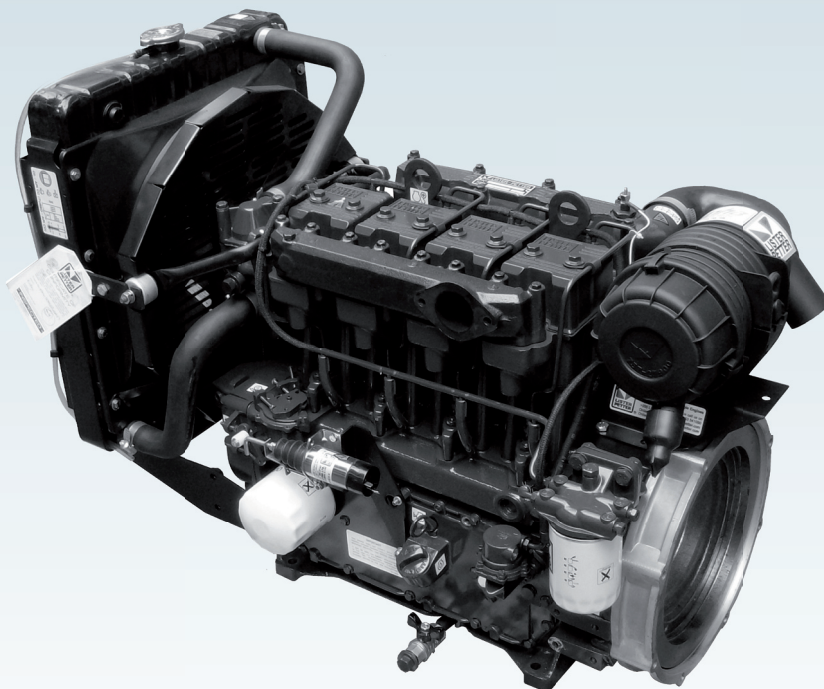




ALPHA MAX SERIES

LPWX4 ENGINE MASTER PARTS MANUAL SUPPLEMENT



INTRODUCTION

This catalogue lists parts for Lister Petter Alpha Series diesel engines. Use the exploded drawings to help you identify the parts you require in the accompanying tables. Each part is labelled on the diagram with a short number (not the part number). Look this short number up in the left-hand column of the relevant table to find the exact part number, name, and required quantity of the part you need to order.

Associated Publications:

Alpha Series Operators' Handbook

P027-08270

Alpha Series Workshop Manual

P027-08240

Alpha Series Technical Handbook

P027-08247

Alpha Series Master Parts Manual

P027-08041

Disclaimer

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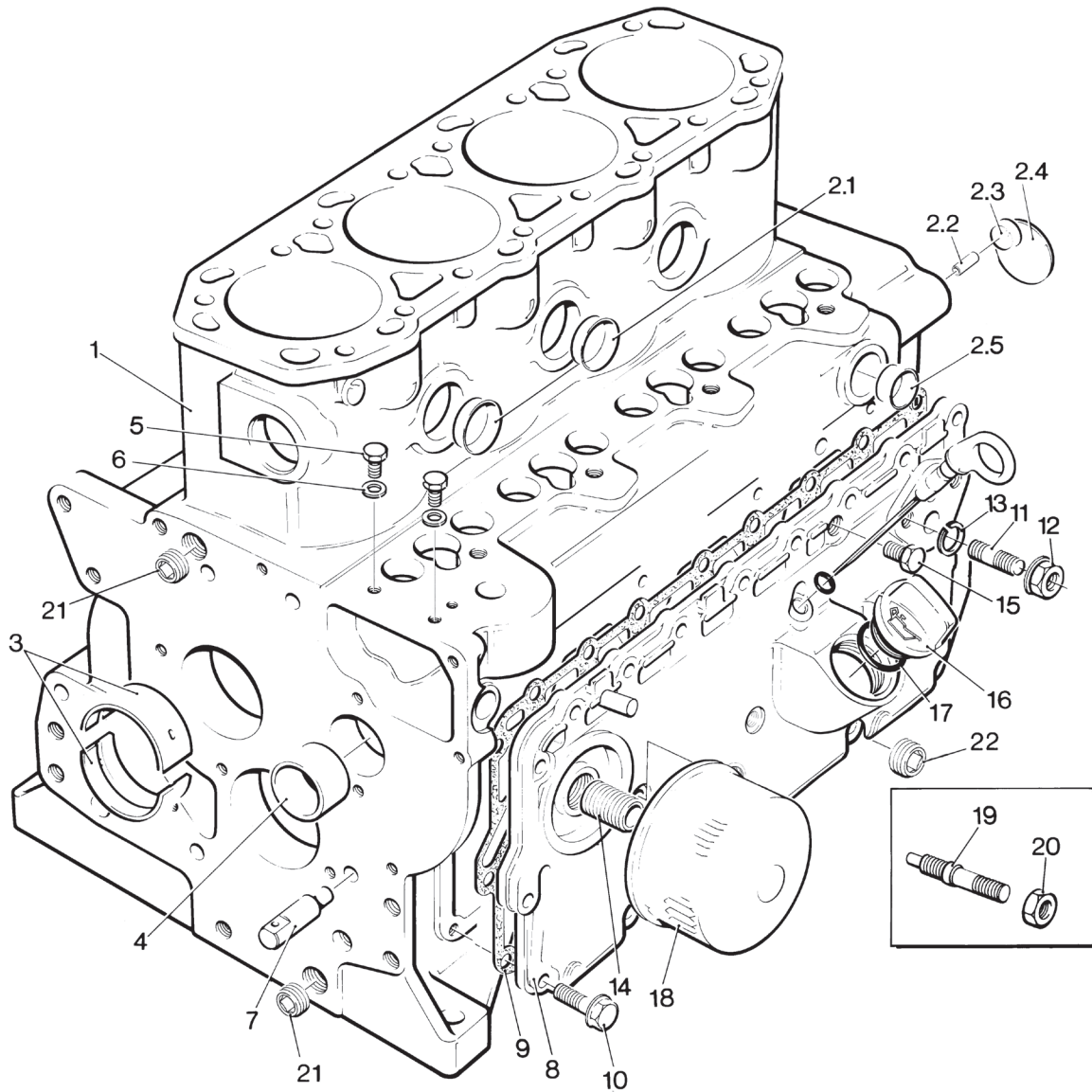
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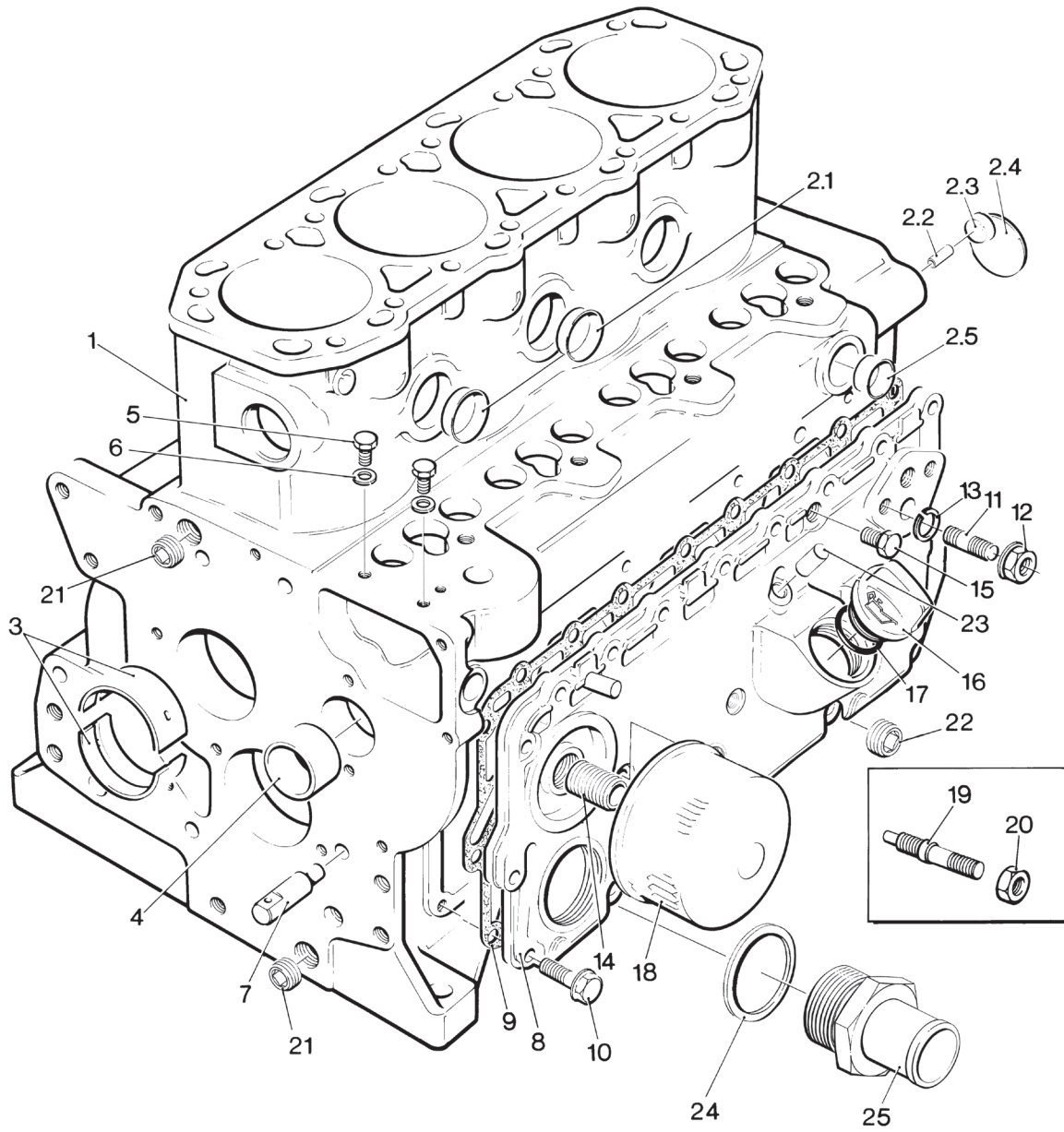
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1. CRANKCASE



LPWX4

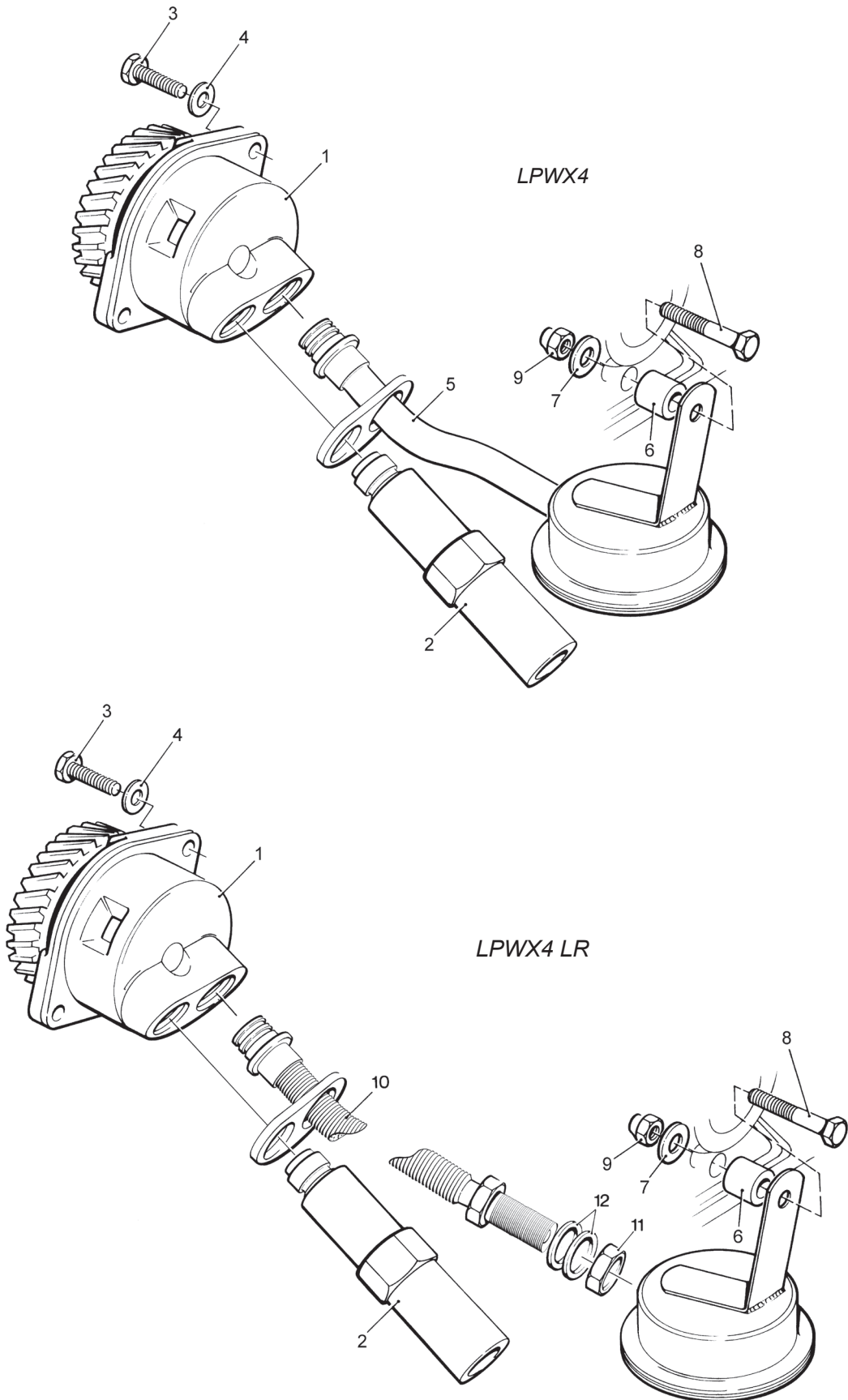
1. CRANKCASE



LPWX4 LR

Item No.	Part / Ref No.	Description	Quantity	
			LPWX4	LPWX4 LR
1	754-40990	Crankcase	1	1
2	-	Plugs	-	-
2.1	351-40190	Expansion plug - 32 mm	1	1
2.2	751-16010	Bush	1	1
2.3	201-33140	Plug	1	1
2.4	027-00801	Expansion plug - 1½"	1	1
2.5	201-60080	Expansion plug - 25 mm	1	1
3	750-11240	Main bearing - gear end	1	1
4	751-10950	Camshaft bush - gear end	1	1
5	272-00239	Screw - M8 x 10 mm	2	2
6	616-01608	Copper washer	2	2
7	751-10324	Governor pivot support	2	2
8	750-13761	Crankcase door assembly	1	-
8	754-47200	Crankcase door assembly	-	1
-	751-17300	Bush	2	2
9	754-10804	Crankcase door joint	1	1
10	272-00800	Flanged headed screw - M6 x 25 mm	16	16
11	272-00306	Stud - M8 x 35 mm	2	2
12	272-00680	Nut - M8 x 1.25	2	2
13	272-00360	Spring washer - M8	2	2
14	751-10790	Oil filter adaptor	1	-
14	751-15751	Oil filter adaptor	-	1
15	366-07041	Plug	1	1
16	751-12670	Oil filler cap	1	1
17	751-12680	'O' ring	1	1
18	328-21600	Oil filter	1	-
18	328-11500	Oil filter	-	1
19	751-14730	Shoulder stud	4	4
20	272-00802	Flanged headed nut	4	4
21	027-00469	Plug - 3/8 BSP	2	2
22	027-00140	Taper plug - 1/2 BSP	1	1
23	027-01619	Dowel - 3/8 dia x 1/2 (replaces dipstick)	-	1
24	751-47340	Bonded seal	-	1
25	751-47330	Hose adaptor	-	1

2. OIL PUMP



Item No.	Part / Ref No.	Description	Quantity	
			LPWX4	LPWX4 LR
1	750-45700	Oil pump and gear assembly	1	1
-	751-10141	Oil pump gear	1	1
2	754-43950	Oil relief valve	1	1
3	272-00256	Setscrew - M6 x 25 mm	2	2
4	272-00364	Washer - M6	2	2
5	754-44060	Oil strainer assembly	1	-
-	754-44130	'O' ring	2	2
6	751-15820	Spacer	1	-
7	272-00715	Washer	1	-
8	272-00191	Bolt - M6 x 35mm	1	-
9	272-00024	Self locking nut - M6	1	-
10	754-47300	Internal suction pipe	-	1
11	751-47310	1/2" BSP locknut	-	1
12	031-66828	Seal	-	2

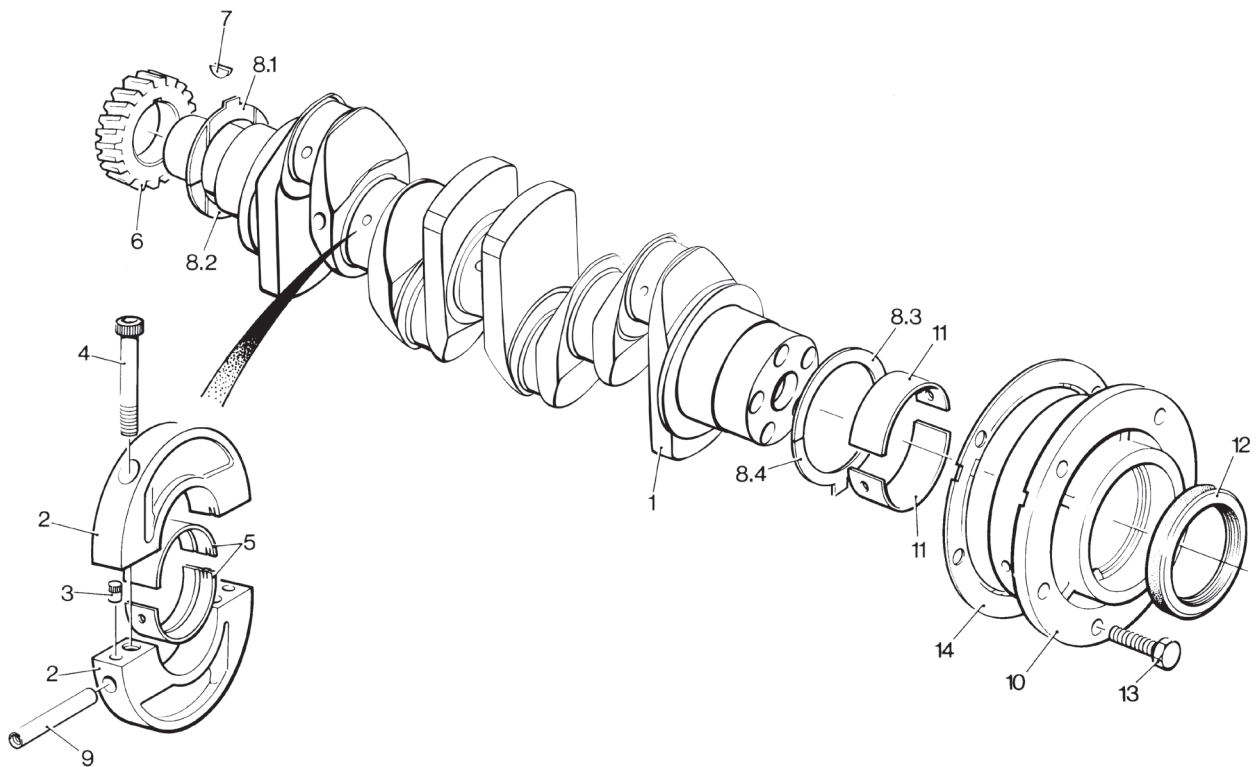
3. OIL FILTER

Ölfilter • Filtro dell'olio • Filtre à huile • Filtro de Aceite • Oliefilter

Engine Builds	Filter Part Number	Adaptor Part Number	Size (mm) Height x Diameter
027	328-21600	751-10790	97 x Ø 100
627	328-11500	751-15751	148 x Ø 96

4. CRANKSHAFT

Kurbelwelle • Albero a gomiti • Vilebrequin • Cigüeñal • Krukas

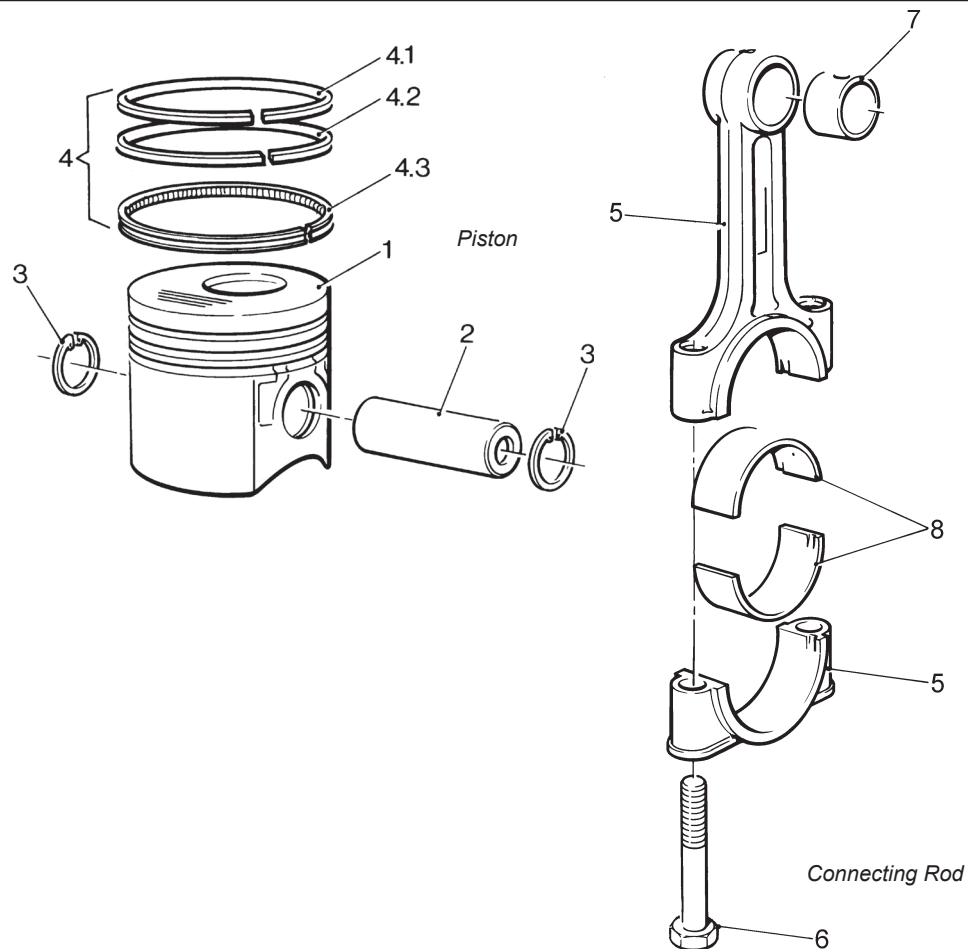


LPWX4 ENGINE MASTER PARTS MANUAL SUPPLEMENT

Item No.	Part / Ref No.	Description	Quantity	
			LPWX4	LPWX4 LR
1	754-47740	Crankshaft	1	1
2	751-47130	Centre bearing housing assembly	3	3
3	010-02110	Dowel	6	6
4	272-00261	Capscrew - M8 x 50 mm	6	6
5	750-11250	Main bearing - centre	3	3
6	751-10121	Crankshaft pinion	1	1
7	027-00107	Key	1	1
8.1	750-11230	Thrust washer - top half (supplied as kit)	1	1
8.2	-	Thrust washer - bottom half (supplied as kit)	1	1
8.3	-	Thrust washer - top half (supplied as kit)	1	1
8.4	-	Thrust washer - bottom half (supplied as kit)	1	1
9	751-10490	Locating tube	3	3
10	751-47110	Bearing housing - no oil jets	1	1
11	750-11210	Main bearing shell	1	1
12	751-10430	Oil seal	1	1
13	272-00039	Setscrew - M8 x 20 mm	5	5
14	751-11930	Shim, 0.38 mm thick	As required	
14	751-11932	Shim, 0.55 mm thick	As required	

5. PISTON AND CONNECTING ROD

Kolben • Pistone • Piston • Pistón • Zuiger
 Pleuelstange • Biella • Bielle • Varilla de Acoplamiento • Verbindungsstang

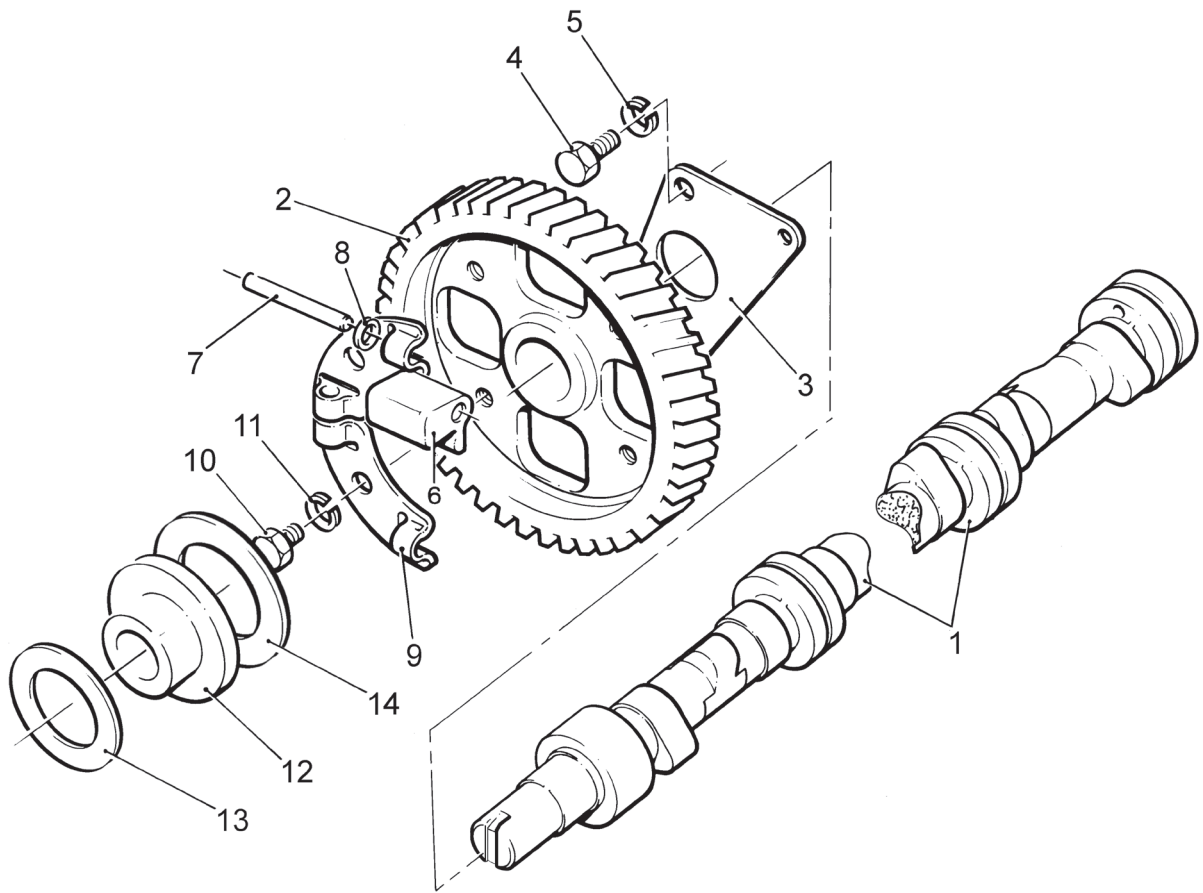


Item No.	Part / Ref No.	Description	Quantity	
			LPWX4	LPWX4 LR
-	750-48440	Piston assembly	4	4
1	-	Piston (not supplied separately)	4	4
2	-	Gudgeon pin (not supplied separately)	4	4
3	751-12450	Circlip	8	8
4	750-13120	Piston ring set	4	4
4.1	-	Piston ring top (not supplied separately)	4	4
4.2	-	Piston ring compression (not supplied separately)	4	4
4.3	-	Piston ring scraper (not supplied separately)	4	4
-	750-48560	Connecting rod assembly	4	4
5	751-47780	Connecting rod	4	4
6	751-10232	Bolt	8	8
7	750-10150	Small end bush	4	4
8	750-11260	Big end bearing	4	4

Note: Pistons are supplied complete with rings, gudgeon pin and circlips.

6. CAMSHAFT

Nockenwelle • Albero a camme • Arbre à cames • Eje de levas • Nokkenas



Item No.	Part / Ref No.	Description	Quantity	
			LPWX4	LPWX4 LR
-	750-41744	Camshaft assembly	1	1
1	754-44140	Camshaft	1	1
2	751-13982	Camshaft gear	1	1
3	751-11055	Camshaft thrust plate	1	1
4	751-15100	Setscrew	2	2
5	272-00070	Spring washer - M6	2	2
6	751-12980	Governor weight	4	4
7	601-21131	Pin	4	4
8	751-13181	Washer	8	8
9	751-13971	Retaining plate	4	4
10	272-00032	Setscrew - M6 x 12mm	4	4
11	272-00070	Spring washer - M6	4	4
12	750-12660	Governor sleeve assembly	1	1
13	751-15940	Thrust washer	1	1
14	751-15950	Thrust washer	1	1

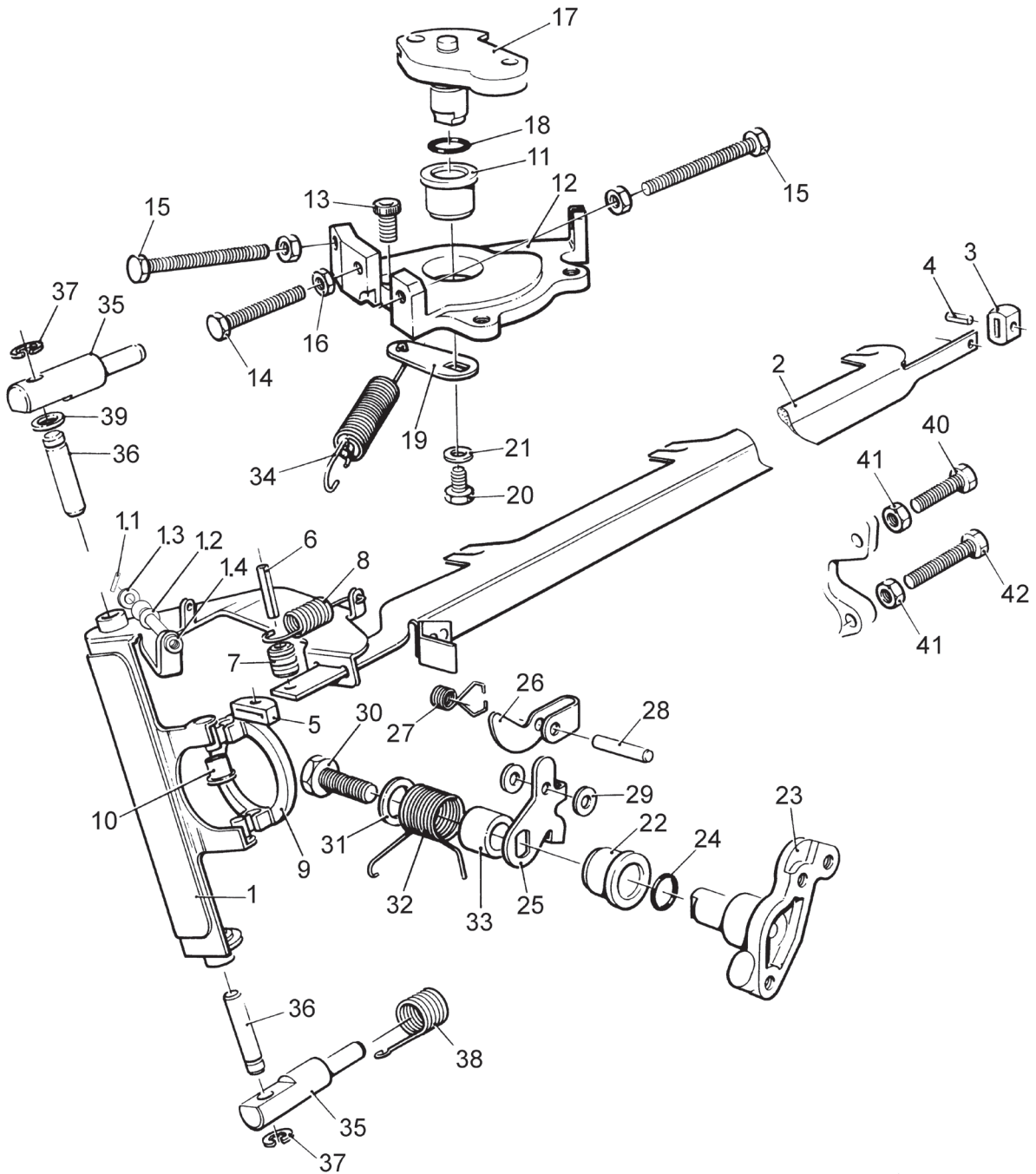
7. GOVERNOR WEIGHTS AND SPEEDER SPRINGS

Reglergewichte • Pesì del regolatore • Masselottes centrifuges de régulateur
Pesos de Acelerador

Build	Part Number of Weight	Number of Weights	Part Number of Speeder Spring	Spring Colour Code
027	751-12980	4	751-47790	Red / Green
627	751-12980	4	751-47790	Red / Green

8. GOVERNOR LINKAGE AND CONTROLS

Reglergestänge und Verstellung • Tiranteria e comandi del regolatore
 Timonerie et commandes de régulateur • Conexiones de acelerador y controles
 Stangoverbrenging en bediening reguleteur

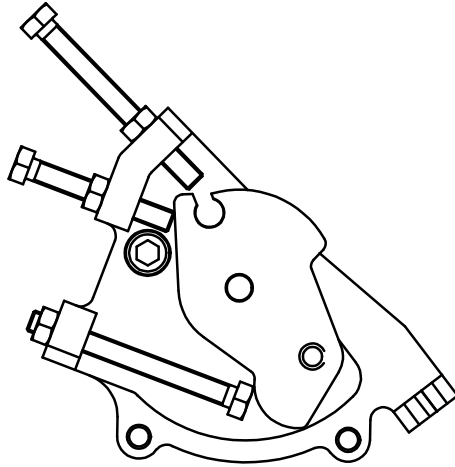


Item No.	Part / Ref No.	Description	Quantity	
			LPWX4	LPWX4 LR
1	750-46420	Governor lever assembly	1	1
1.1	064-08926	Pin (included in item 1)	1	1
1.2	751-13181	Shim - governor weight (included in item 1)	1	1
1.3	751-14151	Retainer spring (included in item 1)	1	1
1.4	751-14432	Screw adjuster (included in item 1)	1	1
2	754-10302	Fuel pump rack assembly	1	1
3	751-11260	Bearing	1	1
4	027-10103	Spring pin	1	1
5	751-11132	Toe	1	1
6	027-07861	Spring pin	1	1
7	751-13020	Bush	1	1
8	751-10330	Spring - rack to governor lever	1	1
9	751-12823	Thrust collar	1	1
10	751-15360	Bush	2	2
11	751-11322	Bush	1	1
12	751-15043	Baseplate - speed control	1	1
13	272-00167	Capscrew - M6 x 12mm	1	1
14	272-00654	Speed setting setscrew - M5 x 35mm	1	1
15	272-00655	Speed setting setscrew - M5 x 50mm	2	2
16	272-00611	Nut	3	3
17	751-13054	Speed control quadrant	1	1
18	751-10590	'O' Ring	1	1
19	751-11424	Lever - speeder spring	1	1
20	272-00440	Setscrew - M5 x 12mm	1	1
21	272-00687	Washer	1	1
22	751-11322	Bush	1	1
23	750-16430	Lever assembly	1	1
24	751-10590	'O' ring	1	1
-	750-10025	Internal stop/run lever assembly	1	1
25	751-11245	Stop/run lever	1	1
26	751-11313	Trip lever	1	1
27	751-11280	Spring	1	1
28	027-07887	Pin	1	1
29	064-06612/002	Washer	2	2
30	272-00718	Setscrew	1	1
31	272-00687	Washer	1	1
32	751-15061	Spring	1	1
33	751-15070	Pivot	1	1

Item No.	Part / Ref No.	Description	Quantity	
			LPWX4	LPWX4 LR
34	751-47790	Speeder spring	1	1
35	751-10324	Pivot support	2	2
-	750-11350	Pivot pin kit	1	1
36	751-12951	Pin	2	2
37	751-11481	Retainer spring	2	2
38	751-13010	Pivot pin clip	1	1
39	751-13181	Shim	As required	
40	272-00718	Setscrew M5 x 25 mm	1	1
41	272-00611	Locknut	2	2
42	272-00654	Setscrew - M5 x 35 mm	1	1

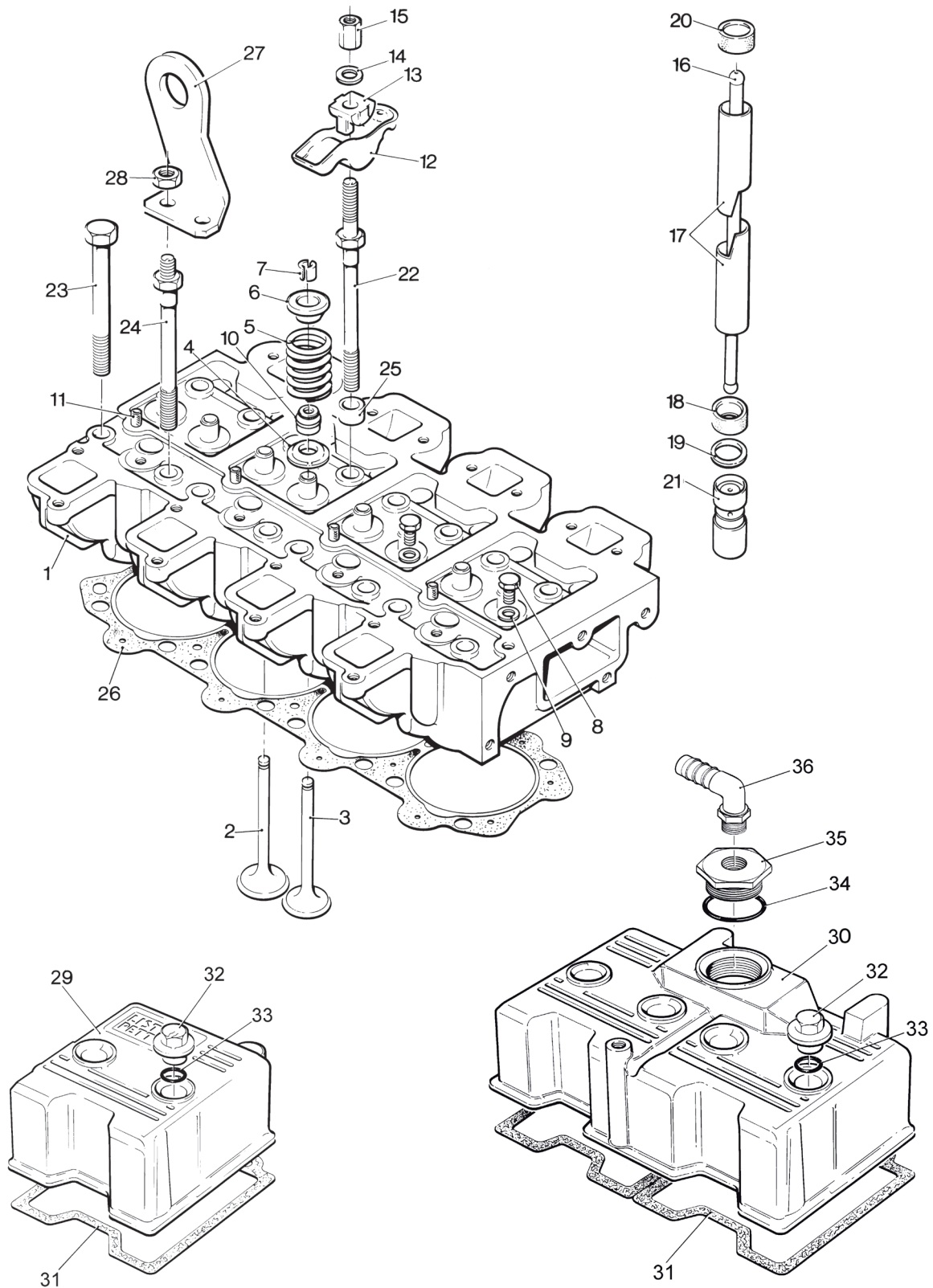
9. SPEED CONTROL

Drehzahlregelung • Comandi velocità • Contrôles de vitesse
Controles de velocidad • Snelheidsbediening



10. CYLINDER HEAD AND COVER

Zylinderkopf und Ventildeckel • Testa cilindro e coperchio punterie
 Culasse et couvre-culasse • Tapa culata de cilindros • Cilinderkop en kap

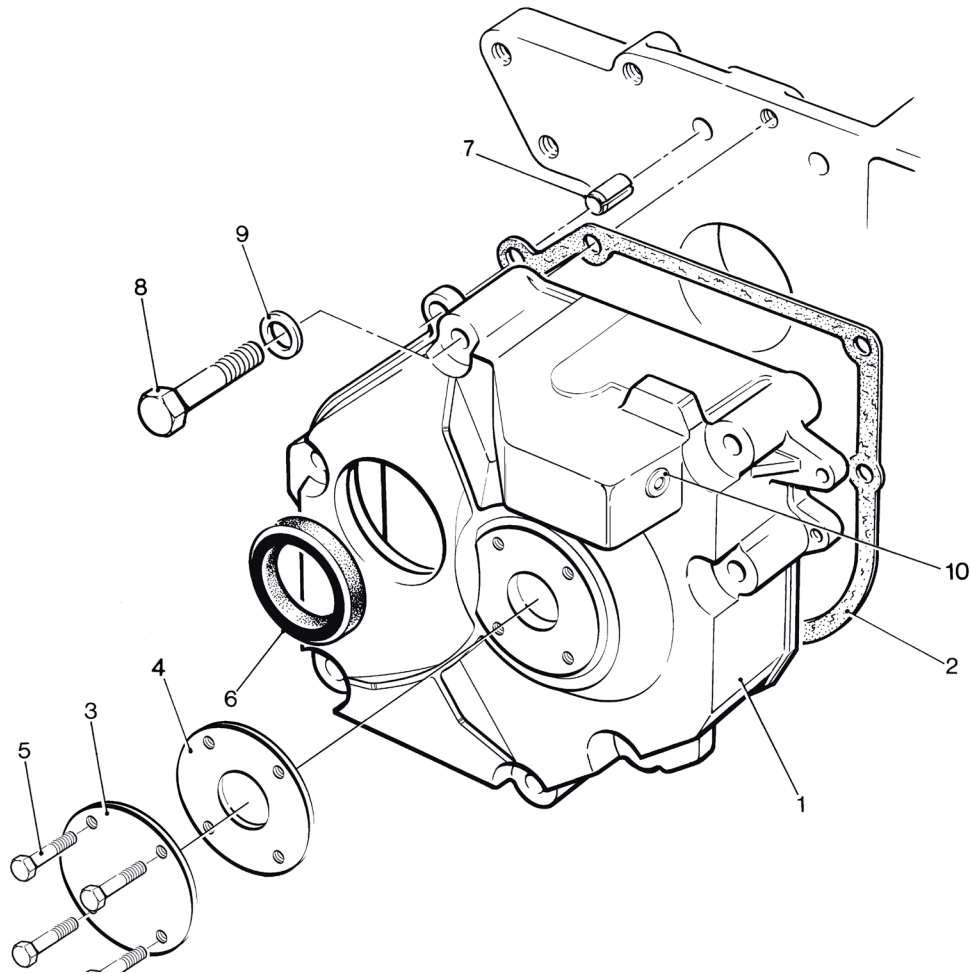


Item No.	Part / Ref No.	Description	Quantity	
			LPWX4	LPWX4 LR
1	750-40262	Cylinder head assembly - complete	1	1
-	751-10903	Valve guide - pre-finished	8	8
2	751-40550	Inlet valve	4	4
3	751-40530	Exhaust valve	4	4
4	751-10913	Valve spring plate	8	8
5	751-10661	Valve spring	8	8
6	751-10672	Valve spring carrier	8	8
7	359401	Valve collet	16	16
8	272-00166	Setscrew - M8 x 12 mm	1	1
9	616-01608	Washer	1	1
10	751-41701	Valve stem seal	8	8
11	751-13110	Breather tube	4	4
-	201-60080	Expansion plug - 25 mm	1	1
-	351-41510	Expansion plug - 19 mm	4	4
-	750-40890	Cylinder head plug kit	1	1
-	750-11280	Rocker lever kit	8	8
12	751-10411	Valve rocker lever	8	8
13	751-11031	Pivot	8	8
14	027-00082	Plain washer - 5/6 dia	8	8
15	272-00003	Nut	8	8
16	751-10063	Push rod	8	8
17	751-40192	Push rod sealing tube	8	8
18	201-30261	Crankcase sealing tube rubber	8	8
19	751-11810	Washer	8	8
20	201-42360	Head sealing tube rubber	8	8
21	751-11730	Hydraulic tappet	8	8
22	751-40184	Bolt - cylinder head and rocker	8	8
23	751-40173	Bolt - cylinder head	4	4
24	751-40671	Bolt - cylinder head and lifting eye	4	4
25	751-12692	Spacer	8	8
26	754-40891	Cylinder head gasket	1	1
27	751-12572	Lifting eye	2	2
28	272-00003	Nut	4	4
30	751-10222	Rocker cover	4	2
31	757-14211	Rocker cover with oil filler	-	1
32	751-11073	Joint	4	4
33	751-12710	Nut	8	8
34	201-81200	'O' ring	8	8

Item No.	Part / Ref No.	Description	Quantity	
			LPWX4	LPWX4 LR
35	616-01524	Copper washer 1 BSP	-	1
36	751-47700	Reducing bush - 1" to 3/8" BSP	-	1
37	751-47710	90° hose connector - 3/8" BSPT	-	1

11. GEAR END COVER

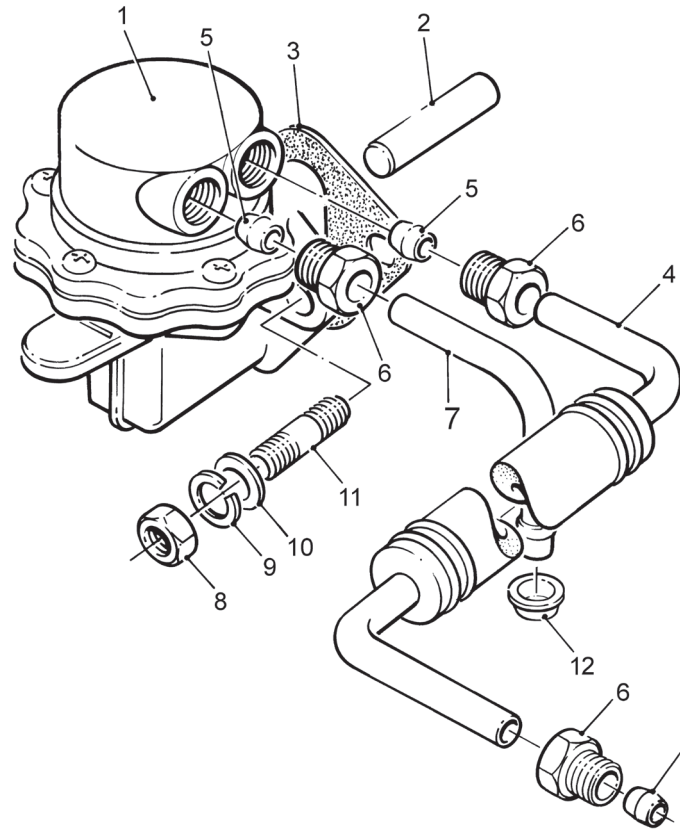
Stirnradgetriebedeckel • Coperchio distribuzione ingranaggi
 Carter de distribution • Cubierta de extremo de engranajes
 Deksel tandwieleind
 Solid mounting type



Item No.	Part / Ref No.	Description	Quantity	
			LPWX4	LPWX4 LR
1	751-10386	Gear end cover	1	1
2	751-11222	Joint	1	1
3	751-10390	Oil seal	1	1
4	751-12771	Dowel	2	2
5	272-00180	Setscrew - M6 x 50mm	7	7
6	272-00364	Washer	7	7
7	027-00469	Tapered plug - 3/8 BSP	1	1

12. FUEL LIFT PUMP

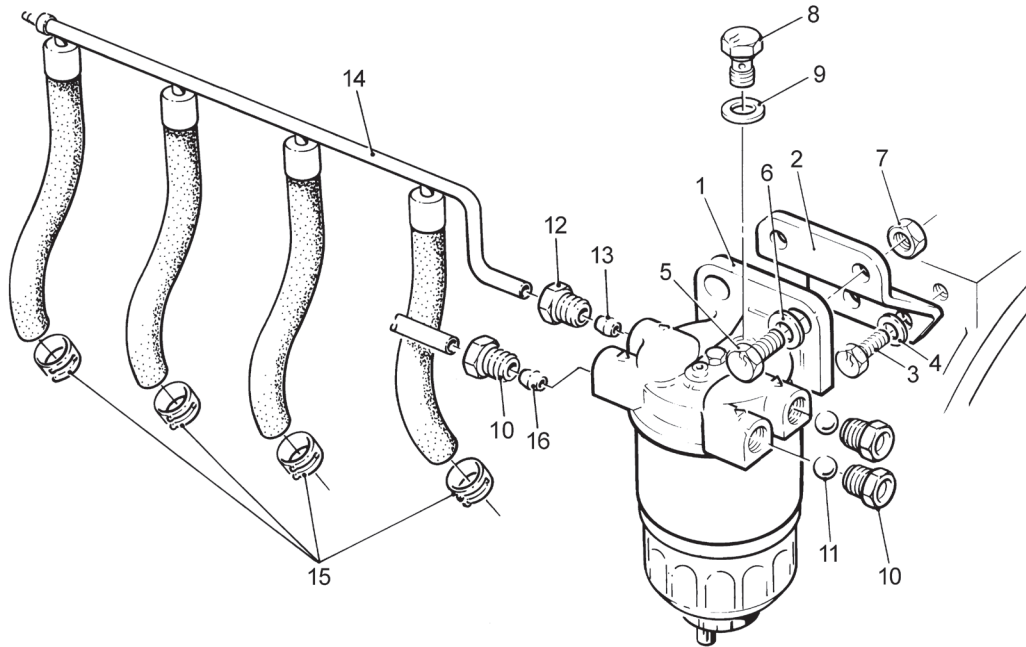
Kraftstoffförderpumpe • Pompa d'alimentazione carburante
 Pompe d'élévation de combustible • Bomba de elevación de combustible
 Brandstoffzuigpomp



Item No.	Part / Ref No.	Description	Quantity	
			LPWX4	LPWX4 LR
1	757-14175	Fuel lift pump	1	1
-	027-10041	Repair kit	1	1
2	751-12330	Push rod	1	1
3	751-11761	Joint	1	1
4	750-42690	Fuel pipe assembly - comprising	1	1
-	751-46750	Hose	1	1
-	751-13390	Hose clip	2	2
-	754-44290	End fuel pipe	2	2
5	601-38360	Olive	3	3
6	202-42370	Tube nut	3	3
7	754-44290	End fuel pipe	1	1
8	272-00680	Nut - M8 x 1.25	2	2
9	272-00360	Spring washer - M8	2	2
10	272-00715	Washer - M8	2	2
11	272-00306	Stud	2	2
12	027-05757	Cap - transit only	1	1

13. FUEL AGGLOMERATOR

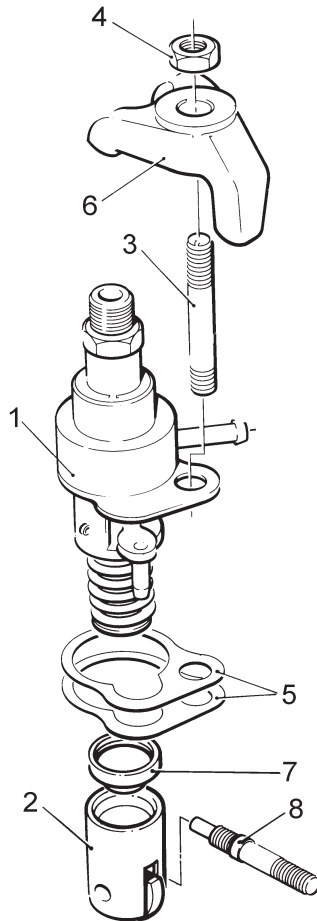
Kraftstofffilter • Filtro carburante • Filtre à combustible
Filtro decombustible • Brandstofffilter



Item No.	Part / Ref No.	Description	Quantity	
			LPWX4	LPWX4 LR
1	750-14120	Fuel agglomerator assembly	1	-
1	751-47320	Fuel agglomerator assembly	-	1
-	751-18100	Element	1	-
-	751-47320	Element	-	1
2	751-17760	Bracket	1	-
2	751-17761	Bracket	-	1
3	272-00665	Screw - M8 X 20 mm	2	2
4	272-00360	Spring washer - M8	2	2
5	272-00697	Screw - M10 x 30	2	2
6	272-00694	Washer - M10	2	2
7	272-00681	Nut - M10	2	2
8	272-00370	Plug - M10	1	1
9	354-26310	Copper washer	1	1
10	202-42370	Tube nut	3	3
11	202-32120	Sealing ball	2	2
12	202-42371	Tube nut	1	1
13	351-21640	Olive	1	1
14	754-17740	Fuel pipe assembly	1	1
15	751-13390	Hose band	4	4
16	601-38360	Olive	1	1

14. FUEL PUMP

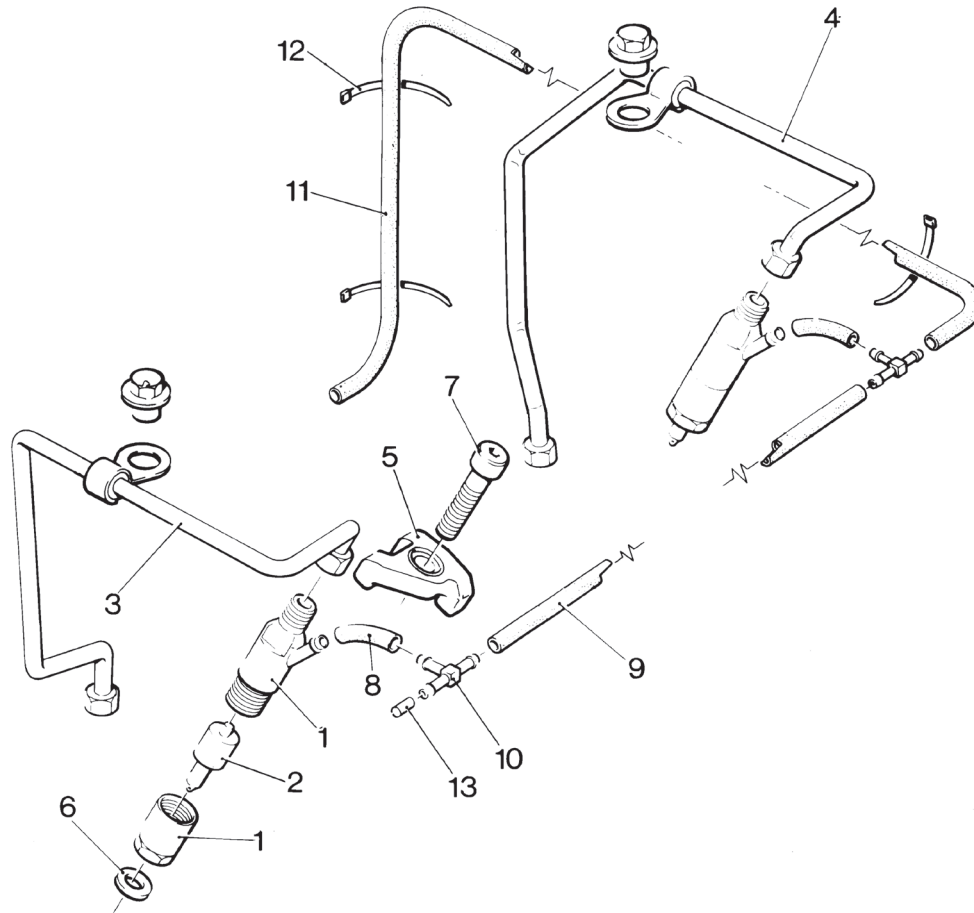
Einspritzpumpe • Pompa carburante • Pompe d'injection
 Bomba de combustible • Brandstofpomp



Item No.	Part / Ref No.	Description	Quantity	
			LPWX4	LPWX4 LR
1	754-43731	Fuel pump	4	4
2	750-11873	Tappet assembly	4	4
3	272-00630	Stud	4	4
4	751-11460	Nut	4	4
5	750-11330	Fuel pump shim kit	1	1
-	751-12840	Shim (green) - 0.075mm	As required	
-	751-12841	Shim (slate blue or white) - 0.125mm	As required	
-	751-12842	Shim (black) - 0.250mm	As required	
6	751-11722	Clamp	4	4
7	751-13311	Thrust cup	4	4
8	751-14730	Shouldered stud	4	4

15. FUEL INJECTOR AND PIPES

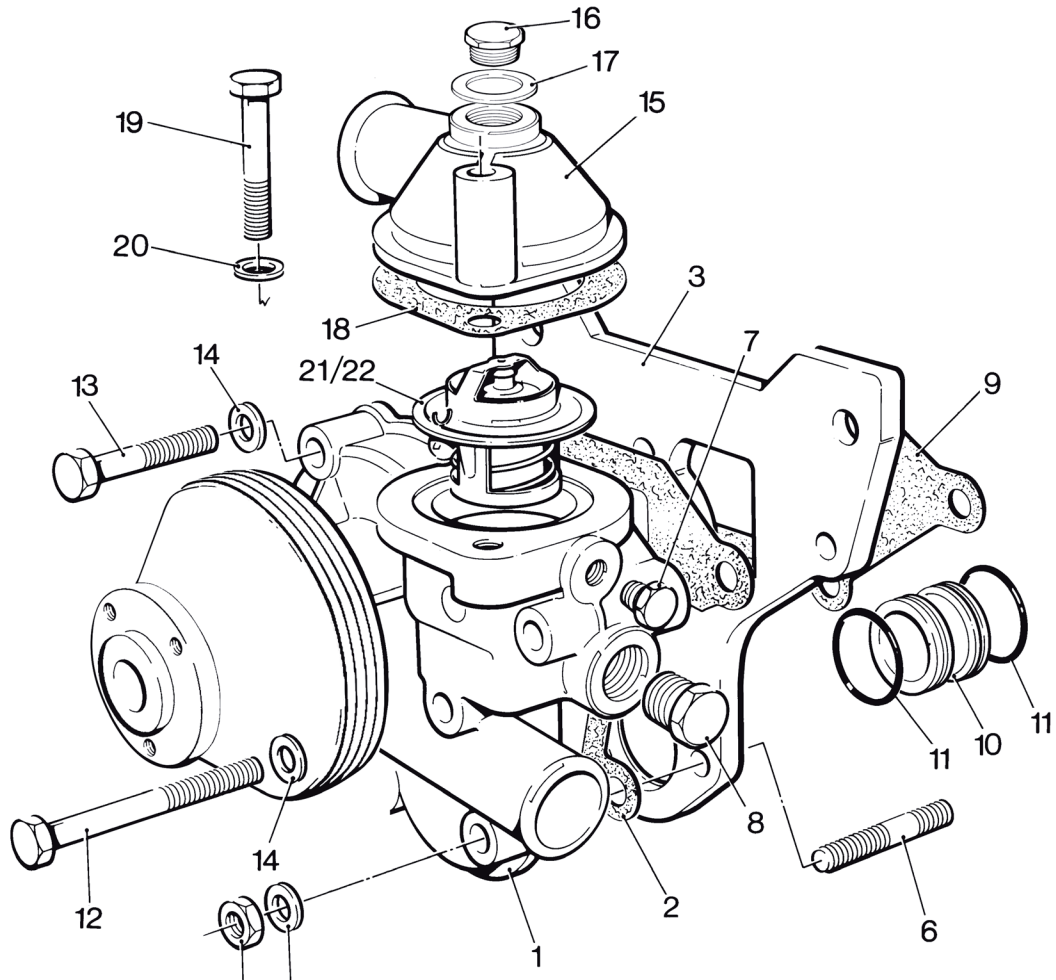
Kraftstoffeinspritzdüse • Iniettore carburante • Injecteur
 Injector de combustible • Brandstofinjector



Item No.	Part / Ref No.	Description	Quantity	
			LPWX4	LPWX4 LR
1	754-45260	Fuel injector	4	4
2	751-46570	Nozzle (part of item 1)	4	4
3	751-10244	Fuel pipe assembly	3	3
4	751-14780	Fuel pipe assembly - gear end	1	1
5	751-10580	Injector clamp	4	4
6	201-45070	Washer	4	4
-	750-14980	Leak off hose assembly	1	1
8	751-18740	Hose (part of leak off hose assembly)	4	4
9	751-18160	Leak-off pipe (part of leak off hose assembly)	3	3
10	751-13100	Tee piece (part of leak off hose assembly)	4	4
11	366-07588	Hose (part of leak off hose assembly)	1	1
12	064-32790/001	Cable tie	3	3
13	202-41270	Protective boot - transit only	1	1

16. WATER PUMP AND THERMOSTAT

Wasserpumpe • Pompa dell'acqua • Pompe à eau
Bomba de agua • Waterpomp

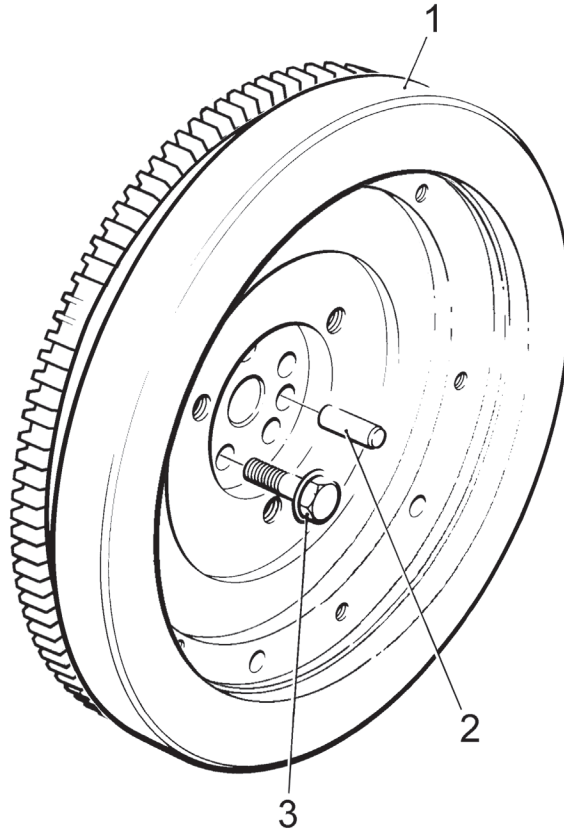


Item No.	Part / Ref No.	Description	Quantity	
			LPWX4	LPWX4 LR
1	750-40627	Water pump assembly	1	1
2	751-40211	Joint	1	1
3	751-40203	Mounting plate	1	1
4	272-00003	Nut - M8	2	2
5	027-00082	Washer	2	2
6	272-00757	Stud - M8 x 45mm	2	2
7	366-07041	Plug	1	1
8	751-40680	Plug	3	3
9	751-40450	Joint - mounting plate	1	1
10	751-40441	Sleeve	1	1
11	601-20691	'O' Ring	2	2
12	272-00047	Bolt - M8 x 75mm	3	3

Item No.	Part / Ref No.	Description	Quantity	
			LPWX4	LPWX4 LR
13	272-00169	Bolt - M8 x 45mm	2	2
14	027-00082	Washer	5	5
15	750-40112	Thermostat outlet	1	1
16	751-40281	Joint	1	1
17	272-00045	Bolt - M8 x 60mm	2	2
18	027-00082	Washer	2	2
19	751-40982	Thermostat 88°C	1	1
19	751-40981	Thermostat 74°C	1	1

17. FLYWHEEL

Schwungrad • Volano • Volant
Volante • Volante



Item No.	Part / Ref No.	Description	Quantity	
			LPWX4	LPWX4 LR
1	750-48500	Flywheel assembly	1	1
2	751-11801	Dowel	1	1
3	757-32050	Flywheel bolt	5	5

California Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

***LPWX4 ENGINE MASTER PARTS MANUAL SUPPLEMENT,
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