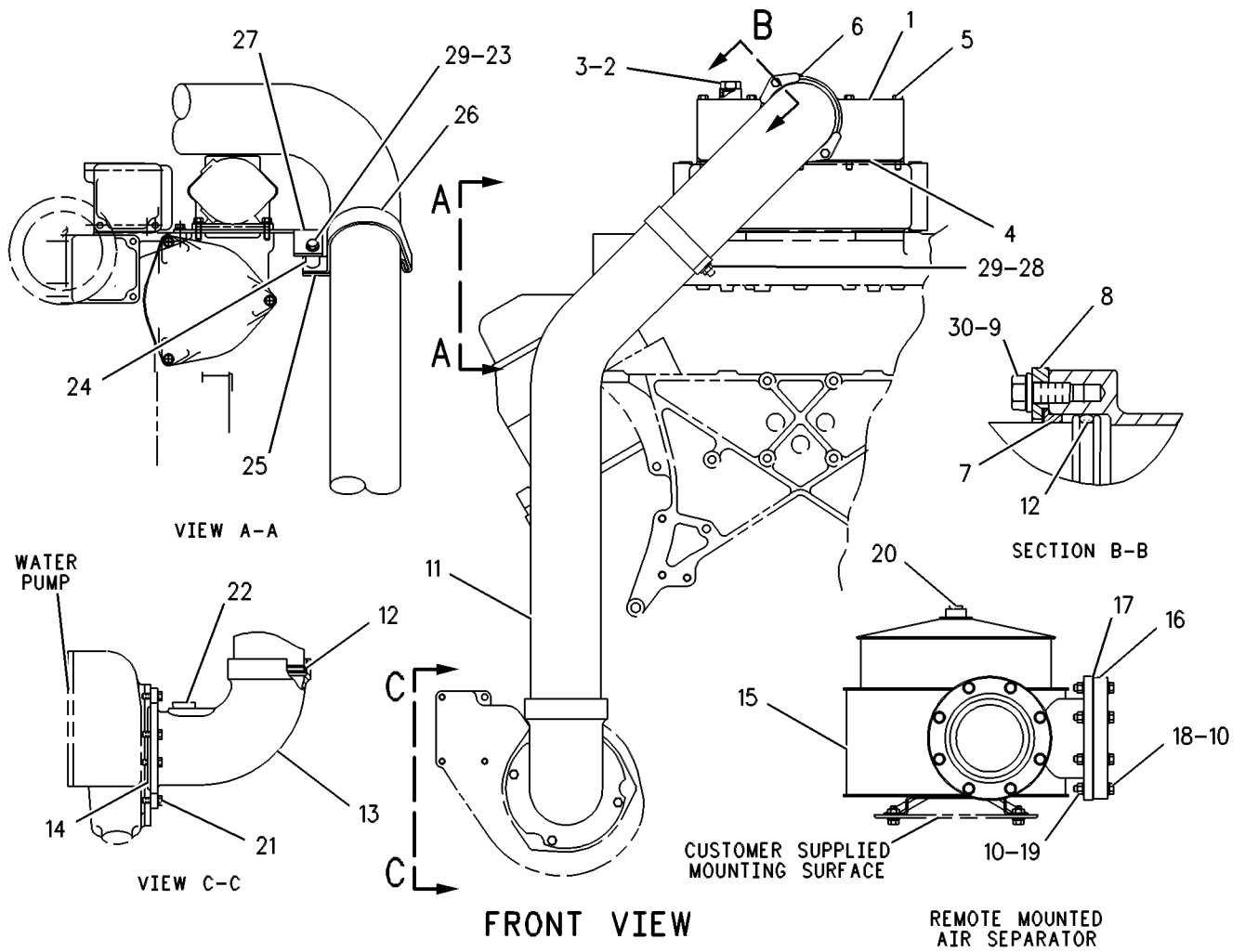
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7E-4650	1	HOUSING						
B	2	1	9S-4183	1	PLUG-O-RING						
B	3	1	3D-2824	1	SEAL-O-RING						
	4	1	7N-4927	1	GASKET-HOUSING COVER						
	5	1	5B-9603	8	BOLT (3/8-16X5-IN)						
	6	1	4F-0411	2	BOLT (3/8-16X6.5-IN)						
	7	1	8N-8570	1	RING-RETAINING						
	8	1	8N-8571	2	RETAINER						
	9	1	0L-1351	2	BOLT (3/8-16X0.875-IN)						
	10	1	8T-4896	32	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	11	1	7E-4500	1	TUBE						
	12	1	8T-2903	2	SEAL-O-RING						
	13	1	7E-4879	1	ELBOW						
	14	1	6V-6809	1	SEAL-O-RING						
	15	1	4P-5295	1	SEPARATOR AS-AIR						
	16	1	7N-7009	2	FLANGE						
	17	1	1S-5772	2	GASKET						
	18	1	8T-9377	16	BOLT (3/8-16X2.25-IN)						
	19	1	6V-8801	16	NUT (3/8-16-THD)						
	20	1	8T-6762	1	PLUG-PIPE						
	21	1	1A-2029	4	BOLT (3/8-16X1.125-IN)						
	22	1	7X-7730	1	PLUG-PIPE						
	23	1	1A-5822	1	BOLT (1/2-13X2.75-IN)						
	24	1	8V-9708	1	SPACER (14.3X25.4X35-MM THK)						
	25	1	7W-2033	1	CLIP (TAB)						
	26	1	7W-2034	1	CLIP (SLOT)						
	27	1	6I-3136	1	PLATE						
	28	1	1F-7958	1	NUT-FULL (1/2-13-THD)						
	29	1	5P-8245	2	WASHER-HARD (13.5X25.5X3-MM THK)						
	30	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5-MM THK)						

B- USE AS REQUIRED

COOLING SYSTEM

4P-5767 SEPARATOR GP-AIR (contd.)

i01794861



GRAPHIC #1

<END>

g00249087

COOLING SYSTEM

7N-4885 SWITCH GP - COOLANT LEVEL

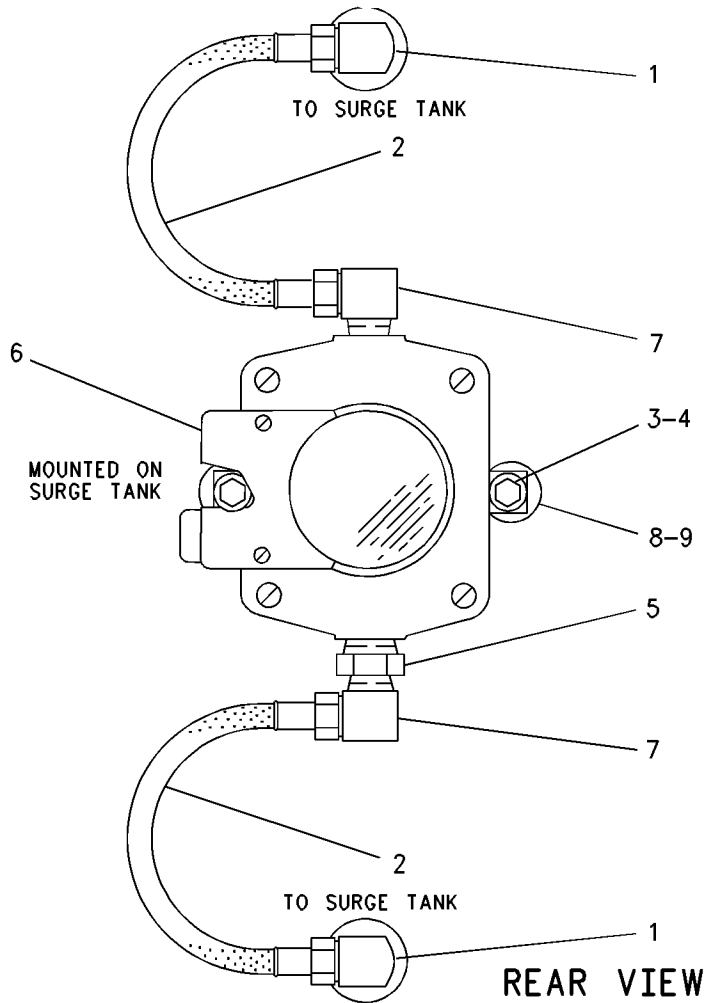
FOR USE WITH EXPANSION TANK
AN ATTACHMENT

SMCS-7470

i02016725

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
C	1	1	6V-4245	2	ELBOW						
CI	2	1	3N-4622	2	HOSE AS						
C	3	1	2A-0762	2	BOLT (1/4-20X0.625-IN)						
	4	1	5P-0537	2	WASHER-HARD (7.2X14.5X2-MM THK)						
	5	1	6B-5072	1	BUSHING-REDUCING						
	6	1	2N-9768	1	SWITCH-LIQUID LEVEL (COOLANT)						
C	7	1	4R-8605	2	ELBOW						
C	8	1	7E-7731	2	MOUNT						
	9	1	6V-7646	2	WASHER-HARD (7.2X25X2-MM THK)						

C- CHANGE FROM PREVIOUS TYPE
I- REFER TO HYDRAULIC INFORMATION SYSTEM



GRAPHIC #1

<END>

g00899609

COOLING SYSTEM

119-7334 TANK GP-EXPANSION

SMCS-1354

i02619802

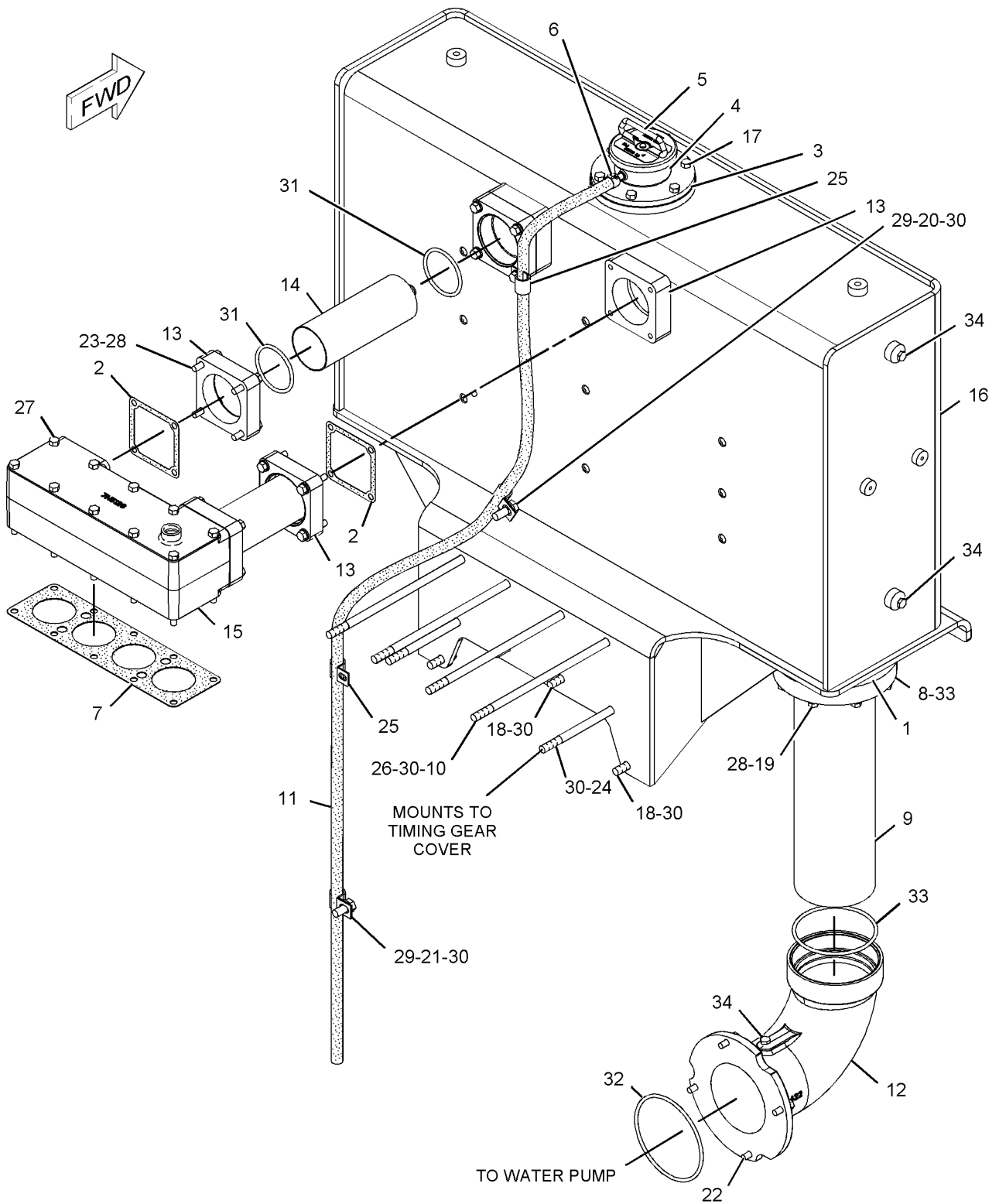
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1S-5772	1	GASKET						
	2	1	2N-0931	4	GASKET						
	3	1	3H-5939	1	GASKET-HEAT EXCHANGER						
	4	1	3N-1341	1	ADAPTER AS-NECK						
J	5	1	4N-3311	1	CAP-PRESSURE (7-PSI) (EXPANSION TANK)						
	6	1	5D-1026	1	CLAMP-HOSE						
	7	1	7N-4927	1	GASKET-HOUSING COVER						
	8	1	7N-5120	1	FLANGE						
	9	1	7N-5123	1	TUBE						
	10	1	8B-9725	4	BOSS						
E	11	1	5P-0721		HOSE (193-CM)						
	12	1	8N-9422	1	ELBOW						
	13	1	8N-9609	4	FLANGE						
	14	1	8N-9706	2	TUBE						
	15	1	119-7333	1	HOUSING AS						
		1	111-4374	1	VALVE AS-VENT LINE						
	16	1	245-2876	1	TANK AS-EXPANSION						
	17	1	0L-1351	6	BOLT (3/8-16X0.875-IN)						
	18	1	0S-1585	4	BOLT (1/2-13X1.5-IN)						
	19	1	0S-1590	8	BOLT (3/8-16X2-IN)						
	20	1	0S-1595	1	BOLT (1/2-13X1.25-IN)						
	21	1	0S-1621	1	BOLT (1/2-13X1-IN)						
	22	1	1A-2029	4	BOLT (3/8-16X1.125-IN)						
	23	1	1C-2251	16	BOLT (3/8-16X1.87-IN)						
	24	1	2A-1531	2	BOLT (1/2-13X6.5-IN)						
	25	1	3S-8664	2	CLIP						
	26	1	4M-2442	4	BOLT (1/2-13X12.32-IN)						
	27	1	5B-9603	10	BOLT (3/8-16X5-IN)						
	28	1	5M-2894	24	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	29	1	5P-4295	2	CLIP						
	30	1	5P-8245	12	WASHER-HARD (13.5X25.5X3-MM THK)						
	31	1	6V-1454	4	SEAL-O-RING						
	32	1	6V-6809	1	SEAL-O-RING						
	33	1	8T-2903	2	SEAL-O-RING						
	34	1	8T-6765	5	PLUG-PIPE						
AVAILABLE REPAIR KIT(S) :											
J			225-4256	1	FILM-WARNING (HOT FLUID UNDER PRESSURE, U.S.)						
J			294-9052	1	CAP GP-COOLANT FILLER						
(INCLUDES RADIATOR CAP AND WARNING FILM)											

E - ORDER BY THE CENTIMETER
 J - PARTS MARKED J SERVICE PART (S) MARKED J

COOLING SYSTEM

119-7334 TANK GP - EXPANSION (contd.)

i02619802



GRAPHIC #1

<END>

g01051237

COOLING SYSTEM

293-3397 TANK GP-EXPANSION AN ATTACHMENT

SMCS - 1354

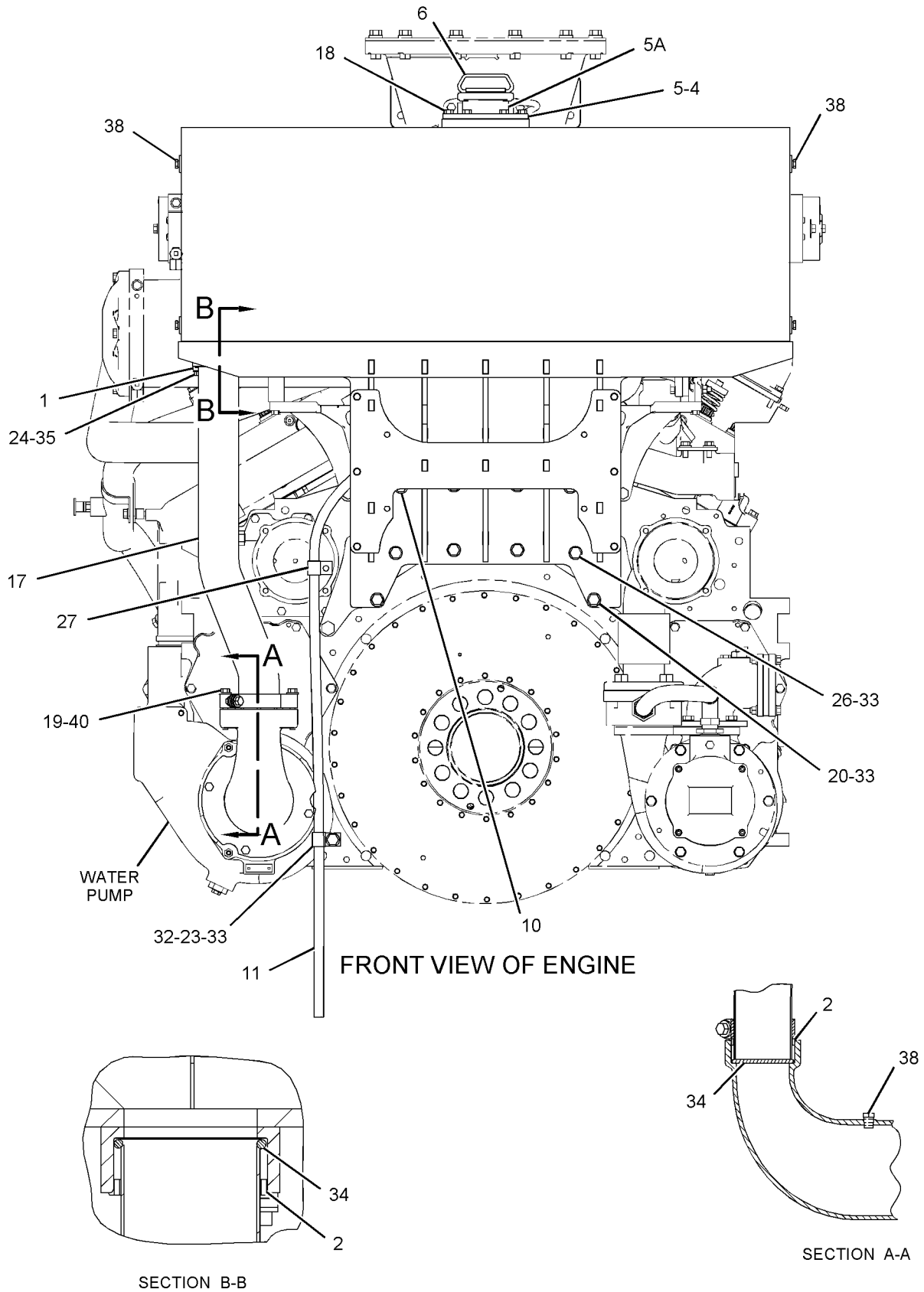
i02657403

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1W-4072	2	RETAINER						
	2	1	1W-4099	2	RING-RETAINING						
	3	2	2N-0931	4	GASKET						
	4	1	3H-5939	1	GASKET-HEAT EXCHANGER						
	5	1	3N-1341	1	ADAPTER AS-NECK						
	5A	1	6L-9849		NECK-FILLER						
	6	1	294-9052	1	CAP GP-COOLANT FILLER						
		1	225-4256	1	FILM-WARNING (HOT FLUID UNDER PRESSURE, U.S.)						
	7	2	5D-1026	1	CLAMP-HOSE						
	8	2	7N-4927	1	GASKET-HOUSING COVER						
	9	2	7N-5127	1	HOUSING AS						
		2	111-4374	1	VALVE AS-VENT LINE						
	10	1	8B-9725	4	BOSS						
	11	1	8N-5213	1	HOSE						
	12	2	8N-9609	4	FLANGE						
	13	2	188-0324	2	TUBE						
	14	2	236-2623	1	ELBOW						
	15	2	248-4792	2	CLAMP AS						
	16	2	293-3399	1	TANK AS						
	16A	2	3N-5863	4	BOSS						
	16B	2	3N-7320	1	FLANGE-EXPANSION TANK						
	17	1	304-4501	1	TUBE						
	18	1	0L-1351	6	BOLT (3/8-16X0.875-IN)						
	19	1	0S-1571	2	BOLT (3/8-16X1.75-IN)						
	20	1	0S-1585	4	BOLT (1/2-13X1.5-IN)						
	21	2	0S-1594	2	BOLT (3/8-16X1-IN)						
	22	2	0S-1595	1	BOLT (1/2-13X1.25-IN)						
	23	1	0S-1621	1	BOLT (1/2-13X1-IN)						
	24	1,2	1A-2029	6	BOLT (3/8-16X1.125-IN)						
	25	2	1C-2251	16	BOLT (3/8-16X1.87-IN)						
	26	1	2A-1531	2	BOLT (1/2-13X6.5-IN)						
	27	1,2	3S-8664	2	CLIP						
	28	2	4M-2442	4	BOLT (1/2-13X12.32-IN)						
	29	2	5B-9603	10	BOLT (3/8-16X5-IN)						
	30	2	5M-2894	16	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	31	2	5P-2566	6	BOLT (1/2-13X1.5-IN)						
	32	1,2	5P-4295	2	CLIP						
	33	1,2	5P-8245	12	WASHER-HARD (13.5X25.5X3-MM THK)						
	34	1,2	6V-1454	6	SEAL-O-RING						
	35	1	6V-5839	2	WASHER (11X21X2.5-MM THK)						
	36	2	6V-6809	1	SEAL-O-RING						
	37	2	8T-4223	6	WASHER-HARD (13.5X25.5X3-MM THK)						
	38	1	8T-6765	5	PLUG-PIPE						
	39	2	9S-8752	2	NUT-FULL (3/8-16-THD)						
	40	1,2	9X-6458	6	WASHER-HARD (10.2X22.5X3-MM THK)						

COOLING SYSTEM

293 - 3397 TANK GP - EXPANSION (contd.)

i02657403



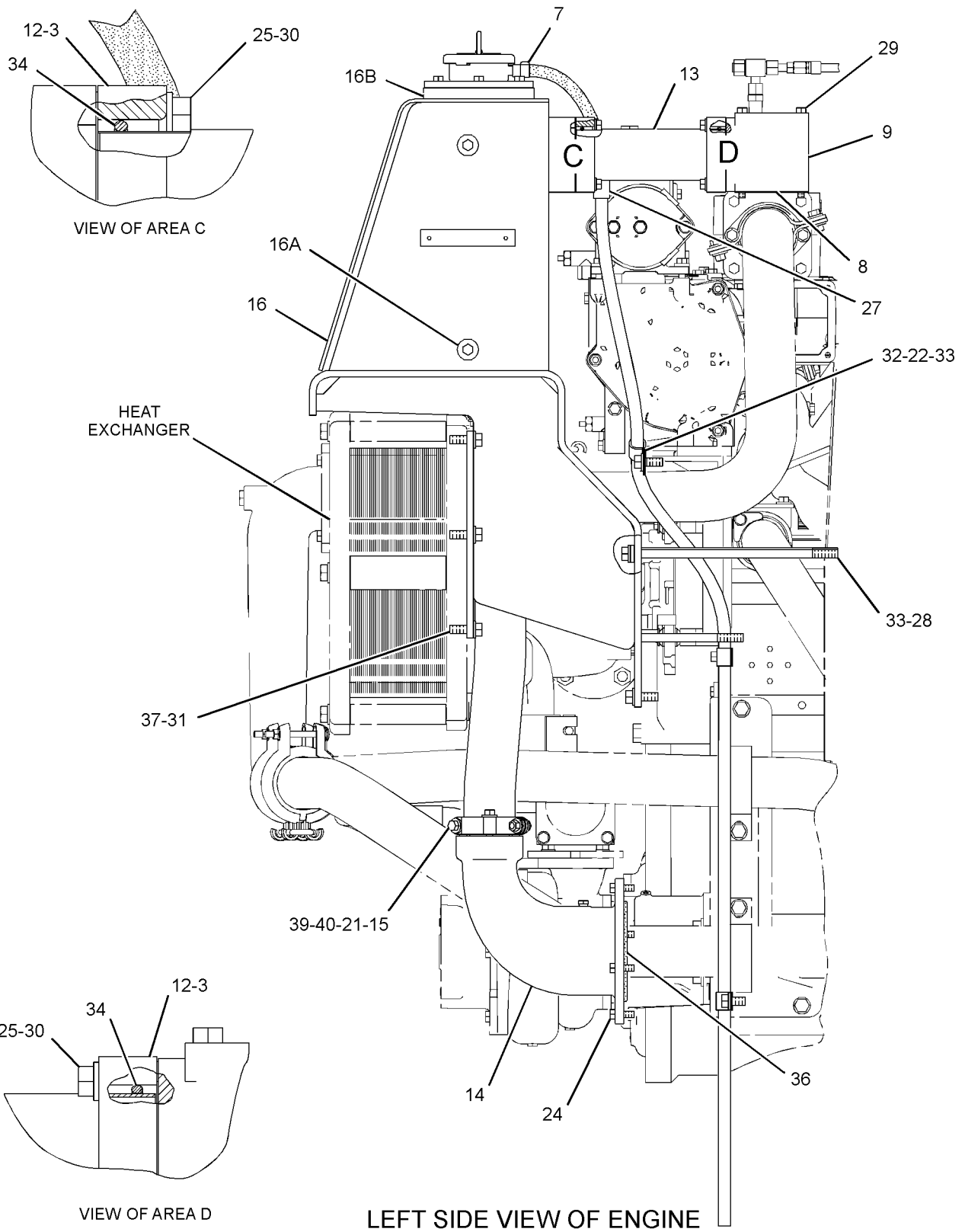
GRAPHIC #1

g01334029

COOLING SYSTEM

293 - 3397 TANK GP - EXPANSION (contd.)

i02657403



GRAPHIC #2

<END>

g01334030

COOLING SYSTEM

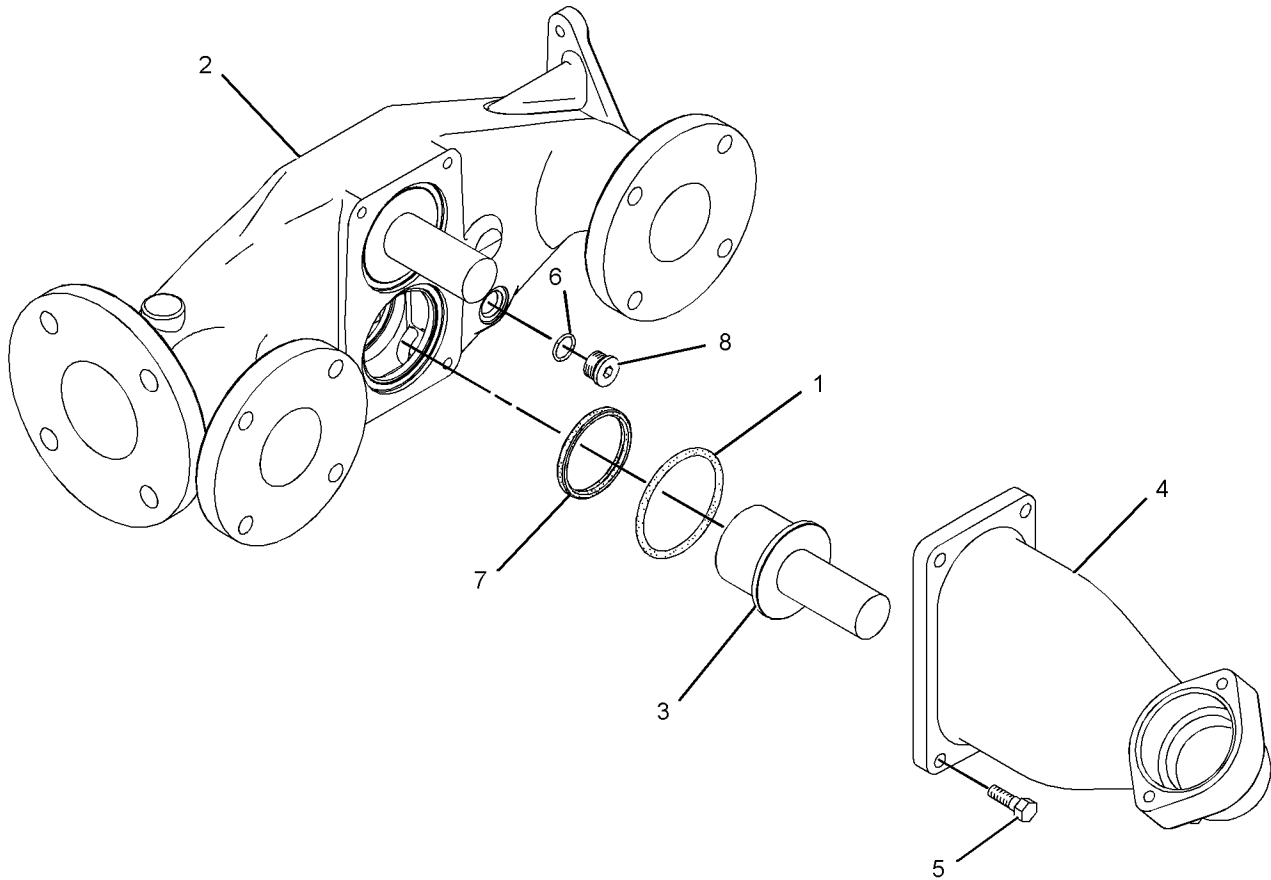
282 - 8537 VALVE GP - THERMOSTATIC

PART OF 289-0282 LINES GP-WATER

SMCS-5074

i02710359

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6V-1454	2	SEAL-O-RING						
	2	1	214-0728	1	HOUSING						
	3	1	219-3240	2	REGULATOR-WATER TEMPERATURE (30-DEG C)						
	4	1	264-3073	1	ADAPTER						
	5	1	1A-2029	4	BOLT (3/8-16X1.125-IN)						
	6	1	3K-0360	2	SEAL-O-RING						
	7	1	3S-9643	2	SEAL-LIP TYPE (WATER TEMPERATURE REGULATOR)						
	8	1	9S-8005	2	PLUG-O-RING						



GRAPHIC #1

<END>

g01211920

AIR INLET AND EXHAUST SYSTEM

7W-9828 ADAPTER GP-AIR CLEANER

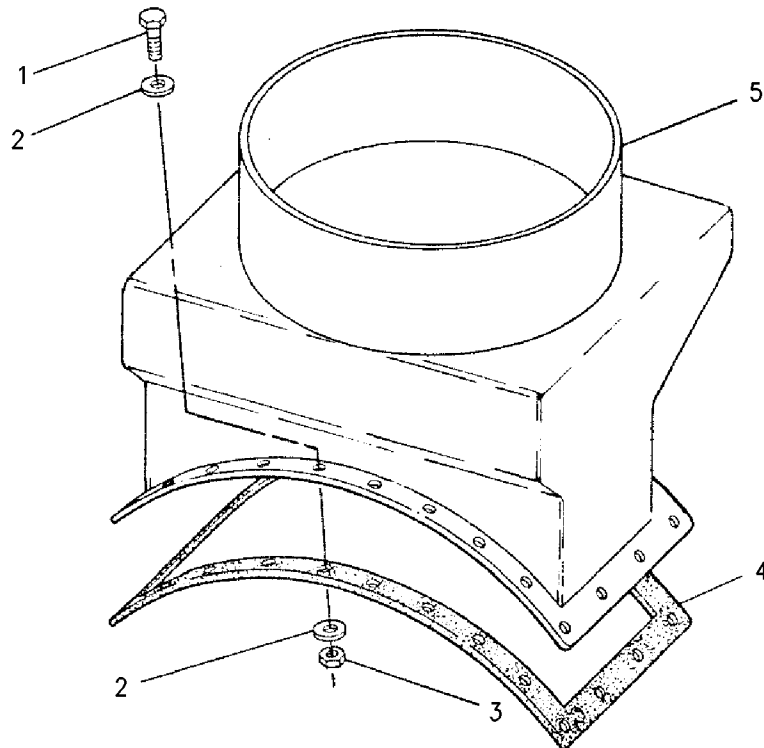
FOR USE WITH 12-INCH INNER DIAMETER DUCTING
AN ATTACHMENT

SMCS-1051

i02220736

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-9043	48	BOLT (5/16-18X0.875-IN)						
	2	1	8T-4224	96	WASHER-HARD (8.8X16X2-MM THK)						
	3	1	031-4155	48	LOCKNUT (5/16-18-THD)						
	4	1	5N-7830	2	GASKET						
	5	1	7W-9829	2	ADAPTER AS						

QUANTITIES SHOWN ARE THOSE REQUIRED FOR BOTH LH AND RH SIDES



GRAPHIC #1

<END>

g00826427

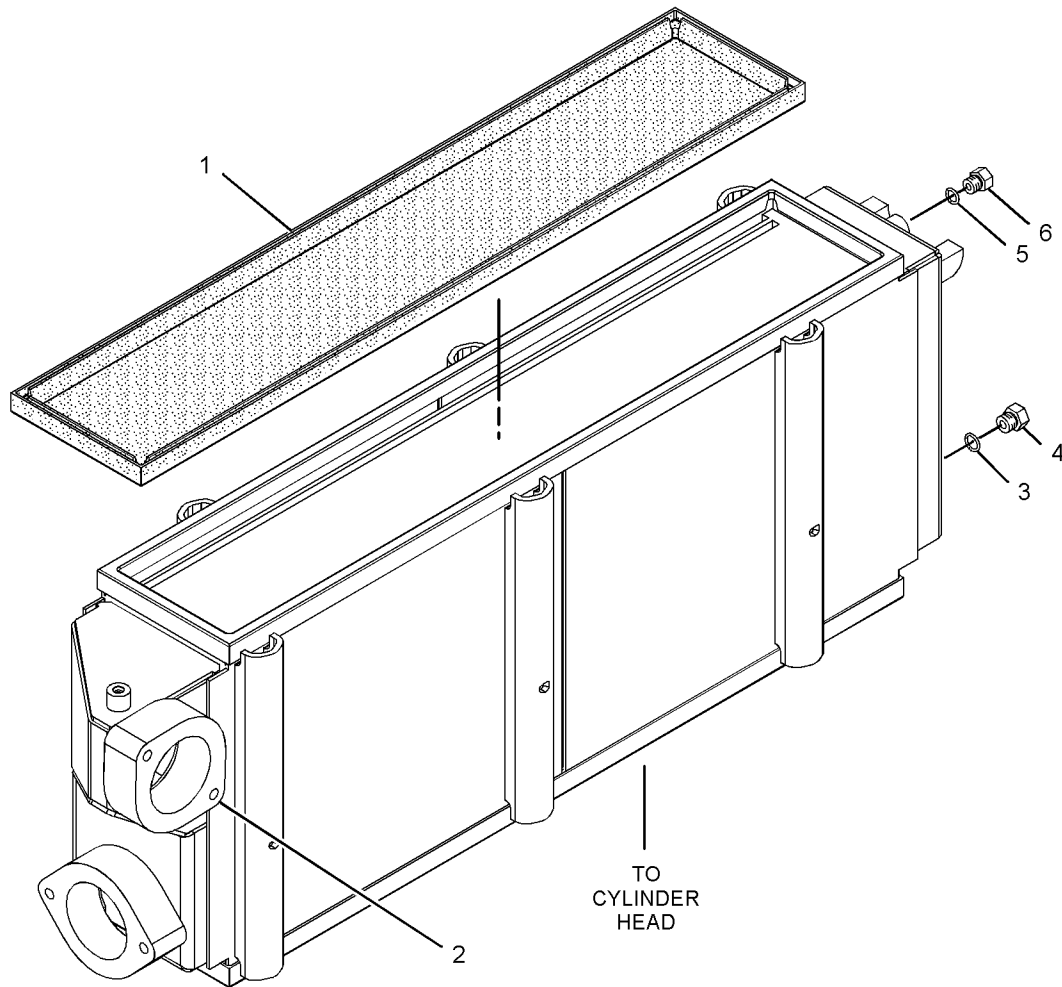
AIR INLET AND EXHAUST SYSTEM

283-9840 AFTERCOOLER GP-TREATED WATER

SMCS - 1063

i02485051

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	107-3758	2	SEAL (AFTERCOOLER)						
	2	1	283-1001	1	CORE AS-AFTERCOOLER						
	3	1	1J-9671	1	SEAL-O-RING						
	4	1	3K-8460	1	PLUG						
	5	1	6V-9027	1	SEAL-O-RING						
	6	1	9S-4182	1	PLUG-O RING						



GRAPHIC #1

<END>

g01278920

AIR INLET AND EXHAUST SYSTEM

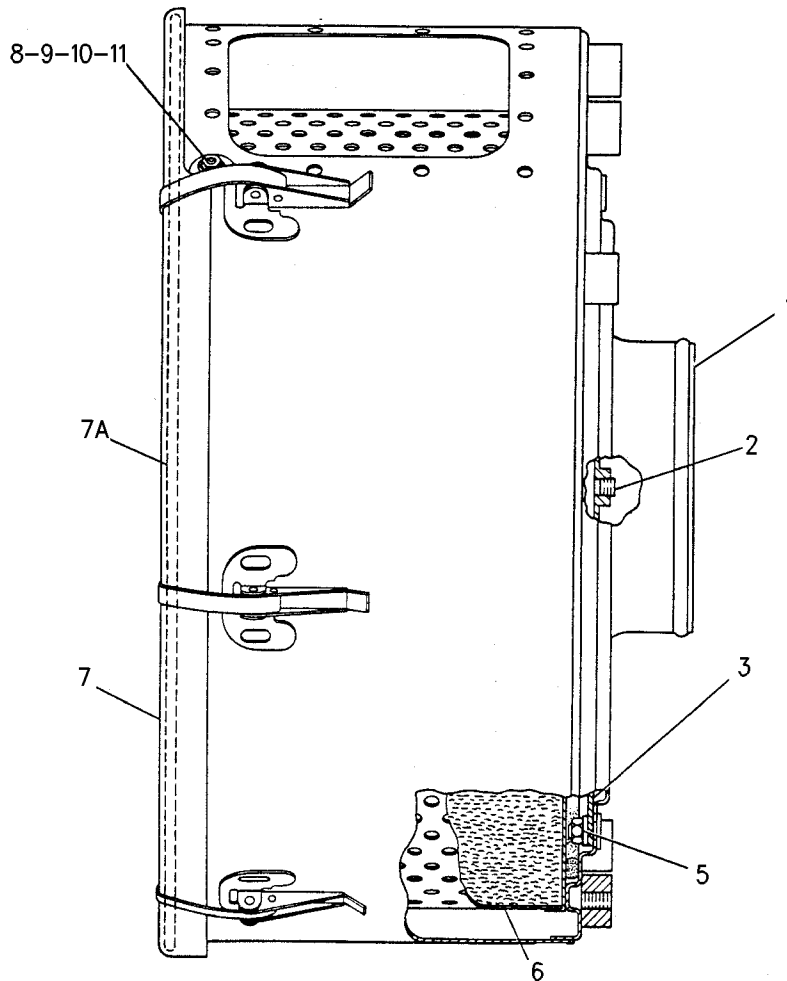
8N-3378 AIR CLEANER GP

PART OF 8N-9303 AIR CLEANER GP
AN ATTACHMENT

SMCS-1051, 1054

i02509709

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8N-2562	1	HOUSING AS-AIR CLEANER						
	2	1	8T-6757	2	PLUG-PIPE						
	3	1	7W-0495	1	GUIDE AS						
	5	1	2K-4973	4	LOCKNUT (3/8-16-THD)						
	6	1	8N-6309	1	ELEMENT AS-PRIMARY (AIR)						
	7	1	8N-6534	1	COVER AS						
	7A	1	8N-2559	1	GASKET						
	8	1	1B-7182	2	BOLT (5/16-18X1.25-IN)						
	9	1	7K-3215	2	SPACER (0.413X1X0.630-IN THK)						
	10	1	9M-1974	2	WASHER-HARD (8.8X16X2-MM THK)						
	11	1	5S-0003	2	NUT (5/16-18-THD)						



GRAPHIC #1

<END>

g00896817

AIR INLET AND EXHAUST SYSTEM

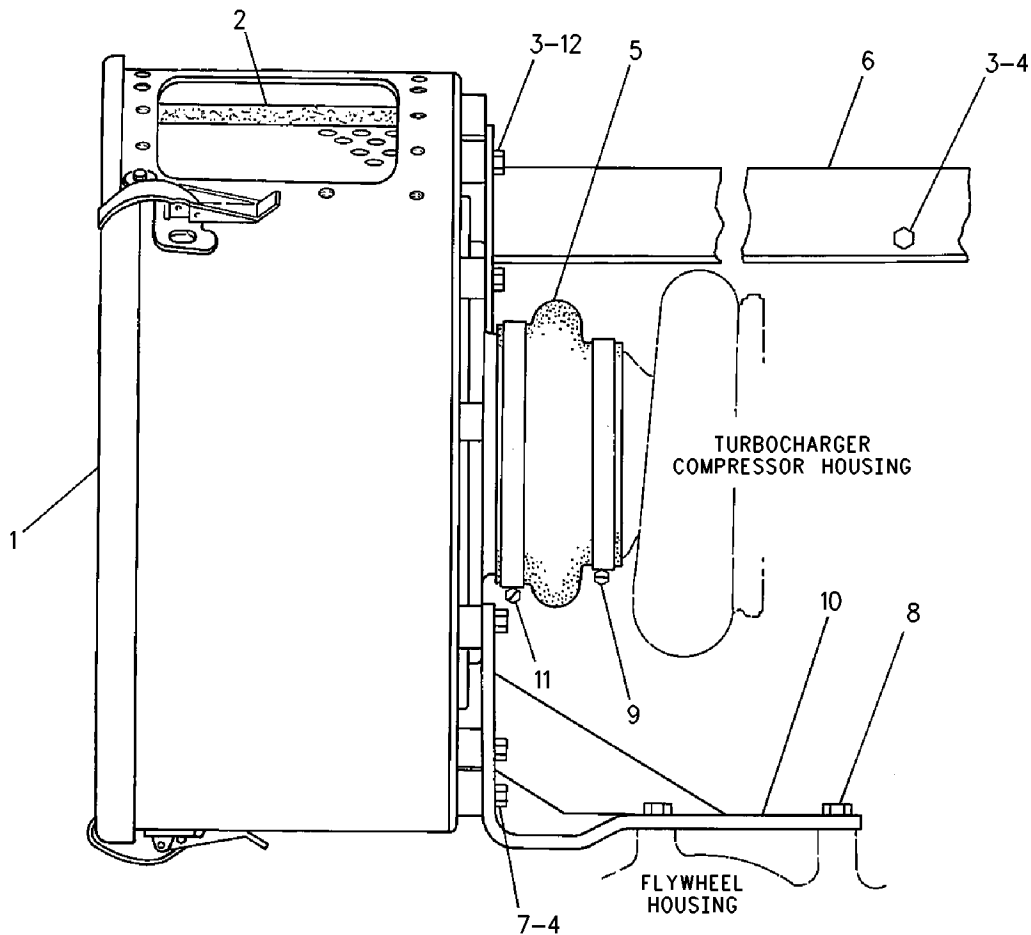
8N-9303 AIR CLEANER GP AN ATTACHMENT

SMCS-1051, 1054

i01977616

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	8N-3378	2	AIR CLEANER GP						137
	2	1	8N-2555	2	FILTER-SOOT (AIR CLEANER)						
	3	1	0L-1351	6	BOLT (3/8-16X0.875-IN)						
	4	1	5M-2894	8	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	5	1	8N-5254	2	HOSE-REDUCER						
	6	1	7W-5409	1	SUPPORT-AIR CLEANER						
	7	1	1A-2029	6	BOLT (3/8-16X1.125-IN)						
	8	1	6H-1717	6	BOLT (1/2-13X1.125-IN)						
		1	5P-8245	6	WASHER-HARD (13.5X25.5X3-MM THK)						
	9	1	5P-3860	2	CLAMP-HOSE						
	10	1	8N-8879	1	BRACKET AS						
		1	8N-8880	1	BRACKET AS						
	11	1	5P-4869	2	CLAMP-HOSE						
	12	1	3V-3308	4	WASHER-HARD (10.2X20.5X2.5-MM THK)						

Y-SEPARATE ILLUSTRATION



REAR VIEW

<END>

GRAPHIC #1

g00994987

AIR INLET AND EXHAUST SYSTEM

5N-2457 FITTING GP-EXHAUST-FLEXIBLE

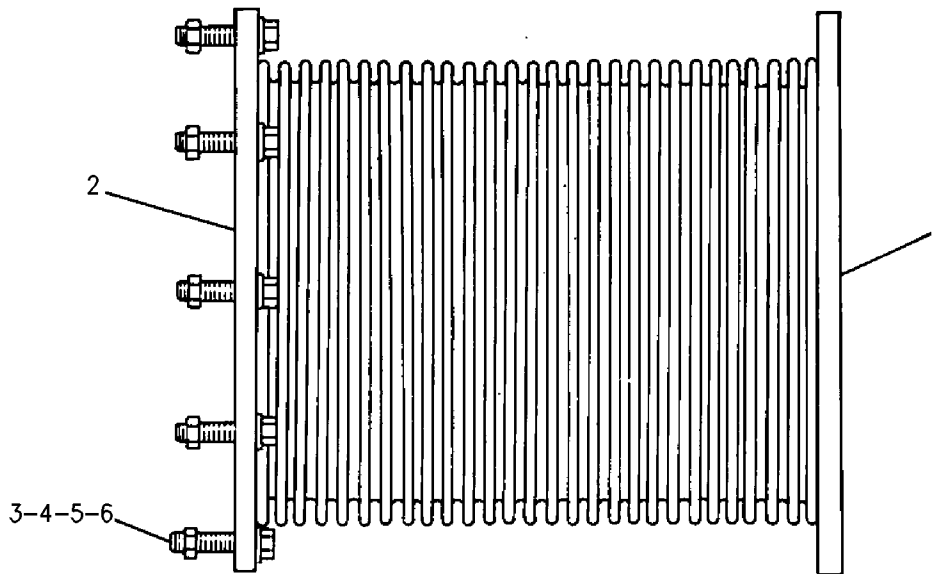
203.2-MM
AN ATTACHMENT

SMCS-1061

i02691220

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	214-6045	1	BELLOWS AS						
	2	1	245-3512	1	GASKET (EXHAUST)						
	3	1	3V-3308	8	WASHER-HARD (10.2X20.5X2.5-MM THK)						
BL	4	1	0S-1588	8	BOLT (3/8-16X1.25-IN)						
BJ	5	1	0S-1571	8	BOLT (3/8-16X1.75-IN)						
BJ	6	1	9S-8752	8	NUT-FULL (3/8-16-THD)						

B- USE AS REQUIRED
 J- FOR USE WITH HOT EXHAUST
 L- FOR USE WITH WATER COOLED EXHAUST



GRAPHIC #1

<END>

g00705439

AIR INLET AND EXHAUST SYSTEM

7N-6967 FITTING GP-EXHAUST

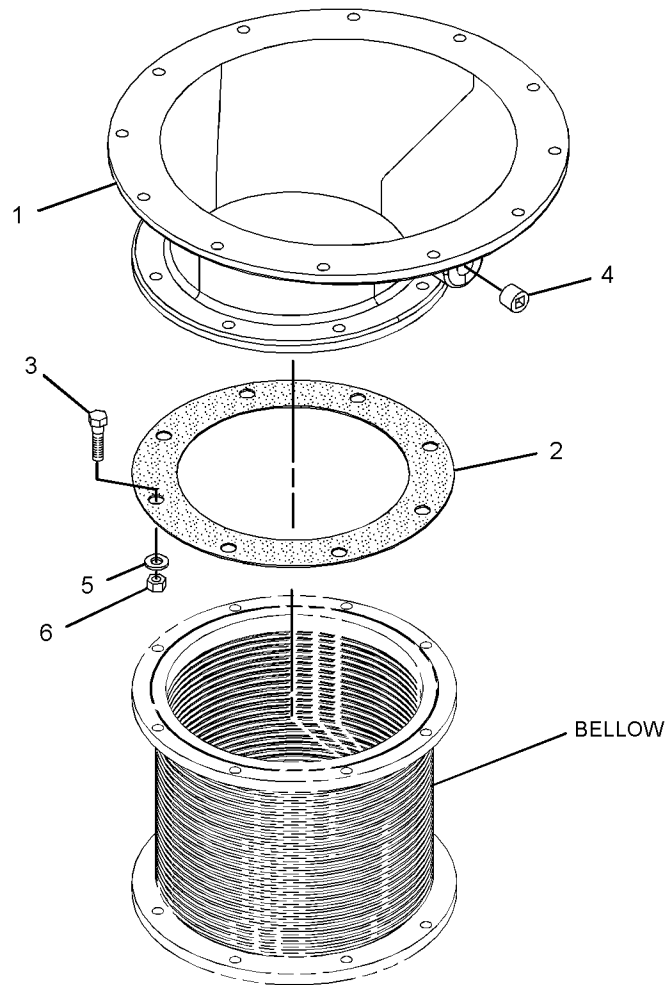
305-MM
AN ATTACHMENT

SMCS-1061

i02691223

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7N-6959	1	ADAPTER						
	2	1	245-3512	1	GASKET (EXHAUST)						
B	3	1	0S-1591	8	BOLT (3/8-16X1.5-IN)						
	4	1	2B-0858	1	PLUG-PIPE						
B	5	1	3V-3308	8	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	6	1	9S-8752	8	NUT-FULL (3/8-16-THD)						

B- USE AS REQUIRED



GRAPHIC #1

<END>

g01353098

AIR INLET AND EXHAUST SYSTEM

2W-7871 FLANGE GP-EXHAUST

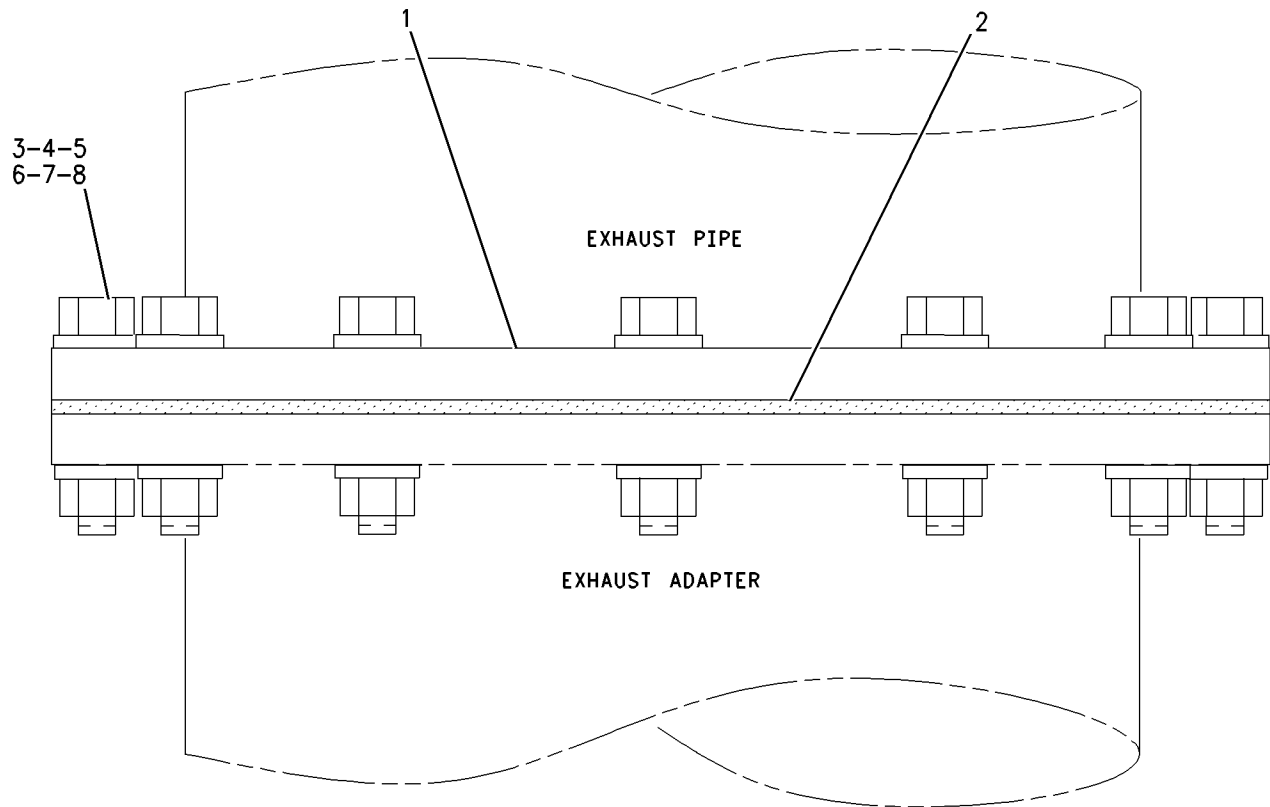
323.9-MM
AN ATTACHMENT

SMCS-1061

i02153824

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2W-7872	1	FLANGE - EXHAUST						
	2	1	2W-7873	1	GASKET - EXHAUST						
BL	3	1	5L-4398	12	BOLT (1/2-13X2.25-IN)						
BL	4	1	1B-5357	12	NUT-FULL (1/2-13-THD)						
BL	5	1	5P-8245	24	WASHER-HARD (13.5X25.5X3-MM THK)						
BJ	6	1	0S-1571	12	BOLT (3/8-16X1.75-IN)						
BJ	7	1	1B-5355	12	NUT-FULL (3/8-16-THD)						
BJ	8	1	9L-9132	24	WASHER (10.2X25.5X2.5-MM THK)						

B - USE AS REQUIRED
 J - FOR USE WITH ENGINE EXHAUST ELBOW OR EXPANDER FITTING GP
 L - FOR USE WITH FLEXIBLE FITTING GP OR MUFFLER GP



GRAPHIC #1

<END>

g00705447

AIR INLET AND EXHAUST SYSTEM

7N-6961 FLANGE GP-EXHAUST

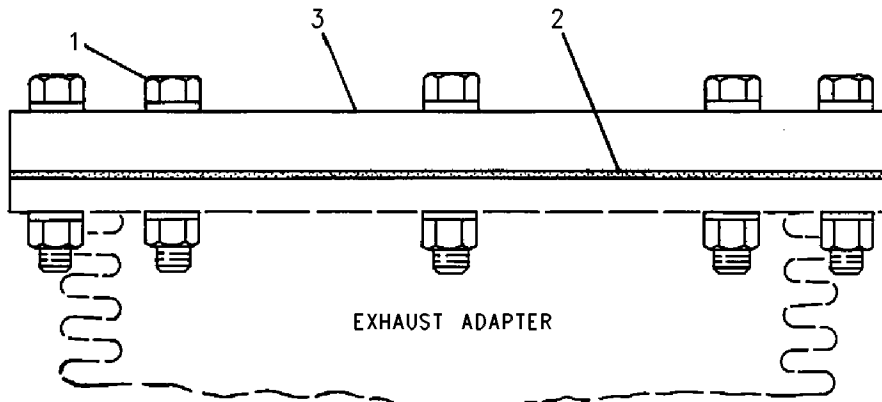
203-MM
AN ATTACHMENT

SMCS-1061

i02327546

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
B	1	1	0S-1590	8	BOLT (3/8-16X2-IN)						
		1	9S-8752	8	NUT-FULL (3/8-16-THD)						
BC	2	1	3V-3308	16	WASHER-HARD (10.2X20.5X2.5-MM THK)						
		1	5L-3773	1	GASKET-EXHAUST ELBOW						
		1	7N-6955	1	FLANGE						

B- USE AS REQUIRED
C- CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

<END>

g00622100

AIR INLET AND EXHAUST SYSTEM

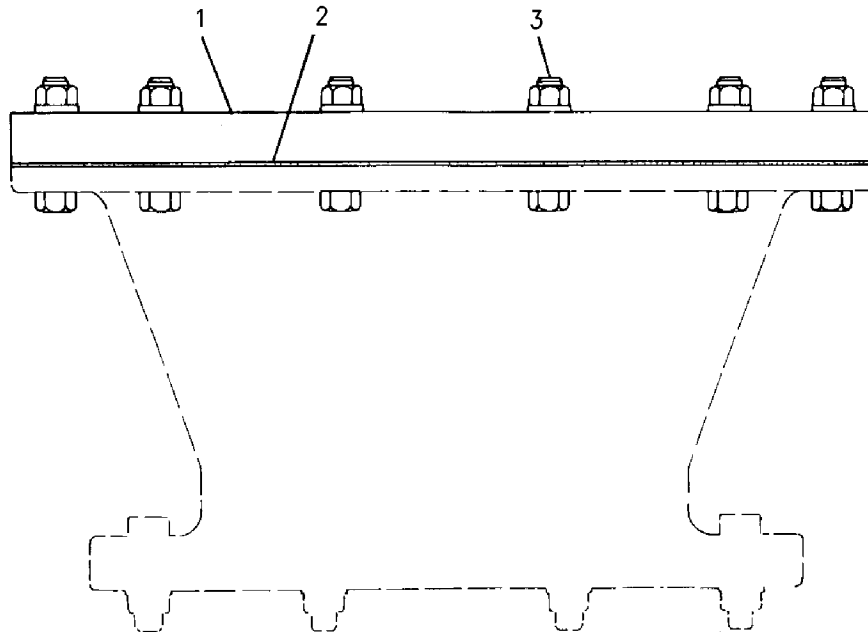
7N-6962 FLANGE GP-EXHAUST

254-MM
AN ATTACHMENT

SMCS-1061

i02220722

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7N-6954	1	FLANGE						
	2	1	7N-6957	1	GASKET						
	3	1	0S-1571	12	BOLT (3/8-16X1.75-IN)						
		1	9S-8752	12	NUT-FULL (3/8-16-THD)						
		1	5M-2894	12	WASHER-HARD (10.2X18.5X2.5-MM THK)						



GRAPHIC #1

<END>

g00622145

AIR INLET AND EXHAUST SYSTEM

268-0015 LINES GP-AIR

SMCS-1071

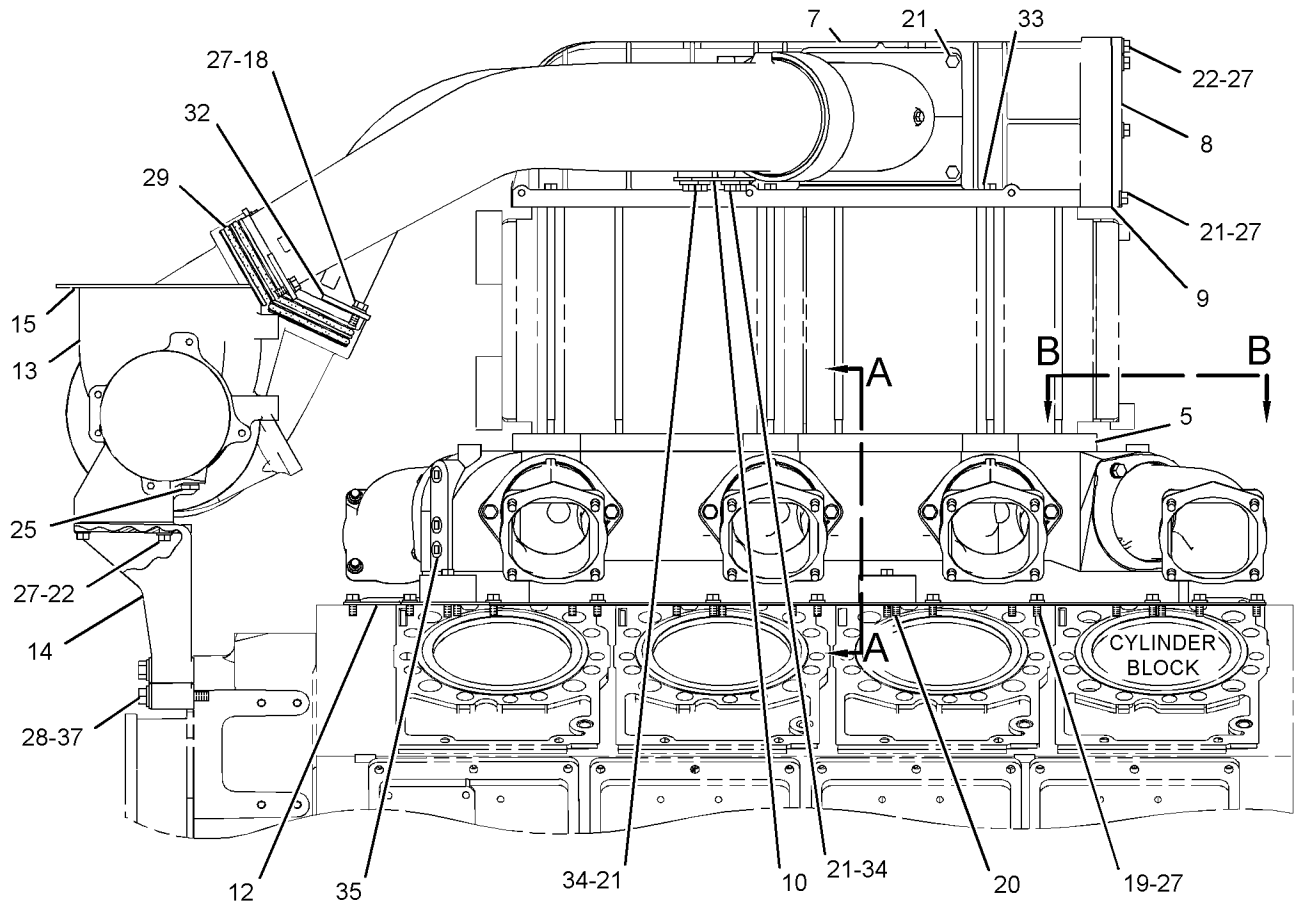
i02558207

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7C-7909	6	ELBOW (AIR INLET)						
	2	1	7C-7910	2	ELBOW (AIR INLET)						
	3	1	7C-8199	8	FLANGE						
	4	1	7N-5080	8	GASKET-MANIFOLD						
	5	1	283-9598	1	MANIFOLD						
	6	2	109-7411	2	SEAL-O-RING						
	7	1	285-8437	1	COVER (AIR INLET)						
	8	1	112-1563	1	COVER						
	9	1	112-1564	1	GASKET						
	10	1	112-1567	2	STRAP						
	11	2	122-3374	2	ELBOW (AIR INLET)						
	12	1	123-6983	1	PLATE						
	13	1	124-0215	1	ELBOW-TURBOCHARGER EXHAUST						
	14	1	140-6458	1	BRACKET						
	15	1	245-3512	1	GASKET (EXHAUST)						
	16	2	250-4471	1	PIPE-AIR (RH)						
	17	2	250-4472	1	PIPE-AIR (LH)						
	18	1	0L-1351	4	BOLT (3/8-16X0.875-IN)						
	19	1	0S-0509	22	BOLT (3/8-16X0.75-IN)						
	20	1	0S-1590	4	BOLT (3/8-16X2-IN)						
	21	1	0S-1594	19	BOLT (3/8-16X1-IN)						
	22	1	1A-2029	9	BOLT (3/8-16X1.125-IN)						
	23	1	1T-0720	32	BOLT-12 POINT HEAD (3/8-16X1.25-IN)						
	24	1	2A-4639	16	BOLT (3/8-16X1.625-IN)						
	25	1	3J-5389	2	PLUG (PIPE)						
	26	1	4S-5898	8	SEAL-O-RING						
	27	1	5M-2894	86	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	28	1	5P-8245	2	WASHER-HARD (13.5X25.5X3-MM THK)						
	29	1	6V-3917	4	SEAL-O-RING						
	30	1	6V-5101	8	SEAL-O-RING						
	31	2	6V-5103	4	SEAL-O-RING						
	32	1	7W-3145	4	PLATE						
	33	1	8J-5985	6	BOLT (3/8-16X12.375-IN)						
	34	1	8M-9024	8	WASHER-HARD (10.2X22.5X5-MM THK)						
	35	1,2	8T-6762	8	PLUG-PIPE						
	36	2	8T-6764	2	PLUG-PIPE						
	37	1	9X-8874	2	BOLT (1/2-13X3-IN)						

AIR INLET AND EXHAUST SYSTEM

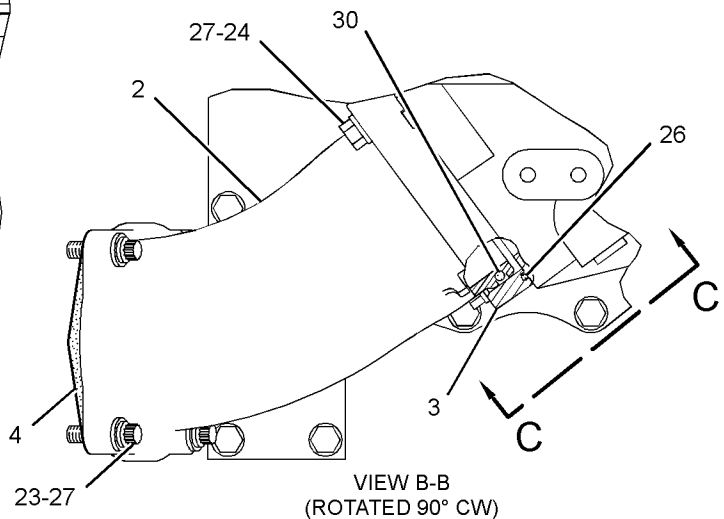
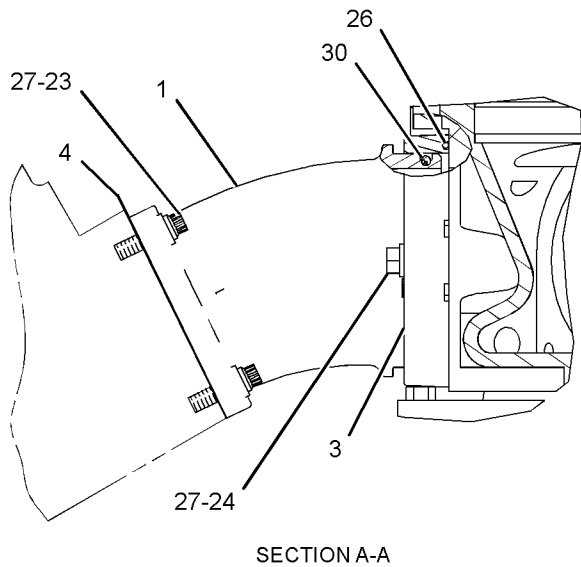
268-0015 LINES GP-AIR (contd.)

i02558207



RIGHT SIDE VIEW

REFER TO ALL ILLUSTRATIONS OF THIS GROUP FOR AUXILIARY VIEWS



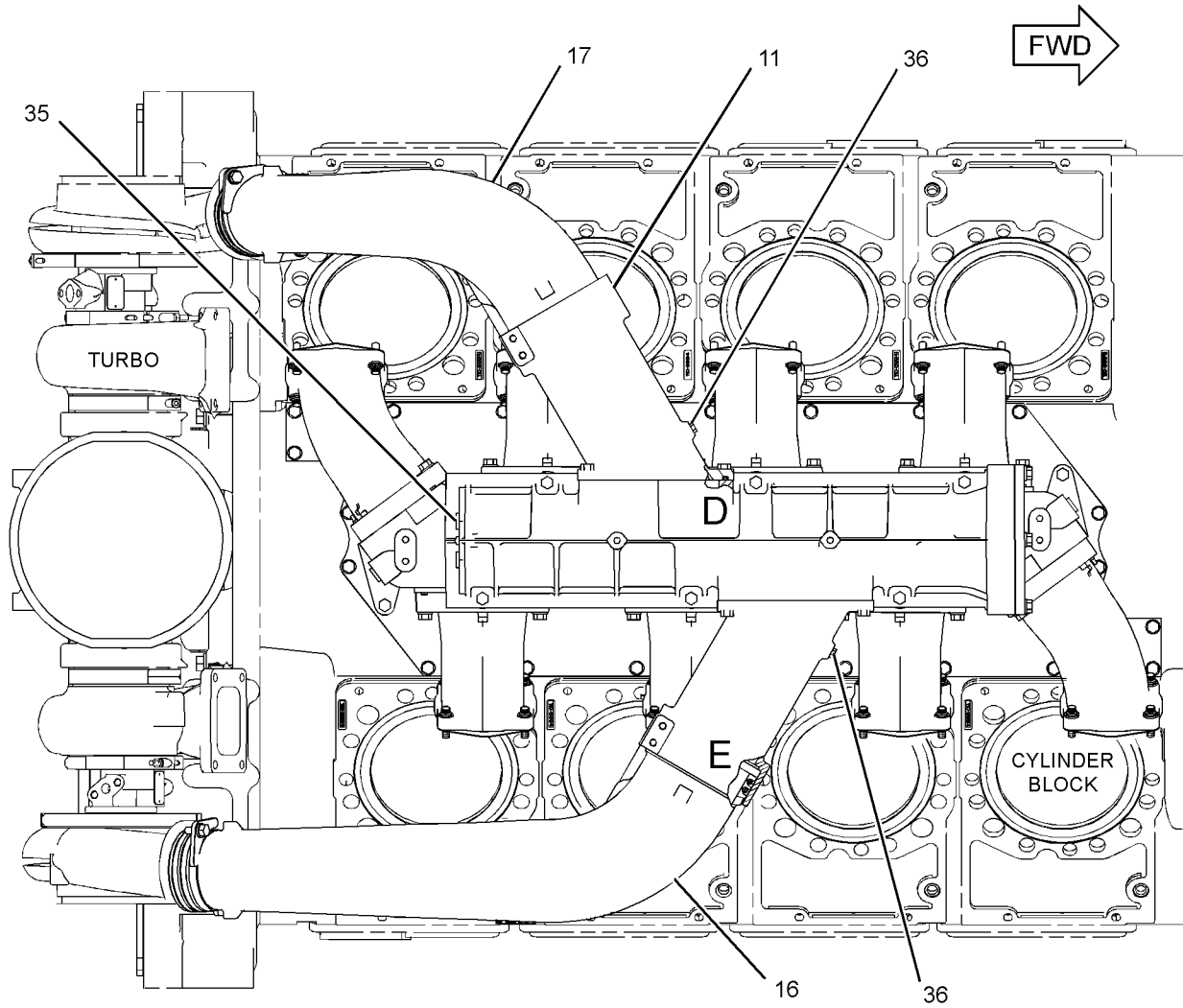
GRAPHIC #1

g01220042

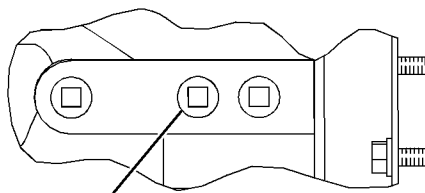
AIR INLET AND EXHAUST SYSTEM

268-0015 LINES GP-AIR (contd.)

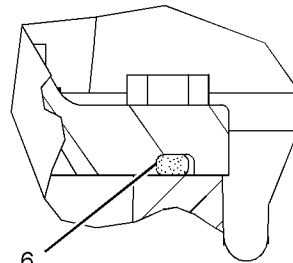
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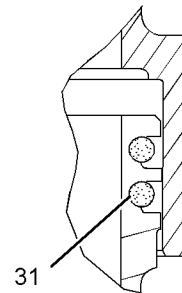
TOP VIEW



35
VIEW C-C



6
VIEW OF AREA D



31
VIEW OF AREA E

GRAPHIC #2

<END>

g01212048

AIR INLET AND EXHAUST SYSTEM

285 - 5345 MANIFOLD GP - EXHAUST

SMCS - 1059

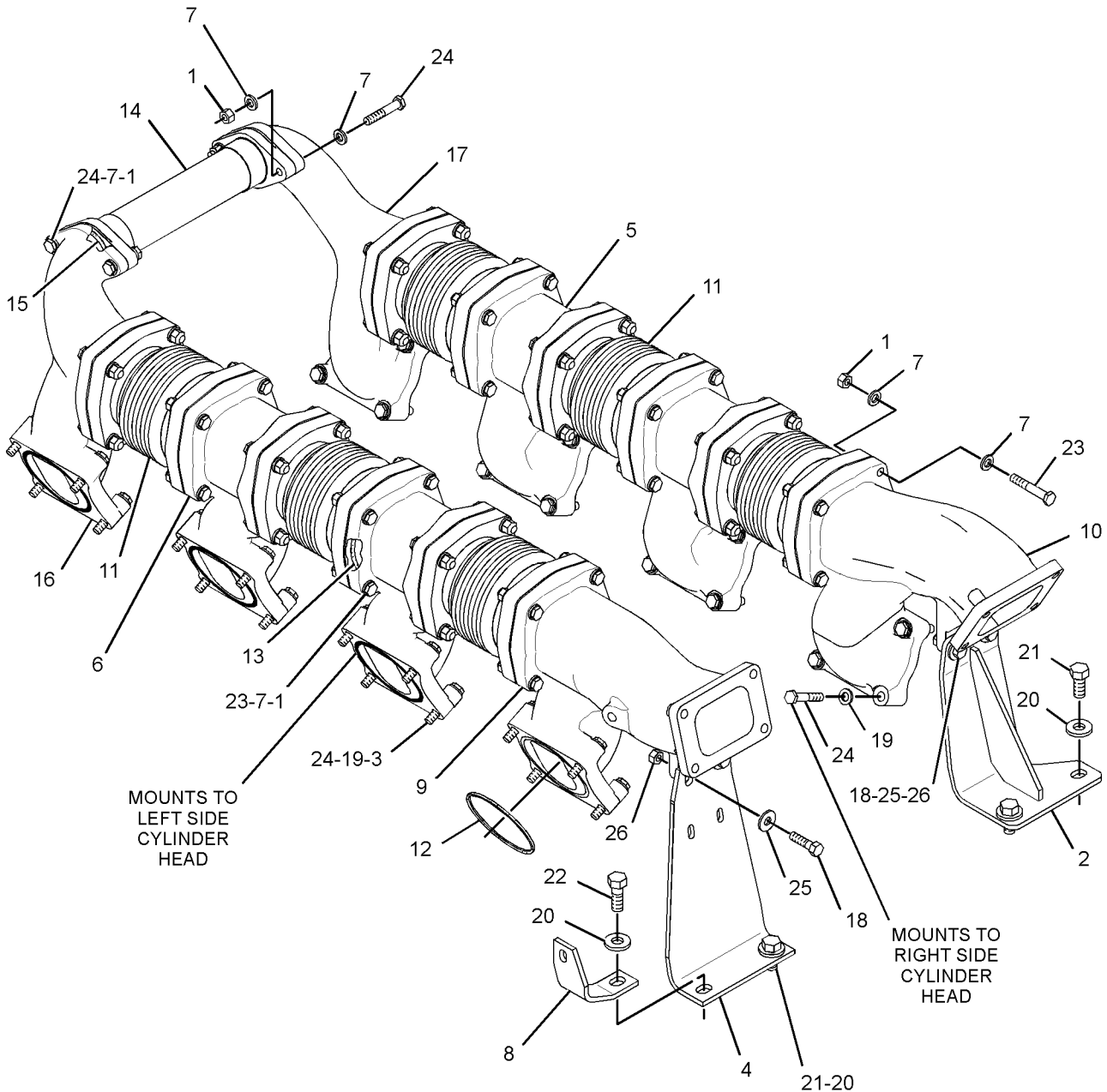
i02625600

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	3E-6916	52	NUT-FULL (3/8-16-THD)						
	2	1	4P-6530	1	BRACKET AS (RH)						
	3	1	4P-7680	8	SPACER (10.5X22.5X15-MM THK)						
	4	1	8N-8820	1	BRACKET						
	5	1	100-3146	2	MANIFOLD-EXHAUST (INTERMEDIATE, RH)						
	6	1	100-3148	2	MANIFOLD-EXHAUST (INTERMEDIATE, LH)						
	7	1	110-8314	104	WASHER (10.3X18.3X2.66-MM THK)						
	8	1	116-9863	1	BRACKET						
	9	1	125-9754	1	MANIFOLD-EXHAUST (REAR, LH)						
	10	1	128-9508	1	MANIFOLD-EXHAUST (REAR, RH)						
	11	1	207-1364	6	BELLOWS AS						
	12	1	229-5332	8	SEAL - EXHAUST						
	13	1	229-5333	12	SEAL - EXHAUST						
	14	1	272-2498	1	BELLOWS AS						
	15	1	273-7360	2	GASKET - EXHAUST MANIFOLD						
	16	1	285-5346	1	MANIFOLD-EXHAUST (FRONT, LH)						
	17	1	285-5347	1	MANIFOLD-EXHAUST (FRONT, RH)						
	18	1	3B-1915	4	BOLT (3/8-16X1.375-IN)						
	19	1	5M-2894	32	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	20	1	5P-1076	4	WASHER-HARD (13.5X30X4-MM THK)						
	21	1	6H-1717	3	BOLT (1/2-13X1.125-IN)						
	22	1	7B-3235	1	BOLT (1/2-13X1.375-IN)						
	23	1	7L-6443	48	BOLT-HIGH TEMPERATURE (3/8-16X2.25-IN)						
	24	1	9L-7373	36	BOLT-HIGH TEMPERATURE (3/8-16X2-IN)						
	25	1	9L-9132	4	WASHER (10.2X25.5X2.5-MM THK)						
	26	1	9S-8752	4	NUT-FULL (3/8-16-THD)						

AIR INLET AND EXHAUST SYSTEM

285 - 5345 MANIFOLD GP - EXHAUST (contd.)

i02625600



GRAPHIC #1

<END>

g01328251

AIR INLET AND EXHAUST SYSTEM

285 - 5356 SHIELD GP - EXHAUST

SMCS - 1067

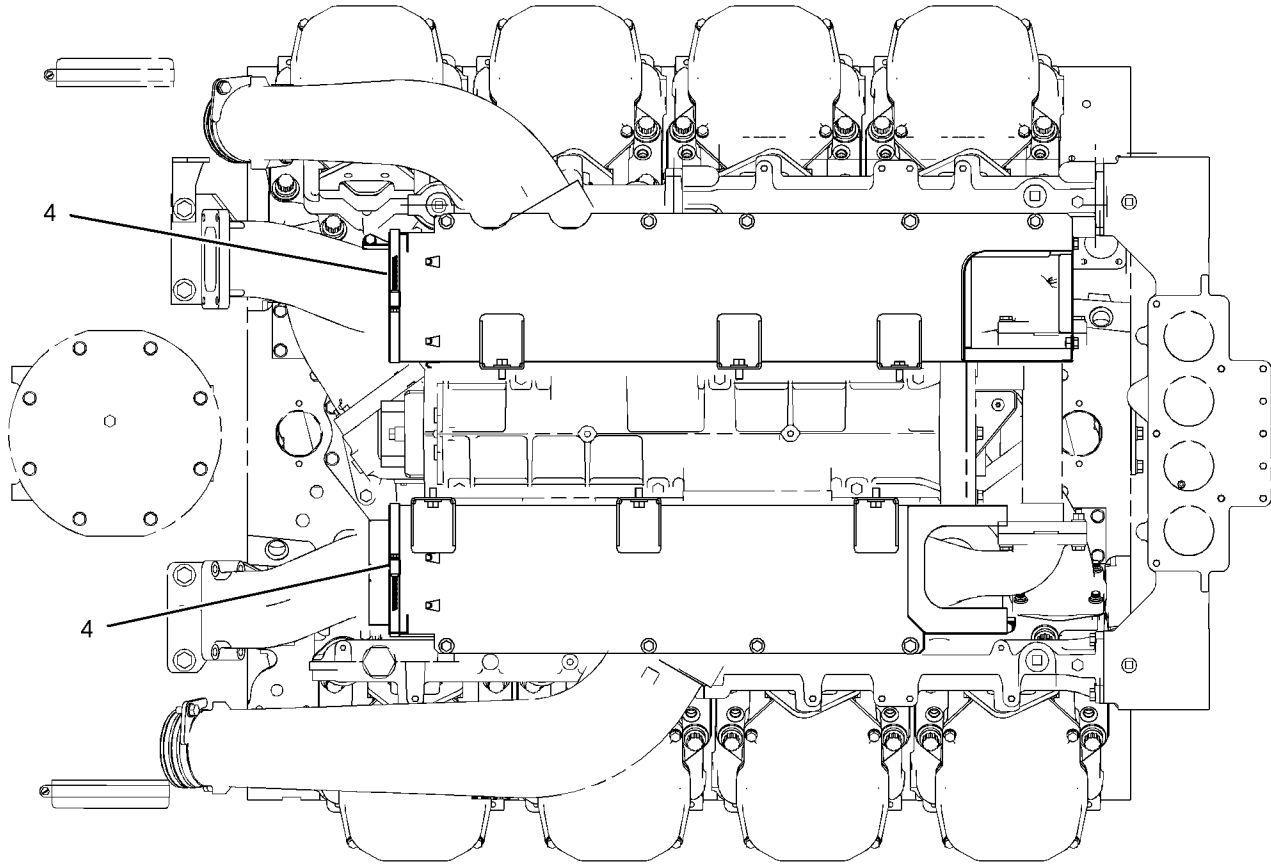
i02625604

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7W-7336	4	GUIDE-SHIELD						
	2	1	117-6131	1	SHIELD AS-EXHAUST (OUTER RH, FRONT)						
	3	1	117-6132	1	SHIELD AS-EXHAUST (OUTER LH, FRONT)						
	4	1	232-4449	2	STRAP						
	5	2	285-5789	1	SHIELD AS-EXHAUST (INNER RH, FRONT)						
		2	6V-5044	1	NUT-WELD (5/16-18-THD)						
	6	2	285-5790	1	SHIELD AS-EXHAUST (INNER LH, FRONT)						
		2	6V-5044	3	NUT-WELD (5/16-18-THD)						
	7	2	286-0284	2	SHIELD						
	8	1	287-3146	1	SHIELD AS-EXHAUST (FRONT, LH)						
	9	2	0S-0509	8	BOLT (3/8-16X0.75-IN)						
	10	1,2	2H-3755	15	BOLT (5/16-18X0.43-IN)						
	11	2	5P-4116	7	WASHER-HARD (8.8X20.5X2-MM THK)						
	12	1	5P-7923	2	SCREW-WASHER HEAD (5/16-18X0.5-IN)						
	13	1	9M-1974	8	WASHER-HARD (8.8X16X2-MM THK)						
	14	2	9X-6458	8	WASHER-HARD (10.2X22.5X3-MM THK)						

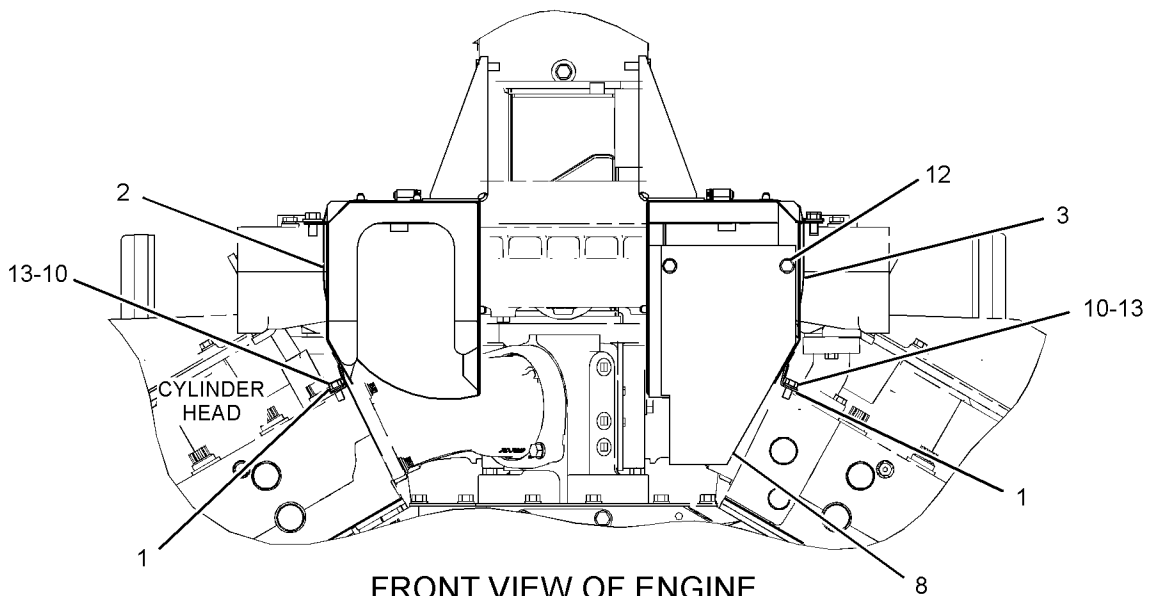
AIR INLET AND EXHAUST SYSTEM

285 - 5356 SHIELD GP - EXHAUST (contd.)

i02625604



TOP VIEW OF ENGINE



FRONT VIEW OF ENGINE

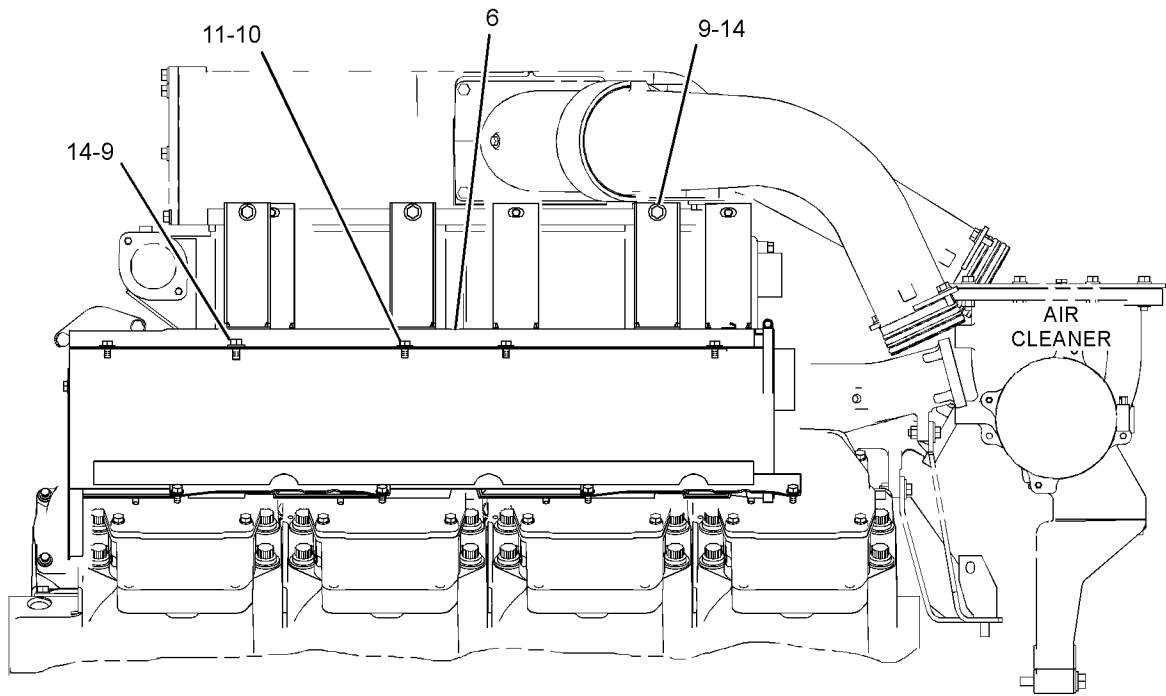
GRAPHIC #1

g01328373

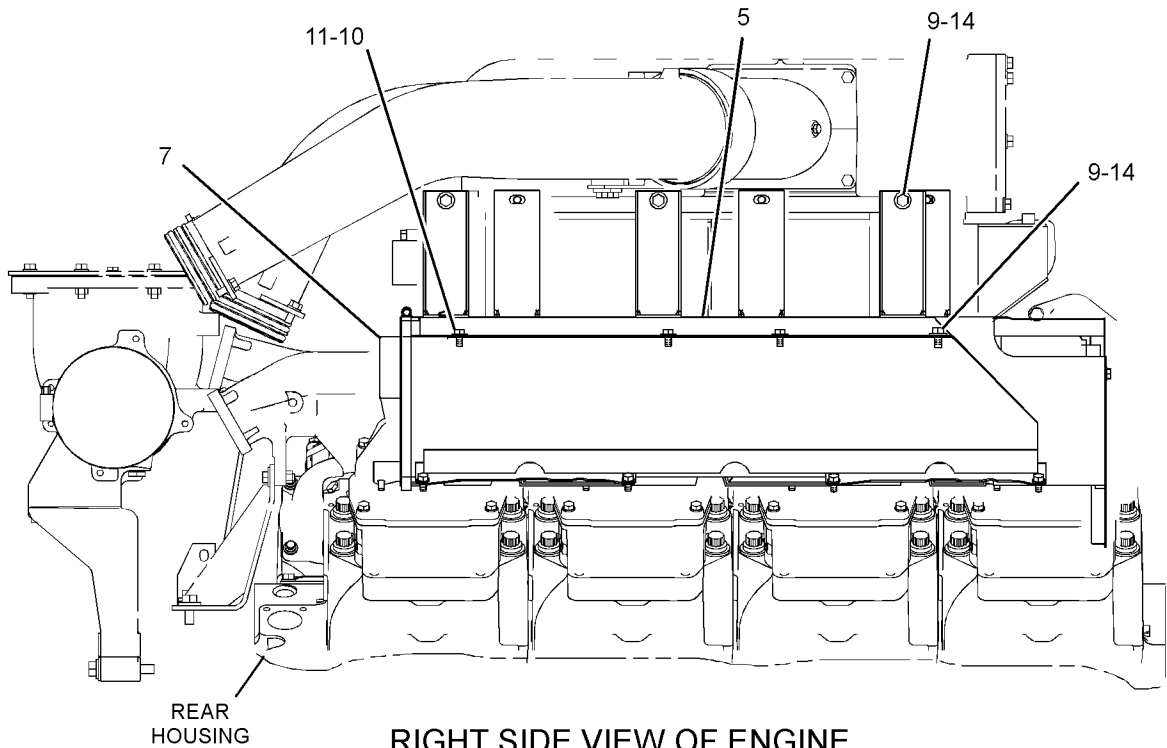
AIR INLET AND EXHAUST SYSTEM

285-5356 SHIELD GP-EXHAUST (contd.)

i02625604



LEFT SIDE VIEW OF ENGINE



RIGHT SIDE VIEW OF ENGINE

GRAPHIC #2

<END>

g01328431

AIR INLET AND EXHAUST SYSTEM

296 - 3996 SHIELD GP - HEAT

SMCS - 1067

i02625262

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	232-4440	1	SHIELD AS-HEAT (TURBOCHARGER) (TOP)						
	232-4441	1	SHIELD AS-HEAT (TURBOCHARGER) (BOTTOM)						
	232-4448	2	SHIELD AS-HEAT (TURBOCHARGER) (THERMOCOUPLE)						
	232-4449	2	STRAP						

<END>

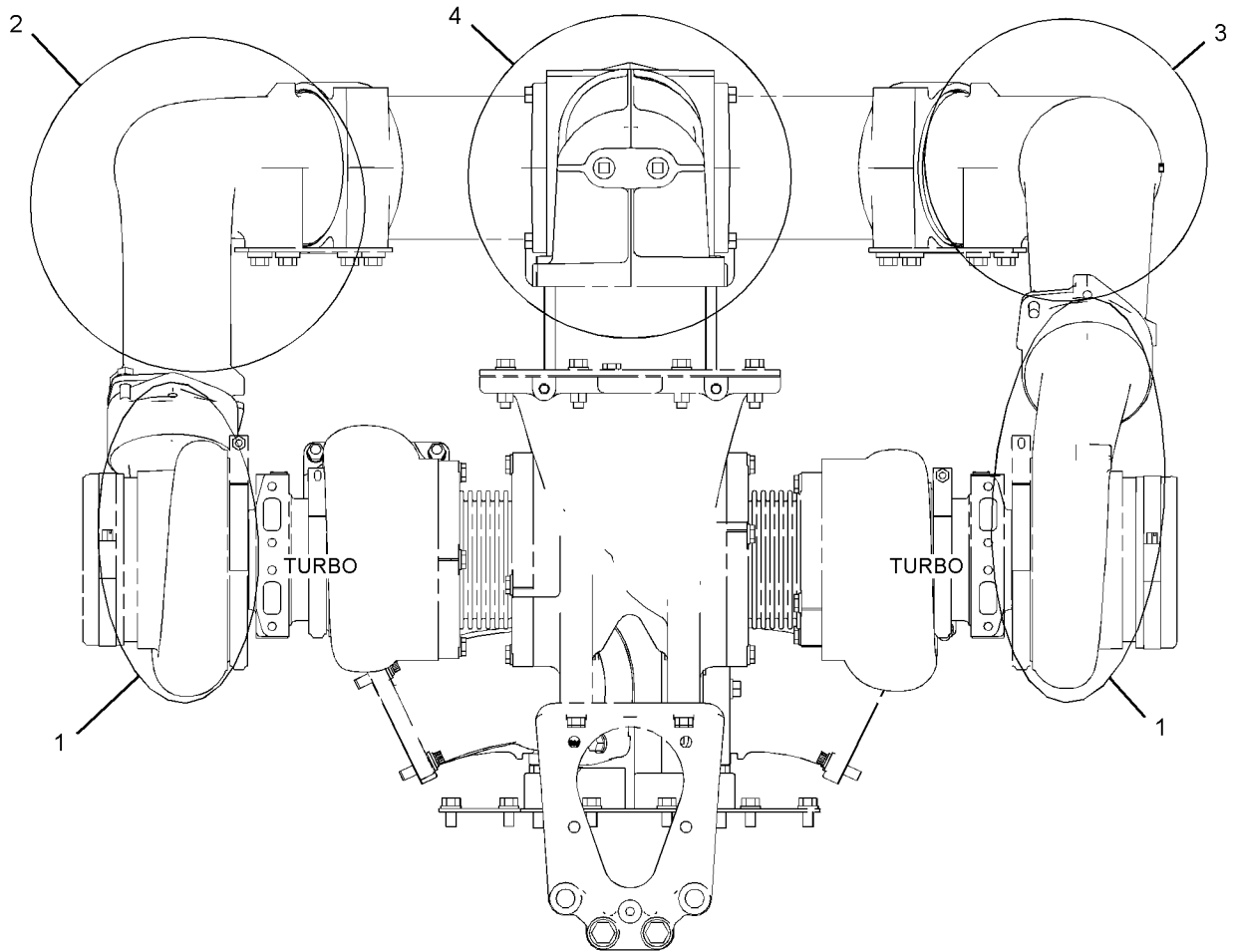
AIR INLET AND EXHAUST SYSTEM

305 - 6264 SHIELD GP-HEAT AN ATTACHMENT

SMCS - 1067

i02668018

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	305 - 6246	2	SHIELD AS-HEAT						
	2	1	305 - 6252	1	SHIELD AS-HEAT						
	3	1	305 - 6253	1	SHIELD AS-HEAT						
	4	1	305 - 6256	1	SHIELD AS-HEAT						



REAR VIEW OF ENGINE

<END>

GRAPHIC #1

g01345440

AIR INLET AND EXHAUST SYSTEM

257-6899 SHIELD GP - TURBOCHARGER

AN ATTACHMENT

SMCS - 1073

i02672839

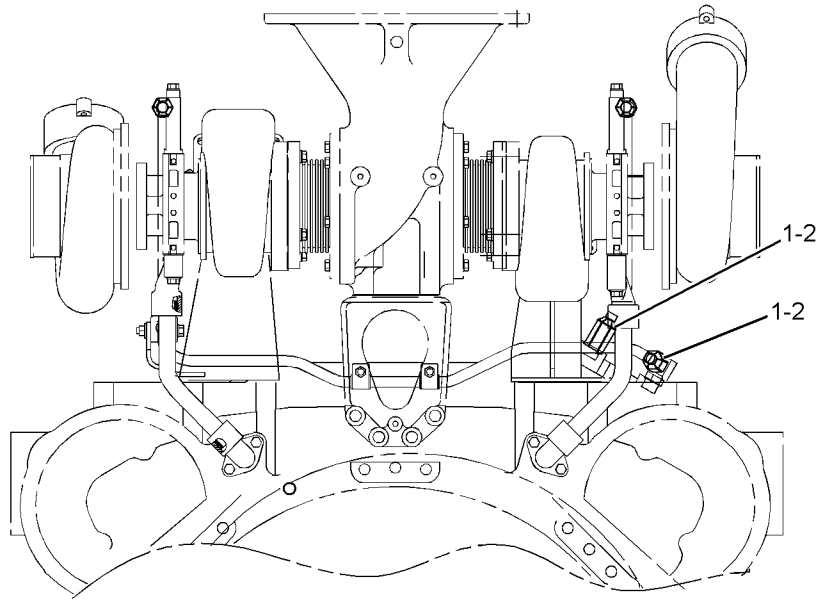
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
	1	1	251-1255	2	SHIELD-FUEL LINE FITTING (18.05-MM ID)	
B	2	1	237-3860	1	TAPE (ANTI-SPLASH, 50-MM WIDE) (10-M ROLL)	

B-USE AS REQUIRED

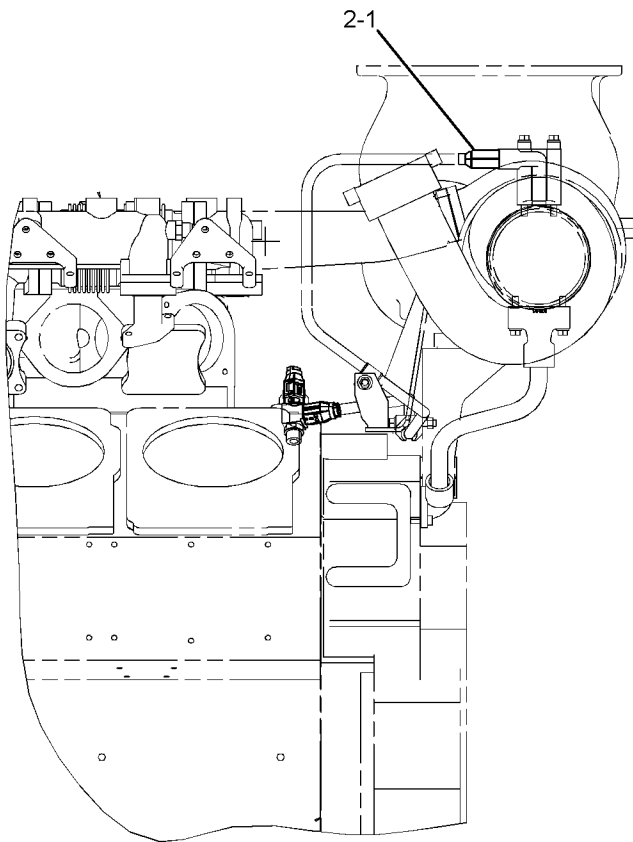
AIR INLET AND EXHAUST SYSTEM

257-6899 SHIELD GP - TURBOCHARGER (contd.)

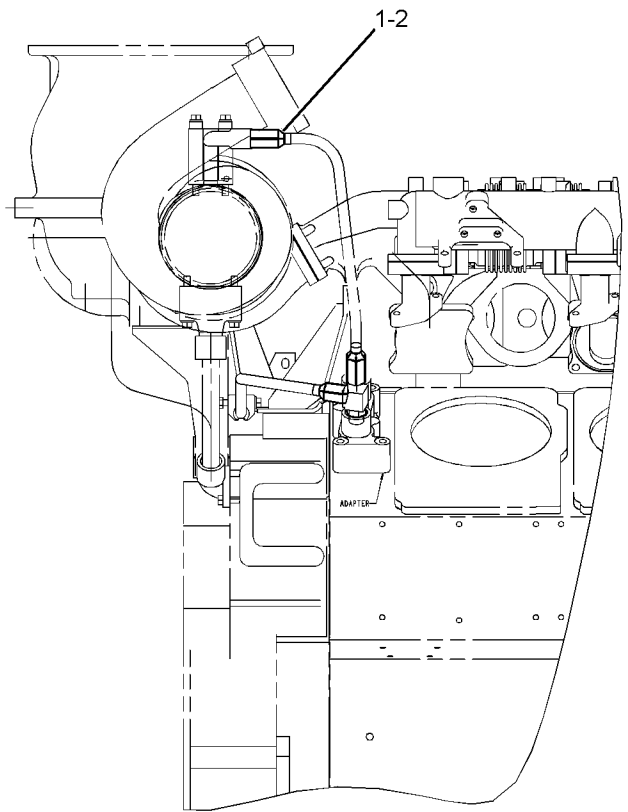
i02672839



REAR VIEW OF ENGINE



LEFT SIDE VIEW OF ENGINE



RIGHT SIDE VIEW OF ENGINE

GRAPHIC #1

<END>

g01342883

AIR INLET AND EXHAUST SYSTEM

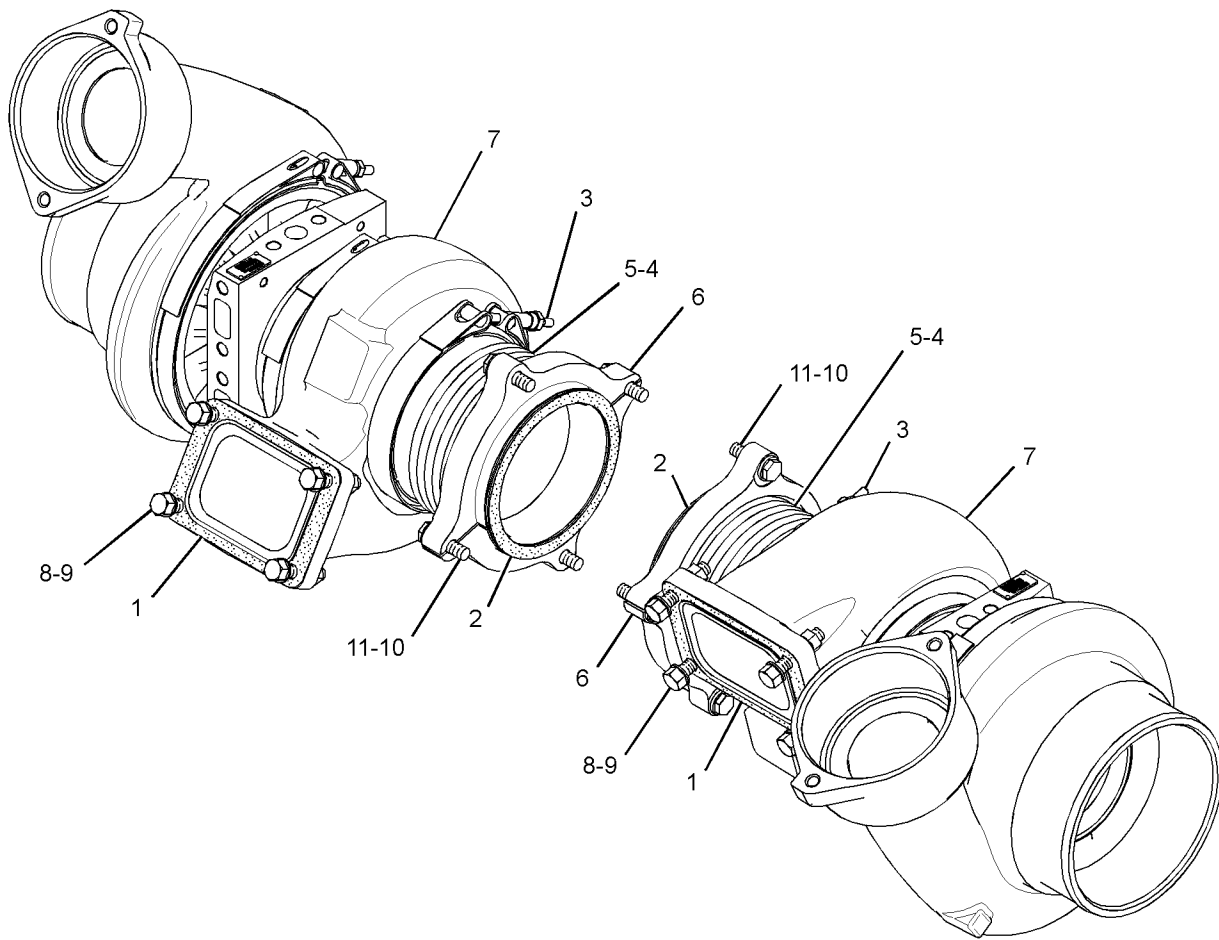
291-3912 TURBOCHARGER GP

SMCS-1052, 1053

i02625609

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	121-5736	2	GASKET						
	2	1	207-1354	4	GASKET (EXHAUST MANIFOLD)						
	3	1	214-6050	2	CLAMP						
	4	1	236-1655	2	GASKET-EXHAUST MANIFOLD						
	5	1	288-3775	2	BELLOWS AS						
	6	1	294-0540	4	FLANGE - HALF						
Y	7	1	294-9323	2	TURBOCHARGER GP						157
	8	1	2N-2765	8	BOLT-HIGH TEMPERATURE (3/8-16X1.75-IN)						
	9	1	2N-2766	8	LOCKNUT (3/8-16-THD)						
	10	1	5M-2894	8	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	11	1	6V-6753	8	BOLT-HIGH TEMPERATURE (3/8X16X1.375-IN)						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01325086

AIR INLET AND EXHAUST SYSTEM

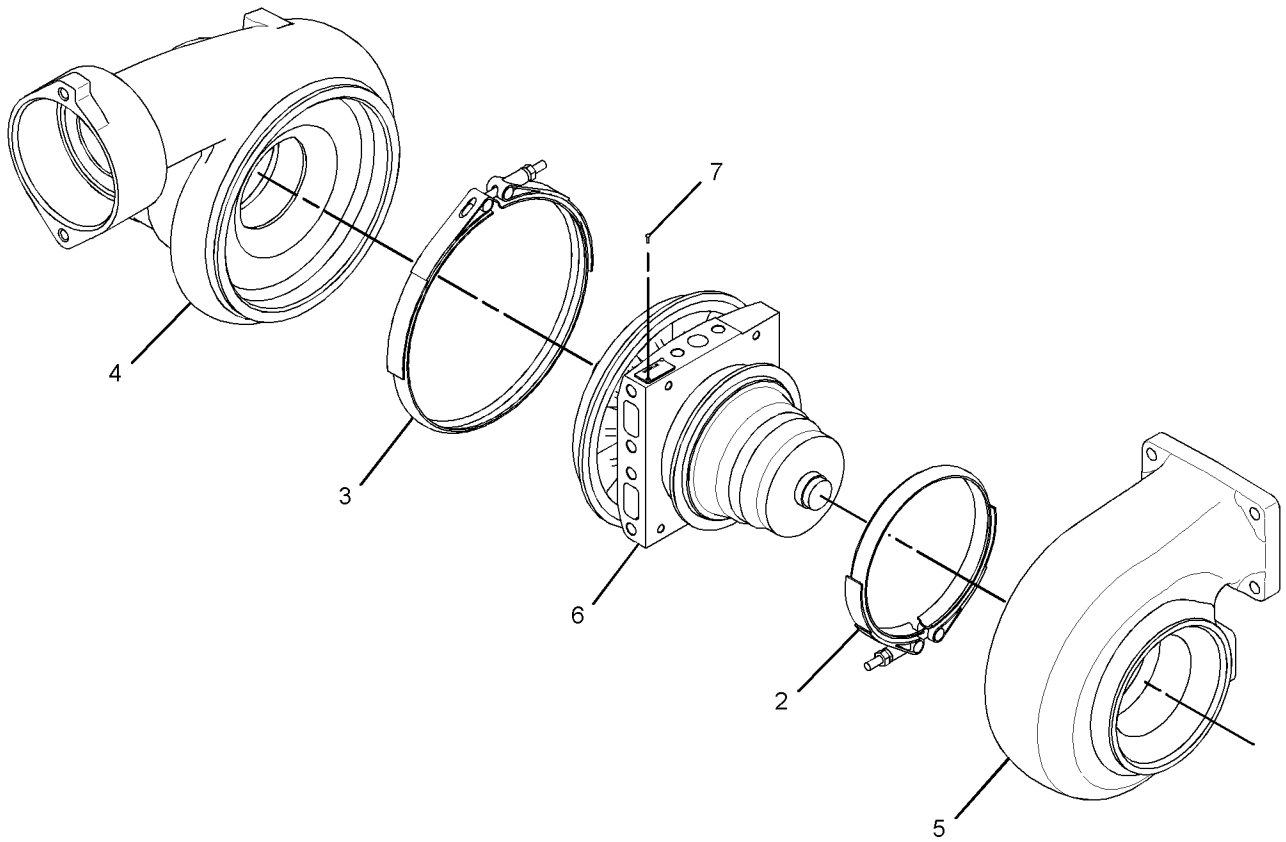
294-9323 TURBOCHARGER GP

PART OF 291-3912 TURBOCHARGER GP

SMCS-1052, 1053

i02639240

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	2	1	9N-2038	1	CLAMP AS (TURBINE)						
	3	1	239-5858	1	CLAMP AS-COMPRESSOR						
	4	1	276-9514	1	HOUSING-COMPRESSOR						
	5	1	296-2671	1	HOUSING (TURBINE)						
	6	1	301-6869	1	CARTRIDGE GP-TURBOCHARGER						
	7	1	2F-0808	2	SCREW (NO 6X1/4-IN)						



GRAPHIC #1

<END>

g01325824

FUEL SYSTEM

7W-9741 FILTER GP - FUEL - RH

SMCS - 1261

i02462929

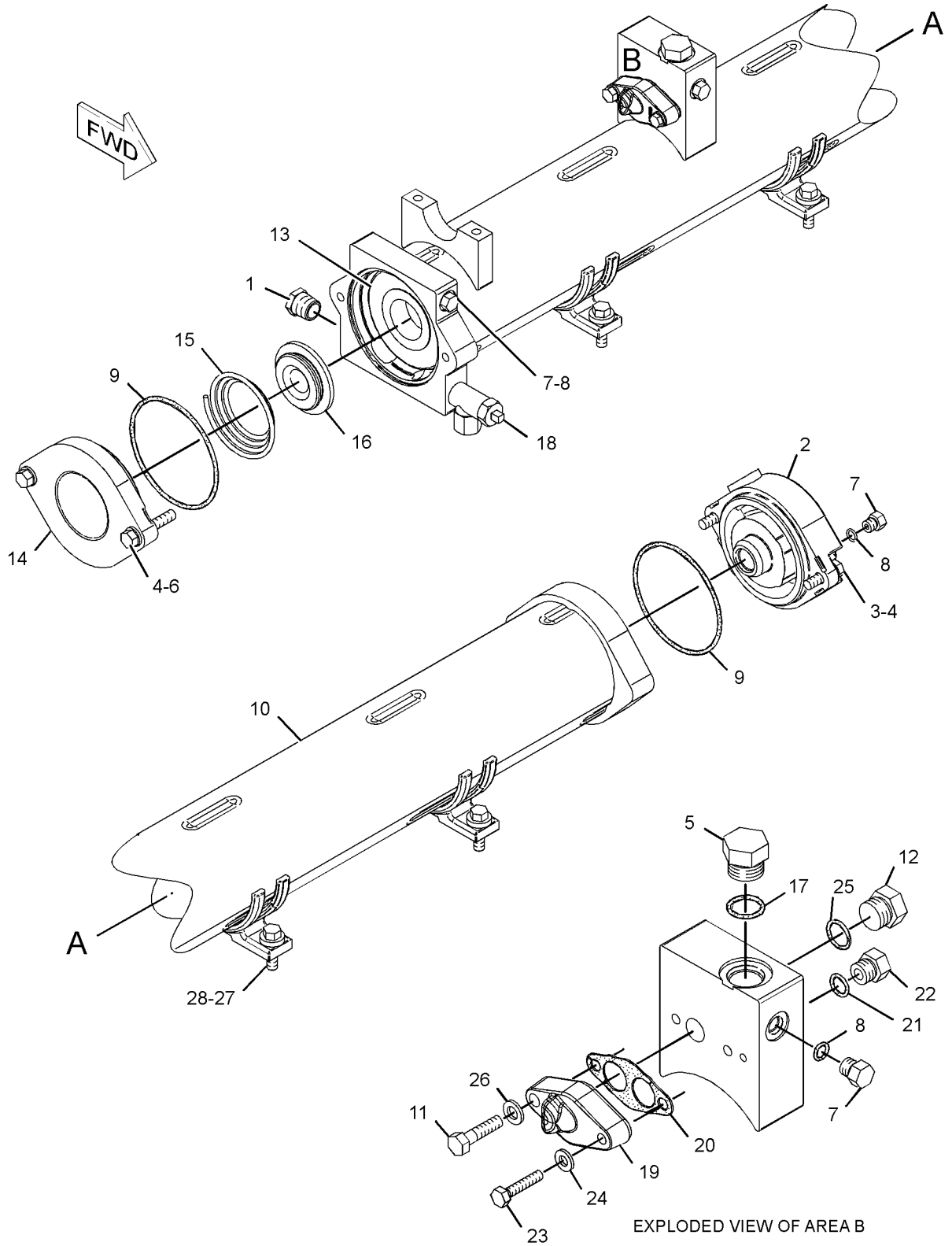
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-6766	1	PLUG-PIPE						
	2	1	267-9689	1	COVER-FILTER HOUSING						
	3	1	0S-1588	2	BOLT (3/8-16X1.25-IN)						
	4	1	5M-2894	4	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	5	1	9S-4190	1	PLUG-O RING						
C	6	1	7F-0192	2	BOLT (3/8-16X2-IN)						
	7	1	9S-4182	5	PLUG-O RING						
	8	1	6V-5048	5	SEAL-O-RING						
	9	1	5D-5957	2	SEAL-O-RING (FUEL FILTER)						
	10	1	278-1776	1	HOUSING AS-FUEL FILTER						
C	11	1	1B-7182	1	BOLT (5/16-18X1.25-IN)						
	12	1	9S-4185	1	PLUG-O RING						
	13	1	1R-0756	5	FILTER ELEMENT AS-FUEL (HIGH EFFICIENCY)						
	14	1	2W-9300	1	COVER-FILTER HOUSING						
	15	1	1N-2895	1	SPRING						
	16	1	6I-3754	1	RETAINER-FILTER						
	17	1	6V-4589	1	SEAL-O-RING						
	18	1	2S-5100	1	VALVE AS-MANUAL						
	19	1	6N-4414	1	COVER-FILTER BASE						
	20	1	9Y-8389	1	GASKET (FUEL FILTER)						
	21	1	6V-5049	1	SEAL-O-RING						
	22	1	9S-4191	1	PLUG-O RING						
	23	1	7B-2742	1	BOLT (1/4-20X1.25-IN)						
	24	1	5P-0537	1	WASHER-HARD (7.2X14.5X2-MM THK)						
	25	1	8L-2786	1	SEAL-O-RING						
	26	1	9M-1974	1	WASHER-HARD (8.8X16X2-MM THK)						
C	27	1	3B-1915	8	BOLT (3/8-16X1.375-IN)						
	28	1	8M-9024	8	WASHER-HARD (10.2X22.5X5-MM THK)						

C - CHANGE FROM PREVIOUS TYPE

FUEL SYSTEM

7W-9741 FILTER GP - FUEL (contd.)

i02462929



GRAPHIC #1

<END>

g01228338

FUEL SYSTEM

7W-9742 FILTER GP-FUEL-LH AN ATTACHMENT

SMCS-1261

i02668030

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1N-2895	1	SPRING						
	2	1	1R-0756	5	FILTER ELEMENT AS-FUEL (HIGH EFFICIENCY)						
	3	1	1W-7548	1	TUBE AS						
	4	1	2S-5100	1	VALVE AS-MANUAL						
	5	1	2W-9300	1	COVER-FILTER HOUSING						
	6	1	4P-0692	4	CLAMP AS						
					(EACH INCLUDES)						
		1	108-1434	1	GROMMET						
	7	1	6I-3754	1	RETAINER-FILTER						
	8	1	6N-4414	1	COVER-FILTER BASE						
C	9	1	7F-0192	2	BOLT (3/8-16X2-IN)						
	10	1	8T-6766	1	PLUG-PIPE						
	11	1	9Y-8389	1	GASKET						
	12	1	237-2719	1	TUBE AS						
	13	1	267-9689	1	COVER-FILTER HOUSING						
	14	1	278-1776	1	HOUSING AS-FUEL FILTER						
	15	1	250-1498	3	ELBOW AS						
					(EACH INCLUDES)						
		1	6V-4589	1	SEAL-O-RING						
		1	250-1497	1	ELBOW						
	16	1	031-4136	1	TEE-FLARED						
	17	1	0S-1588	2	BOLT (3/8-16X1.25-IN)						
	18	1	0S-1608	2	BOLT (3/8-16X3.75-IN)						
C	19	1	1B-7182	1	BOLT (5/16-18X1.25-IN)						
	20	1	2M-9780	2	SEAL-O-RING						
C	21	1	3B-1915	8	BOLT (3/8-16X1.375-IN)						
	22	1	3K-0360	1	SEAL-O-RING						
	23	1	5D-5957	2	SEAL-O-RING						
	24	1	5M-2894	4	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	25	1	5P-0537	1	WASHER-HARD (7.2X14.5X2-MM THK)						
	27	1	6V-5048	5	SEAL-O-RING						
	28	1	6V-5049	1	SEAL-O-RING						
	29	1	7B-2742	1	BOLT (1/4-20X1.25-IN)						
	30	1	8M-9024	8	WASHER-HARD (10.2X22.5X5-MM THK)						
	31	1	9M-1974	1	WASHER-HARD (8.8X16X2-MM THK)						
	32	1	9S-4182	5	PLUG-O-RING						
	33	1	9S-4185	1	PLUG-O-RING						
	34	1	9S-4190	1	PLUG-O-RING						
	35	1	9S-4191	1	PLUG-O-RING						

C- CHANGE FROM PREVIOUS TYPE

FUEL SYSTEM

241-2738 FILTER GP-FUEL FOR USE WITH SERIES II FUEL INJECTION LINES GP AN ATTACHMENT

SMCS-1261

i02639176

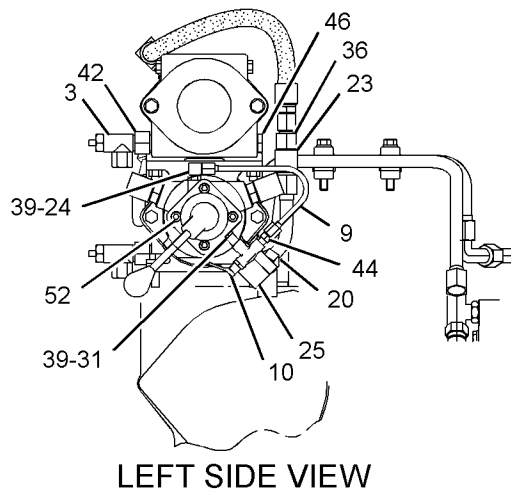
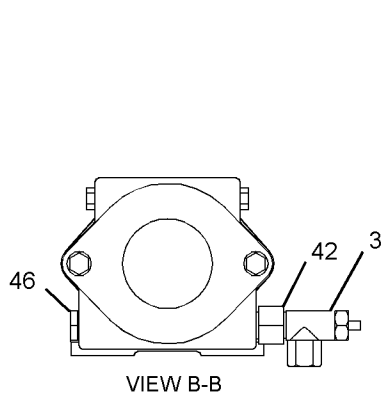
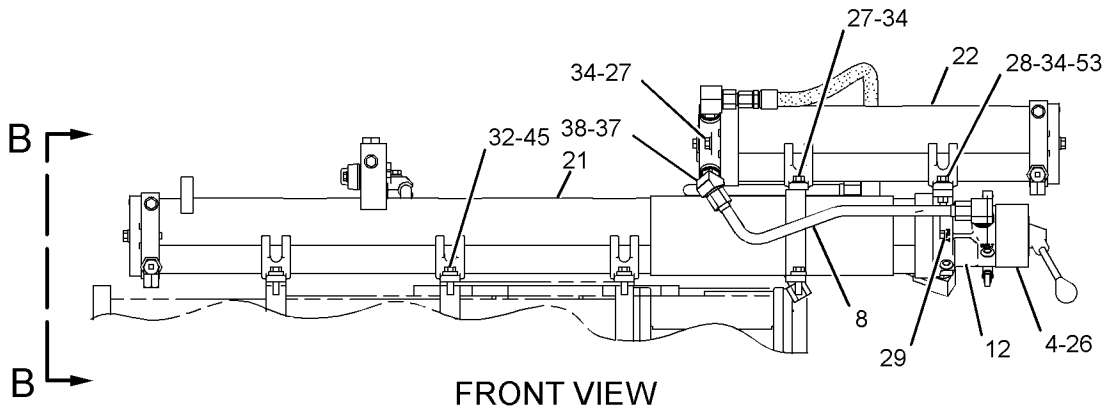
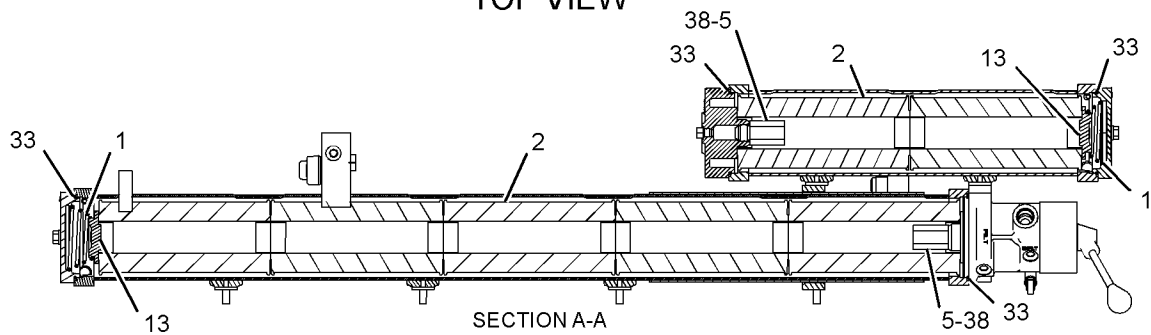
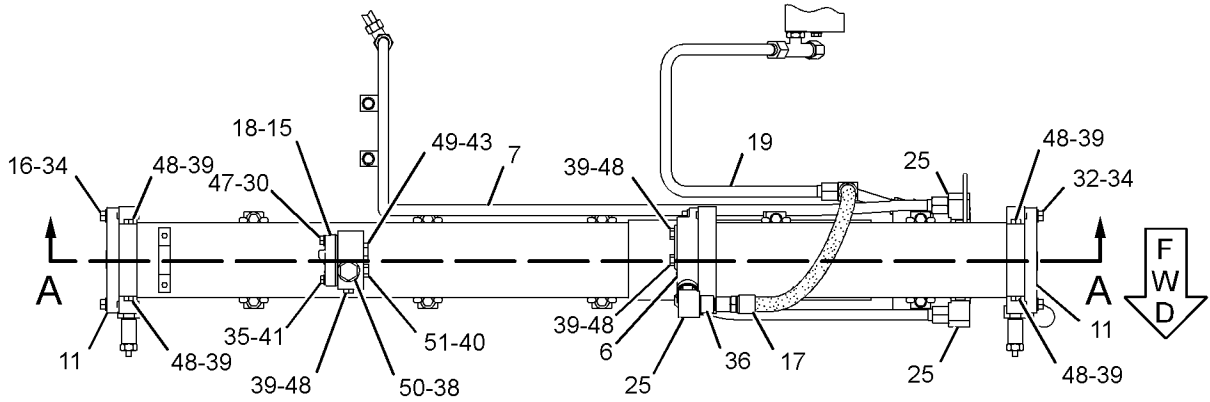
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	1 2 3 4 5 6 (PRODUCT LEVEL)						SEE PAGE	
						1	2	3	4	5	6		
	1	1	1N-2895	2	SPRING								
	2	1	1R-0756	7	FILTER ELEMENT AS-FUEL (HIGH EFFICIENCY)								
	3	1	2S-5100	2	VALVE AS-MANUAL (FUEL DRAIN)								
	4	1	2W-6286	1	VALVE AS-CONTROL (DUPLEX FUEL FILTER)								
		1	266-2259	1	HANDLE AS								
	5	1	2W-6287	2	VALVE AS-CHECK (FUEL)								
	6	1	267-9689	1	COVER-FILTER HOUSING								
	7	1	2W-6289	1	TUBE AS								
	8	1	2W-6290	1	TUBE AS								
	9	1	2W-6667	1	TUBE AS								
	10	1	2W-6672	1	VALVE AS-TOGGLE (FUEL)								
	11	1	2W-9300	2	COVER-FILTER HOUSING								
	12	1	4W-4444	1	ADAPTER-VALVE								
	13	1	6I-3754	2	RETAINER-FILTER								
	15	1	6N-4414	1	COVER-FILTER BASE								
	16	1	7F-0192	2	BOLT (3/8-16X2-IN)								
I	17	1	9G-2653	1	HOSE AS								
	18	1	9Y-8389	1	GASKET (FUEL FILTER)								
	19	1	121-0474	1	TUBE AS								
	20	1	121-0476	1	TUBE AS								
	21	1	278-1774	1	HOUSING AS-FUEL FILTER								
	22	1	278-1775	1	HOUSING AS-FUEL FILTER (AUXILIARY)								
	23	1	003-8581	1	TEE-UNION								
	24	1	030-7946	1	ELBOW								
	25	1	250-1498	4	ELBOW AS								
					(EACH INCLUDES)								
		1	6V-4589	1	SEAL-O-RING								
		1	250-1497	1	ELBOW								
	26	1	061-8639	4	SEAL-O-RING								
	27	1	0S-1588	4	BOLT (3/8-16X1.25-IN)								
	28	1	0S-1591	2	BOLT (3/8-16X1.5-IN)								
	29	1	0S-1594	2	BOLT (3/8-16X1-IN)								
	30	1	1B-7182	1	BOLT (5/16-18X1.25-IN)								
	31	1	1P-3861	1	CONNECTOR								
	32	1	3B-1915	10	BOLT (3/8-16X1.375-IN)								
	33	1	5D-5957	4	SEAL-O-RING								
	34	1	5M-2894	10	WASHER-HARD (10.2X18.5X2.5-MM THK)								
	35	1	5P-0537	1	WASHER-HARD (7.2X14.5X2-MM THK)								
	36	1	5P-8228	2	REDUCER-FLARED								
	37	1	6M-7476	1	ELBOW								
	38	1	6V-4589	4	SEAL-O-RING								
	39	1	6V-5048	9	SEAL-O-RING								
	40	1	6V-5049	1	SEAL-O-RING								
	41	1	7B-2742	1	BOLT (1/4-20X1.25-IN)								
	42	1	7D-4903	2	ADAPTER								
	43	1	8L-2786	1	SEAL-O-RING								
	44	1	8L-6557	1	CONNECTOR								
	45	1	8M-9024	8	WASHER-HARD (10.2X22.5X5-MM THK)								
	46	1	8T-6766	2	PLUG-PIPE								
	47	1	9M-1974	1	WASHER-HARD (8.8X16X2-MM THK)								
	48	1	9S-4182	7	PLUG-O-RING								
	49	1	9S-4185	1	PLUG-O-RING								
	50	1	9S-4190	1	PLUG-O-RING								
	51	1	9S-4191	1	PLUG-O-RING								
	52	1	9S-7381	4	BOLT-SOCKET HEAD (5/16-18X2-IN)								
	53	1	9S-8752	2	NUT-FULL (3/8-16-THD)								

FUEL SYSTEM

241 - 2738 FILTER GP - FUEL (contd.)

i02639176

I - REFER TO HYDRAULIC INFORMATION SYSTEM



GRAPHIC #1

<END>

g01324199

FUEL SYSTEM

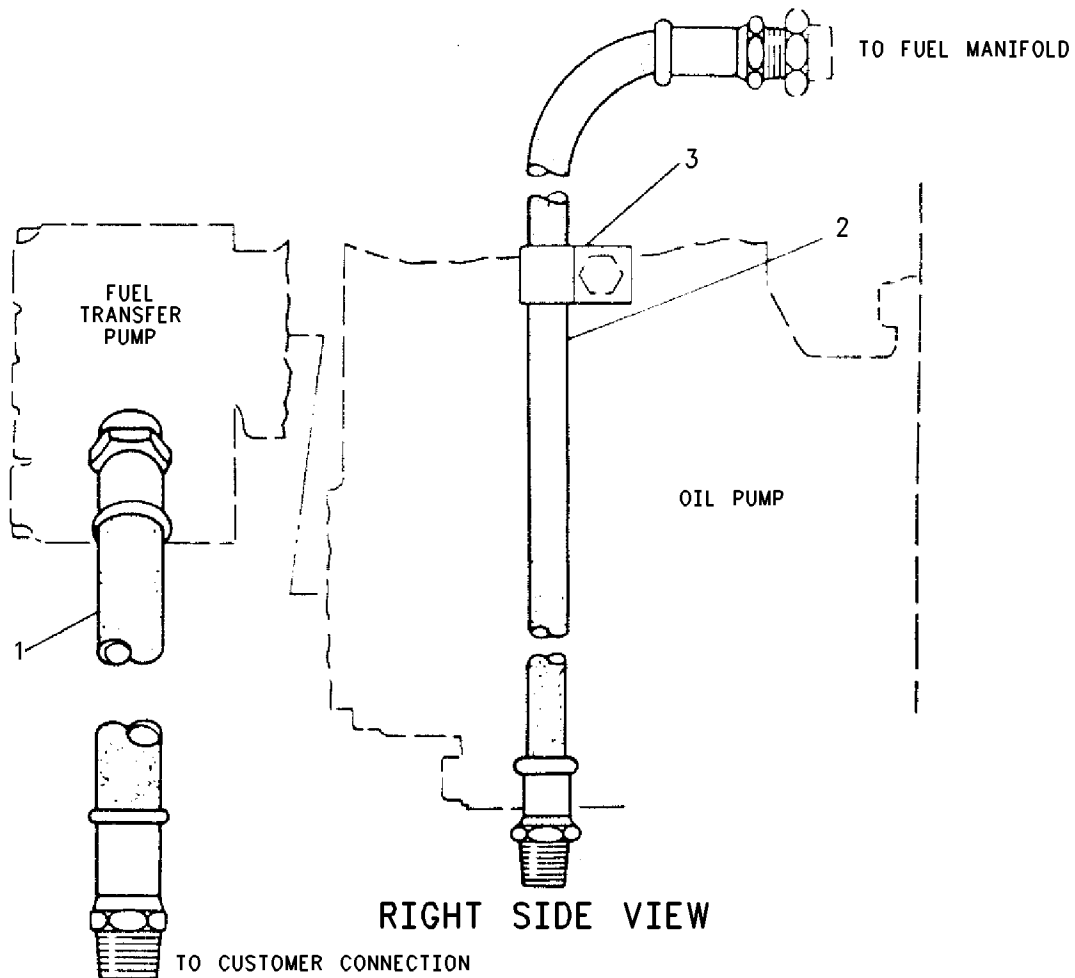
5N-2438 LINES GP-FLEXIBLE FUEL AN ATTACHMENT

SMCS-1274

i01979418

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
I	1	1	3N-6504	1	HOSE AS						
I	2	1	8N-1186	1	HOSE AS						
B	3	1	5F-5990	2	CLIP						

B- USE AS REQUIRED
I- REFER TO HYDRAULIC INFORMATION SYSTEM



GRAPHIC #1

<END>

g00995187

FUEL SYSTEM

273-3285 LINES GP-FUEL AN ATTACHMENT

SMCS-1274

i02537710

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1W-8129	1	SUPPORT						
I	2	1	3N-6504	1	HOSE AS						
	3	1	4P-0692	4	CLAMP AS						
					(EACH INCLUDES)						
		1	108-1434	1	GROMMET						
	4	1	5G-4313	1	SPACER (10.34X15.88X12-MM THK)						
I	5	1	7D-3958	1	HOSE AS						
	6	1	273-3286	1	TUBE AS						
	7	1	0L-1143	1	BOLT (3/8-16X2.5-IN)						
	8	1	1A-5964	2	BOLT (3/8-16X4.5-IN)						
	9	1	5M-2894	3	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	10	1	6B-1557	1	BOLT (3/8-16X7.5-IN)						
	11	1	6V-1846	1	CONNECTOR						
	13	1	8C-8554	1	CONNECTOR						
	14	1	9S-8752	1	NUT-FULL (3/8-16-THD)						
B	15	1	9R-5008	1	SPACER (11X20X6-MM THK)						

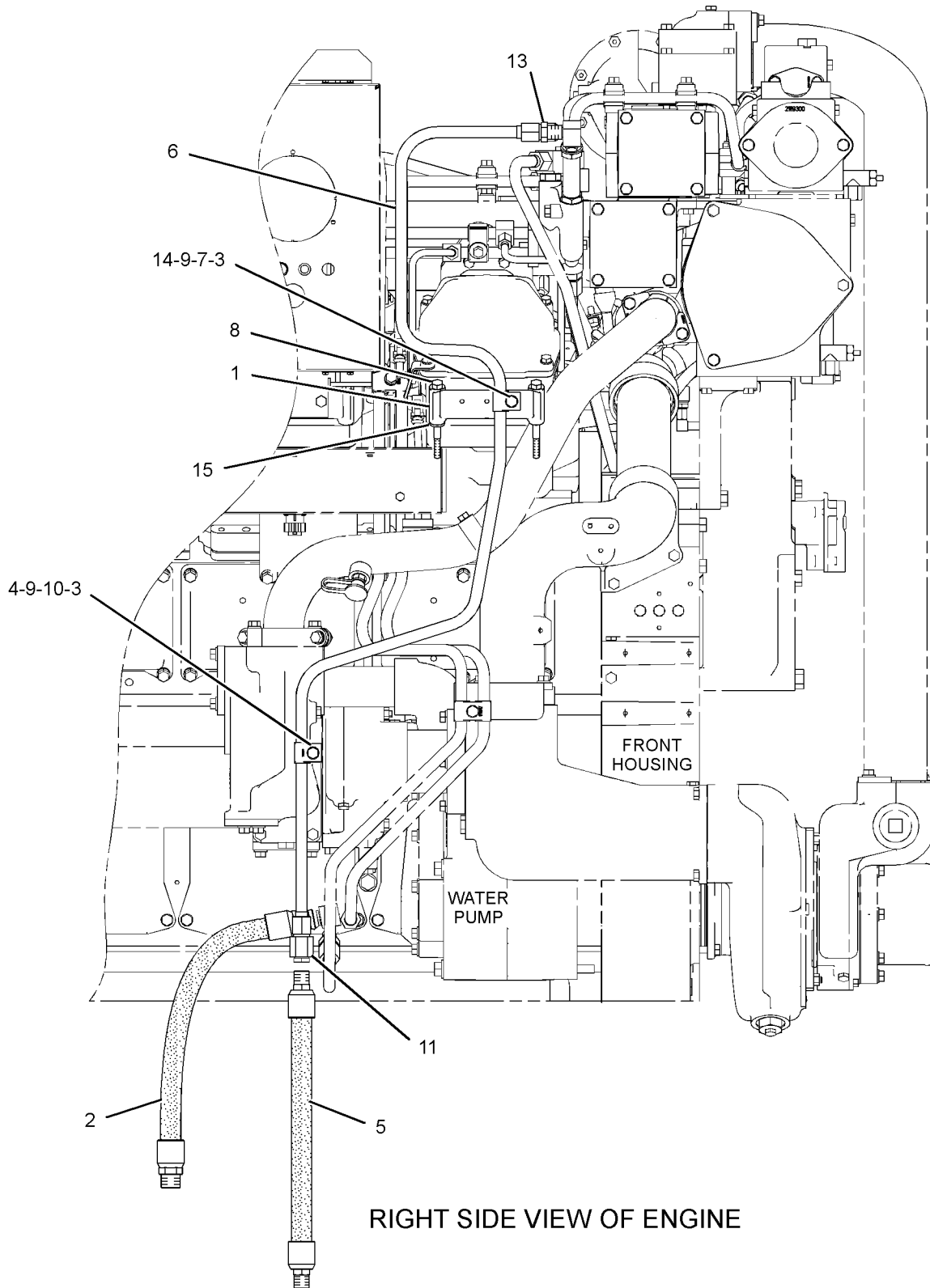
B - USE AS REQUIRED

I - REFER TO HYDRAULIC INFORMATION SYSTEM

FUEL SYSTEM

273-3285 LINES GP-FUEL (contd.)

i02537710



RIGHT SIDE VIEW OF ENGINE

GRAPHIC #1

<END>

g01285819

FUEL SYSTEM

234-8722 LINES GP-FUEL INJECTION

SMCS-1252, 1254

i02540723

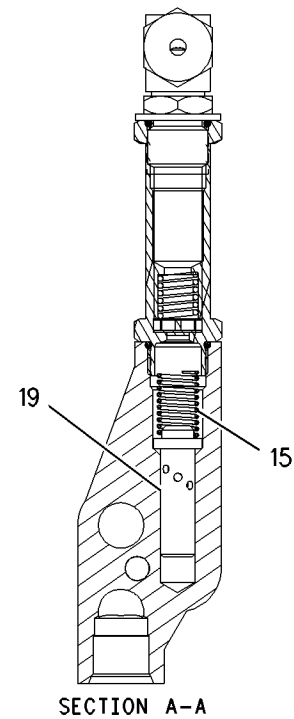
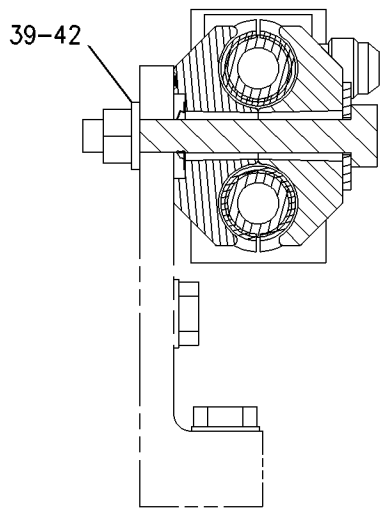
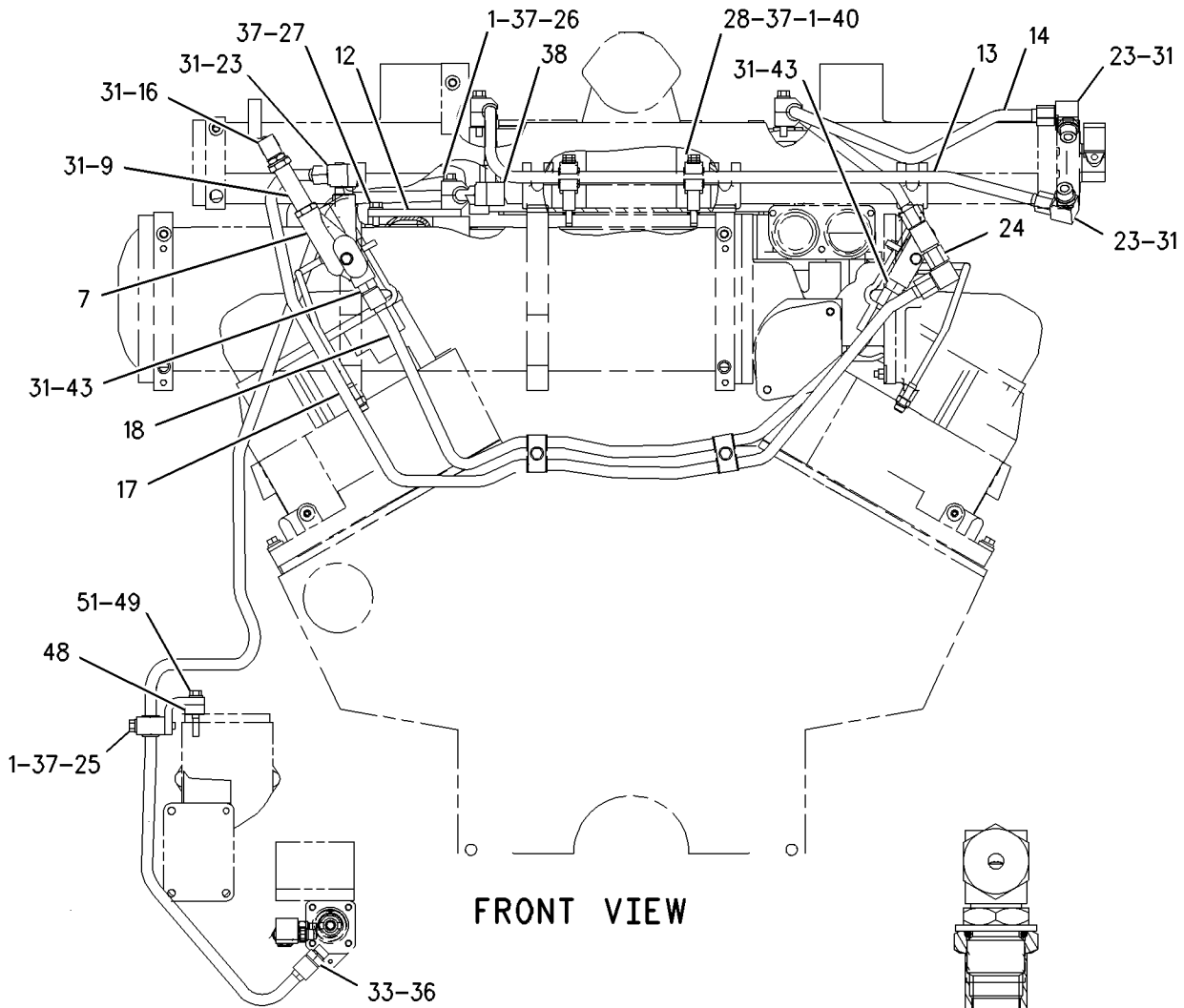
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1,2	4P-0692	16	CLAMP AS						
					(EACH INCLUDES)						
		1,2	108-1434	1	GROMMET						
	2	2	4P-0693	4	CLAMP AS						
					(EACH INCLUDES)						
		2	108-1434	2	GROMMET						
	3	2	6B-6205	2	SPACER (0.438X0.875X1.281-IN THK)						
	4	2	6V-4363	1	ELBOW						
	5	2	7C-7677	8	TUBE AS						
	6	2	7C-7678	8	TUBE AS						
	7	1	7C-7682	1	ADAPTER-FUEL MANIFOLD (RH)						
	8	2	7C-7683	1	ADAPTER-FUEL MANIFOLD (LH)						
	9	1	7E-3921	1	VALVE-CHECK (FUEL)						
	10	2	7W-2122	16	CONNECTOR-PORT						
	11	2	8N-6210	1	BRACKET-LINE SUPPORT						
	12	1	8N-6211	1	PLATE-LINE SUPPORT						
	13	1	8N-6326	1	TUBE AS						
	14	1	8N-6327	1	TUBE AS						
	15	1	9N-4053	1	SPRING						
	16	1	030-7977	1	ELBOW						
	17	1	111-3388	1	TUBE AS						
	18	1	111-3389	1	TUBE AS						
	19	1	114-5477	1	PLUNGER-VALVE						
Y	20	2	156-9751	1	MANIFOLD GP-FUEL						170
Y	21	2	156-9752	1	MANIFOLD GP-FUEL						171
	22	2	210-2535	1	TUBE AS						
	23	1	030-7949	3	ELBOW						
	24	1	030-7972	1	ELBOW						
	25	1,2	0L-2070	5	BOLT (3/8-16X2.25-IN)						
	26	1	0S-1590	1	BOLT (3/8-16X2-IN)						
	27	1	0S-1594	1	BOLT (3/8-16X1-IN)						
	28	1,2	0T-0065	3	BOLT (3/8-16X3.5-IN)						
	29	2	1D-4539	1	BOLT (5/16-18X2.5-IN)						
	30	2	1F-4111	1	BOLT (5/16-18X3.5-IN)						
	31	1,2	2M-9780	9	SEAL-O-RING						
	32	2	2P-1296	1	TEE						
	33	1	2P-7636	1	CONNECTOR (FLARED)						
	34	2	3J-1907	17	SEAL-O-RING						
	35	2	3J-7354	1	SEAL-O-RING						
	36	1	3K-0360	1	SEAL-O-RING						
	37	1,2	5M-2894	10	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	38	1	5P-4900	1	ELBOW-FLARED						
	39	1	5S-0003	1	NUT (5/16-18-THD)						
	40	1	7K-3377	2	PIPE						
	41	2	7N-6806	4	SEAL-RECTANGULAR						
	42	1,2	9M-1974	3	WASHER-HARD (8.8X16X2-MM THK)						
	43	1	9M-4584	2	CONNECTOR						
	44	2	9S-4182	1	PLUG-O-RING						
	45	2	9S-4191	1	PLUG-O-RING						
B	48	1	4S-5719	2	SPACER (10.31X25X12.7-MM THK)						
B	49	1	0S-1590	2	BOLT (3/8-16X2-IN)						
B	50	2	0T-0065	1	BOLT (3/8-16X3.5-IN)						
B	51	1,2	5M-2894	3	WASHER-HARD (10.2X18.5X2.5-MM THK)						

B- USE AS REQUIRED
Y- SEPARATE ILLUSTRATION

FUEL SYSTEM

234-8722 LINES GP-FUEL INJECTION (contd.)

i02540723

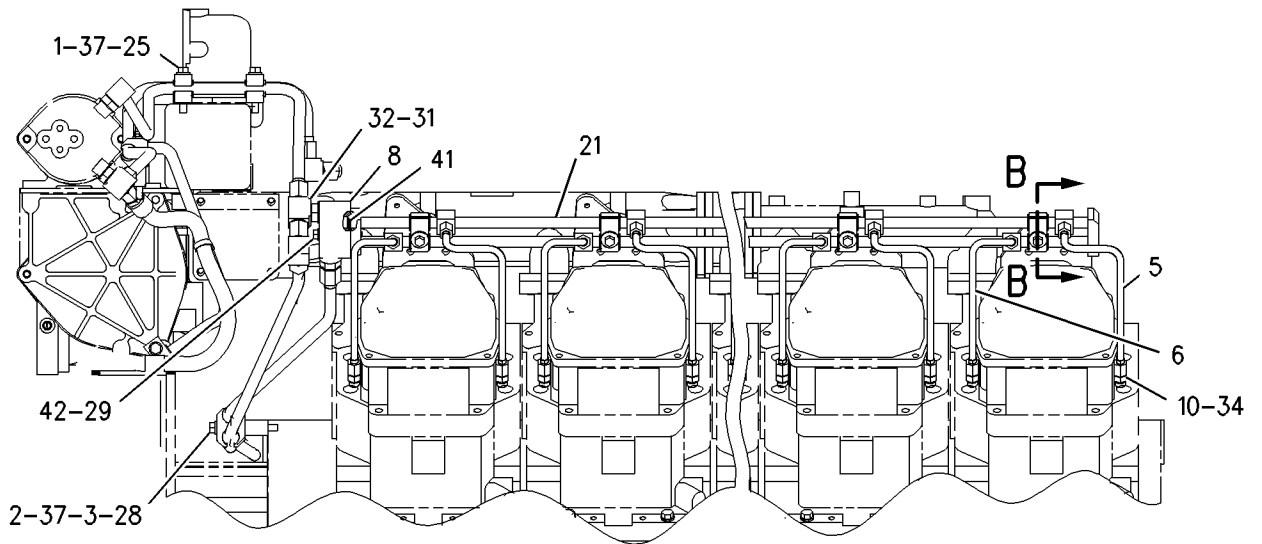


REFER TO ALL ILLUSTRATIONS OF THIS GRAPHIC FOR AUXILIARY VIEWS.

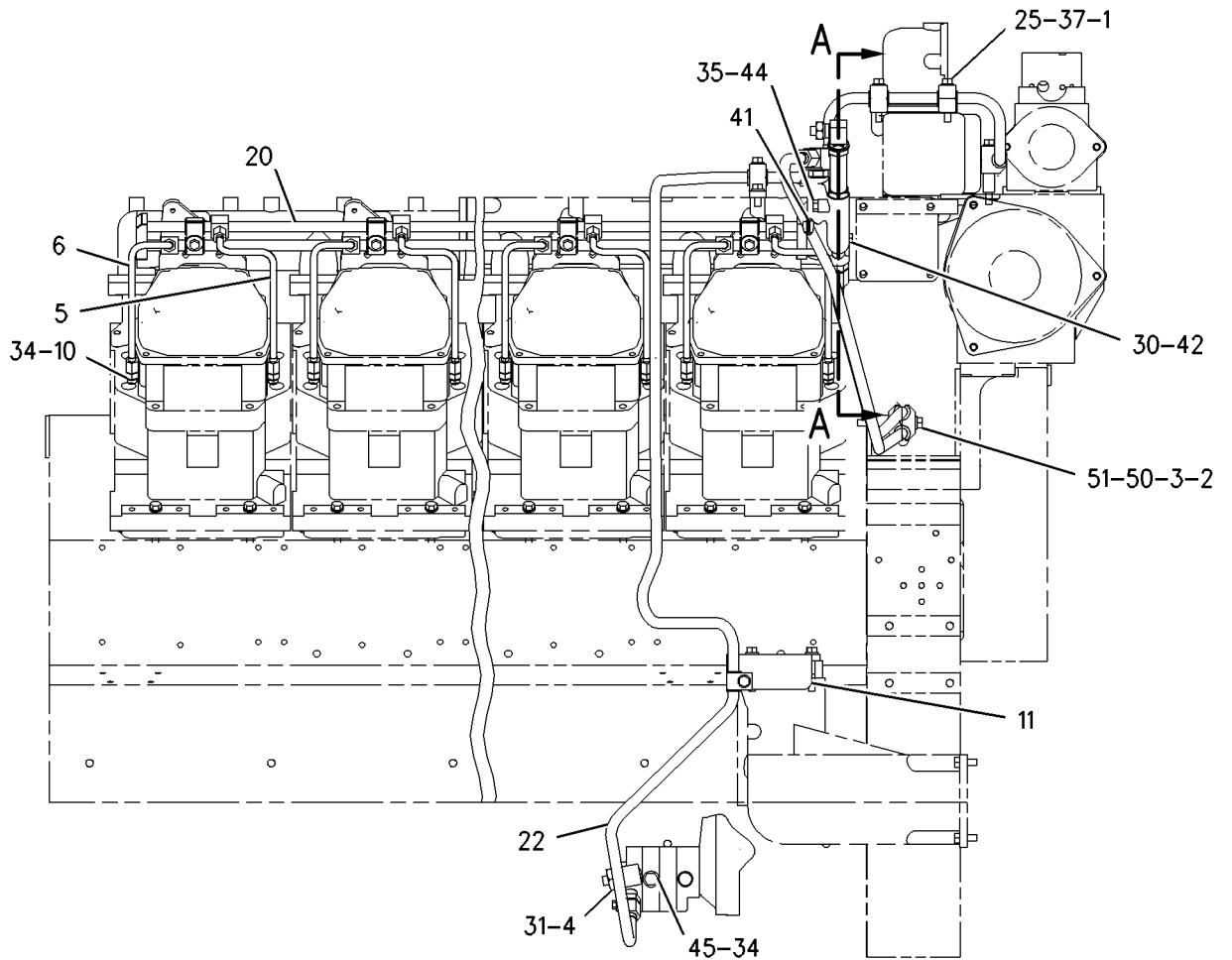
FUEL SYSTEM

234-8722 LINES GP-FUEL INJECTION (contd.)

i02540723



LEFT SIDE VIEW



RIGHT SIDE VIEW

GRAPHIC #2

<END>

g01007109

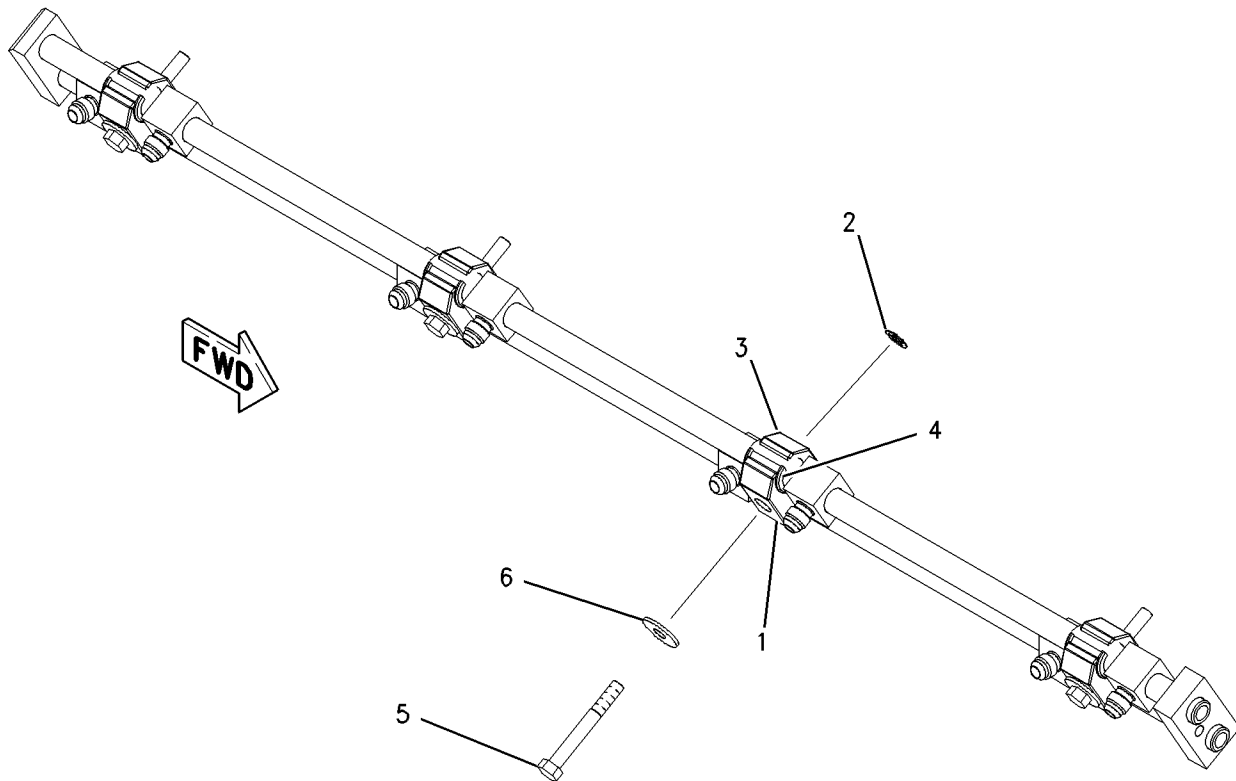
FUEL SYSTEM

156-9751 MANIFOLD GP - FUEL PART OF 234-8722 LINES GP - FUEL INJECTION

SMCS-1274, 1380

i02179780

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9Y-0047	4	CLAMP						
	2	1	147-3745	4	WASHER - RETAINING						
	3	1	156-9748	4	CLAMP						
	4	1	100-3237	8	GROMMET						
	5	1	1D-4539	4	BOLT (5/16-18X2.5-IN)						
	6	1	9N-0869	4	WASHER - HARD (8.8X25.5X2-MM THK)						



GRAPHIC #1

<END>

g01103274

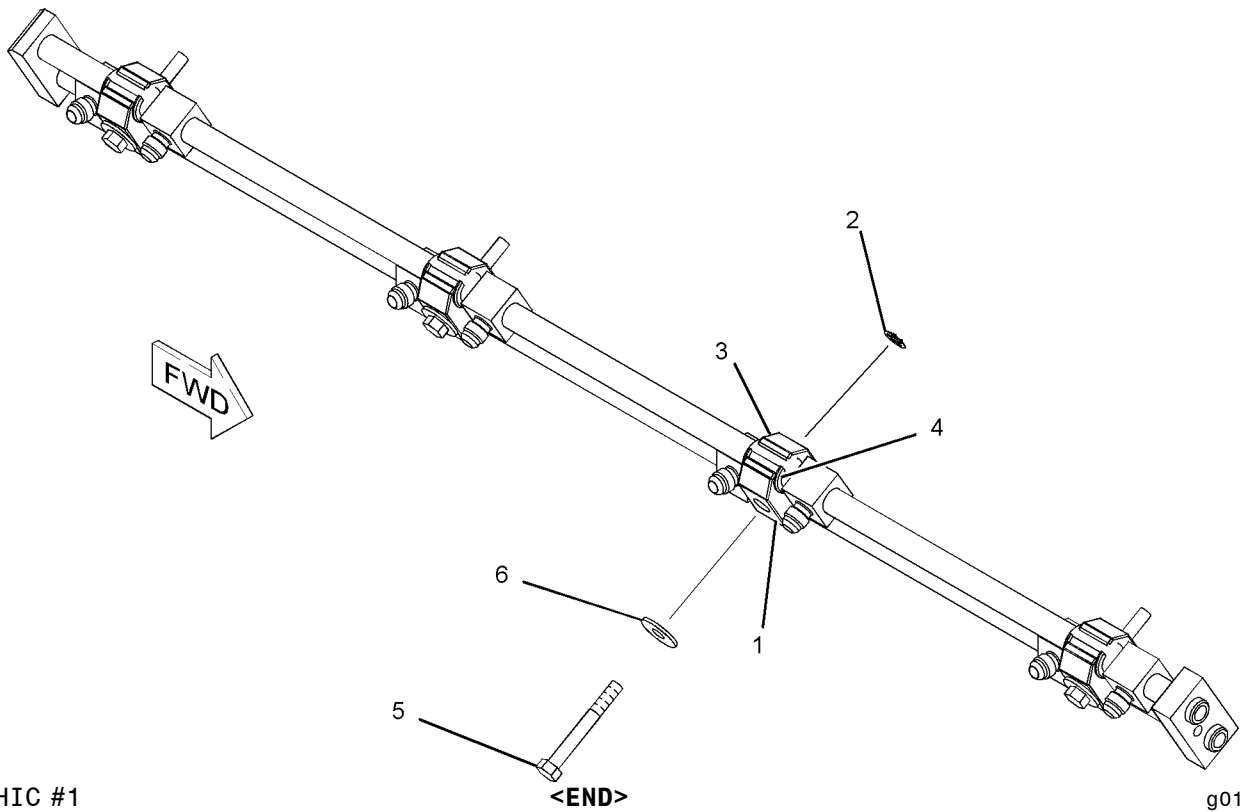
FUEL SYSTEM

156-9752 MANIFOLD GP - FUEL PART OF 234-8722 LINES GP - FUEL INJECTION

SMCS-1274, 1380

i02179781

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9Y-0047	4	CLAMP						
	2	1	147-3745	4	WASHER - RETAINING						
	3	1	156-9748	4	CLAMP						
	4	1	100-3237	8	GROMMET						
	5	1	1D-4539	4	BOLT (5/16-18X2.5-IN)						
	6	1	9N-0869	4	WASHER - HARD (8.8X25.5X2-MM THK)						



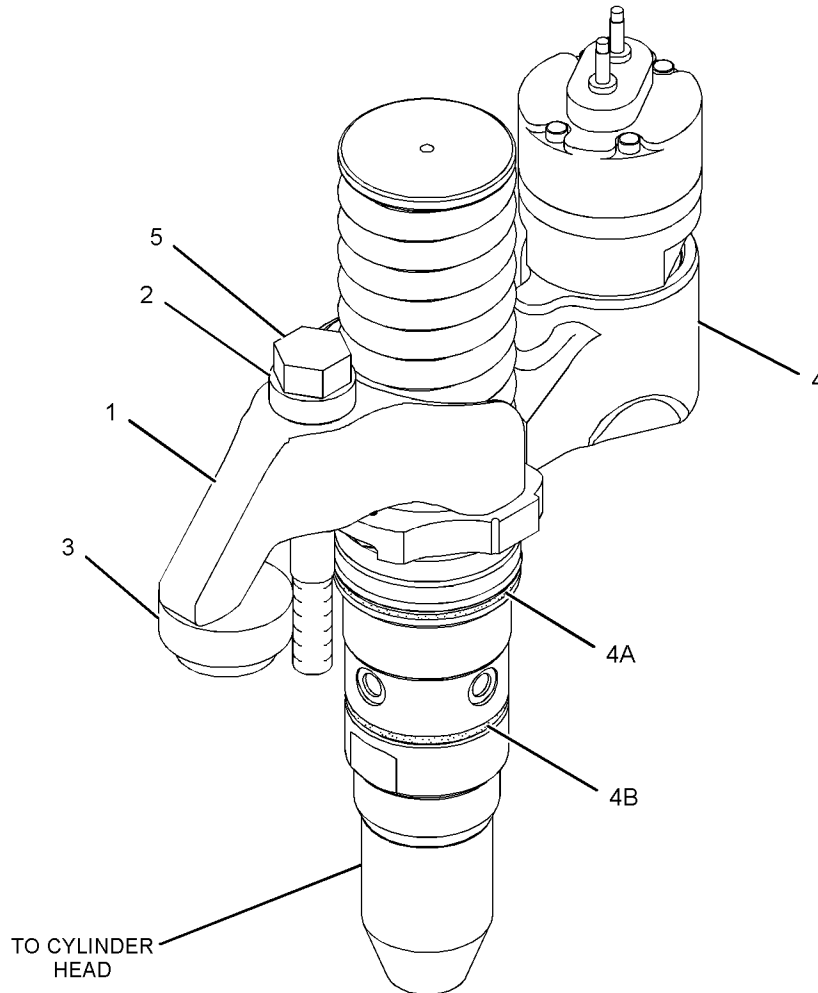
FUEL SYSTEM

274-0053 PUMP GP-FUEL INJECTION

SMCS-1251, 1290

i02462831

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7E-2580	1	CLAMP-INJECTOR						
	2	1	7N-5487	1	WASHER (12X22X9.5-MM THK)						
	3	1	234-4182	1	PLUG						
	4	1	266-4387	1	INJECTOR GP-FUEL						
	4A	1	245-4908	1	SEAL-O-RING						
	4B	1	245-4907	1	SEAL-O-RING						
	5	1	7F-8698	1	BOLT (7/16-14X3.5-IN)						



GRAPHIC #1

<END>

g01229735

FUEL SYSTEM

7N-8599 PUMP GP-FUEL PRIMING

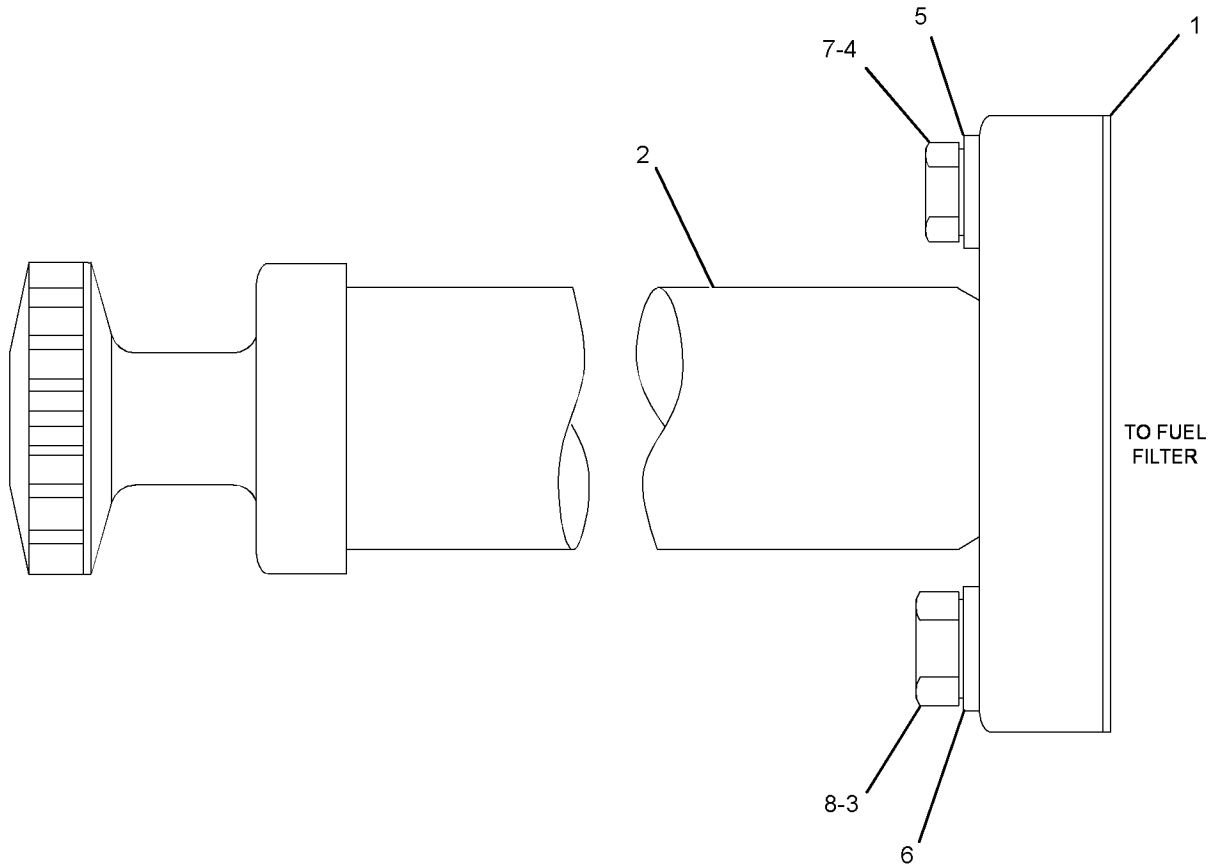
PART OF 210-1174, 210-1175, 241-4903 PUMP GP-FUEL PRIMING
AN ATTACHMENT

SMCS-1258

i02514945

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9Y-8389	1	GASKET						
C	2	1	162-3906	1	PUMP AS-FUEL PRIMING						
		1	061-7539	1	SEAL-O-RING						
		1	229-3218	2	VALVE AS						
B	3	1	6V-8918	1	BOLT (5/16-18X1.25-IN)						
B	4	1	7X-2501	1	BOLT (1/4-20X1.25-IN)						
	5	1	8T-4205	1	WASHER-HARD (7.2X14.5X2-MM THK)						
	6	1	8T-4224	1	WASHER-HARD (8.8X16X2-MM THK)						
BM	7	1	8T-4971	1	BOLT (M6X1X30-MM)						
BM	8	1	8T-7547	1	BOLT (M8X1.25X30-MM)						

B - USE AS REQUIRED
C - CHANGE FROM PREVIOUS TYPE
M - METRIC PART



GRAPHIC #1

<END>

g01258253

FUEL SYSTEM

210-1174 PUMP GP-FUEL PRIMING-RH AN ATTACHMENT

SMCS-1258

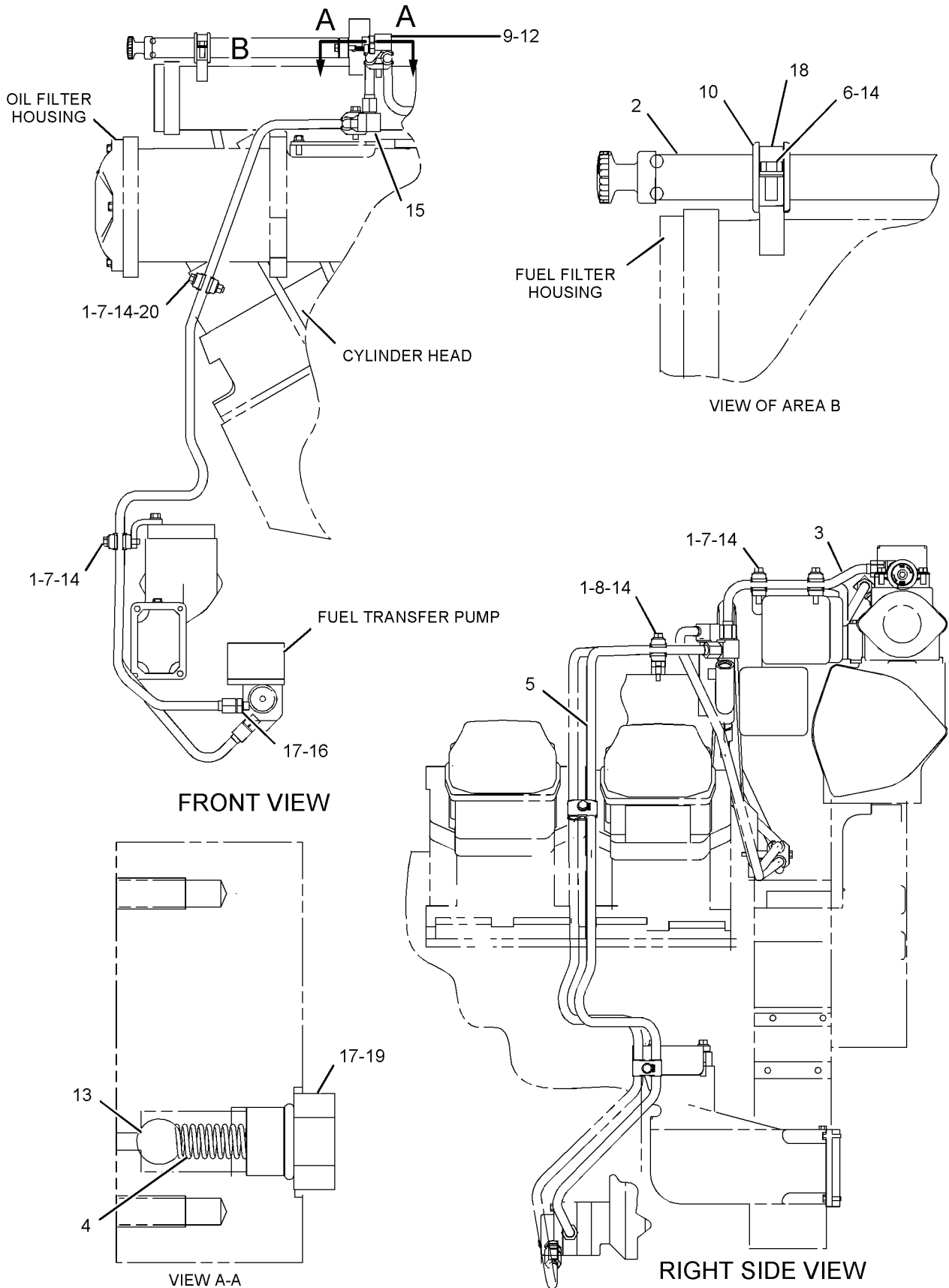
i02668029

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4P-0693	10	CLAMP AS						
					(EACH INCLUDES)						
		1	108-1434	2	GROMMET						
Y	2	1	7N-8599	1	PUMP GP-FUEL PRIMING						173
	3	1	237-2715	1	TUBE AS						
	4	1	9N-1752	1	SPRING						
	5	1	210-1470	1	TUBE AS						
	6	1	0L-1351	2	BOLT (3/8-16X0.875-IN)						
	7	1	0L-2070	4	BOLT (3/8-16X2.25-IN)						
	8	1	0S-1590	1	BOLT (3/8-16X2-IN)						
	9	1	1P-7625	1	ELBOW						
	10	1	2H-9523	1	GROMMET						
	12	1	8L-2786	1	SEAL-O-RING						
	13	1	4B-9782	1	BALL						
	14	1	5M-2894	8	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	15	1	250-1496	1	ELBOW (90-DEG)						
	16	1	6V-4362	1	CONNECTOR						
	17	1	6V-5049	2	SEAL-O-RING						
	18	1	8N-3480	1	CLIP						
	19	1	9S-4191	1	PLUG-O-RING						
	20	1	9S-8752	1	NUT-FULL (3/8-16-THD)						
Y-SEPARATE ILLUSTRATION											

FUEL SYSTEM

210-1174 PUMP GP - FUEL PRIMING (contd.)

i02668029



GRAPHIC #1

<END>

g01052703

FUEL SYSTEM

210-1175 PUMP GP-FUEL PRIMING-RH AN ATTACHMENT

SMCS - 1258

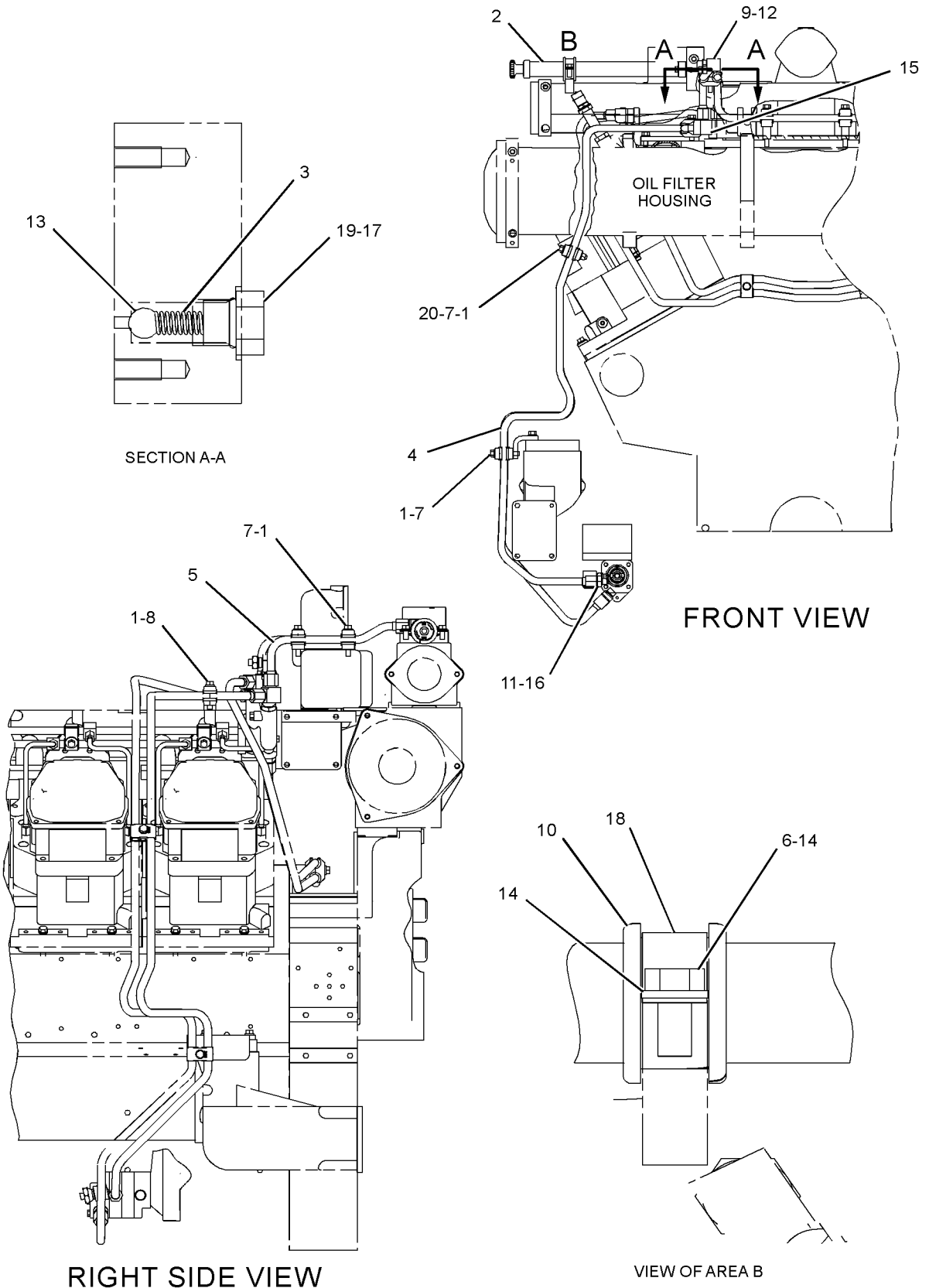
i02668043

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4P-0693	10	CLAMP AS						
					(EACH INCLUDES)						
		1	108-1434	2	GROMMET						
Y	2	1	7N-8599	1	PUMP GP-FUEL PRIMING						173
	3	1	9N-1752	1	SPRING						
	4	1	210-1471	1	TUBE AS						
	5	1	237-2715	1	TUBE AS						
	6	1	0L-1351	2	BOLT (3/8-16X0.875-IN)						
	7	1	0L-2070	4	BOLT (3/8-16X2.25-IN)						
	8	1	0S-1590	1	BOLT (3/8-16X2-IN)						
	9	1	1P-7625	1	ELBOW						
	10	1	2H-9523	1	GROMMET						
	11	1	3J-1907	1	SEAL-O-RING						
	12	1	3K-0360	1	SEAL-O-RING						
	13	1	4B-9782	1	BALL						
	14	1	5M-2894	8	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	15	1	250-1496	1	ELBOW (90-DEG)						
	16	1	6V-4362	1	CONNECTOR						
	17	1	6V-5049	1	SEAL-O-RING						
	18	1	8N-3480	1	CLIP						
	19	1	9S-4191	1	PLUG-O-RING						
	20	1	9S-8752	1	NUT-FULL (3/8-16-THD)						
Y-SEPARATE ILLUSTRATION											

FUEL SYSTEM

210-1175 PUMP GP - FUEL PRIMING (contd.)

i02668043



SECTION A-A

FRONT VIEW

RIGHT SIDE VIEW

VIEW OF AREA B

GRAPHIC #1

<END>

g01215190

FUEL SYSTEM

241-4903 PUMP GP-FUEL PRIMING-LH FOR USE WITH SERIES II FUEL INJECTION LINES GP AN ATTACHMENT

SMCS-1258

i02668027

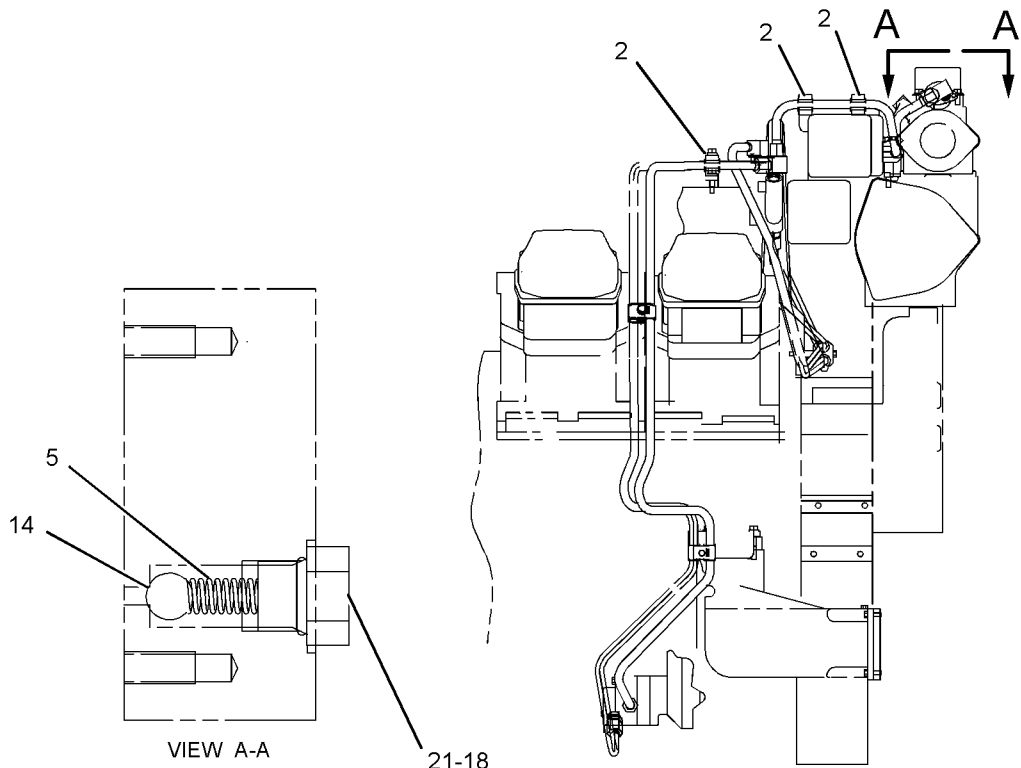
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
	1	1	4P-0692	4	CLAMP AS	
					(EACH INCLUDES)	
		1	108-1434	1	GROMMET	
	2	1	4P-0693	10	CLAMP AS	
					(EACH INCLUDES)	
		1	108-1434	2	GROMMET	
Y	3	1	7N-8599	1	PUMP GP-FUEL PRIMING	173
	4	1	8N-6296	1	TUBE AS	
	5	1	9N-1752	1	SPRING	
	6	1	210-1470	1	TUBE AS	
	7	1	0L-1351	2	BOLT (3/8-16X0.875-IN)	
	8	1	0L-2070	1	BOLT (3/8-16X2.25-IN)	
	9	1	0T-0065	2	BOLT (3/8-16X3.5-IN)	
	10	1	1P-7625	1	ELBOW	
	11	1	2H-9523	1	GROMMET	
	12	1	3J-1907	1	SEAL-O-RING	
	13	1	3K-0360	1	SEAL-O-RING	
	14	1	4B-9782	1	BALL	
	15	1	5M-2894	4	WASHER-HARD (10.2X18.5X2.5-MM THK)	
	16	1	250-1496	1	ELBOW (90-DEG)	
	17	1	6V-4362	1	CONNECTOR	
	18	1	6V-5049	1	SEAL-O-RING	
	19	1	7K-3377	2	PIPE	
	20	1	8N-3480	1	CLIP	
	21	1	9S-4191	1	PLUG-O-RING	
	22	1	9S-8752	1	NUT-FULL (3/8-16-THD)	

Y-SEPARATE ILLUSTRATION

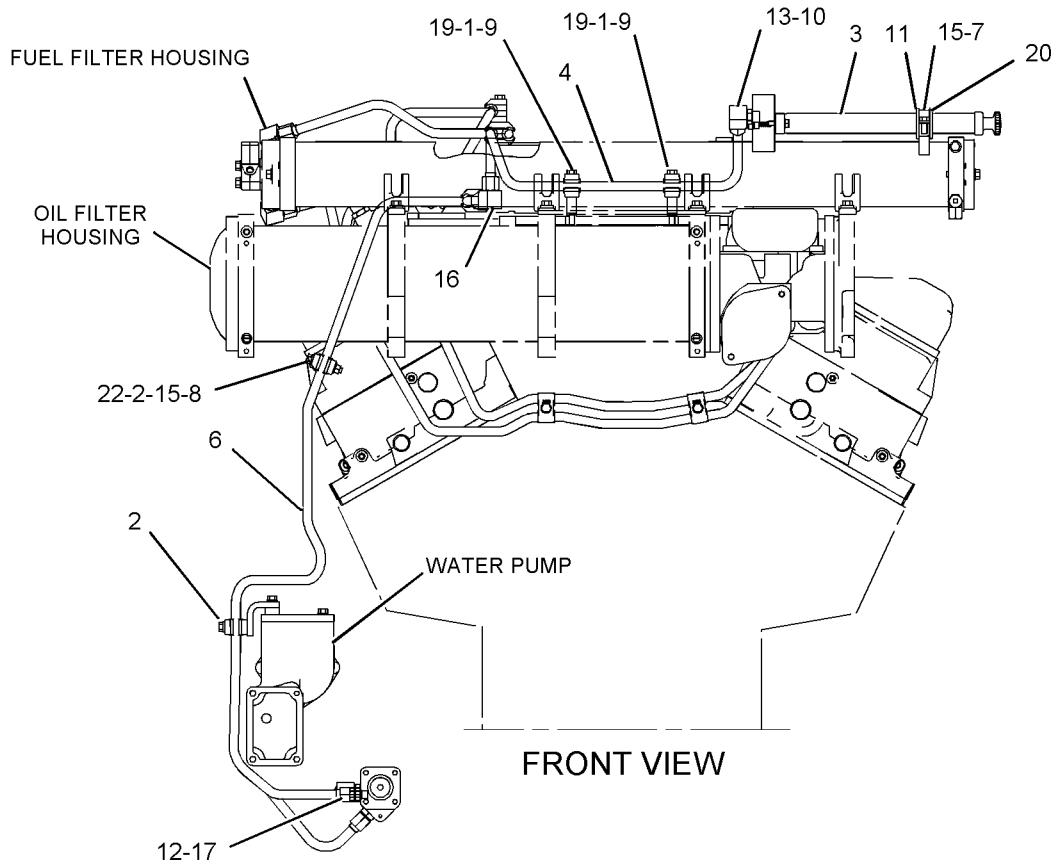
FUEL SYSTEM

241 - 4903 PUMP GP - FUEL PRIMING (contd.)

i02668027



RIGHT SIDE VIEW



FRONT VIEW

GRAPHIC #1

<END>

g01012817

FUEL SYSTEM

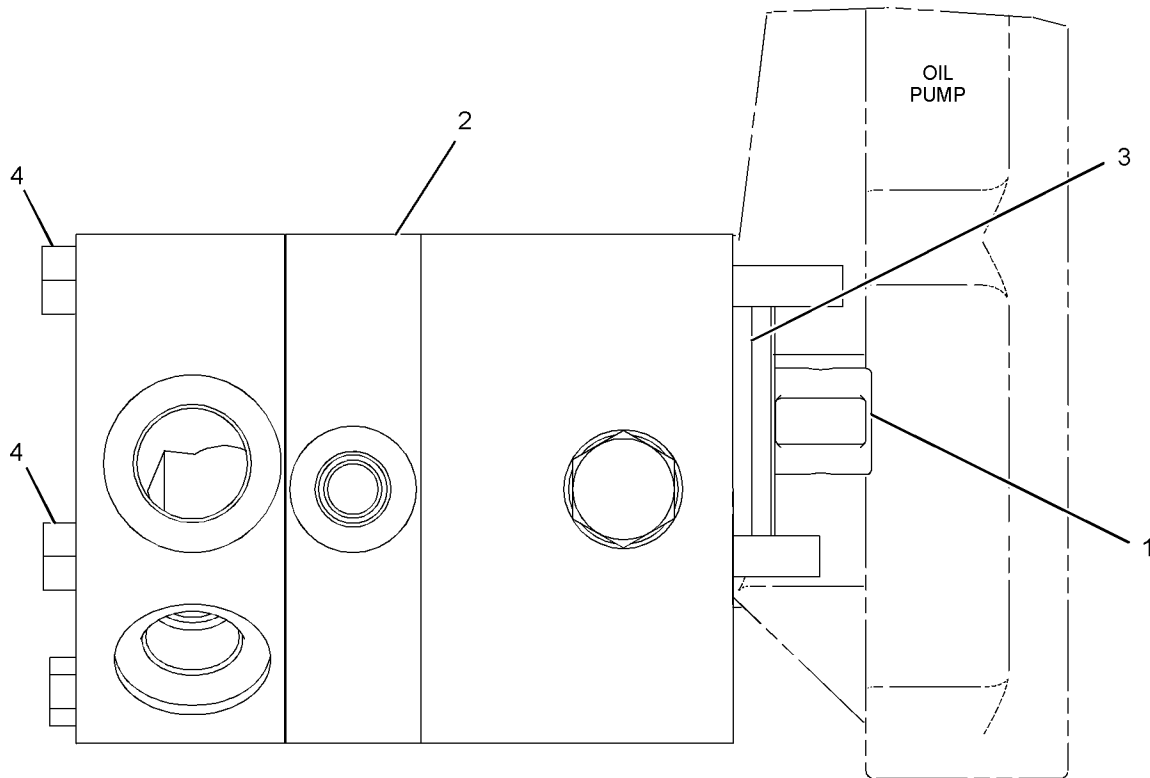
8N-6151 PUMP GP-FUEL TRANSFER ONE SECTION GEAR

SMCS - 1256

i02373432

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1N-4636	1	COUPLING-DRIVE						
YR	2	1	268-1900	1	PUMP GP-FUEL TRANSFER						181
	3	1	1H-9696	1	SEAL-O-RING						
	4	1	5L-1761	4	BOLT (5/16-18X5.5-IN)						

R - REMFG PART MAY BE AVAILABLE
Y - SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01184091

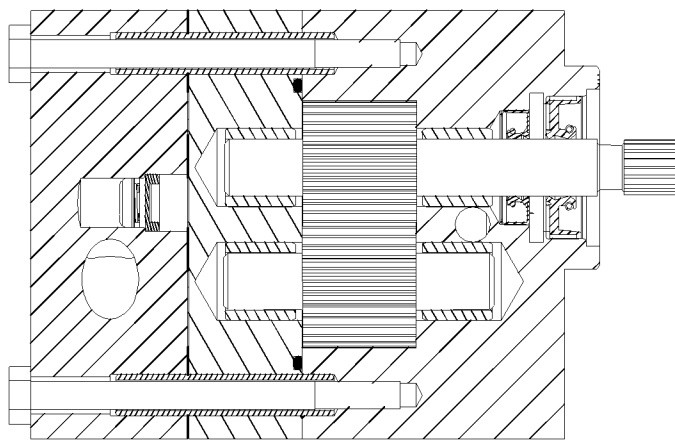
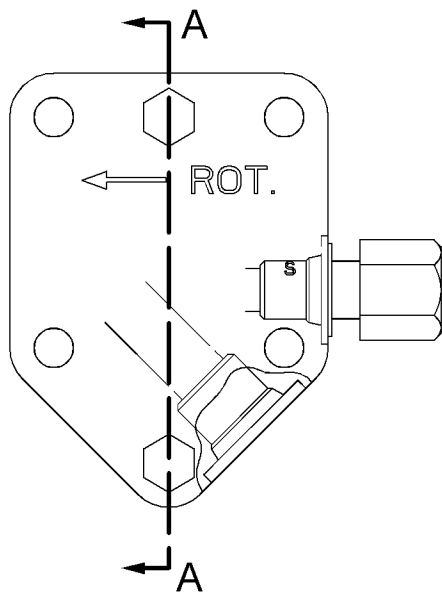
FUEL SYSTEM

268-1900 PUMP GP-FUEL TRANSFER*R PART OF 8N-6151 PUMP GP-FUEL TRANSFER

SMCS-1256

i02656755

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
					AVAILABLE REPAIR KIT(S):						
			255-8691		KIT-SEAL (FUEL TRANSFER PUMP) (INCLUDES GASKETS AND SEALS)						
			255-8692		KIT-REPAIR (GEAR, SHAFT) (FUEL TRANSFER PUMP) (INCLUDES IDLER GEAR, BUSHINGS AND DRIVE SHAFT)						
			256-8766		KIT-REPAIR (BYPASS VALVE) (FUEL TRANSFER PUMP) (INCLUDES VALVE POPPET, VALVE SPRING, RELIEF VALVE CAP AND WASHER)						



VIEW A-A

GRAPHIC #1

<END>

g01120440

FUEL SYSTEM

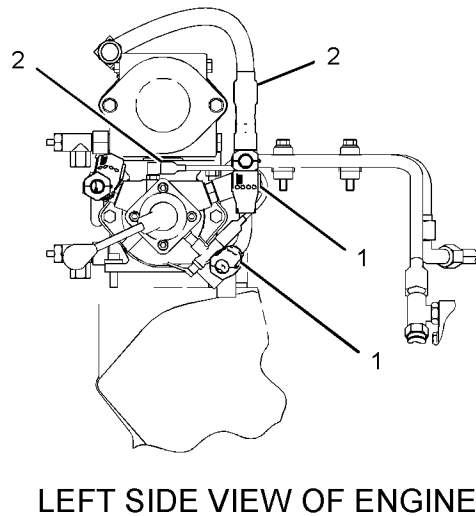
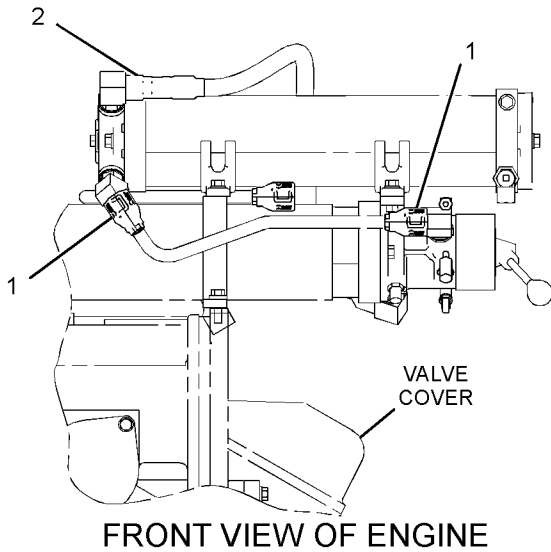
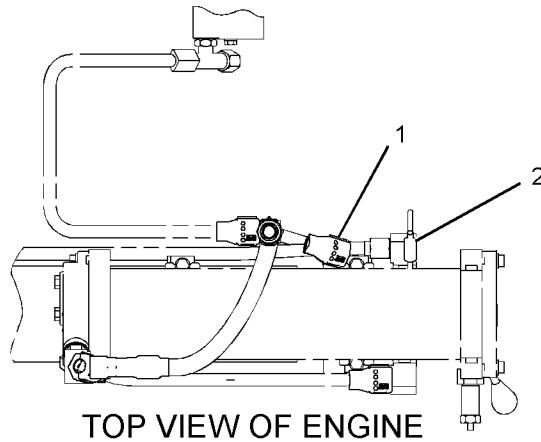
244-6567 SHIELD GP - FUEL LINES-DUPLEX FUEL FILTER AN ATTACHMENT

SMCS-1067, 1252

i02624447

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
B	1	1	251-1255	5	SHIELD-FUEL LINE FITTING (18.05-MM ID)						
BE	2	1	280-9432		TAPE (ANTI-SPLASH, 35-MM WIDE) (20-CM)						

B - USE AS REQUIRED
E - ORDER BY THE CENTIMETER



GRAPHIC #1

<END>

g01320682

FUEL SYSTEM

246-0455 SHIELD GP-FUEL LINES

ANTI-SPLASH
AN ATTACHMENT

SMCS-1067, 1252

i02475713

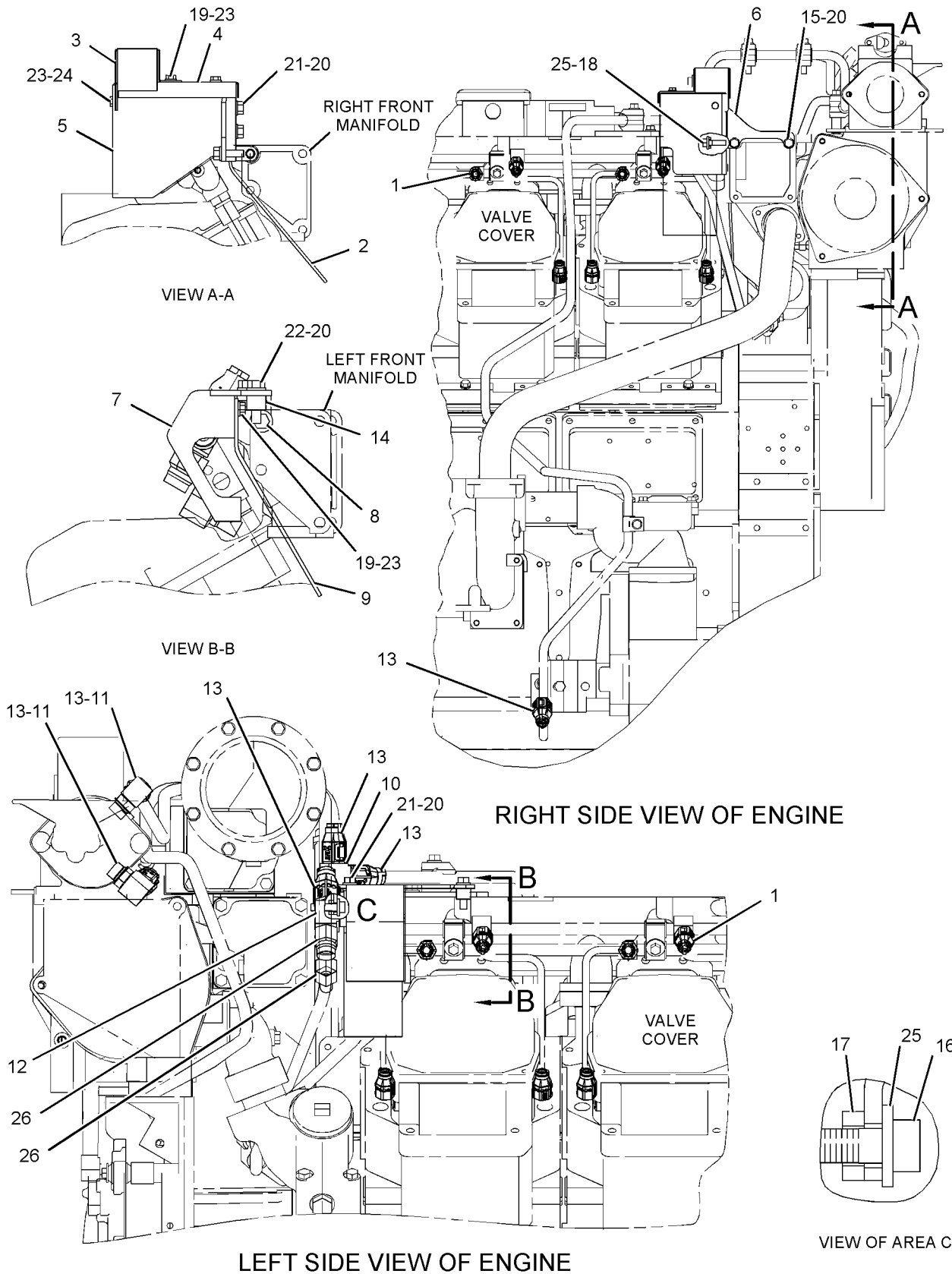
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	241-6244	32	SHIELD-FUEL LINE FITTING (9.8-MM ID)						
	2	1	246-2946	1	SHIELD						
	3	1	246-2947	1	COVER (RH)						
	4	1	246-2948	1	COVER (RH)						
	5	1	246-2949	1	SHIELD AS (RH)						
		1	1F-0750	4	NUT-WELD (3/8-16-THD)						
		1	248-5503	3	NUT-CLINCH						
	6	1	246-2950	1	PLATE AS (RH)						
	7	1	246-7964	1	SHIELD AS (RH)						
		1	9V-7451	2	NUT-WELD (1/4-20-THD)						
	8	1	247-2954	1	BRACKET AS						
		1	1F-0750	1	NUT-WELD (3/8-16-THD)						
	9	1	249-8926	1	SHIELD						
	10	1	250-1496	1	ELBOW (90-DEG)						
	11	1	250-1498	2	ELBOW AS						
					(EACH INCLUDES)						
		1	6V-4589	1	SEAL-O-RING						
		1	250-1497	1	ELBOW						
	12	1	250-1500	1	TEE AS						
		1	6V-4589	1	SEAL-O-RING						
		1	250-1499	1	TEE						
	13	1	251-1255	6	SHIELD-FUEL LINE FITTING (18.05-MM ID)						
	14	1	287-3390	1	SPACER (10.3X19.1X14.3-MM THK)						
	15	1	0S-1588	2	BOLT (3/8-16X1.25-IN)						
	16	1	0S-1591	1	BOLT (3/8-16X1.5-IN)						
	17	1	132-7551	1	SPACER (11X19X6-MM THK)						
	18	1	3B-1915	1	BOLT (3/8-16X1.375-IN)						
	19	1	4M-5281	4	BOLT (1/4-20X0.75-IN)						
	20	1	5M-2894	8	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	21	1	5S-7379	5	BOLT (3/8-16X0.875-IN)						
	22	1	5S-7382	1	BOLT (3/8-16X1.375-IN)						
	23	1	8T-4205	5	WASHER-HARD (7.2X14.5X2-MM THK)						
	24	1	8T-9364	1	BOLT (1/4-20X0.625-IN)						
	25	1	9X-6458	2	WASHER-HARD (10.2X22.5X3-MM THK)						
B	26	1	237-3860		TAPE (ANTI-SPLASH, 50-MM WIDE)						

B-USE AS REQUIRED

FUEL SYSTEM

246-0455 SHIELD GP - FUEL LINES (contd.)

i02475713



GRAPHIC #1

<END>

g01353236

FUEL SYSTEM

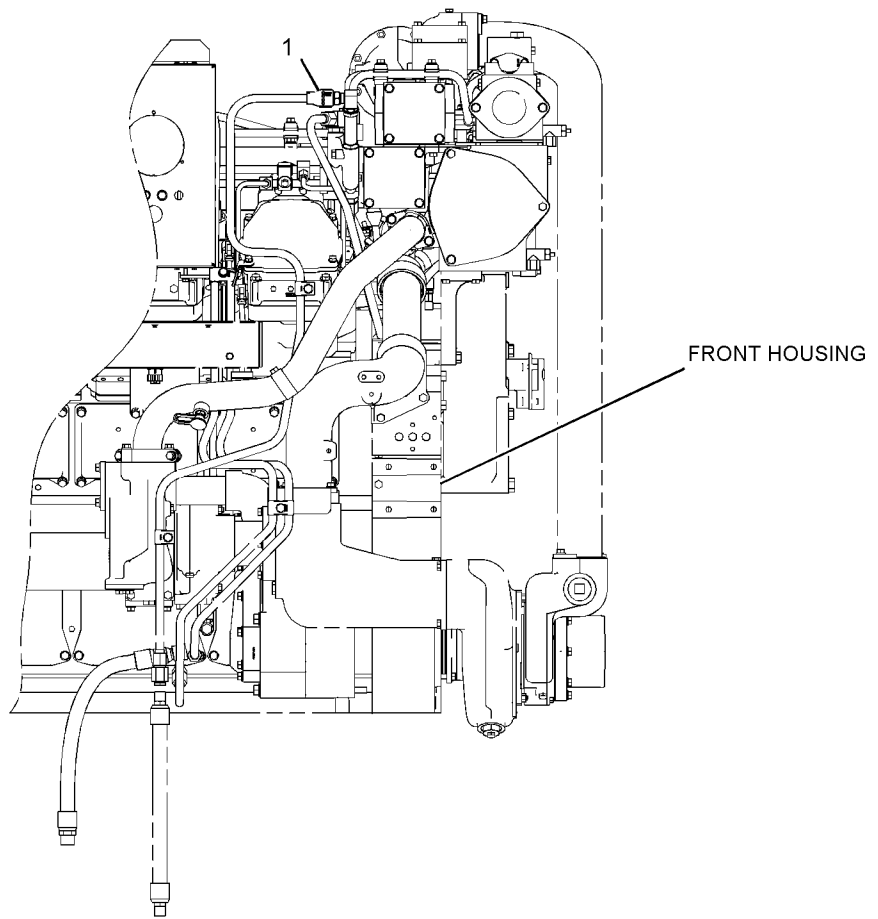
276-1307 SHIELD GP-FUEL LINES

AN ATTACHMENT

SMCS-1067, 1252

i02613537

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	251-1255	1	SHIELD-FUEL LINE FITTING (18.05-MM ID)						



RIGHT SIDE VIEW OF ENGINE

<END>

GRAPHIC #1

g01322594

ELECTRICAL AND STARTING SYSTEM

4N-3986 ALTERNATOR GP-CHARGING*R

24-VOLT, 60-AMPERE

PART OF 7E-2858 ALTERNATOR GP-CHARGING
AN ATTACHMENT

SMCS-1405

i02656356

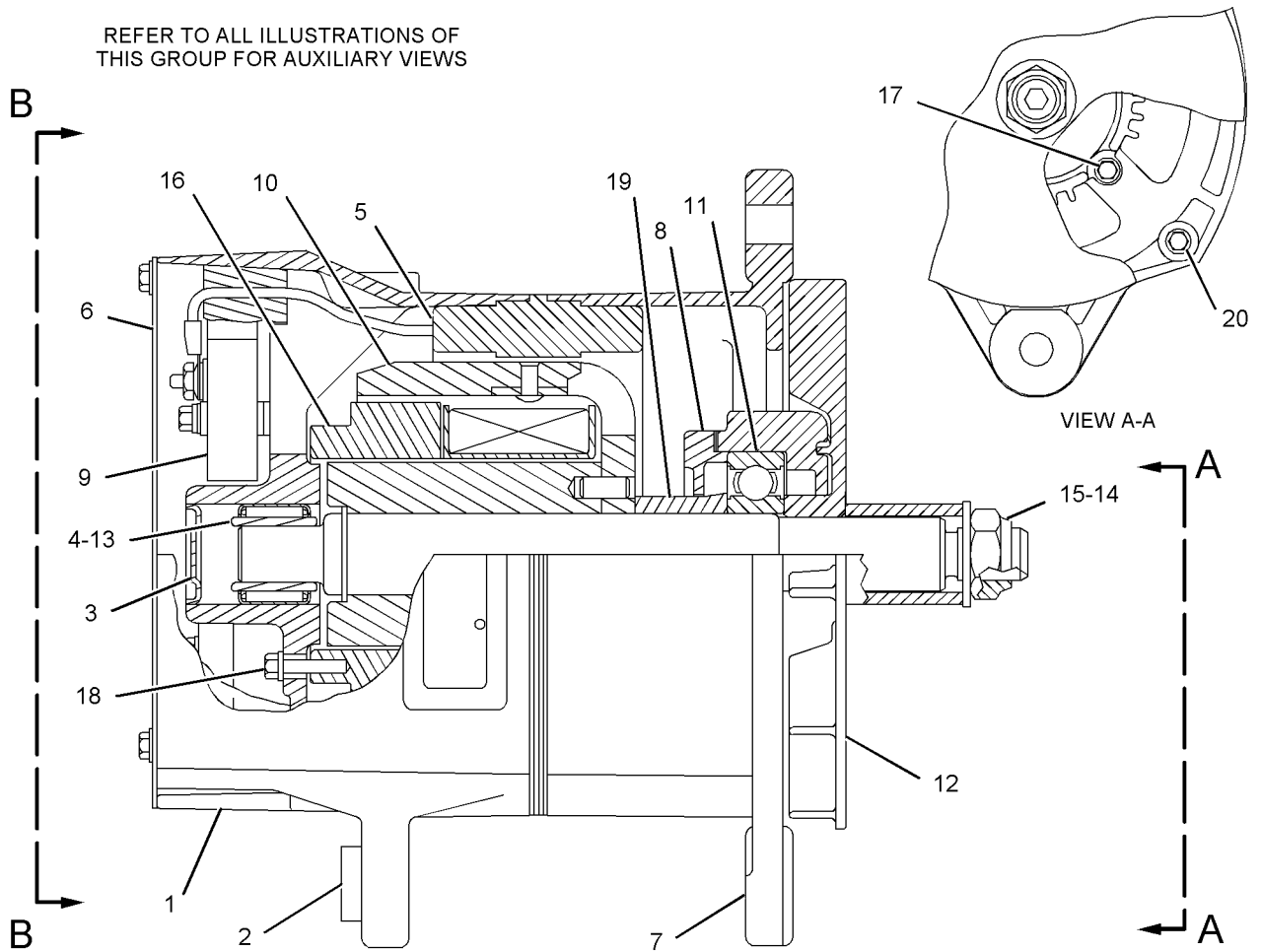
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6N-1876	1	HOUSING AS (RECTIFIER)						
	2	1	9S-2396	1	BUSHING-TERMINAL						
	3	1	9N-0943	1	PLUG-BEARING WELL						
	4	1	5P-3418	1	BEARING-ROLLER						
	5	1	6N-1968	1	STATOR AS						
		1	9S-2014	3	CLIP						
		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 (11-BLADE)						
	13	1	5P-3419	1	RACE-BEARING INNER						
	14	1	7F-7621	1	WASHER (0.635X1.25X0.09-IN THK)						
	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 (10-24X38.1-MM)						
	18	1	9N-3388	5	BOLT (10-24X0.75-IN)						
	19	1	100-6532	1	COLLAR-ALTERNATOR						
	20	1	9S-2009	4	SCREW-HEAD (10-24X3.625-IN)						
	21	2	6N-1944	1	DIODE AS						
	22	2	6N-1870	2	SCREW AS (8-32X34-MM)						
	23	2	8T-0328	2	WASHER-HARD (5.5X10X1-MM THK)						
	24	2	9S-2544	7	SCREW-HEX HEAD (8-32X11.13-MM)						
	25	2	9B-7233	11	LOCKWASHER						
	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						
	29	2	6N-1925	1	BRACKET						
	30	2	6N-1946	1	CAPACITOR AS						
	31	2	6N-1872	3	SCREW AS (8-32X1.25-IN)						
	32	2	3T-6354	1	REGULATOR AS-VOLTAGE (24-VOLT) (ALTERNATOR)						
	33	2	6N-1873	1	LEAD AS						
	34	2	2L-8075	3	TERMINAL (16-GA TO 14-GA)						
	35	2	8T-4205	2	WASHER-HARD (7.2X14.5X2-MM THK)						
	36	2	6N-1871	1	LEAD AS						
	37	2	8M-6701	3	WASHER (0.281X0.5X0.032-IN THK)						
	38	2	6N-1856	4	BUSHING-TERMINAL						
					AVAILABLE REPAIR KIT(S) :						
			6N-1875	1	KIT-OUTPUT TERMINAL (ALTERNATOR) (INCLUDES TERMINAL, LEAD ASSEMBLY, BUSHING, WASHERS, NUTS AND LOCKWASHERS)						
			105-3762	1	KIT-ALTERNATOR TERMINAL (INCLUDES TERMINAL ASSEMBLY, INSULATOR, BUSHING, WASHER, NUTS AND LOCKWASHERS)						

ELECTRICAL AND STARTING SYSTEM

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

i02656356

REFER TO ALL ILLUSTRATIONS OF THIS GROUP FOR AUXILIARY VIEWS



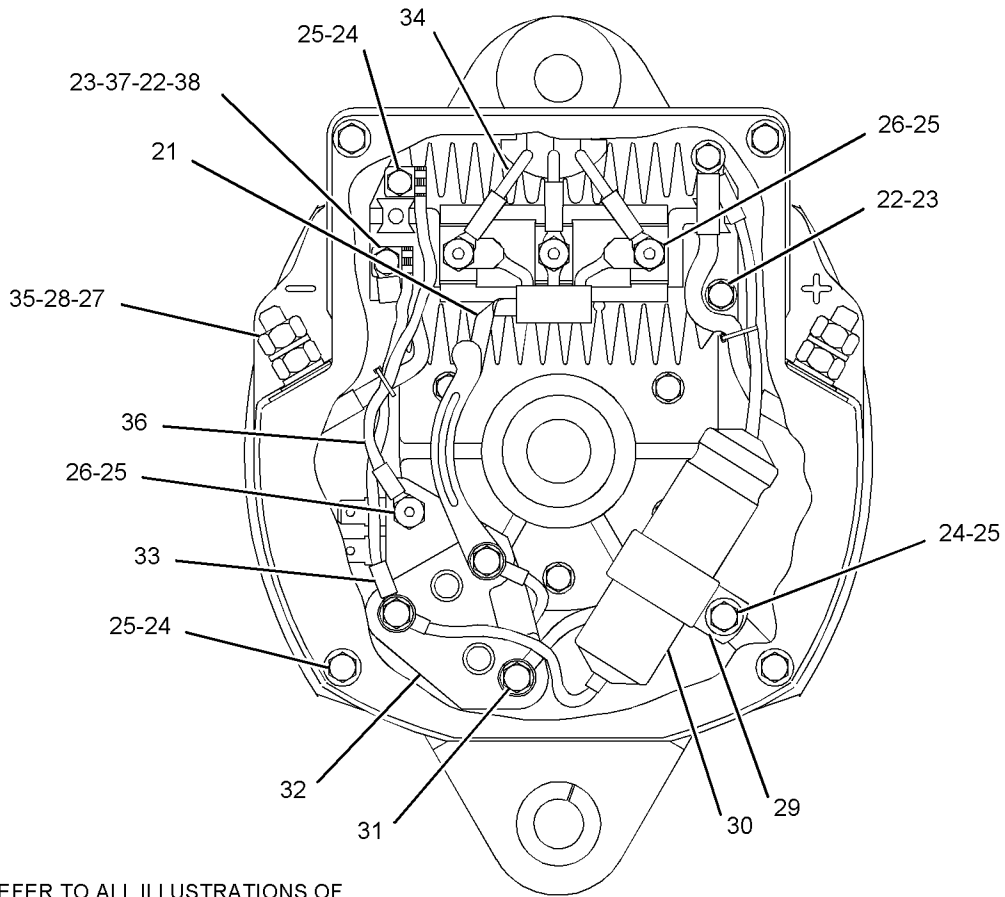
GRAPHIC #1

g01100218

ELECTRICAL AND STARTING SYSTEM

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

i02656356



REFER TO ALL ILLUSTRATIONS OF THIS GROUP FOR AUXILIARY VIEWS

VIEW B-B

<END>

GRAPHIC #2

g01117023

ELECTRICAL AND STARTING SYSTEM

7E - 2858 ALTERNATOR GP - CHARGING

24-VOLT, 60-AMPERE
AN ATTACHMENT

SMCS - 1405

i01752076

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
YR	4N-3986	1	ALTERNATOR GP - CHARGING						186

R - REMFG PART MAY BE AVAILABLE
Y - SEPARATE ILLUSTRATION

<END>

ELECTRICAL AND STARTING SYSTEM

7L - 7872 BATTERY GP

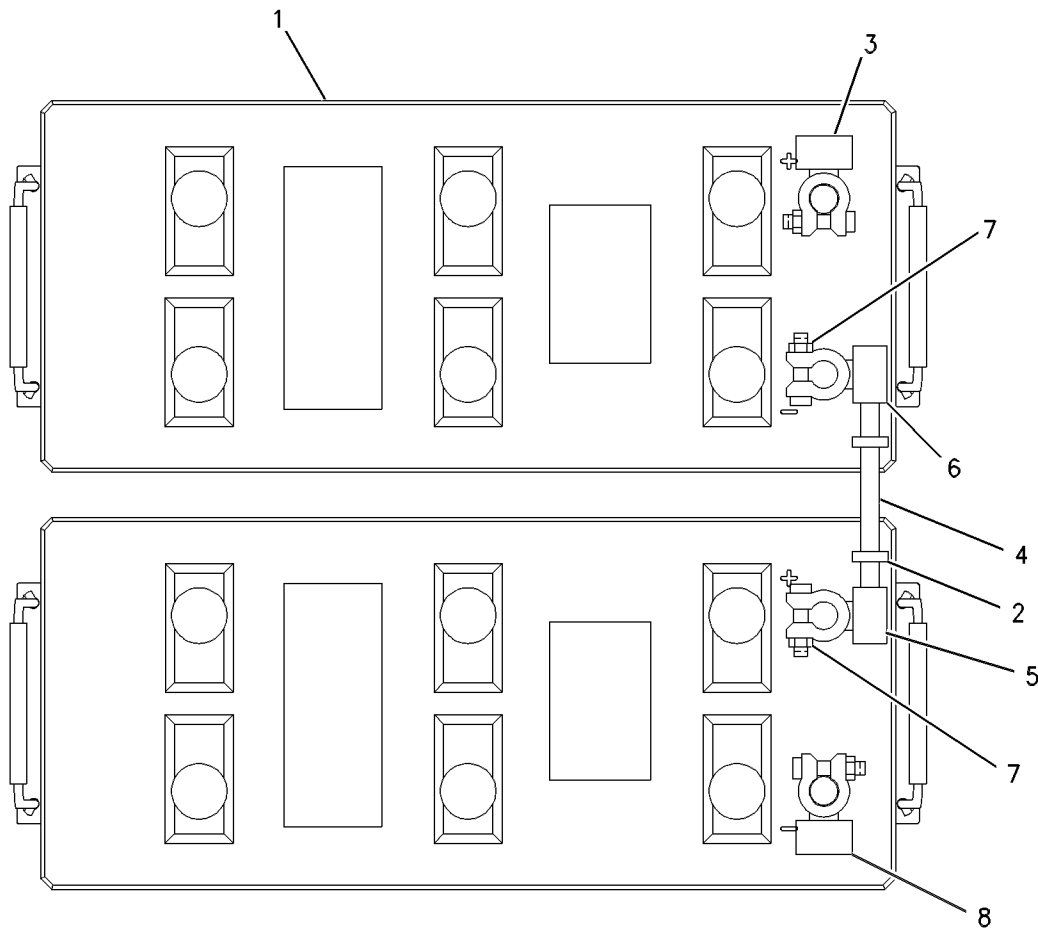
24 - VOLT, 1300 - COLD CRANKING AMPERE, 190 - AMPERE HOUR
AN ATTACHMENT

SMCS - 1401

i02421601

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 GP (12-VOLT)						
					(EACH INCLUDES)						
		1	7N-0060	6	VENT AS (BATTERY)						
C	2	1	8L-8413	2	STRAP - CABLE						
C	3	1	9G-0004	1	COVER - TERMINAL (RED)						
C	4	1	2V-7397	1	CABLE AS						
E		1	5P-0747		CABLE (00-GA, BLACK) (20-CM)						
		1	1M-6120	2	NUT (5/16-18-THD)						
	5	1	8C-5917	1	TERMINAL AS-BATTERY (POSITIVE)						
	6	1	8T-9757	1	TERMINAL AS-BATTERY (NEGATIVE)						
	7	1	1M-6119	2	BOLT (5/16-18X1.375-IN)						
C	8	1	9G-0003	1	COVER - TERMINAL (BLACK)						

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



GRAPHIC #1

<END>

g00622754

ELECTRICAL AND STARTING SYSTEM

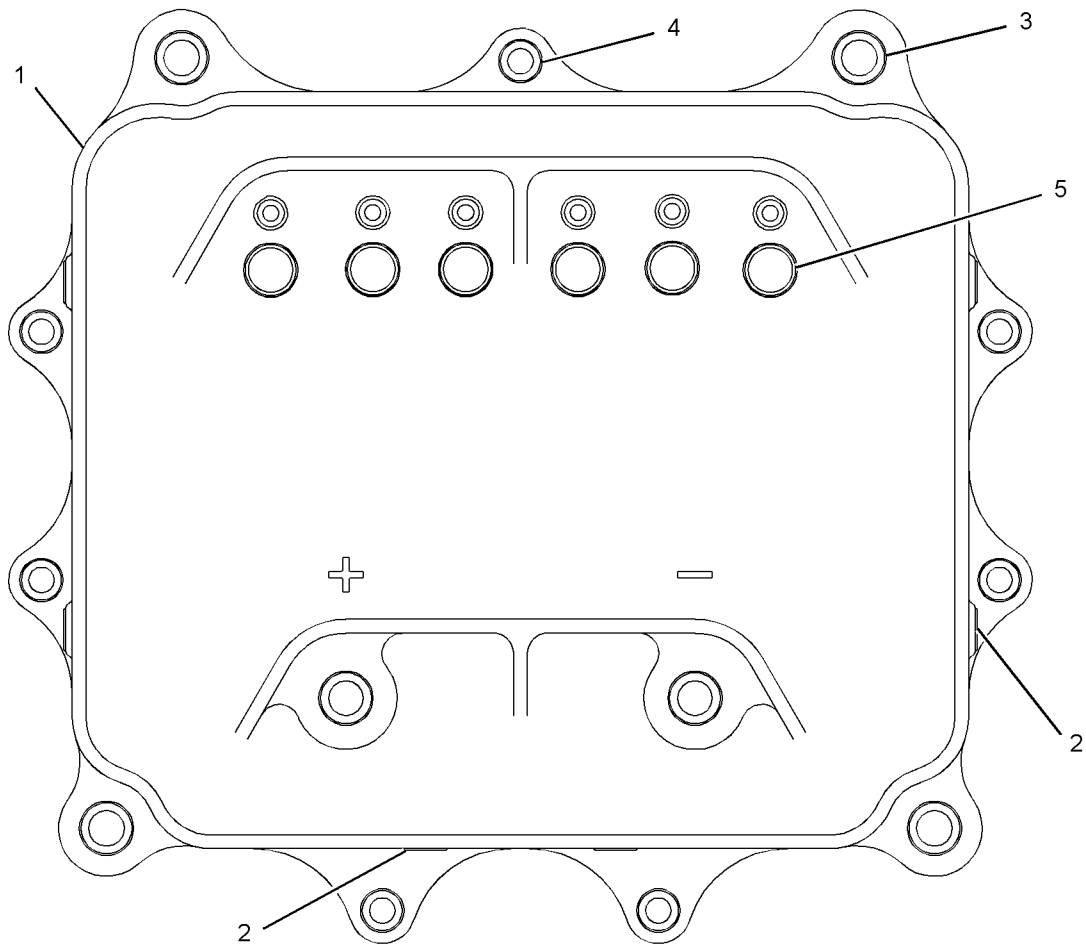
210-9035 BOX AS-CONTROL

PART OF 235-2768 BOX AS-CONTROL
AN ATTACHMENT

SMCS-4460, 7426

i02097566

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	199-5601	1	BOX						
	2	1	203-8993	8	SPACER (4.6X12.7X11-MM THK)						
	3	1	203-8995	4	SPACER (10.5X15.9X33-MM THK)						
	4	1	203-8996	7	SPACER (7.5X12.7X21-MM THK)						
	5	1	211-4317	6	SPACER (13X15.9X5-MM THK)						



GRAPHIC #1

<END>

g01069425

ELECTRICAL AND STARTING SYSTEM

235 - 2768 BOX AS-CONTROL

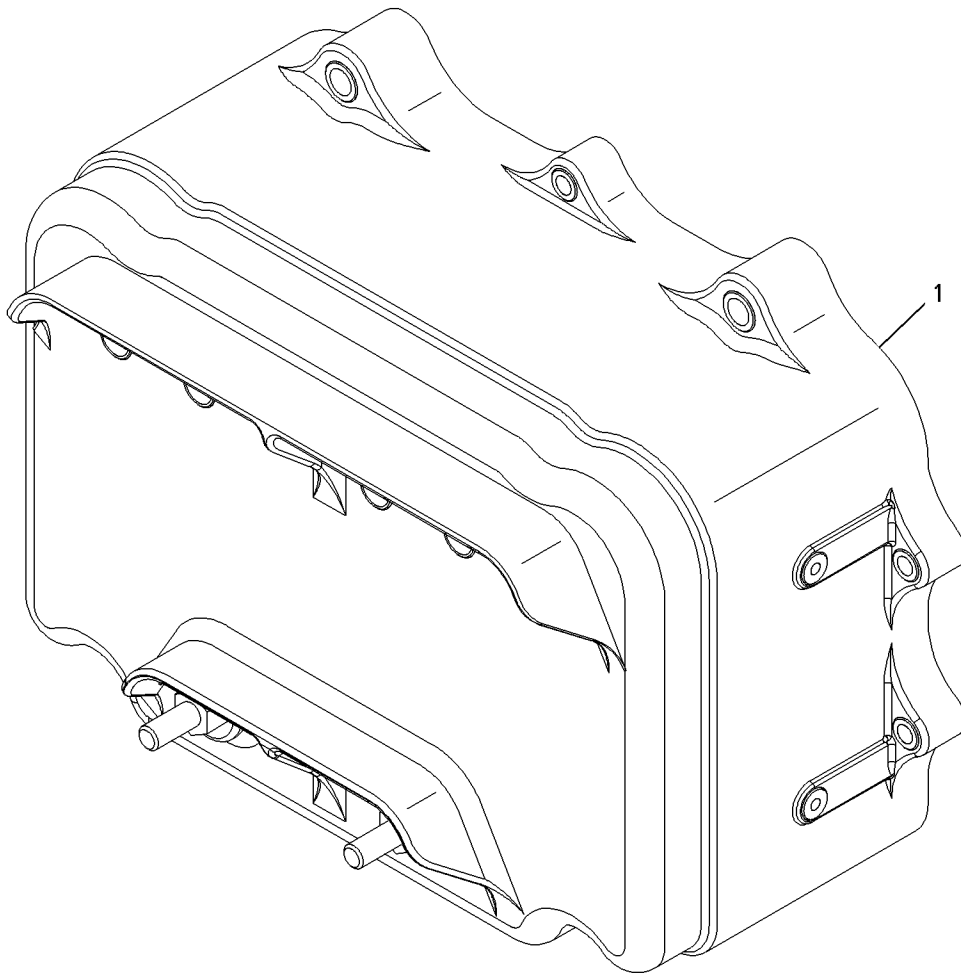
PART OF 231-9999 BOX GP-JUNCTION
AN ATTACHMENT

SMCS-4460, 7426

i01924296

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	210-9035	1	BOX AS-CONTROL						191

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01006404

ELECTRICAL AND STARTING SYSTEM

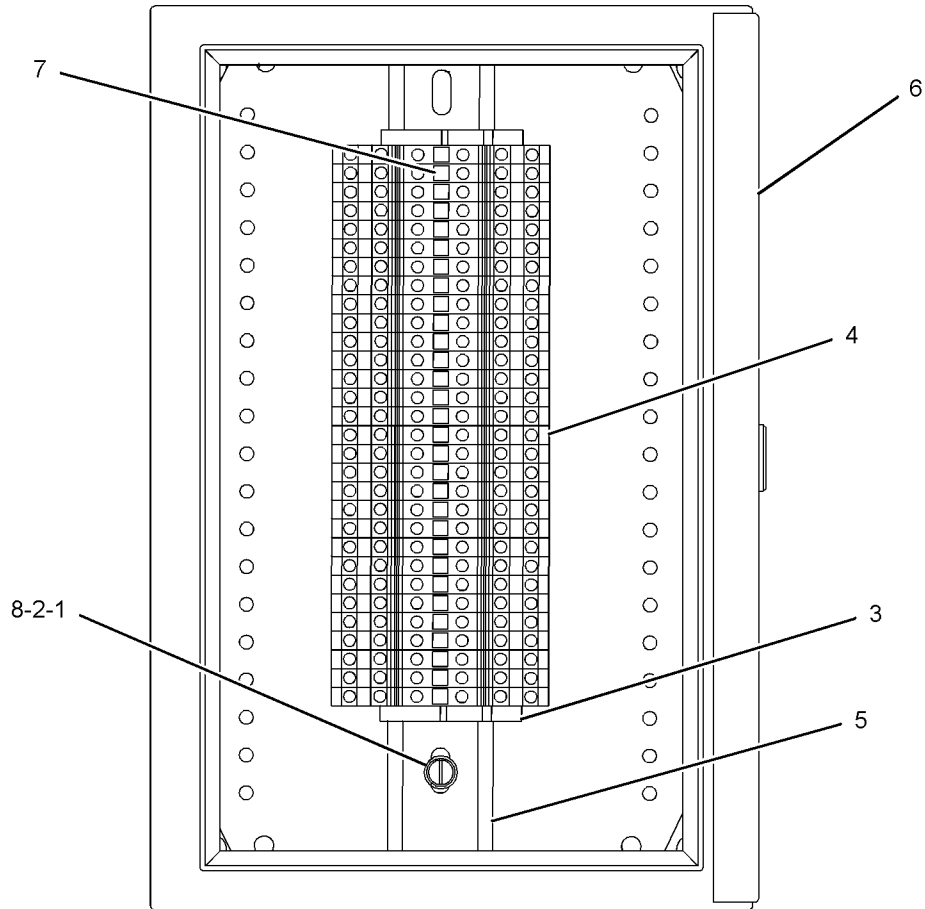
231-3471 BOX GP - JUNCTION

PART OF 241-5629 BOX GP - JUNCTION
AN ATTACHMENT

SMCS-7426

i01957464

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1H-4393	3	LOCKWASHER						
	2	1	7S-1197	3	SCREW-MACHINE (8-32X0.5-IN)						
	3	1	9X-9675	2	BRACKET-END						
	4	1	120-9079	30	TERMINAL						
	5	1	147-1960	1	RAIL						
	6	1	177-7215	1	ENCLOSURE						
	7	1	146-6775	1	MARKER						
	8	1	4B-4863	3	WASHER (4.7X11X1.2-MM THK)						



GRAPHIC #1

<END>

g01019403

ELECTRICAL AND STARTING SYSTEM

231-9999 BOX GP - JUNCTION-POWER DISTRIBUTION AN ATTACHMENT

SMCS-7426

i02710355

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	3L-7314	6	WASHER (0.406X0.62X0.032-IN THK)						
BC	2	1	3S-2093	10	STRAP-CABLE						
	3	1	5P-7751	4	NUT-BRONZE (3/8-16-THD)						
	4	1	6H-5431	4	NUT-BRASS JAM (3/8-16-THD)						
C	5	1	7D-6922	22	LOCKNUT (6-32-THD)						
	6	1	8N-9300	4	MOUNT AS						
	7	1	8T-8827	1	BOOT						
	8	1	9M-4704	4	BOLT (8-32X1-IN)						
BC	9	1	9X-6772	8	STRAP-CABLE						
	10	1	9X-8124	1	SWITCH AS-MAGNETIC (24-VOLT) (STARTING MOTOR)						
	10A	1	9X-8124	1	SWITCH AS-MAGNETIC (24-VOLT) (STARTING MOTOR)						
	10B	1	9X-8124	1	SWITCH AS-MAGNETIC (24-VOLT) (AIR SHUTOFF)						
	10C	1	9X-8124	1	SWITCH AS-MAGNETIC (24-VOLT) (PRELUBRICATION PUMP)						
	11	1	9Y-2921	10	RELAY (24-VOLT) (ECM ENERGIZE)						
C	12	1	202-2099	1	PLATE						
	13	1	231-9863	1	CIRCUIT BREAKER AS (70-AMPERE, DOUBLE POLE)						
	14	1	231-9864	1	CIRCUIT BREAKER AS (40-AMPERE, DOUBLE POLE)						
	15	1	231-9866	3	CIRCUIT BREAKER AS (20-AMPERE, DOUBLE POLE)						
	16	1	231-9892	1	SEAL						
Y	17	1	235-2768	1	BOX AS-CONTROL						192
	18	1	239-5794	1	TIMER						
C	19	1	250-1946	1	BRACKET AS						
C	20	1	250-1947	1	BRACKET AS						
		1	5P-6917	1	STUD-WELD (1/4-20X1.25-IN)						
C	21	1	295-6649	1	HARNES AS-BOX						
		1	5E-9295	4	PIN						
		1	8T-4205	2	WASHER-HARD (7.2X14.5X2-MM THK)						
		1	186-3736	8	SOCKET-CONNECTOR (16-GA TO 18-GA)						
		1	8T-8737	8	PLUG-SEAL						
		1	8T-9368	2	BOLT (1/4-20X2.25-IN)						
E		1	114-8843		SLEEVE-PLASTIC (32-MM DIA) (40-CM)						
		1	123-0316	2	DIODE AS						
		1	155-2271	4	KIT-CONNECTING PLUG (4-PIN) (EACH KIT INCLUDES PLUG AS AND WEDGE)						
		1	159-9496	2	LOCKWASHER						
		1	203-8977	2	RECEPTACLE AS						
		1	203-8999	4	SEAL						
		1	203-9001	4	SLEEVE						
		1	203-9007	2	NUT (M1.5X18-THD)						
E		1	231-9897		CONDUIT-FLEXIBLE (36-MM ID) (146-CM)						
		1	231-9899	2	CONNECTOR (CONDUIT)						
		1	233-9219	1	CONNECTOR (31-PIN)						
		1	233-9221	1	CONNECTOR AS (31-PIN)						
		1	233-9227	23	SOCKET-CONNECTOR (16-GA TO 20-GA)						
		1	233-9228	3	PLUG-SEAL						
		1	233-9229	10	SOCKET-CONNECTOR (12-GA TO 14-GA)						
		1	233-9231	2	SOCKET-CONNECTOR (4-GA TO 6-GA)						
		1	233-9235	20	PLUG-SEAL						
E		1	233-9494		CONDUIT (47-MM OD) (45-CM)						
		1	233-9495	1	CONNECTOR (CONDUIT)						
		1	233-9517	1	GASKET						
		1	236-7942	1	PLATE						
		1	241-8266	2	ADAPTER						
C	22	1	254-0331	2	HARNES AS-POWER (EACH INCLUDES)						
		1	8N-1543	2	SOCKET-CONNECTOR (10-GA)						

ELECTRICAL AND STARTING SYSTEM

231-9999 BOX GP - JUNCTION (contd.)

i02710355

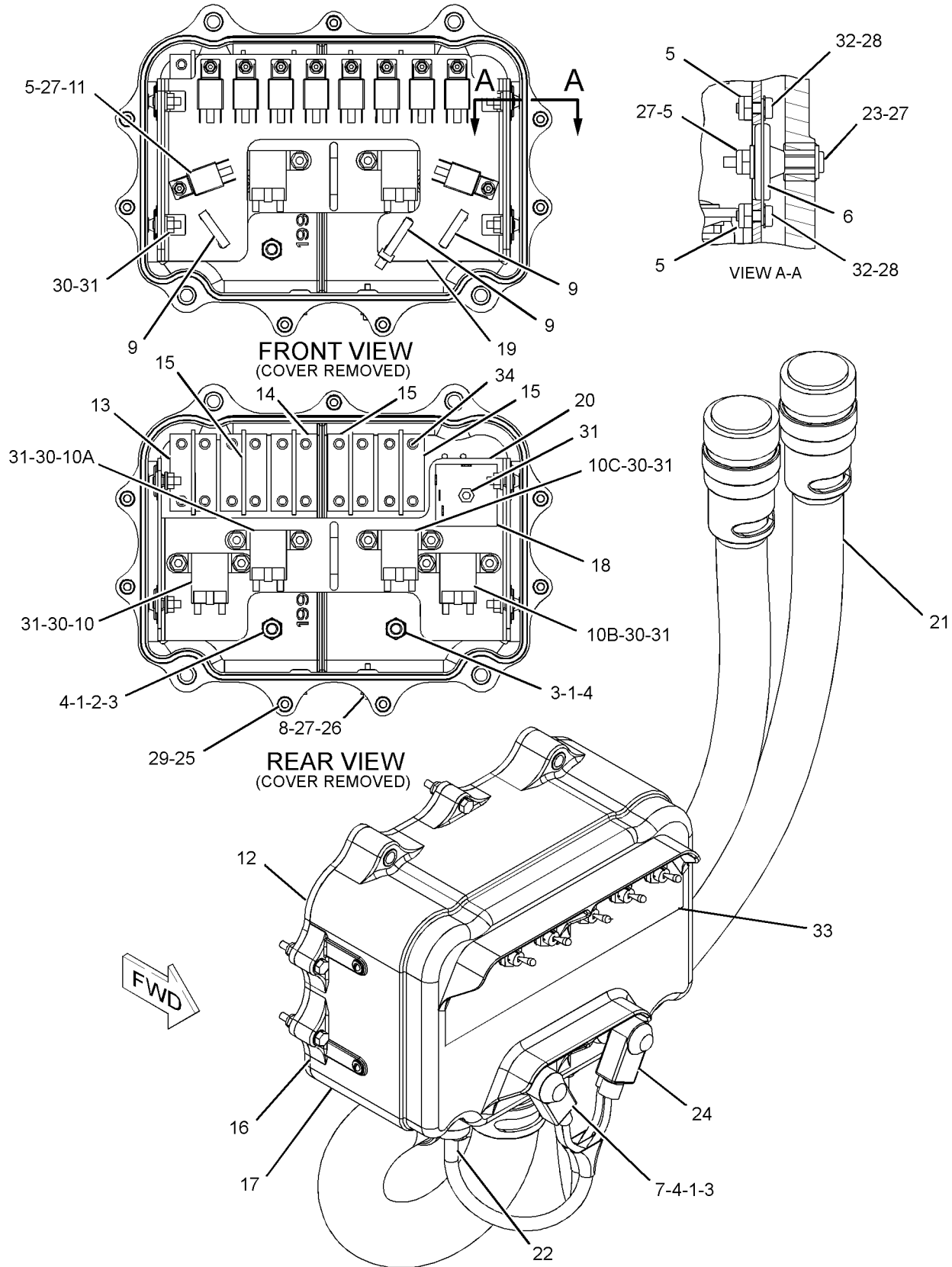
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
E		1	210-8958		TUBE-HEAT SHRINK (24-MM DIA) (12-CM)						
			203-9001	2	SLEEVE						
			203-9000	1	PLUG AS (6-PIN)						
			203-8999	2	SEAL						
E		1	119-3662		TUBE-HEAT SHRINK (10.85-MM DIA) (6-CM)						
			8T-8737	4	PLUG-SEAL						
	23	1	234-8788	4	SCREW-MACHINE (6-32X1.25-IN)						
	24	1	121-1110	1	BOOT						
	25	1	3E-9865	7	LOCKNUT (1/4-20-THD)						
	26	1	4B-2043	4	NUT (8-32-THD)						
C	27	1	4B-4863	26	WASHER (4.7X11X1.2-MM THK)						
	28	1	5H-6555	8	LOCKWASHER						
	29	1	5P-2675	7	BOLT (1/4-20X1.75-IN)						
	30	1	8T-4205	12	WASHER-HARD (7.2X14.5X2-MM THK)						
C	31	1	9S-8750	13	NUT-FULL (1/4-20-THD)						
	32	1	9X-6259	8	SCREW-MACHINE (6-32X0.375-IN)						
	33	1	241-9399	1	FILM-IDENTIFICATION (POWER DISTRIBUTION)						
	34	1	1H-3338	20	LOCKWASHER						

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

ELECTRICAL AND STARTING SYSTEM

231 - 9999 BOX GP - JUNCTION (contd.)

i02710355



GRAPHIC #1

<END>

g01353254

ELECTRICAL AND STARTING SYSTEM

241 - 5629 BOX GP - JUNCTION

3-METER
AN ATTACHMENT

SMCS - 7426

i02092873

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	231-3471	1	BOX GP-JUNCTION						193
Y	240-5872	1	HARNESS AS-JUNCTION BOX						209

Y-SEPARATE ILLUSTRATION

<END>

4W-2767 CONTACTOR GP

OIL PRESSURE, COOLANT TEMPERATURE
AN ATTACHMENT

SMCS - 1400, 7400

i02240422

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	4W-2642	1	CONTACTOR-OIL PRESSURE						199
Y	4W-2637	1	CONTACTOR-TEMPERATURE (COOLANT)						200

Y-SEPARATE ILLUSTRATION

<END>

4W-2768 CONTACTOR GP

OIL PRESSURE, COOLANT TEMPERATURE
AN ATTACHMENT

SMCS - 1400, 7400

i02240418

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	4W-2641	1	CONTACTOR-OIL PRESSURE						198
Y	4W-2640	1	CONTACTOR-TEMPERATURE (COOLANT)						201

Y-SEPARATE ILLUSTRATION

<END>

ELECTRICAL AND STARTING SYSTEM

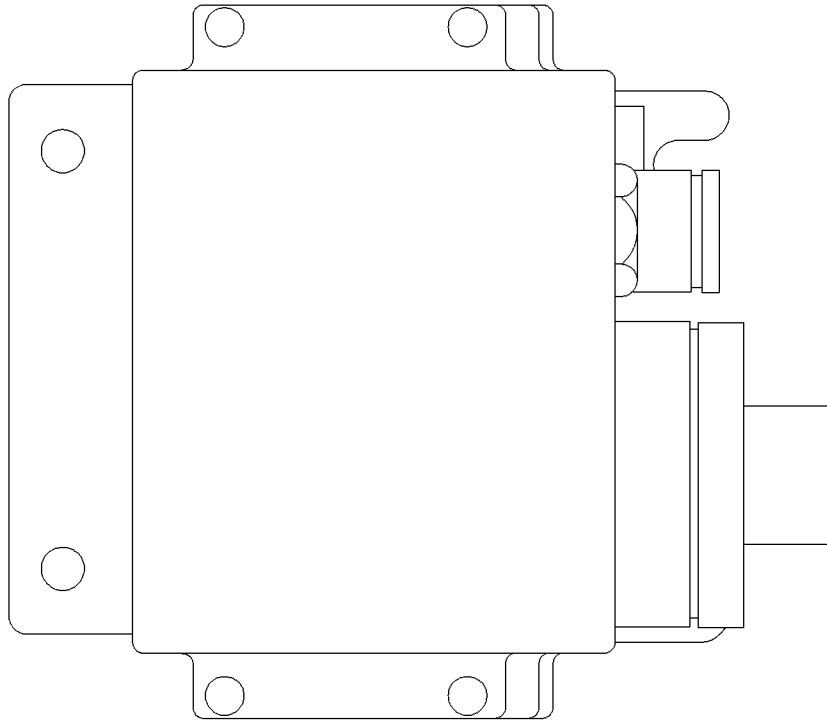
4W-2641 CONTACTOR-OIL PRESSURE

PART OF 4W-2768 CONTACTOR GP
AN ATTACHMENT

SMCS-7400, 7421

i01506840

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

<END>

g00580022

ELECTRICAL AND STARTING SYSTEM

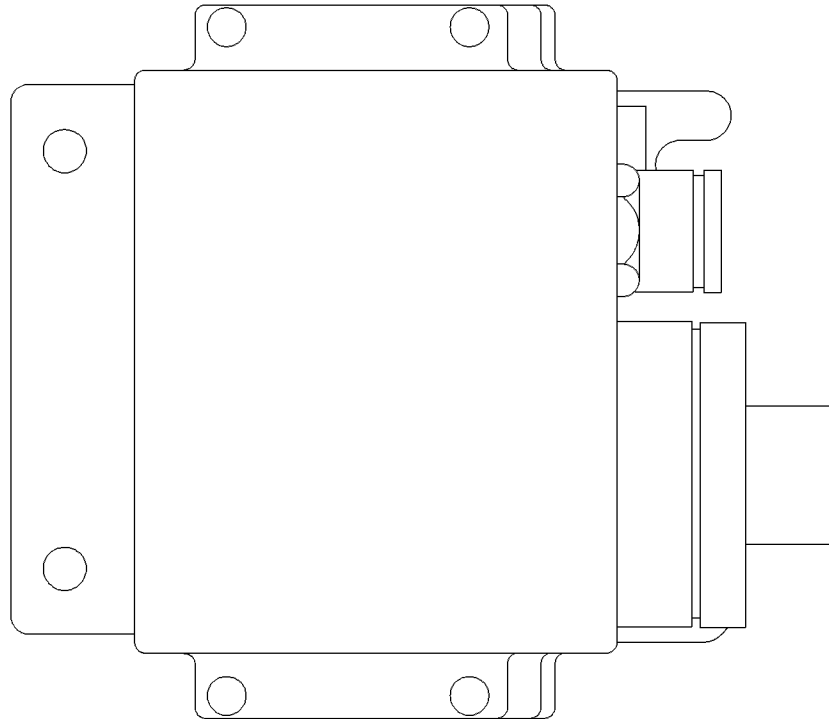
4W-2642 CONTACTOR-OIL PRESSURE

PART OF 4W-2767 CONTACTOR GP
AN ATTACHMENT

SMCS-7400, 7421

i01450670

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

<END>

g00580022

ELECTRICAL AND STARTING SYSTEM

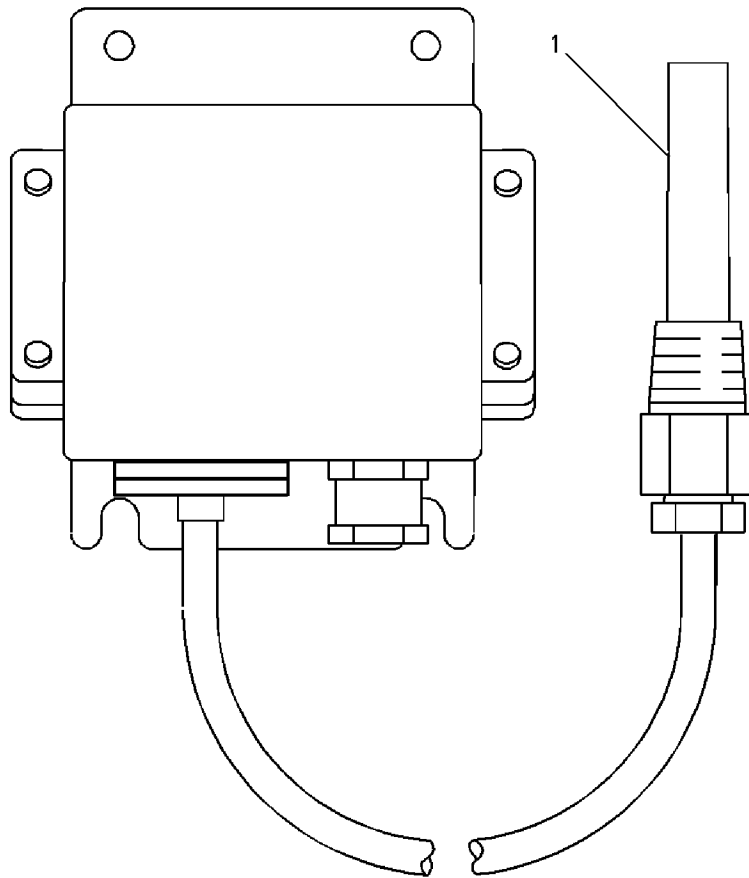
4W-2637 CONTACTOR-TEMPERATURE

PART OF 4W-2767 CONTACTOR GP
AN ATTACHMENT

SMCS-7400, 7403, 7453, 7484

i02655877

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
Y	1	1	7E-3127	1	KIT-SENSOR POCKET (TEMPERATURE CONTACTOR) (KIT INCLUDES POCKET, RETAINERS, WASHERS, RING, ADAPTER & GAUGE STRIP)	324
Y-SEPARATE ILLUSTRATION						



GRAPHIC #1

<END>

g00620113

ELECTRICAL AND STARTING SYSTEM

4W-2640 CONTACTOR - TEMPERATURE

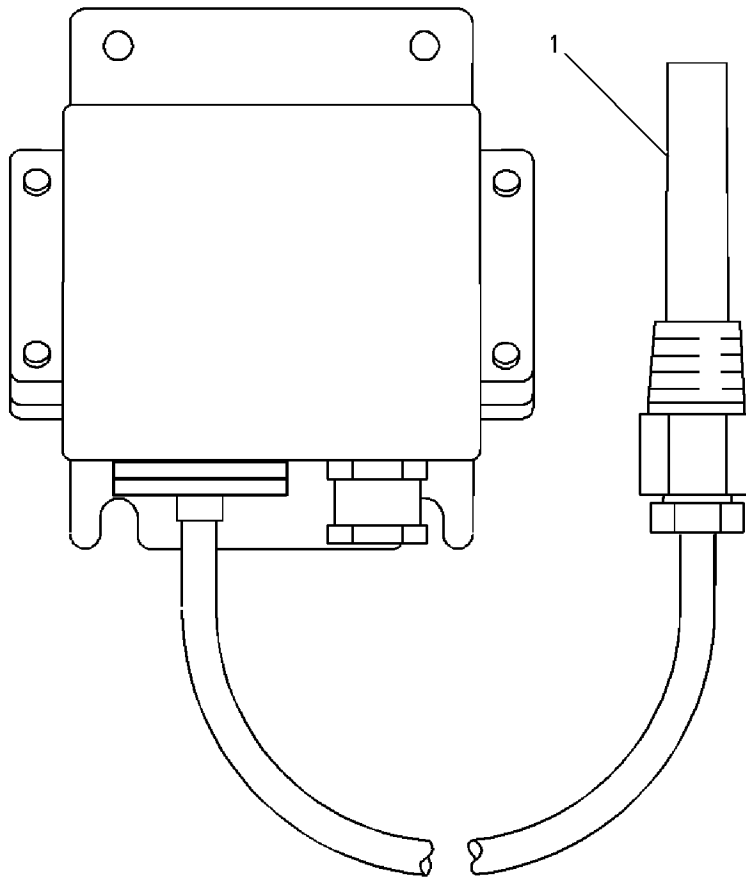
PART OF 4W-2768 CONTACTOR GP
AN ATTACHMENT

SMCS-7400, 7403, 7453, 7484

i02240434

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
Y	1	1	7E-3127	1	KIT-SENSOR POCKET (TEMPERATURE CONTACTOR) (KIT INCLUDES POCKET, RETAINERS, WASHERS, RING, ADAPTER & GAUGE STRIP)	324

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00620121

ELECTRICAL AND STARTING SYSTEM

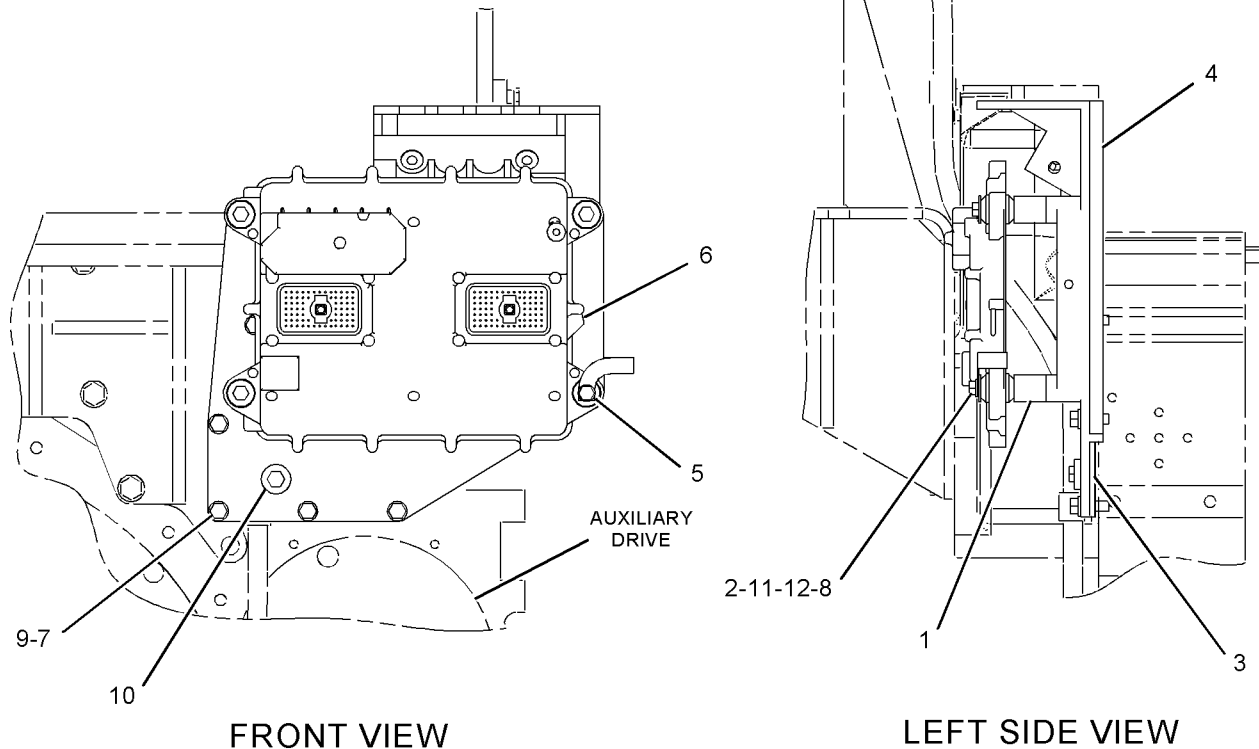
220-2677 CONTROL & MTG GP-ENGINE ELEK-PRIMARY FOR USE WITH AIR COOLED ADEM III

SMCS-1900, 1901

i02219850

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2V-4387	4	SPACER (10.312X25.4X23.11-MM THK)						
	2	1	6I-1418	4	SPACER (8.2X12.7X28.7-MM THK)						
	3	1	8N-9885	1	GASKET-COVER						
	4	1	111-0349	1	BRACKET-MODULE						
	5	1	155-0576	8	MOUNT-ISOLATION						
Y	6	1	206-2710	1	CONTROL GP-ENGINE ELECTRONIC						206
	7	1	1A-2029	7	BOLT (3/8-16X1.125-IN)						
	8	1	1D-4540	4	BOLT (5/16-18X2.75-IN)						
	9	1	5M-2894	7	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	10	1	8T-6765	1	PLUG-PIPE						
	11	1	9M-1974	1	WASHER-HARD (8.8X16X2-MM THK)						
	12	1	9N-0869	4	WASHER-HARD (8.8X25.5X2-MM THK)						

Y- SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01120936

ELECTRICAL AND STARTING SYSTEM

231-7069 CONTROL & MTG GP-ENGINE ELEK-SECONDARY FOR USE WITH AIR COOLED ADEM III

SMCS-1900, 1901

i02407393

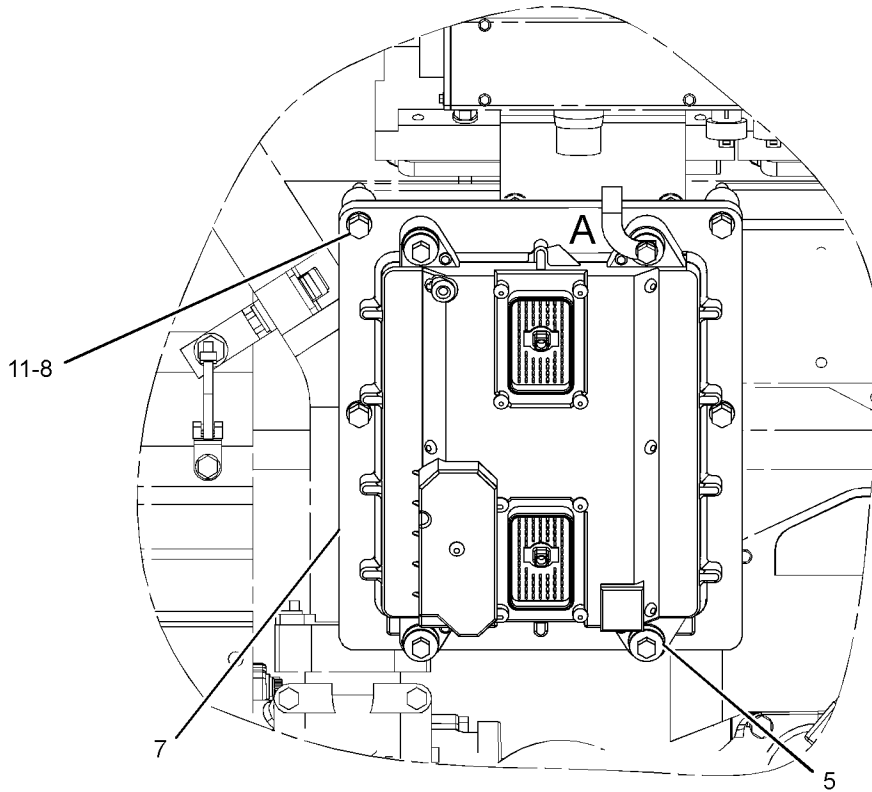
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1L-4031	1	TEE-SERVICE						
	2	1	2V-4387	4	SPACER (10.312X25.4X23.11-MM THK)						
	3	1	6I-1418	4	SPACER (8.2X12.7X28.7-MM THK)						
	4	1	9M-1974	1	WASHER-HARD (8.8X16X2-MM THK)						
	5	1	155-0576	8	MOUNT-ISOLATION						
Y	6	1	206-2710	1	CONTROL GP-ENGINE ELECTRONIC						206
	7	1	231-7070	1	BRACKET						
	8	1	0L-1143	4	BOLT (3/8-16X2.5-IN)						
	9	1	118-1656	1	BUSHING-REDUCER						
	10	1	1B-9575	4	BOLT (5/16-18X1.56-IN)						
	11	1	5M-2894	4	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	12	1	8T-6761	1	PLUG-PIPE						
	13	1	8T-6762	1	PLUG-PIPE						
	14	1	9N-0869	4	WASHER-HARD (8.8X25.5X2-MM THK)						

Y-SEPARATE ILLUSTRATION

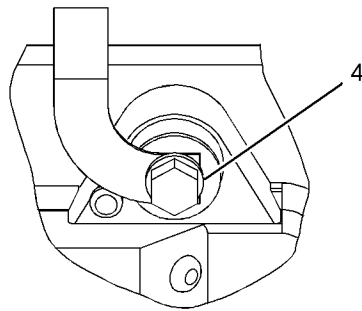
ELECTRICAL AND STARTING SYSTEM

231-7069 CONTROL & MTG GP-ENGINE ELEK (contd.)

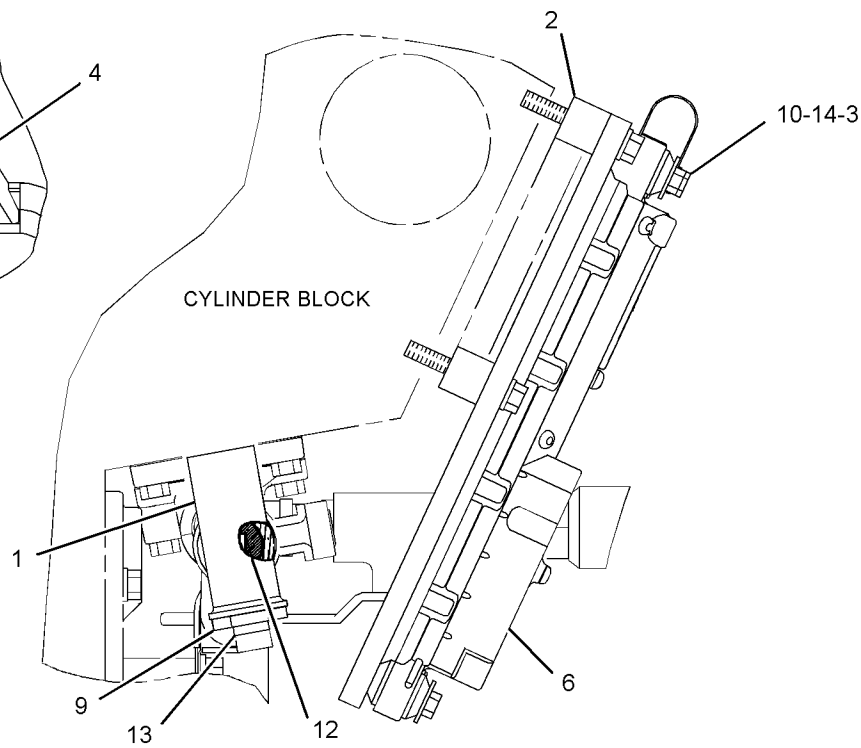
i02407393



LEFT SIDE VIEW



VIEW OF AREA A



FRONT VIEW

GRAPHIC #1

<END>

g01255327

ELECTRICAL AND STARTING SYSTEM

238 - 9734 CONTROL GP - AIR STARTING

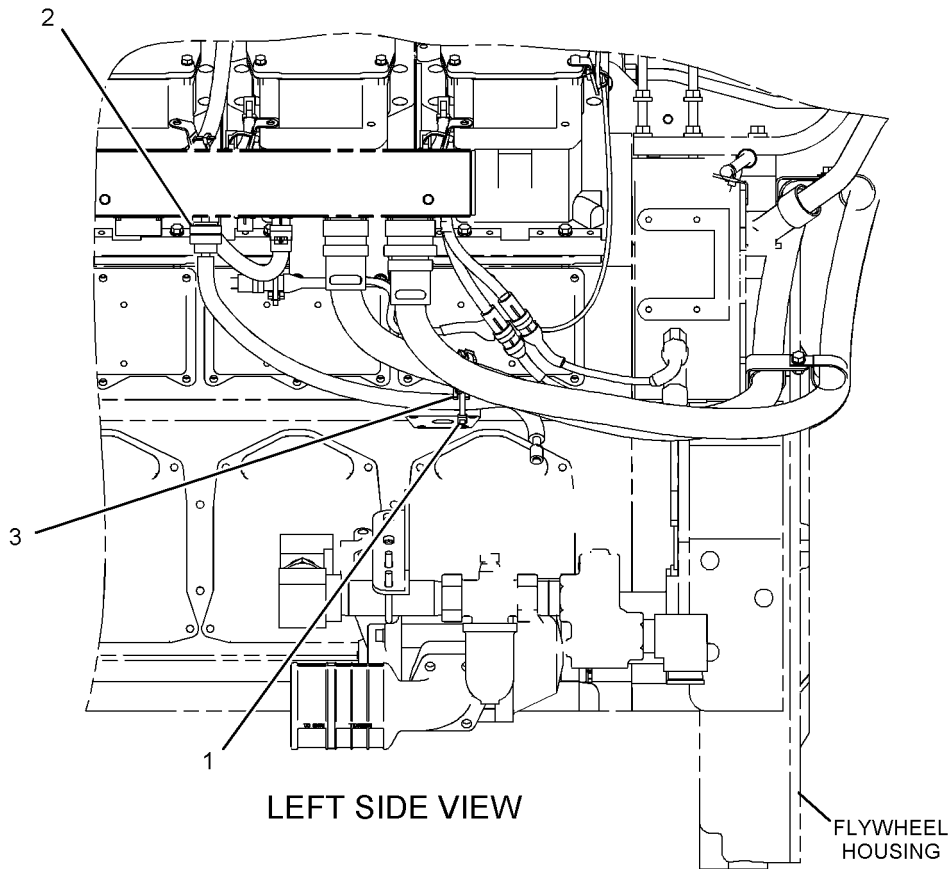
24/32 VOLT DC
AN ATTACHMENT

SMCS - 1462

i02713396

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9X-6772	1	STRAP - CABLE						
Y	2	1	237-8995	1	HARNES AS-SOLENOID (AIR STARTING)						231
	3	1	4P-8134	1	CLIP						

Y - SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01117816

ELECTRICAL AND STARTING SYSTEM

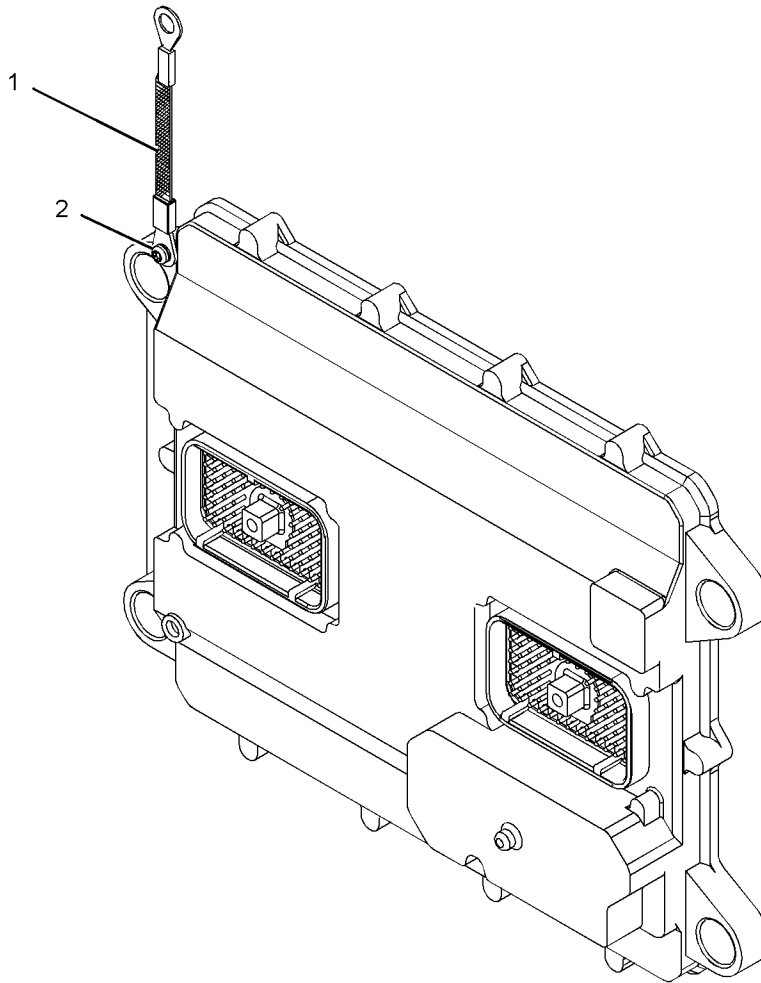
206-2710 CONTROL GP-ENGINE ELECTRONIC-PRIMARY

PART OF 220-2677, 231-7069 CONTROL & MTG GP-ENGINE ELEK

SMCS-1901

i02362911

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7X-6315	1	STRAP AS-GROUND						
	2	1	184-2472	1	SCREW-PAN HEAD (NO 8-32X9.52-MM)						



GRAPHIC #1

<END>

g01180180

ELECTRICAL AND STARTING SYSTEM

140-2175 CONTROL GP-REMOTE SPEED

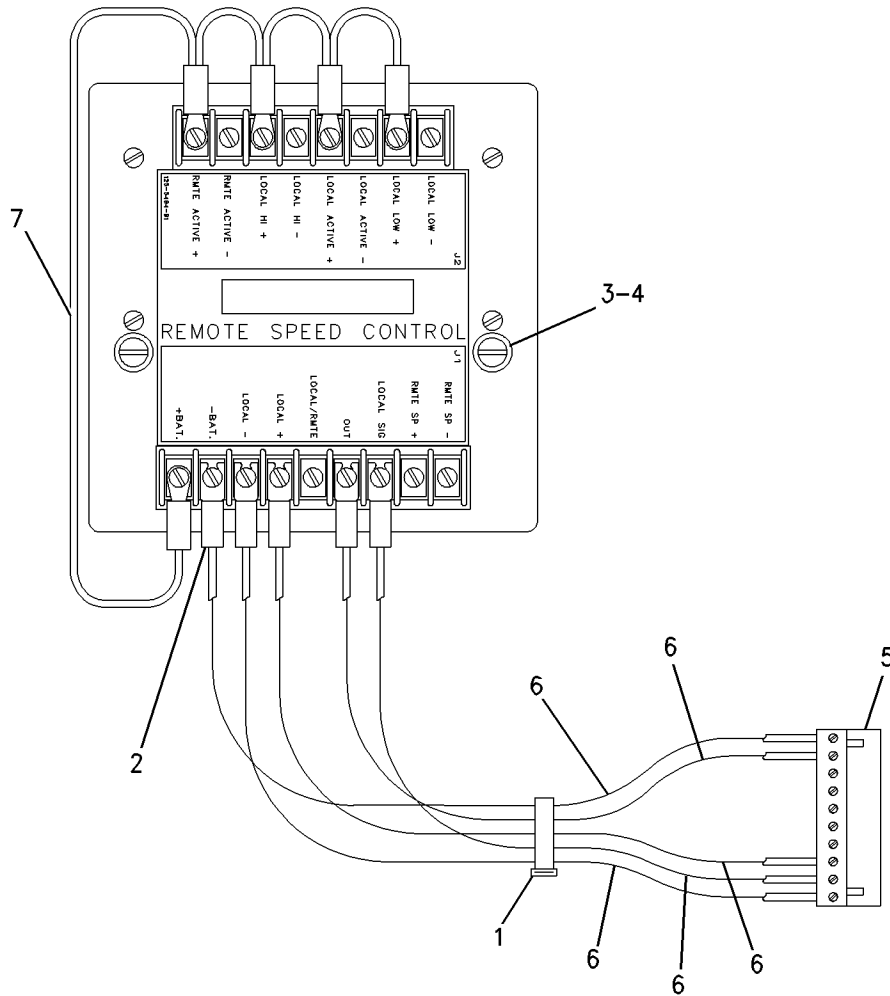
AN ATTACHMENT

SMCS-1907, 1915

i01678441

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	5P-2321	5	TERMINAL (14-GA TO 16-GA)						
	3	1	7S-1198	2	SCREW-MACHINE (8-32X1.5-IN)						
	4	1	4B-4863	2	WASHER (4.7X11X1.2-MM THK)						
	5	1	9X-9672	1	CONNECTOR-PLUG						
BD	6	1	5P-5677		WIRE (18-GA, BLACK)						
	7	1	132-5559	1	WIRE AS (18-GA)						

B-USE AS REQUIRED
D-ORDER BY THE METER



GRAPHIC #1

<END>

g00730904

ELECTRICAL AND STARTING SYSTEM

232-4670 COVER GP-MODULE CONNECTOR

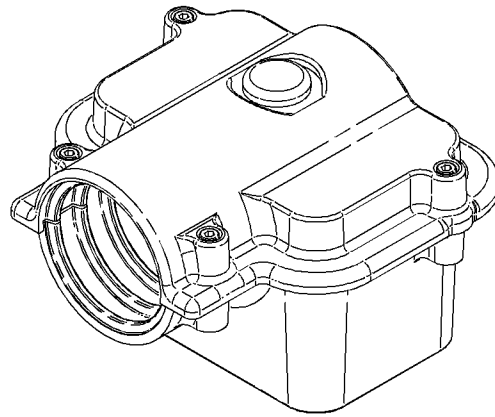
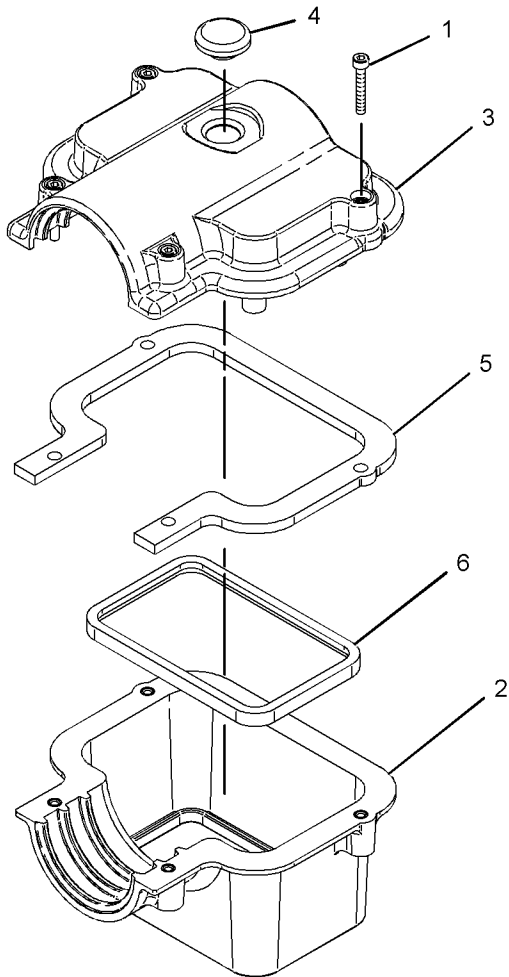
PART OF 279-2063 HARNESS AS-ENGINE
AN ATTACHMENT

SMCS-1901

i02422294

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
M	1	1	8T-9006	4	BOLT-SOCKET HEAD (M3X0.5X20-MM)						
	2	1	232-4671	1	CONNECTOR AS (BOTTOM)						
	3	1	232-4672	1	CONNECTOR AS (TOP)						
	4	1	232-4673	1	PLUG						
	5	1	232-4674	1	SEAL-CONNECTOR						
	6	1	232-4675	1	SEAL-CONNECTOR						

M-METRIC PART



UNEXPLODED VIEW

GRAPHIC #1

<END>

g01210314

ELECTRICAL AND STARTING SYSTEM

240-5872 HARNESS AS-BOX-INTERCONNECT

3-METER

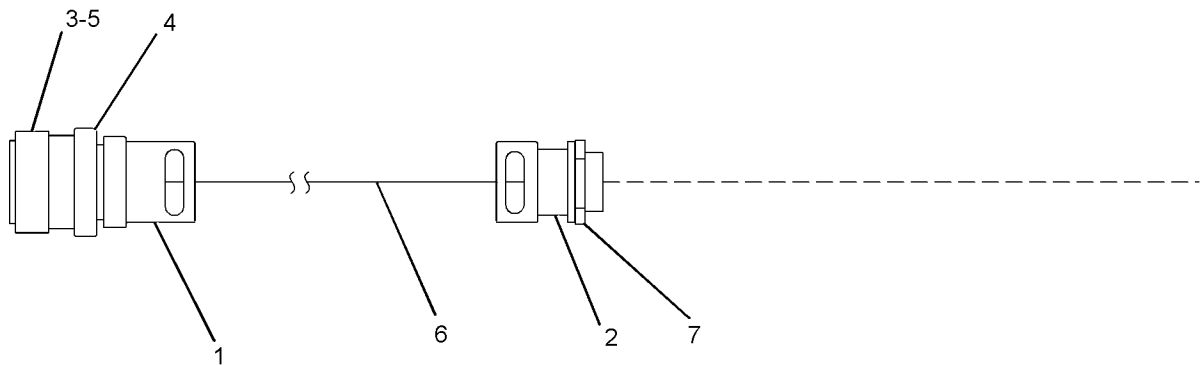
PART OF 241-5629 BOX GP-JUNCTION
AN ATTACHMENT

SMCS-1408

i02530356

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	231-9899	1	CONNECTOR (CONDUIT)						
	2	1	231-9898	1	CONNECTOR						
	3	1	233-9217	1	CONNECTOR (85-PIN)						
	4	1	236-8125	1	ADAPTER						
	5	1	233-9226	82	PIN-CONNECTOR (16-GA TO 20-GA)						
E	6	1	231-9897		CONDUIT-FLEXIBLE (36-MM ID) (300-CM)						
	7	1	236-8130	1	NUT (M40-THD)						

E- ORDER BY THE CENTIMETER



GRAPHIC #1

<END>

g01322170

ELECTRICAL AND STARTING SYSTEM

249 - 6964 HARNESS AS - CONTROL - MARINE POWER DISPLAY AN ATTACHMENT

SMCS - 1408

i02404345

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE	
			1	2	3	4	5	6 (PRODUCT LEVEL)		
E	153-2707		CABLE - ELECTRICAL (19-GA) (85-CM)							
	109-3038	24	END-WIRE (16-GA)							
	110-8714	6	END-WIRE (18-GA)							
	155-2255	1	KIT-CONNECTING PLUG (12-PIN)							
				(INCLUDES PLUG AS & WEDGE)						
	155-2255	1	KIT-CONNECTING PLUG (12-PIN)							
				(INCLUDES PLUG AS & WEDGE)						
	155-2260	1	KIT-CONNECTING PLUG (3-PIN)							
				(INCLUDES PLUG AS & WEDGE)						
	155-2260	2	KIT-CONNECTING PLUG (3-PIN)							
				(EACH INCLUDES PLUG AS & WEDGE)						
		174-3016	1	PLUG AS-CONNECTOR (3-PIN)						
		7X-6222	1	PLUG AS-CONNECTOR (24-PIN)						
		3E-4367	1	RING-RETAINING						
M	3E-8558	1	BOLT (M5X0.8X39.37-MM)							
	9X-3265	2	SEAL-CONNECTOR (24-PIN)							
	8T-8737	9	PLUG-SEAL							
	133-0970	1	RECEPTACLE AS (TEE)							
	9W-0844	2	SOCKET-CONNECTOR (14-GA)							
	186-3736	34	SOCKET-CONNECTOR (16-GA TO 18-GA)							

E - ORDER BY THE CENTIMETER
M - METRIC PART

<END>

ELECTRICAL AND STARTING SYSTEM

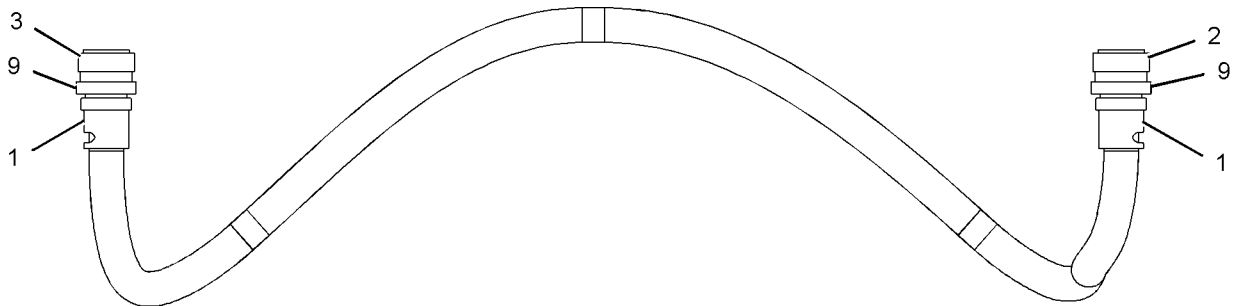
231-9875 HARNESS AS-ENGINE-LARGE INTERCONNECT PART OF 305-6908 WIRING GP-ENGINE AN ATTACHMENT

SMCS-1408

i02023671

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	231-9915	2	CONNECTOR (CONDUIT)						
	2	1	233-9225	1	CONNECTOR AS (85-PIN)						
	3	1	233-9217	1	CONNECTOR (85-PIN)						
	9	1	236-8125	2	ADAPTER						
DF			5P-5677		WIRE (18-GA, BLACK) (212.6M)						
F			233-9226	85	PIN-CONNECTOR						
F			233-9227	85	SOCKET-CONNECTOR						
EF			134-6258		CABLE-ELECTRICAL (16-GA) (269CM)						
EF			153-2707		CABLE-ELECTRICAL (19-GA) (269CM)						
EF			231-9897		CONDUIT-FLEXIBLE (36-MM ID) (257CM)						

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



GRAPHIC #1

<END>

g01017372

ELECTRICAL AND STARTING SYSTEM

232-0010 HARNESS AS-ENGINE-RH

PART OF 305-6908 WIRING GP-ENGINE

AN ATTACHMENT

SMCS-1408

i02084330

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-8827	1	BOOT						
M	2	1	8T-9006	6	BOLT-SOCKET HEAD (M3X0.5X20-MM)						
	3	1	128-4250	1	NUT (1-11/16-18-THD)						
	4	1	131-4731	1	GASKET						
	5	1	153-1223	1	CONNECTOR-RECEPTACLE (23-PIN)						
	6	1	154-3254	3	GASKET						
	7	1	202-2141	8	NUT-SQUARE (5/16-18-THD)						
	8	1	203-8944	2	GASKET						
	9	1	203-8945	2	GASKET						
	10	1	203-9000	1	PLUG AS (6-PIN)						
	11	1	212-3221	16	BOLT (4-40X0.5-IN)						
	12	1	212-3222	20	BOLT (8-32X0.439-IN)						
	13	1	214-5165	2	CAP						
	14	1	230-5016	1	CAP-END						
	15	1	230-5017	1	CAP-END						
	16	1	231-9878	4	FASTENER						
	17	1	231-9879	2	FASTENER						
	18	1	231-9896	1	CONNECTOR (CONDUIT) (CONDUIT)						
	19	1	232-0019	1	RECEPTACLE (46-PIN)						
	20	1	232-0894	12	CONNECTOR (CONDUIT) (CONDUIT)						
	21	1	232-0900	2	BRACKET						
	22	1	233-9218	1	RECEPTACLE (31-PIN)						
	23	1	233-9220	1	RECEPTACLE (31-PIN)						
	24	1	233-9222	1	RECEPTACLE (31-PIN)						
	25	1	233-9224	1	RECEPTACLE (85-PIN)						
	26	1	233-9517	1	GASKET						
	27	1	235-2764	1	ADAPTER						
	28	1	235-2778	1	TRAY						
	29	1	236-6975	1	COVER						
	30	1	236-6976	1	FOAM						
	31	1	236-7941	3	FASTENER						
	32	1	236-8126	12	NUT						
	33	1	236-8129	1	NUT (M25X1.5-THD)						
	34	1	246-2932	1	CAP						
M	35	1	096-0028	9	SETSCREW-SOCKET (M5X0.8X5-MM)						
	36	1	096-5962	6	WASHER-HARD (3.4X7X0.8-MM THK)						
	37	1	100-5805	2	CAP-RECEPTACLE						
	38	1	121-1110	1	BOOT						
	39	1	131-1479	2	TERMINAL AS (EACH INCLUDES RING, TERMINAL & TUBE)						
		1	5P-3454	1	TERMINAL (4-GA)						
BE		1	125-7876		TUBE-HEAT SHRINK (17.78-MM DIA)						
	40	1	174-0502	2	PLUG AS-CONNECTOR (3-PIN)						
	41	1	176-2943	8	KIT-PLUG (2-PIN) (EACH INCLUDES PLUG ASSEMBLY AND WEDGE)						
	42	1	203-8977	1	RECEPTACLE AS						
		1	159-9496	1	LOCKWASHER						
		1	203-9000	1	PLUG AS (6-PIN)						
		1	203-8999	2	SEAL						
		1	203-9001	2	SLEEVE						
		1	203-9007	1	NUT (M1.5X18-THD)						
	43	1	236-6977	1	INSERT-FOAM						
	44	1	3E-5394	2	RECEPTACLE (FLANGE)						
	45	1	5P-9959	8	BOLT (5/16-18X0.5-IN)						
	46	1	5S-7349	3	BOLT (1/4-20X0.5-IN)						
	47	1	8T-4205	3	WASHER-HARD (7.2X14.5X2-MM THK)						

ELECTRICAL AND STARTING SYSTEM

232-0010 HARNESS AS-ENGINE (contd.)

i02084330

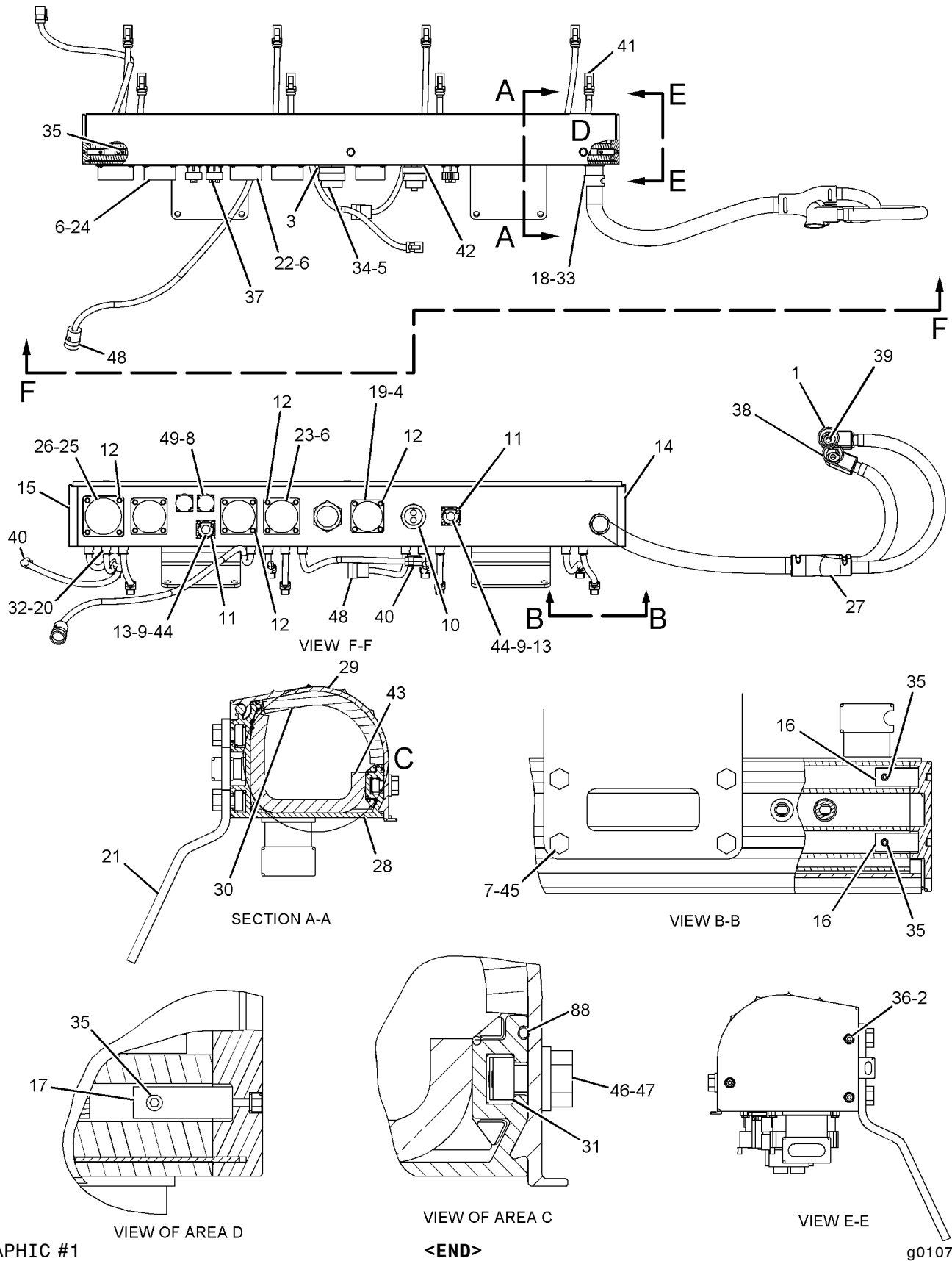
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	48	1	8T-8731	2	PLUG-CONNECTOR (3-PIN)						
	49	1	9X-4813	2	RECEPTACLE AS-CONNECTOR (3-PIN)						
E	88	1	239-6337		SEAL (214-CM)						
DF			5P-5677		WIRE (18-GA, BLACK) (46.6-M)						
DF			<i>5P-5624</i>		WIRE (14-GA, BLACK) (3.1-M)						
DF			5P-5689		WIRE (08-GA, BLACK) (1.6-M)						
DF			6V-2369		WIRE (4-GA, BLACK) (3.3-M)						
FJ			5P-5621		WIRE (12-GA) (7-DM)						
F			186-3735	22	PIN-CONNECTOR (16-GA TO 18-GA)						
F			233-9226	71	PIN-CONNECTOR (20-GA TO 16-GA)						
F			9W-0852	2	PIN-CONNECTOR (14-GA)						
F			233-9232	10	PIN-CONNECTOR (14-GA TO 12-GA)						
F			233-9233	4	PIN-CONNECTOR (8-GA TO 10-GA)						
F			8N-1542	2	PIN-CONNECTOR (10-GA)						
F			233-9234	2	PIN-CONNECTOR (4-GA TO 6-GA)						
F			233-9227	82	SOCKET-CONNECTOR (16-GA TO 20-GA)						
F			233-9229	10	SOCKET-CONNECTOR (12-GA TO 14-GA)						
F			233-9230	2	SOCKET-CONNECTOR (8-GA TO 10-GA)						
F			186-3736	27	SOCKET-CONNECTOR (16-GA TO 18-GA)						
F			<i>114-8843</i>		SLEEVE-PLASTIC (32-MM DIA) (40-CM)						
BEF			125-7875		TUBE-HEAT SHRINK (7.44-MM DIA) (15-CM)						
F			125-7874		TUBE-HEAT SHRINK (5.72-MM DIA) (70-CM)						
F			119-3662		TUBE-HEAT SHRINK (10.85-MM DIA) (13-CM)						
F			155-2261	8	WEDGE-PLUG LOCK (2-PIN)						
F			155-2276	2	WEDGE-PLUG LOCK (3-PIN)						
F			159-9496	1	LOCKWASHER						
F			8T-8737	22	PLUG-SEAL						
F			7G-7920	2	PLUG-SEAL						
F			233-9228	20	PLUG-SEAL						
F			233-9235	22	PLUG-SEAL						
F			233-9237	1	PLUG-SEAL						
DF			097-7404		TUBE-HEAT SHRINK (19.1-MM DIA) (6-DM)						
F			203-9007	1	NUT (M1.5X18-THD)						
F			203-9001	2	SLEEVE						
F			203-8999	2	SEAL						
EF			232-0893		CONDUIT-FLEXIBLE (6.2-MM ID) (323-CM)						
EF			232-0897		CONDUIT-FLEXIBLE (16.2-MM OD) (78-CM)						
EF			231-9895		CONDUIT-FLEXIBLE (48-CM)						
EF			153-2707		CABLE-ELECTRICAL (19-GA) (55-CM)						
EF			<i>134-6258</i>		CABLE-ELECTRICAL (16-GA) (55-CM)						
EF			116-2652		CABLE-ELECTRICAL (18-GA) (253-CM)						

B- USE AS REQUIRED
D- ORDER BY THE METER
E- ORDER BY THE CENTIMETER
F- NOT SHOWN
J- ORDER BY THE DECIMETER
M- METRIC PART

ELECTRICAL AND STARTING SYSTEM

232-0010 HARNESS AS-ENGINE (contd.)

i02084330



ELECTRICAL AND STARTING SYSTEM

233-9210 HARNESS AS-ENGINE-SMALL INTERCONNECT

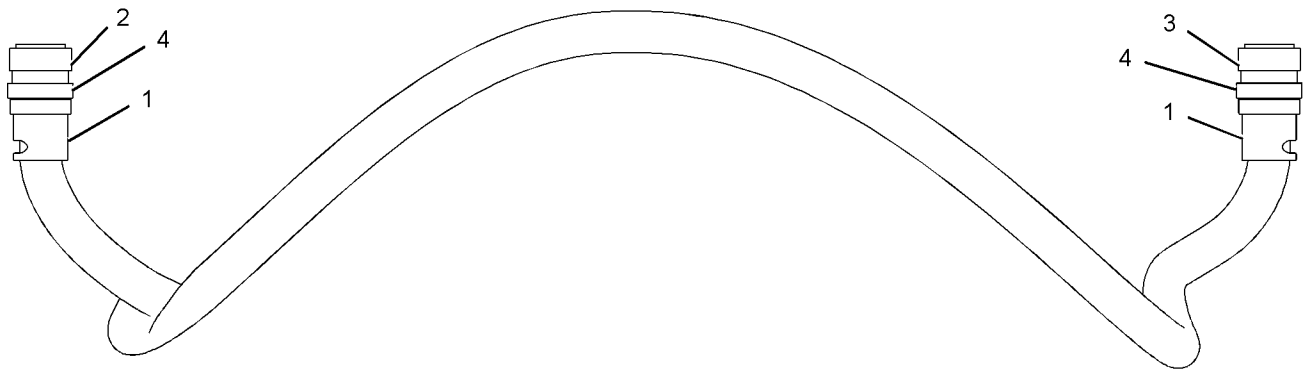
PART OF 305-6908 WIRING GP-ENGINE
AN ATTACHMENT

SMCS-1408

i02020972

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	231-9899	2	CONNECTOR (CONDUIT)						
	2	1	233-9223	1	CONNECTOR (31-PIN)						
	3	1	233-9219	1	CONNECTOR (31-PIN)						
	4	1	241-8266	2	ADAPTER						
DF			5P-5621		WIRE (12-GA) (39.2M)						
DF			5P-5689		WIRE (08-GA, BLACK) (5.6M)						
DF			5P-5677		WIRE (18-GA, BLACK) (39.2M)						
F			233-9232	14	PIN-CONNECTOR						
F			233-9233	2	PIN-CONNECTOR						
F			233-9226	14	PIN-CONNECTOR						
F			233-9229	14	SOCKET-CONNECTOR						
F			233-9230	2	SOCKET-CONNECTOR						
F			233-9227	14	SOCKET-CONNECTOR						
F			233-9237	2	PLUG-SEAL						
EF			231-9897		CONDUIT-FLEXIBLE (36-MM ID) (270CM)						
F			233-9234	1	PIN-CONNECTOR						
F			233-9231	1	SOCKET-CONNECTOR						
F			6V-2369		WIRE (4-GA, BLACK) (2.8M)						

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



GRAPHIC #1

<END>

g01045437

ELECTRICAL AND STARTING SYSTEM

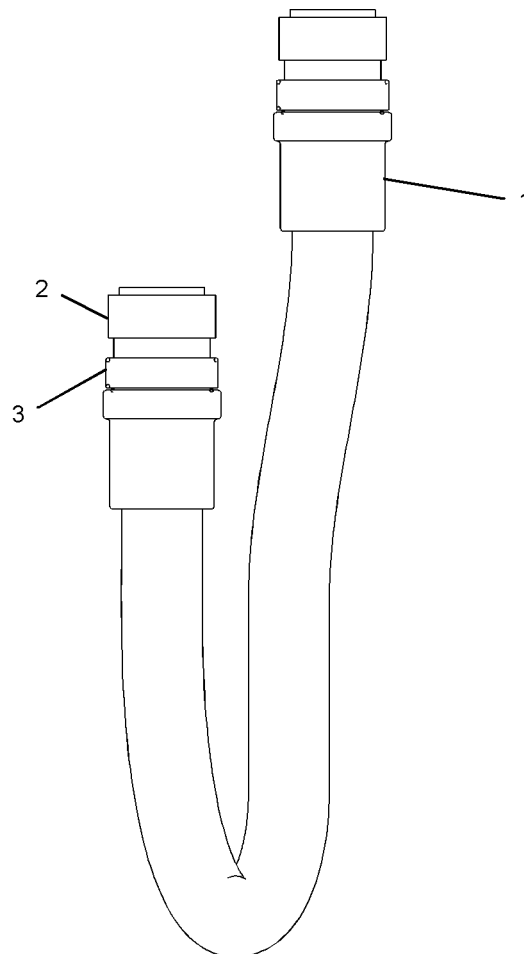
239-1471 HARNESS AS-ENGINE-MARINE POWER DISPLAY PART OF 239-6364 WIRING GP-ENGINE, 239-1470, 239-6365 WIRING GP-ENGINE ELECTRONIC, 239-1472 WIRING GP-PANEL AN ATTACHMENT

SMCS-1408

i02024116

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	231-9915	2	CONNECTOR (CONDUIT)						
	2	1	232-0020	2	CONNECTOR AS (46-PIN)						
	3	1	241-8267	2	ADAPTER						
DF			5P-5677		WIRE (18-GA, BLACK) (35.6M)						
F			233-9227	92	SOCKET-CONNECTOR						
EF			231-9897		CONDUIT-FLEXIBLE (36-MM ID) (76CM)						
EF			153-2707		CABLE-ELECTRICAL (19-GA) (89CM)						
EF			134-6258		CABLE-ELECTRICAL (16-GA) (89CM)						

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



<END>

GRAPHIC #1

g01050294

ELECTRICAL AND STARTING SYSTEM

279-2063 HARNESS AS-ENGINE-LH

PART OF 305-6908 WIRING GP-ENGINE

AN ATTACHMENT

SMCS-1408

i02665363

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7X-1608	2	BEAD-FERRITE						
	2	1	8C-3654	1	PLUG-CONNECTOR (6-PIN)						
M	3	1	8T-9006	6	BOLT-SOCKET HEAD (M3X0.5X20-MM)						
	4	1	123-0316	1	DIODE AS						
	5	1	128-4250	1	NUT (1-11/16-18-THD)						
	6	1	131-4731	1	GASKET						
	7	1	147-1443	2	PLUG AS-CONNECTOR (70-PIN)						
					(EACH INCLUDES)						
		1	159-9322	1	SEAL-O-RING						
	8	1	153-1223	1	CONNECTOR-RECEPTACLE (23-PIN)						
	9	1	154-3254	1	GASKET						
	10	1	160-7690	2	PLUG AS-CONNECTOR (70-PIN)						
					(EACH INCLUDES)						
		1	159-9322	1	SEAL-O-RING						
	11	2	202-2141	8	NUT-SQUARE (5/16-18-THD)						
	12	1	203-8944	1	GASKET						
	13	1	203-8945	1	GASKET						
	14	1	203-8977	1	RECEPTACLE AS						
		1	159-9496	1	LOCKWASHER						
		1	203-9000	1	PLUG AS (6-PIN)						
		1	203-8999	2	SEAL						
		1	203-9001	2	SLEEVE						
		1	203-9007	1	NUT (M1.5X18-THD)						
	15	1	203-9000	1	PLUG AS (6-PIN)						
		1	203-8999	2	SEAL						
		1	203-9001	2	SLEEVE						
	16	1	212-3221	20	BOLT (4-40X0.5-IN)						
	17	1	212-3222	16	BOLT (8-32X0.439-IN)						
	18	1	214-5165	1	CAP						
	19	1	230-5016	1	CAP-END						
	20	1	230-5017	1	CAP-END						
	21	2	231-9878	4	FASTENER						
	22	2	231-9879	2	FASTENER						
	23	1	231-9898	2	CONNECTOR						
	24	1	232-0019	1	RECEPTACLE (46-PIN)						
	25	1	232-0894	17	CONNECTOR (CONDUIT)						
	26	2	232-0900	2	BRACKET						
Y	27	1	232-4670	4	COVER GP-MODULE CONNECTOR						208
	28	1	233-9216	1	RECEPTACLE (85-PIN)						
	29	1	233-9218	1	RECEPTACLE (31-PIN)						
	30	1	233-9224	1	RECEPTACLE (85-PIN)						
	31	1	233-9517	2	GASKET						
	32	1	235-2761	1	GASKET						
	33	1	235-2777	1	TRAY						
	34	2	235-2779	1	INSERT-FOAM						
	35	2	236-7941	3	FASTENER						
	36	1	236-8126	17	NUT						
	37	1	236-8130	2	NUT (M40-THD)						
	38	1	237-4356	2	ADAPTER						
	39	1	237-4357	2	ADAPTER						
	40	1	239-5374	2	CONNECTOR (CONDUIT)						
	41	1	239-5375	2	NUT (M32X1.5-THD)						
	42	1	239-8154	2	GASKET						
	43	2	243-3692	1	COVER						
	44	2	243-3695	1	FOAM						
	45	1	246-2932	1	CAP						

ELECTRICAL AND STARTING SYSTEM

279-2063 HARNESS AS-ENGINE (contd.)

i02665363

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
	46	1	246-6506	1	CAP-CONNECTOR	
M	47	2	096-0028	9	SETSCREW-SOCKET (M5X0.8X5-MM)	
					(EACH INCLUDES)	
M		2	096-3001	1	SETSCREW-SOCKET	
	48	1	096-5962	6	WASHER-HARD (3.4X7X0.8-MM THK)	
	49	1	100-5805	1	CAP-RECEPTACLE	
	50	1	155-2271	1	KIT-CONNECTING PLUG (4-PIN)	
					(INCLUDES PLUG AS AND WEDGE)	
	51	1	174-0503	3	KIT-CONNECTING PLUG (3-PIN)	
					(EACH INCLUDES PLUG AS AND WEDGE)	
	52	1	176-2943	8	KIT-PLUG (2-PIN)	
					(EACH INCLUDES PLUG AS AND WEDGE)	
	53	1	3E-5394	1	RECEPTACLE (FLANGE)	
	54	2	5P-9959	8	BOLT (5/16-18X0.5-IN)	
	55	2	5S-7349	3	BOLT (1/4-20X0.5-IN)	
	56	2	6K-0806	8	STRAP-CABLE	
	57	1	8C-6354	1	CAP-RECEPTACLE	
	58	2	8T-4205	3	WASHER-HARD (7.2X14.5X2-MM THK)	
	59	1	8T-8731	4	PLUG-CONNECTOR (3-PIN)	
	60	1	8T-8732	2	RECEPTACLE (3-PIN)	
	61	1	9W-1951	1	RECEPTACLE-CONNECTOR (9-PIN)	
	62	1	9X-4813	1	RECEPTACLE AS-CONNECTOR (3-PIN)	
	63	1	9X-4814	2	RECEPTACLE AS-CONNECTOR (6-PIN)	
E	99	2	239-6337		SEAL (230-CM)	
EF			134-6258		CABLE-ELECTRICAL (16-GA) (94-CM)	
EF			153-2707		CABLE-ELECTRICAL (19-GA) (425-CM)	
EF			116-2652		CABLE-ELECTRICAL (18-GA) (246-CM)	
EF			231-9897		CONDUIT-FLEXIBLE (36-MM ID) (210-CM)	
EF			232-0893		CONDUIT-FLEXIBLE (6.2-MM ID) (668-CM)	
EF			235-2765		CONDUIT-FLEXIBLE (27.6-MM ID) (76-CM)	
F			155-2270	8	KIT-CONNECTING PLUG (2-PIN)	
					(EACH INCLUDES PLUG AS AND WEDGE)	
F			155-2271	1	KIT-CONNECTING PLUG (4-PIN)	
					(INCLUDES PLUG AS AND WEDGE)	
F			155-2260	3	KIT-CONNECTING PLUG (3-PIN)	
					(EACH INCLUDES PLUG AS AND WEDGE)	
F			159-9496	1	LOCKWASHER	
F			203-9007	1	NUT (M1.5X18-THD)	
F			9W-0852	4	PIN-CONNECTOR (14-GA)	
F			233-9226	128	PIN-CONNECTOR	
F			233-9232	10	PIN-CONNECTOR	
F			233-9233	2	PIN-CONNECTOR	
F			8N-1542	2	PIN-CONNECTOR	
F			186-3735	37	PIN-CONNECTOR (16-GA TO 18-GA)	
F			233-9228	20	PLUG-SEAL	
F			233-9235	4	PLUG-SEAL	
F			233-9237	1	PLUG-SEAL	
F			7G-7920	2	PLUG-SEAL	
F			8T-8737	171	PLUG-SEAL	
F			203-8999	2	SEAL	
F			203-9001	2	SLEEVE	
F			126-1768	8	SOCKET-CONNECTOR (14-GA)	
F			233-9227	81	SOCKET-CONNECTOR	
F			186-3736	47	SOCKET-CONNECTOR (16-GA TO 18-GA)	
F			9X-3402	126	SOCKET-CONNECTOR (16-GA TO 18-GA)	
EF			125-7874		TUBE-HEAT SHRINK (5.72-MM DIA) (385-CM)	
EF			125-7875		TUBE-HEAT SHRINK (7.44-MM DIA) (40-CM)	
EF			210-8958		TUBE-HEAT SHRINK (24-MM DIA) (85-CM)	
EF			119-3662		TUBE-HEAT SHRINK (10.85-MM DIA) (46-CM)	

ELECTRICAL AND STARTING SYSTEM

279-2063 HARNESS AS-ENGINE (contd.)

i02665363

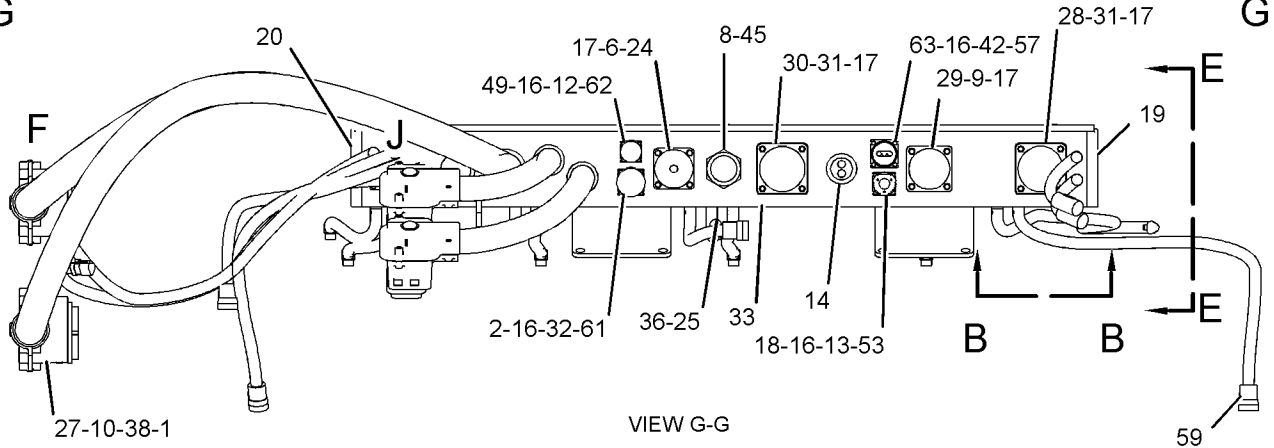
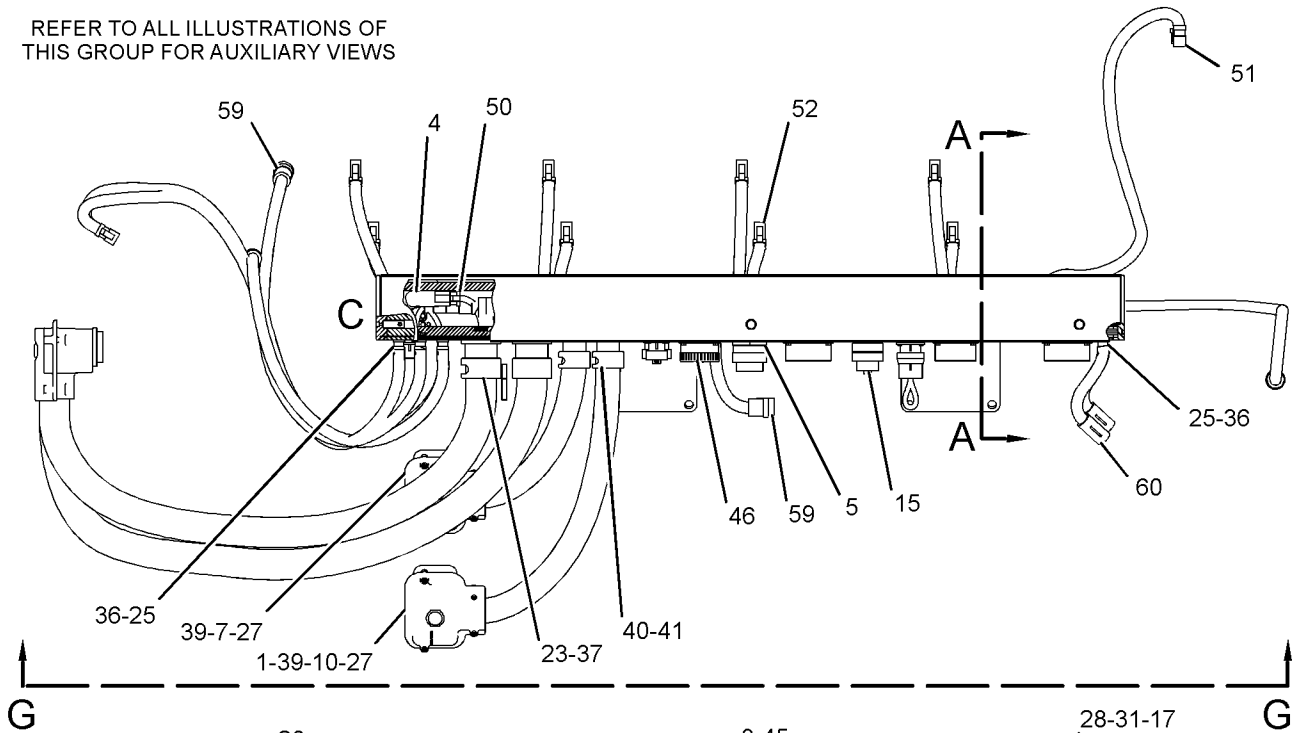
E - ORDER BY THE CENTIMETER
F - NOT SHOWN
M - METRIC PART
Y - SEPARATE ILLUSTRATION

ELECTRICAL AND STARTING SYSTEM

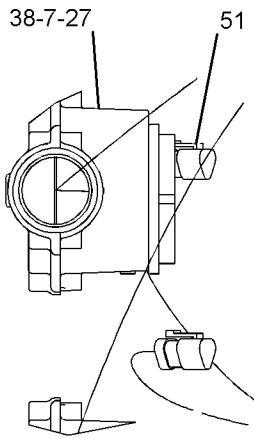
279-2063 HARNESS AS-ENGINE (contd.)

i02665363

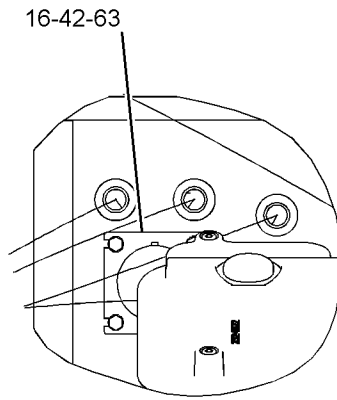
REFER TO ALL ILLUSTRATIONS OF THIS GROUP FOR AUXILIARY VIEWS



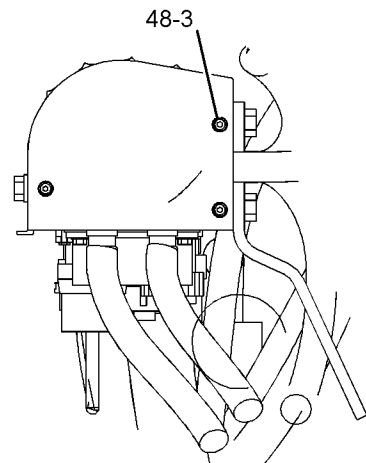
VIEW G-G



VIEW OF AREA F



VIEW OF AREA J



VIEW E-E

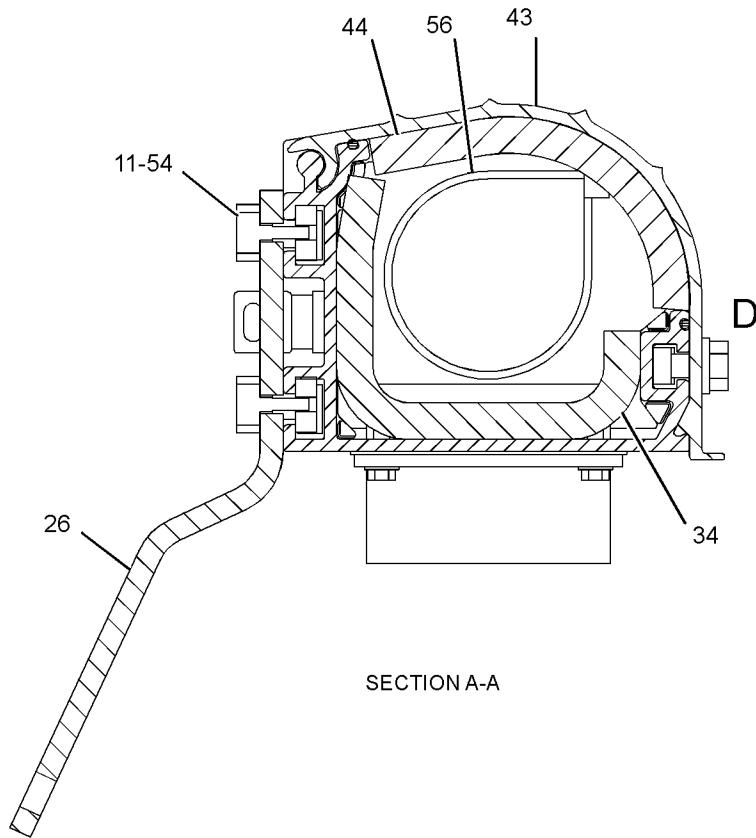
GRAPHIC #1

g01345961

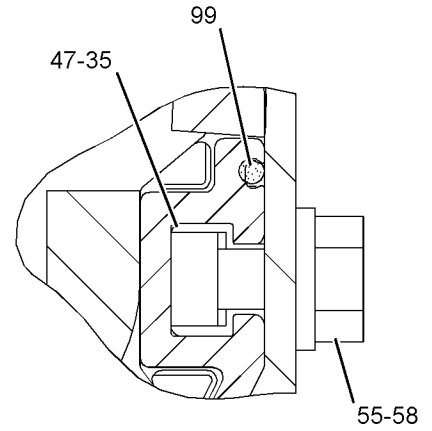
ELECTRICAL AND STARTING SYSTEM

279-2063 HARNESS AS-ENGINE (contd.)

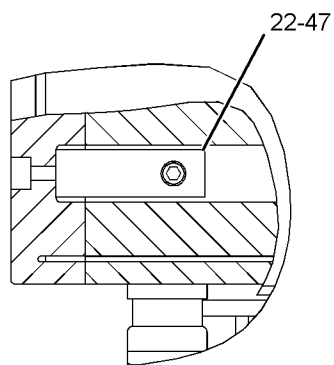
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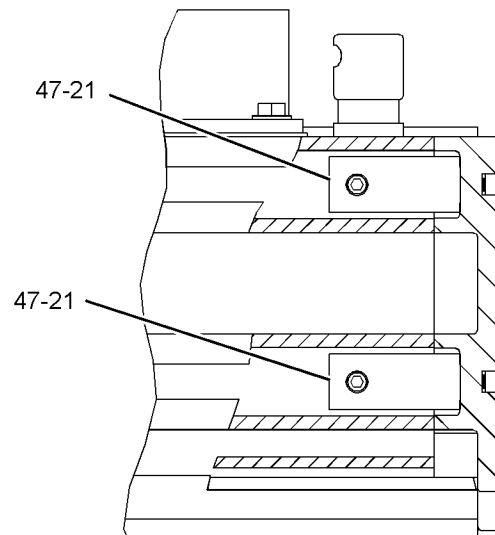
SECTION A-A



VIEW OF AREA D



VIEW OF AREA C



VIEW B-B

GRAPHIC #2

<END>

g01345963

ELECTRICAL AND STARTING SYSTEM

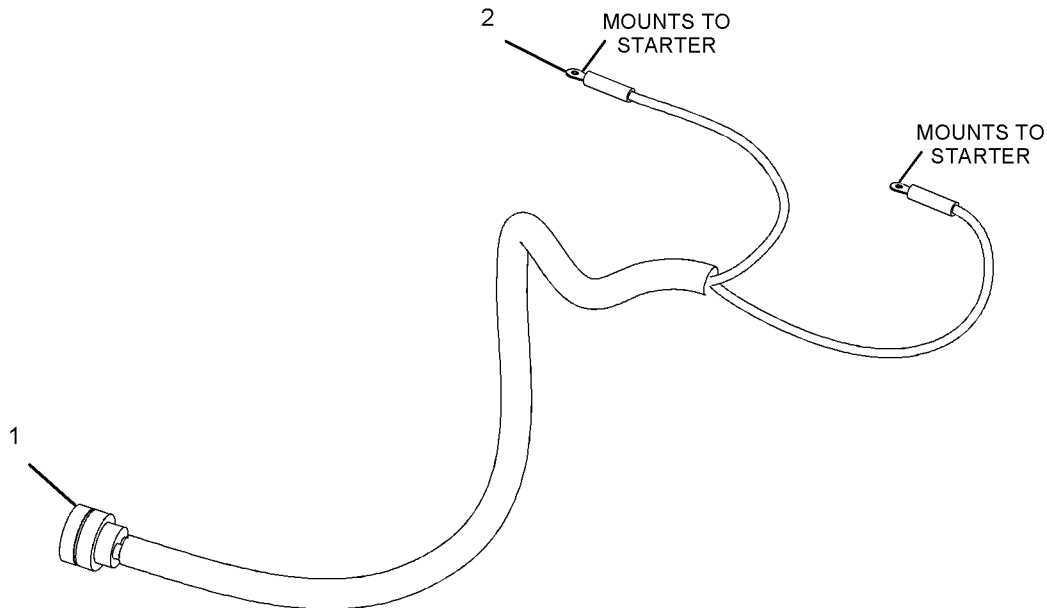
238-2929 HARNESS AS-MOTOR PART OF 238-2928 WIRING GP-ELECTRIC STARTING AN ATTACHMENT

SMCS-1408

i02049754

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	203-9000	1	PLUG AS (6-PIN)						
		1	203-8999	2	SEAL						
		1	203-9001	2	SLEEVE						
	2	1	131-1487	2	TERMINAL AS						
					(EACH INCLUDES)						
		1	2L-8049	1	TERMINAL (6-GA, NO.10 SCREW)						
					-OR-						
		1	2L-8057	1	TERMINAL (8-GA, NO.10 SCREW)						
E		1	119-3662		TUBE-HEAT SHRINK (10.85-MM DIA) (4CM)						
BF			097-7404		TUBE-HEAT SHRINK (19.1-MM DIA) (1DM)						
F			8T-8737	4	PLUG-SEAL						
F			203-8999	2	SEAL						
F			203-9001	2	SLEEVE						
F			7R-3354	2	SOCKET						
EF			135-5009		TUBE-HEAT SHRINK (32-MM DIA) (5CM)						
DF			5P-5622		WIRE (10-GA, BLACK) (2.3M)						
EF			232-0897		CONDUIT-FLEXIBLE (16.2-MM OD) (80CM)						

B- USE AS REQUIRED
D- ORDER BY THE METER
E- ORDER BY THE CENTIMETER
F- NOT SHOWN



GRAPHIC #1

<END>

g01059974

ELECTRICAL AND STARTING SYSTEM

237-9022 HARNESS AS-PANEL-SPEED CONTROL

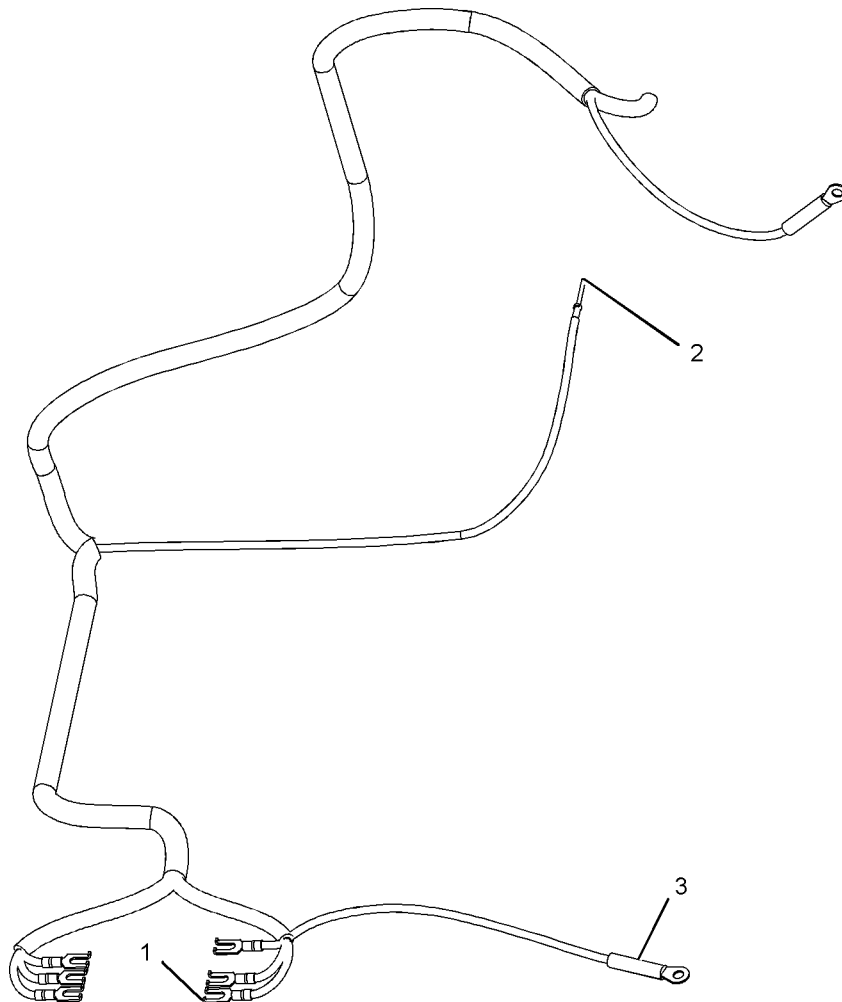
PART OF 238-9549 CONTROL GP-SPEED
FOR USE WITH POWER DISTRIBUTION BOX
AN ATTACHMENT

SMCS-1408, 7451

i01935420

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	092-7436	6	TERMINAL						
	2	1	233-9226	1	PIN-CONNECTOR						
	3	1	128-4183	2	TERMINAL AS						
					(EACH INCLUDES)						
		1	2L-8075	1	TERMINAL (16-GA TO 14-GA)						
BD		1	6V-2689		TUBE-HEAT SHRINK (6.35-MM DIA)						
	BDF		5P-5677		WIRE (18-GA, BLACK)						
	F		8L-8413	20	STRAP-CABLE						

B - USE AS REQUIRED
D - ORDER BY THE METER
F - NOT SHOWN



GRAPHIC #1

<END>

g01017317

ELECTRICAL AND STARTING SYSTEM

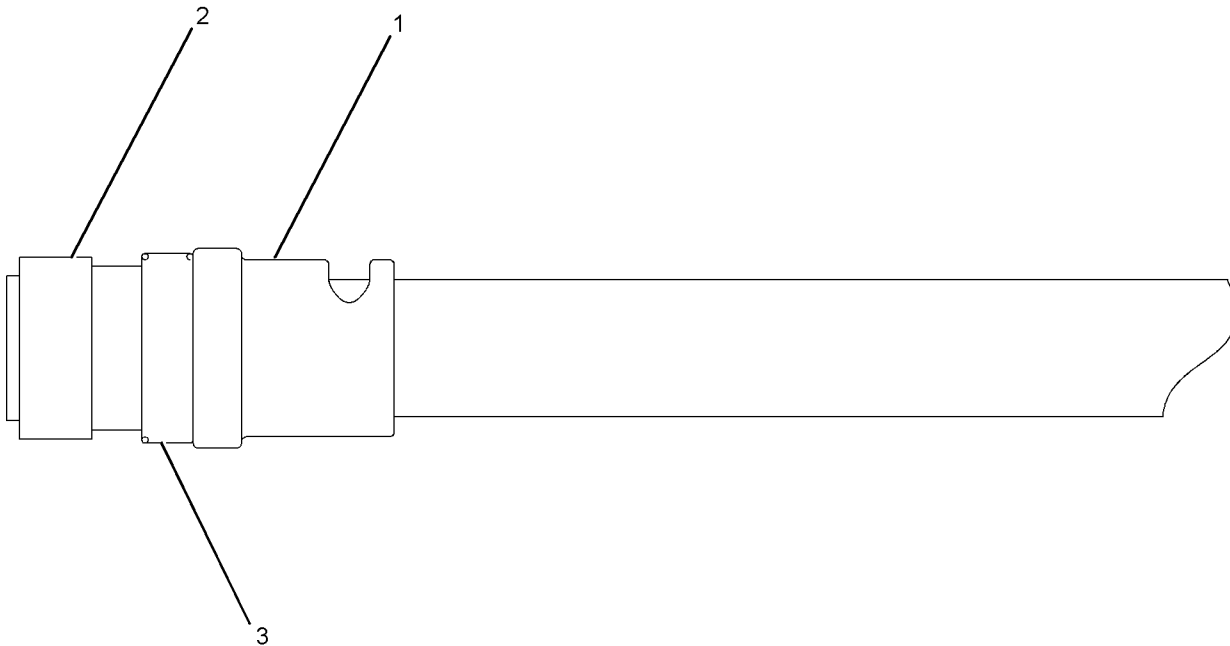
239-1476 HARNESS AS-PANEL-MARINE POWER DISPLAY 3 METER EXTENSION, CONTROL PANEL PART OF 239-1475 WIRING GP-ENGINE ELECTRONIC AN ATTACHMENT

SMCS-1408, 7451

i02024122

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	231-9915	2	CONNECTOR (CONDUIT)						
	2	1	232-0020	2	CONNECTOR AS (46-PIN)						
	3	1	241-8267	2	ADAPTER						
DF			5P-5677		WIRE (18-GA, BLACK) (155.6DM)						
F			233-9227	92	SOCKET-CONNECTOR						
EF			231-9897		CONDUIT-FLEXIBLE (36-MM ID) (376CM)						
EF			153-2707		CABLE-ELECTRICAL (19-GA) (389CM)						
EF			134-6258		CABLE-ELECTRICAL (16-GA) (389CM)						

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



GRAPHIC #1

<END>

g01050284

ELECTRICAL AND STARTING SYSTEM

278-1836 HARNESS AS-PANEL-MARINE POWER DISPLAY

PART OF 290-3211, 300-0478 BOX GP-INSTRUMENT PANEL

AN ATTACHMENT

SMCS-1408, 7451

i02456944

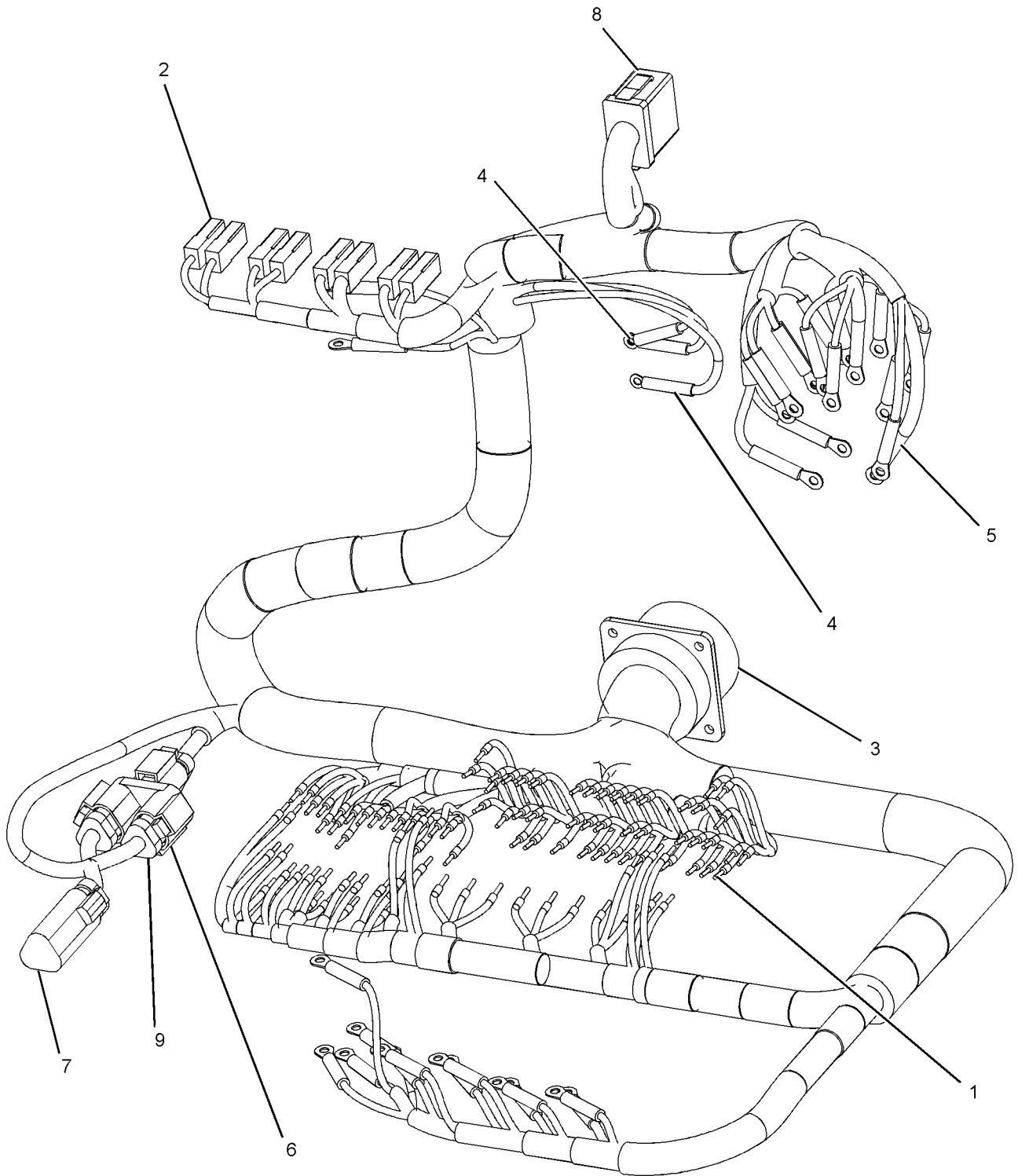
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	110-8714	100	END-WIRE (18-GA)						
	2	1	207-5432	8	TERMINAL (14-GA TO 16-GA)						
	3	1	232-0019	1	RECEPTACLE (46-PIN)						
	4	1	5P-2321	3	TERMINAL (14-GA TO 16-GA)						
	5	1	2L-8075	30	TERMINAL (16-GA TO 14-GA)						
	6	1	133-0970	1	RECEPTACLE AS (TEE)						
	7	1	134-2540	1	RECEPTACLE AS (120-OHM)						
	8	1	155-2255	1	KIT-CONNECTING PLUG (12-PIN)						
					(INCLUDES PLUG AS AND WEDGE)						
	9	1	174-0503	4	KIT-CONNECTING PLUG (3-PIN)						
					(EACH INCLUDES PLUG AS AND WEDGE)						
F			233-9226	41	PIN-CONNECTOR						
F			8T-8737	2	PLUG-SEAL						
F			233-9228	5	PLUG-SEAL						
F			186-3736	21	SOCKET-CONNECTOR (16-GA TO 18-GA)						
F			9W-0844	1	SOCKET-CONNECTOR (14-GA)						
BF			8L-8413	60	STRAP-CABLE						
EF			125-7874		TUBE-HEAT SHRINK (5.72-MM DIA) (105-CM)						
EF			119-3662		TUBE-HEAT SHRINK (10.85-MM DIA) (20-CM)						
EF			125-7875		TUBE-HEAT SHRINK (7.44-MM DIA) (5-CM)						
F			155-2258	1	WEDGE-PLUG LOCK (12-PIN)						
BEF			153-2707		CABLE-ELECTRICAL (19-GA)						

B- USE AS REQUIRED
 E- ORDER BY THE CENTIMETER
 F- NOT SHOWN

ELECTRICAL AND STARTING SYSTEM

278 - 1836 HARNESS AS - PANEL (contd.)

i02456944



GRAPHIC #1

<END>

g01286638

ELECTRICAL AND STARTING SYSTEM

235-6275 HARNESS AS-SENSOR

PART OF 235-6276 WIRING GP-SENSOR
AN ATTACHMENT

SMCS-1408

i01979334

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	238-9803	1	ADAPTER						
E	232-0897		CONDUIT-FLEXIBLE (16.2-MM OD) (113CM)						
E	232-0895		CONDUIT-FLEXIBLE (9.6-MM OD) (113CM)						
E	232-0893		CONDUIT-FLEXIBLE (6.2-MM ID) (59CM)						
	238-9591	1	FITTING						
	238-9733	1	FITTING						
	238-9802	1	FITTING						
	174-0503	4	KIT-CONNECTING PLUG (3-PIN) (INCLUDES PLUG AS. AND WEDGES)						
	8C-3654	1	PLUG-CONNECTOR (6-PIN)						
	186-3736	18	SOCKET-CONNECTOR (16-GA TO 18-GA)						
BE	125-7875		TUBE-HEAT SHRINK (7.44-MM DIA)						
	097-7404		TUBE-HEAT SHRINK (19.1-MM DIA) (2DM)						
	155-2276	4	WEDGE-PLUG LOCK (3-PIN)						
BD	5P-5677		WIRE (18-GA, BLACK)						

B- USE AS REQUIRED
D- ORDER BY THE METER
E- ORDER BY THE CENTIMETER

<END>

235-6280 HARNESS AS-SENSOR

PART OF 235-6277, 307-2046 WIRING GP-SENSOR
AN ATTACHMENT

SMCS-1408

i01979332

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	238-9803	1	ADAPTER						
E	232-0897		CONDUIT-FLEXIBLE (16.2-MM OD) (186CM)						
E	232-0895		CONDUIT-FLEXIBLE (9.6-MM OD) (105CM)						
E	232-0893		CONDUIT-FLEXIBLE (6.2-MM ID) (55CM)						
	238-9591	1	FITTING						
	238-9733	1	FITTING						
	238-9802	1	FITTING						
	174-0503	4	KIT-CONNECTING PLUG (3-PIN) (INCLUDES PLUG AS. AND WEDGE)						
	8C-3654	1	PLUG-CONNECTOR (6-PIN)						
	186-3736	18	SOCKET-CONNECTOR (16-GA TO 18-GA)						
BE	125-7875		TUBE-HEAT SHRINK (7.44-MM DIA)						
	097-7404		TUBE-HEAT SHRINK (19.1-MM DIA) (2DM)						
	155-2276	4	WEDGE-PLUG LOCK (3-PIN)						
BD	5P-5677		WIRE (18-GA, BLACK)						

B- USE AS REQUIRED
D- ORDER BY THE METER
E- ORDER BY THE CENTIMETER

<END>

ELECTRICAL AND STARTING SYSTEM

237-9023 HARNESS AS-SENSOR

THERMOCOUPLE

PART OF 300-0478 BOX GP-INSTRUMENT PANEL

FOR USE WITH POWER DISTRIBUTION BOX

AN ATTACHMENT

SMCS-1408

i02707178

NOTE	PART NUMBER	QTY	PART NAME 1 2 3 4 5 6 (PRODUCT LEVEL)	SEE PAGE
	153-1223	2	CONNECTOR-RECEPTACLE (23-PIN)	
	174-0503	1	KIT-CONNECTING PLUG (3-PIN) (KIT INCLUDES PLUG AS AND WEDGE)	
	176-9299	1	KIT-RECEPTACLE (3-PIN) (KIT INCLUDES RECEPTACLE AS AND WEDGE)	
	128-4250	2	NUT (1-11/16-18-THD)	
	186-3735	35	PIN-CONNECTOR (16-GA TO 18-GA)	
	233-9226	3	PIN-CONNECTOR (20-GA TO 16-GA)	
	160-7689	1	PLUG AS-CONNECTOR (70-PIN)	
	159-9322	1	SEAL-O-RING	
	8T-8737	44	PLUG-SEAL	
	186-3736	3	SOCKET-CONNECTOR (16-GA TO 18-GA)	
	9X-3402	40	SOCKET-CONNECTOR (16-GA TO 18-GA)	
	8L-8413	20	STRAP-CABLE	
E	5P-6009		TUBE-HEAT SHRINK (9.52-MM DIA) (2-CM)	
E	125-7875		TUBE-HEAT SHRINK (7.44-MM DIA) (30-CM)	
E	126-9424		TUBE-HEAT SHRINK (3.2-MM DIA) (40-CM)	

E-ORDER BY THE CENTIMETER

<END>

ELECTRICAL AND STARTING SYSTEM

239-1473 HARNESS AS-SENSOR

LH, THERMOCOUPLE INTERCONNECT

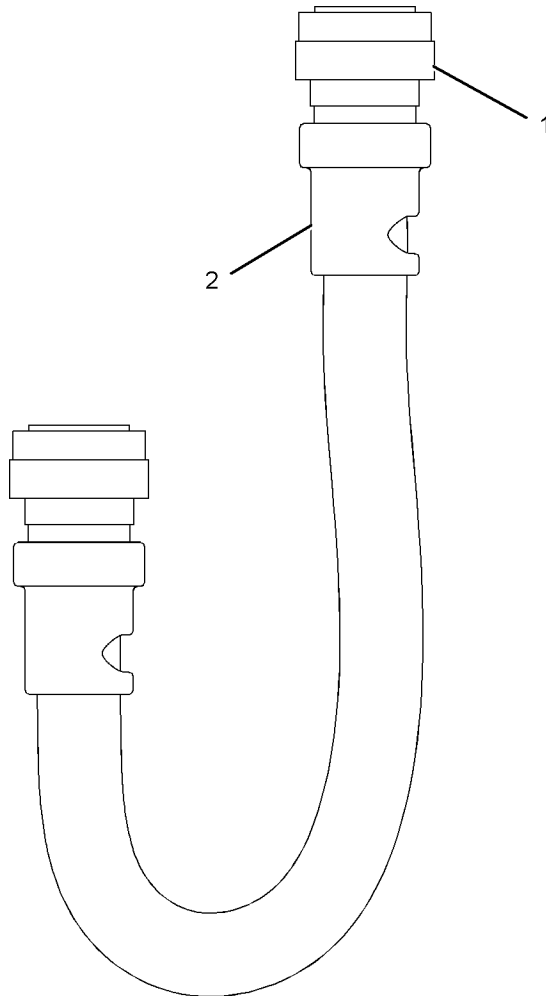
PART OF 239-6364 WIRING GP-ENGINE, 239-1472 WIRING GP-PANEL
AN ATTACHMENT

SMCS-1408

i01979097

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	122-4386	2	CONNECTOR-PLUG (23-PIN)						
	2	1	235-2762	2	CONNECTOR (CONDUIT)						
F			186-3736	32	SOCKET-CONNECTOR (16-GA TO 18-GA)						
F			8T-8737	14	PLUG-SEAL						
BF			116-2652		CABLE-ELECTRICAL (18-GA)						
EF			231-9895		CONDUIT-FLEXIBLE (57CM)						

B-USE AS REQUIRED
E-ORDER BY THE CENTIMETER
F-NOT SHOWN



GRAPHIC #1

<END>

g01017357

ELECTRICAL AND STARTING SYSTEM

239 - 1474 HARNESS AS - SENSOR

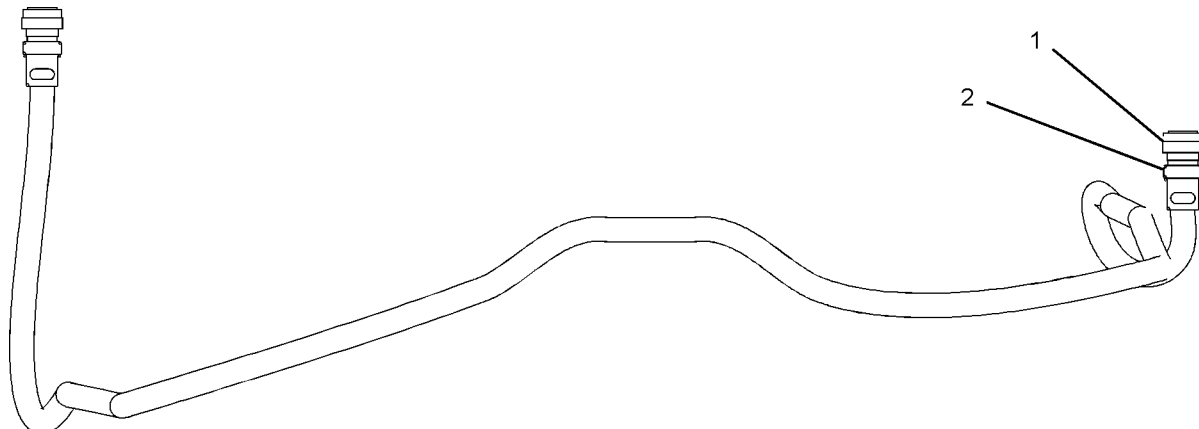
POWER DISTRIBUTION, PYROMETER B
PART OF 239-6364 WIRING GP-ENGINE, 239-1472 WIRING GP-PANEL
AN ATTACHMENT

SMCS - 1408

i01979100

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	122-4386	2	CONNECTOR-PLUG (23-PIN)						
	2	1	235-2762	2	CONNECTOR (CONDUIT)						
F			186-3736	32	SOCKET-CONNECTOR (16-GA TO 18-GA)						
F			8T-8737	14	PLUG-SEAL						
EF			231-9895		CONDUIT-FLEXIBLE (377CM)						
BF			116-2652		CABLE-ELECTRICAL (18-GA)						

B - USE AS REQUIRED
E - ORDER BY THE CENTIMETER
F - NOT SHOWN



GRAPHIC #1

<END>

g01017262

ELECTRICAL AND STARTING SYSTEM

306-8879 HARNESS AS-SENSOR

PART OF 307-0008 WIRING GP-SENSOR
AN ATTACHMENT

SMCS-1408

i02665382

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	254-5668	1	ADAPTER						
E	232-0895		CONDUIT-FLEXIBLE (9.6-MM OD) (43-CM)						
E	232-0897		CONDUIT-FLEXIBLE (16.2-MM OD) (78-CM)						
E	232-0893		CONDUIT-FLEXIBLE (6.2-MM ID) (40-CM)						
	238-9591	1	FITTING						
	238-9733	1	FITTING						
	238-9802	1	FITTING						
	155-2260	4	KIT-CONNECTING PLUG (3-PIN) (EACH INCLUDES PLUG AS AND WEDGE)						
	174-0503	4	KIT-CONNECTING PLUG (3-PIN) (EACH INCLUDES PLUG AS AND WEDGE)						
	8C-3654	1	PLUG-CONNECTOR (6-PIN)						
	186-3736	18	SOCKET-CONNECTOR (16-GA TO 18-GA)						
E	9X-8243		TUBE-HEAT SHRINK (39.9-MM DIA) (5-CM)						
E	125-7875		TUBE-HEAT SHRINK (7.44-MM DIA) (10-CM)						
E	210-8958		TUBE-HEAT SHRINK (24-MM DIA) (20-CM)						

E- ORDER BY THE CENTIMETER

<END>

237-8995 HARNESS AS-SOLENOID

PART OF 238-9734 CONTROL GP-AIR STARTING
FOR USE WITH LEFT HAND MOUNTED AIR START
AN ATTACHMENT

SMCS-1408

i01979109

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	3T-3048	1	CLIP AS						
E	232-0897		CONDUIT-FLEXIBLE (16.2-MM OD) (70CM)						
	7N-9737	1	HOUSING-PLUG (14-GA TO 18-GA)						
	7N-7780	1	PIN-CONNECTOR (14-GA TO 18-GA)						
	203-9000	1	PLUG AS (6-PIN)						
	203-8999	2	SEAL						
	203-9001	2	SLEEVE						
	8T-8737	4	PLUG-SEAL						
	7N-7779	1	SOCKET-CONNECTOR (14-GA TO 18-GA)						
	186-3736	2	SOCKET-CONNECTOR (16-GA TO 18-GA)						
	135-5009		TUBE-HEAT SHRINK (32-MM DIA) (1CM)						
	097-7404		TUBE-HEAT SHRINK (19.1-MM DIA) (1DM)						
BD	5P-5677		WIRE (18-GA, BLACK)						

B- USE AS REQUIRED

D- ORDER BY THE METER

E- ORDER BY THE CENTIMETER

<END>

ELECTRICAL AND STARTING SYSTEM

242-0083 HARNESS AS-WIRING

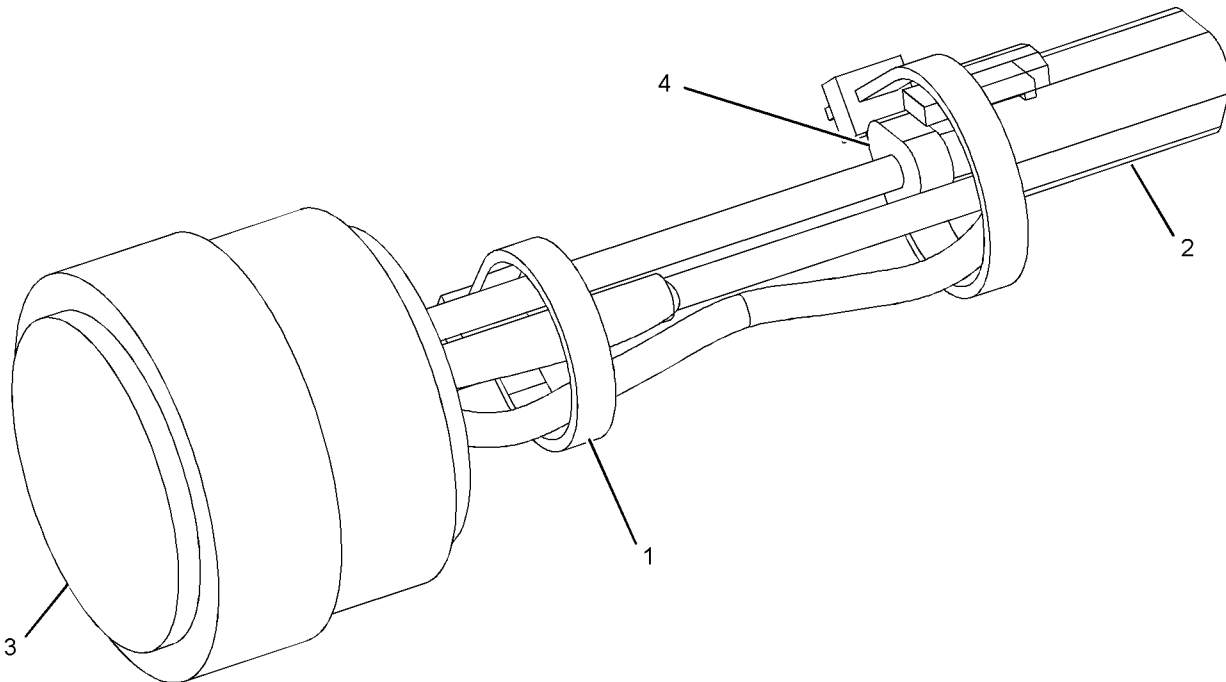
CUSTOMER CONNECT
AN ATTACHMENT

SMCS-1408

i01964444

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9X-6772	2	STRAP-CABLE						
	2	1	134-2540	1	RECEPTACLE AS (120-OHM)						
		1	174-0503	1	KIT-CONNECTING PLUG (3-PIN) (KIT INCLUDES PLUG AS. & WEDGES)						
	3	1	233-9217	1	CONNECTOR (85-PIN)						
	4	1	155-2260	1	KIT-CONNECTING PLUG (3-PIN) (KIT INCLUDES PLUG AS. AND WEDGE)						
F		1	233-9226	6	PIN-CONNECTOR						
F		1	8T-8737	80	PLUG-SEAL						
F		1	186-3736	2	SOCKET-CONNECTOR (16-GA TO 18-GA)						
F		1	155-2266	1	WEDGE-PLUG LOCK (3-PIN)						
BDF		1	5P-5677		WIRE (18-GA, BLACK)						

B- USE AS REQUIRED
D- ORDER BY THE METER
F- NOT SHOWN



GRAPHIC #1

<END>

g01020947

ELECTRICAL AND STARTING SYSTEM

301-0625 HARNESS AS-WIRING

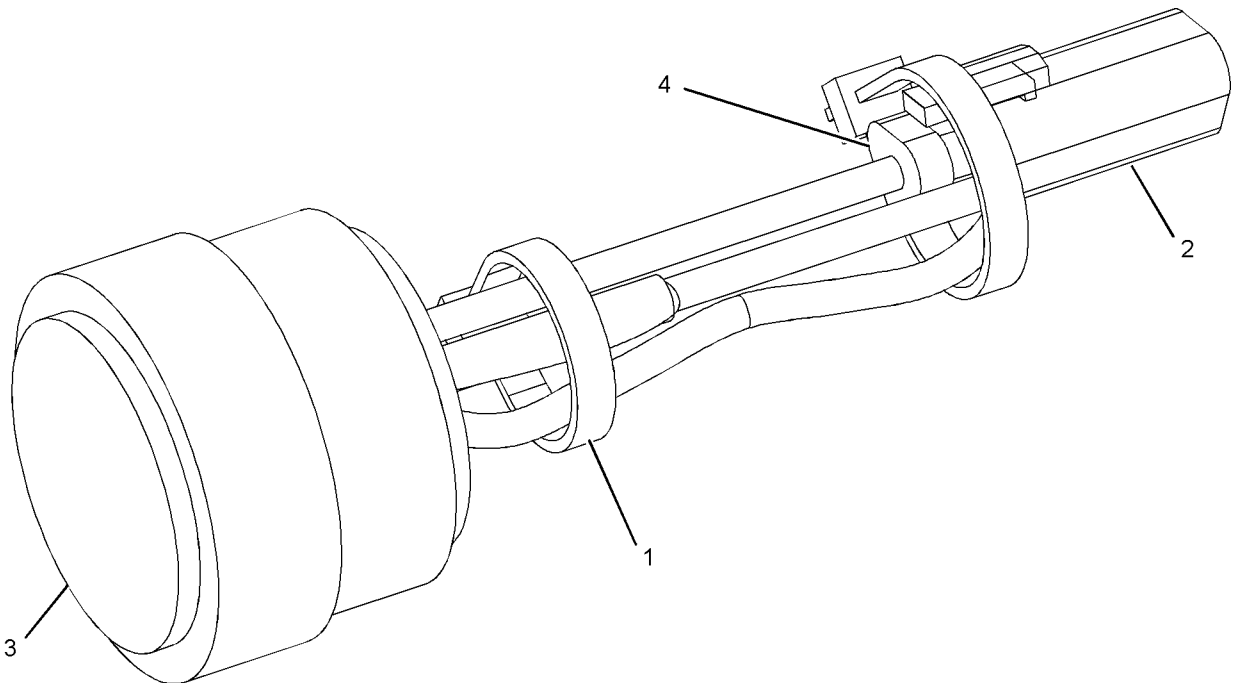
CUSTOMER CONNECT
AN ATTACHMENT

SMCS-1408

i02665340

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9X-6772	2	STRAP-CABLE						
	2	1	134-2540	1	RECEPTACLE AS (120-OHM)						
	3	1	233-9217	1	CONNECTOR (85-PIN)						
	4	1	174-0503	1	KIT-CONNECTING PLUG (3-PIN)						
(INCLUDES PLUG AS AND WEDGE)											
F			186-3736	2	SOCKET-CONNECTOR (16-GA TO 18-GA)						
F			8T-8737	80	PLUG-SEAL						
F			233-9226	6	PIN-CONNECTOR						
F			155-2260	1	KIT-CONNECTING PLUG (3-PIN)						
(INCLUDES PLUG AS AND WEDGE)											

F - NOT SHOWN



GRAPHIC #1

<END>

g01020947

ELECTRICAL AND STARTING SYSTEM

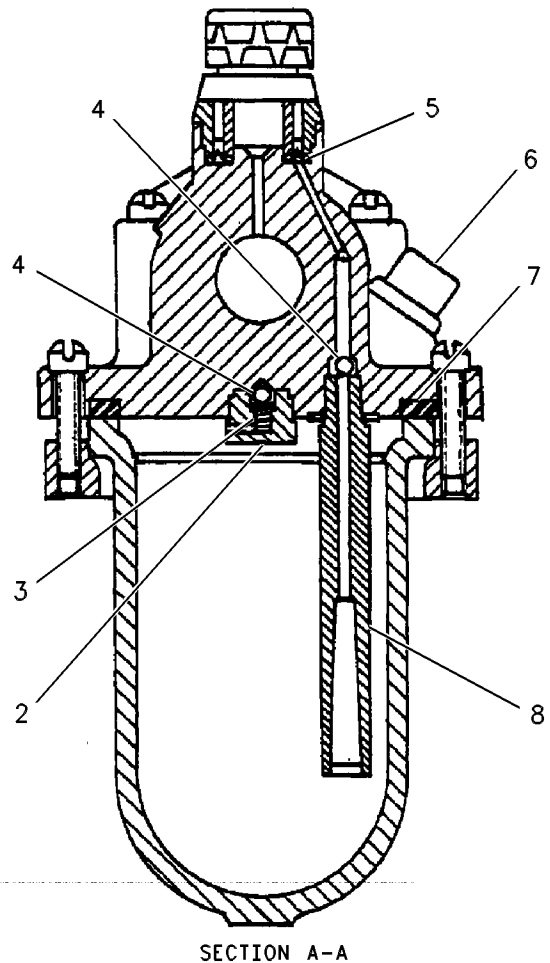
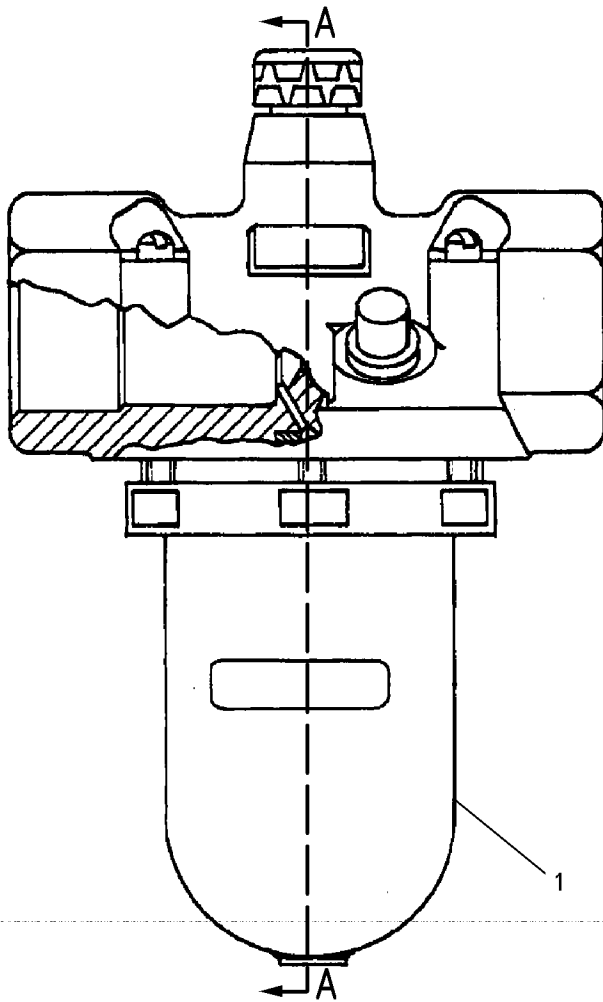
119-6282 LUBRICATOR GP-AIR MOTOR

PART OF 119-6284 LUBRICATOR GP-AIR MOTOR
 FIELD REPLACEMENT ORDER 119-6284-PAGE 236
 AN ATTACHMENT

SMCS-1451

i01889307

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6N-2192	1	BOWL						
	2	1	6N-2191	1	SEAT						
	3	1	6N-2190	1	SPRING						
	4	1	6N-2188	2	BALL						
	5	1	7C-4429	1	SEAL						
	6	1	6N-2185	2	PLUG-FILLER						
	7	1	6N-2184	1	GASKET						
	8	1	6N-2193	1	TUBE-SIPHON						



GRAPHIC #1

<END>

g00103878

ELECTRICAL AND STARTING SYSTEM

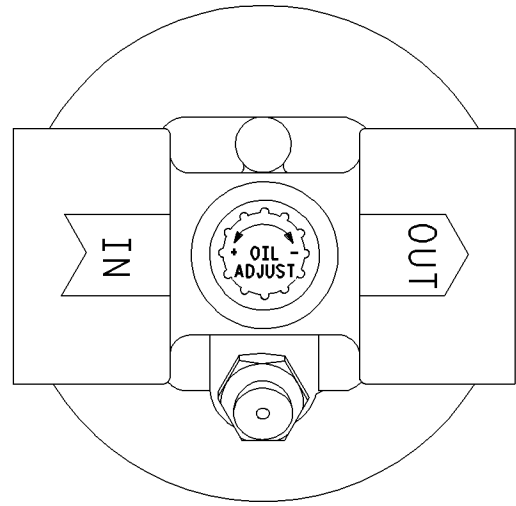
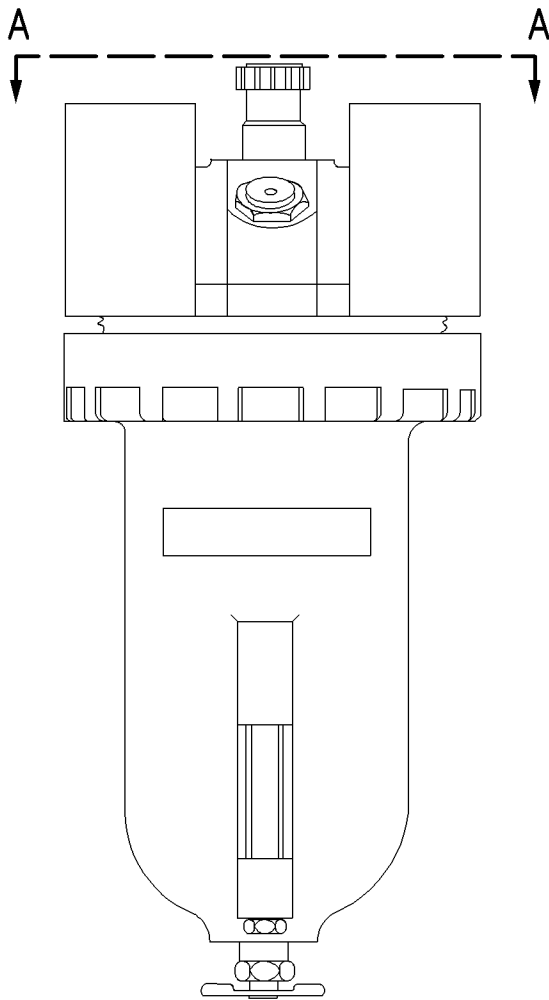
119-6283 LUBRICATOR GP-AIR MOTOR

PART OF 119-6284 LUBRICATOR GP-AIR MOTOR
 FIELD REPLACEMENT ORDER 119-6284-PAGE 236
 AN ATTACHMENT

SMCS-1451

i01491135

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



VIEW A-A

GRAPHIC #1

<END>

g00774411

ELECTRICAL AND STARTING SYSTEM

119-6284 LUBRICATOR GP - AIR MOTOR

PART OF 143-5173, 143-5174 STARTING MOTOR GP-AIR
FIELD REPLACEMENT FOR 119-6282-PAGE 234: FOR 119-6283-PAGE 235
AN ATTACHMENT

SMCS - 1451

i01168549

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	119-6282	1	LUBRICATOR GP - AIR MOTOR						234
			-OR-						
Y	119-6283	1	LUBRICATOR GP - AIR MOTOR						235
Y - SEPARATE ILLUSTRATION									

<END>

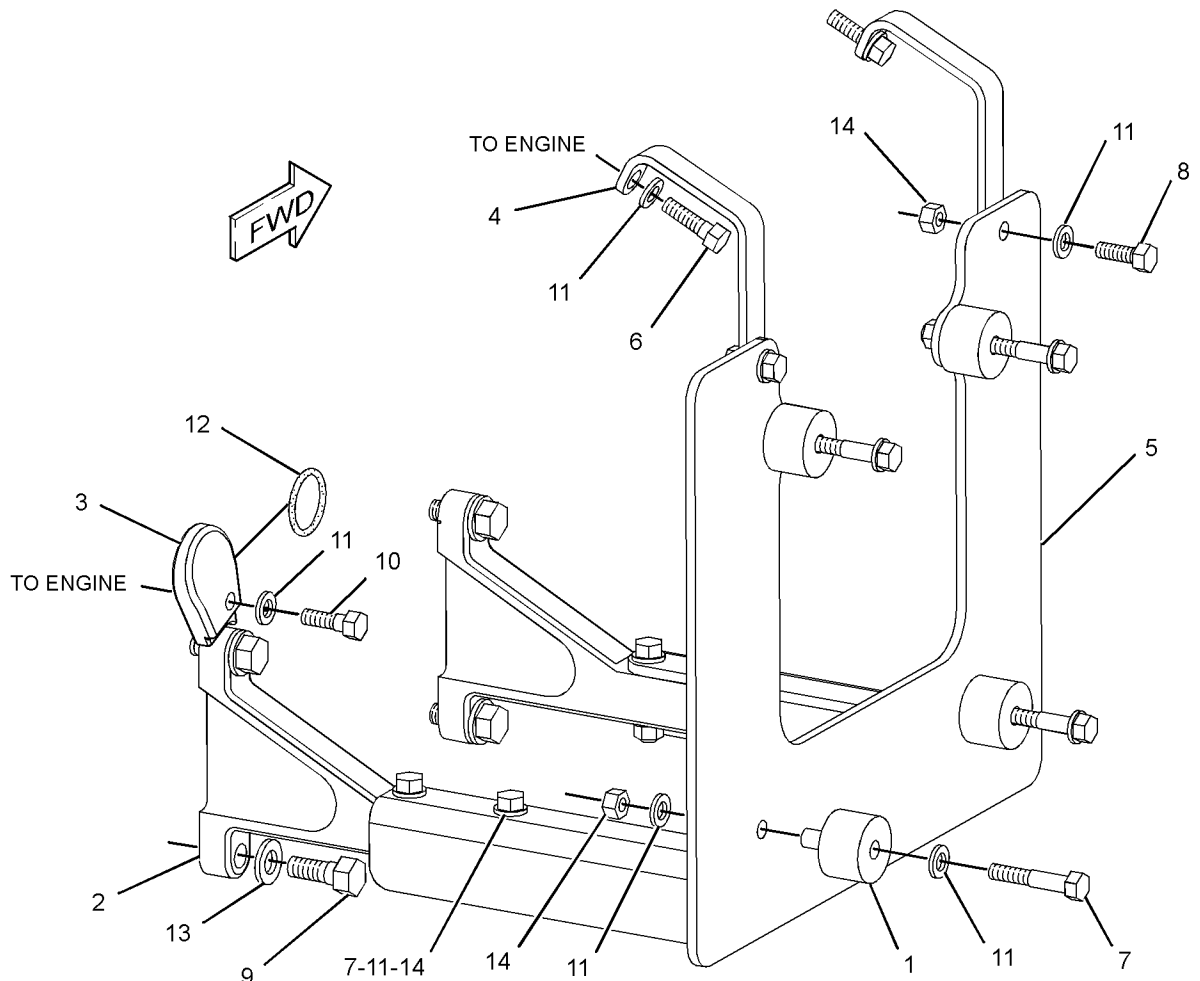
ELECTRICAL AND STARTING SYSTEM

253-6218 MOUNTING GP-BOX AN ATTACHMENT

SMCS-7426

i02354300

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4P-0870	4	MOUNT-FLEXIBLE						
	2	1	7N-4940	2	BRACKET						
	3	1	133-6484	1	COVER-BOX						
	4	1	134-6275	2	BRACKET						
	5	1	253-6217	1	BRACKET AS						
	6	1	0S-1588	2	BOLT (3/8-16X1.25-IN)						
	7	1	0S-1590	8	BOLT (3/8-16X2-IN)						
	8	1	0S-1594	2	BOLT (3/8-16X1-IN)						
	9	1	0S-1595	4	BOLT (1/2-13X1.25-IN)						
	10	1	1A-2029	1	BOLT (3/8-16X1.125-IN)						
	11	1	5M-2894	23	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	12	1	5P-8210	1	SEAL-O-RING						
	13	1	5P-8245	4	WASHER-HARD (13.5X25.5X3-MM THK)						
	14	1	9S-8752	10	NUT-FULL (3/8-16-THD)						



GRAPHIC #1

<END>

g01176435

ELECTRICAL AND STARTING SYSTEM

231 - 9526 MOUNTING GP - CONTACTOR AN ATTACHMENT

SMCS - 7400

i02278901

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
B	1	1	5P-8937		COMPOUND-JOINT (THERMAL)						
	2	1	3N-1968	8	MOUNT-FLEXIBLE						
	3	1	231-9873	1	BRACKET AS						
I	4	1	231-9877	1	HOSE AS						
	5	1	030-7941	1	ELBOW						
	6	1	153-4906	1	SEAL-O-RING						
	7	1	0S-0509	1	BOLT (3/8-16X0.75-IN)						
	8	1	0S-1618	3	BOLT (5/16-18X1-IN)						
	9	1	1B-9575	2	BOLT (5/16-18X1.56-IN)						
	10	1	4B-0418	2	CLIP						
	11	1	4P-7581	2	CLIP						
	12	1	4W-2648	1	ADAPTER						
	13	1	5M-2894	4	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	B	14	1	5P-9085	3	CLIP					
15		1	5P-9617	1	ADAPTER						
16		1	6V-5048	1	SEAL-O-RING						
17		1	7K-9197	1	ELBOW (SWIVEL)						
18		1	9M-1974	3	WASHER-HARD (8.8X16X2-MM THK)						
19		1	9S-8750	16	NUT-FULL (1/4-20-THD)						
B	20	1	9X-6772	3	STRAP-CABLE						

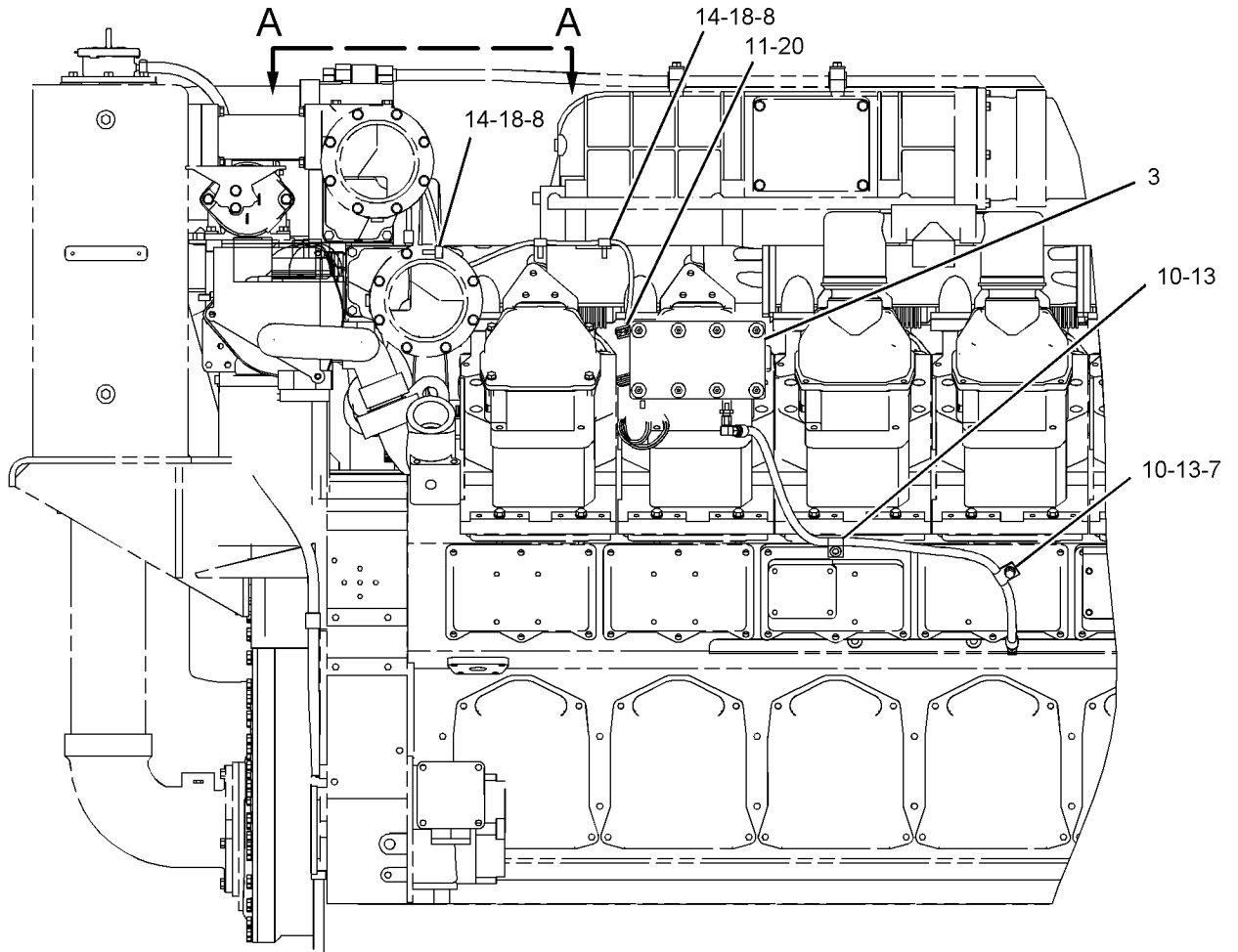
B - USE AS REQUIRED

I - REFER TO HYDRAULIC INFORMATION SYSTEM

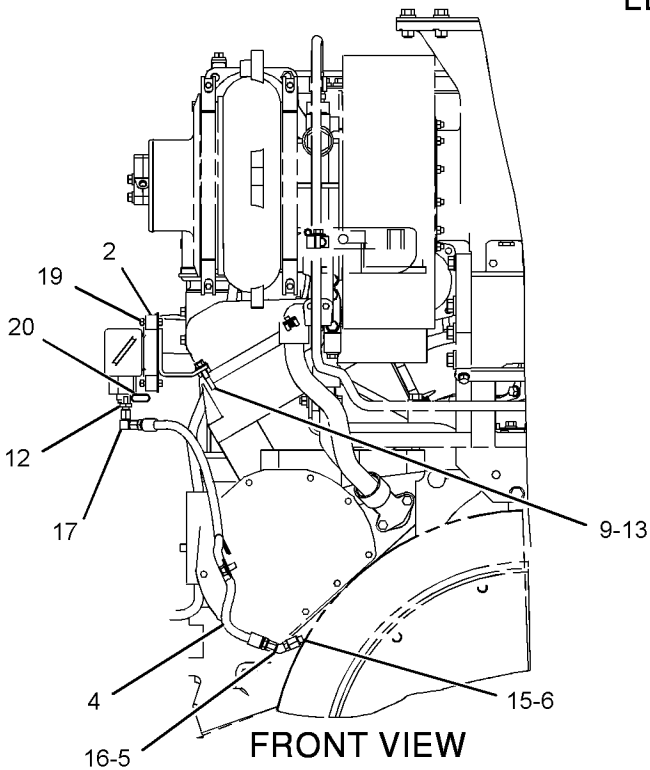
ELECTRICAL AND STARTING SYSTEM

231-9526 MOUNTING GP-CONTACTOR (contd.)

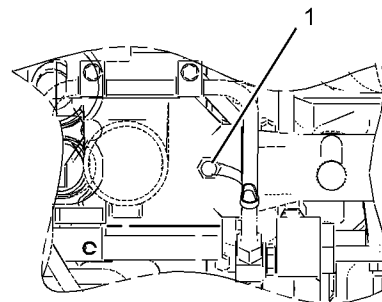
i02278901



LEFT SIDE VIEW



FRONT VIEW



VIEW A-A

GRAPHIC #1

<END>

g01023675

ELECTRICAL AND STARTING SYSTEM

232-0858 MOUNTING GP-CONTACTOR

FOR USE WITH RIGID HARNESS, LH MOUNTED POWER DISTRIBUTION PANEL
AN ATTACHMENT

SMCS-7400

i02214324

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
B	1	1	5P-8937		COMPOUND-JOINT (THERMAL)						
	2	1	3N-1968	8	MOUNT-FLEXIBLE						
I	3	1	3N-7281	1	HOSE AS						
	4	1	4P-7581	2	CLIP						
B	5	1	9X-6772	3	STRAP-CABLE						
	6	1	232-0867	1	PLATE						
	7	1	030-7941	1	ELBOW						
	8	1	0S-1594	2	BOLT (3/8-16X1-IN)						
	9	1	0S-1618	4	BOLT (5/16-18X1-IN)						
	10	1	153-4906	1	SEAL-O-RING						
	11	1	4B-0418	1	CLIP						
	12	1	4W-2648	1	ADAPTER						
	13	1	5M-2894	4	WASHER-HARD (10.2X18.5X2.5-MM THK)						
B	14	1	5P-9085	4	CLIP						
	15	1	5P-9617	1	ADAPTER						
	16	1	6V-5048	1	SEAL-O-RING						
	17	1	7K-9197	1	ELBOW (SWIVEL)						
	18	1	9M-1974	4	WASHER-HARD (8.8X16X2-MM THK)						
	19	1	9S-8750	16	NUT-FULL (1/4-20-THD)						
	20	1	9S-8752	2	NUT-FULL (3/8-16-THD)						

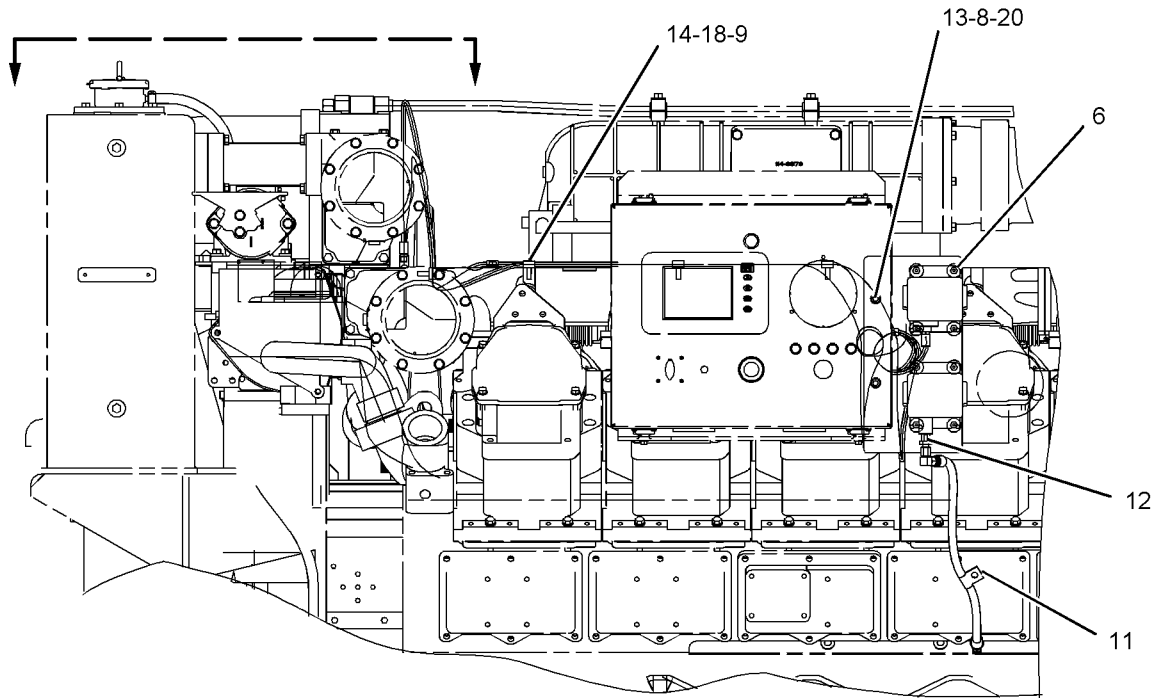
B-USE AS REQUIRED

I-REFER TO HYDRAULIC INFORMATION SYSTEM

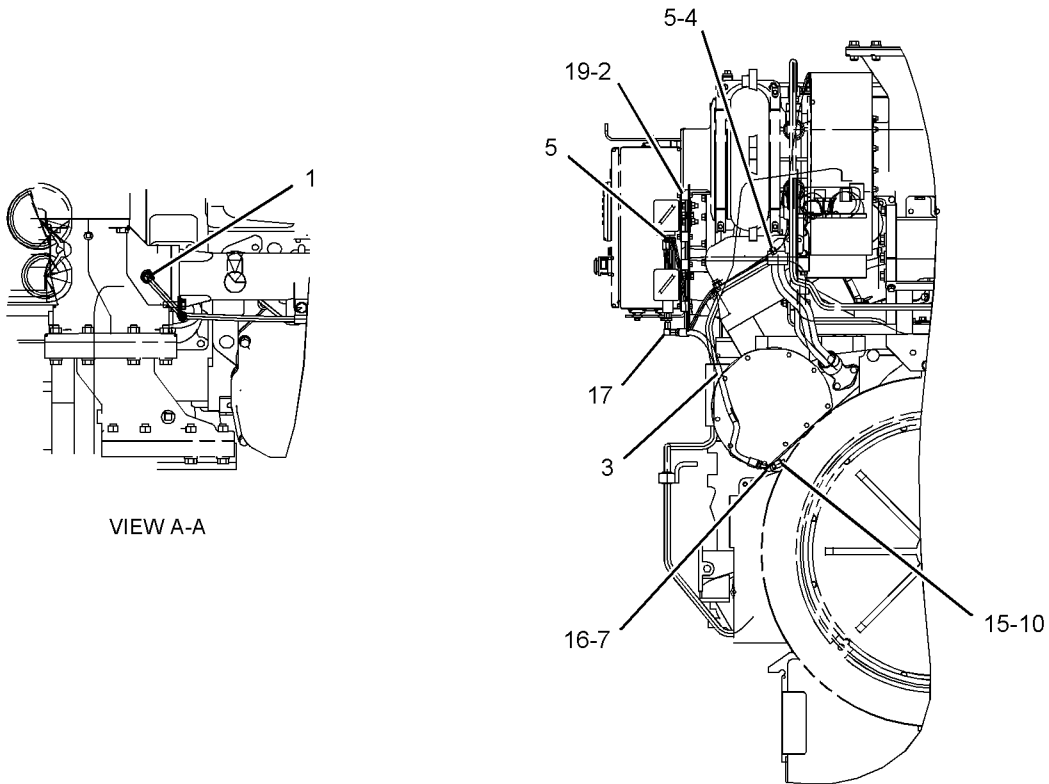
ELECTRICAL AND STARTING SYSTEM

232-0858 MOUNTING GP-CONTACTOR (contd.)

i02214324



LEFT SIDE VIEW



FRONT VIEW

GRAPHIC #1

<END>

g01147172

ELECTRICAL AND STARTING SYSTEM

241 - 9055 MOUNTING GP - CONTACTOR

FOR USE WITH RH MOUNTED POWER DISTRIBUTION PANEL
AN ATTACHMENT

SMCS - 7400

i02455908

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	3N-1968	8	MOUNT-FLEXIBLE						
	2	1	4P-7581	3	CLIP						
I	3	1	7N-2539	1	HOSE AS						
B	4	1	5P-8937	1	COMPOUND-JOINT (THERMAL)						
B	5	1	9X-6772	3	STRAP-CABLE						
	6	1	232-0867	1	PLATE						
	7	1	030-7941	1	ELBOW						
	8	1	0S-1594	2	BOLT (3/8-16X1-IN)						
	9	1	0S-1618	4	BOLT (5/16-18X1-IN)						
	10	1	153-4906	1	SEAL-O-RING						
	11	1	4B-0418	1	CLIP						
	12	1	4W-2648	1	ADAPTER						
	13	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5-MM THK)						
B	14	1	5P-9085	4	CLIP						
	15	1	5P-9617	1	ADAPTER						
	16	1	6V-5048	1	SEAL-O-RING						
	17	1	7K-9197	1	ELBOW (SWIVEL)						
	18	1	9M-1974	4	WASHER-HARD (8.8X16X2-MM THK)						
	19	1	9S-8750	16	NUT-FULL (1/4-20-THD)						
	20	1	9S-8752	2	NUT-FULL (3/8-16-THD)						

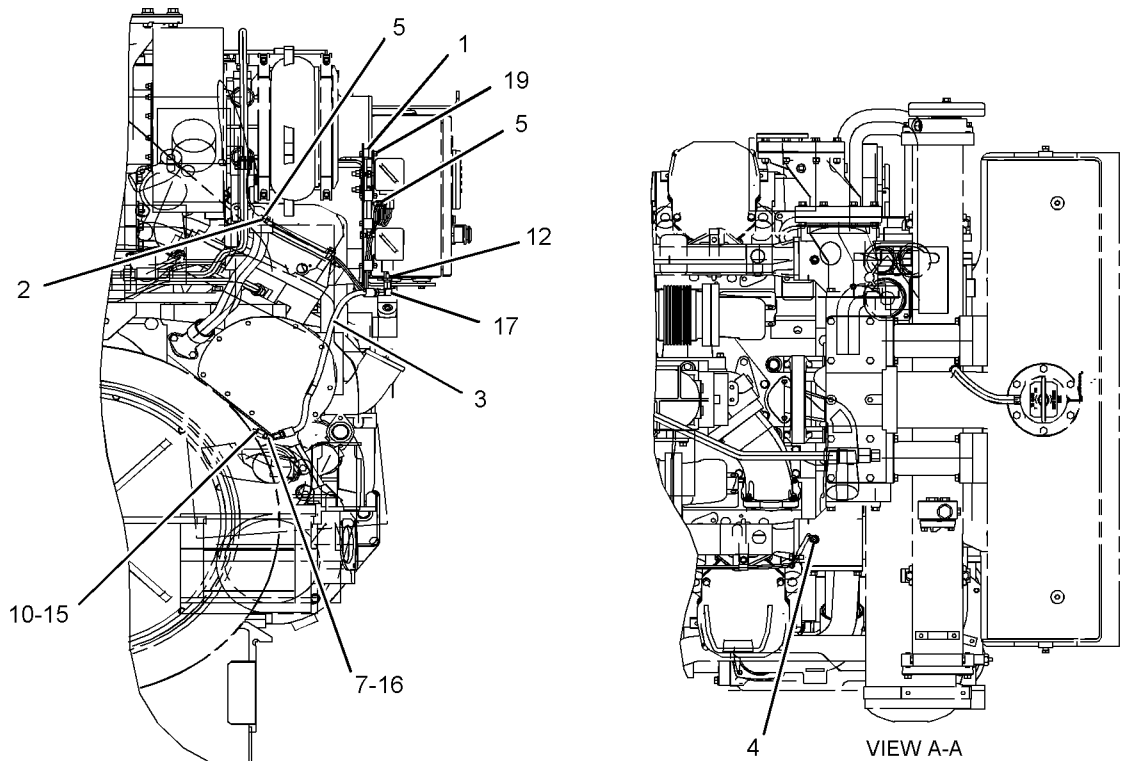
B - USE AS REQUIRED

I - REFER TO HYDRAULIC INFORMATION SYSTEM

ELECTRICAL AND STARTING SYSTEM

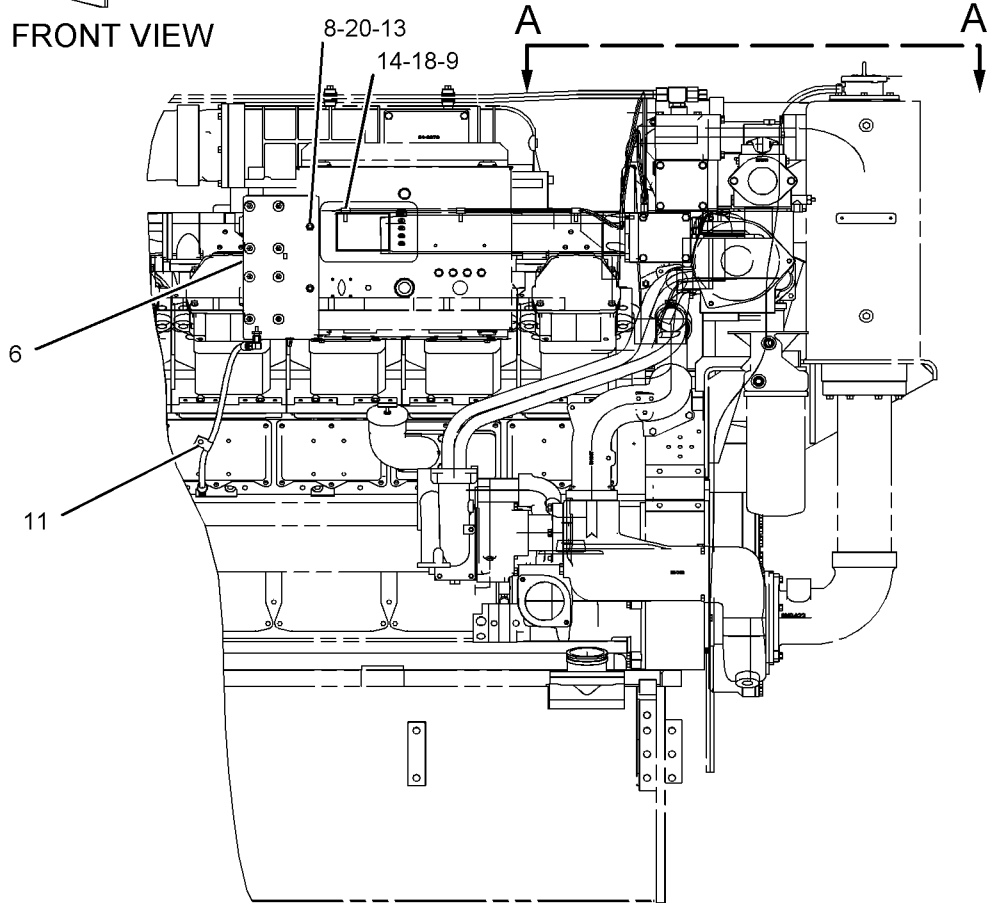
241-9055 MOUNTING GP-CONTACTOR (contd.)

i02455908



FRONT VIEW

VIEW A-A



RIGHT SIDE VIEW

<END>

GRAPHIC #1

g01137025

ELECTRICAL AND STARTING SYSTEM

241 - 9056 MOUNTING GP - CONTACTOR

FOR USE WITH LH MOUNTED POWER DISTRIBUTION PANEL
AN ATTACHMENT

SMCS - 7400

i02279176

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
	1	1	3N-1968	8	MOUNT-FLEXIBLE	
B	2	1	5P-8937		COMPOUND-JOINT (THERMAL)	
	3	1	9X-6772	3	STRAP-CABLE	
	4	1	231-9873	1	BRACKET AS	
I	5	1	231-9877	1	HOSE AS	
	6	1	030-7941	1	ELBOW	
	7	1	153-4906	1	SEAL-O-RING	
	8	1	0S-0509	1	BOLT (3/8-16X0.75-IN)	
	9	1	0S-1618	3	BOLT (5/16-18X1-IN)	
	10	1	1B-9575	2	BOLT (5/16-18X1.56-IN)	
	11	1	4B-0418	2	CLIP	
	12	1	4P-7581	2	CLIP	
	13	1	4W-2648	1	ADAPTER	
	14	1	5M-2894	4	WASHER-HARD (10.2X18.5X2.5-MM THK)	
	15	1	5P-9085	3	CLIP	
	16	1	5P-9617	1	ADAPTER	
	17	1	6V-5048	1	SEAL-O-RING	
	18	1	7K-9197	1	ELBOW (SWIVEL)	
	19	1	9M-1974	3	WASHER-HARD (8.8X16X2-MM THK)	
	20	1	9S-8750	16	NUT-FULL (1/4-20-THD)	

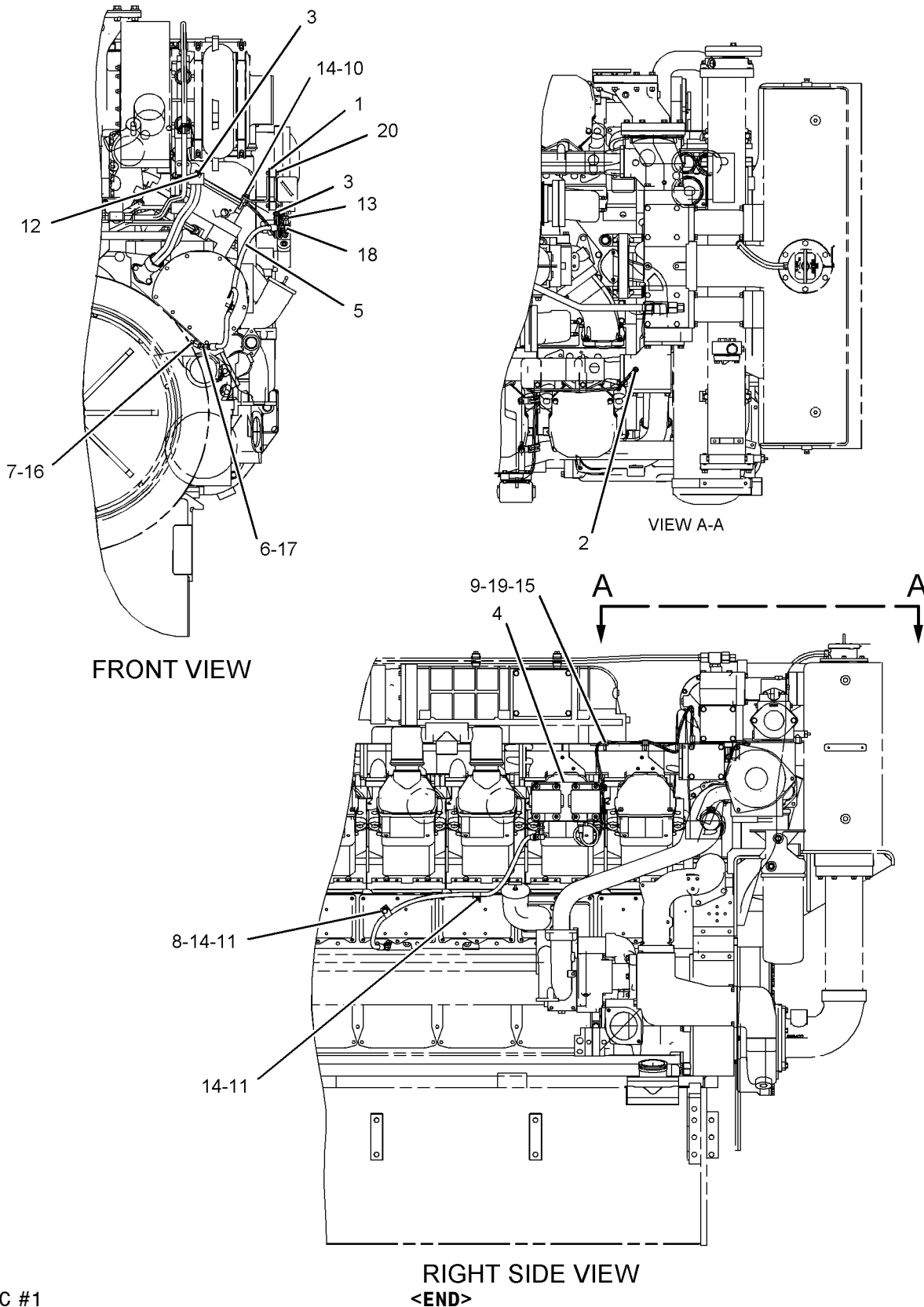
B - USE AS REQUIRED

I - REFER TO HYDRAULIC INFORMATION SYSTEM

ELECTRICAL AND STARTING SYSTEM

241-9056 MOUNTING GP-CONTACTOR (contd.)

i02279176



GRAPHIC #1

<END>

g01014631

ELECTRICAL AND STARTING SYSTEM

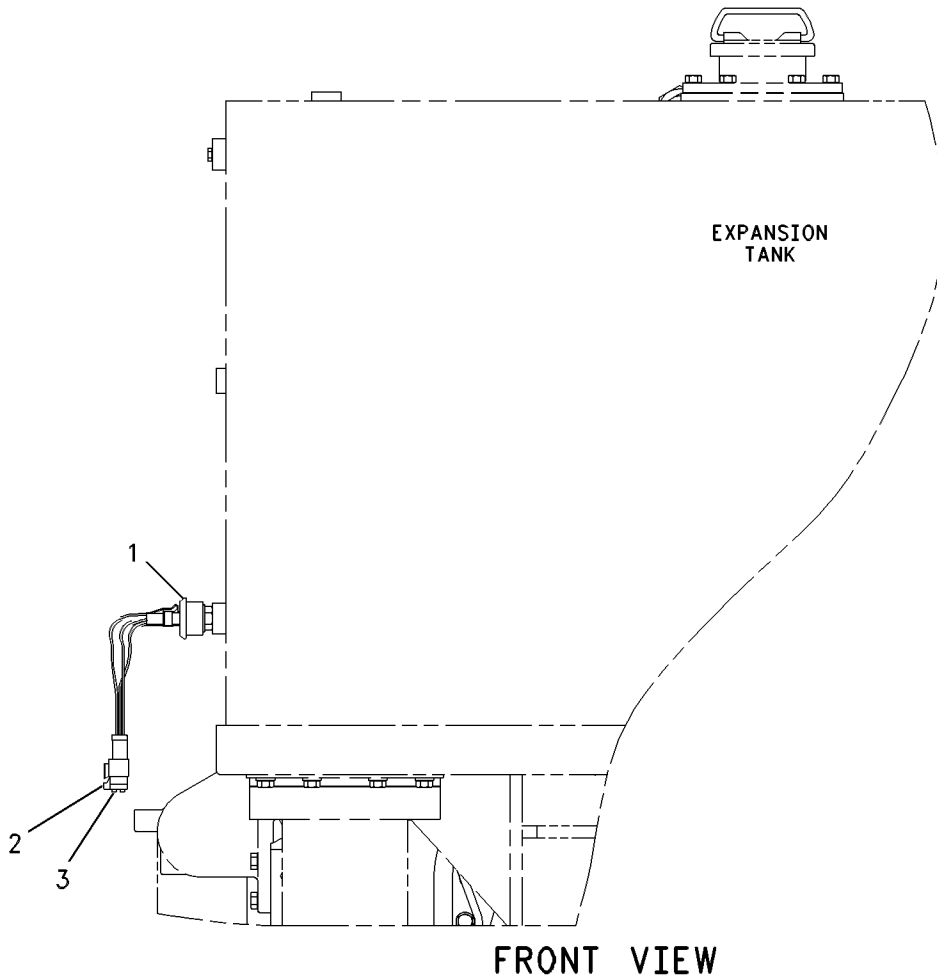
124-0121 SENSOR & MTG GP-EXPANSION TANK-COOLANT LEVEL AN ATTACHMENT

SMCS-1354, 7400

i02706890

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
CY	1	1	204-2518	1	SENSOR GP-COOLANT LEVEL						247
	2	1	155-2260	1	KIT-CONNECTING PLUG (3-PIN) (INCLUDES PLUG AS AND WEDGE)						
	3	1	8T-8737	3	PLUG-SEAL						

C- CHANGE FROM PREVIOUS TYPE
Y- SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00626754

ELECTRICAL AND STARTING SYSTEM

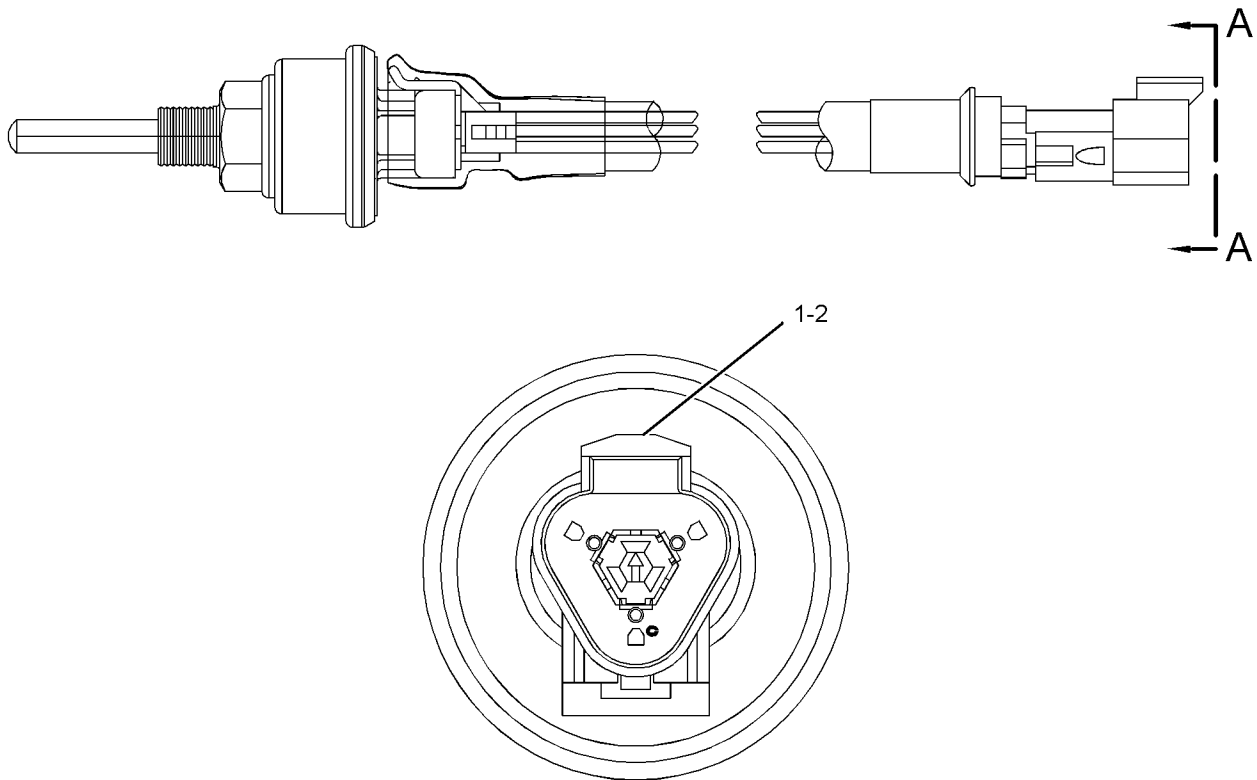
204-2518 SENSOR GP-COOLANT LEVEL

PART OF 124-0121 SENSOR & MTG GP-EXPANSION TANK
AN ATTACHMENT

SMCS-7422

i02585904

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	186-3735	3	PIN-CONNECTOR (16-GA TO 18-GA)						
	2	1	102-8803	1	KIT-RECEPTACLE (3-PIN)						
(INCLUDES RECEPTACLE AS & WEDGE)											



VIEW A-A

GRAPHIC #1

<END>

g01203130

ELECTRICAL AND STARTING SYSTEM

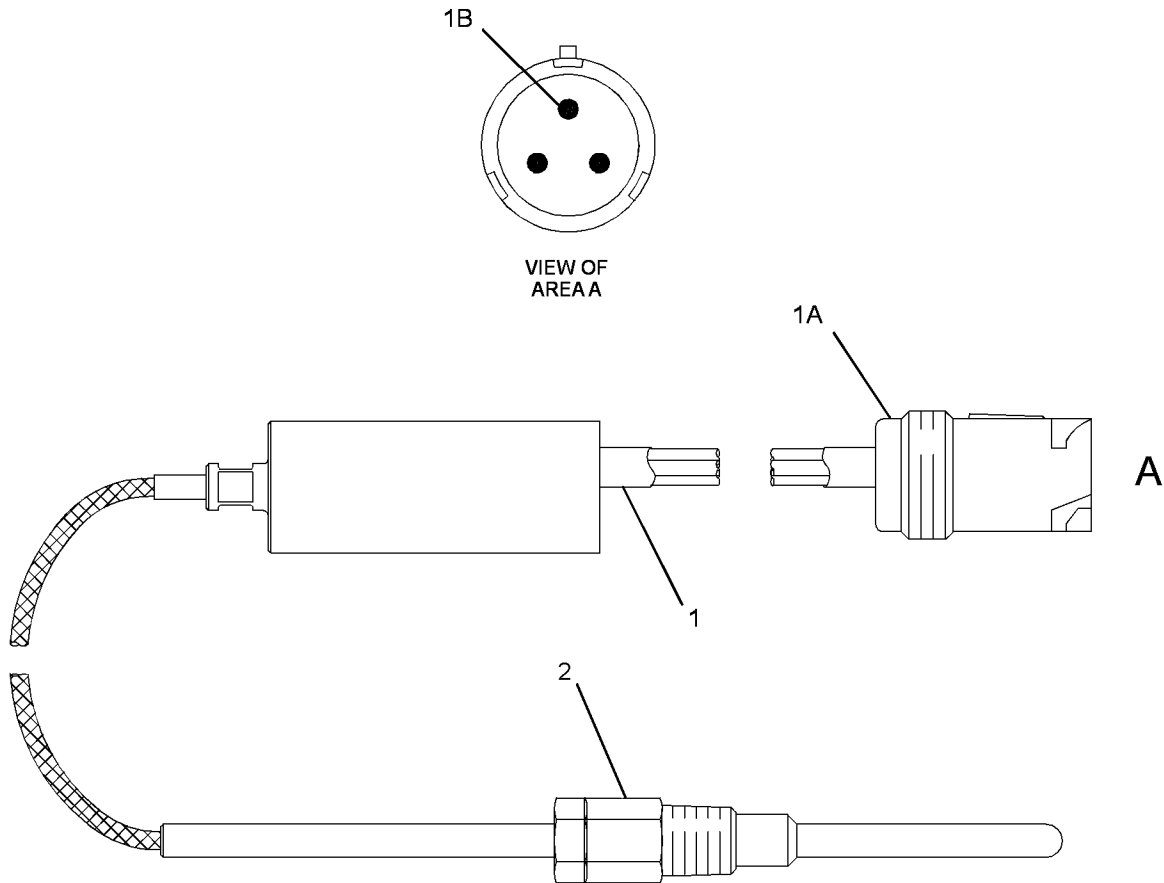
164-2441 SENSOR GP-EXHAUST TEMPERATURE

PART OF 212-3425 SENSOR GP-EXHAUST TEMPERATURE
AN ATTACHMENT

SMCS-1919

i02508013

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	261-6849	1	SENSOR GP-EXHAUST TEMPERATURE						
	1A	1	8T-8732	1	RECEPTACLE (3-PIN)						
	1B	1	186-3735	3	PIN-CONNECTOR (16-GA TO 18-GA)						
	2	1	261-6847	1	ADAPTER						



GRAPHIC #1

<END>

g01251710

ELECTRICAL AND STARTING SYSTEM

212-3425 SENSOR GP - EXHAUST TEMPERATURE

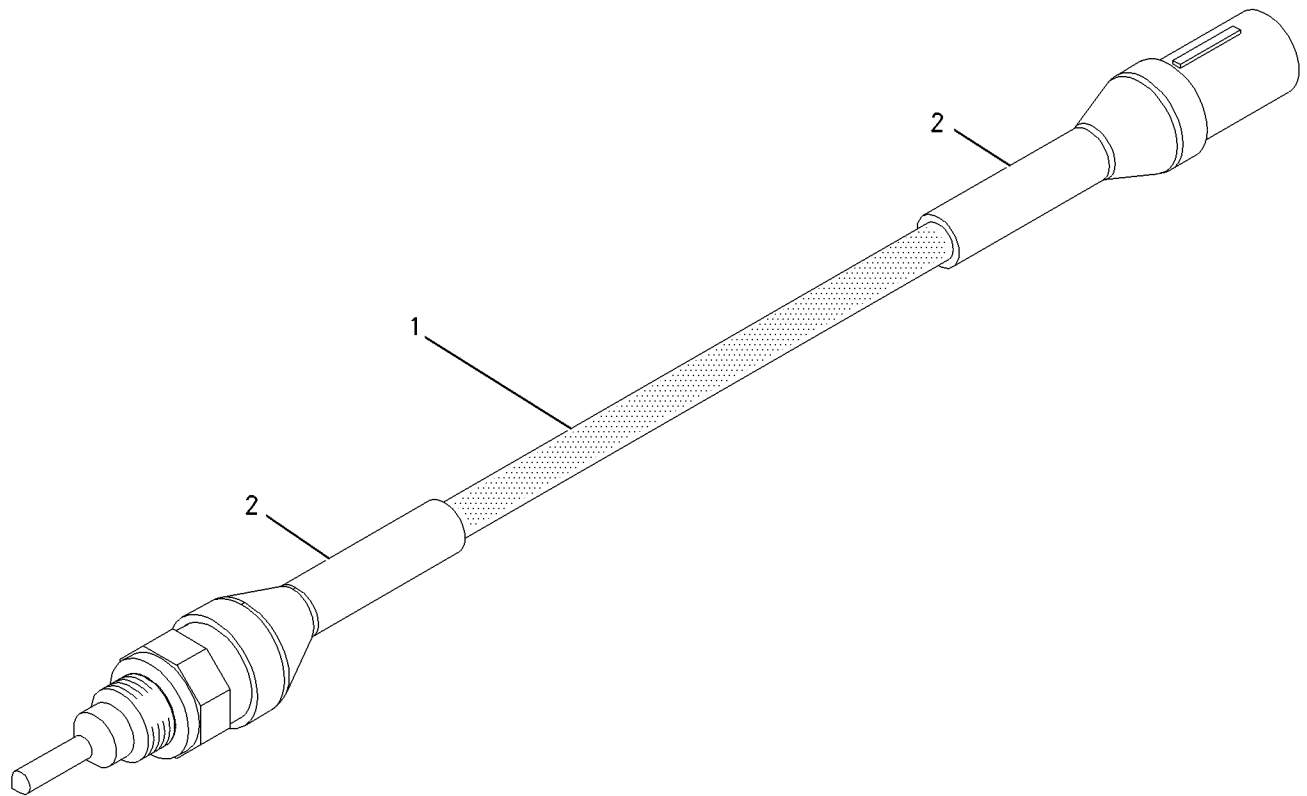
PART OF 305-6908 WIRING GP - ENGINE
AN ATTACHMENT

SMCS-1919

i02360107

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	164-2441	1	SENSOR GP - EXHAUST TEMPERATURE						248
E	2	1	135-5009		TUBE - HEAT SHRINK (32-MM DIA) (16-CM)						

E - ORDER BY THE CENTIMETER
Y - SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00916796

ELECTRICAL AND STARTING SYSTEM

9X-9647 SENSOR GP-POSITION

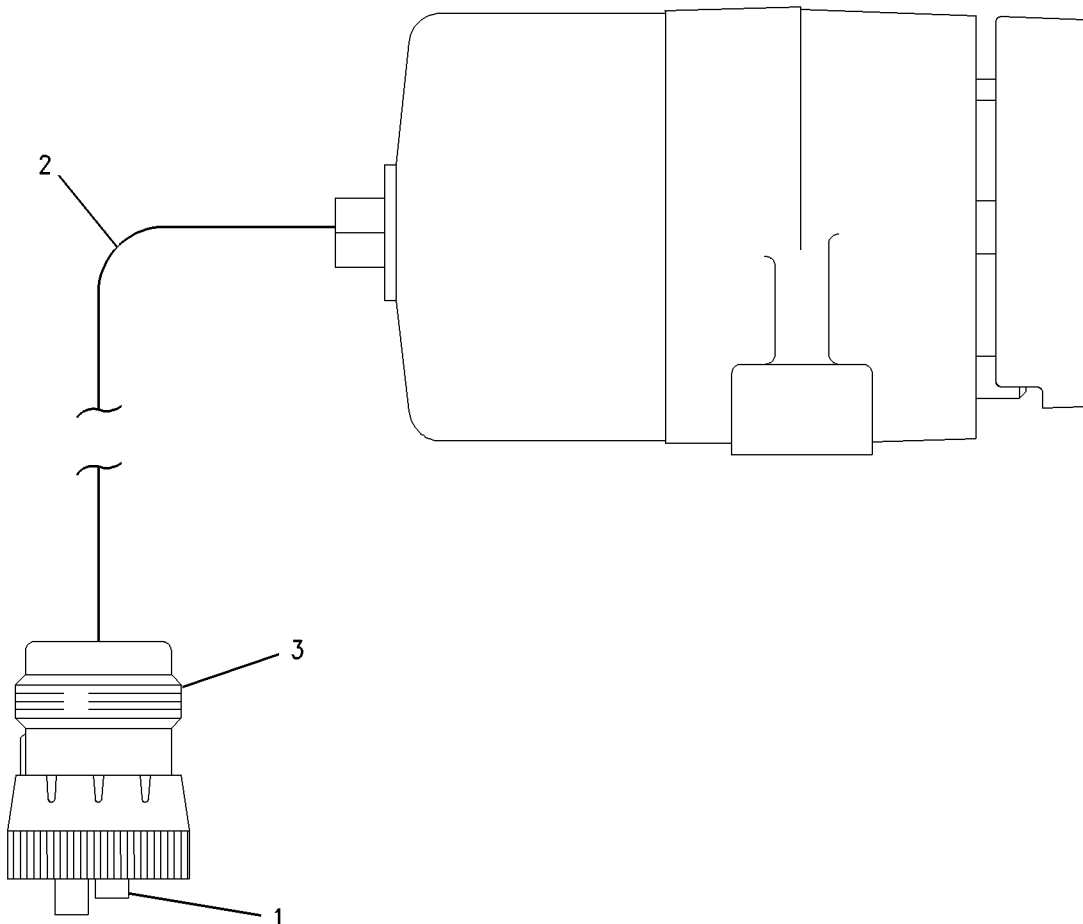
AN ATTACHMENT

SMCS-1905, 1911

i01997257

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	186-3736	3	SOCKET-CONNECTOR (16-GA TO 18-GA)						
E	2	1	9X-1813		SLEEVE (23CM)						
	3	1	8T-8731	1	PLUG-CONNECTOR (3-PIN)						

E-ORDER BY THE CENTIMETER



GRAPHIC #1

<END>

g00683899

ELECTRICAL AND STARTING SYSTEM

161-9932 SENSOR GP-PRESSURE

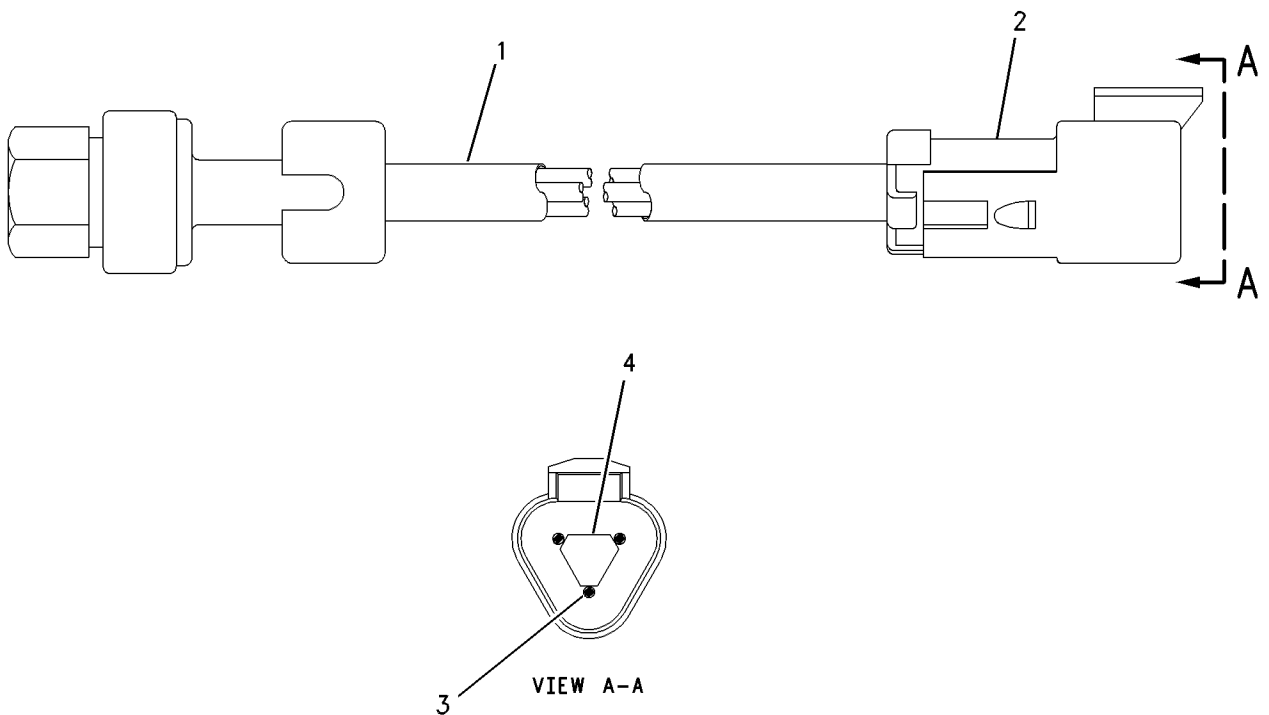
AN ATTACHMENT

SMCS-1718, 1916, 1917, 1923, 1924, 1925

i02585908

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 (15-CM)						
	2	1	102-8803	1	KIT-RECEPTACLE (3-PIN) (INCLUDES RECEPTACLE AS AND WEDGE)						
	3	1	9X-3401	3	PIN-CONNECTOR (16-GA TO 18-GA)						
	4	1	3E-3371	1	WEDGE-RECEPTACLE LOCK (3-PIN)						

E - ORDER BY THE CENTIMETER



GRAPHIC #1

<END>

g00612982

ELECTRICAL AND STARTING SYSTEM

194-6722 SENSOR GP - PRESSURE

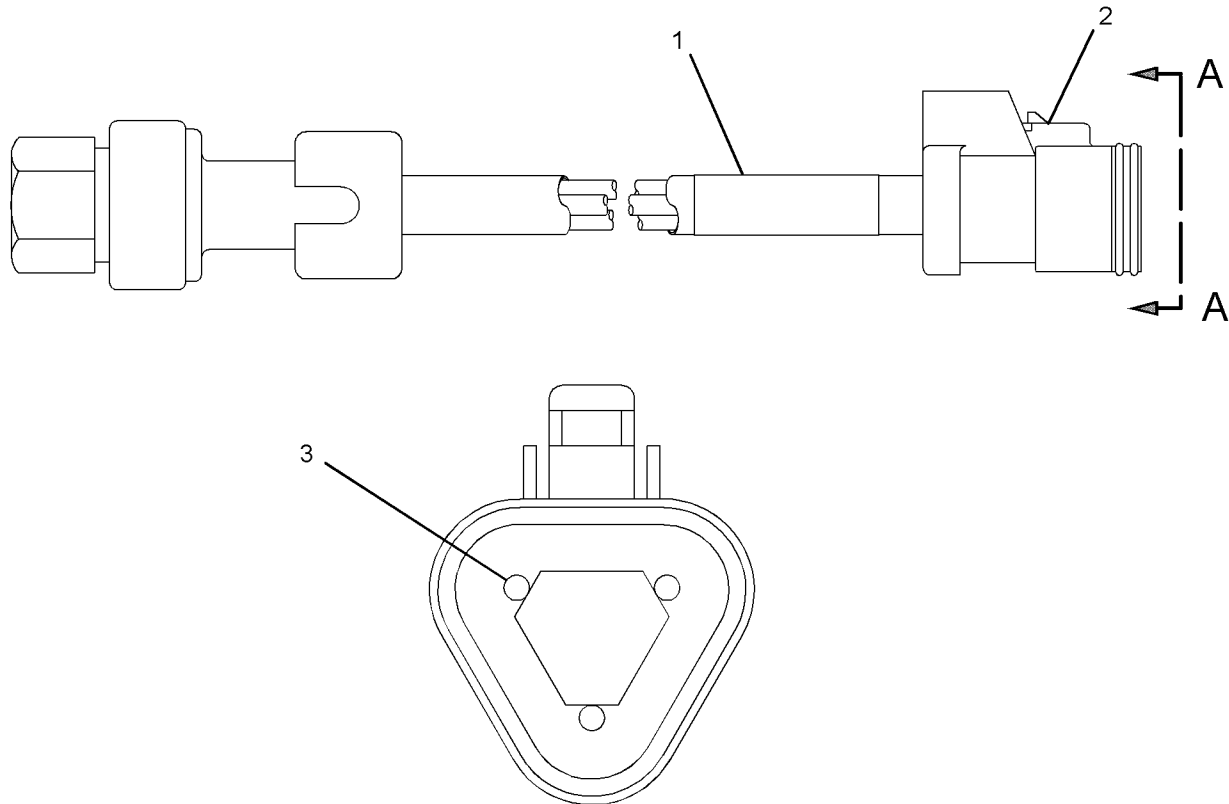
PART OF 304-5666 SENSOR GP - PRESSURE
AN ATTACHMENT

SMCS-1718, 1916, 1917, 1923, 1924, 1925

i02684370

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	155-2260	1	KIT-CONNECTING PLUG (3-PIN) (INCLUDES PLUG AS, INTERFACE SEAL, & WEDGE)						
	3	1	180-9340	3	SOCKET-CONNECTOR						

E-ORDER BY THE CENTIMETER



VIEW A-A

GRAPHIC #1

<END>

g01347788

ELECTRICAL AND STARTING SYSTEM

194-6724 SENSOR GP - PRESSURE

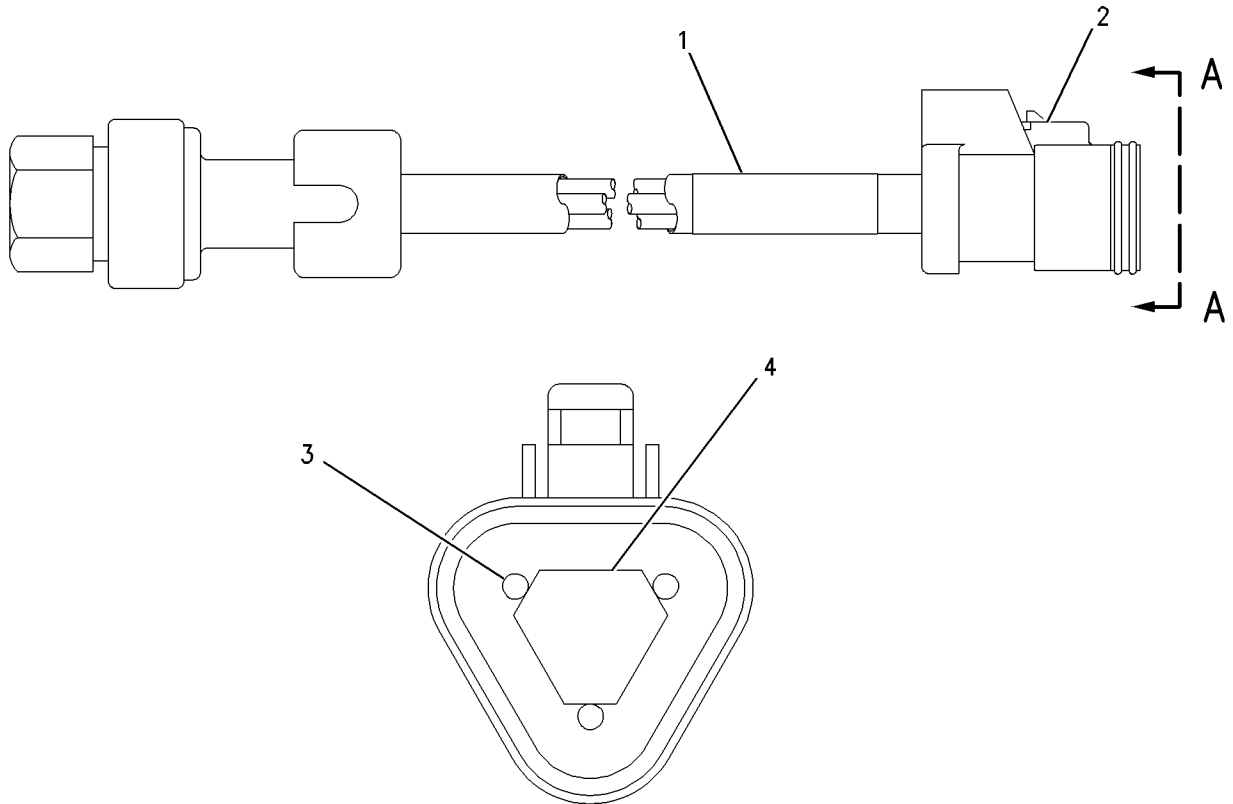
PART OF 304-5667 SENSOR GP - PRESSURE
AN ATTACHMENT

SMCS-1718, 1916, 1917, 1923, 1924, 1925

i02201378

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	155-2260	1	KIT-CONNECTING PLUG (3-PIN) (INCLUDES PLUG AS AND WEDGE)						
	3	1	194-5226	3	WIRE AS-HARNESS (16-GA TO 18-GA)						
	4	1	3E-3368	1	WEDGE-PLUG LOCK (3-PIN)						

E - ORDER BY THE CENTIMETER



VIEW A-A

GRAPHIC #1

<END>

g00851220

ELECTRICAL AND STARTING SYSTEM

304 - 5666 SENSOR GP - PRESSURE

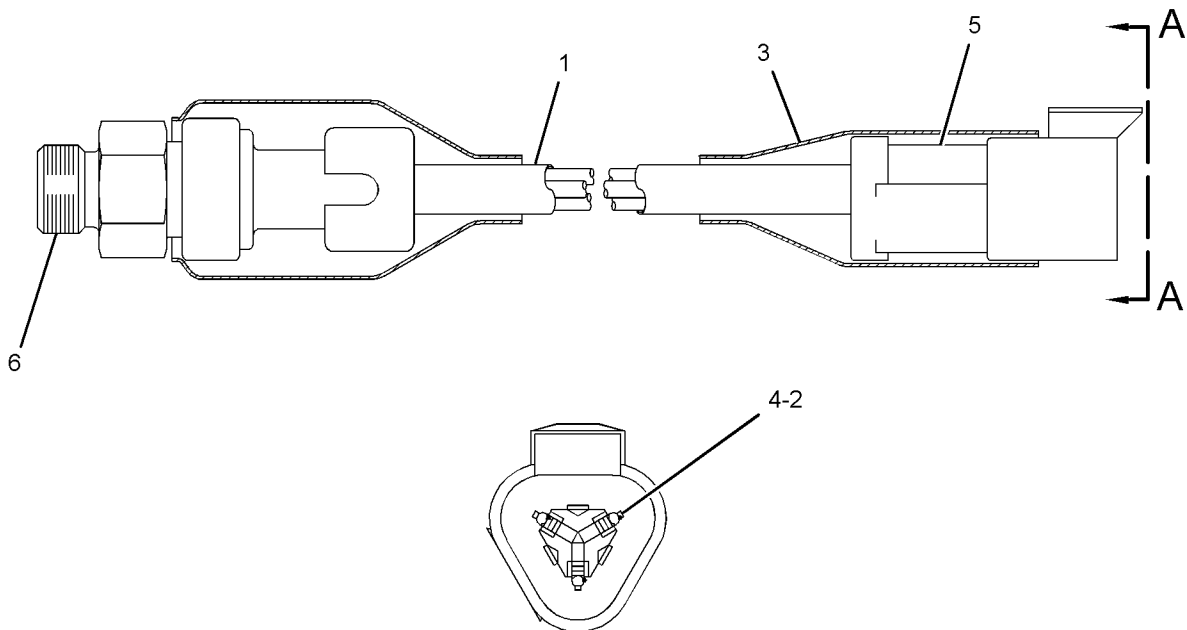
PART OF 305 - 6908 WIRING GP - ENGINE
AN ATTACHMENT

SMCS-1718, 1916, 1917, 1923, 1924, 1925

i02717772

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 (31-CM)						
	2	1	3E-3371	1	WEDGE-RECEPTACLE LOCK (3-PIN)						
E	3	1	210-8958		TUBE-HEAT SHRINK (24-MM DIA) (16-CM)						
	4	1	186-3735	3	PIN-CONNECTOR (16-GA TO 18-GA)						
	5	1	102-8803	1	KIT-RECEPTACLE (3-PIN) (INCLUDES RECEPTACLE AS AND WEDGE)						
Y	6	1	194-6722	1	SENSOR GP - PRESSURE						252

E - ORDER BY THE CENTIMETER
Y - SEPARATE ILLUSTRATION



VIEW A-A

GRAPHIC #1

<END>

g01365418

ELECTRICAL AND STARTING SYSTEM

304-5667 SENSOR GP - PRESSURE

PART OF 305-6908 WIRING GP - ENGINE

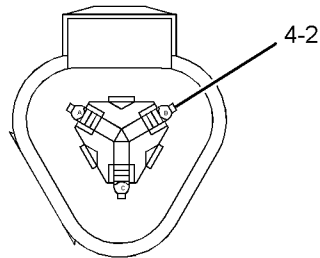
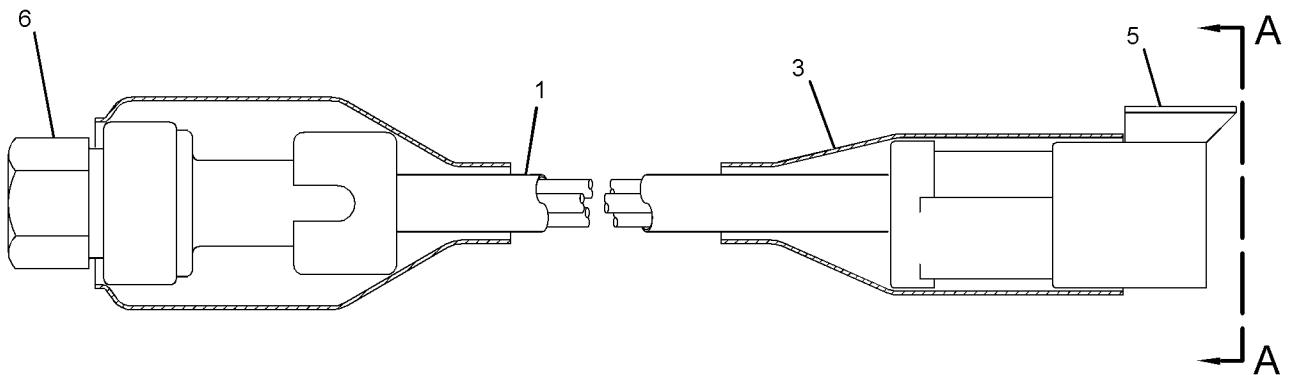
AN ATTACHMENT

SMCS-1718, 1916, 1917, 1923, 1924, 1925

i02717773

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 (31-CM)						
	2	1	3E-3371	1	WEDGE-RECEPTACLE LOCK (3-PIN)						
E	3	1	210-8958		TUBE-HEAT SHRINK (24-MM DIA) (16-CM)						
	4	1	186-3735	3	PIN-CONNECTOR (16-GA TO 18-GA)						
	5	1	102-8803	1	KIT-RECEPTACLE (3-PIN)						
					(INCLUDES RECEPTACLE AS AND WEDGE)						
Y	6	1	194-6724	1	SENSOR GP - PRESSURE						253

E - ORDER BY THE CENTIMETER
Y - SEPARATE ILLUSTRATION



VIEW A-A

GRAPHIC #1

<END>

g01365429

ELECTRICAL AND STARTING SYSTEM

304-5668 SENSOR GP - PRESSURE

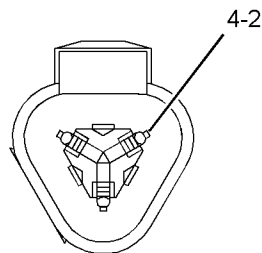
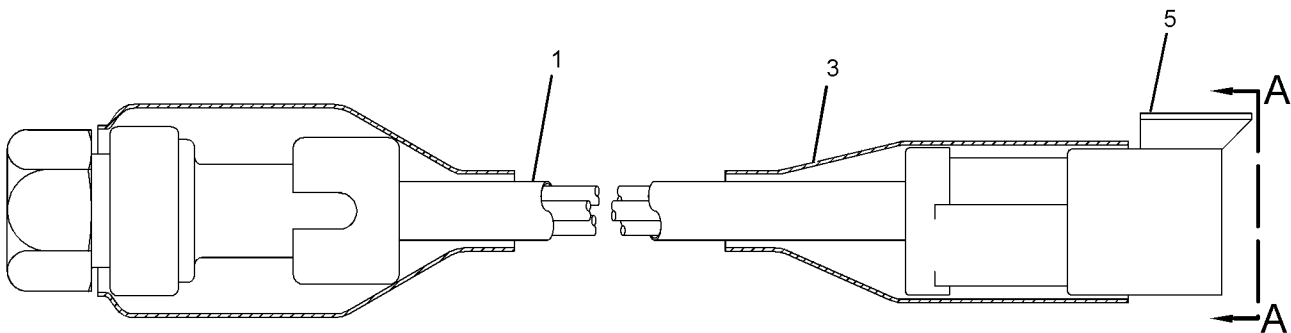
PART OF 307-2044, 307-2045 WIRING GP-ENGINE, 307-0008, 307-2046 WIRING GP-SENSOR
AN ATTACHMENT

SMCS-1718, 1916, 1917, 1923, 1924, 1925

i02665379

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 (31-CM)						
	2	1	3E-3371	1	WEDGE-RECEPTACLE LOCK (3-PIN)						
E	3	1	135-5009		TUBE-HEAT SHRINK (32-MM DIA) (16-CM)						
	4	1	186-3735	3	PIN-CONNECTOR (16-GA TO 18-GA)						
	5	1	102-8803	1	KIT-RECEPTACLE (3-PIN) (INCLUDES RECEPTACLE AS AND WEDGE)						

E - ORDER BY THE CENTIMETER



VIEW A-A

GRAPHIC #1

<END>

g01345591

ELECTRICAL AND STARTING SYSTEM

9X-5392 SENSOR GP - SPEED

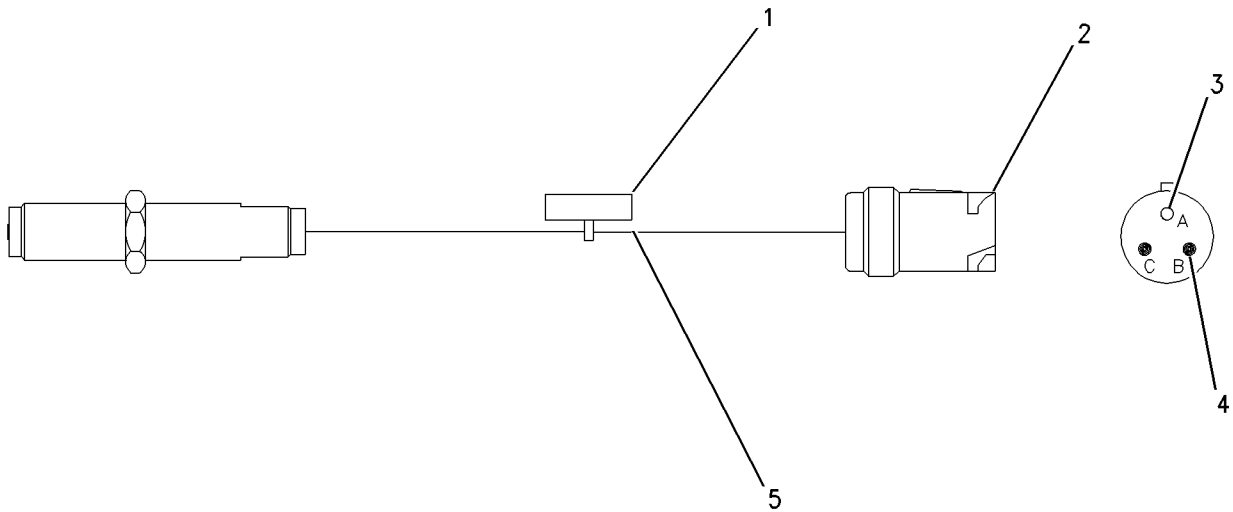
PART OF 212-3426 SENSOR GP - SPEED
AN ATTACHMENT

SMCS - 1907

i02408693

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	171-5349	1	STRAP-MARKER						
	2	1	8T-8732	1	RECEPTACLE (3-PIN)						
	3	1	8T-8737	1	PLUG-SEAL						
	4	1	186-3735	2	PIN-CONNECTOR (16-GA TO 18-GA)						
E	5	1	9X-1386		SLEEVE (14-CM)						

E - ORDER BY THE CENTIMETER



GRAPHIC #1

<END>

g00839872

ELECTRICAL AND STARTING SYSTEM

212-0848 SENSOR GP - SPEED

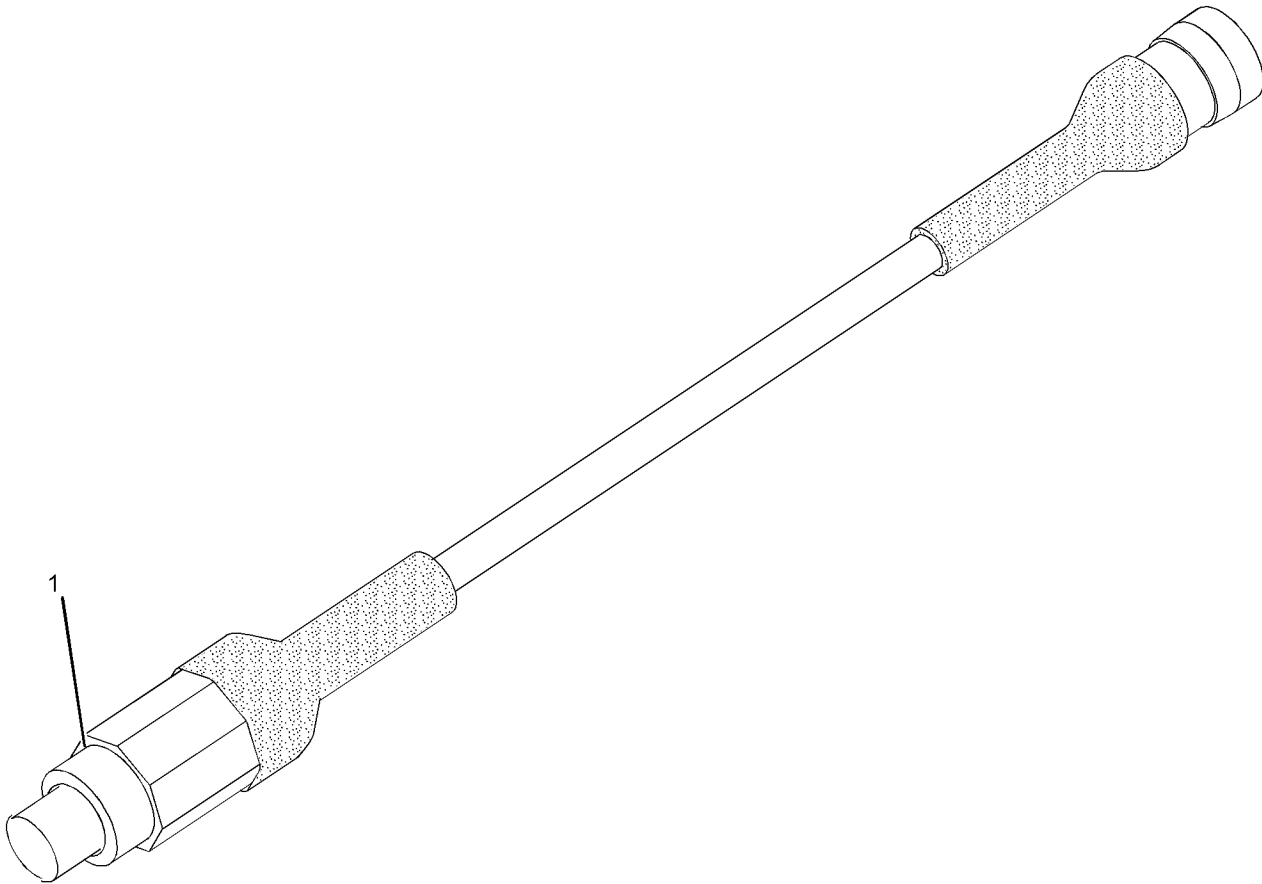
PART OF 305-6908 WIRING GP - ENGINE
AN ATTACHMENT

SMCS - 1907

i02629218

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
CY	1	1	295-4636	1	SENSOR GP - SPEED						261

C - CHANGE FROM PREVIOUS TYPE
Y - SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01320016

ELECTRICAL AND STARTING SYSTEM

212-3426 SENSOR GP - SPEED

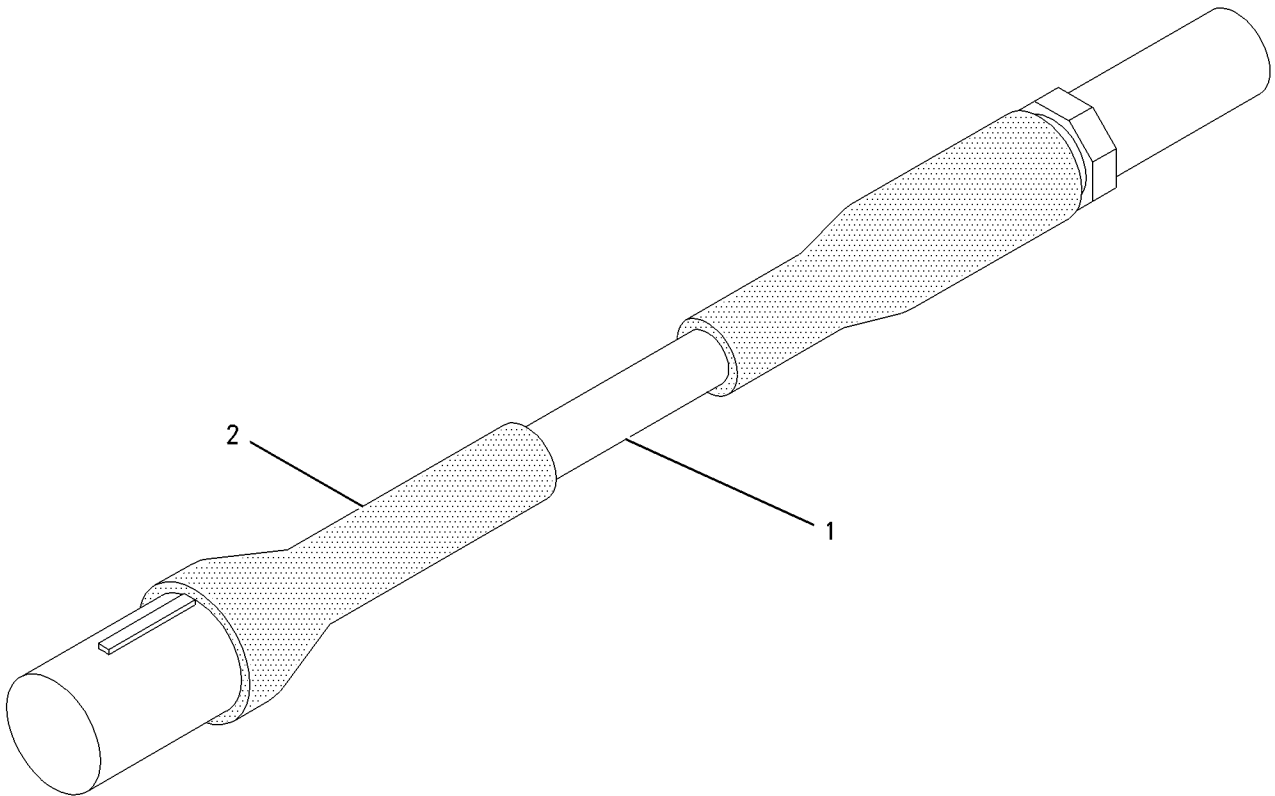
PART OF 305-6908 WIRING GP - ENGINE
AN ATTACHMENT

SMCS - 1907

i02360140

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	9X-5392	1	SENSOR GP - SPEED (MAGNETIC, LOW OUTPUT)						257
E	2	1	210-8958		TUBE - HEAT SHRINK (24-MM DIA) (16-CM)						

E - ORDER BY THE CENTIMETER
Y - SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00916980

ELECTRICAL AND STARTING SYSTEM

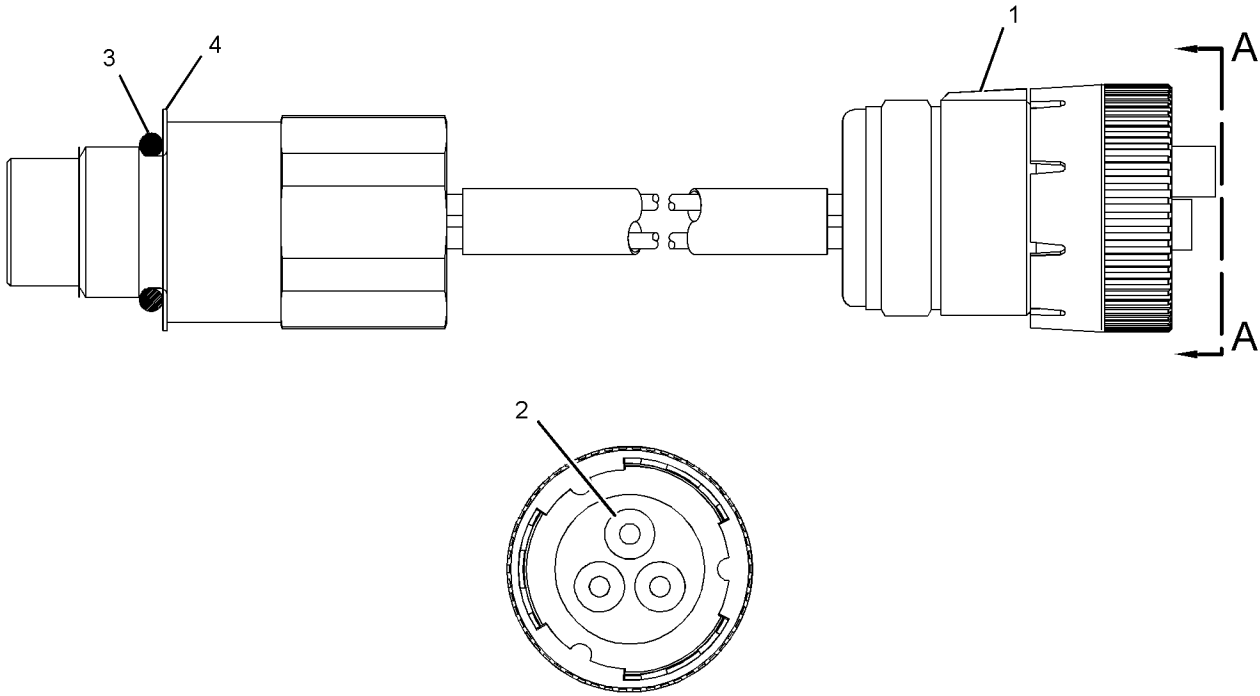
265-9034 SENSOR GP - SPEED

PART OF 295-4636 SENSOR GP - SPEED
AN ATTACHMENT

SMCS - 1907

i02710358

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	8T-8731	1	PLUG-CONNECTOR (3-PIN)						
	2	1	180-9340	3	SOCKET-CONNECTOR						
	3	1	117-8766	1	SEAL-O-RING						
	4	1	133-1207	1	WASHER (21.1X28.1X0.9-MM THK)						



VIEW A-A

GRAPHIC #1

<END>

g01310558

ELECTRICAL AND STARTING SYSTEM

295-4636 SENSOR GP - SPEED

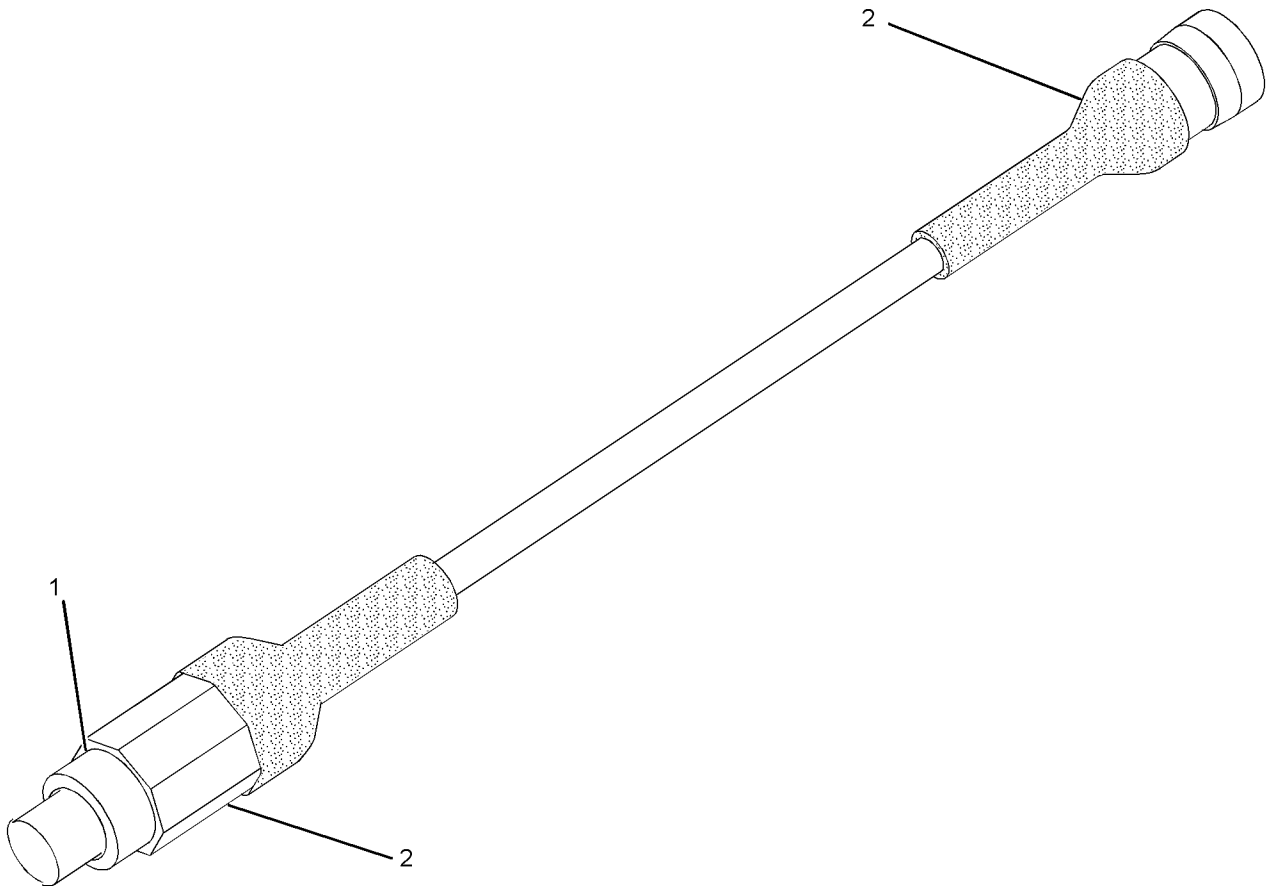
PART OF 212-0848 SENSOR GP - SPEED
AN ATTACHMENT

SMCS - 1907

i02628879

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	265-9034	1	SENSOR GP - SPEED						260
E	2	1	135-5009		TUBE - HEAT SHRINK (32-MM DIA) (16-CM)						

E - ORDER BY THE CENTIMETER
Y - SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01327714

ELECTRICAL AND STARTING SYSTEM

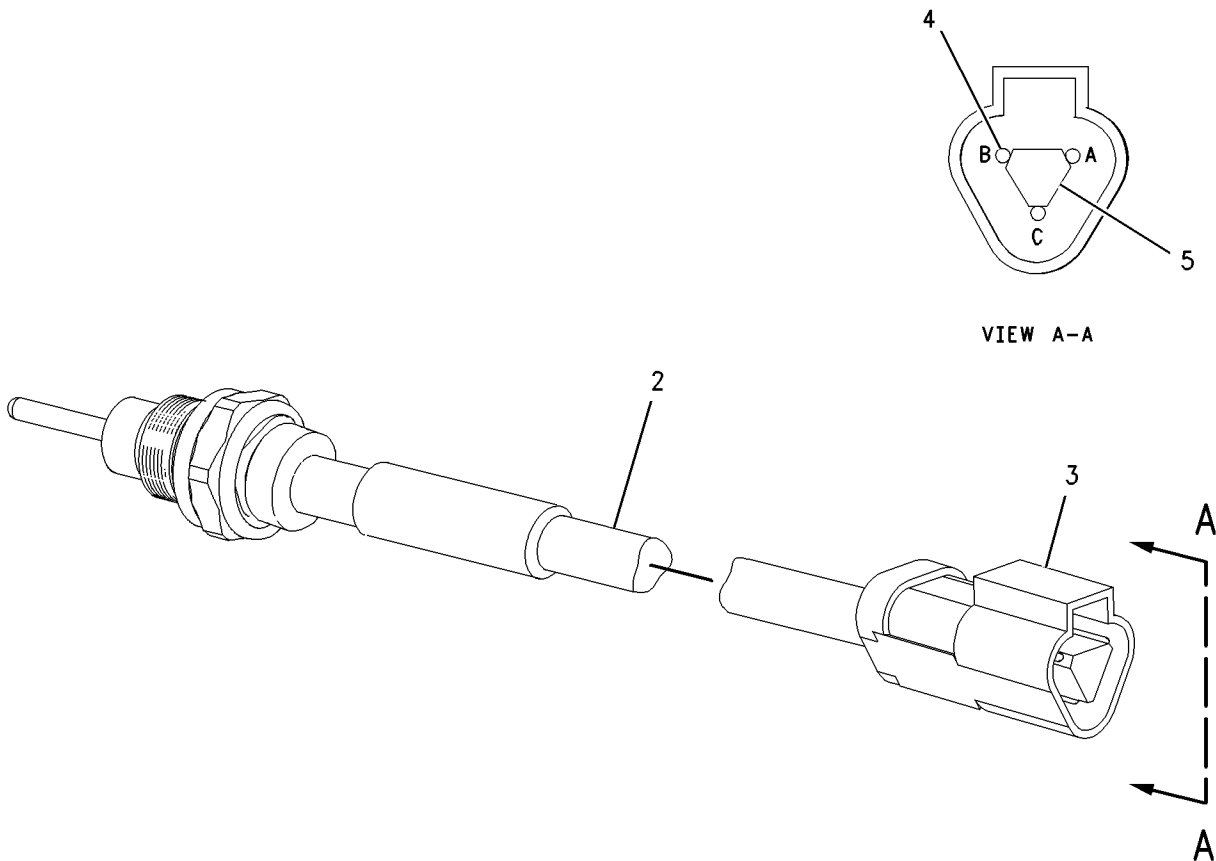
102-2240 SENSOR GP - TEMPERATURE

AN ATTACHMENT

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

i02657092

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
E	2	1	9X-1813		SLEEVE (31-CM)						
	3	1	102-8803	1	KIT-RECEPTACLE (3-PIN) (INCLUDES RECEPTACLE AS & WEDGE)						
	4	1	186-3735	3	PIN-CONNECTOR (16-GA TO 18-GA)						
	5	1	3E-3371	1	WEDGE-RECEPTACLE LOCK (3-PIN)						
	E - ORDER BY THE CENTIMETER										



GRAPHIC #1

<END>

g00790343

ELECTRICAL AND STARTING SYSTEM

195-2150 SENSOR GP - TEMPERATURE

COLD

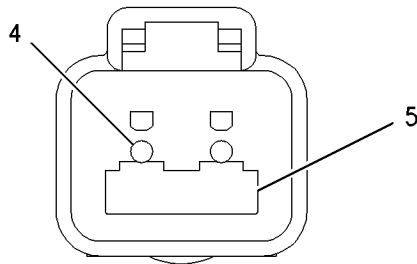
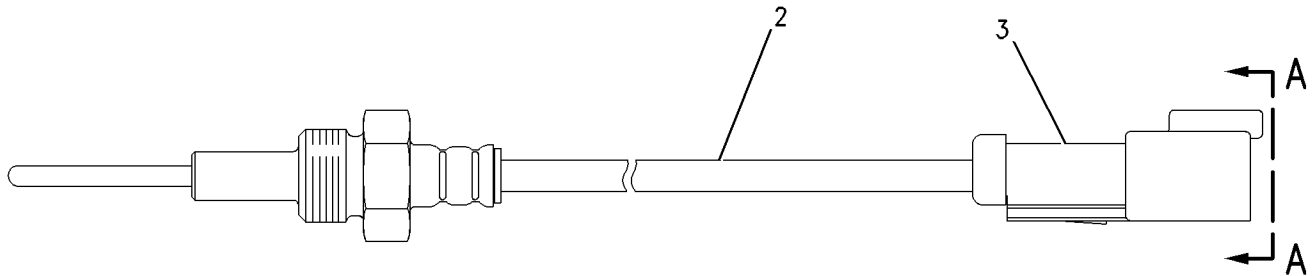
PART OF 255-0178, 255-0180 WIRING GP-SENSOR
FIELD REPLACEMENT FOR 129-9191 SENSOR GP-TEMPERATURE
AN ATTACHMENT

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

i02231071

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
BH	2	1	153-5043		SLEEVE (4-DM)						
	3	1	102-8802	1	KIT-RECEPTACLE (2-PIN) (INCLUDES RECEPTACLE AS AND WEDGE)						
	4	1	186-3735	2	PIN-CONNECTOR (16-GA TO 18-GA)						
	5	1	3E-3365	1	WEDGE-RECEPTACLE LOCK (2-PIN)						

B- USE AS REQUIRED
H- ORDER BY THE DECIMETER



VIEW A-A

GRAPHIC #1

<END>

g00857794

ELECTRICAL AND STARTING SYSTEM

212-3423 SENSOR GP - TEMPERATURE-COOLANT

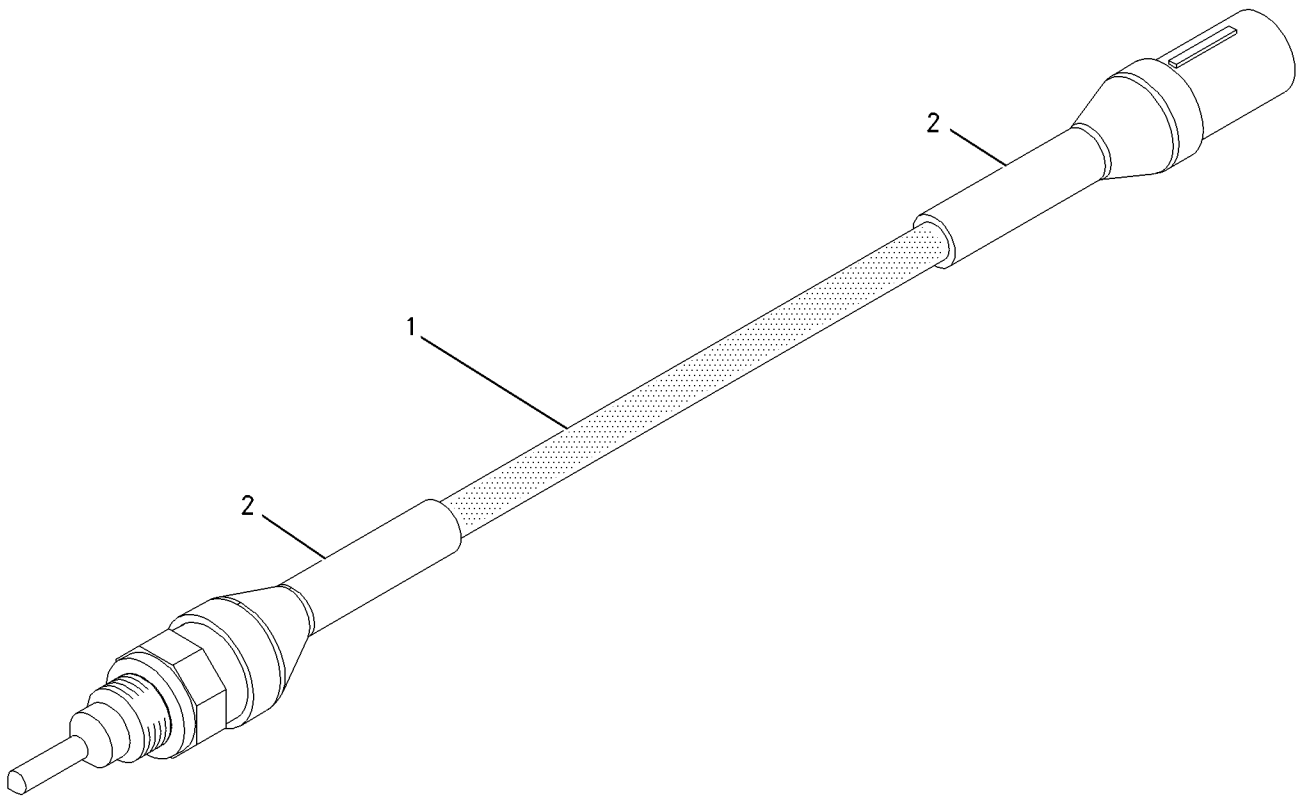
PART OF 305-6908 WIRING GP-ENGINE
AN ATTACHMENT

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

i02400533

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	102-7532	1	SENSOR GP-TEMPERATURE (COOLANT)						
E	2	1	135-5009		TUBE-HEAT SHRINK (32-MM DIA) (16-CM)						

E-ORDER BY THE CENTIMETER



GRAPHIC #1

<END>

g00916796

ELECTRICAL AND STARTING SYSTEM

143-5168 STARTING MOTOR GP-AIR

PART OF 143-5174 STARTING MOTOR GP-AIR

AN ATTACHMENT

SMCS-1451

i02665582

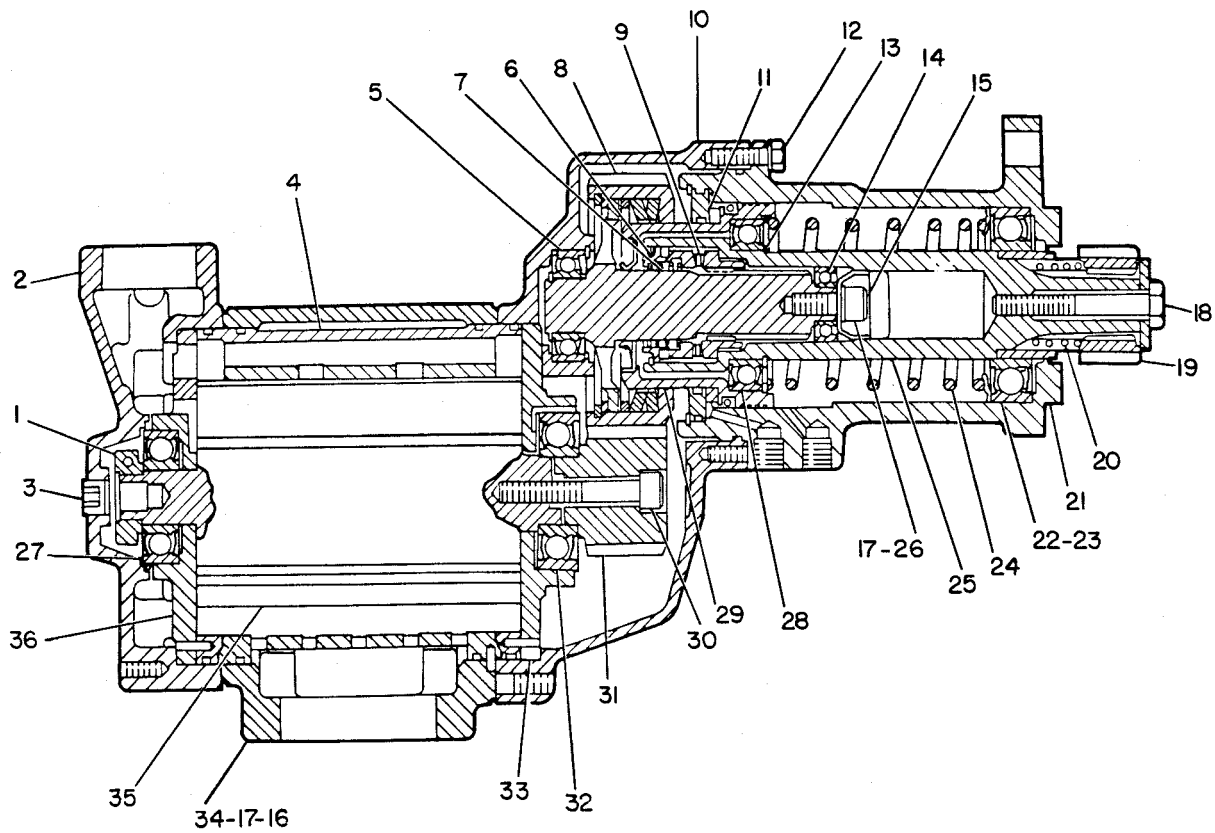
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
M	1	1	096-4833	1	BOLT-SOCKET HEAD (M5X0.8X20-MM)						
		1	5N-8378	1	NUT-ROTOR CLAMP (M5X0.8-THD)						
	2	1	5N-8363	1	COVER AS						
	3	1	4D-3118	3	PLUG-PIPE						
	4	1	5N-8383	1	CYLINDER						
	5	1	6V-3916	1	BALL BEARING						
		1	1L-8497	1	RING-SNAP (SMALL)						
		1	6J-7855	1	RING-LOCK (LARGE)						
	6	1	5N-8375	1	CUP-SPRING						
		1	6V-3935	1	RING-RETAINING						
	7	1	5N-8381	1	SPRING-CLUTCH						
	8	1	2W-6081	1	GEAR AS-DRIVE (37-TEETH)						
	9	1	5N-9574	1	JAW AS-CLUTCH						
	10	1	5N-8387	1	CASE-GEAR						
	11	1	5N-8424	1	BULKHEAD						
M	12	1	6V-3940	8	BOLT (M8X1.25X25-MM)						
		1	3B-4505	8	LOCKWASHER						
	13	1	3J-7719	1	RING-RETAINING (INNER)						
		1	6V-3971	1	RING-RETAINING (OUTER)						
	14	1	7F-8671	1	BALL BEARING						
	15	1	5N-8428	1	WASHER-GEAR (10.1X34X15.5-MM THK)						
M	16	1	5N-8427	4	BOLT-MOTOR (M10X1.5X180-MM)						
	17	1	6V-3959	5	LOCKWASHER						
M	18	1	5N-8403	1	SCREW-PINION (M12X1.25X70-MM)						
		1	5N-8425	1	WASHER (12.2X41.5X4.5-MM THK)						
	19	1	2W-6078	1	PINION-DRIVE						
	20	1	5N-8380	1	SPRING-PINION						
		1	5N-8374	1	SLEEVE-SPRING						
	21	1	2W-6082	1	KIT-DRIVE (AIR STARTING MOTOR) (INCLUDES O-RING, HOUSING, BEARING, SEAL AND VENT)						
	22	1	8B-7624	1	BALL BEARING						
	23	1	5N-8379	1	SEAT-SPRING						
	24	1	5N-8372	1	SPRING-RETURN						
	25	1	5N-8384	1	SHAFT-DRIVE						
M	26	1	6V-3938	1	BOLT (M10X1.5X20-MM)						
	27	1	5P-9514	1	BALL BEARING						
	28	1	5N-8377	1	BEARING-DRIVE SHAFT						
	29	1	5N-8373	1	PISTON						
M	30	1	6V-3939	1	BOLT (M12X1.75X60-MM)						
	31	1	5N-8368	1	PINION-ROTOR						
	32	1	6V-1394	1	BALL BEARING						
		1	039-4317	2	WASHER-SPRING						
	33	1	5N-8365	1	PLATE-FRONT END						
	34	1	111-4399	1	HOUSING-MOTOR						
	35	1	5N-8388	1	ROTOR						
	36	1	5N-8367	1	PLATE-REAR END						
					AVAILABLE REPAIR KIT(S) :						
			5N-8390	1	KIT-SEAL & VANE (AIR STARTING MOTOR) (INCLUDES PINS, RINGS, SEALS, VANES AND RETAINER)						

M-METRIC PART

ELECTRICAL AND STARTING SYSTEM

143-5168 STARTING MOTOR GP-AIR (contd.)

i02665582



GRAPHIC #1

<END>

g00081746

ELECTRICAL AND STARTING SYSTEM

143-5169 STARTING MOTOR GP-AIR-REVERSE ROTATION, LH PART OF 143-5173 STARTING MOTOR GP-AIR AN ATTACHMENT

SMCS-1451

i02698932

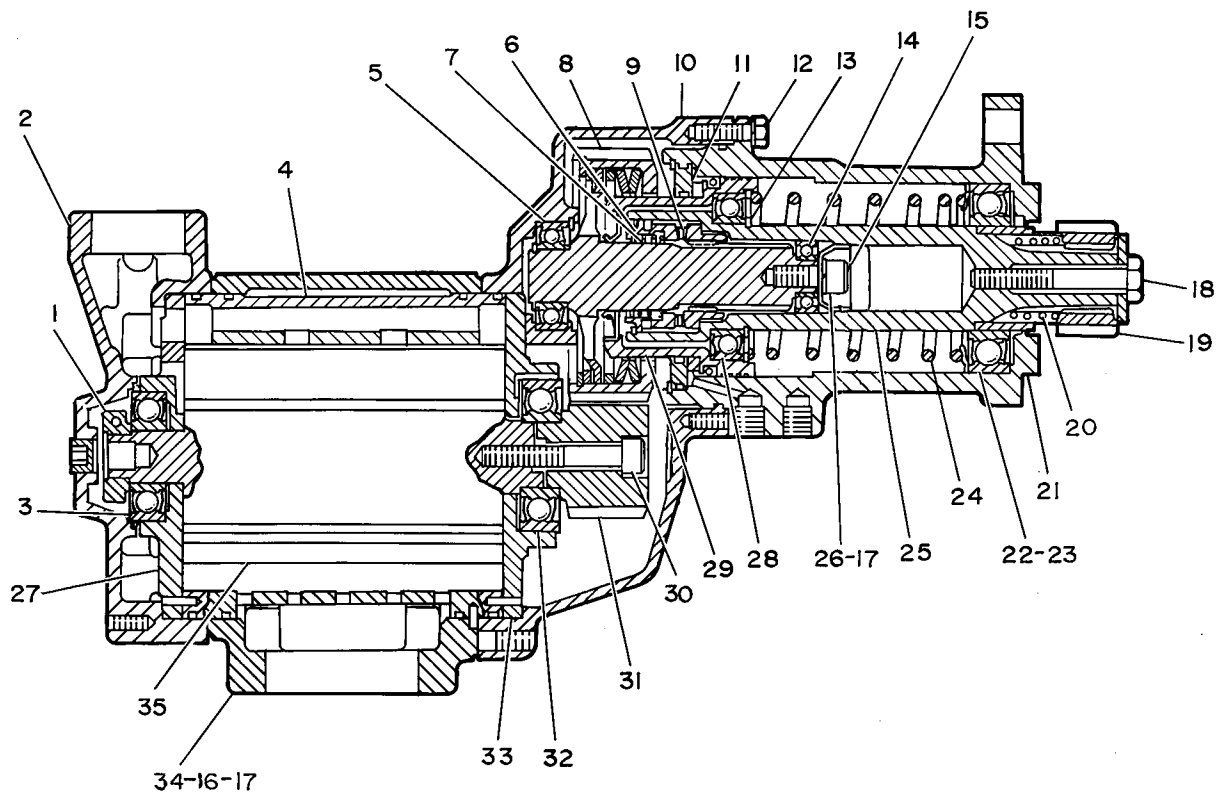
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
M	1	1	6V-3937	1	BOLT (M5X0.8X20-MM)						
		1	5N-8378	1	NUT-ROTOR CLAMP (M5X0.8-THD)						
	2	1	5N-8363	1	COVER AS						
		1	4D-3118	3	PLUG-PIPE						
	3	1	5P-9514	1	BALL BEARING						
	4	1	5N-8383	1	CYLINDER						
	5	1	6V-3916	1	BALL BEARING						
		1	1L-8497	1	RING-SNAP (EXTERNAL)						
		1	6J-7855	1	RING-LOCK (INTERNAL)						
	6	1	5N-8375	1	CUP-SPRING						
		1	6V-3935	1	RING-RETAINING						
	7	1	5N-8381	1	SPRING-CLUTCH						
	8	1	2W-6081	1	GEAR AS-DRIVE (37-TEETH)						
	9	1	5N-9575	1	JAW AS-CLUTCH						
	10	1	5N-8387	1	CASE-GEAR						
	11	1	5N-8424	1	BULKHEAD						
M	12	1	6V-3940	8	BOLT (M8X1.25X25-MM)						
		1	3B-4505	8	LOCKWASHER						
	13	1	3J-7719	1	RING-RETAINING (INNER)						
		1	6V-3971	1	RING-RETAINING (OUTER)						
	14	1	7F-8671	1	BALL BEARING						
	15	1	5N-8428	1	WASHER-GEAR (10.1X34X15.5-MM THK)						
M	16	1	5N-8427	4	BOLT-MOTOR (M10X1.5X180-MM)						
	17	1	6V-3959	5	LOCKWASHER						
M	18	1	6V-3941	1	BOLT (M12X1.25X70-MM)						
		1	5N-8425	1	WASHER (12.2X41.5X4.5-MM THK)						
	19	1	2W-6079	1	PINION-DRIVE (12 TEETH)						
	20	1	5N-8389	1	SPRING-PINION						
		1	5N-8374	1	SLEEVE-SPRING						
	21	1	2W-6082	1	KIT-DRIVE (AIR STARTING MOTOR) (INCLUDES O-RING, HOUSING, BEARING, SEAL & VENT)						
	22	1	8B-7624	1	BALL BEARING						
	23	1	5N-8379	1	SEAT-SPRING						
	24	1	5N-8372	1	SPRING-RETURN						
	25	1	5N-8385	1	SHAFT-DRIVE						
M	26	1	6V-3938	1	BOLT (M10X1.5X20-MM)						
	27	1	5N-8366	1	PLATE-REAR END						
	28	1	5N-8377	1	BEARING-DRIVE SHAFT						
	29	1	5N-8373	1	PISTON						
M	30	1	6V-3939	1	BOLT (M12X1.75X60-MM)						
	31	1	5N-8368	1	PINION-ROTOR						
	32	1	6V-1394	1	BALL BEARING						
		1	039-4317	2	WASHER-SPRING						
	33	1	5N-8365	1	PLATE-FRONT END						
	34	1	111-4399	1	HOUSING-MOTOR						
	35	1	5N-8388	1	ROTOR						
					AVAILABLE REPAIR KIT(S) :						
			5N-8390	1	KIT-SEAL & VANE (AIR STARTING MOTOR) (INCLUDES PINS, O-RINGS, SEALS, VANES & RETAINER)						

M-METRIC PART

ELECTRICAL AND STARTING SYSTEM

143-5169 STARTING MOTOR GP - AIR (contd.)

i02698932



GRAPHIC #1

<END>

g00167331

ELECTRICAL AND STARTING SYSTEM

143-5173 STARTING MOTOR GP-AIR-REVERSE ROTATION, LH AN ATTACHMENT

SMCS-1451

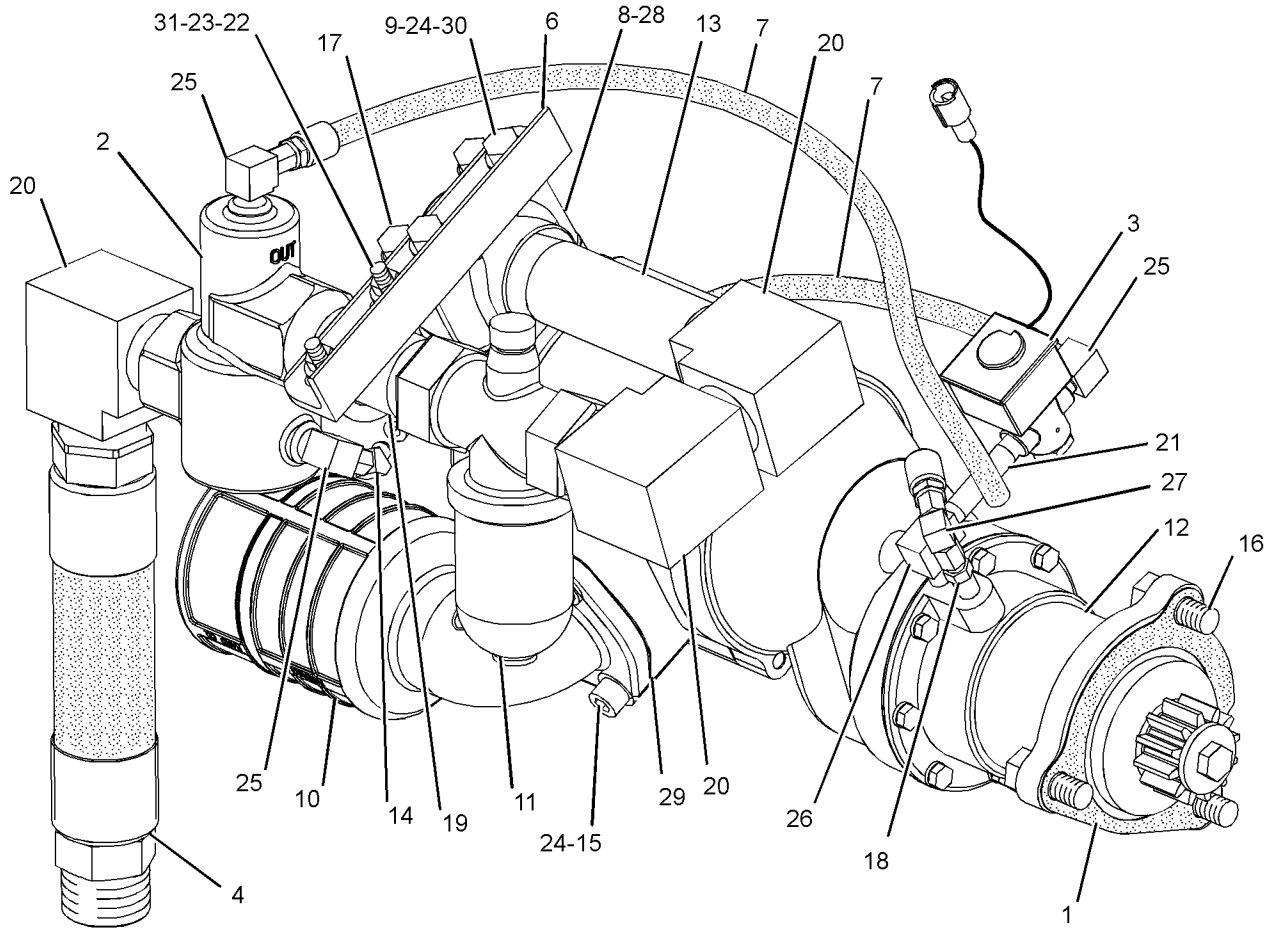
i02640748

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4H-7869	1	GASKET						
J	2	1	4N-3411	1	VALVE GP-RELAY (AIR STARTING MOTOR)						
Y	3	1	5N-8980	1	VALVE AS-SOLENOID (AIR START)						281
I	4	1	6F-5985	1	HOSE AS						
C	6	1	7C-2946	2	BRACKET						
I	7	1	7N-2539	2	HOSE AS						
	8	1	8N-8446	1	ELBOW						
	9	1	9S-9238	2	SPACER (13.49X23.88X16.13-MM THK)						
	10	1	107-8769	1	SILENCER-AIR STARTING						
Y	11	1	119-6284	1	LUBRICATOR GP-AIR MOTOR						236
Y	12	1	143-5169	1	STARTING MOTOR GP-AIR						267
	13	1	143-5177	1	NIPPLE-PIPE						
C	14	1	030-7961	1	ELBOW						
	15	1	141-8596	4	BOLT-SOCKET HEAD (1/2-13X1.25-IN)						
	16	1	0S-1566	3	BOLT (5/8-11X1.5-IN)						
	17	1	1D-4566	2	BOLT (1/2-13X3.5-IN)						
C	18	1	4S-6399	1	CONNECTOR						
	19	1	5B-7643	1	NIPPLE-PIPE						
C	20	1	5B-7666	3	ELBOW						
	21	1	5H-7598	1	NIPPLE-PIPE						
	22	1	5L-2534	1	U-BOLT						
	23	1	5P-1075	2	WASHER-HARD (10.2X22.5X3-MM THK)						
	24	1	5P-8245	6	WASHER-HARD (13.5X25.5X3-MM THK)						
C	25	1	6K-1972	3	ELBOW-FLARED						
C	26	1	7J-8611	1	ELBOW-PIPE						
C	27	1	7K-9197	1	ELBOW						
	28	1	8N-8451	1	GASKET						
	29	1	8N-8452	1	GASKET						
	30	1	8S-9089	2	BOLT (1/2-13X4.5-IN)						
	31	1	9S-8752	2	NUT-FULL (3/8-16-THD)						
					AVAILABLE REPAIR KIT(S):						
J			7C-5105	1	KIT-VALVE SEAL (AIR STARTER RELAY) (INCLUDES SEALS, RETAINER, AND BUMPER)						
C- CHANGE FROM PREVIOUS TYPE I- REFER TO HYDRAULIC INFORMATION SYSTEM J- KIT MARKED J SERVICES PART MARKED J Y- SEPARATE ILLUSTRATION											

ELECTRICAL AND STARTING SYSTEM

143-5173 STARTING MOTOR GP-AIR (contd.)

i02640748



GRAPHIC #1

<END>

g01321305

ELECTRICAL AND STARTING SYSTEM

143-5174 STARTING MOTOR GP-AIR AN ATTACHMENT

SMCS-1451

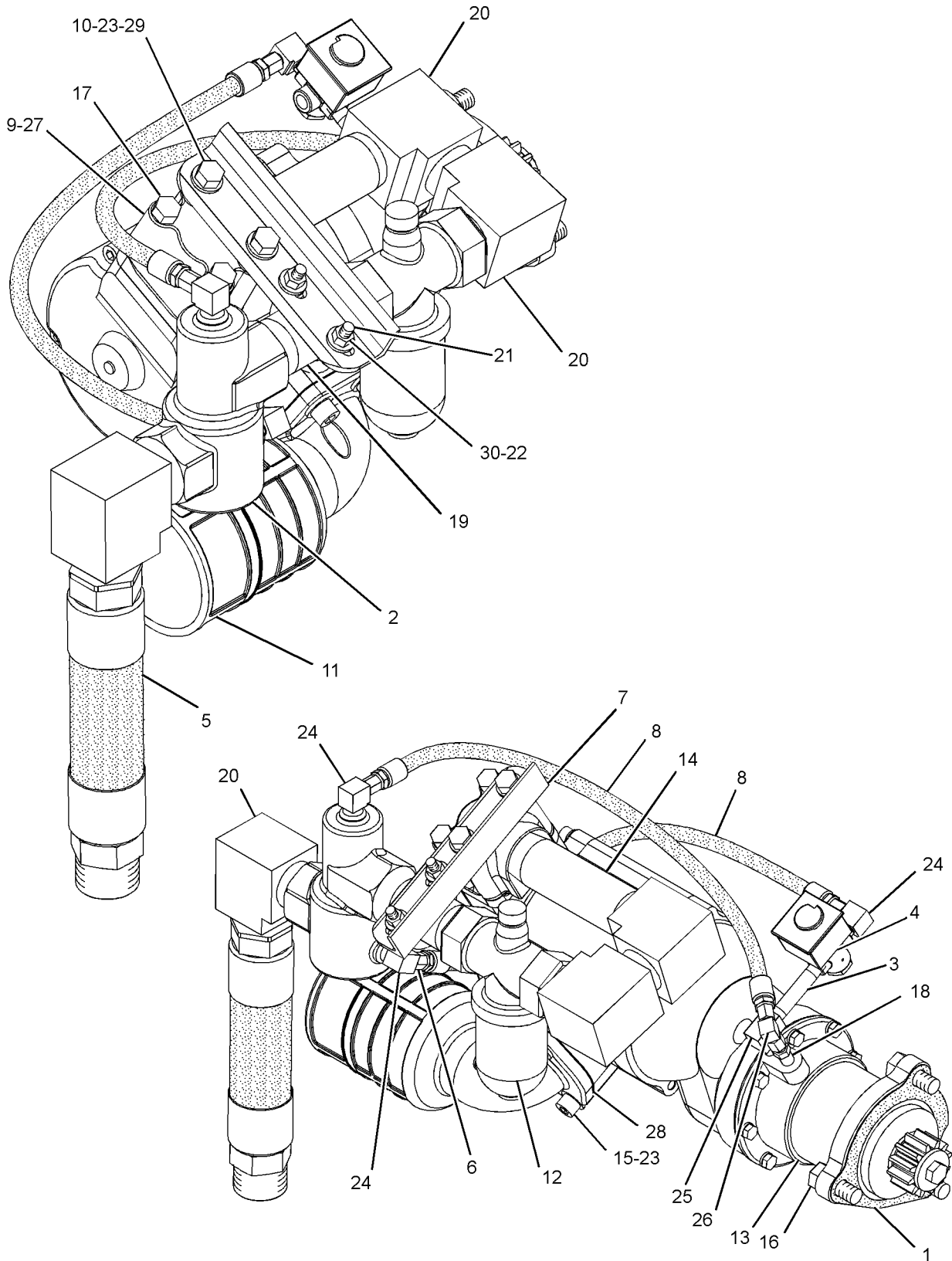
i02407380

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4H-7869	1	GASKET						
J	2	1	4N-3411	1	VALVE GP-RELAY (AIR STARTING MOTOR)						
C	3	1	5H-7598	1	NIPPLE-PIPE						
Y	4	1	5N-8980	1	VALVE AS-SOLENOID (AIR START)						281
I	5	1	6F-5985	1	HOSE AS						
	6	1	030-7961	1	ELBOW						
C	7	1	7C-2946	1	BRACKET						
CI	8	1	7N-2539	2	HOSE AS						
	9	1	8N-8446	1	ELBOW						
	10	1	9S-9238	2	SPACER (13.49X23.88X16.13-MM THK)						
	11	1	107-8769	1	SILENCER-AIR STARTING						
Y	12	1	119-6284	1	LUBRICATOR GP-AIR MOTOR						236
Y	13	1	143-5168	1	STARTING MOTOR GP-AIR						265
	14	1	143-5177	1	NIPPLE-PIPE						
	15	1	141-8596	4	BOLT-SOCKET HEAD (1/2-13X1.25-IN)						
	16	1	0S-1566	3	BOLT (5/8-11X1.5-IN)						
	17	1	1D-4566	2	BOLT (1/2-13X3.5-IN)						
C	18	1	4S-6399	1	CONNECTOR						
	19	1	5B-7643	1	NIPPLE-PIPE						
C	20	1	5B-7666	3	ELBOW						
	21	1	5L-2534	1	U-BOLT						
	22	1	5P-1075	2	WASHER-HARD (10.2X22.5X3-MM THK)						
	23	1	5P-8245	6	WASHER-HARD (13.5X25.5X3-MM THK)						
	24	1	6K-1972	3	ELBOW-FLARED						
C	25	1	7J-8611	1	ELBOW-PIPE						
C	26	1	7K-9197	1	ELBOW (SWIVEL)						
	27	1	8N-8451	1	GASKET						
	28	1	8N-8452	1	GASKET						
	29	1	8S-9089	2	BOLT (1/2-13X4.5-IN)						
	30	1	9S-8752	2	NUT-FULL (3/8-16-THD)						
					AVAILABLE REPAIR KIT(S):						
J			7C-5105	1	KIT-VALVE SEAL (AIR STARTER RELAY) (INCLUDES SEALS, RETAINER, AND BUMPER)						
C- CHANGE FROM PREVIOUS TYPE I- REFER TO HYDRAULIC INFORMATION SYSTEM J- KIT MARKED J SERVICES PART MARKED J Y- SEPARATE ILLUSTRATION											

ELECTRICAL AND STARTING SYSTEM

143-5174 STARTING MOTOR GP - AIR (contd.)

i02407380



GRAPHIC #1

<END>

g01243200

ELECTRICAL AND STARTING SYSTEM

6V-0927 STARTING MOTOR GP-ELECTRIC

24-VOLT

PART OF 8N-3896 STARTING MOTOR GP-ELECTRIC

FIELD REPLACEMENT ORDER 237-1962-PAGE 277

AN ATTACHMENT

SMCS-1453

i02600861

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7M-0326	1	CONNECTOR						
	2	1	9H-3757	2	WASHER (0.516X1X0.094-IN THK)						
	3	1	1S-7446	3	SCREW-MACHINE (8-32X0.437-IN)						
	4	1	8C-9660	3	WASHER (4.6X7.9X0.8-MM THK)						
	5	1	9S-2544	9	SCREW-HEX HEAD (8-32X11.13-MM)						
	6	1	7M-0327	1	WASHER-THRUST (17.4X25.4X1.6-MM THK)						
	7	1	3T-3418	1	FRAME AS-END						
		1	3T-3423	1	CUP						
		1	9G-4101	1	BUSHING-END						
		1	3T-3424	1	PLUG-FELT						
	8	1	3T-9525	1	PLATE AS-BRUSH						
	8A	1	6T-0371	1	INSULATOR						
	8B	1	5P-6298	12	SCREW-MACHINE (10-32X0.5-IN)						
		1	9F-5599	12	LOCKWASHER						
	8C	1	7F-3525	6	WASHER-BUSHING (0.207X0.39X0.09-IN THK)						
	8D	1	6T-0372	1	PLATE						
	8E	1	3T-4709	3	PLATE						
	8F	1	2L-6679	3	PLATE-INSULATOR						
	8G	1	3T-4710	3	PLATE						
	8H	1	6T-0363	6	HOLDER AS-BRUSH (STARTING MOTOR)						
					(EACH INCLUDES)						
	8J	1	3T-9494	1	SPRING (STARTING MOTOR BRUSH)						
	9	1	7F-3491	2	WASHER (0.516X1X0.094-IN THK)						
	10	1	3T-3422	1	WIRE AS						
	11	1	2J-8163	2	SEAL-O-RING						
	12	1	7X-3373	1	BOLT (5/16-18X0.88-IN)						
B	13	1	3T-3434	6	PLUG						
	14	1	5J-5314	5	BOLT (5/16-18X1.5-IN)						
	15	1	3L-3380	1	BUSHING-TERMINAL						
	16	1	036-9821	1	WASHER						
	17	1	4M-1828	1	RETAINER-SPRING						
	18	1	4M-1829	1	BOOT-RUBBER						
	19	1	4M-1827	1	RETAINER-SPRING						
	20	1	9M-7609	1	SPRING (SHIFT LEVER)						
	21	1	8C-3089	1	SEAL-O-RING						
	22	1	4M-1853	1	LEVER AS-SHIFT						
	23	1	5M-3034	1	LOCKNUT (5/16-24-THD)						
	24	1	7L-2894	4	GASKET						
	25	1	4M-1831	4	PLUG-LEVER HOUSING						
	26	1	4M-1854	1	SHAFT-LEVER						
	27	1	1H-1023	1	SEAL-O-RING						
	28	1	2D-6392	1	SEAL-O-RING						
	29	1	7T-3974	1	HOUSING AS-DRIVE						
	30	1	6N-3826	1	DRIVE AS-MOTOR						
	31	1	2H-3429	2	RING-RETAINING (EXTERNAL)						
	32	1	6V-1322	4	BOLT (1/4-20X0.375-IN)						
	33	1	8T-4205	4	WASHER-HARD (7.2X14.5X2-MM THK)						
	34	1	6N-3279	1	INSULATOR						
	35	1	036-9823	13	BOLT (1/4-28X1-IN)						
	36	1	1M-9971	1	SPACER (0.835X1.72X0.188-IN THK)						
	37	1	1H-2629	3	STRIP-INSULATION						
	38	1	7M-0324	1	COIL AS-FIELD						
	39	1	3F-0379	12	SCREW-POLE SHOE (3/8-24-THD)						
	40	1	7F-3488	6	SHOE-POLE						

ELECTRICAL AND STARTING SYSTEM

6V-0927 STARTING MOTOR GP-ELECTRIC (contd.)

i02600861

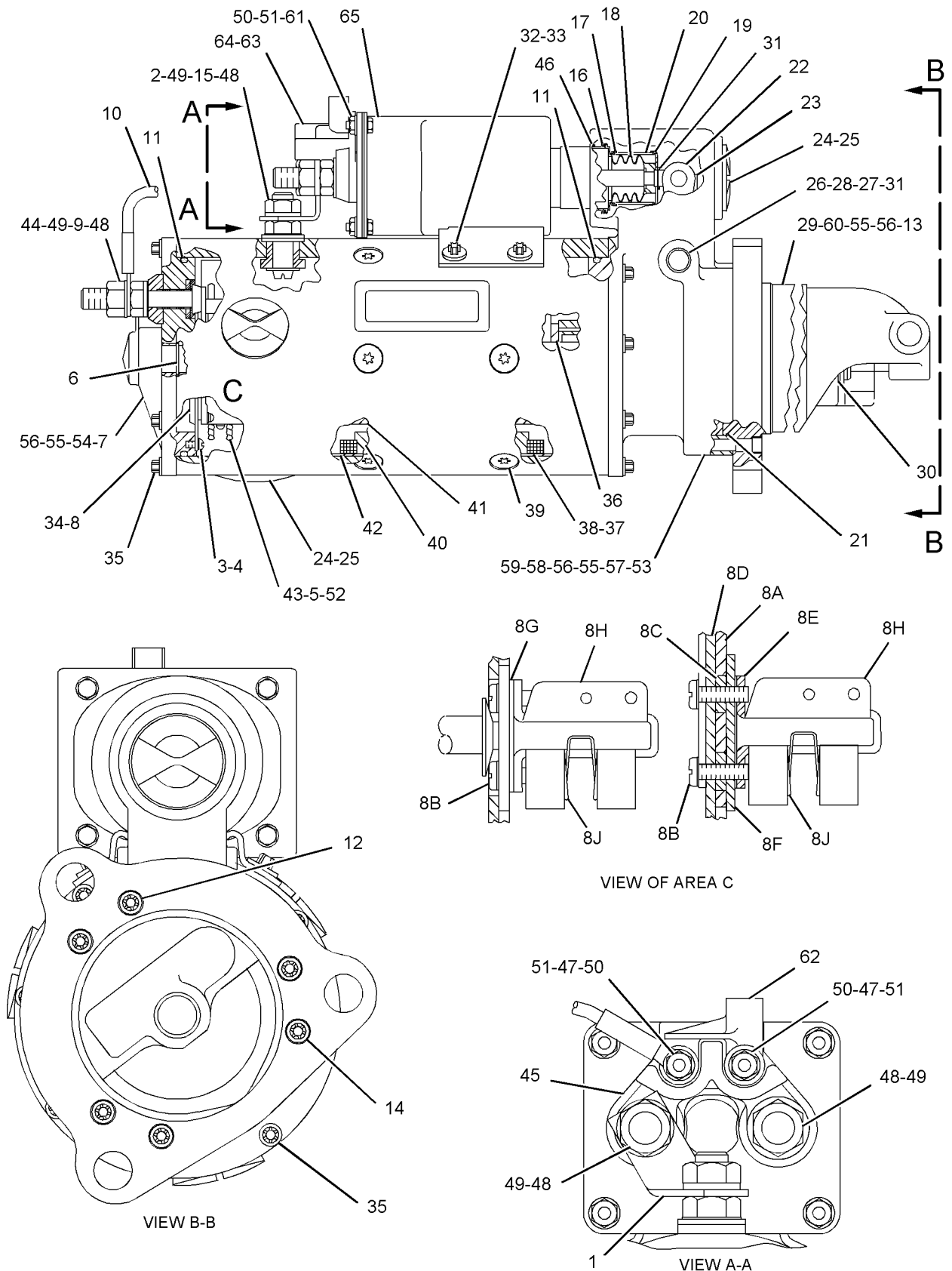
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	41	1	7M-8651	1	ARMATURE AS						
	42	1	7M-0325	1	INSULATOR						
	43	1	3T-9524	6	BRUSH AS (STARTING MOTOR)						
	44	1	3N-3763	1	KIT-TERMINAL (STARTING MOTOR)						
					(INCLUDES INSULATOR, BUSHINGS AND WASHER)						
	45	1	125-6537	1	INSULATOR						
	46	1	3R-8801	1	CLAMP						
	47	1	8F-1434	2	LOCKWASHER						
	48	1	6V-8188	6	NUT (1/2-13-THD)						
	49	1	7X-0562	6	WASHER-HARD (13.5X19X0.8-MM THK)						
	50	1	4B-2049	6	NUT (10-32-THD)						
	51	1	8T-0328	10	WASHER-HARD (5.5X10X1-MM THK)						
	52	1	3T-9494	6	SPRING (STARTING MOTOR BRUSH)						
	53	1	3E-7771	1	HOUSING AS						
	54	1	9G-4101	1	BUSHING-END						
	55	1	3T-3424	3	PLUG-FELT						
	56	1	3T-3423	3	CUP						
	57	1	1M-9968	1	BUSHING						
	58	1	2F-6678	1	SEAL-LIP TYPE						
	59	1	4L-2729	1	WASHER (0.844X1.9X0.188-IN THK)						
	60	1	4M-1896	1	BUSHING-TERMINAL						
	61	1	045-4065	4	SCREW-MACHINE (10-32X0.75-IN)						
	62	1	125-6535	1	COVER-STARTING MOTOR						
	63	1	7T-9123	1	GASKET-PLATE						
	64	1	125-6536	1	TERMINAL AS						
	65	1	238-1851	1	SOLENOID AS-STARTING MOTOR (24-VOLT)						
		1	3R-8801	1	CLAMP						

B- USE AS REQUIRED

ELECTRICAL AND STARTING SYSTEM

6V-0927 STARTING MOTOR GP-ELECTRIC (contd.)

i02600861



GRAPHIC #1

<END>

g01092038

ELECTRICAL AND STARTING SYSTEM

8N-3896 STARTING MOTOR GP-ELECTRIC-DUAL

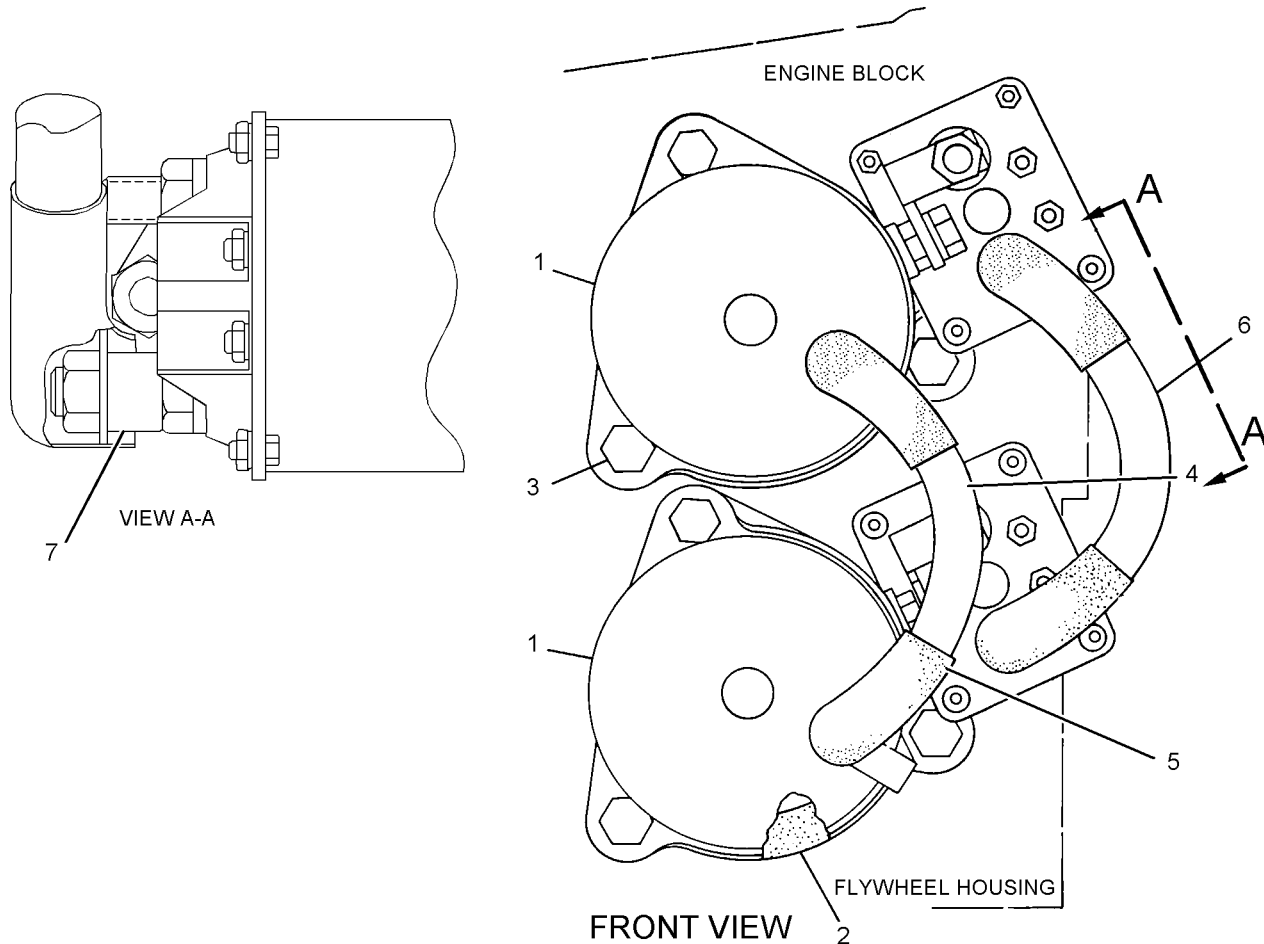
24-VOLT
AN ATTACHMENT

SMCS-1453

i02216716

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	6V-0927	2	STARTING MOTOR GP-ELECTRIC						273
C	2	1	4H-7869	2	GASKET						
	3	1	7J-8902	6	BOLT-12 POINT HEAD (5/8-11X1.5-IN)						
	4	1	7L-5887	1	CABLE AS (0000-GA)						
BE		1	5P-0745		CABLE (0000-GA)						
		1	3L-7634	2	TERMINAL-RING (0000-GA, 0.5-IN)						
	5	1	3L-7604	4	SHIELD-TERMINAL						
BE	6	1	4L-6155	1	CABLE AS (0000-GA)						
		1	5P-0745		CABLE (0000-GA)						
		1	3L-7634	2	TERMINAL-RING (0000-GA, 0.5-IN)						
	7	1	3L-6836	1	SPACER (0.5X0.75X0.56-IN THK)						

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



GRAPHIC #1

<END>

g01118988

ELECTRICAL AND STARTING SYSTEM

237-1962 STARTING MOTOR GP-ELECTRIC*R

24-VOLT

FIELD REPLACEMENT FOR 6V-0927-PAGE 273

SMCS-1453

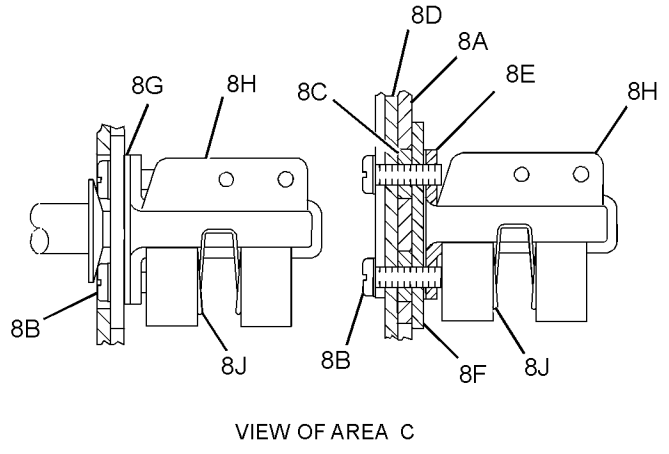
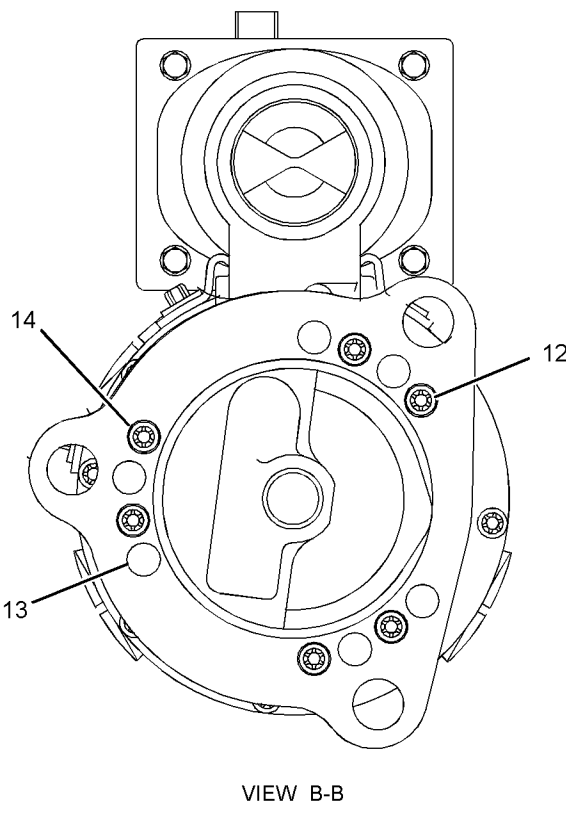
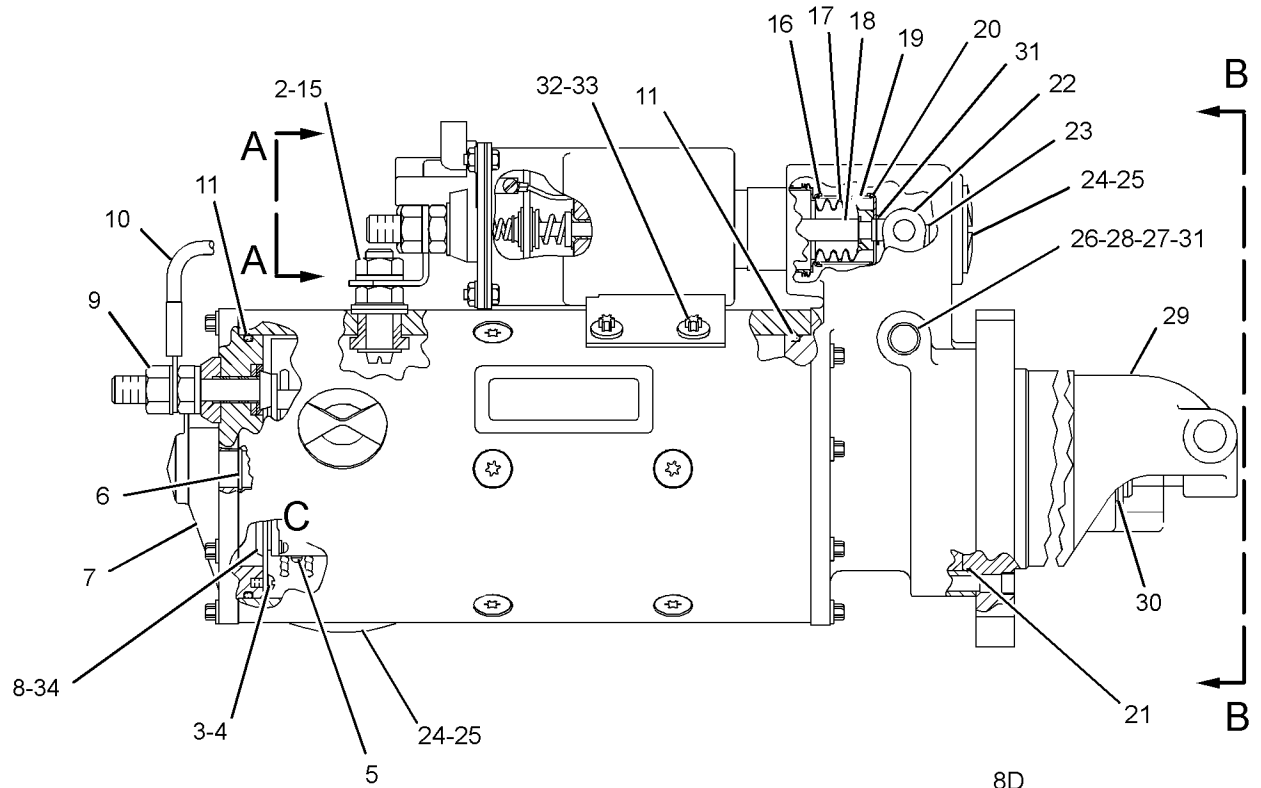
i02648108

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7M-0326	1	CONNECTOR						
	2	1	9H-3757	2	WASHER (0.516X1X0.094-IN THK)						
	3	1	1S-7446	3	SCREW-MACHINE (8-32X0.437-IN)						
	4	1	8C-9660	3	WASHER (4.6X7.9X0.8-MM THK)						
	5	1	9S-2544	9	SCREW-HEX HEAD (8-32X11.13-MM)						
	6	1	7M-0327	1	WASHER-THRUST (17.4X25.4X1.6-MM THK)						
	7	1	3T-3418	1	FRAME AS-END						
		1	3T-3423	1	CUP						
		1	3T-3424	1	PLUG-FELT						
		1	9G-4101	1	BUSHING-END						
	8	1	3T-9525	1	PLATE AS-BRUSH						
	8A	1	6T-0371	1	INSULATOR						
	8B	1	5P-6298	12	SCREW-MACHINE (10-32X0.5-IN)						
		1	9F-5599	12	LOCKWASHER						
	8C	1	7F-3525	6	WASHER-BUSHING (0.207X0.39X0.09-IN THK)						
	8D	1	6T-0372	1	PLATE						
	8E	1	3T-4709	3	PLATE						
	8F	1	2L-6679	3	PLATE-INSULATOR						
	8G	1	3T-4710	3	PLATE						
	8H	1	6T-0363	6	HOLDER AS-BRUSH (STARTING MOTOR)						
					(EACH INCLUDES)						
	8J	1	3T-9494	1	SPRING (STARTING MOTOR)						
	9	1	7F-3491	2	WASHER (0.516X1X0.094-IN THK)						
	10	1	3T-3422	1	WIRE AS						
	11	1	2J-8163	2	SEAL-O-RING						
	12	1	7X-3373	1	BOLT (5/16-18X0.88-IN)						
	13	1	3T-3434	6	PLUG						
	14	1	5J-5314	5	BOLT (5/16-18X1.5-IN)						
	15	1	3L-3380	1	BUSHING-TERMINAL						
	16	1	036-9821	1	WASHER						
	17	1	4M-1828	1	RETAINER-SPRING						
	18	1	4M-1829	1	BOOT-RUBBER						
	19	1	9M-7609	1	SPRING (SHIFT LEVER)						
	20	1	4M-1827	1	RETAINER-SPRING						
	21	1	8C-3089	1	SEAL-O-RING						
	22	1	4M-1853	1	LEVER AS-SHIFT						
	23	1	5M-3034	1	LOCKNUT (5/16-24-THD)						
	24	1	7L-2894	4	GASKET						
	25	1	4M-1831	4	PLUG-LEVER HOUSING						
	26	1	4M-1854	1	SHAFT-LEVER						
	27	1	1H-1023	1	SEAL-O-RING						
	28	1	2D-6392	1	SEAL-O-RING						
	29	1	7T-3974	1	HOUSING AS-DRIVE						
	30	1	6N-3826	1	DRIVE AS-MOTOR						
	31	1	2H-3429	2	RING-RETAINING						
	32	1	6V-1322	4	BOLT (1/4-20X0.375-IN)						
	33	1	8T-4205	4	WASHER-HARD (7.2X14.5X2-MM THK)						
	34	1	6N-3279	1	INSULATOR						

ELECTRICAL AND STARTING SYSTEM

237 - 1962 STARTING MOTOR GP - ELECTRIC (contd.)

i02648108



GRAPHIC #1

<END>

g01235007

ELECTRICAL AND STARTING SYSTEM

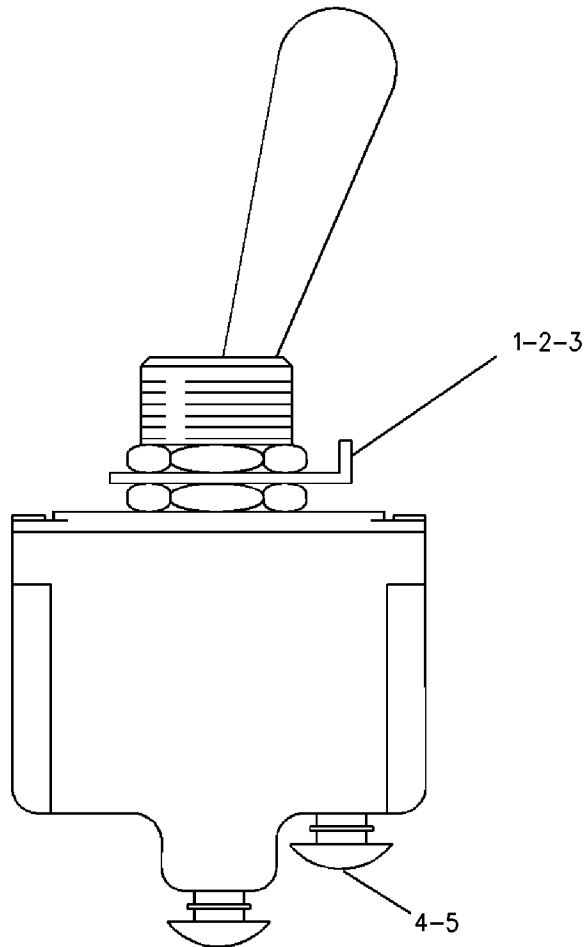
7N-8001 SWITCH GP - TOGGLE

PART OF 290-3211, 300-0478 BOX GP - INSTRUMENT PANEL
AN ATTACHMENT

SMCS-7332

i01982658

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6T-3631	2	NUT-HEX (15/32-32-THD)						
	2	1	6T-3632	1	LOCKWASHER						
	3	1	6T-3633	1	RING-LOCKING						
	4	1	6V-8374	2	SCREW-MACHINE (6-32X0.25-IN)						
	5	1	3L-8187	2	LOCKWASHER						



GRAPHIC #1

<END>

g00637350

ELECTRICAL AND STARTING SYSTEM

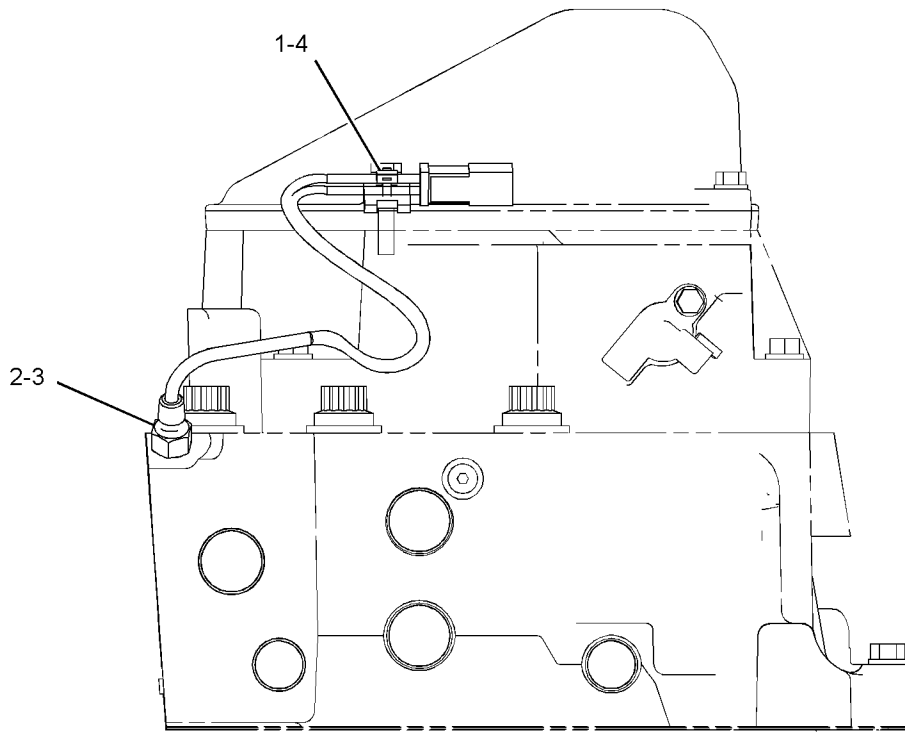
120-4498 THERMOCOUPLE GP

FOR USE WITH MONITORING SYSTEM PANEL AND PYROMETER GROUP
AN ATTACHMENT

SMCS-7498

i02552443

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	3S-2093	1	STRAP - CABLE						
	2	1	5N-2126	1	ADAPTER						
	3	1	243-5752	1	SENSOR GP - TEMPERATURE (CYLINDER EXHAUST)						
		1	186-3735	2	PIN-CONNECTOR (16-GA TO 18-GA)						
		1	102-8802	2	KIT-RECEPTACLE (2-PIN)						
					(EACH INCLUDES RECEPTACLE AS AND WEDGE)						
	4	1	4P-7581	1	CLIP						



FRONT VIEW

GRAPHIC #1

<END>

g01277880

ELECTRICAL AND STARTING SYSTEM

5N-8980 VALVE AS-SOLENOID-AIR START

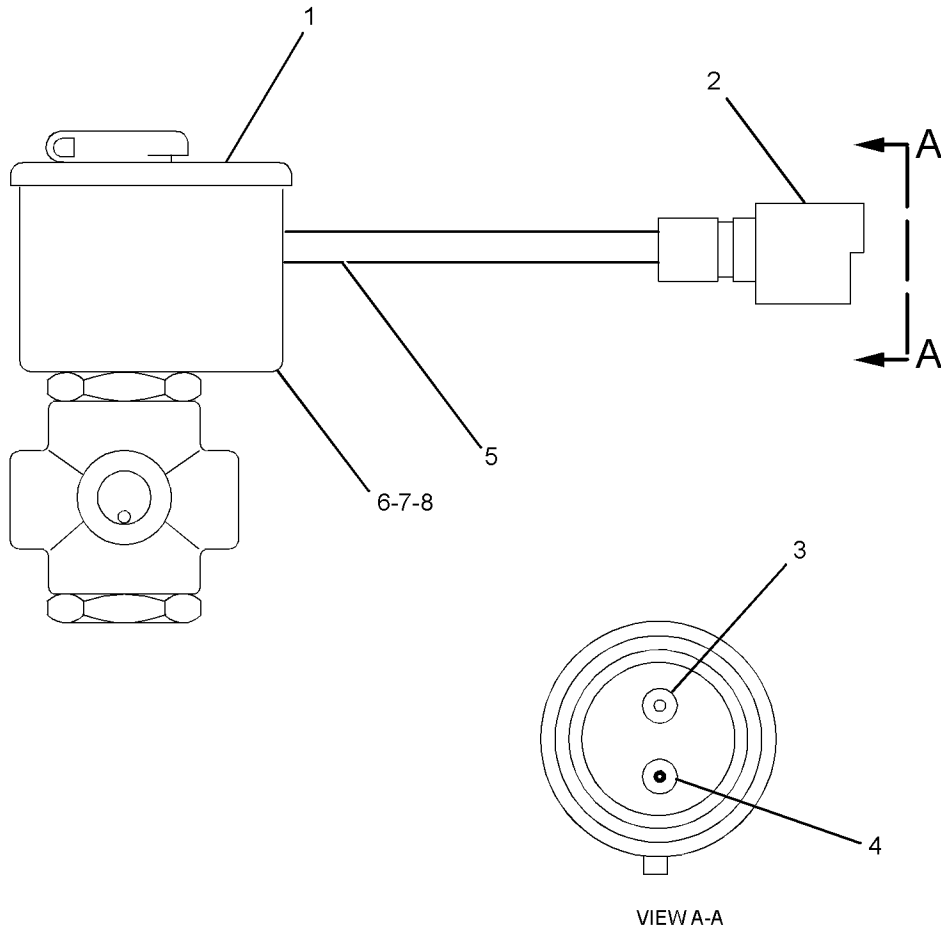
PART OF 143-5173, 143-5174 STARTING MOTOR GP-AIR
AN ATTACHMENT

SMCS-5479

i02707366

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7G-8765	1	VALVE-SOLENOID						
	2	1	7N-9738	1	HOUSING-RECEPTACLE (14-GA TO 18-GA)						
	3	1	7N-7779	1	SOCKET-CONNECTOR (14-GA TO 18-GA)						
	4	1	7N-7780	1	PIN-CONNECTOR (14-GA TO 18-GA)						
E	5	1	9X-1813		SLEEVE (16-CM)						
	6	1	5N-9073	1	CLIP						
	7	1	3F-2065	1	LOCKNUT (1/2-14-NPTF-THD)						
	8	1	5N-8943	1	ADAPTER						

E-ORDER BY THE CENTIMETER



GRAPHIC #1

<END>

g01325170

ELECTRICAL AND STARTING SYSTEM

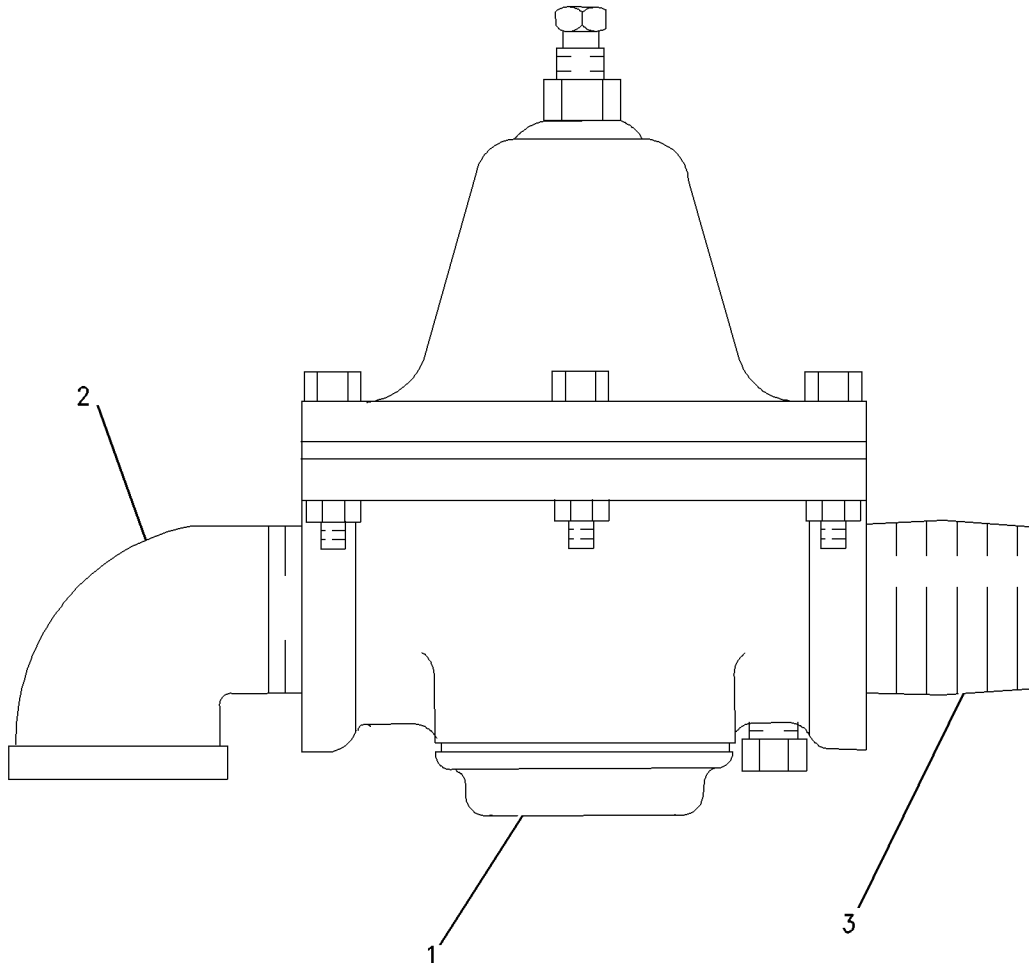
8N-8483 VALVE GP-AIR CONTROL-RH FOR USE WITH AIR START SYSTEM AN ATTACHMENT

SMCS-1462

i01192123

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	1L-2073	1	VALVE GP-PRESSURE REDUCING						283
	2	1	5B-7666	1	ELBOW						
	3	1	3L-8993	1	NIPPLE-CLOSE						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00637864

ELECTRICAL AND STARTING SYSTEM

1L-2073 VALVE GP - PRESSURE REDUCING-RH

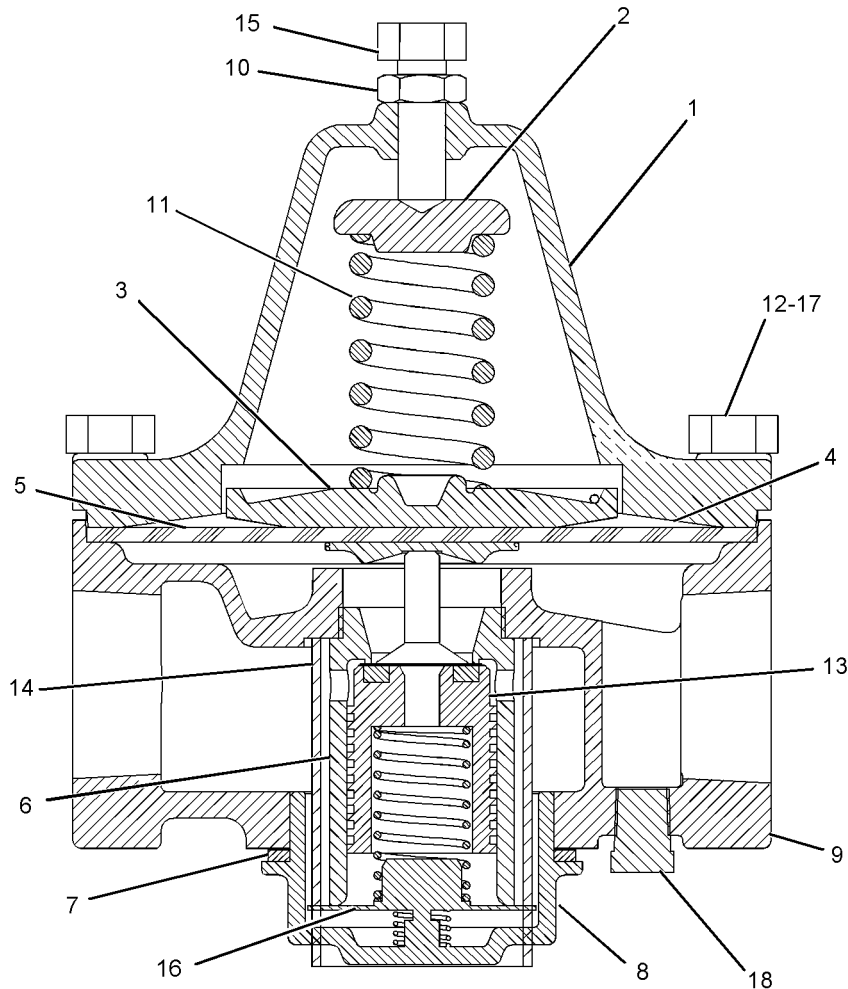
AIR CONTROL

PART OF 8N-8483 VALVE GP-AIR CONTROL
AN ATTACHMENT

SMCS-1462

i02698945

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1H-9570	1	CHAMBER						
	2	1	1H-9569	1	BUTTON-SPRING						
	3	1	1H-9572	1	PLATE-PRESSURE						
	4	1	1H-9573	1	DIAPHRAGM						
	5	1	1H-9574	1	BUTTON						
	6	1	1H-9575	1	CYLINDER						
	7	1	1H-9580	1	GASKET-PLUG						
	8	1	1H-9581	1	PLUG AS						
	9	1	1L-2072	1	BODY-VALVE						
	10	1	1L-9048	1	NUT-PLATED JAM (7/16-14-THD)						
	11	1	1L-9049	1	SPRING-PRESSURE						
	12	1	1L-9079	6	NUT-PLATED FULL (7/16-20-THD)						
	13	1	5N-6942	1	PISTON AS						
	14	1	252-9298	1	SCREEN-STRAINER (PRESSURE REDUCING VALVE)						
	15	1	0T-0320	1	BOLT (7/16-14X1.25-IN)						
	16	1	1H-9578	1	SPRING-PISTON						
	17	1	1L-9080	6	BOLT (7/16-20X1.5-IN)						
	18	1	5B-7890	1	PLUG-PIPE						



GRAPHIC #1

<END>

g01069160

ELECTRICAL AND STARTING SYSTEM

253-9546 WIRING GP-ALTERNATOR

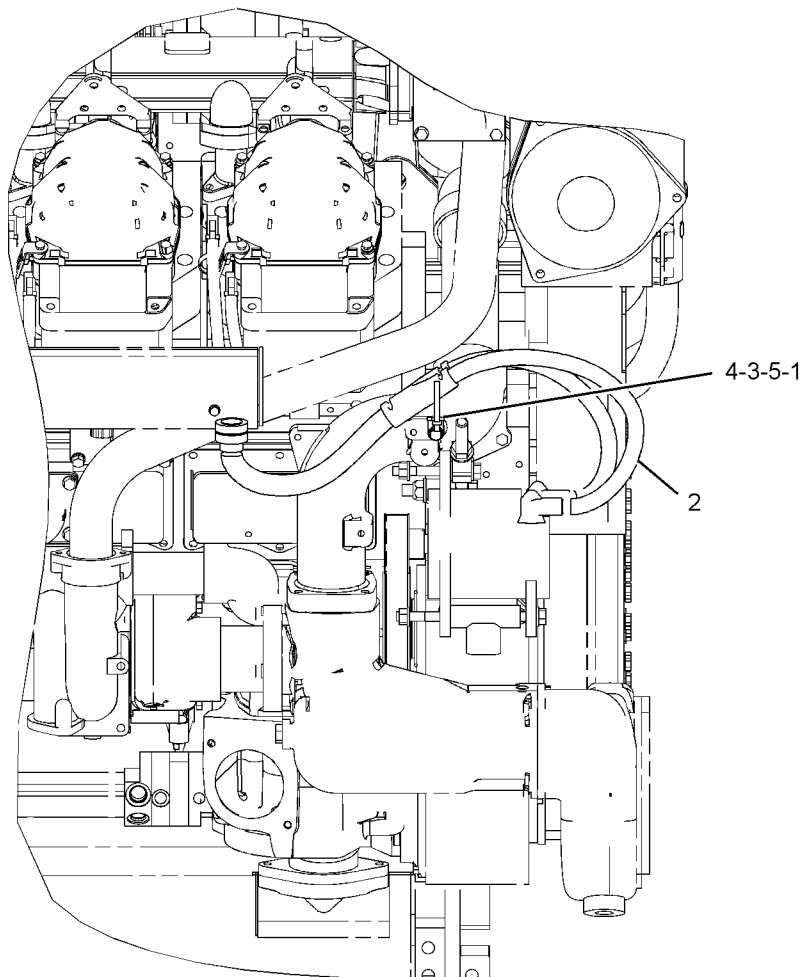
FOR USE WITH RIGID HARNESS
AN ATTACHMENT

SMCS-1405, 1408

i02349944

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	1 2 3 4 5 6 (PRODUCT LEVEL)						SEE PAGE
	1	1	9X-6772	1	STRAP-CABLE							
	2	1	253-9547	1	HARNESS AS-ENGINE (ALTERNATOR)							
E		1	135-5009		TUBE-HEAT SHRINK (32-MM DIA) (6-CM)							
		1	7R-3354	2	SOCKET							
		1	8T-8737	4	PLUG-SEAL							
		1	8T-8827	1	BOOT							
E		1	5P-3454	2	TERMINAL (4-GA)							
		1	121-1110	1	BOOT							
		1	203-8999	2	SEAL							
		1	203-9000	1	PLUG AS (6-PIN)							
		1	203-9001	2	SLEEVE							
E		1	210-8958		TUBE-HEAT SHRINK (24-MM DIA) (6-CM)							
E		1	231-9895		CONDUIT-FLEXIBLE (29-CM)							
E		1	232-0897		CONDUIT-FLEXIBLE (16.2-MM OD) (79-CM)							
		1	235-2764	1	ADAPTER							
	3	1	0S-0509	1	BOLT (3/8-16X0.75-IN)							
	4	1	4P-8134	1	CLIP							
	5	1	5M-2894	1	WASHER-HARD (10.2X18.5X2.5-MM THK)							

E- ORDER BY THE CENTIMETER



GRAPHIC #1

<END>

g01138834

ELECTRICAL AND STARTING SYSTEM

238-2928 WIRING GP-ELECTRIC STARTING

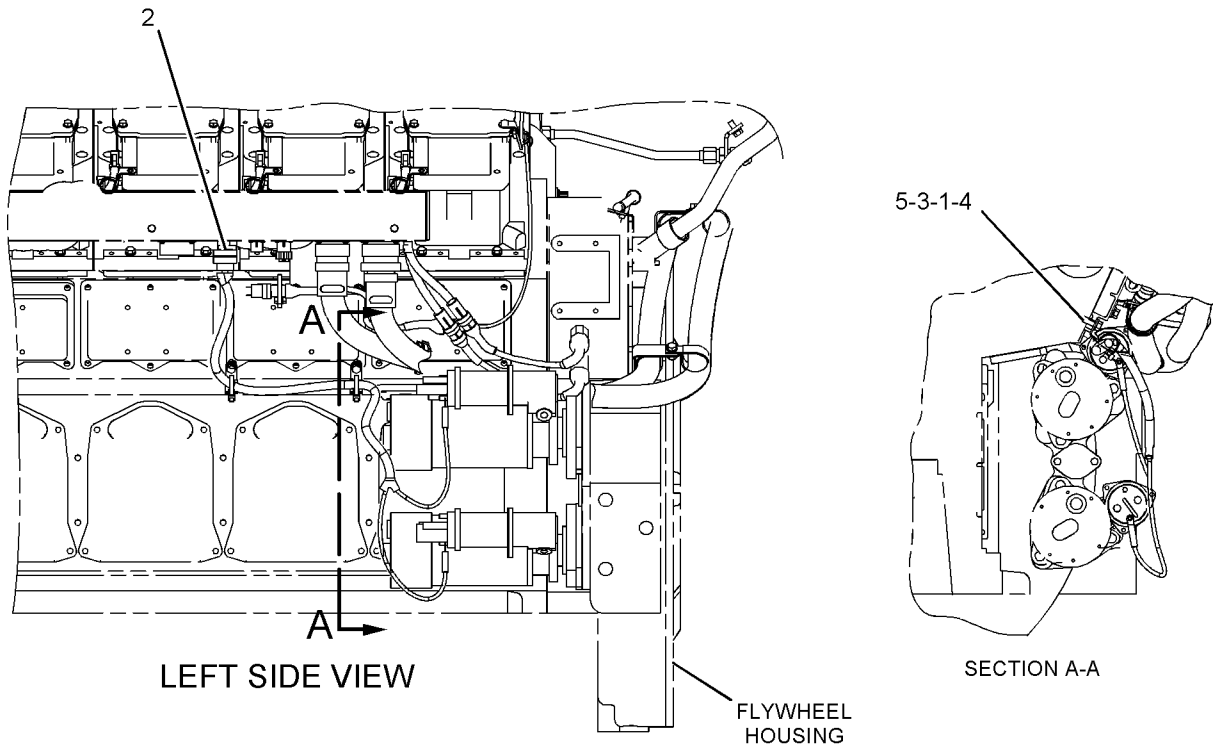
DUAL ELECTRIC STARTER
FOR USE WITH RIGID HARNESS
AN ATTACHMENT

SMCS-1408, 1453

i02713398

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9X-6772	2	STRAP-CABLE						
Y	2	1	238-2929	1	HARNESS AS-MOTOR (ENGINE START)						222
	3	1	0S-1594	2	BOLT (3/8-16X1-IN)						
	4	1	4P-8134	2	CLIP						
	5	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5-MM THK)						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01011142

ELECTRICAL AND STARTING SYSTEM

239-6364 WIRING GP - ENGINE

POWER DISTRIBUTION, PYROMETER, LH
AN ATTACHMENT

SMCS-1000, 1408

i02698950

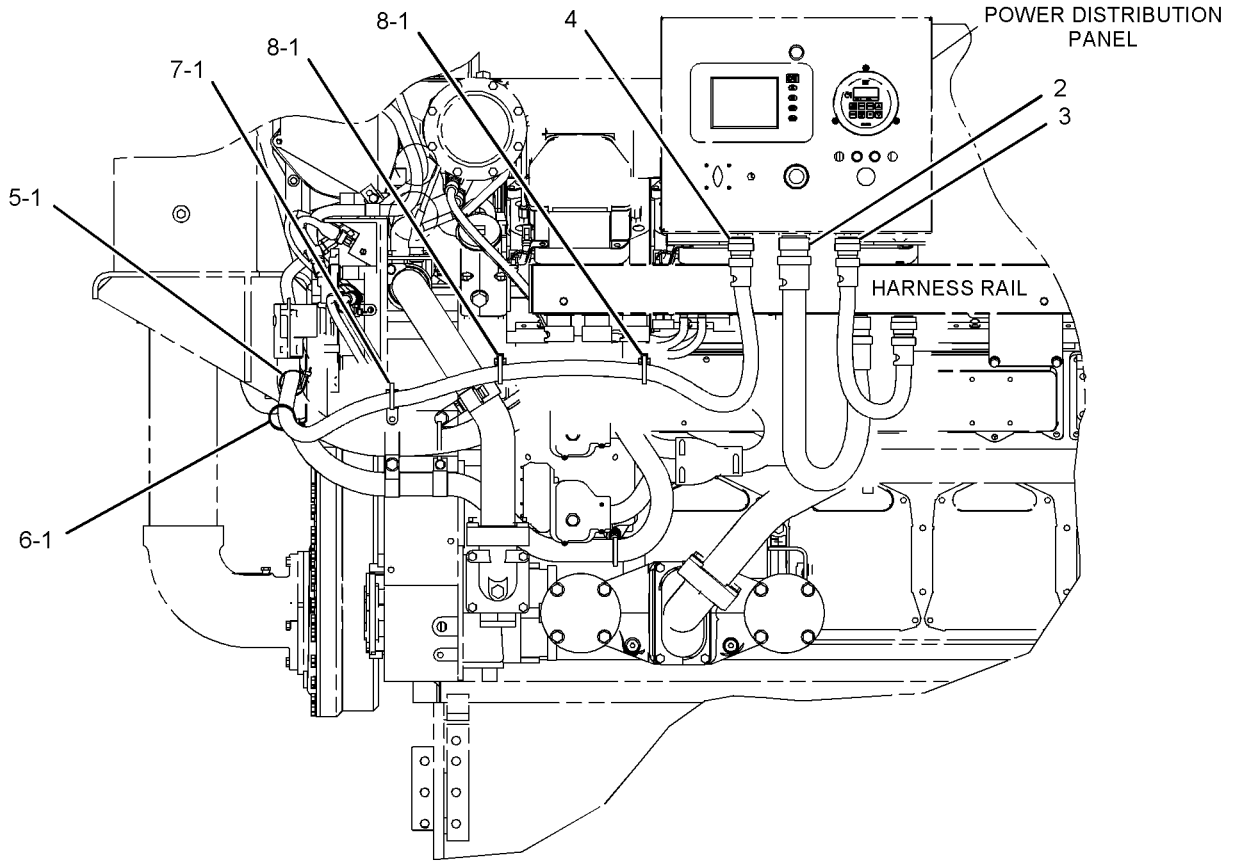
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
	1	1	7K-1181	11	STRAP - CABLE	
Y	2	1	239-1471	1	HARNESS AS-ENGINE (MARINE POWER DISPLAY) (POWER DISTRIBUTION)	216
Y	3	1	239-1473	1	HARNESS AS-SENSOR (THERMOCOUPLE INTERCONNECT, LH) (POWER DISTRIBUTION PYROMETER A)	229
Y	4	1	239-1474	1	HARNESS AS-SENSOR (THERMOCOUPLE INTERCONNECT, RH) (POWER DISTRIBUTION PYROMETER B)	230
	5	1	4P-7428	2	CLIP	
	6	1	4P-7429	2	CLIP	
	7	1	4P-7581	2	CLIP	
	8	1	4P-8134	5	CLIP	

Y-SEPARATE ILLUSTRATION

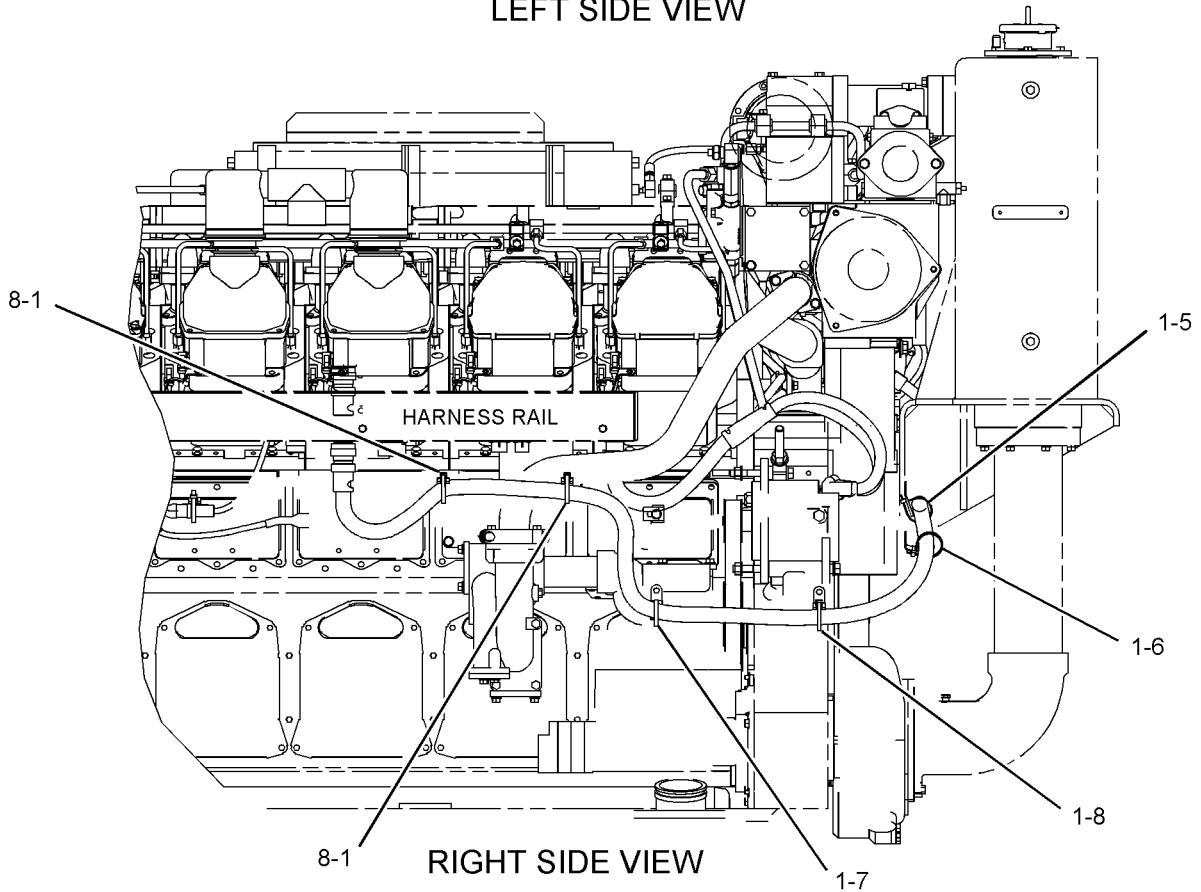
ELECTRICAL AND STARTING SYSTEM

239-6364 WIRING GP-ENGINE (contd.)

i02698950



LEFT SIDE VIEW



RIGHT SIDE VIEW

GRAPHIC #1

<END>

g01014726

ELECTRICAL AND STARTING SYSTEM

305-6908 WIRING GP - ENGINE

AN ATTACHMENT

SMCS-1000, 1408

i02713397

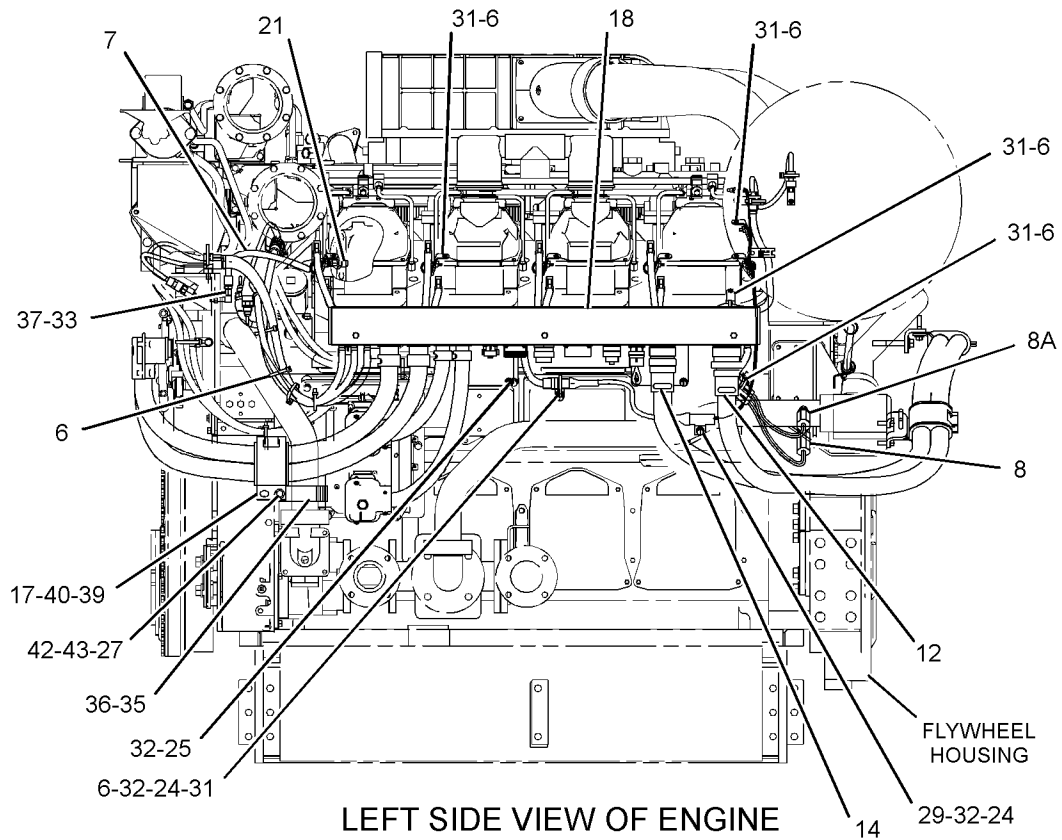
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6B-6205	1	SPACER (0.438X0.875X1.281-IN THK)						
	2	3	6V-9330	2	ELBOW						
	3	1	7K-1181	2	STRAP-CABLE						
	4	2	9G-5127	1	BREATHER AS (ATMOSPHERIC AIR)						
	5	3	9X-0262	1	ADAPTER						
	6	1,2,3	9X-6772	32	STRAP-CABLE						
	7	1	111-3684	1	HOSE AS						
Y	8	1	212-0848	1	SENSOR GP-SPEED (PRIMARY, TIMING)						258
Y	8A	1	212-0848	1	SENSOR GP-SPEED (SECONDARY, TIMING)						258
Y	9	2	212-3423	1	SENSOR GP-TEMPERATURE (ENGINE COOLANT)						264
Y	9A	2	212-3423	1	SENSOR GP-TEMPERATURE (AFTERCOOLER)						264
Y	10	2	212-3425	1	SENSOR GP-EXHAUST TEMPERATURE (TURBOCHARGER, LH)						249
Y	10A	2	212-3425	1	SENSOR GP-EXHAUST TEMPERATURE (TURBOCHARGER, RH)						249
Y	11	2	212-3426	1	SENSOR GP-SPEED (ENGINE)						259
Y	11A	2	212-3426	1	SENSOR GP-SPEED (TIMING CALIBRATION)						259
Y	12	1	231-9875	1	HARNESS AS-ENGINE (LARGE INTERCONNECT)						211
Y	13	1	232-0010	1	HARNESS AS-ENGINE (RH)						212
Y	14	1	233-9210	1	HARNESS AS-ENGINE (SMALL INTERCONNECT)						215
	15	3	245-0522	1	BRACKET						
	16	3	245-0523	2	BRACKET						
	17	1,3	278-6469	4	GROMMET						
Y	18	1	279-2063	1	HARNESS AS-ENGINE (LH)						217
Y	19	1	304-5666	1	SENSOR GP-PRESSURE (CRANKCASE)						254
Y	19A	3	304-5666	1	SENSOR GP-PRESSURE (ATMOSPHERIC)						254
Y	19B	3	304-5666	1	SENSOR GP-PRESSURE (TURBOCHARGER INLET, RH)						254
Y	19C	3	304-5666	1	SENSOR GP-PRESSURE (TURBOCHARGER INLET, LH)						254
Y	20	3	304-5667	1	SENSOR GP-PRESSURE (TURBOCHARGER OUTLET)						255
	21	1	001-9440	1	CONNECTOR (37-DEG)						
	22	1	135-9941	1	ADAPTER-90 DEGREE						
	23	1	0L-2070	1	BOLT (3/8-16X2.25-IN)						
	24	1,3	0S-0509	5	BOLT (3/8-16X0.75-IN)						
	25	1,3	0S-1588	12	BOLT (3/8-16X1.25-IN)						
	26	3	0S-1590	6	BOLT (3/8-16X2-IN)						
	27	1	0S-1591	1	BOLT (3/8-16X1.5-IN)						
	28	3	0S-1594	2	BOLT (3/8-16X1-IN)						
	29	1	3A-3692	2	CLIP						
	30	1,3	4P-7581	6	CLIP						
	31	1,2,3	4P-8134	21	CLIP						
	32	1,3	5M-2894	20	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	33	1	5P-3426	1	ELBOW (90-DEG)						
	34	3	5P-8245	2	WASHER-HARD (13.5X25.5X3-MM THK)						
	35	1	6V-1581	1	CLIP (SLOT)						
	36	1	6V-1582	1	CLIP (TAB)						
	37	1,3	6V-5048	5	SEAL-O-RING						
	38	1,3	6V-5049	4	SEAL-O-RING						
	39	1,3	7G-5984	4	CLIP (TAB)						
	40	1,3	7G-5985	4	CLIP (SLOT)						
	41	3	8T-2353	1	ADAPTER						
	42	1	9S-8752	1	NUT-FULL (3/8-16-THD)						
	43	1,3	9X-6458	8	WASHER-HARD (10.2X22.5X3-MM THK)						
	44	3	9X-8875	2	BOLT (1/2-13X3.5-IN)						

Y- SEPARATE ILLUSTRATION

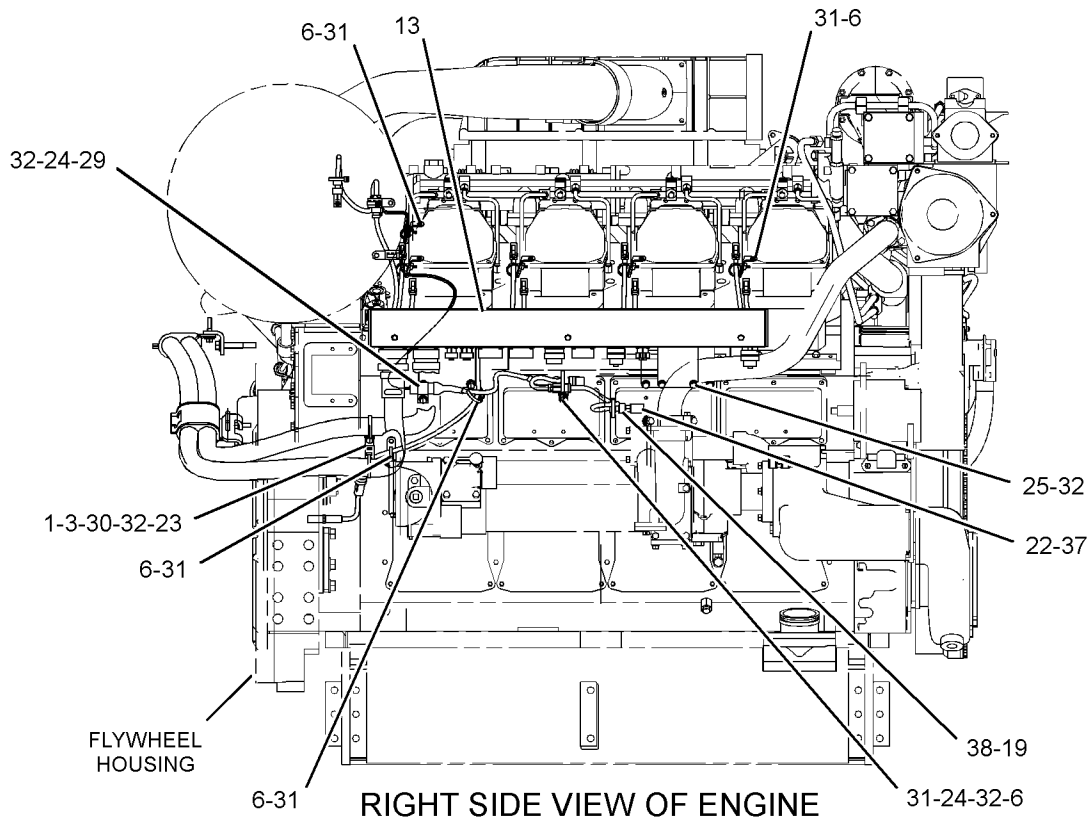
ELECTRICAL AND STARTING SYSTEM

305-6908 WIRING GP-ENGINE (contd.)

i02713397



LEFT SIDE VIEW OF ENGINE



RIGHT SIDE VIEW OF ENGINE

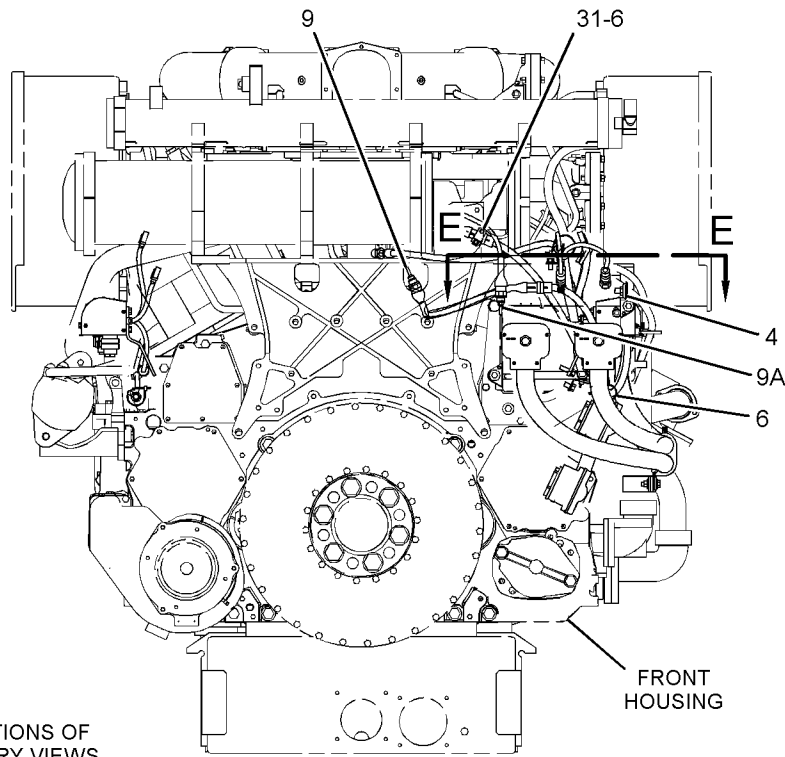
GRAPHIC #1

g01345863

ELECTRICAL AND STARTING SYSTEM

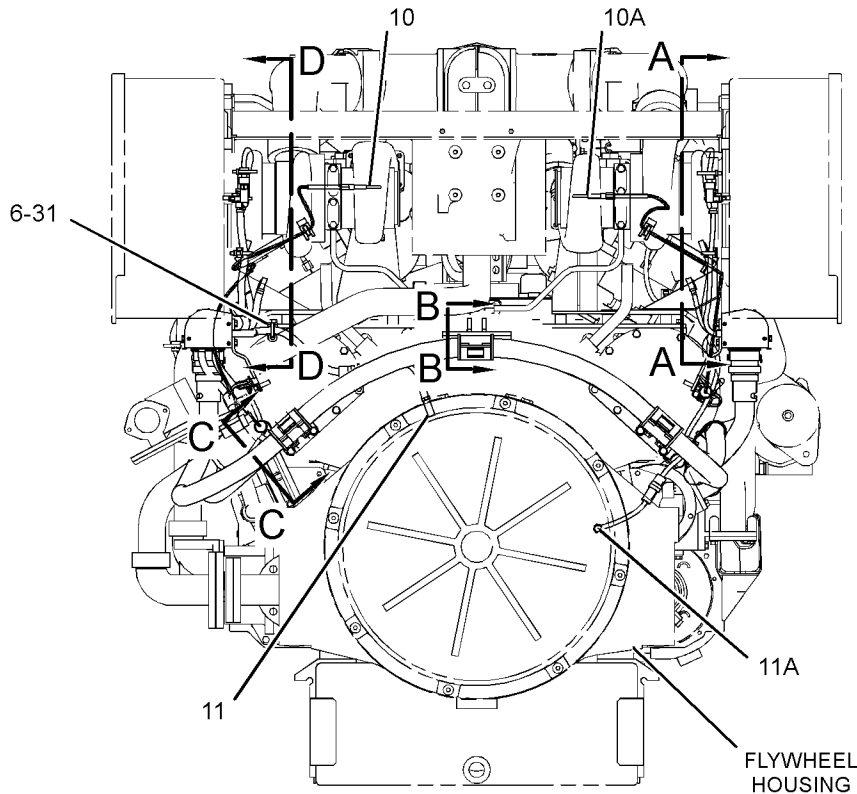
305-6908 WIRING GP-ENGINE (contd.)

i02713397



REFER TO ALL ILLUSTRATIONS OF THIS GROUP FOR AUXILIARY VIEWS

FRONT VIEW OF ENGINE



REAR VIEW OF ENGINE

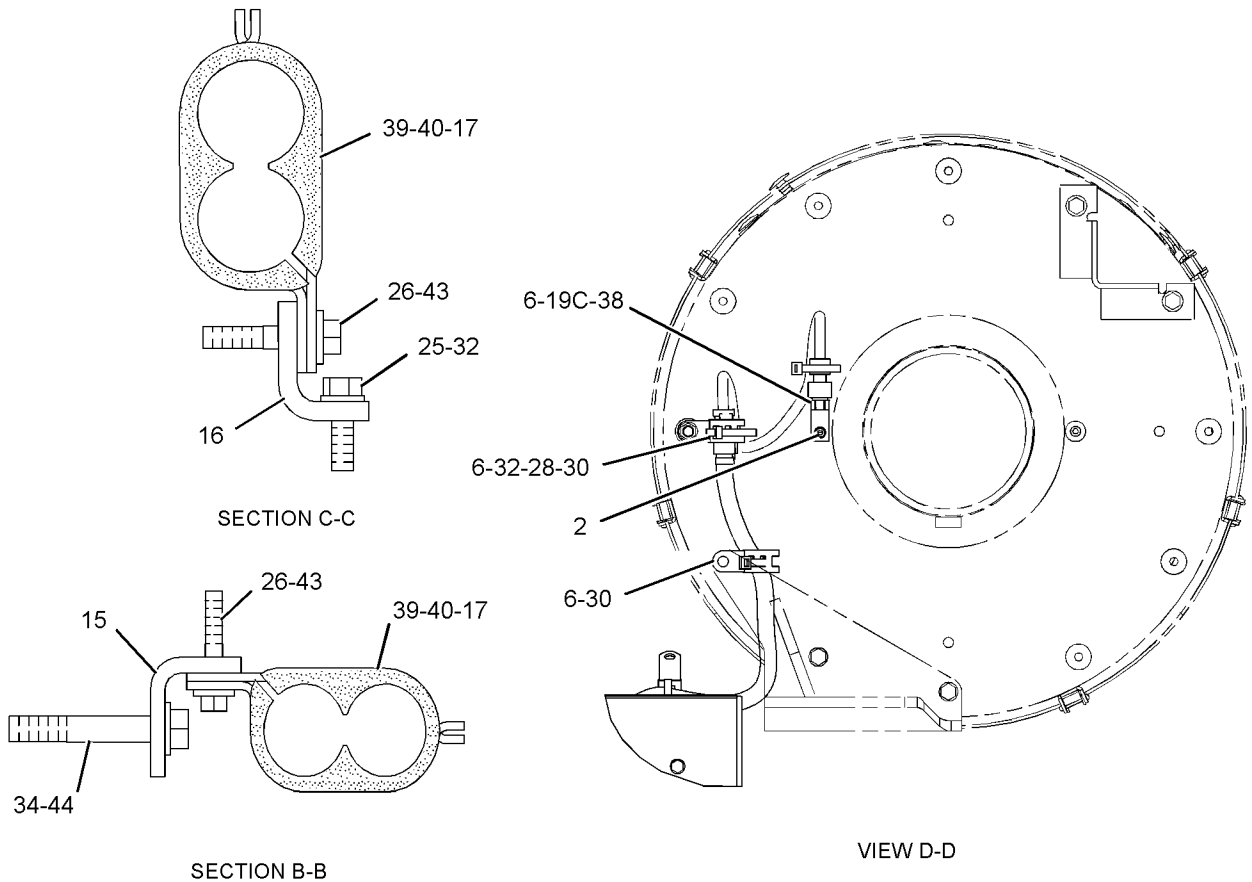
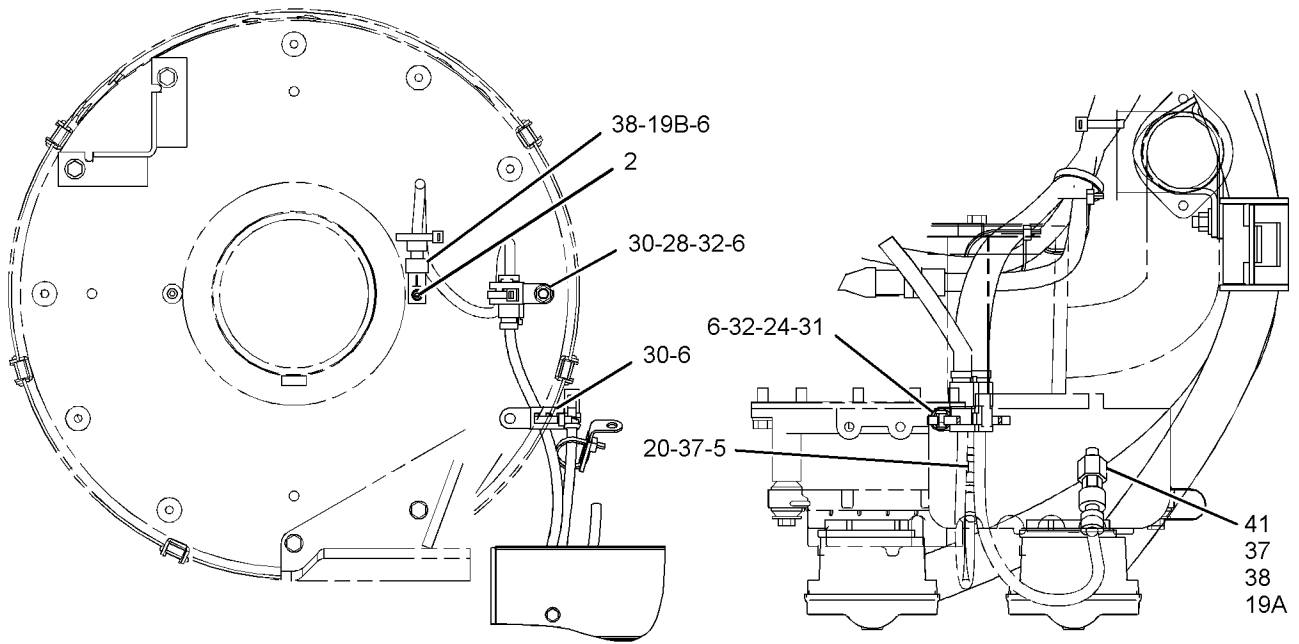
GRAPHIC #2

g01345864

ELECTRICAL AND STARTING SYSTEM

305-6908 WIRING GP-ENGINE (contd.)

i02713397



GRAPHIC #3

<END>

g01345865

ELECTRICAL AND STARTING SYSTEM

307-2044 WIRING GP - ENGINE

AN ATTACHMENT

SMCS-1000, 1408

i02703329

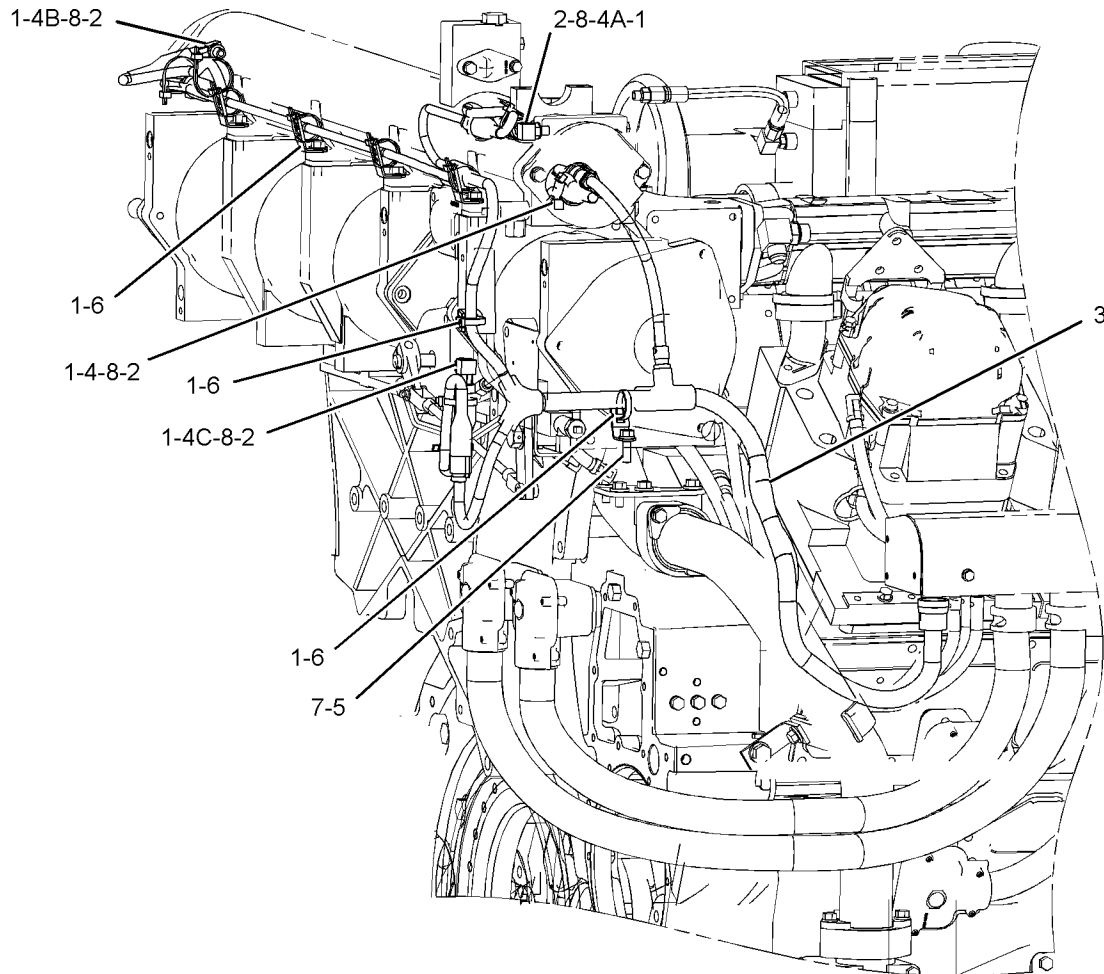
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9X-6772	14	STRAP-CABLE						
	2	1	117-0067	4	ELBOW						
	3	1	253-3820	1	HARNESS AS-SENSOR (OIL FILTER, FUEL FILTER)						
		1	8C-3654	1	PLUG-CONNECTOR (6-PIN)						
		1	186-3736	18	SOCKET-CONNECTOR (16-GA TO 18-GA)						
E		1	9X-8243		TUBE-HEAT SHRINK (39.9-MM DIA) (5-CM)						
E		1	125-7875		TUBE-HEAT SHRINK (7.44-MM DIA) (10-CM)						
		1	155-2260	4	KIT-CONNECTING PLUG (3-PIN)						
		1	174-0503	4	KIT-CONNECTING PLUG (3-PIN)						
					(EACH PLUG KIT INCLUDES PLUG AS AND WEDGE)						
E		1	210-8958		TUBE-HEAT SHRINK (24-MM DIA) (20-CM)						
E		1	232-0893		CONDUIT-FLEXIBLE (6.2-MM ID) (139-CM)						
E		1	232-0895		CONDUIT-FLEXIBLE (9.6-MM OD) (91-CM)						
E		1	232-0897		CONDUIT-FLEXIBLE (16.2-MM OD) (77-CM)						
		1	238-9591	1	FITTING						
		1	238-9733	1	FITTING						
		1	238-9802	1	FITTING						
		1	254-5668	1	ADAPTER						
Y	4	1	304-5668	1	SENSOR GP-PRESSURE (FILTERED OIL)						256
Y	4A	1	304-5668	1	SENSOR GP-PRESSURE (UNFILTERED FUEL)						256
Y	4B	1	304-5668	1	SENSOR GP-PRESSURE (FILTERED FUEL)						256
Y	4C	1	304-5668	1	SENSOR GP-PRESSURE (UNFILTERED OIL)						256
	5	1	0S-1588	1	BOLT (3/8-16X1.25-IN)						
	6	1	4P-8134	6	CLIP						
	7	1	5M-2894	1	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	8	1	6V-5048	8	SEAL-O-RING						

E- ORDER BY THE CENTIMETER
Y- SEPARATE ILLUSTRATION

ELECTRICAL AND STARTING SYSTEM

307-2044 WIRING GP-ENGINE (contd.)

i02703329



GRAPHIC #1

<END>

g01358116

ELECTRICAL AND STARTING SYSTEM

307-2045 WIRING GP - ENGINE

LH OIL, DUPLEX FUEL
AN ATTACHMENT

SMCS-1000, 1408

i02703335

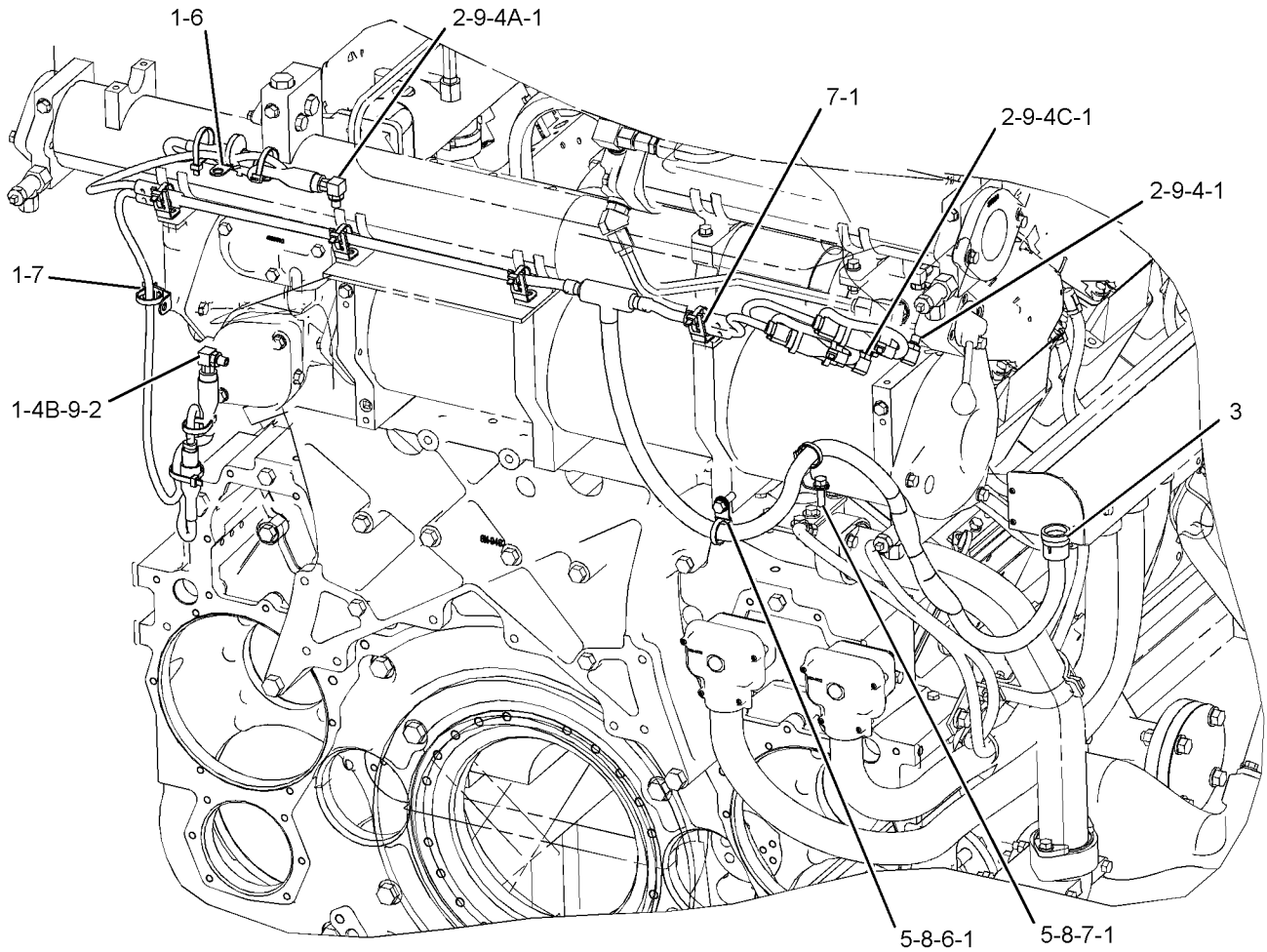
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9X-6772	16	STRAP - CABLE						
	2	1	117-0067	4	ELBOW						
	3	1	253-3821	1	HARNESS AS-SENSOR (OIL FILTER, FUEL FILTER)						
		1	8C-3654	1	PLUG-CONNECTOR (6-PIN)						
E		1	9X-8243		TUBE-HEAT SHRINK (39.9-MM DIA) (5-CM)						
E		1	125-7875		TUBE-HEAT SHRINK (7.44-MM DIA) (10-CM)						
		1	155-2260	4	KIT-CONNECTING PLUG (3-PIN)						
		1	174-0503	4	KIT-CONNECTING PLUG (3-PIN)						
					(EACH PLUG KIT INCLUDES PLUG AS AND WEDGE)						
E		1	210-8958		TUBE-HEAT SHRINK (24-MM DIA) (20-CM)						
E		1	232-0893		CONDUIT-FLEXIBLE (6.2-MM ID) (131-CM)						
E		1	232-0895		CONDUIT-FLEXIBLE (9.6-MM OD) (73-CM)						
E		1	232-0897		CONDUIT-FLEXIBLE (16.2-MM OD) (122-CM)						
		1	238-9591	1	FITTING						
		1	238-9733	2	FITTING						
		1	254-5668	2	ADAPTER						
Y	4	1	304-5668	1	SENSOR GP-PRESSURE (UNFILTERED FUEL)						256
Y	4A	1	304-5668	1	SENSOR GP-PRESSURE (FILTERED OIL)						256
Y	4B	1	304-5668	1	SENSOR GP-PRESSURE (UNFILTERED OIL)						256
Y	4C	1	304-5668	1	SENSOR GP-PRESSURE (FILTERED FUEL)						256
	5	1	0S-1588	2	BOLT (3/8-16X1.25-IN)						
	6	1	4P-7428	2	CLIP						
	7	1	4P-8134	6	CLIP						
	8	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	9	1	6V-5048	8	SEAL-O-RING						

E - ORDER BY THE CENTIMETER
Y - SEPARATE ILLUSTRATION

ELECTRICAL AND STARTING SYSTEM

307-2045 WIRING GP-ENGINE (contd.)

i02703335



GRAPHIC #1

<END>

g01357992

ELECTRICAL AND STARTING SYSTEM

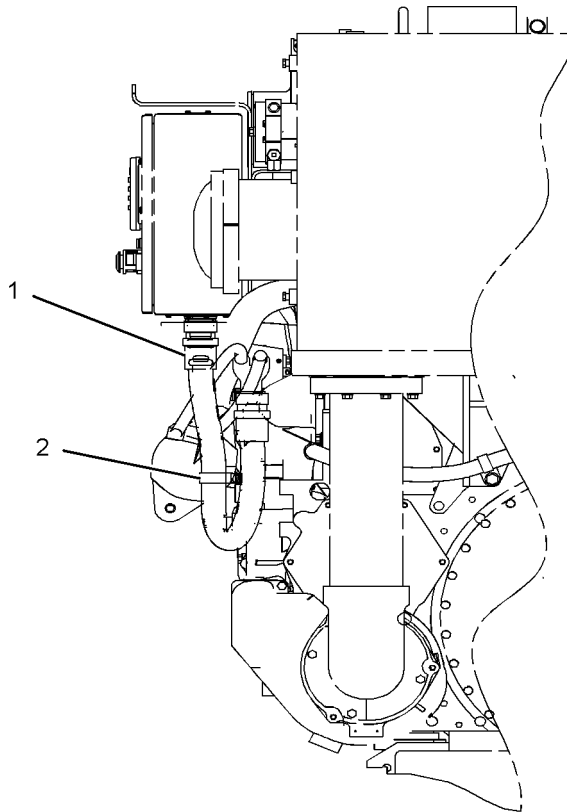
239-1470 WIRING GP-ENGINE ELECTRONIC- MARINE POWER DISPLAY RH AN ATTACHMENT

SMCS-1408, 1900

i02713401

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	239-1471	1	HARNES AS-ENGINE (MARINE POWER DISPLAY)						216
	2	1	5P-2369	1	CLIP						

Y-SEPARATE ILLUSTRATION



FRONT VIEW

<END>

GRAPHIC #1

g01008732

ELECTRICAL AND STARTING SYSTEM

239 - 1475 WIRING GP - ENGINE ELECTRONIC

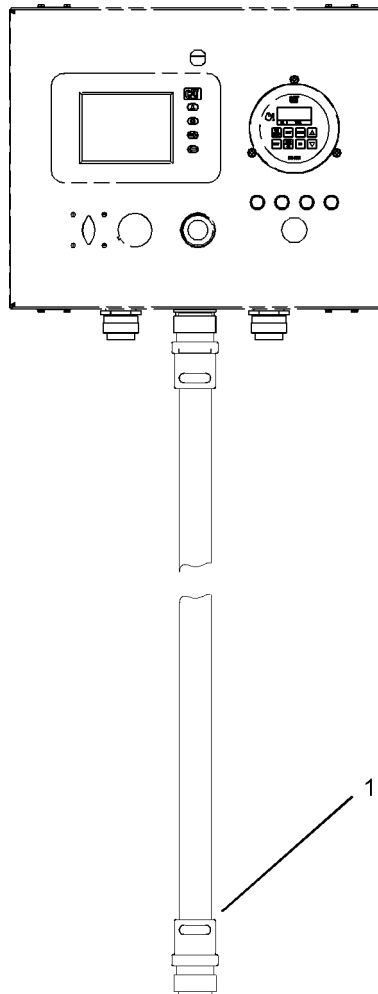
3 METER EXTENSION . POWER DISTRIBUTION
AN ATTACHMENT

SMCS - 1408, 1900

i02656097

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	239 - 1476	1	HARNES AS - PANEL (EXTENSION)						224

Y - SEPARATE ILLUSTRATION



<END>

GRAPHIC #1

g01011476

ELECTRICAL AND STARTING SYSTEM

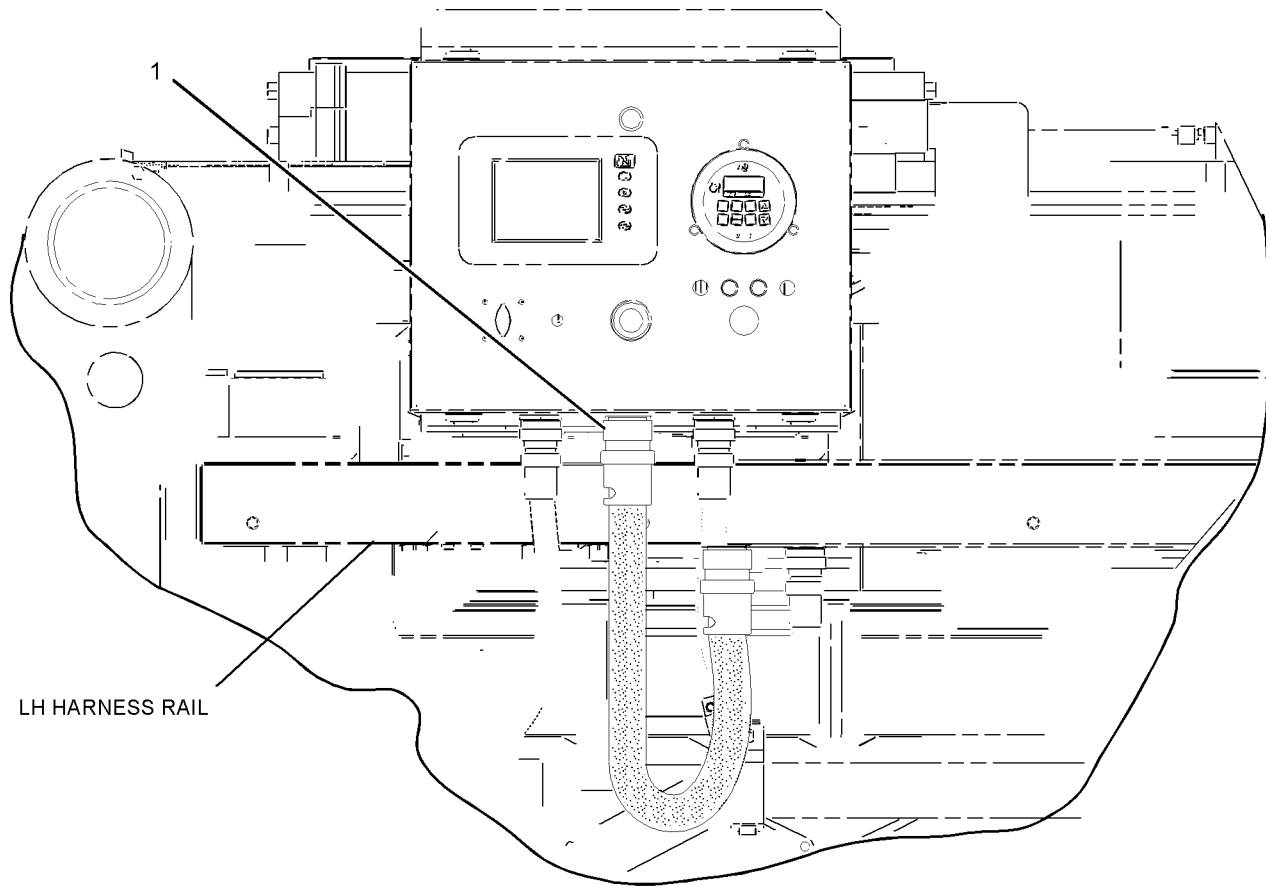
239-6365 WIRING GP-ENGINE ELECTRONIC- MARINE POWER DISPLAY LH AN ATTACHMENT

SMCS-1408, 1900

i02713400

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	239-1471	1	HARNESS AS-ENGINE (MARINE POWER DISPLAY)						216

Y-SEPARATE ILLUSTRATION



LEFT SIDE VIEW
<END>

GRAPHIC #1

g01026190

ELECTRICAL AND STARTING SYSTEM

239-1472 WIRING GP - PANEL

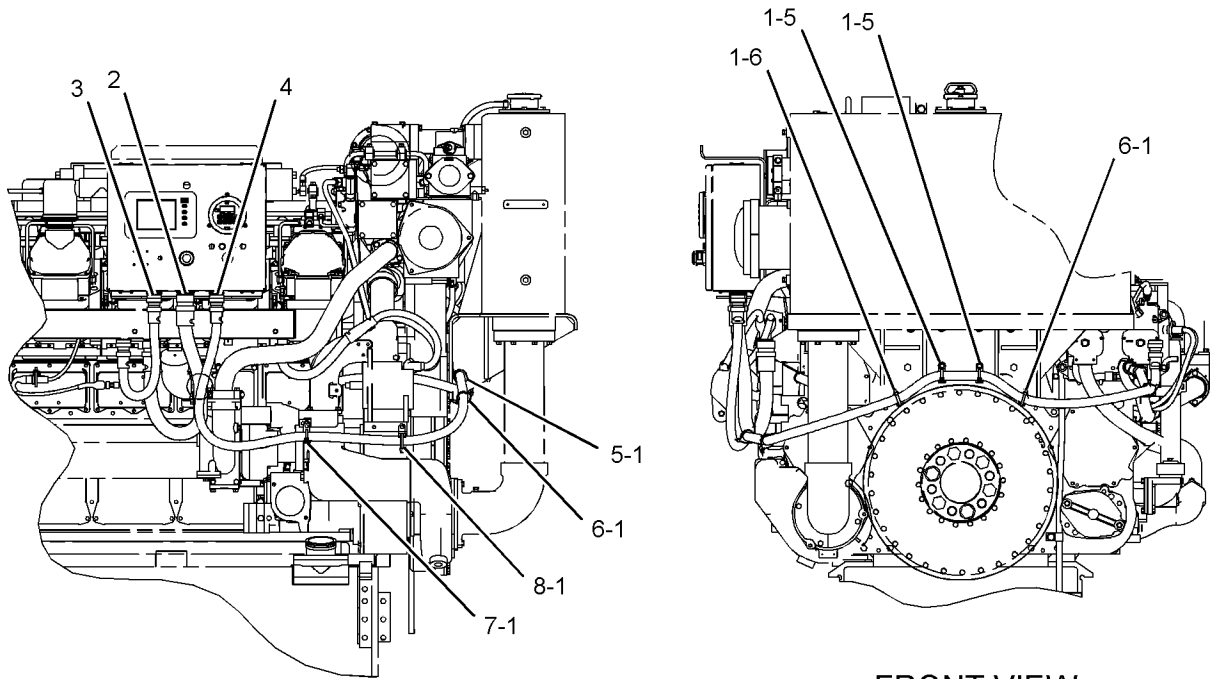
POWER DISTRIBUTION, PYROMETER RH
AN ATTACHMENT

SMCS - 4459

i02698948

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7K-1181	10	STRAP - CABLE						
Y	2	1	239-1471	1	HARNESS AS-ENGINE (MARINE POWER DISPLAY) (POWER DISTRIBUTION)						216
Y	3	1	239-1473	1	HARNESS AS-SENSOR (THERMOCOUPLE INTERCONNECT, LH) (POWER DISTRIBUTION PYROMETER A)						229
Y	4	1	239-1474	1	HARNESS AS-SENSOR (THERMOCOUPLE INTERCONNECT, RH) (POWER DISTRIBUTION PYROMETER B)						230
	5	1	4P-7428	2	CLIP						
	6	1	4P-7429	2	CLIP						
	7	1	4P-7581	2	CLIP						
	8	1	4P-8134	4	CLIP						

Y-SEPARATE ILLUSTRATION



RIGHT SIDE VIEW

FRONT VIEW

GRAPHIC #1

<END>

g01014609

ELECTRICAL AND STARTING SYSTEM

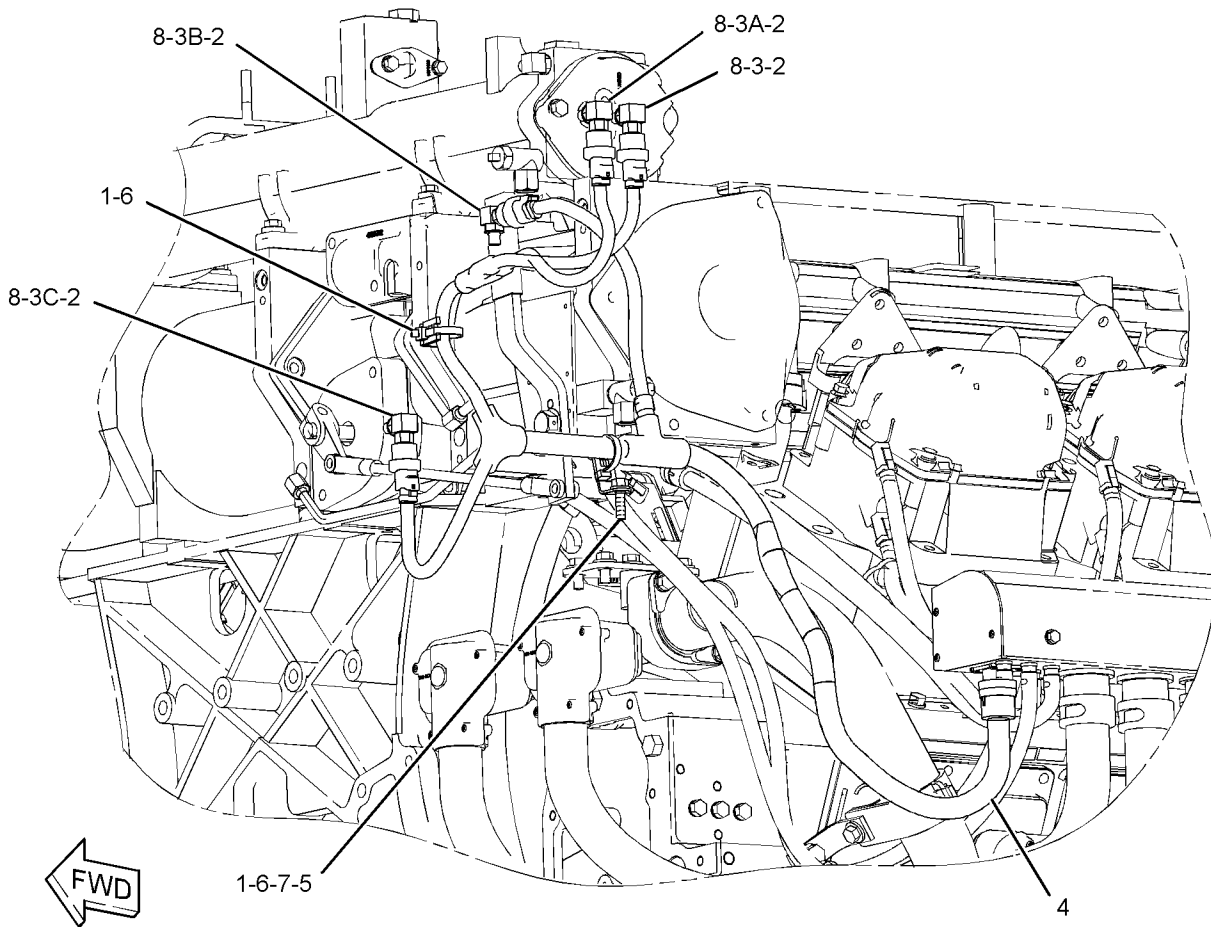
235-6276 WIRING GP-SENSOR-OIL, FUEL PRESSURE, RH SERVICE AN ATTACHMENT

SMCS-1408, 1900

i02713407

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9X-6772	5	STRAP - CABLE						
C	2	1	117-0067	4	ELBOW						
	3	1	161-1705	1	SENSOR AS-PRESSURE (FILTERED FUEL)						
	3A	1	161-1705	1	SENSOR AS-PRESSURE (UNFILTERED FUEL)						
	3B	1	161-1705	1	SENSOR AS-PRESSURE (FILTERED OIL)						
	3C	1	161-1705	1	SENSOR AS-PRESSURE (UNFILTERED OIL)						
Y	4	1	235-6275	1	HARNES AS-SENSOR (OIL FILTER, FUEL FILTER)						227
C	5	1	0S-1588	1	BOLT (3/8-16X1.25-IN)						
C	6	1	4P-8134	3	CLIP						
C	7	1	5M-2894	1	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	8	1	6V-5048	8	SEAL-O-RING						

C- CHANGE FROM PREVIOUS TYPE
Y- SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01179548

ELECTRICAL AND STARTING SYSTEM

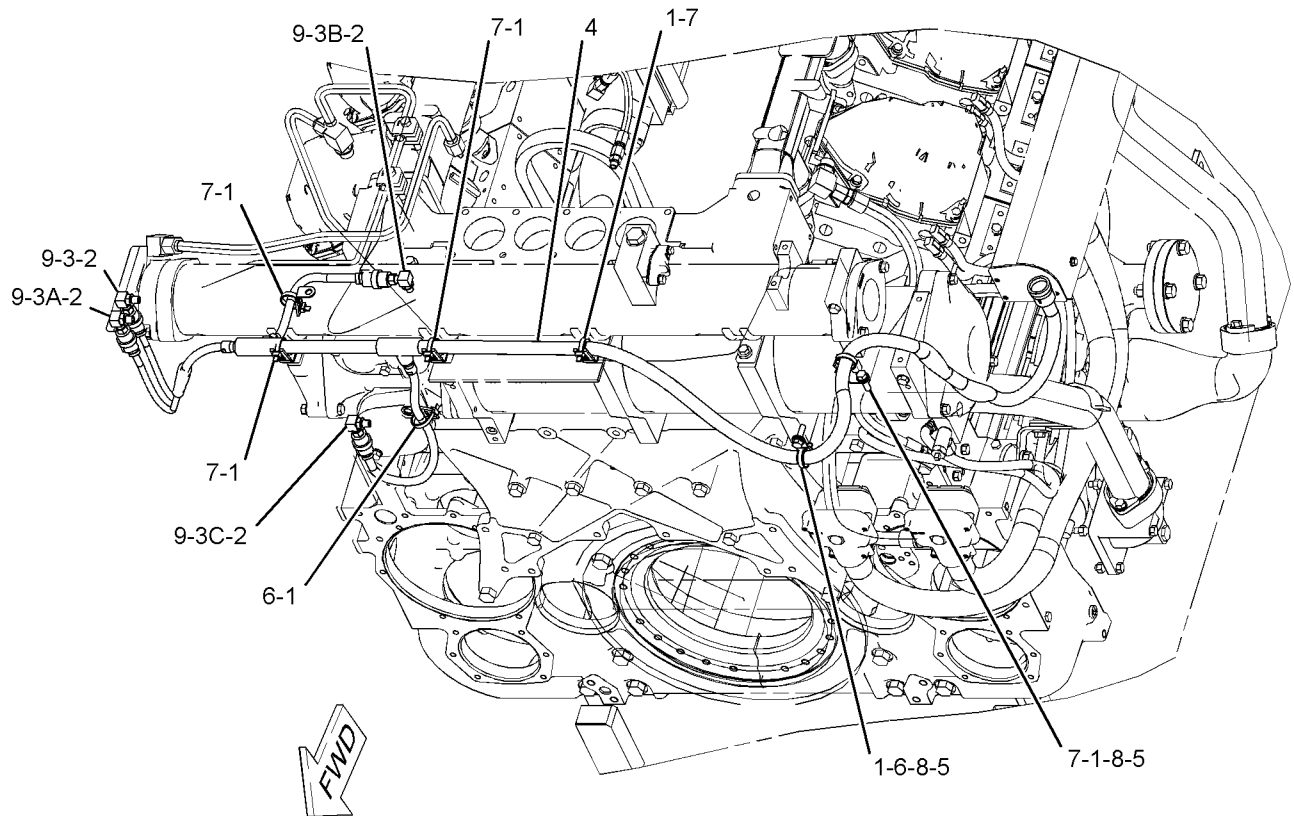
235-6277 WIRING GP-SENSOR-OIL, FUEL PRESSURE, LH SERVICE FOR USE WITH STANDARD DUPLEX FILTERS AN ATTACHMENT

SMCS-1408, 1900

i02214654

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
C	1	1	9X-6772	7	STRAP - CABLE						
C	2	1	117-0067	4	ELBOW						
	3	1	161-1705	1	SENSOR AS-PRESSURE (FILTERED FUEL)						
	3A	1	161-1705	1	SENSOR AS-PRESSURE (UNFILTERED FUEL)						
	3B	1	161-1705	1	SENSOR AS-PRESSURE (FILTERED OIL)						
	3C	1	161-1705	1	SENSOR AS-PRESSURE (UNFILTERED OIL)						
Y	4	1	235-6280	1	HARNES AS-SENSOR						227
C	5	1	OS-1588	2	BOLT (3/8-16X1.25-IN)						
C	6	1	4P-7428	2	CLIP						
C	7	1	4P-8134	5	CLIP						
C	8	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	9	1	6V-5048	8	SEAL-O-RING						

C- CHANGE FROM PREVIOUS TYPE
Y- SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01136198

ELECTRICAL AND STARTING SYSTEM

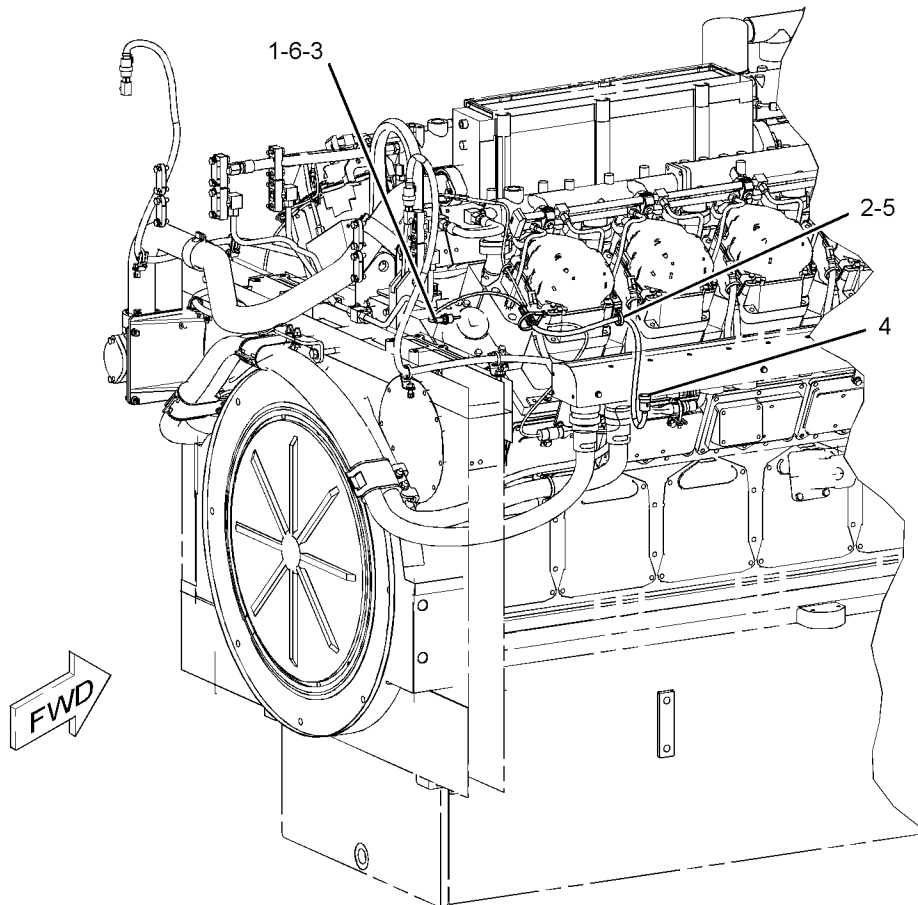
255-0178 WIRING GP-SENSOR-ENGINE OIL TEMPERATURE AN ATTACHMENT

SMCS-1408, 1900

i02698939

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9X-3271	1	ADAPTER						
	2	1	9X-6772	2	STRAP-CABLE						
Y	3	1	195-2150	1	SENSOR GP-TEMPERATURE (ENGINE OIL)						263
	4	1	255-0179	1	HARNESS AS-SENSOR (ENGINE OIL TEMPERATURE)						
		1	8T-8737	1	PLUG-SEAL						
		1	155-2270	1	KIT-CONNECTING PLUG (2-PIN) (INCLUDES PLUG ASSEMBLY AND WEDGE)						
		1	176-2942	1	PLUG AS-CONNECTOR (2-PIN)						
		1	176-2943	1	KIT-PLUG (2-PIN) (INCLUDES PLUG ASSEMBLY AND WEDGE)						
E		1	210-8958		TUBE-HEAT SHRINK (24-MM DIA) (10-CM)						
E		1	232-0893		CONDUIT-FLEXIBLE (6.2-MM ID) (64-CM)						
	5	1	4P-8134	1	CLIP						
	6	1	6V-5049	1	SEAL-O-RING						

E-ORDER BY THE CENTIMETER
Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01138801

ELECTRICAL AND STARTING SYSTEM

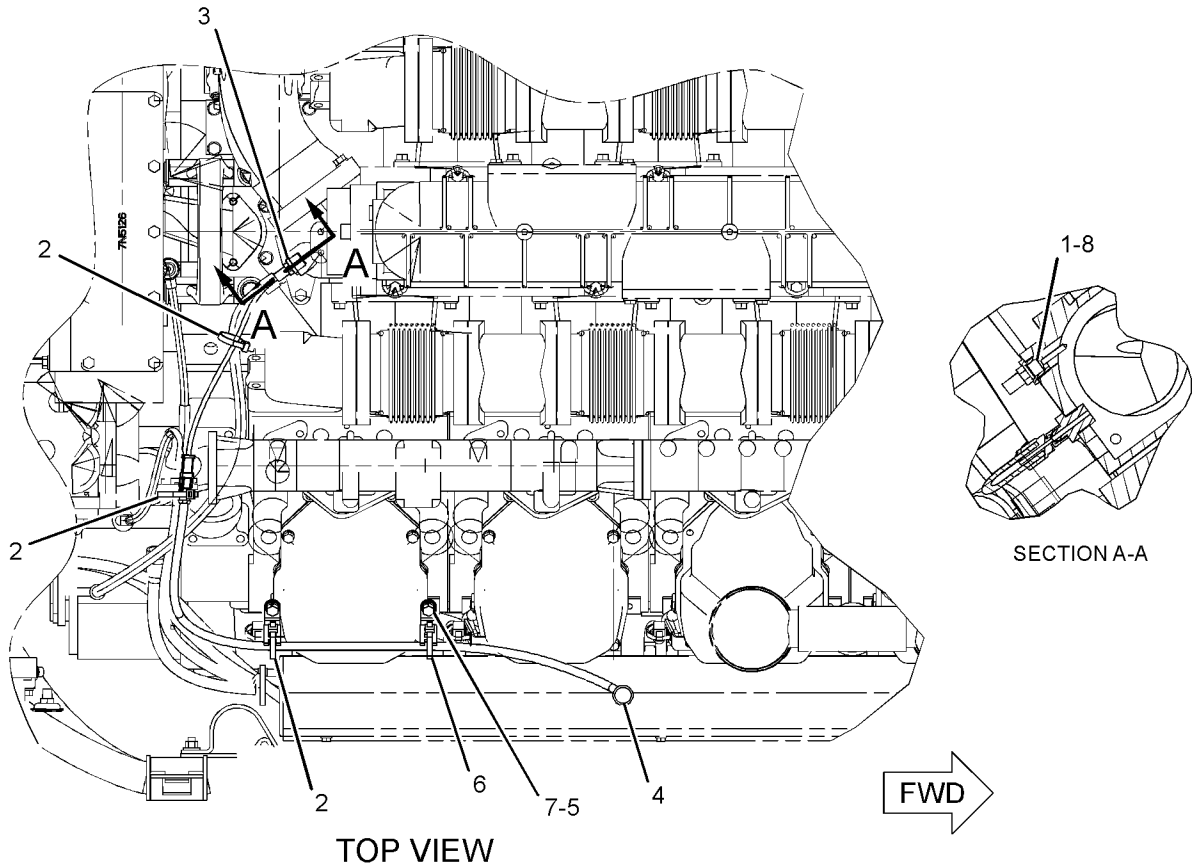
255-0180 WIRING GP - SENSOR-MANIFOLD AIR TEMPERATURE AN ATTACHMENT

SMCS-1408, 1900

i02698940

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9X-3271	1	ADAPTER						
	2	1	9X-6772	4	STRAP - CABLE						
Y	3	1	195-2150	1	SENSOR GP - TEMPERATURE (AIR INLET)						263
	4	1	255-0181	1	HARNESS AS - SENSOR (MANIFOLD AIR TEMPERATURE)						
		1	8T-8737	1	PLUG - SEAL						
		1	155-2270	1	KIT - CONNECTING PLUG (2-PIN) (INCLUDES PLUG ASSEMBLY AND WEDGE)						
		1	176-2942	1	PLUG AS - CONNECTOR (2-PIN)						
		1	176-2943	1	KIT - PLUG (2-PIN) (INCLUDES PLUG ASSEMBLY AND WEDGE)						
E		1	210-8958		TUBE - HEAT SHRINK (24-MM DIA) (10-CM)						
E		1	232-0893		CONDUIT - FLEXIBLE (6.2-MM ID) (94-CM)						
	5	1	0T-0102	2	BOLT (3/8-16X0.625-IN)						
	6	1	4P-8134	2	CLIP						
	7	1	5M-2894	2	WASHER - HARD (10.2X18.5X2.5-MM THK)						
	8	1	6V-5049	1	SEAL - O-RING						

E - ORDER BY THE CENTIMETER
Y - SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01138829

ELECTRICAL AND STARTING SYSTEM

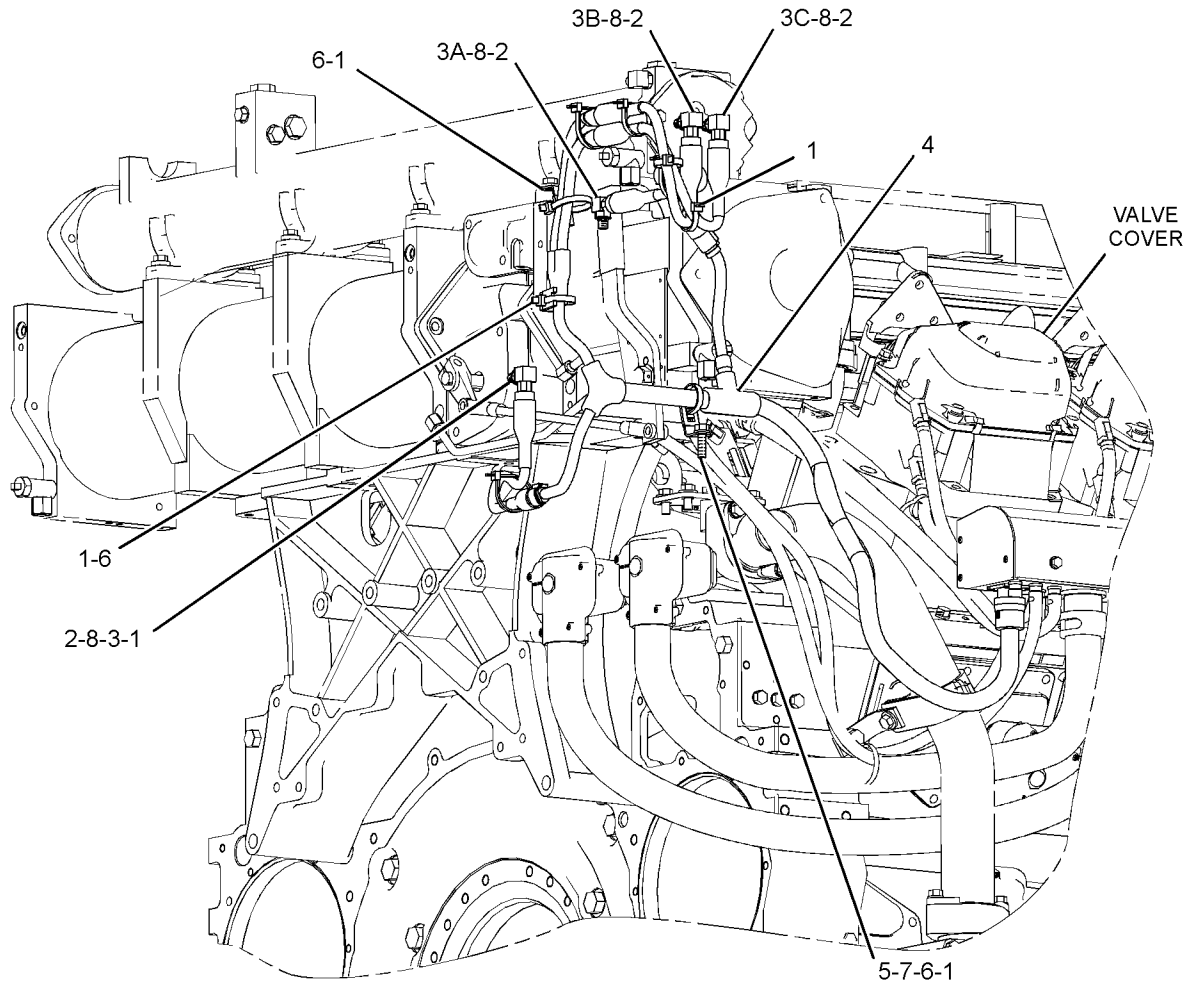
307-0008 WIRING GP - SENSOR-OIL, FUEL PRESSURE, RH SERVICE AN ATTACHMENT

SMCS-1408, 1900

i02713402

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9X-6772	9	STRAP - CABLE						
	2	1	117-0067	4	ELBOW						
Y	3	1	304-5668	1	SENSOR GP - PRESSURE (UNFILTERED OIL)						256
Y	3A	1	304-5668	1	SENSOR GP - PRESSURE (FILTERED OIL)						256
Y	3B	1	304-5668	1	SENSOR GP - PRESSURE (UNFILTERED FUEL)						256
Y	3C	1	304-5668	1	SENSOR GP - PRESSURE (FILTERED FUEL)						256
Y	4	1	306-8879	1	HARNES AS - SENSOR						231
	5	1	0S-1588	1	BOLT (3/8-16X1.25-IN)						
	6	1	4P-8134	3	CLIP						
	7	1	5M-2894	1	WASHER - HARD (10.2X18.5X2.5-MM THK)						
	8	1	6V-5048	8	SEAL - O-RING						

Y - SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01345576

ELECTRICAL AND STARTING SYSTEM

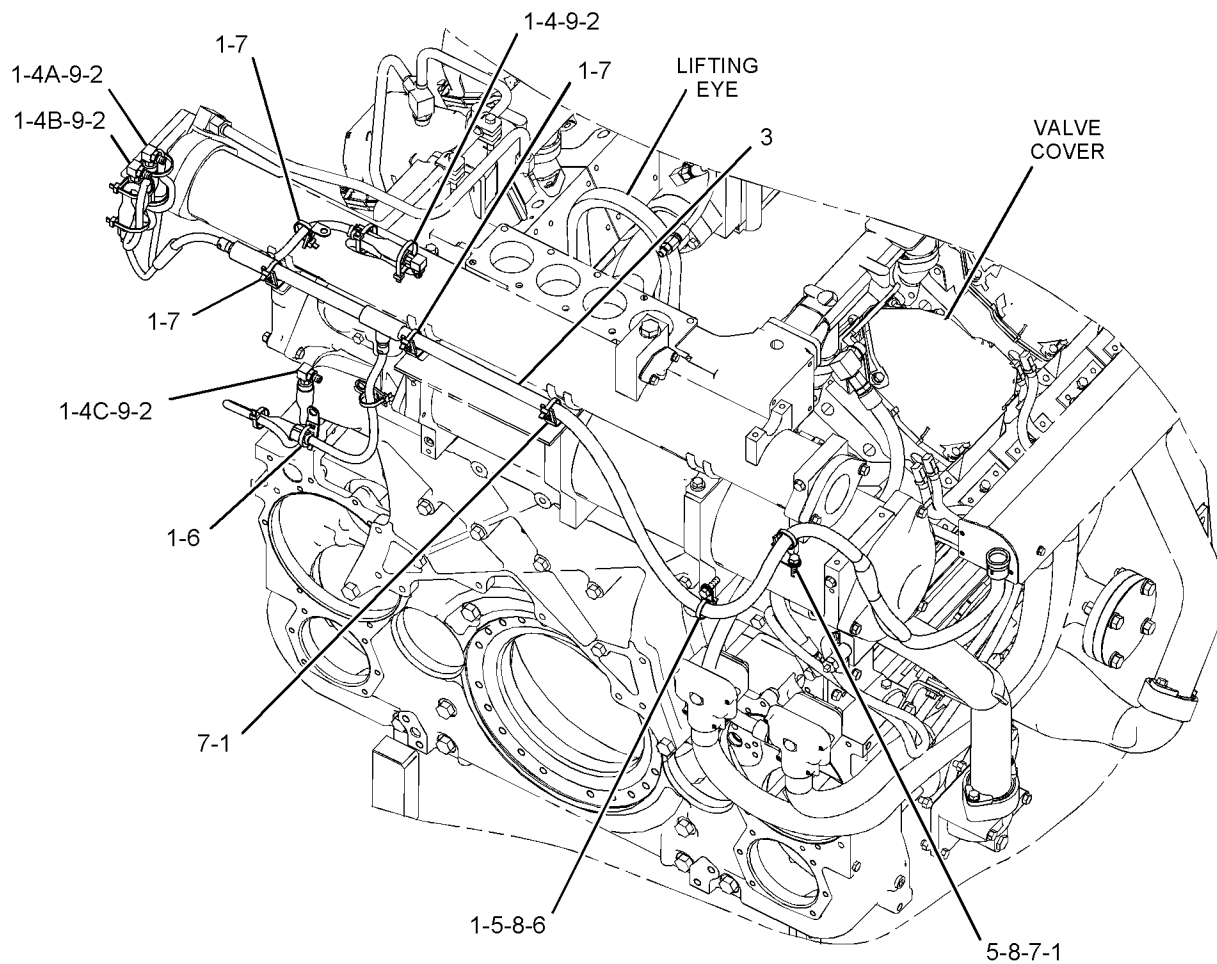
307-2046 WIRING GP-SENSOR-OIL, FUEL PRESSURE, LH SERVICE AN ATTACHMENT

SMCS-1408, 1900

i02713404

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9X-6772	15	STRAP - CABLE						
	2	1	117-0067	4	ELBOW						
Y	3	1	235-6280	1	HARNESS AS- SENSOR						227
Y	4	1	304-5668	1	SENSOR GP-PRESSURE (UNFILTERED OIL)						256
Y	4A	1	304-5668	1	SENSOR GP-PRESSURE (FILTERED FUEL)						256
Y	4B	1	304-5668	1	SENSOR GP-PRESSURE (UNFILTERED FUEL)						256
Y	4C	1	304-5668	1	SENSOR GP-PRESSURE (FILTERED OIL)						256
	5	1	0S-1588	2	BOLT (3/8-16X1.25-IN)						
	6	1	4P-7428	3	CLIP						
	7	1	4P-8134	5	CLIP						
	8	1	5M-2894	2	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	9	1	6V-5048	8	SEAL-O-RING						

Y- SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01345496

OPERATOR STATION

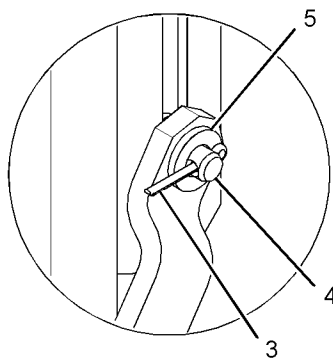
290-7263 BOX AS-INSTRUMENT PART OF 290-3211, 300-0478 BOX GP-INSTRUMENT PANEL AN ATTACHMENT

SMCS-7451

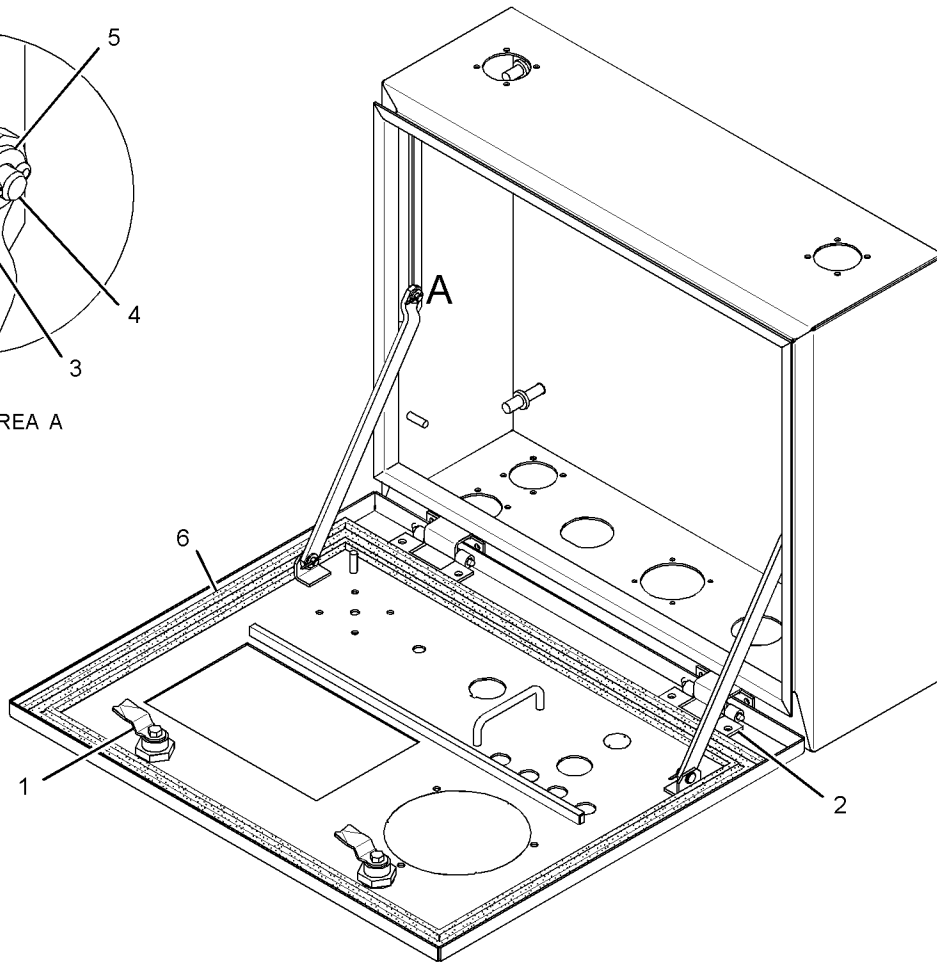
i02629018

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	128-8545	2	LATCH AS						
	2	1	153-3723	2	HINGE AS						
					(EACH INCLUDES)						
		1	8T-5447	1	RING-RETAINING						
	3	1	3B-4605	4	PIN-COTTER						
	4	1	9P-6895	4	PIN						
	5	1	9X-6381	4	WASHER (6.5X12.5X1.6-MM THK)						
D	6	1	6V-1392		SEAL (1.8-M)						

D-ORDER BY THE METER



VIEW OF AREA A



GRAPHIC #1

<END>

g01327035

OPERATOR STATION

290-3211 BOX GP - INSTRUMENT PANEL

AN ATTACHMENT

SMCS-7451, 7490

i02698942

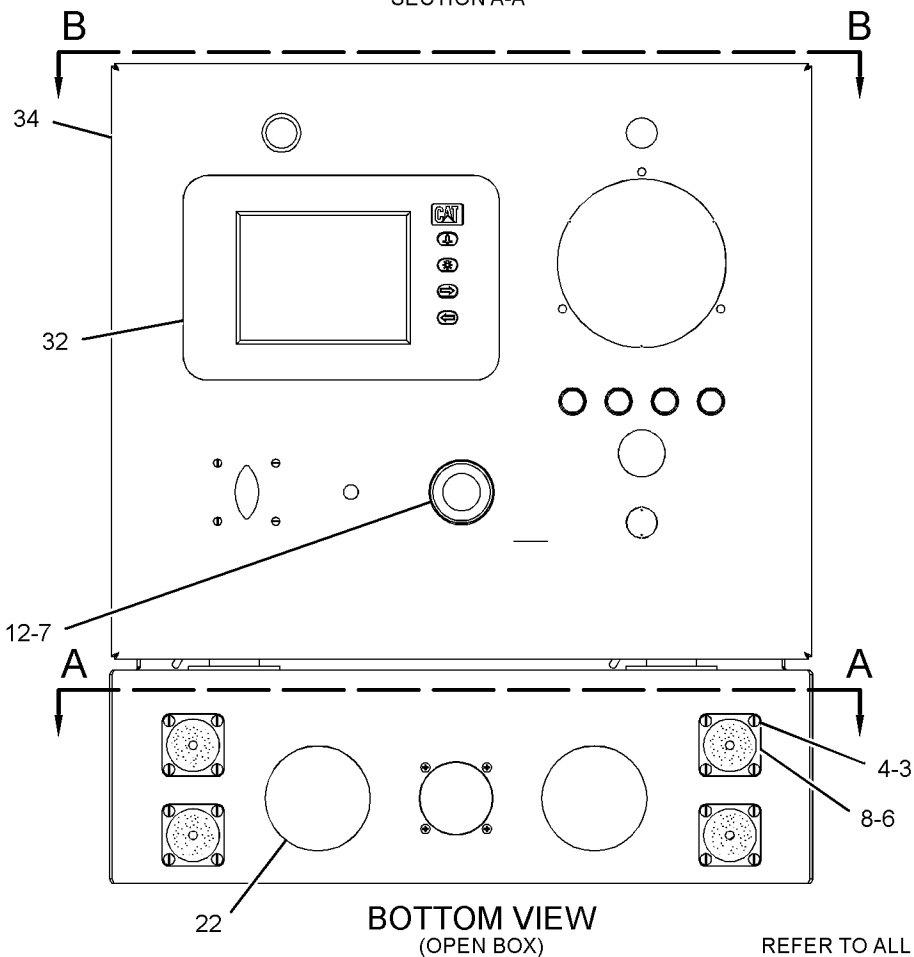
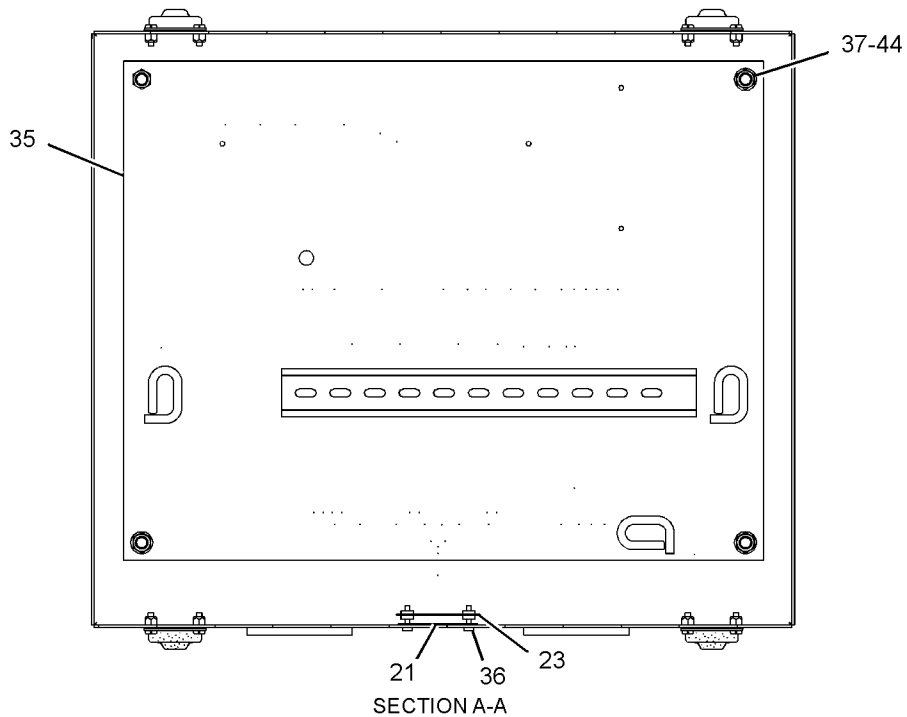
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	2	1H-4393	2	LOCKWASHER						
	2	2	3E-0357	11	DIODE AS						
	3	1	6D-5801	24	LOCKNUT (8-32-THD)						
	4	1,2	7S-1197	26	SCREW-MACHINE (8-32X0.5-IN)						
	5	2	9X-9675	2	BRACKET-END						
	6	1	107-2482	6	GASKET						
	7	1	109-6507	1	SWITCH AS-PUSH BUTTON (EMERGENCY STOP)						
	8	1	110-8909	6	MOUNT-FLEXIBLE						
	9	2	111-1323	1	BLOCK-CONTACT (NORMALLY OPEN)						
	10	2	120-9079	2	TERMINAL						
	11	2	123-9694	1	HORN						
	12	1	124-3176	1	COVER						
	13	2	125-9941	4	BASE-LAMP						
	14	2	125-9942	1	LENS (AMBER)						
	15	2	125-9943	2	LENS (RED)						
	16	2	125-9944	1	LENS (GREEN)						
	17	2	125-9955	2	LAMP-LED (24-VOLT) (RED)						
	18	2	125-9956	1	LAMP-LED (24-VOLT) (AMBER)						
	19	2	125-9957	1	LAMP-LED (24-VOLT) (GREEN)						
	20	2	127-2331	1	SWITCH AS-ROTARY (ENGINE CONTROL)						
	21	1	131-4891	1	GASKET						
	22	1	131-9131	2	SEAL-CONNECTOR (76-MM ID)						
	23	1	132-8489	1	NUT-RING						
	24	2	134-0957	1	COVER-BLOCK						
	25	2	135-6740	11	BLOCK-DIODE						
	26	2	197-2691	1	STRIP-CONTACT						
	27	2	204-5592	1	BAR-FIXED BRIDGE						
	28	2	204-5593	3	RELAY (24-VOLT) (POWER)						
	29	2	204-5594	9	RELAY (24-VOLT) (START ENABLE)						
	30	2	221-2498	1	WIRE AS						
	31	2	231-9911	1	BRACKET						
Y	32	1	267-8623	1	DISPLAY GP-MONITOR (MARINE POWER DISPLAY)						315
Y	33	2	278-1836	1	HARNESS AS-PANEL (MARINE POWER DISPLAY)						225
Y	34	1	290-7263	1	BOX AS-INSTRUMENT						306
	35	1	291-4828	1	PLATE AS						
		1	7T-1099	3	LINK						
	36	1	156-6450	4	SCREW-PAN HEAD (6-32X15.88-MM)						
	37	1	3E-9860	4	LOCKNUT (5/16-18-THD)						
	38	2	3T-4405	1	SWITCH GP-TOGGLE (LOCAL, REMOTE THROTTLE)						
		2	3L-8187	6	LOCKWASHER						
		2	6T-3631	2	NUT-HEX (15/32-32-THD)						
		2	6T-3632	1	LOCKWASHER						
		2	6T-3633	1	RING-LOCKING						
		2	6V-8374	6	SCREW-MACHINE (6-32X0.25-IN)						
	39	2	4B-4863	2	WASHER (4.7X11X1.2-MM THK)						
	40	2	4D-1836	1	SWITCH AS-TOGGLE (PROTECTION OVERRIDE)						
	40A	2	4D-1836	1	SWITCH AS-TOGGLE (TORQUE LIMIT)						
	41	2	5P-0537	4	WASHER-HARD (7.2X14.5X2-MM THK)						
	42	2	7C-4910	1	SEAL						
Y	43	2	7N-8001	1	SWITCH GP-TOGGLE (SINGLE POLE) (CRANK OVERRIDE)						279
Y	43A	2	7N-8001	1	SWITCH GP-TOGGLE (SINGLE POLE) (PRELUBRICATION OVERRIDE)						279
	44	1	8T-4224	4	WASHER-HARD (8.8X16X2-MM THK)						
	45	2	9S-8750	2	NUT-FULL (1/4-20-THD)						
E	46	2	7Y-5074		GUARD-HOSE (19-CM)						
	47	2	241-8224	1	KIT-MARKER (INSTRUMENT PANEL)						

OPERATOR STATION

290-3211 BOX GP - INSTRUMENT PANEL (contd.)

i02698942

E - ORDER BY THE CENTIMETER
Y - SEPARATE ILLUSTRATION



REFER TO ALL ILLUSTRATIONS OF THIS GROUP FOR AUXILIARY VIEWS

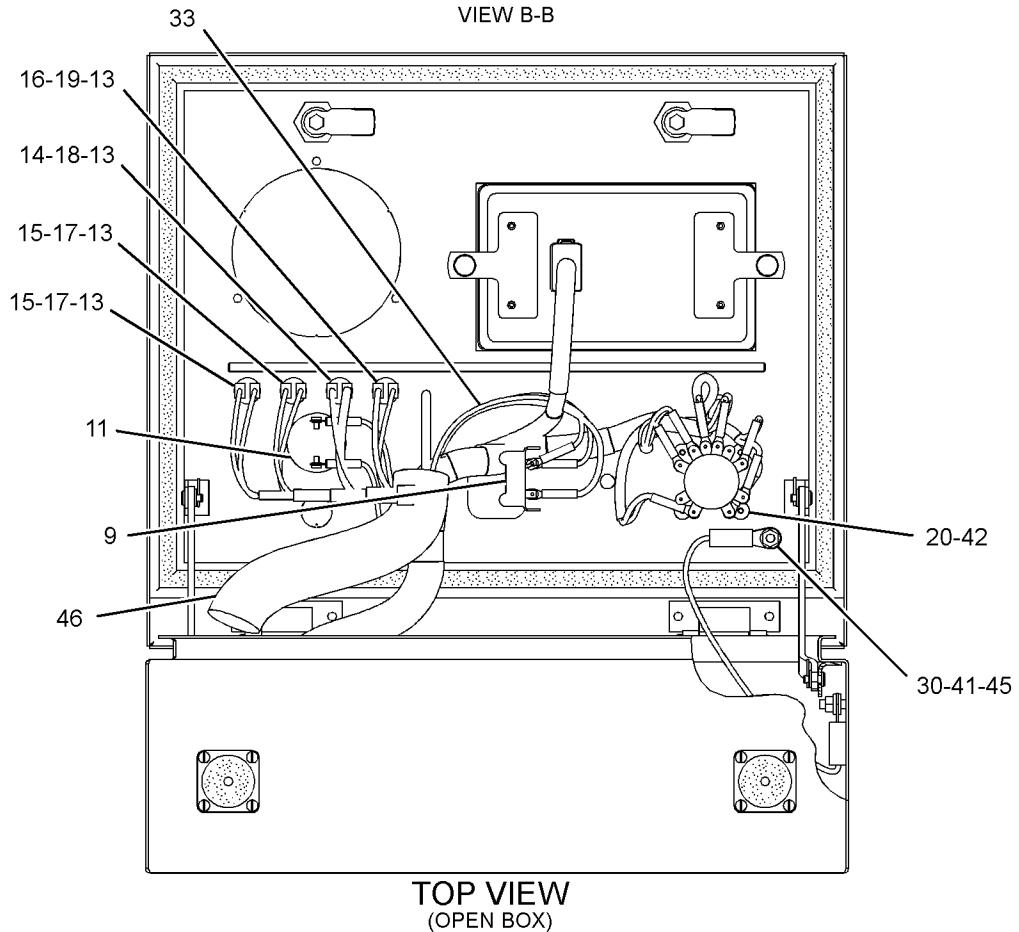
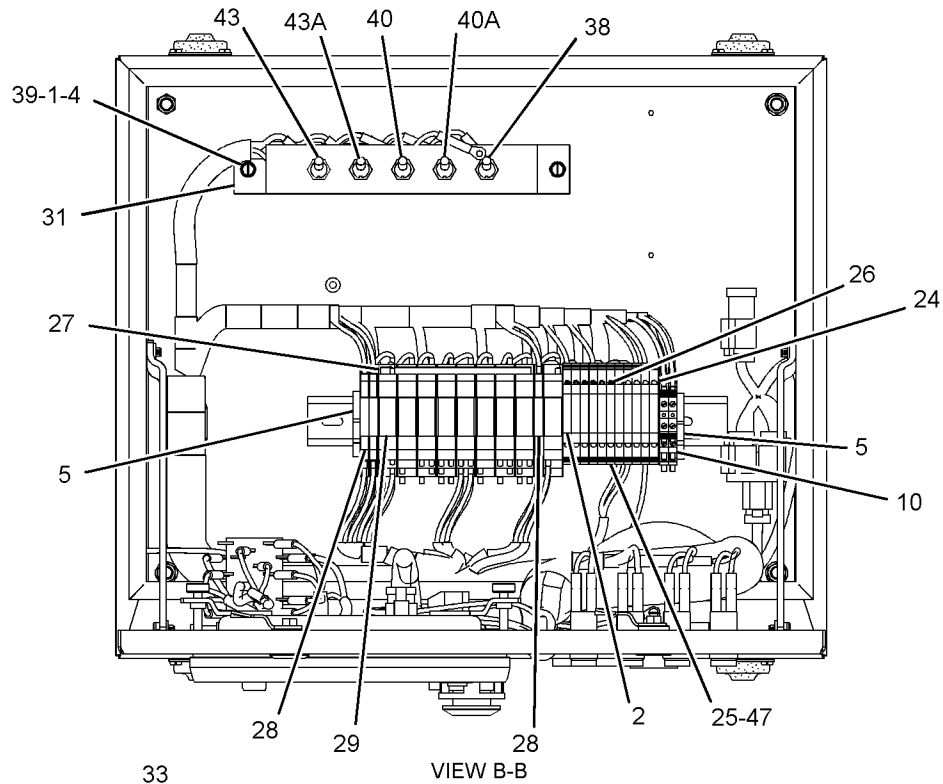
GRAPHIC #1

g01325862

OPERATOR STATION

290-3211 BOX GP - INSTRUMENT PANEL (contd.)

i02698942



GRAPHIC #2

<END>

g01325883

OPERATOR STATION

300-0478 BOX GP - INSTRUMENT PANEL

AN ATTACHMENT

SMCS-7451, 7490

i02698951

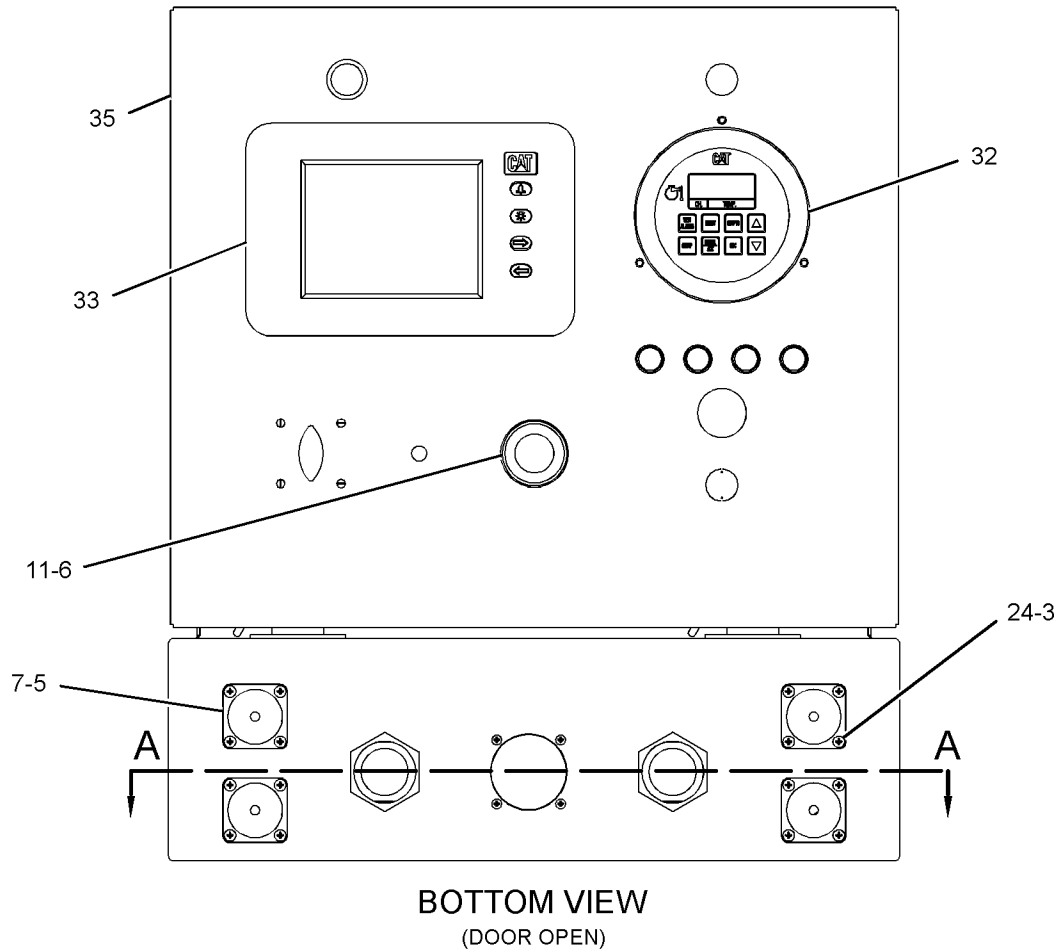
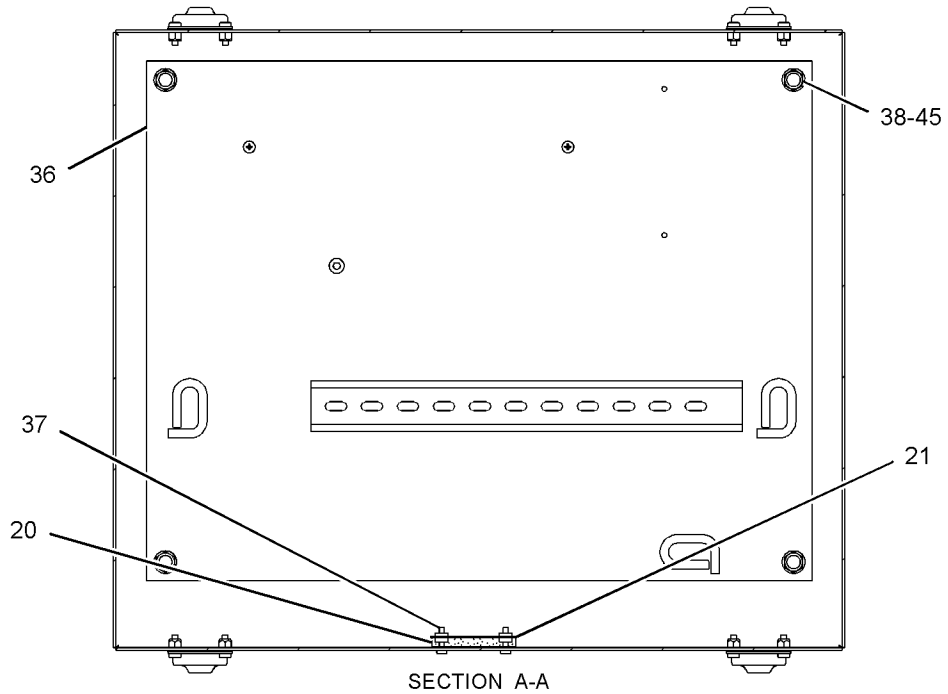
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	2	1H-4393	2	LOCKWASHER						
	2	2	3E-0357	11	DIODE AS						
	3	1	6D-5801	24	LOCKNUT (8-32-THD)						
	4	2	9X-9675	2	BRACKET-END						
	5	1	107-2482	6	GASKET						
	6	1	109-6507	1	SWITCH AS-PUSH BUTTON (EMERGENCY STOP)						
	7	1	110-8909	6	MOUNT-FLEXIBLE						
	8	2	111-1323	1	BLOCK-CONTACT						
	9	2	120-9079	2	TERMINAL						
	10	2	123-9694	1	HORN						
	11	1	124-3176	1	COVER						
	12	2	125-9941	4	BASE-LAMP						
	13	2	125-9942	1	LENS (AMBER)						
	14	2	125-9943	2	LENS (RED)						
	15	2	125-9944	1	LENS (GREEN)						
	16	2	125-9955	2	LAMP-LED (24-VOLT) (RED)						
	17	2	125-9956	1	LAMP-LED (24-VOLT) (AMBER)						
	18	2	125-9957	1	LAMP-LED (24-VOLT) (GREEN)						
	19	2	127-2331	1	SWITCH AS-ROTARY (ENGINE CONTROL)						
	20	1	131-4891	1	GASKET						
	21	1	132-8489	1	NUT-RING						
	22	2	134-0957	1	COVER-BLOCK						
	23	2	135-6740	11	BLOCK-DIODE						
	24	1,2	178-3339	26	SCREW (8-32X0.5-IN)						
	25	2	197-2691	1	STRIP-CONTACT						
	26	2	204-5592	1	BAR-FIXED BRIDGE						
	27	2	204-5593	3	RELAY (24-VOLT) (POWER)						
	28	2	204-5594	9	RELAY (24-VOLT) (START ENABLE)						
	29	2	221-2498	1	WIRE AS						
	30	2	231-9911	1	BRACKET						
Y	31	2	237-9023	1	HARNESS AS-SENSOR (THERMOCOUPLE)						228
	32	1	251-9450	1	MODULE - EXHAUST TEMPERATURE						
Y	33	1	267-8623	1	DISPLAY GP-MONITOR (MARINE POWER DISPLAY)						315
Y	34	2	278-1836	1	HARNESS AS-PANEL (MARINE POWER DISPLAY)						225
Y	35	1	290-7263	1	BOX AS-INSTRUMENT						306
	36	1	291-4828	1	PLATE AS						
		1	7T-1099	3	LINK						
	37	1	156-6450	4	SCREW-PAN HEAD (6-32X15.88-MM)						
	38	1	3E-9860	4	LOCKNUT (5/16-18-THD)						
	39	2	3T-4405	1	SWITCH GP-TOGGLE (LOCAL, REMOTE THROTTLE)						
		2	3L-8187	6	LOCKWASHER						
		2	6T-3631	2	NUT-HEX (15/32-32-THD)						
		2	6T-3632	1	LOCKWASHER						
		2	6T-3633	1	RING-LOCKING						
		2	6V-8374	6	SCREW-MACHINE (6-32X0.25-IN)						
	40	2	4B-4863	2	WASHER (4.7X11X1.2-MM THK)						
	41	2	4D-1836	1	SWITCH AS-TOGGLE (ENGINE PROTECTION OVERRIDE)						
	41A	2	4D-1836	1	SWITCH AS-TOGGLE (TORQUE LIMIT)						
	42	2	5P-0537	4	WASHER-HARD (7.2X14.5X2-MM THK)						
	43	2	7C-4910	1	SEAL						
Y	44	2	7N-8001	1	SWITCH GP-TOGGLE (SINGLE POLE) (CRANK OVERRIDE)						279
Y	44A	2	7N-8001	1	SWITCH GP-TOGGLE (SINGLE POLE) (PRELUBRICATION OVERRIDE)						279
	45	1	8T-4224	4	WASHER-HARD (8.8X16X2-MM THK)						
	46	2	9S-8750	2	NUT-FULL (1/4-20-THD)						
E	47	2	7Y-5074		GUARD-HOSE (19-CM)						
	48	2	241-8224	1	KIT-MARKER (INSTRUMENT PANEL)						

OPERATOR STATION

300-0478 BOX GP - INSTRUMENT PANEL (contd.)

i02698951

E - ORDER BY THE CENTIMETER
Y - SEPARATE ILLUSTRATION



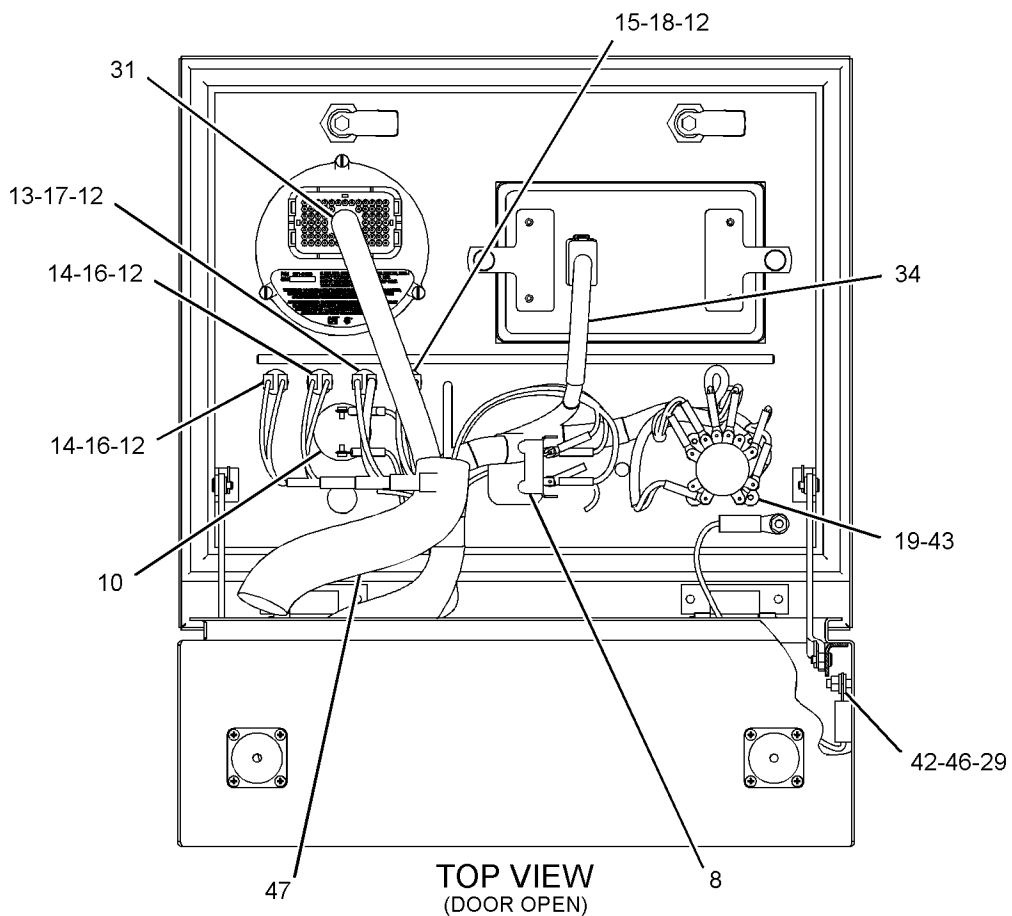
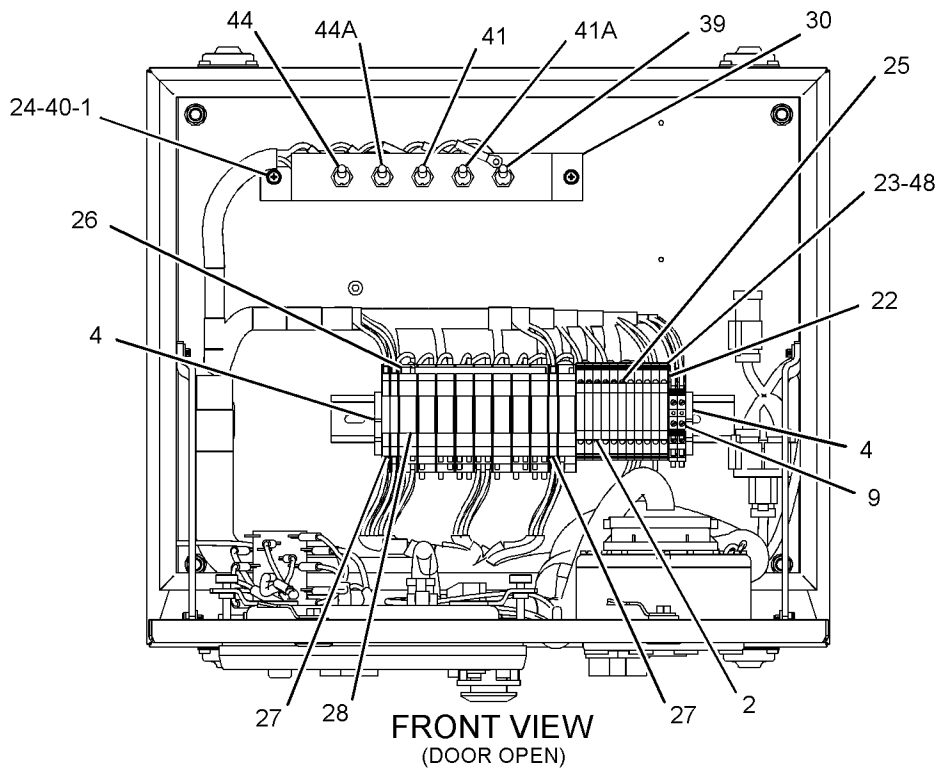
GRAPHIC #1

g01347129

OPERATOR STATION

300-0478 BOX GP - INSTRUMENT PANEL (contd.)

i02698951



GRAPHIC #2

<END>

g01347130

OPERATOR STATION

238-9549 CONTROL GP - SPEED

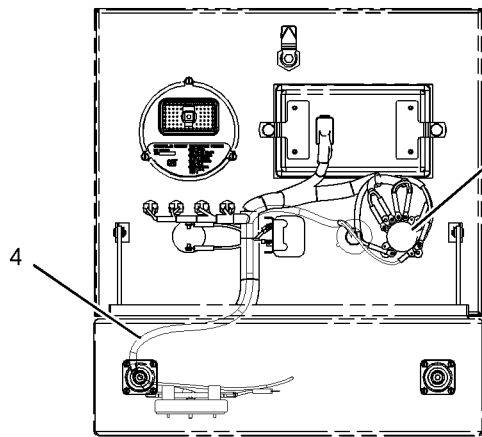
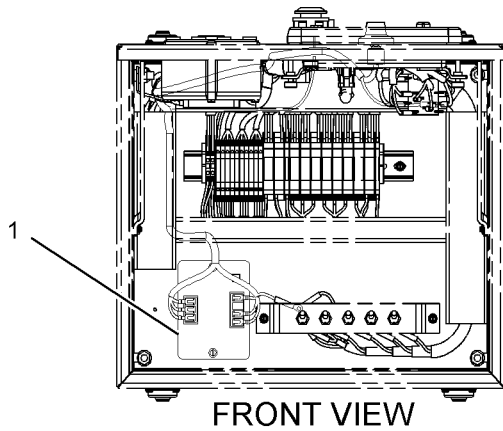
AN ATTACHMENT

SMCS-1915, 5910

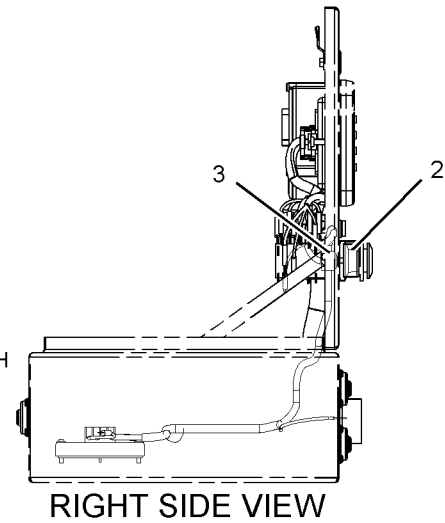
i02698934

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	9X-9591	1	CONVERTER GP-ELECTRICAL (PULSE WIDTH MODULATED)						314
	2	1	116-9723	1	DIAL-VERNIER						
	3	1	122-9458	1	POTENTIOMETER (1000-OHM) (SPEED ADJUST)						
Y	4	1	237-9022	1	HARNESS AS-PANEL (SPEED CONTROL)						223

Y-SEPARATE ILLUSTRATION



CONTROL SWITCH



GRAPHIC #1

<END>

g01010321

OPERATOR STATION

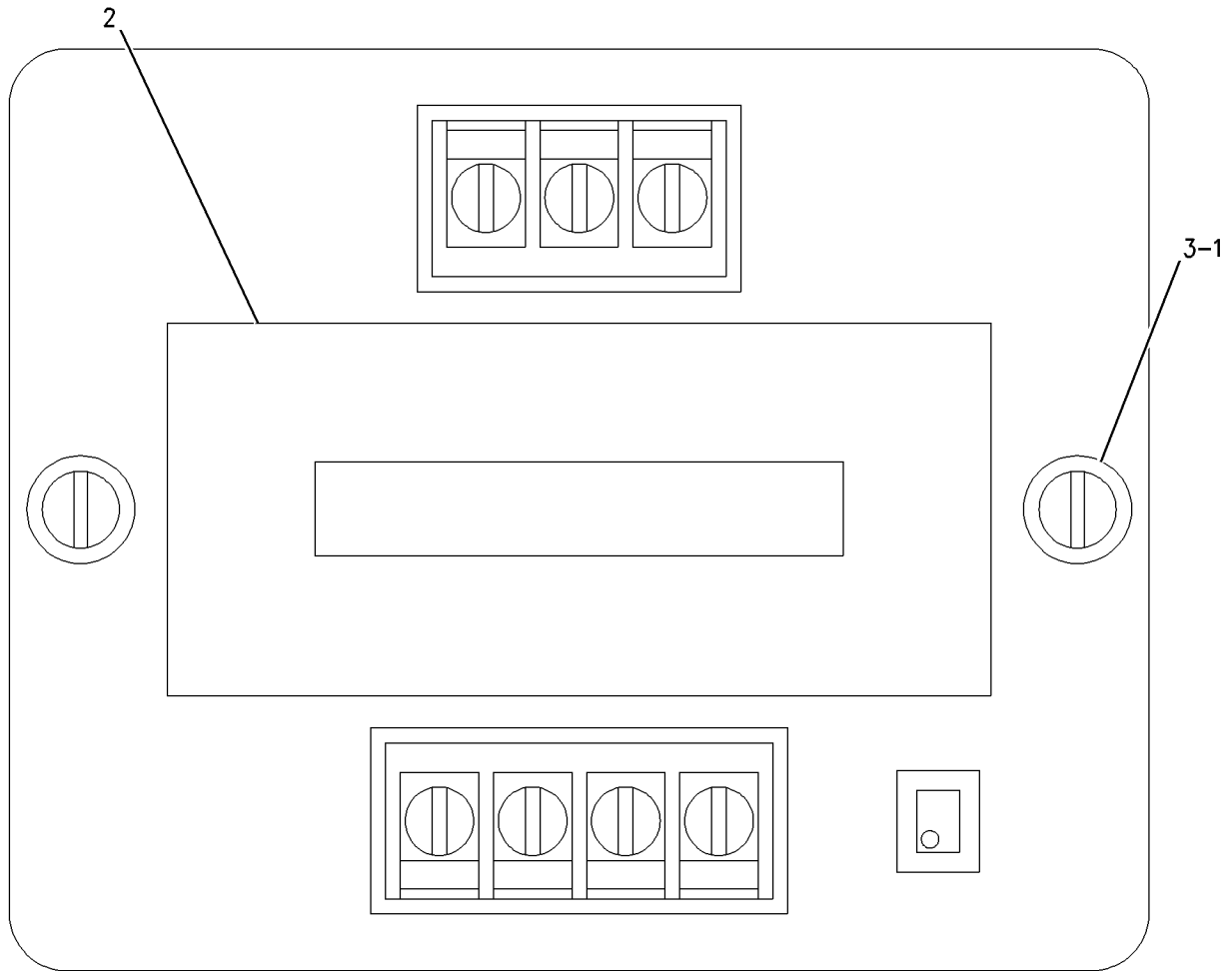
9X-9591 CONVERTER GP-ELECTRICAL

PULSE WIDTH MODULATED
PART OF 238-9549 CONTROL GP-SPEED
AN ATTACHMENT

SMCS-1421

i02183032

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4B-4863	2	WASHER (4.7X11X1.2-MM THK)						
	2	1	9X-9857	1	FILM-IDENTIFICATION (ELECTRICAL CONVERTER)						
	3	1	3K-8106	2	SCREW-MACHINE (8-32X1-IN)						



GRAPHIC #1

<END>

g00774430

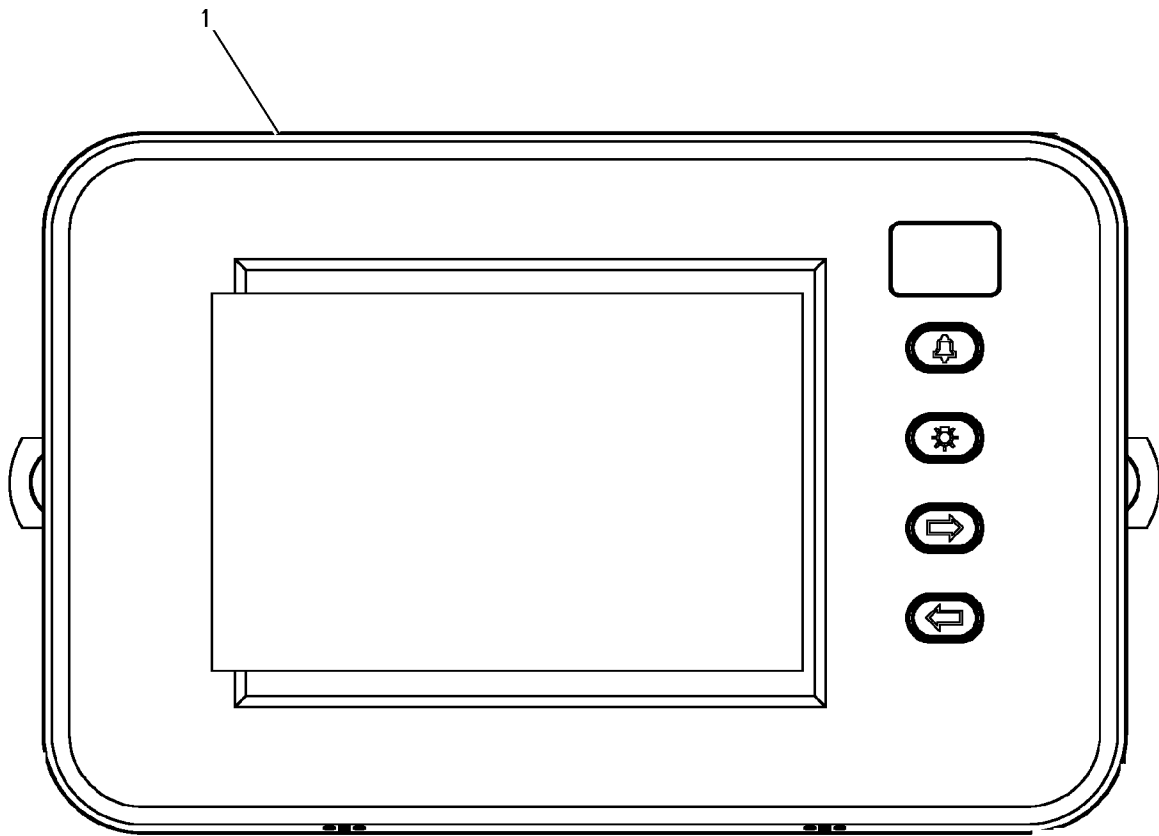
OPERATOR STATION

267-8623 DISPLAY GP-MONITOR-MARINE POWER DISPLAY
 PART OF 290-3211, 300-0478 BOX GP-INSTRUMENT PANEL, 249-6961 PANEL GP-PILOT
 HOUSE INSTR
 FIELD REPLACEMENT ORDER 259-2170-PAGE 316
 AN ATTACHMENT

SMCS-7490

i02283722

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	259-2170	1	MODULE AS (MARINE POWER DISPLAY)						316
Y-SEPARATE ILLUSTRATION											



GRAPHIC #1

<END>

g00914466

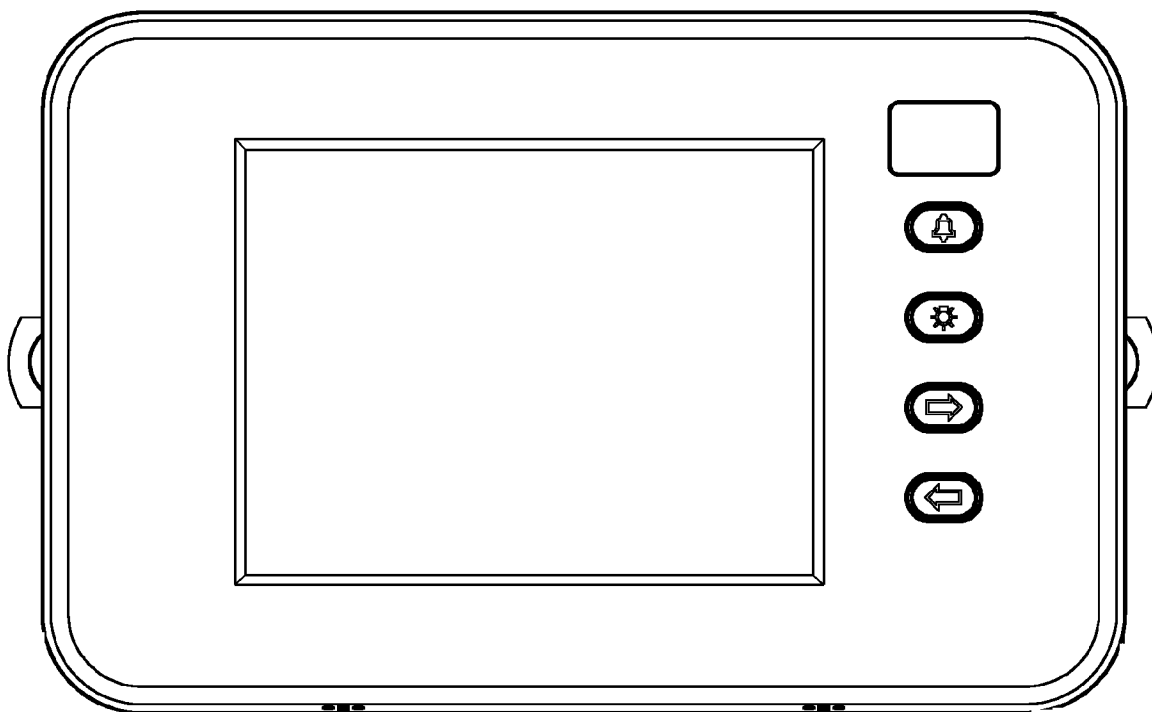
OPERATOR STATION

259 - 2170 MODULE AS—MARINE POWER DISPLAY
PART OF 267-8623 DISPLAY GP-MONITOR
FIELD REPLACEMENT FOR 267-8623—PAGE 315
AN ATTACHMENT

SMCS - 4480

i02357212

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	208-0589	1	COVER						



GRAPHIC #1

<END>

g00861076

OPERATOR STATION

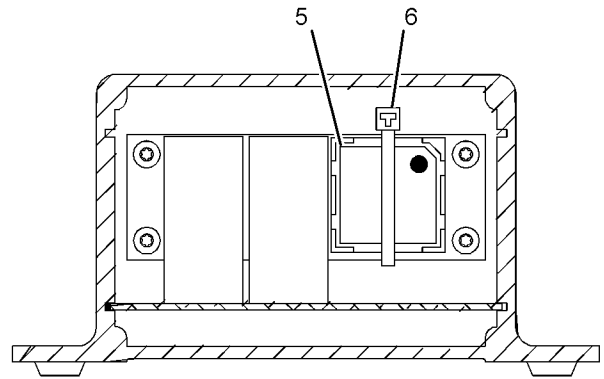
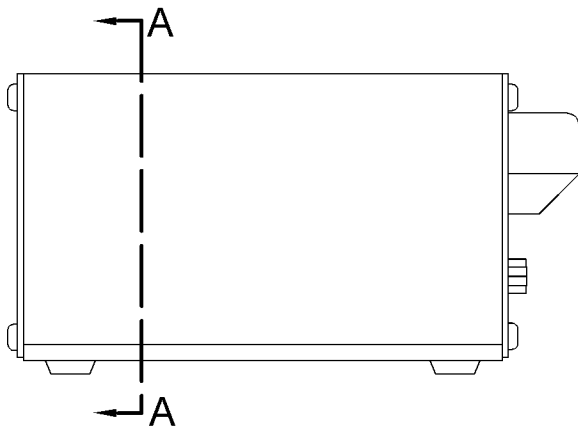
188-3080 MODULE GP-SYSTEM COMMUNICATION*R

AN ATTACHMENT

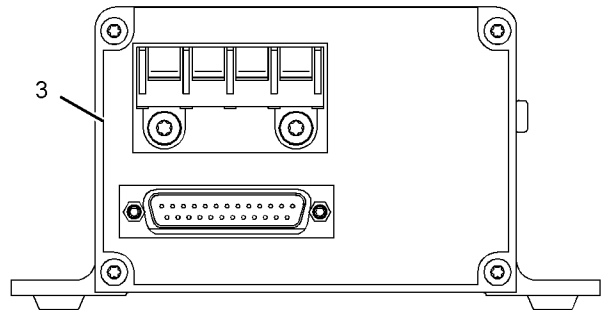
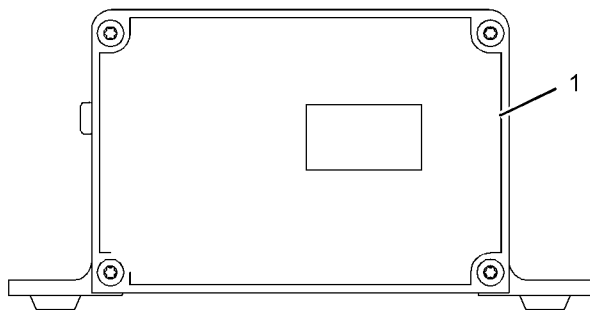
SMCS-1926

i02665591

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	109-5737	1	FILM-DISPLAY (COMMUNICATION MODULE)						
	3	1	109-5738	1	FILM-INTERFACE (COMMUNICATION MODULE)						
	5	1	101-1785	1	BATTERY (LITHIUM)						
	6	1	8L-8413	1	STRAP-CABLE						



SECTION A-A



GRAPHIC #1

<END>

g01341096

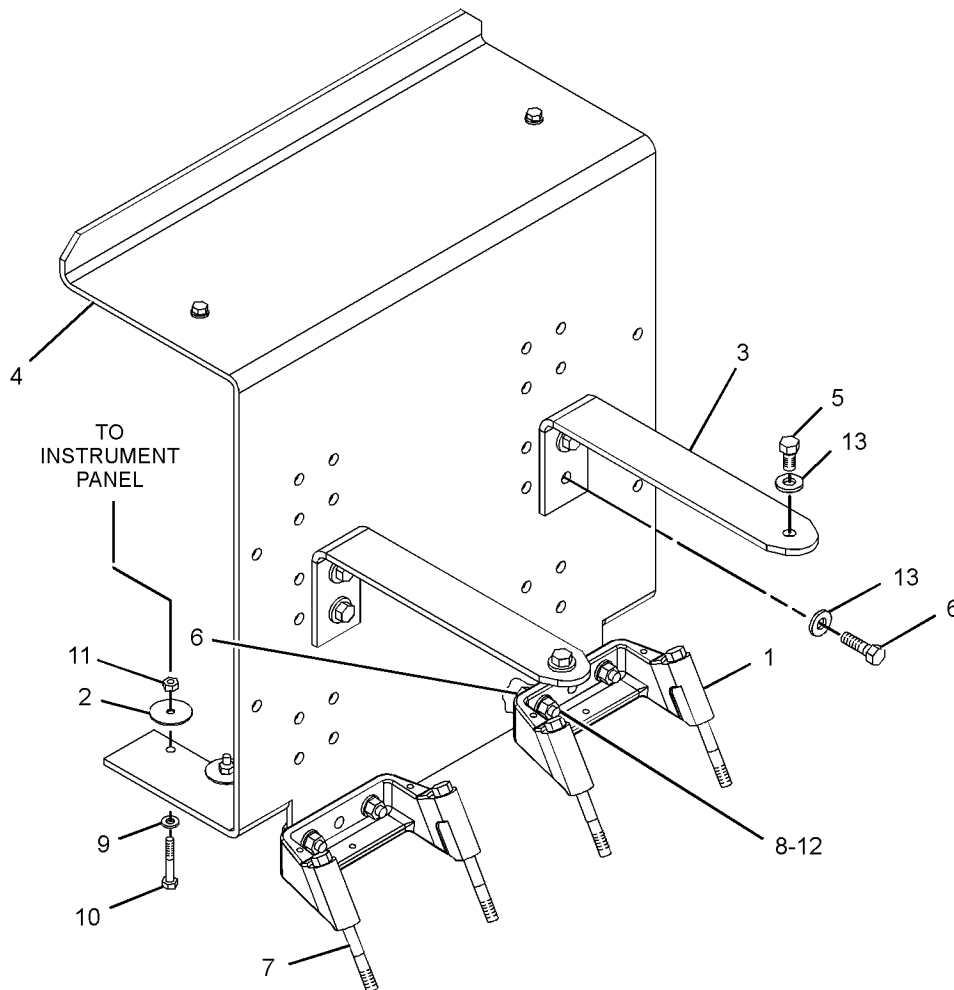
OPERATOR STATION

292-4520 MOUNTING GP - INSTRUMENT PANEL AN ATTACHMENT

SMCS-7451

i02625276

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1W-8129	2	SUPPORT						
	2	1	2W-8604	6	WASHER (6.5X35X1.5-MM THK)						
	3	1	235-2763	2	BRACKET						
	4	1	291-6227	1	BRACKET AS						
		1	1F-0750	4	NUT-WELD (3/8-16-THD)						
	5	1	0S-0509	2	BOLT (3/8-16X0.75-IN)						
	6	1	0S-1588	8	BOLT (3/8-16X1.25-IN)						
	7	1	1A-5964	4	BOLT (3/8-16X4.5-IN)						
	8	1	5M-2894	4	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	9	1	5P-0537	6	WASHER-HARD (7.2X14.5X2-MM THK)						
	10	1	7B-8167	6	BOLT (1/4-20X1.625-IN)						
	11	1	9S-8750	6	NUT-FULL (1/4-20-THD)						
	12	1	9S-8752	4	NUT-FULL (3/8-16-THD)						
	13	1	9X-6458	6	WASHER-HARD (10.2X22.5X3-MM THK)						



GRAPHIC #1

<END>

g01325975

OPERATOR STATION

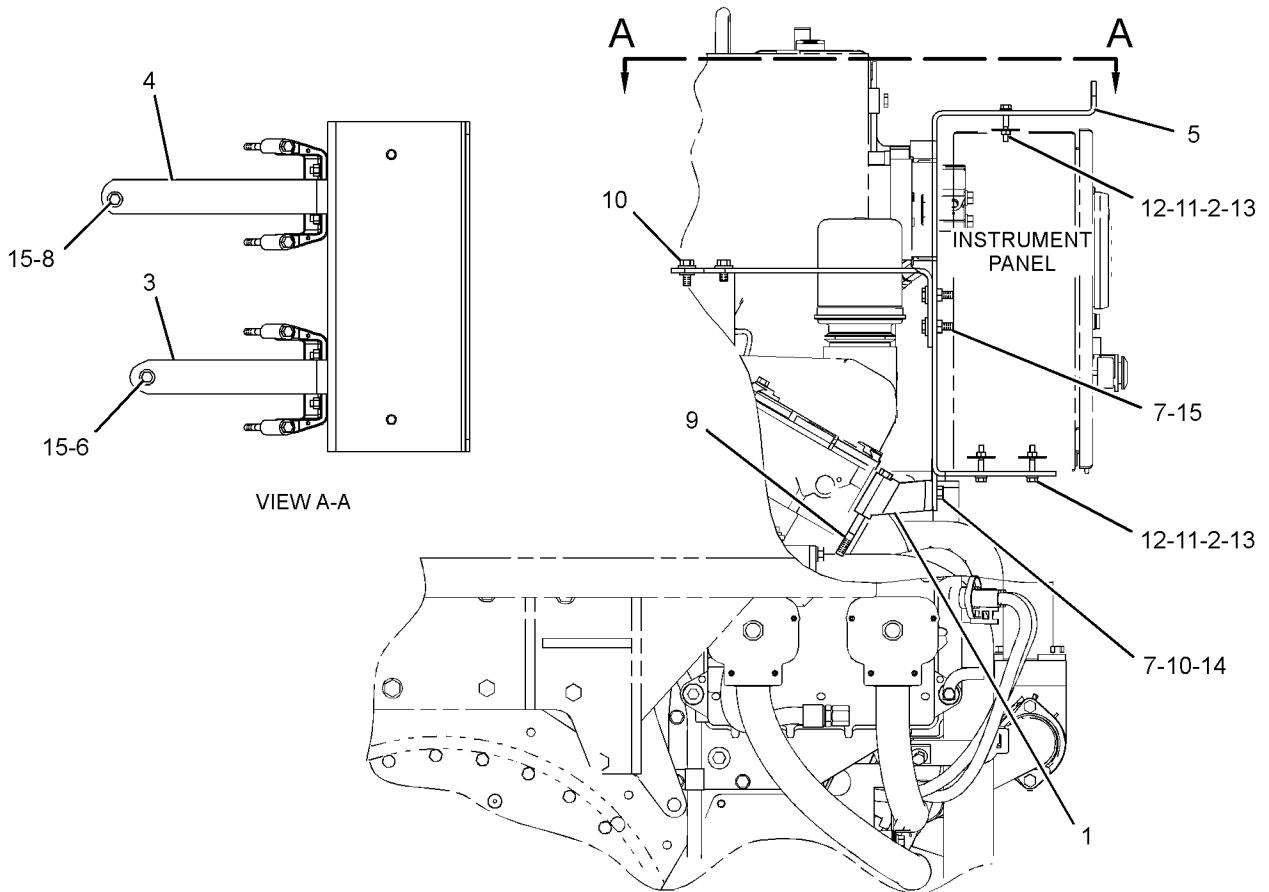
292-4522 MOUNTING GP - INSTRUMENT PANEL-LH

FOR USE WITH LH SERVICE MOUNTED ON LH SIDE OF ENGINE. CANNOT BE USED WITH
BREATHERS MOUNTED ON THE LH SIDE
AN ATTACHMENT

SMCS-7451

i02625280

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1W-8129	2	SUPPORT						
	2	1	2W-8604	6	WASHER (6.5X35X1.5-MM THK)						
	3	1	235-2763	1	BRACKET						
	4	1	254-0951	1	BRACKET						
	5	1	291-6227	1	BRACKET AS						
		1	1F-0750	4	NUT-WELD (3/8-16-THD)						
	6	1	0S-0509	1	BOLT (3/8-16X0.75-IN)						
	7	1	0S-1588	8	BOLT (3/8-16X1.25-IN)						
	8	1	0S-1594	1	BOLT (3/8-16X1-IN)						
	9	1	1A-5964	4	BOLT (3/8-16X4.5-IN)						
	10	1	5M-2894	5	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	11	1	5P-0537	6	WASHER-HARD (7.2X14.5X2-MM THK)						
	12	1	7B-8167	6	BOLT (1/4-20X1.625-IN)						
	13	1	9S-8750	6	NUT-FULL (1/4-20-THD)						
	14	1	9S-8752	4	NUT-FULL (3/8-16-THD)						
	15	1	9X-6458	6	WASHER-HARD (10.2X22.5X3-MM THK)						



VIEW A-A

FRONT VIEW OF ENGINE

GRAPHIC #1

<END>

g01324036

OPERATOR STATION

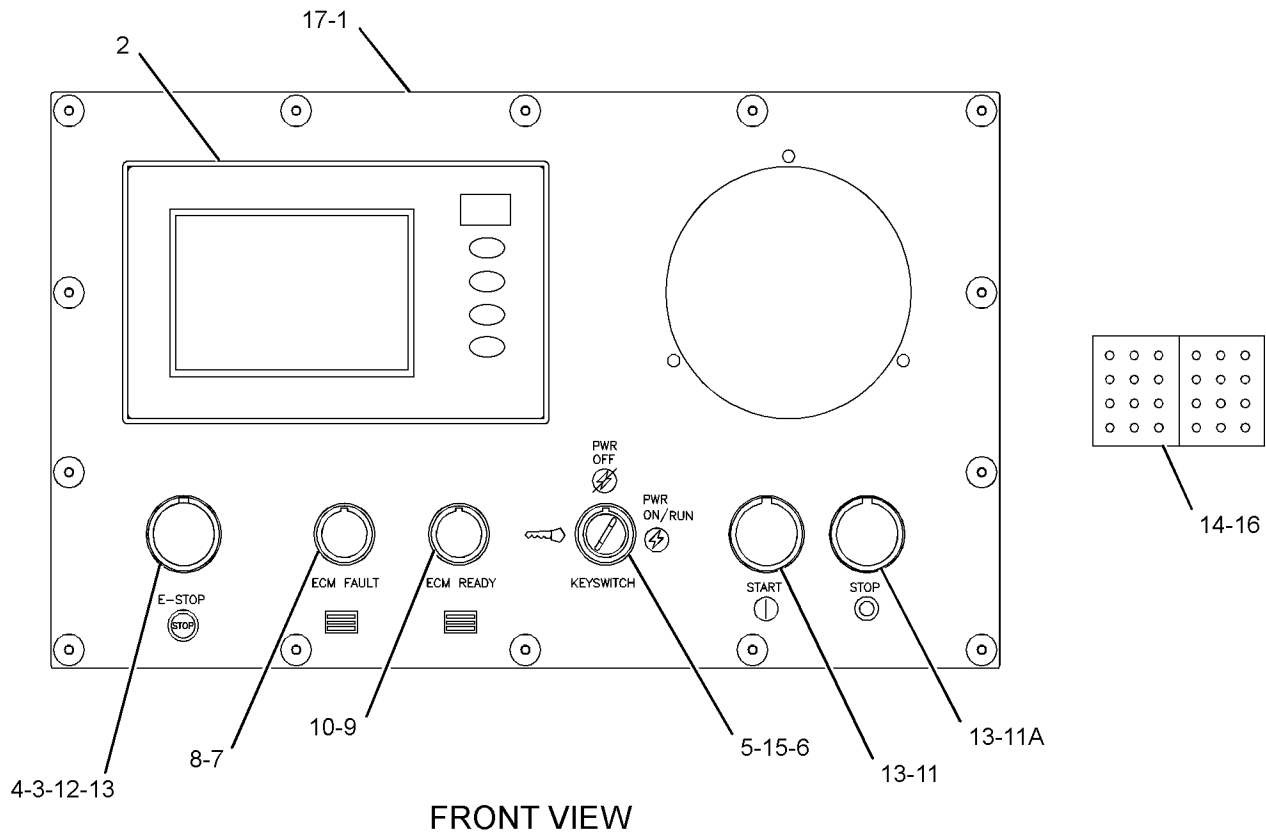
249-6961 PANEL GP-PILOT HOUSE INSTR-WITH KEY AN ATTACHMENT

SMCS-7451

i02638792

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	249-6959	1	PLATE						
Y	2	1	267-8623	1	DISPLAY GP-MONITOR (MARINE POWER DISPLAY)						315
	3	1	109-6507	1	SWITCH AS-PUSH BUTTON (EMERGENCY STOP)						
	4	1	124-3176	1	COVER						
	5	1	162-0576	1	BLOCK-CONTACT						
	6	1	162-0575	1	LATCH-MOUNTING						
	7	1	162-0599	1	LAMP AS (AMBER) (24-VOLT)						
	8	1	162-0598	1	LENS-AMBER						
	9	1	162-0600	1	LENS-GREEN						
	10	1	162-0601	1	LAMP AS (GREEN) (24-VOLT)						
	11	1	249-8126	1	SWITCH-PUSH BUTTON (MOMENTARY) (ENGINE START)						
	11A	1	249-8126	1	SWITCH-PUSH BUTTON (MOMENTARY) (ENGINE STOP)						
	12	1	111-1324	2	BLOCK-CONTACT						
	13	1	111-1323	5	BLOCK-CONTACT						
	14	1	9X-0146	1	RECEPTACLE AS-CONNECTOR (24-PIN)						
	15	1	251-4244	1	SWITCH-KEY (ON, OFF)						
	16	1	186-3735	24	PIN-CONNECTOR (16-GA TO 18-GA)						
	17	1	279-0338	1	FILM-PANEL						

Y- SEPARATE ILLUSTRATION



FRONT VIEW

GRAPHIC #1

<END>

g01345757

ENCLOSURES, GUARDS AND BASES

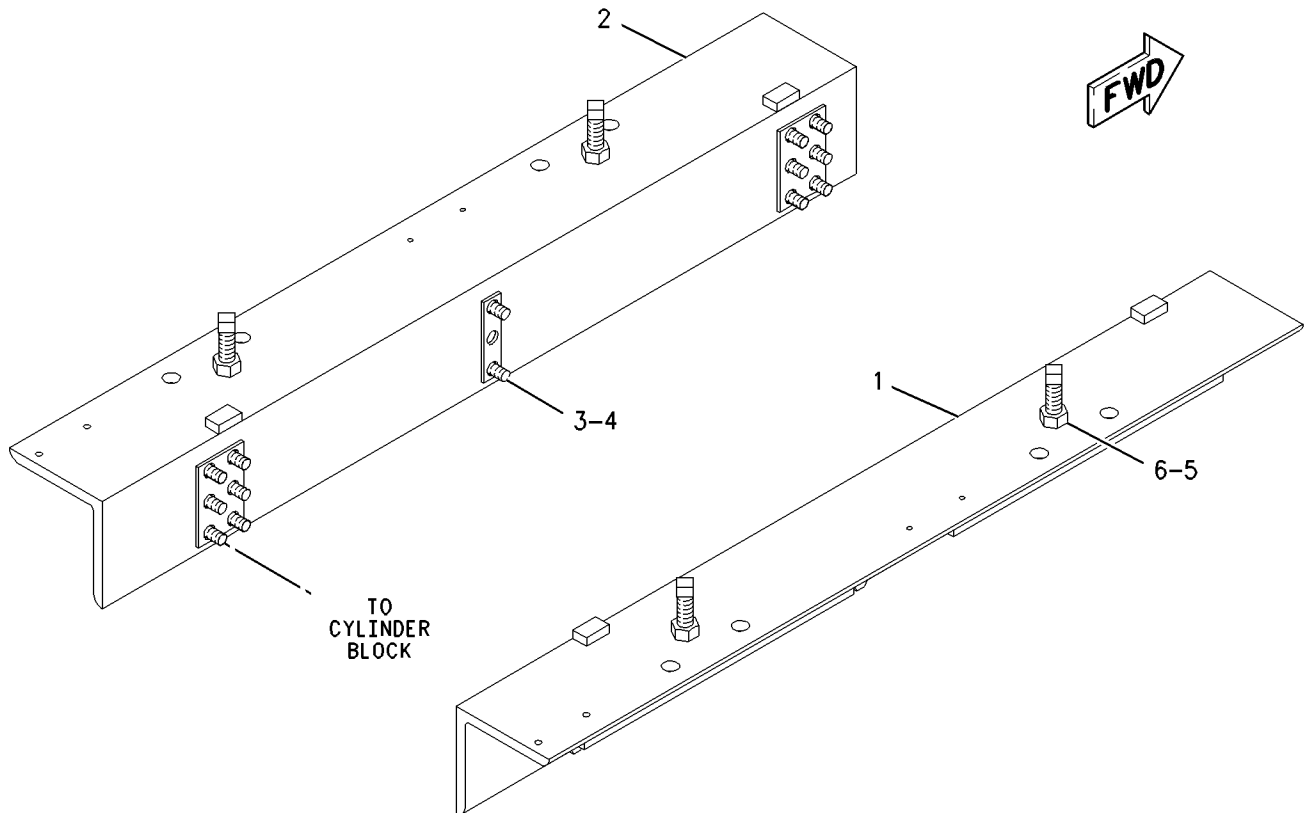
7N-8642 RAIL GP-ENGINE SUPPORT

MARINE LEDGE
AN ATTACHMENT

SMCS-7060

i01754844

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7N-8643	1	SUPPORT AS (RH)						
	2	1	7N-8644	1	SUPPORT AS (LH)						
	3	1	8T-9399	28	BOLT (3/4-10X2.25-IN)						
	4	1	8T-4994	28	WASHER-HARD (20X36.5X3.5-MM THK)						
					-OR-						
		1	0S-1897	32	BOLT (3/4-16X2.25-IN)						
		1	5P-8248	32	WASHER-HARD (20X36.5X3.5-MM THK)						
	5	1	4L-6665	4	SETSCREW (1-14X3.88-IN)						
	6	1	1B-4209	4	NUT-FULL (1-14-THD)						



GRAPHIC #1

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g00904420

ENCLOSURES, GUARDS AND BASES

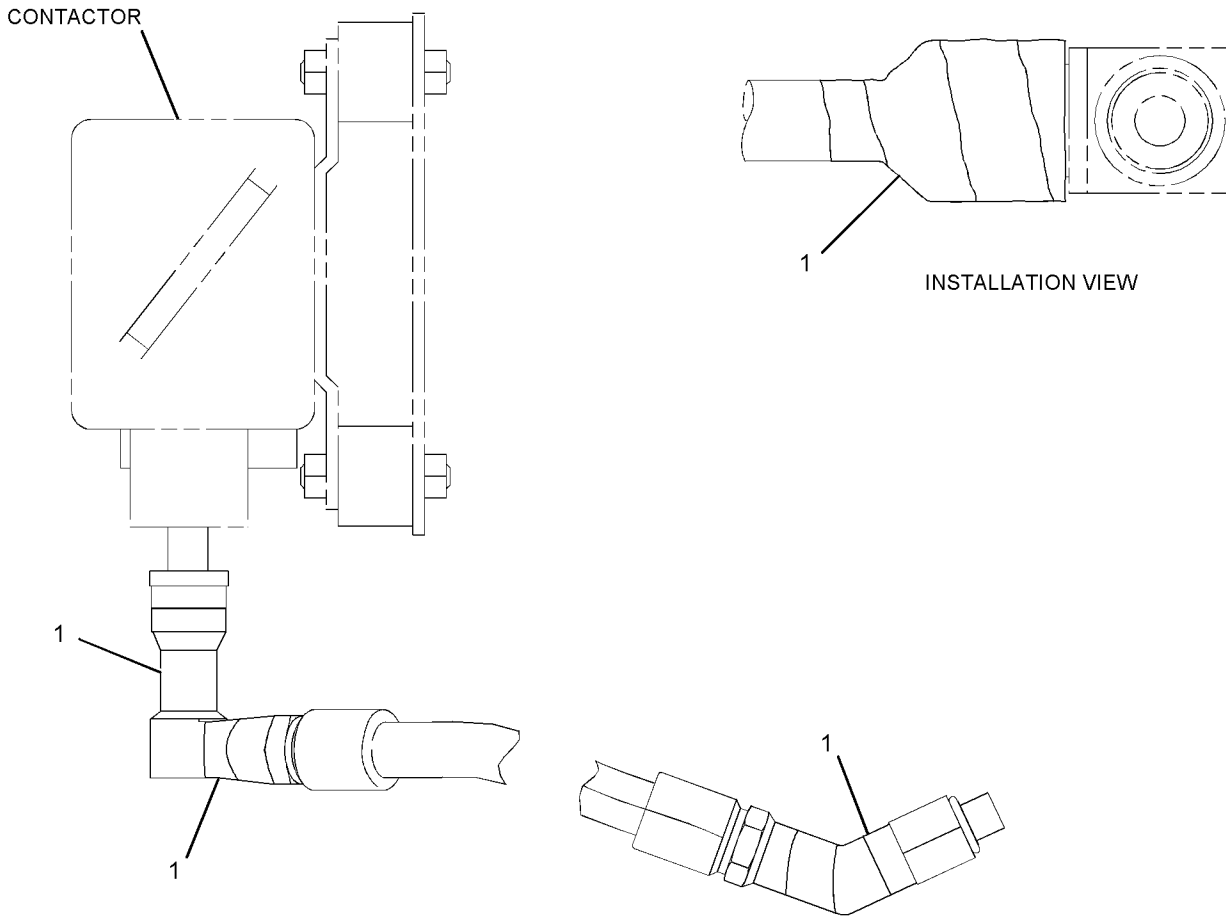
264-3074 SHIELD GP-CONTACTOR AN ATTACHMENT

SMCS-7274

i02617176

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
BE	1	1	280-9432		TAPE (ANTI-SPLASH, 35-MM WIDE) (60-CM)	

B- USE AS REQUIRED
E- ORDER BY THE CENTIMETER



GRAPHIC #1

<END>

g01320494

SERVICE EQUIPMENT AND SUPPLIES

6L - 4502 CHART - PLATE & FILM

SMCS - 7557

i02714169

NOTE	PART NUMBER	QTY	PART NAME 1 2 3 4 5 6 (PRODUCT LEVEL)	SEE PAGE
	8L - 9765	1	FILM-FUEL RETURN (EXCESS) ON FUEL RETURN VALVE, OR THE FUEL FILTER HOUSING.	
	250 - 3444	1	FILM-INFORMATION (STANDARD ROTATION) ON LH CAM GEAR COVER IN A VISIBLE LOCATION. IF COVER IS NOT AVAILABLE, MOVE TO THE RH CAM GEAR COVER.	
	225 - 4256	1	FILM-WARNING (HOT FLUID UNDER PRESSURE, U.S.) ON THE TOP OF THE EXPANSION TANK, CENTERED WITH THE FILL CAP ON THE RIGHT SIDE.	
	228 - 3581	2	FILM-WARNING (READ OMM) ONE FILM EACH ON CYL #1 AND #2 VALVE COVER BASE, OR THE NEXT VISIBLE VALVE COVER BASE.	
	225 - 3226	2	FILM-WARNING (HOT SURFACE) ONE FILM EACH ON THE VALVE COVERS FOR CYL #5 AND #6. IF EITHER OF THESE COVERS ARE NOT AVAILABLE, MOVE FILM TO THE NEXT AVAILABLE VALVE COVER NEAREST TO THE TURBOCHARGER, FROM THE SIDE OF THE ENGINE.	
	115 - 5852	1	PLATE & FILM GP (ENGINE) ON LH, FRONT, LOWER HEAD FACE OF THE BLOCK BETWEEN CYL #2 AND THE FRONT HOUSING, READABLE FROM THE REAR OF ENGINE.	
	7E - 2681	2	PLATE-IDENTIFICATION (CATERPILLAR) ONE PLATE ON RH REAR CAM COVER AND ONE PLATE ON LH FRONT CAM COVER, IF VISIBLE. IF EITHER PRIMARY LOCATION IS NOT VISIBLE, INSTALL PLATE ON THE NEXT VISIBLE CAM COVER LOCATION ON THAT SIDE OF THE ENGINE.	
	3N - 3790	1	PLATE-SERIAL NUMBER (ENGINE) ON LH SIDE OF BLOCK, NEAR REAR FACE ON CAMSHAFT COMPARTMENT, USING 4B-4158 DRIVE SCREWS.	
	4B - 4158	2	SCREW-DRIVE (3/16X0.25-IN)	
<END>				

SERVICE EQUIPMENT AND SUPPLIES

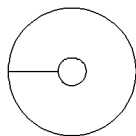
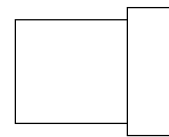
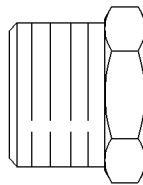
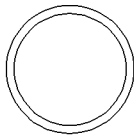
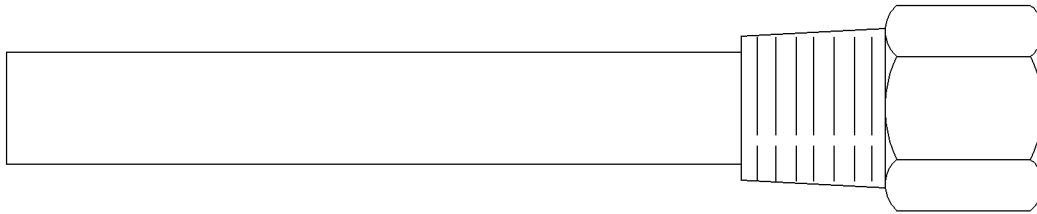
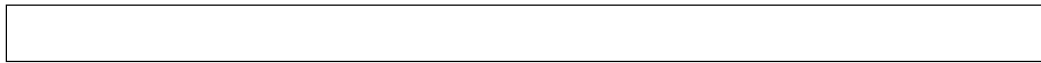
7E-3127 KIT-SENSOR POCKET-TEMPERATURE CONTACTOR

PART OF 4W-2637, 4W-2640 CONTACTOR-TEMPERATURE
AN ATTACHMENT

SMCS-1900, 7400

i02419883

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
					(INCLUDES POCKET-SENSOR, RETAINERS, RING-ADAPTER, STRIP GAUGE AND WASHERS)	



GRAPHIC #1

<END>

g00768771

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