

choose
Genuine
every time!

Parts

catalogue



3.152, 4.236, 6.354, 1004 and 1006

 **Perkins®**

THE HEART OF EVERY GREAT MACHINE

Why should you use Perkins genuine parts and service?

Perkins manufactures a vast range of tailor made solutions meaning each Perkins build list is unique.

Do not take a chance with non-genuine parts that may not be specified to meet the exact needs of your engine. A mismatch of components or fitting of the wrong component could cause engine damage or premature wear.

This catalogue gives you the information you need to support the identification and selection of genuine parts.

Perkins has 80 years of diesel engine expertise. Using this expertise we provide you a full package of parts, service and warranty.

Genuine parts and service offer you the very best for your Perkins engine. Our distributors have full knowledge of our engines. They have access to the latest Perkins training. This enables them to provide you with the parts and service support you need.

Perkins global distribution network offers you

- A vast range of genuine Perkins parts in stock to keep your engine running
- Experienced parts and service staff, ensuring you get the right part first time
- Latest diagnostic and electronic service tools enabling quick on the spot diagnosis and repair
- Perkins trained engineers, committed to minimising engine downtime
- Emergency parts and service
- A specialist in your region, who knows and understands your Perkins engine

Our comprehensive parts identification and service information systems allow our distributors to identify the exact parts for your engine and respond to service queries quickly and efficiently.

Perkins provides a comprehensive warranty on all parts

This includes 12 months warranty from date of purchase. If in the unlikely event of a claim being required, our warranty will indemnify the purchaser for the following costs associated with making the repair:

- Travel
- Labour
- Materials
- All related damage caused by the initial failure

***Use the information provided as a guide only, more information can be provided by your [local distributor](#).**

Always insist on genuine Perkins parts

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The importance of your Perkins engine build list

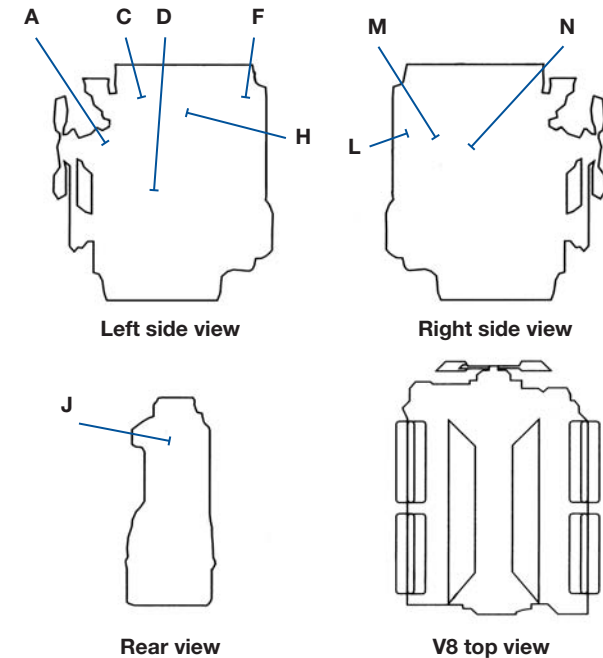
Knowing your engine's build list and serial number will make parts easier to identify and order. The build list allows Perkins distributors to identify the exact parts for your engine. Your Perkins build list and serial number contain every original part number that your engine was originally assembled with.

The information below will help you find the build list and engine serial number plate location on different engine models. Information is also provided that will help you use the build list to find out more about the type of engine you have.

To quickly and accurately find the correct part of your engine you should always locate the engine build list and serial number. You should provide this to your local Perkins distributor when requesting a quotation for parts and service.

Engine number location guide

Engine type	Position
3.152	M
4.108	A
4.203	J or N
4.212	C
4.236	C or L
4.248	C
4.318	F
6.247	C or F
6.354	D
Phaser / 1000 Series / 1100 Series	H or J



Engine number guide

Year of manufacture code

This code indicates the calendar year of manufacture. The letters I, O, Q, R and Z will not be used.

A 1974	K 1983	W 1992	G 2000
B 1975	L 1984	X 1993	H 2001
C 1976	M 1985	Y 1994	J 2002
D 1977	N 1986	A 1995	K 2003
E 1978	P 1987	B 1996	L 2004
F 1979	S 1988	C 1997	M 2005
G 1980	T 1989	D 1998	
H 1981	U 1990	E 1/1/99–31/3/99	
J 1982	V 1991	Fz 1/4/99–31/12/99	

Engine family and type code

A Phaser/1004 Series	CF G3.152	TH T6.3541
AA 1004-4	CG P3.152	TJ 6.3542
AB 1004-4T	CJ 3.1522	TK C6.3542
AC 1004-4	CM 3.1524	TP T6.3543
AD 1004e-4TW	CN T3.1524	TR 6.372
AE Fed CC	J 4.203 Series	TT TC6.3541
AF 1004-40S	JD 4.203	TU T6.3544
AG 1004-4	JE D4.203	TV 6.3724
AH 1004-4T	JF G4.203	TW 6.3544
New 1000 Series	JG 4.2032	TX C6.3544
AJ 1004-40	L 4.236 Series	TY H6.3544
AK 1004-40T	LA 4.212	TZ HT6.3544
AL 1004-40TA	LD 4.236	Y Phaser/1006 Series
AM 1004-40T	LE G4.236	YA 1006-6
AP 1004-40	LF 4.248	YB 1006-6T
AQ 1004-40T	LG 4.2482	YC 1006-6T
AR 1004-42	LH C4.236	YD 1006e-6TW
AS 1004-42	LJ T4.236	YE Fed. CC
AT 1004-40TA	LM 4.41	New 1000 Series
C 3.152 Series	T 6.354 Series	YF 1006-60S
CA P3	TC 6.354	YG 1006-60
CB 3.144	TD H6.354	YH 1006-60T
CC P3.144	TE T6.354	YJ 1006-60TA
CD 3.152	TF HT6.354	YK 1006-60TW
CE D3.152	TG 6.3541	

A Air to air charge cooling	FF Federal	T Turbocharged
C Compensated	G Gasoline/gas	U Unit injection
CC Charged cooled	H Horizontal	V V form
D Direct injection	N Narrow front end	W Water to air charge cooling
E Electronic	P Timing chain	
F Federal emissions	S Spark ignition	

Engines < 2 litre/cylinder

Engine number guide

(Produced post 1974)

Example:	TU 30008 U 510256 F
Engine family and type code	TU
Parts list number or SOS order reference number	30008
Country of manufacture code	U
Engine serial number	510256
Year of manufacture code	F

The only way to ensure you have the right part is to contact your local distributor with the correct build list for your engine. However you may find the information provided in the catalogue helpful. If you need any further information or guidance you should always contact your local Perkins distributor. You can find your nearest distributor at www.perkins.com/distributor and download the latest full engine number guide at www.perkins.com/service under the section 'How to buy genuine Perkins parts'.

Maintenance schedules 3.152

- A** First service at 25/50 hours (all engines)
- B** Every day or every 8 hours (all engines)
- C** Every 200 hours or 4 months (3.1524, T3.1524)
- D** Every 250 hours or 4 months (D3.152)
- E** Every 400 hours or 12 months (3.1524, T3.1524)
- F** Every 500 hours or 12 months (D3.152)
- G** Every 800 hours or 12 months (3.1524, T3.1524)
- H** Every 2,400 hours (3.1524, T3.1524)
- I** Every 2,500 hours (D3.152)

Sulphur content of fuel %	Oil change interval			
	Hours		Months	
	D3.152	3.152, T3.152	D3.152	3.152, T3.152
<0.5	250	400	4	6
0.5-1.0	190	300	3	4.5
>1.0	120	200	2	3

(1) If there is one fitted.

(2) By a person who has had the correct training.

(3) The oil change interval will change with the amount of sulphur in the fuel (see table above). The interval to change the canister of the lubricating oil filter is not affected by the sulphur content.

A	B	C	D	E	F	G	H	I	Operation
•	•	•	•						Check the amount of coolant
•		•	•						Check the drive belt(s)
•	•								Check for water in the fuel pre-filter ⁽¹⁾
				•	•				Renew the fuel filter element(s)
						•		•	Ensure that the atomisers are checked ⁽²⁾
•									Ensure that the idle speed is checked and adjusted, if it is necessary ⁽²⁾
	•								Check the amount of lubricating oil in the sump
•	•								Check the lubricating oil pressure at the gauge ⁽¹⁾
•			•	•					Renew the lubricating oil ⁽³⁾
•			•	•					Renew the canister(s) of the lubricating oil filter
•	•								Clean the air cleaner or empty the dust bowl of the air filter (extremely dusty conditions)
•		•	•						Clean the air cleaner or empty the dust bowl of the air filter (normal conditions)
				•	•				Clean or renew the air filter element, if this has not been indicated earlier
							•	•	Ensure that the turbocharger impeller and turbocharger compressor casing are cleaned
		•	•						Clean the compressor air filter ⁽¹⁾
							•	•	Ensure that the exhaustor or compressor ⁽¹⁾ is checked ⁽²⁾
•				•	•				Ensure that the tappet clearances are checked and adjusted, if it is necessary ⁽²⁾
							•	•	Inspect the electrical system for signs of damage ⁽²⁾

Maintenance schedules 4.236

The schedules which follow must be applied at the interval (kilometres, miles, hours or months) which occurs first.

- A** First service at 800/1,600 km (500/1,000 miles) 25/50 hours
- B** Every day or every 8 hours
- C** Every 7,500 km (5,000 miles) 250 hours or 4 months
- D** Every 15,000 km (10,000 miles) 500 hours or 12 months
- E** Every 90,000 km (60,000 miles) 2,500 hours

Sulphur content of fuel %	Oil change interval					
	Hours		Months		Miles	
	4.236, T4.236, 4.248	4.2482	4.236, T4.236, 4.248	4.2482	4.236, T4.236, 4.248	4.2482
<0.5	250	500	4	12	5,000	10,000
0.5-1.0	190	380	3	9	3,750	7,500
>1.0	120	250	2	6	2,500	5,000

- (1) If there is one fitted.
- (2) By a person who has had the correct training.
- (3) 4.2482 engines, every 500 hours or 12 months.
- (4) 4.2482 engines, every 1,000 hours.
- (5) The oil change interval will change with the sulphur content of the fuel (see table above). The interval to change the canister of the lubricating oil filter is not affected by the sulphur content.

A	B	C	D	E	Operation
•	•				Check the amount of coolant
•		•			Check the drive belt(s)
			•		Clean the sediment chamber and the strainer of the fuel lift pump
•	•				Check for water in the fuel pre-filter ⁽¹⁾
			•		Renew the fuel filter element(s)
				•	Ensure that the atomisers are checked ⁽²⁾
•					Ensure that the idle speed is checked and adjusted, if it is necessary ⁽²⁾
	•				Check the amount of lubricating oil in the sump
•	•				Check the lubricating oil pressure at the gauge ⁽¹⁾
•		•			Renew the lubricating oil ⁽³⁾⁽⁵⁾
•		•			Renew the canister(s) of the lubricating oil filter
•	•				Clean the air cleaner or empty the dust bowl of the air filter (extremely dusty conditions)
		•			Clean the air cleaner or empty the dust bowl of the air filter (normal conditions)
			•		Clean or renew the air filter element, if this has not been indicated earlier ⁽⁴⁾
			•		Clean the vent valve of the engine breather system ⁽¹⁾
			•		Ensure that the turbocharger impeller and turbocharger compressor casing are cleaned
		•			Clean the compressor air filter ⁽¹⁾
			•		Ensure that the exhauster or compressor ⁽¹⁾ is checked ⁽²⁾
•			•		Ensure that the valve tip clearances are checked and adjusted, if it is necessary ⁽²⁾
			•		Ensure that the alternator, starter motor etc are checked ⁽²⁾

Maintenance schedules 6.354

The schedules which follow must be applied at the interval (kilometres, miles, hours or months) which occurs first.

- A** First service at 800/1,600 km (500/1,000 miles), 25/50 hours
- B** Every day or every 8 hours
- C** Every 7,500 km (5,000 miles), 250 hours or 4 months
- D** Every 15,000 km (10,000 miles), 500 hours or 12 months
- E** Every 30,000 km (20,000 miles), 1,000 hours
- F** Every 90,000 km (60,000 miles), 2,500 hours

Sulphur content of fuel %	Oil change interval		
	Hours	Months	Miles
<0.5	250	4	5,000
0.5-1.0	190	3	3,750
>1.0	120	2	2,500

(1) If there is one fitted.

(2) By a person who has had the correct training.

(3) The oil change interval will change with the sulphur content of the fuel (see table above). The interval to change the canister of the lubricating oil filter is not affected by the sulphur content.

A	B	C	D	E	F	Operation
●	●					Check the amount of coolant
●		●				Check the drive belt(s)
			●			Clean the sediment chamber and the strainer of the fuel lift pump
●	●					Check for water in the fuel pre-filter ⁽¹⁾
			●			Renew the fuel filter element (fuel filter with single element)
				●		Renew the fuel filter elements (fuel filter with twin element)
					●	Ensure that the atomisers are checked ⁽²⁾
●						Ensure that the idle speed is checked and adjusted, if it is necessary ⁽²⁾
	●					Check the amount of lubricating oil in the sump
●	●					Check the lubricating oil pressure at the gauge ⁽¹⁾
●		●				Renew the lubricating oil ⁽³⁾
●		●				Renew the canister(s) of the lubricating oil filter
					●	Clean the vent valve of the engine breather system ⁽¹⁾
●	●					Clean the air cleaner or empty the dust bowl of the air filter (extremely dusty conditions)
		●				Clean the air cleaner or empty the dust bowl of the air filter (normal conditions)
			●			Clean or renew the air filter element, if this has not been indicated earlier
				●		Ensure that the turbocharger impeller the turbocharger compressor casing and the turbocharger drain pipe for the lubricating oil are cleaned ⁽²⁾
		●				Clean the compressor air filter ⁽¹⁾
					●	Ensure that the exhaustor or compressor ⁽¹⁾ is checked ⁽²⁾
●						Ensure that the valve tip clearances are checked and adjusted, if it is necessary ⁽²⁾
					●	Ensure that the alternator, starter motor etc are checked ⁽²⁾

Maintenance schedules 1000 Series

The schedules which follow must be applied at the interval (hours or months) which occurs first.

- A** First service at 20/40 hours
- B** Every day or every 8 hours
- C** Every 200 hours or 6 months
- D** Every 400 hours or 12 months
- E** Every 2,000 hours

Percentage of sulphur in the fuel (%)	Oil change interval
<0.5	Normal
0.5 to 1.0	0.75 of normal
>1.0	0.50 of normal

(1) If there is one fitted.

(2) Renew the antifreeze every two years. If a coolant inhibitor is used instead of antifreeze, it should be renewed every six months.

(3) By a person who has had the correct training.

(4) The lubricating oil and the filter canister(s) must be renewed every 250 hours or 12 months for applications where the engine normally runs at full load for periods of more than 20 minutes, for example: Generating sets or water pumps.

(5) The oil change interval will change with the amount of sulphur in the fuel (see table above). The interval to change the canister of the lubricating oil filter is not affected by the sulphur content.

(6) The closed breather assemblies must be cleaned. The oil separator of the open breather assembly should not be cleaned, but must be renewed at every overhaul of the engine or 8,000 hours.

A	B	C	D	E	Operation
•	•				Check the amount of coolant
			•		Check the concentration of the coolant ⁽²⁾
•		•			Check the tension and the condition of the drive belt
			•		Clean the sediment chamber and the strainer of the fuel lift pump
		•			Check for water in the pre-filter ⁽¹⁾ (or earlier if your fuel supply is contaminated)
			•		Renew the elements of the fuel filter(s)
				•	Ensure that the atomisers are checked ⁽³⁾
•					Ensure that the idle speed is checked and adjusted, if it is necessary ⁽³⁾
			•		Check Stanadyne fuel injection pump for governor operation ⁽³⁾
	•				Check the amount of lubricating oil in the sump
•	•				Check the lubricating oil pressure at the gauge ⁽¹⁾
•			•		Renew the engine lubricating oil ⁽⁴⁾ ⁽⁵⁾
•			•		Renew the canister(s) of the lubricating oil filter ⁽⁴⁾
•		•			Renew the canister of the lubricating oil filter (six cylinder naturally aspirated engines with a single filter canister)
				•	Clean the engine breather system ⁽⁶⁾
•	•				Clean the air cleaner or empty the dust bowl of the air filter (extremely dusty conditions)
		•			Clean the air cleaner or empty the dust bowl of the air filter (normal conditions)
			•		Clean or renew the air filter element, if this has not been indicated earlier
				•	Ensure that the turbocharger impeller the turbocharger compressor casing are cleaned ⁽³⁾
			•		Clean the compressor air filter ⁽¹⁾
				•	Ensure that the exhaustor or compressor ⁽¹⁾ is checked ⁽³⁾
•					Ensure that the valve tip clearances are checked and, if necessary, adjusted ⁽³⁾
•			•		Ensure that the valve tip clearances are checked and, if necessary, adjusted (high rated engines) ⁽³⁾
				•	Ensure that the alternator, starter motor etc are checked ⁽²⁾

Key parts guide

Product	3.152		4.236		6.354		1004		1006	
Oil filters	2654408		2654403		2654403	2654407	2654403	2654407	2654403	2654407
Fuel filters	26561117		26561117	26561118	26561117	26561118	26560143	26560145	26560143	26560145
									26561117	
Rocker cover gaskets	36811115		21826361	21826363	21826362		21826360	3681A032	21826359	3681C001
			3681A018	3681A027			3681A021		3681C003	
Cylinder head gaskets	3681E024	3681E027	3681E021	3681E034	36812546	36812547	3681E037		3681H208	
			3681E036		3681H202					
Top gasket sets	U5LT1138	U5LT1139	U5LT1002	U5LT1004	U5LT1181	U5LT1186	U5LT1178	U5LT1196	U5LT1179	U51LT1309
	U5LT5138		U5LT1006	U5LT1010	U5LT1190					
			U5LT1013	U5LT1014						
Bottom gasket sets	U5LB1110	U5LB1157	U5LB1158	U5LB1159	U5LB1224	U5LB1225	U5LB1163		U5LB1167	
			U5LB5145		U5LB1226		U5LB1164			
Water pumps	U5MW0096	U5MW0097	U5MW0104	U5MW0106	U5MW0111	U5MW0129	U5MW0106		U5MW0156	
					U5MW0133		U5MW0156		U5MW0160	
							U5MW0108			
Thermostats	2485659	2485666	2485610	2485613	2485604	2485610	2485610	2485613	2485610	2485613
			2485641	2485659	2485613	2485641	2485C036		2485C034	2485C036
			2485666	2485668	2485659	2485668				
Alternators	2871A141	2871A142	2871A141	2871A142	2871A141	2871A163	2871A003	2871A004	2871A003	2871A004
	2871A165		2871A163	2871A165	2871A165		2871A141	2871A142	2871A141	2871A160
							2871A160	2871A163	2871A163	2871A165
							2871A165	2871A168	2871A168	2871C202
							2871C105	2871C202	2871C105	

Key parts guide continued...

Product	3.152		4.236		6.354		1004		1006	
Fan belts	2614B143	2614B642	2614B642	2614B644	2614B647	2614B652	2614B642	2614B644	2614B642	2614B644
	2614B647	2614B650	2614B645	2614B647	2614B653	2614B654	2614B650	2614B653	2614B653	2614B655
	2614B653	2614B655	2614B650	2614B652	2614B656	2614B657	2614B655	2614B656	2614B656	2614B658
	2614B656	2614B657	2614B653	2614B654	2614B658	2614B659	2614B658	2614B662	2614B662	2614B664
	2614B658	2614B659	2614B655	2614B656	2614B660	2614B662	2614B664	2614B665	2614B665	2614B668
	2614B660	2614B662	2614B657	2614B658	2614B667	2614B668	2614B667	2614B668	2614B667	
			2614B659	2614B660	2614B669					
			2614B662	2614B667						
Starter motors	2873A102	2873A104	2873A102	2873A030	2873A102	2873A031	2873A030	2873A031	2873A030	2873D202
	2873B071	2873A031	2873A031	2873D202	2873A030		2873D202	2873D304	2873D304	2873K059
							2873K059			
Electrical shut off solenoids	26420472		26420471	26420472	26420472		26420469	26420470	26420469	26420470
							26420471	26420472	26420471	26420472
							3161C012		3161C012	
Heater plugs	2666103	2666108	2666103	2666108	2666103	2666108	2666103	2666108	2666108	
Atomisers	2645630	2645680	2645601	2645647		2645621	2645A010	2645A015	2645A020	2645A021
	2645A013	2645K005	2645664	2645666	2645647	2645675	2645A017	2645A021	2645A023	2645A032
			2645A010		2645A001	2645A010	2645A023	2645A025	2645F005	2645L017
					2645K008		2645A030	2645F005	2645L018	
							2645L009	2645L011		
Nozzles	2645A603	2645K603	2645A603	2645A604	2645A603	2645K603	2645A606	2645A608	2645A606	2645A608
	2645L604	2646825	2645A608	2645L601	2645L602		2645A611	2645A612	2645A611	2645A617
	2646848	2646850	2645L602	2645L603	2646679	2646831	2645A613	2645F603	2645F603	2645F610
			2646826	2646831	2646844	2646845	2645K603	2645L607	2645L615	
			2646842	2646845			2645L608	2645L615		

Key parts guide continued...

Product	3.152		4.236		6.354		1004		1006	
Lift pumps	ULPK0004	ULPK0006	ULPK0001	ULPK0003	ULPK0002	ULPK0007	ULPK0001		ULPK0002	
	ULPK0018	ULPK0034	ULPK0011		ULPK0022		ULPK0034			
Turbochargers	2674A101	2674A152	2674397	2674398	2674152	2674355	2674394	2674396	2674A051	2674A110
			2674A104	2674A106	2674366	2674369	2674399	2674A061	2674A071	2674A154
			2674A108				2674A055	2674A076	2674A080	
							2674A147		2674A071	
Exhaust valves	0910002	31431011	3142A052	31431701	3142A051	3142A052	3142A051		3142A051	
	31431031	31431591	31431881		31431951					
	31431991									
Inlet valves	31431261	31431281	3142H002	31431315	31431315		3142L051	3142L072	3142L051	3142L072
	31431681	31431981	31431641	31431871			3142L071		3142L071	
Valve guides	3313E734	3316A031	3343F041	3343J021	33261757	3343F041	3343F041	3343J021	3343F041	3343J021
	3316A032				3343J021					
Liners	31358323	31358345	31358324	31358346	31358324	31358346	3135X041	3135X042	3135X041	3135X042
	31358356		31358352	31358393	31358352	31358393	3135X062	3135X063	3135X062	3135X063
			31358394	3135X031	31358394					
			3135X032	3135X033						
			3135X034							
Pistons	68332	68801	68301	68814	68803	86726	U5LL0015	U5LL0017	U5LL0015	U5LL0021
	81512	89214	82878	U5LP0009	86740		U5LL0021	U5LL0047	U5LL0047	
			89207	U5LP0022	U5LP0014					
			U5LP0011	U5LP0047						
			U5LP0046							

Key parts guide continued...

Product	3.152		4.236		6.354		1004		1006	
Piston rings	41158007	41158056	41158005	41158017	41158005	41158017	4181A026	4181A021	4181A026	4181A021
	41158057	41158065	41158022	41158032	41158029	41158031	4181A041	4181A019	4181A041	4181A019
	68501		41158041	41158142	41158032	41158041				
			41158147	4181A009						
		4181A022								
Main bearing kits	U5MB0008	U5MB0035	U5MB0034		U5MB0030	U5MB0031	U5MB0034		U5MB0030	
Thrust washers	31137211	31137221	31137551	31137561	31137551	31137561	31137551	31137561	31137551	31137561
	U5TW0003		U5TW0002		U5TW0002		U5TW0002		U5TW0002	
Big end bearing kits	85036		85042	U5ME0034	85043	U5ME0035	85042	U5ME0034	85043	U5ME0035
Small end bushes	31134151		31134123	31134131	31134123	31134131	31134131	31134123	31134131	31134123
							3112E005		3112E005	
Oil seals	2415344	2418F475	2418F437	2418F475	2418F437	2418F475	2418F475	2418F436	2418F475	2418F436
	36883119		36883116	2418F701	36883116		2418F701		2418F701	
Oil pumps	41314078	41314187	41314182	4132F012	41314067	41314131	41314182	4132F041	4132F043	
			4132F041		4132F015	4132F016	4132F051	4132F056	4132F057	
Valvetrain kits							U5VK0191		U5VK0192	
Overhaul kits	U5MK0700	U5MK0700K	U5MK0704	U5MK0704K	U5MK0710	U5MK0710K	U5MK0708	U5MK0708K	U5MK0712	U5MK0712K
	U5MK0701	U5MK0701K	U5MK0705	U5MK0705K	U5MK0711K	U5MK0711	U5MK0709	U5MK0709K	U5MK0714	U5MK0714K
			U5MK0706	U5MK0706K						
			U5MK0707	U5MK0707K						
			U5MK0713	U5MK0713K						

Oil and fuel filters

Series					Description	Notes	Part number	Used with
3.152	4.236	6.354	1004	1006				
•					Spin-on type oil filter	D1:76, H1:142	2654408	
•	•	•	•		Sandwich type fuel filter	D1:84, H1:73	26561117	
	•	•	•	•	Spin-on type oil filter	D1:93, H1:143	2654403	
		•	•	•	Spin-on type oil filter	D1:93, H1:173	2654407	
				•	Spin-on type fuel filter with water drain	D1:85, H1:158	26561118	
			•	•	Bayonet type fuel filter	D1:83, H1:152	26560143	26560145
			•	•	Bayonet type pre filter and water trap	D1:83, H1:133	26560145	26560143

Please note all dimensions are in (mm) for guidance only



Key

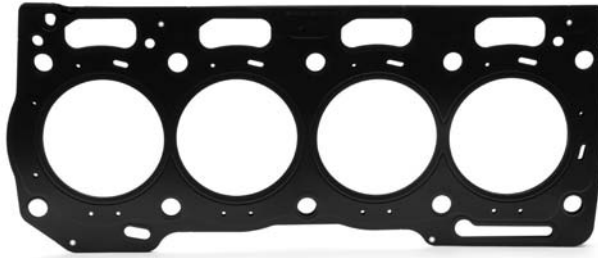
D1 Overall filter diameter (mm)

H1 Overall filter height (mm)

Rocker cover gaskets

Series					Description	Notes	Part number
3.152	4.236	6.354	1004	1006			
•					Services all 3.152 engines		36811115
	•				Services 4.236 engines, gasket has no bolt holes	Cork/Hypalon version of 3681A018	21826361
	•				Services 4.236 engines, gasket has no bolt holes	Silicon version of 21826361	3681A018
	•				Services 4.236 engines, gasket has bolt holes	Cork/Hypalon version of 3681A027	21826363
	•				Services 4.236 engines, gasket has bolt holes	Silicon version of 21826363	3681A027
		•			Services all 6.354 engines		21826362
			•		Services all four cylinder engines with aluminium rocker cover	Cork/Hypalon version of 3681A021	21826360
			•		Services all four cylinder engines with aluminium rocker cover	Silicon version of 21826360	3681A021
			•		Services all four cylinder engines with plastic rocker cover		3681A032
				•	Services all six cylinder engines with aluminium rocker cover	Cork/Hypalon version of 3681C001	21826359
				•	Services all six cylinder engines with aluminium rocker cover	Silicon version of 21826359	3681C001
				•	Services all six cylinder engines with plastic rocker cover		3681C003

Cylinder head gaskets



Engine	Description	Notes	Part number	Used within (Top gasket set)
CE, CJ, CM, CN engines	Services 3 cylinder engines. Backbone construction with sealing track		3681E024	U5LT1139
CE, CJ, CM, engines	Services 3 cylinder engines. Copper and filler construction		3681E027	U5LT1138 U5LT5138
LA, LD, LE, LF, LG, LM, LJ engines	Services pre 1986 4 cylinder engines with flame ring liner		3681E021	U5LT1002 U5LT1003 U5LT1012 U5LT1013 U5LT1014
LD, LF, LG, LH, LJ engines	Services post 1986 4 cylinder engines with non flame ring liner	Improved tappet chamber sealing	3681E034	U5LT1004 U5LT1006 U5LT1007
LE, LG engines	Services post 1986 4 cylinder engines with non flame ring liner		3681E036	U5LT1009 U5LT1010
TC, TD, TE, TF, TP engines	Services 6.3540 engines		36812546	U5LT1181 U5LT1182
TG, TH, TT, TR engines	Services 6.3541 engines		36812547	U5LT1185 U5LT1186
TU, TW, TX, TZ engines	Services 6.3544 engines		3681H202	U5LT1190 U5LT1192
AA, AB, AC, AD AE, AF, AG, AH engines	Services 4 cylinder 1000 Series engines	Improved tappet chamber sealing	3681E037	U5LT1178 U5LT1196
YA, YB, YC, YD, YE, YG, YH, YK engines	Services 6 cylinder 1000 Series engines		3681H208	U5LT1179 U5LT1309

Note: On pre 1983 engines fixing torque = 95 Nm (retorque is required). On post 1983 engines fixing torque = 108 Nm (no re-torque required)

Top gasket sets

Used on	Extended description	Contains head gasket	Part number
CE, CJ, CM engines	Services all naturally aspirated engines	3681E027	U5LT1138
CN engines	Services all turbocharged engines	3681E024	U5LT1139
CE engines	Services 75% of CE build lists. U5LT5138 contains enough parts to support mainly agricultural CE build lists. It is similar to the more complete U5LT1138 which services all CE lists	3681E027	U5LT5138
LA, LD, LF engines	Services pre 1986 naturally aspirated engines with flame ring liners	3681E021	U5LT1014
LG engines	Services pre 1986 naturally aspirated engines with flame ring liners	3681E021	U5LT1013
LJ engines	Services pre 1986 turbocharged engines with flame ring liners and no heat shield	3681E021	U5LT1002
LD, LF engines	Services post 1986 naturally aspirated engines with non-flame ring liners	3681E034	U5LT1004
LG engines	Services post 1986 naturally aspirated engines	3681E036	U5LT1010
LJ engines	Services post 1986 turbocharged engines with non-flame ring liner and no heat shield	3681E034	U5LT1006
TC engines	Services all non marine, naturally aspirated engines	36812546	U5LT1181
TU, TW, TX engines	Services non marine engines	3681H202	U5LT1190
TH, TG, TR, TT engines	Services non marine engines	36812547	U5LT1186
AA, AB, AC, AD, AE, AF, AG, AH engines	Services all 4 cylinder engines with a aluminium rocker cover	3681E037	U5LT1178
AA, AB, AC, AD, AE, AF, AG, AH engines	Services all 4 cylinder engines with a plastic rocker cover	3681E037	U5LT1196
YA, YB, YC, YD, YE, YF, YG, YH, YJ, YK engines	Services all 6 cylinder engines with a aluminium rocker cover	3681H208	U5LT1179
YA, YB, YC, YD, YE, YF, YG, YH, YJ, YK engines	Services all 6 cylinder engines with a plastic rocker cover	3681H208	U5LT1309

Note: Only key top gasket sets listed, for more information contact your local [Perkins distributor](#)

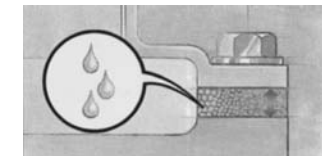
Buy genuine to ensure you have the correct specification gasket for your engine. Below are just some of the key properties Perkins genuine gaskets have.

Relaxation

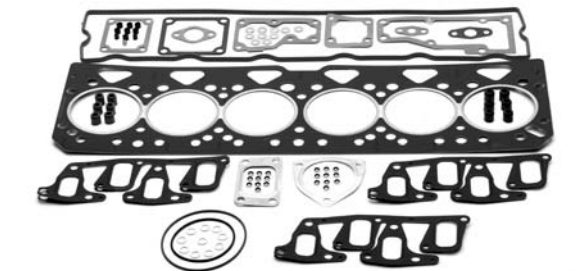


- Once compressed the material must expand to completely fill the gap and maintain its integrity over time.

Swell



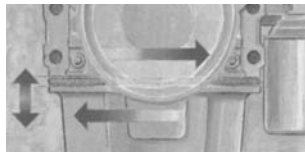
- Some gaskets must resist liquids and not swell.
- In other applications gaskets are designed to swell. They are engineered to absorb liquids, forcing the gasket to expand and achieve a perfect seal. This is known as Controlled Swell.



Bottom gasket sets

Buy genuine to ensure you have the correct specification gasket for your engine. Below are just some of the key properties Perkins genuine gaskets have.

Flexibility



- Gasket material must be suited to the applications it is sealing. In some instances the material will be required to move with the faces it is sealing. For example, stressed sump gaskets must withstand the stressed loads between an engine and the stressed sump when a chassis moves during operation.

Recovery



- The gasket material must perform correctly in a changing operating environment, withstanding extreme heat and liquids under pressure.
- It must return to its original state to maintain the perfect seal. An example of this is during the expansion and contraction of heated metals.

Used on	Extended description	Part number
CD, CE, CJ, CM, CN engines	Services 3 cylinder industrial and marine applications	U5LB1110
CE, CN engines	Services 3 cylinder agricultural applications	U5LB1157
LD, LE, LF, LG, LJ, LM engines	Services 4 cylinder industrial applications with cast sumps	U5LB1158
LD, LF, LH, LJ engines	Services 4 cylinder agricultural applications with stressed sumps	U5LB5145
LD, LE, LF, LG, LJ, LM engines	Service 4 cylinder engines with pressed steel sumps	U5LB1159
TU, TW engines	Services 6 cylinder agricultural engines with stressed blocks	U5LB1226
TC, TD, TE, TF, TG, TH, TJ, TK, TR, TT engines	Services 6 cylinder engines	U5LB1224
TP, TU, TV, TW, TX, TY, TZ engines	Services 6 cylinder engines	U5LB1225
AA, AB, AC, AD, AE engines	Services 4 cylinder engines with non compressor timing cases with cast sumps	U5LB1163
AA, AB, AD, AE engines	Services 4 cylinder engines with non compressor timing cases with pressed steel sumps	U5LB1164
YA, YB, YD, YE, YG, YH engines	Services 6 cylinder engines with non compressor timing cases with unstressed sumps	U5LB1167

The joints and gaskets in your engine are subjected to extremes of temperature and pressure in a hostile environment.

Your joints and gaskets have to:

- Seal against gasses up to 2,250 psi movement, eg exhaust
- Seal against water, antifreeze and oil up to 180°C, and exhaust temperatures up to 750°C
- Seal against relative movement, eg exhaust manifolds sliding against the cylinder head
- Withstand ambient temperatures as low as minus 40°C

Water pumps

Used On	Description	Part number
CE, CM engines	Belt driven water pump, with straight inlet	U5MW0096
CE, CM engines	Belt driven water pump, with elbow inlet	U5MW0097
LD, LE engines	Belt driven water pump, with bypass slot (not visible on photo) bearing housing diameter of 60 mm	U5MW0104
LJ, LM, AF, AG, AH, AP, AQ engines	Belt driven water pump, bearing housing diameter of 60 mm	U5MW0106
TU, TW engines	Belt driven water pump, bearing housing diameter of 60 mm	U5MW0111
TU, TW engines	Belt driven water pump, heavy duty bearing housing diameter of 73 mm	U5MW0129
TU, TW, TX engines	Belt driven water pump, heavy duty bearing housing diameter of 73 mm. Large body includes twin thermostat housing	U5MW0133
AA, AG, AH, LM engines	Belt driven water pump, heavy duty bearing housing diameter of 73 mm	U5MW0108
AA, AB, AC, AD, AE, AA, AB, AD, AE, AL, YA, YA, YB, YD, YE, YG engines	Gear driven water pump with E018 identifier*	U5MW0156
YA, YC, YD, YE, YH engines	Gear driven water pump with E021 identifier*	U5MW0160



U5MW0096



U5MW0097



U5MW0104



U5MW0106



U5MW0111



U5MW0129



U5MW0133



U5MW0108



U5MW0160



U5MW0156

*Note: Pictures represent rear face of water pump, identifier found on front face next to cover

Thermostats

Series					Description	Notes	Part number
3.152	4.236	6.354	1004	1006			
•	•	•			Main diameter 54 mm, thermostat includes jiggle pin	82°C thermostat to open	2485666
•	•	•			Main diameter 54 mm, no jiggle pin	82°C thermostat to open	2485659
	•	•			Main diameter 2.5 inches (64 mm), no jiggle pin	178°F (81°C) thermostat to open	2485641
	•	•			Main diameter 2.75 inches (70 mm), thermostat includes jiggle pin	172°F (78°C) thermostat to open	2485668
		•			Main diameter 54 mm, no jiggle pin	82°C thermostat to open	2485604
	•	•	•	•	Main diameter 54 mm, thermostat includes jiggle pin	71°C thermostat to open	2485610
	•	•	•	•	Main diameter 54 mm, thermostat includes jiggle pin	82°C thermostat to open	2485613
			•	•	Main diameter 67 mm, thermostat includes jiggle pin	82°C thermostat to open	2485C036
				•	Main diameter 67 mm, thermostat	82°C thermostat to open	2485C034



2485666



2485659



2485641



2485604



2485610



2485613



2485668



2485C036



2485C034

Alternators

Series					Description	Part number
3.152	4.236	6.354	1004	1006		
			•	•	Left or right hand mounting: 24 volt, 55 amp with stud connector	2871A003
			•	•	Left or right hand mounting: 24 volt, 55 amp with stud connector	2871A004
•	•	•	•	•	Right hand mounting: 12 volt, 55 amp with Euro connector	2871A141
•	•		•		Left hand mounting: 12 volt, 55 amp with Euro connector	2871A142
			•	•	Right hand mounting: 12 volt, 72 amp with Euro connector	2871A160
•	•	•	•	•	Right hand mounting: 12 volt, 65 amp with Euro connector	2871A163
•	•	•	•	•	Right hand mounting: 12 volt, 45 amp with Euro connector	2871A165
			•	•	Left hand mounting: 12 volt, 85 amp with stud connector	2871A168
			•	•	Right hand mounting: 12 volt, 55 amp with stud connector	2871C105
			•	•	Right hand mounting: 24 volt, 55 amp with stud connector	2871C202



2871A003



2871A004



2871A141



2871A142



2871A160



2871A163



2871A165



2871A168



2871C105

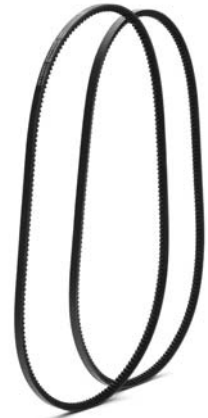


2871C202

Belts

Series					Description	Part number
3.152	4.236	6.354	1004	1006		
	•				1212 mm	2614B645
•	•	•			1237 mm	2614B647
	•	•			1300 mm	2614B652
	•	•			1325 mm	2614B654
•	•	•	•	•	1350 mm	2614B656
•	•	•	•	•	1312 mm	2614B653
•	•		•	•	1175 mm	2614B642
•					1187 mm	2614B143
	•		•	•	1200 mm	2614B644
•	•		•	•	1275 mm	2614B650
•	•	•	•	•	1375 mm	2614B658

Series					Description	Part number
3.152	4.236	6.354	1004	1006		
•	•	•			1400 mm	2614B660
			•	•	1462 mm	2614B665
	•	•	•	•	1500 mm	2614B668
•	•		•	•	1337 mm	2614B655
•	•	•			1362 mm	2614B657
•	•	•			1387 mm	2614B659
•	•	•	•	•	1425 mm	2614B662
			•	•	1450 mm	2614B664
	•	•	•	•	1487 mm	2614B667
		•			1512 mm	2614B669



Series					Description	Notes	Part number
3.152	4.236	6.354	1004	1006			
•					Right hand mounting: 12 volt, 10 tooth		2873A104
•	•	•			Right hand mounting: 12 volt, 10 tooth		2873A102
•	•	•	•	•	Right hand mounting: 12 volt, 10 tooth, Lucar and stud connectors	See also 2873A030 (improved sealing version)	2873B071
•	•	•	•		Left hand mounting: 12 volt, 10 tooth, Lucar and stud connectors	See also 2873A029 (improved sealing version)	2873B072
	•		•	•	Right hand mounting: 12 volt, 10 tooth		2873D202
	•		•	•	Left and right hand mounting: 24 volt, 10 tooth		2873K059
			•	•	Right hand mounting: 24 volt, 10 tooth		2873D304
			•	•	Right hand mounting: 12 volt, 10 tooth, Lucar and stud connectors	Improved sealing version of 2873B071	2873A030
			•		Left hand mounting: 12 volt, 10 tooth, Lucar and stud connectors	Improved sealing version of 2873B072	2873A031

Starter motors



Electrical shut off solenoids

Series					Description	Notes	Part number
3.152	4.236	6.354	1004	1006			
			•	•	12 Volt, 16 ohm, JPT connector	In 24 volt applications, use with 16 ohm ballast resistor 2861A009	26420469
			•	•	24 Volt, JPT connector		26420470
			•	•	24 Volt, twin Lucar connector, replaces 26431675		26420471
•	•	•	•	•	12 Volt, 16 ohm, twin Lucar connector, replaces 28730179	In 24 volt applications, use with 16 ohm ballast resistor 2861A009	26420472
			•	•	Adaptor (Lucar to JPT)		3161C012



26420469 (Blue)



26420470 (Red)



26420471 (Red)



26420472 (Blue)



3161C012

Heater plugs

Series					Description	Part number
3.152	4.236	6.354	1004	1006		
•	•	•	•	•	12 volt, screw terminal	2666103
•	•	•	•	•	12 volt, Lucar terminal	2666108



2666103



2666108

Atomisers and nozzles

Series						Atomiser	Tag code	Nozzle
3.152	4.236	6.354	1000	1004	1006			
•						2645680	GM	2646848
•						2645K005	HN	2646850
•						2645630	EE	2646825
•						2645A013	HH	2645K603
	•					2645666	FY	2646842
	•					2645664	FW	2646826
	•					2645601	CU	2646690
	•	•				2645647	FC	2646831
	•	•		•		2645A010	HU	2645A604
		•				2645K008	HS	2646844
		•				2645L008	NH	2645L606
		•				2645675	GG	2646845
		•				2645A001	HC	2645A602
			•			2645A017	JB	2645A608
			•			2645A015	HZ	2645K603
			•			2645L009	NJ	2645L607
			•			2645A025	JK	2645A613
			•			2645A021	JF	2645A606
			•			2645A030	JS	2645A612
			•			2645L017	NT	2645L615
			•			2645A032	JU	2645A617
			•			2645A020	JE	2645A608

The atomiser introduces fuel into the engine in the best form for optimum combustion. Atomisers are very precise components which deliver a precise amount of fuel at very high pressure - breaking the fuel down into tiny droplets (some as small as twenty microns diameter) and spreading these droplets evenly throughout the combustion chamber.

Fuel contamination is often to blame for deterioration of atomiser performance which will be evident through a number of symptoms:

- Knock
- Engine overheating
- Loss of power
- Black smoke
- Poor starting
- Increased fuel consumption

It is recommended to change fuel filters whenever atomisers/nozzles are changed to ensure continued protection of the fuel system.



Lift pumps

Series					Description	Part number
3.152	4.236	6.354	1004	1006		
•					2641808 identifier, also replaces 2641712	ULPK0004
•					A063 identifier, also replaces 2641311 and 2641309	ULPK0006
•					2641408 identifier, also replaces 2641406	ULPK0018
	•		•		A071 identifier	ULPK0001
	•				A073 identifier	ULPK0003
		•		•	A070 identifier	ULPK0002
		•			A064 identifier, also replaces 2641378 and 2641372	ULPK0007
		•			A056 identifier, also replaces 2641715 and 2641710	ULPK0022
	•				A082 identifier, also replaces 2641A067 and ULPK0005	ULPK0034
	•		•		2641338 identifier, also replaces 2641478 and 2641477	ULPK0011



ULPK0004



ULPK0006



ULPK0018



ULPK0001



ULPK0003



ULPK0002



ULPK0007



ULPK0022



ULPK0034



ULPK0011

Turbochargers

Series					Description	Part number
3.152	4.236	6.354	1004	1006		
•					Non wastegated	2674A101
•					Non wastegated	2674A152
	•				Non wastegated	2674397
	•				Non wastegated	2674398
	•				Wastegated	2674A104
	•				Wastegated	2674A106
	•				Wastegated	2674A108
		•			Non wastegated	2674152
		•			Non wastegated	2674355
		•			Non wastegated	2674366
		•			Non wastegated	2674369
		•			Non wastegated	2674404
		•			Non wastegated	2674405
			•		Non wastegated	2674394
			•		Non wastegated	2674396
			•		Non wastegated	2674399
				•	Non wastegated	2674A051
				•	Wastegated	2674A055
				•	Non wastegated	2674A061
				•	Non wastegated	2674A071
				•	Non wastegated	2674A076
				•	Non wastegated	2674A080
				•	Non wastegated	2674A110
			•		Non wastegated	2674A147
				•		2674A154

Turbochargers

A turbocharger is used to increase engine efficiency and power output. A turbocharged engine may have up to 40% more power than a naturally aspirated engine of the same cylinder capacity. Turbochargers should be considered as an integral part of the engine and are jointly designed by the turbocharger and engine manufacturer for performance and reliability. There are many considerations that go into turbocharger design: engine size, horsepower and torque requirements, highway or off-highway application, load, altitude etc. A small frame turbocharger has a rotational speed in excess of 150,000 rpm and is precision-manufactured with tolerances as fine as 1/1,000,000 of an inch. A wastegate is sometimes used to control turbine speed which in turn helps to control boost. The wastegate is activated by a diaphragm and when opened, allows excess exhaust pressure to be released from the turbine wheel housing.



Related parts

Lubrication is critical to turbocharger longevity. Premature wear and ultimately failure can be caused by insufficient or contaminated oil. It is advisable to perform an oil change and replace the oil filter to protect your new turbocharger. Poor air filtration could allow foreign objects to enter the compressor wheel housing which could lead to damage/premature wear and will cause premature degradation of oil. A new air filter is a sound investment. Studs and nuts can be damaged when removing the turbo for replacement. Fitting new studs or nuts ensures that the turbo can be refitted correctly and removed in future. Studs and nuts are low cost items. Joints and clips are not usually supplied with the turbocharger. It is recommended that new clips are used to ease re-fitting of hoses and pipes. It is essential to use a new gasket when refitting the turbocharger to the exhaust manifold to ensure correct sealing. Contact your local Perkins distributor for more information or find your nearest distributor at www.perkins.com/distributor

Exhaust valves

Series					Description	Notes	Part number
3.152	4.236	6.354	1004	1006			
•					45 degrees CD engines only	Use with valve guide 3316A031	0910002
•					35 degrees services engines post 1979	Use with valve guide 3316A031	31431011
•					35 degrees carbon break stem	Use with valve guide 3313E734	31431031
•					45 degrees services engines pre 1979, plain stem	Use with valve guide 3316A031	31431591
•					35 degrees CJ engines only	Use with valve guide 3316A031	31431991
	•				45 degrees services all gas engines. Stellite faced	Use with valve guide 3343J021, oversize stemmed versions available for pre 1985	31431701
	•				45 degrees services all naturally aspirated engines	Use with valve guide 3343J021	31431881
	•				45 degrees services all turbocharged engines	Use with valve guide 3343J021	3142A052
		•	•	•	45 degrees straight stem	Use with valve guide 3343J021	3142A051
		•			45 degrees carbon break on stem, nimonic valve	Use with valve guide 33261757	31431951

Inlet valves

Series					Description	Notes	Part number
3.152	4.236	6.354	1004	1006			
•					45 degrees CD engines only	Use with valve guide 3316A031	31431261
•					45 degrees services CE engines pre 1979	Use with valve guide 3316A031	31431281
•					35 degrees services CE engines post 1979	Use with valve guide 3316A031	31431681
•					35 degrees chrome plated valve stem	Use with valve guide 3316A032	31431981
	•				30 degrees services all turbocharged engines	Use with valve guide 3343F041	3142H002
	•				45 degrees standard valve	Use with valve guide 3343F041	31431641
	•				46 degrees services all gas engines. Oversize valves available for pre 1985 engines	Use with valve guide 3343F041	31431871
	•	•			45 degrees high specification valve	Use with valve guide 3343F041	31431315
			•	•	45 degrees naturally aspirated	Use with valve guide 3343F041	3142L051
			•	•	45 degrees turbo pre U608300W	Use with valve guide 3343F041	3142L071
			•	•	30 degrees turbo post U608301W	Use with valve guide 3343F041	3142L072

Series					Description	Notes	Part number
3.152	4.236	6.354	1004	1006			
•					Flanged liner, press fit, unfinished	0.25 mm Oversize OD = 31358384	31358323
•					Flanged liner, slip fit, pre finished	0.75 mm Oversize OD = 31358357	31358345
•					Plain liner, press fit, unfinished	0.76 mm Oversize OD = 31358358	31358356
	•				4.236 non-flame ring liner, press fit, unfinished, post 1986	0.50 mm Oversize OD = 3135X036	3135X031
	•				4.236 non-flame ring liner, slip fit, pre finished, post 1986	0.25 mm Oversize OD = 3135X035	3135X032
	•		•		Non-flame ring liner, press fit, unfinished, post 1986	0.50 mm Oversize OD = 3135X037	3135X033
	•				Non-flame ring liner, slip fit, pre finished, post 1986		3135X034
	•	•			Plain liner, press fit, unfinished	0.25 mm Oversize OD = 31358331	31358324
	•				Flame ring liner, press fit, unfinished pre 1986	0.50 mm Oversize OD = 31358362	31358346
	•				Flame ring liner, slip fit, pre finished, pre 1986		31358352
	•	•			Flame ring liner, press fit, unfinished, pre 1986	0.25 mm Oversize OD = 31358398	31358393
	•	•			Flame ring liner, slip fit, pre finished, pre 1986	1.00 mm Oversize OD = 31358397	31358394
			•	•	Non-flame ring liner, press fit, unfinished (AA, AB, AC, YA, YB and YC)	0.50 mm Oversize OD = 3135X046	3135X041
			•	•	Non-flame ring liner, slip fit, pre finished	0.25 mm Oversize OD = 3135X045	3135X042
			•		Flame ring liner, slip fit, pre finished	0.25 mm Oversize OD = 3135X065	3135X062
			•		Flame ring liner, press fit unfinished (AD, AE, YD and YE)	0.50 mm Oversize OD = 3135X066	3135X063

Pre-finished liners guarantee correct cross hatching pattern which assists oil control

Cross hatching pattern

The angle of the cross hatching controls oil retention and lubrication of piston rings.

- If the angle is too narrow (Figure A) oil drains too fast and lubrication is poor
- If the angle is too large (Figure B) oil is retained leading to excessive oil consumption and smoke

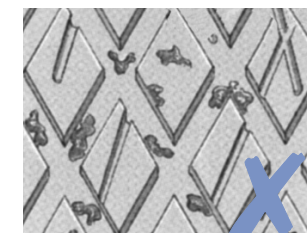
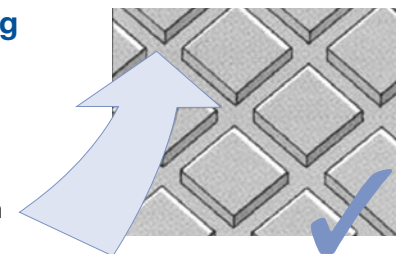


Figure A

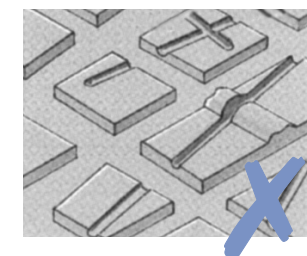


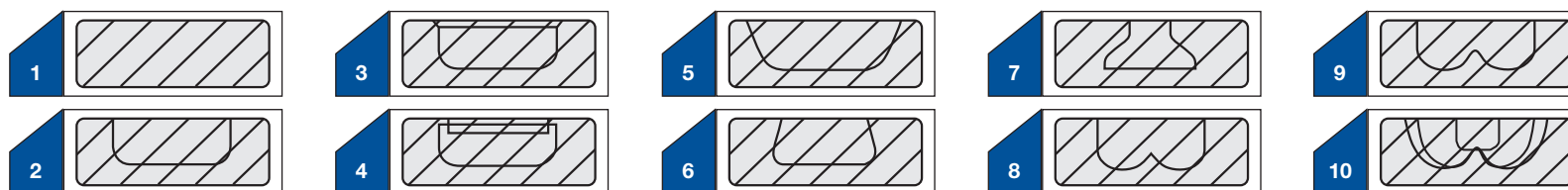
Figure B



Pistons

Series					Description	Use with ring kit	Part number
3.152	4.236	6.354	1004	1006			
•					Pre-topped piston, 5 ring, monometal, crown '8'	68501, 41158057	68332
•					Pre-topped piston, 4 ring, monometal, crown '7'	41158007	68801
•					Pre-topped piston, 5 ring, monometal, crown '1'	41158056, 41158057	81512
•					Pre-topped piston, 4 ring, monometal, crown '2'	41158065	89214
	•				Pre-topped piston, 5 ring, monometal, crown '2'	41158041	68301
	•				Pre-topped piston, 3 ring, controlled expansion, anodised crown, crown '6'	41158022	68814
	•				Pre-topped piston, 5 ring, monometal, crown '2'	41158041	82878
	•				Pre-topped piston, 4 ring, monometal, crown '2'	4181A009	89207
	•				Pre-topped piston, 3 ring, controlled expansion, crown '2'	41158022	U5LP0009
	•				Pre-topped piston, 3 ring, controlled expansion, top ring insert, graphite coated skirt, crown '3'	41158147	U5LP0011
	•				Pre-topped piston, 3 ring, top ring insert, controlled expansion, graphite coated skirt, crown '3' alternative to U5LP0046 by engine set	4181A022	U5LP0022
	•				Pre-topped piston, 3 ring, top ring insert, controlled expansion, graphite coated skirt, crown '3', alternative to U5LP0022 by engine set	4181A022	U5LP0046
	•				Gas piston, 4 ring, top ring insert, crown '2'	41158142	U5LP0047
		•			Pre-topped, 3 ring, controlled expansion, top ring insert, graphite coated skirt, crown '8'	41158005	
		•			Pre-topped piston, 4 ring, monometal, crown '8'	41158031	86726
		•			Pre-topped piston, 5 ring, monometal, crown '9'	41158041	86740
		•			Pre-topped piston, 3 ring, controlled expansion, top ring insert, graphite coated skirt, crown '9'	41158017	U5LP0014
			•	•	Pre-topped piston, 3 ring, top ring insert, controlled expansion, tin plated, crown '10'	4181A026	U5LL0015
			•		Pre-topped piston, 3 ring, graphite coated skirt, crown '10'	4181A019	U5LL0017
			•	•	Pre-topped piston, 3 ring, top ring insert, controlled expansion, tin plated, crown '10'	4181A041	U5LL0021
			•	•	Pre-topped piston, 3 ring, anodised crown, top ring insert, graphite coated skirt, crown '10'	4181A026	U5LL0047
			•	•	Pre-topped, 3 ring, top ring insert, graphite coated skirt, crown '10'	4181A026	U5LL0047

Piston crown cross section



Piston rings

Series					Description	Used with piston kit	Part number
3.152	4.236	6.354	1004	1006			
•					5 ring kit	68332	68501
•					4 ring kit	68801	41158007
•					5 ring kit	81512	41158056
•					5 ring kit	68332	41158057
•					4 ring kit	89214	41158065
	•				4 ring kit	68814 and U5LP0009	41158022
	•				4 ring kit	U5LP0047	41158142
	•				3 ring kit	U5LP0011	41158147
	•				4 ring kit	89207	4181A009
	•				3 ring kit	U5LP0022 and U5LP0046	4181A022
	•	•			3 ring kit	68803	41158005
	•	•			3 ring kit	U5LP0011 and U5LP0014	41158017
	•	•			5 ring kit	86745	41158032
	•	•			5 ring kit	86740, 68301 and 82878	41158041
		•			5 ring kit	86740	41158029
		•			4 ring kit	86726	41158031
			•	•	3 ring kit	U5LL0015 and U5LL0017	4181A019
			•	•	3 ring kit	U5LL0014 and U5LL0016	4181A026
			•	•	3 ring kit	U5LL0021 and U5LL0025	4181A041

At first glance non-genuine parts appear identical to genuine Perkins Powerpart components, but in fact, there is a substantial difference between the two. The ring spring must consistently achieve the correct pressure on the liner (Figure A). Non-genuine rings can create excessive pressure on the liner (Figure B) which can breakdown the oil film, increase the rate of wear, and cause scuffing through metal to metal contact.

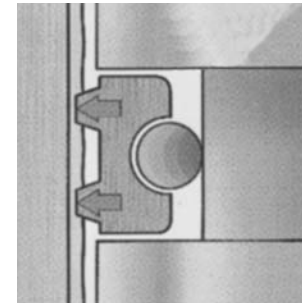


Figure A

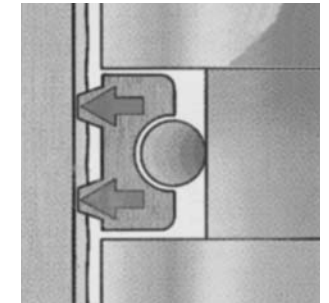


Figure B

Main bearing kits



Series					Description	Part number
3.152	4.236	6.354	1004	1006		
•					Services pre 1997 engines (up to engine number U983573C)	68084
•					Services post 1997 engines (after engine number U983574C)	U5MB0014
	•		•		Services naturally aspirated and turbocharged 4 cylinder engines	81558
		•			Services TP, TU, TV, TW, TX, TY, TZ	68079
		•			Services TC, TG, TH, TS, TR	85010
		•			Services higher rated engines TC, TE, TF, TG, TH, TK, TT	U5MB0011
		•		•	Services naturally aspirated and turbocharged 6 cylinder engines up to 180 bhp	U5MB0007
				•	Services naturally aspirated, turbocharged, and charge cooled 6 cylinder engines	U5MB0010

Note: Undersize bearings are available - A, B or C should be added to part number for relevant size
 A = 0.25 mm u/s B = 0.50 mm u/s C = 0.75 mm u/s. New connecting rod nut should be fitted where applicable

Thrust washers



Series					Description	Notes	Part number
3.152	4.236	6.354	1004	1006			
•					Top thrust washer	Oversize version 31137212, check Service bulletin number 21 if changing block or crankshaft	31137211
•					Bottom thrust washer	Oversize version 31137222, check Service bulletin number 21 if changing block or crankshaft	31137221
•					Thrust washer kit, contains two of 31137211, two of 31137221	Half oversize kit = U5TW0003A, Full oversize kit = U5TW0003B, check Service bulletin number 21 if changing block or crankshaft	U5TW0003
	•	•	•	•	Top thrust washer	Oversize version 31137312	31137551
	•	•	•	•	Bottom thrust washer	Oversize version 31137322	31137561
	•	•	•	•	Thrust washer kit, contains two of 31137551, two of 31137561	Half oversize kit = U5TW0002A Full oversize kit = U5TW0002B	U5TW0002

Big end bearing kits

Series					Description	Notes	Part number
3.152	4.236	6.354	1004	1006			
●					Services naturally aspirated and turbocharged 3 cylinder engines		85036
	●		●		Services naturally aspirated 4 cylinder engines		85042
	●		●		Services turbocharged 4 cylinder engines		U5ME0006
		●		●	Services naturally aspirated 6 cylinder engines		85043
		●		●	Services turbocharged 6 cylinder engines (no oil hole)		U5ME0003
		●			Services TE, TF, TH and TT engines (has oil hole)		U5ME0007

Note: Undersize bearings are available - A, B or C should be added to part number for relevant size
 A = 0.25 mm u/s B = 0.50 mm u/s C = 0.75 mm u/s

Small end bushes

Series					Description	Notes	Part number
3.152	4.236	6.354	1004	1006			
●					Services naturally aspirated and turbocharged engines	Requires reaming after fitting	31134151
	●	●	●	●	Services naturally aspirated engines	Requires reaming after fitting	31134123
	●	●	●	●	Services turbocharged engines	Requires wedging and reaming after fitting. Services 1000 Series built before September 2002.	31134131
			●	●	Services AD, AE, YD, YE only	Requires wedging and reaming after fitting	3112E005

Oil seals

Series					Description	Part number
3.152	4.236	6.354	1004	1006		
●					Front seal for all 3.152 engines	2415344
	●	●	●	●	Front seal for all 4.236, 6.354 and 1000 Series engines	2418F436
●					Rear rope type seal for all 3.152 engines	36883119
	●	●			Rear rope type seal for all 4.236 and 6.354 engines	36883116
●	●	●	●	●	Rear lip type seal for all 3.152, 4.236, 6.354 and 1000 Series engines. This type of seal was replaced on 4.41 and 1000 Series engines after May 2001, (see below)	2418F475
	●		●	●	Rear unitised seal fitted to 4.41 and 1000 Series after the following cut-in numbers: LM*****U920938H, Y*****U764752H, A*****U993671H (May 2001)	2418F701

Valve guides

Series					Description	Part number
3.152	4.236	6.354	1004	1006		
•					Pre finished inlet and exhaust guide, plain bore	3313E734
•					Pre finished inlet and exhaust guide, carbon break in bore (62 mm long)	3316A031
•					Pre finished inlet and exhaust guide, carbon break in bore (56 mm long)	3316A032
		•			Pre finished exhaust guide, plain bore	33261757
	•	•	•	•	Pre finished inlet and exhaust guide, carbon break in bore	3343J021
	•	•	•	•	Pre finished inlet guide	3343F041

Valvetrain kits

Series					Kit contents				Kit number
3.152	4.236	6.354	1004	1006	Inlet/exhaust valves	Inlet/exhaust guides	Additional comments	Comments	
			•		3142L072 3142A051	3343F041 3343J021	Springs, inner springs, caps, cotters, washers (inlet and exhaust)	30 degree inlet	U5VK0191
				•	3142L072 3142A051	3343F041 3343J021	Springs, inner springs, caps, cotters, washers (inlet and exhaust)	30 degree inlet	U5VK0192

Oil pumps

Series						Description	Part number
3.152	4.236	6.354	1000	1004	1006		
•						Services 3 cylinder engines. Pump fitted with a sintered gear	41314078
•						Services 3 cylinder engines. Pump fitted with a machined and hardened gear	41314187
	•					Services 4 cylinder naturally aspirated engines not fitted with balancers	41314182
	•					Services 4 cylinder turbocharged engines not fitted with balancers	4132F012
	•			•		Services 4 cylinder engines fitted with balancers	4132F041
				•		Services 4 cylinder naturally aspirated engines not fitted with balancers	4132F051
				•		Services 4 cylinder turbocharged engines not fitted with balancers	4132F056
					•	Services 6 cylinder turbocharged engines	4132F057
					•	Services 6 cylinder naturally aspirated engines	4132F043
		•				Services 6.3544 engines	4132F015
		•				Services 6.3543 and 6.3544 engines	4132F016
		•				Services 6.3540 and 6.3541 engines	41314067
		•				Services 6.3540 engines	41314131



41314078



41314187



41314182



4132F012



4132F041



4132F051



4132F056



4132F057



4132F043



ULP4132F015/F0160001



41314067



41314131

Overhaul kits

An engine overhaul kit is a one-box solution, containing all the key parts required for your engine overhaul.

Kit contents are carefully established to service a wide variety of Perkins build lists. So every genuine part within the kit is matched exactly to the engine's specification. Only correctly specified parts ensure the ongoing performance and reliability of your engine. Overhaul kits are ordered under a single part number making the purchase of parts for your engine overhaul as simple as possible. Kits also provide significant cost savings when compared to buying individual components. To check the compatibility of a kit for your application contact your local Perkins distributor. You may be surprised how much you could save. Other overhaul kits not listed in this catalogue are available with additional contents; contact your local distributor for more information.

Overhaul kits contain

- Pistons
- Rings
- Liners
- Oil seals
- Top gasket set
- Bottom gasket set
- Connecting rod nuts (where required)



Series						Description	Key components (included)			Related parts (additional to kit)			Kit number
3.152	4.236	4.248	6.354	1004	1006		Piston	Rings	Liner	Main bearings	Big end bearings	Thrust washers	
CE CM						In frame (slip fit), lip seal only	89214	41158065	31358345	68084 (up to 05/1997) U5MB0014 (post 05/1997)	85036	31137211 31137221	U5MK0700
CE CM						Reconditioner (press fit), lip seal only	89214	41158065	31358323	68084 (up to 05/1997) U5MB0014 (post 05/1997)	85036	31137211 31137221	U5MK0700K
CE						In frame (slip fit), lip seal only	68332	41158057	31358345	68084 (up to 05/1997) U5MB0014 (post 05/1997)	85036	31137211 31137221	U5MK0701
CE						Reconditioner (press fit)	68332	41158057	31358323	68084 (up to 05/1997) U5MB0014 (post 05/1997)	85036	31137211 31137221	U5MK0701K
	LD					In frame (slip fit), lip seal only, flame ring	68301	41158041	31358394	81558	85042	31137551 31137561	U5MK0704
	LD					Reconditioner (press fit), lip seal only, flame ring	68301	41158041	31358394	81558	85042	31137551 31137561	U5MK0704K
	LJ					In frame (slip fit), non flame ring	U5LP0046	4181A022	3135X032	81558	U5ME0006	31137551 31137561	U5MK0705
	LJ					Reconditioner (press fit), non flame ring	U5LP0046	4181A022	3135X031	81558	U5ME0006	31137551 31137561	U5MK0705K
		LF				In frame (slip fit), lip seal only, flame ring	U5LP0009	41158022	31358352	81558	85042	31137551 31137561	U5MK0706

Overhaul kits continued...

Series						Description	Key components (included)			Related parts (additional to kit)			Kit number
3.152	4.236	4.248	6.354	1004	1006		Piston	Rings	Liner	Main bearings	Big end bearings	Thrust washers	
		LF				Reconditioner (press fit), lip seal only, flame ring	U5LP0009	41158022	31358346	81558	85042	31137551 31137561	U5MK0706K
		LG				In frame (slip fit), lip seal only, non flame ring	68814	41158022	3135X034	81558	85042	31137551	U5MK0707
		LG				Reconditioner (press fit), lip seal only, non flame ring	68814	41158022	3135X033	81558	85042	31137551 31137561	U5MK0707K
	LD					In frame (slip fit), non flame ring	68301	41158041	3135X032	81558	85042	31137551 31137561	U5MK0713
	LD					Reconditioner (press fit), non flame ring	68301	41158041	3135X032	81558	85042	31137551 31137561	U5MK0713K
			TW			In frame (slip fit)	U5LP0014	41158017	31358394	68079	85043	31137551 31137561	U5MK0710
			TW			Reconditioner (press fit)	U5LP0014	41158017	31358393	68079	85043	31137551 31137561	U5MK0710K
			TU			In frame (slip fit)	68803	41158005	31358394	68079	U5ME0003	31137551 31137561	U5MK0711
			TU			Reconditioner (press fit)	68803	41158005	31358393	68079	U5ME0003	31137551 31137561	U5MK0711K
				AA		In frame (slip fit)	U5LL0015	4181A019	3135X042	81558	U5ME0006	31137551 31137561	U5MK0708
				AA		Reconditioner (press fit)	U5LL0015	4181A019	3135X041	81558	U5ME0006	31137551 31137561	U5MK0708K
				AB		In frame (slip fit)	U5LL0016	4181A026	3135X042	81558	U5ME0006	31137551 31137561	U5MK0709
				AB		Reconditioner (press fit)	U5LL0016	4181A026	3135X041	81558	U5ME0006	31137551 31137561	U5MK0709K
					YB	In frame (slip fit)	U5LL0016	4181A026	3135X042	U5MB0007	U5ME0003	31137551 31137561	U5MK0712
					YB	Reconditioner (press fit)	U5LL0016	4181A026	3135X041	U5MB0007	U5ME0003	31137551 31137561	U5MK0712K
					YA	In frame (slip fit)	U5LL0015	4181A019	3135X042	U5MB0007	85043	31137551 31137561	U5MK0714
					YA	Reconditioner (press fit)	U5LL0015	4181A019	3135X041	U5MB0007	85043	31137551 31137561	U5MK0714K

Complete overhaul kits

Kit number	U5MK9141	U5MK9143	U5MK9145	U5MK9149	U5MK9151	U5MK9197 & U5MK9197S	U5MK9198 & U5MK9198S	U5MK9199	U5MK9201	U5MK9203 & U5MK9203S	U5MK9204	U5MK9207	U5MK9209	U5MK9210	U5MK9211	U5MK9212
Engine model	D3.152	4.236	4.108	4.248	T6.354.4	4.236	G4.236	4.248.2	3.152	4.236	T4.236	6.354.4	1004-4	1004-4	1004-4	1006-6
Build list prefix	CE	LD	ED	LF	TU	LD	LE	LG	CD/CE	LD	LJ	TW	AA	AA/AG	AB/AC/AD/AH	YA
Big end bearing kit	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Bottom gasket kit	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Camshaft bush	•	•		•		•	•	•		•	•		•	•	•	•
Connecting rod nut	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•
Valve cotter																
Crank washer																
Cylinder liner	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Deflector																
Front end oil seal	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Injector sealing washer					•											
Intake joint		•				•		•		•						
Joint																
Fuel filter element kit	•	•	•	•	•	•		•		•	•	•	•	•	•	•
Leaflet													•	•	•	•
Main bearing kit	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•
Manifold gasket								•			•					
Oil cooler kit																•
Oil filter	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Oil pump	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Complete overhaul kits are a comprehensive range of kits offering wide build list coverage for Perkins engines. Ordering a kit under a single part number offers significant savings over piece parts and also ensures the correctly matched components are supplied for the engine. Complete kits offer additional components for major overhaul.

Please note: The application guide above is intended as a guide. Not all build lists have a compatible complete overhaul kit offering. Please liaise with your Perkins distributor to identify.

Complete overhaul kits continued...

Kit number	U5MK9141	U5MK9143	U5MK9145	U5MK9149	U5MK9151	U5MK9197 & U5MK9197S	U5MK9198 & U5MK9198S	U5MK9199	U5MK9201	U5MK9203 & U5MK9203S	U5MK9204	U5MK9207	U5MK9209	U5MK9210	U5MK9211	U5MK9212
Engine model	D3.152	4.236	4.108	4.248	T6.354.4	4.236	G4.236	4.248.2	3.152	4.236	T4.236	6.354.4	1004-4	1004-4	1004-4	1006-6
Build list prefix	CE	LD	ED	LF	TU	LD	LE	LG	CD/CE	LD	LJ	TW	AA	AA/AG	AB/AC/AD/AH	YA
Olive	•	•	•	•	•	•		•	•	•	•	•				
Piston kit	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Piston ring kit	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Rear end oil seal	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•
Rear end oil seal (rope)			•													
Rocker cover joint		•			•					•			•	•	•	•
Sealing washer	•	•	•	•	•	•		•	•	•	•					
Small end bush	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Sump joint													•	•	•	•
Thrust washer	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Timing case cover joint																•
Timing pin washer																
Top gasket kit	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Valve cap												•				
Valve exhaust	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Valve guide	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Valve inlet	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Valve stem seal		•	•	•	•	•	•	•	•	•	•	•				
Washer	•	•		•		•		•		•	•	•				

Complete overhaul kits are a comprehensive range of kits offering wide build list coverage for Perkins engines. Ordering a kit under a single part number offers significant savings over piece parts and also ensures the correctly matched components are supplied for the engine. Complete kits offer additional components for major overhaul.

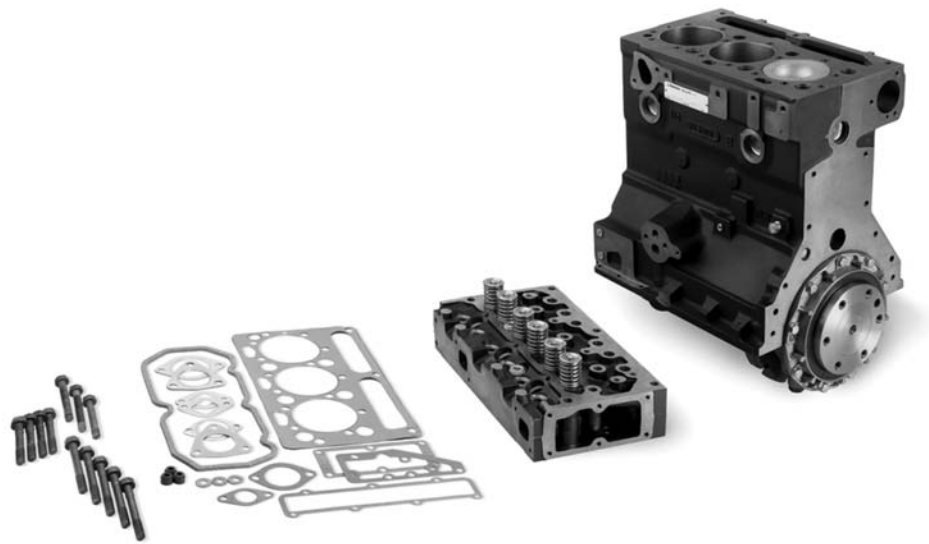
Please note: The application guide above is intended as a guide. Not all build lists have a compatible complete overhaul kit offering. Please liaise with your Perkins distributor to identify.

Long engine kits

In the event of a major engine failure Perkins long engine kits are the ideal solution for a quick and efficient repair. By using genuine parts to original equipment specification, the customer's application is up and running with a minimum of downtime. Ordering a single part number ensures the correctly matched parts are supplied in the kit, all at an affordable price.

Long engine kit contents

- Short engine
- Cylinder head
- Gasket kits (top/bottom)
- Loose gaskets (head/timing case) for specific build lists
- Head bolts



Series	Kit number
1004-4	U5MK8110
1004-40/1004-40T	U5MK8119
1004-40T	U5MK8116
1004-40T/1004-40CC	U5MK8117
1004-42	U5MK8121
1006-6	U5MK8112
1006-6T/1006-6CC	U5MK8113
1006-60/1006-60T/1006-60CC	U5MK8127
1006-60/1006-60T/1006-60CC	U5MK8128
704-26	U5MK8129
704-30	U5MK8130
704-30T	U5MK8131
903-27	U5MK8132
903-27	U5MK8135

Perkins extended life coolant (ELC)

Perkins ELC part number 21820263 supplied in 20L drums are premixed with 50% ELC and 50% totally purified water.

Perkins ELC exceeds ASTM D4985 and ASTM D5345 standards for heavy duty, low silicate antifreeze/coolants and ASTM D3306 and ASTM D4656 for automotive applications.

Perkins ELC lowers owning and operating costs by extending drain intervals. This reduces the cost of coolant and additives by as much as 80% over conventional heavy-duty coolants. Perkins ELC provides maximum protection of metals including; aluminium, copper, brass, steel, solder and cast iron.

Benefits ELC will give you...

ELC premix formula guarantees the local water quality does not compromise the coolant performance. ELC premix formula ensures no risk of hard water scale or incorrect concentration mix, eliminating concerns of hard water scale – improving seal life!

Antifreeze to -37°C and anti-boil properties reduce damage from steam in the cooling system.

Reduces engine coolant and additive costs by as much as 500% compared to conventional coolants. It eliminates the need for supplemental coolant additives, extends coolant change-out intervals and reduces disposal requirements, as well as being recyclable.

Incorporates an advanced formula technology with organic acid additive corrosion inhibitors, such as a combination of mono and dicarboxylates for maximum protection of copper, solder, brass, steel, cast iron and aluminum. Offers outstanding protection against cylinder liner cavitation corrosion.

Additional Benefits:

- Eliminates gel formation
- Contains no silicates, phosphates, or borates
- Allows you to inventory one coolant for all Perkins engines *(excludes 1300 Series)



*Note: To use ELC in a 1300 Series engine, a non SCA filter is required. Please consult with your local Perkins distributor for SCA filter availability.

Perkins ELC



6,000 hours or three years, whichever occurs first!

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THE HEART OF EVERY GREAT MACHINE

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