HYDRAPOWER

Service Manual

801.4
801.5
801.6

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STARTER MOTOR (Cont'd)

Disassembly and Assembly

Disassembly

1 Remove the screws **A**.

2 Remove the solenoid **B** and the washers **C**.

3 Remove the dust cover and take out the **E** ring **D** and thrust washer **E**, if fitted.

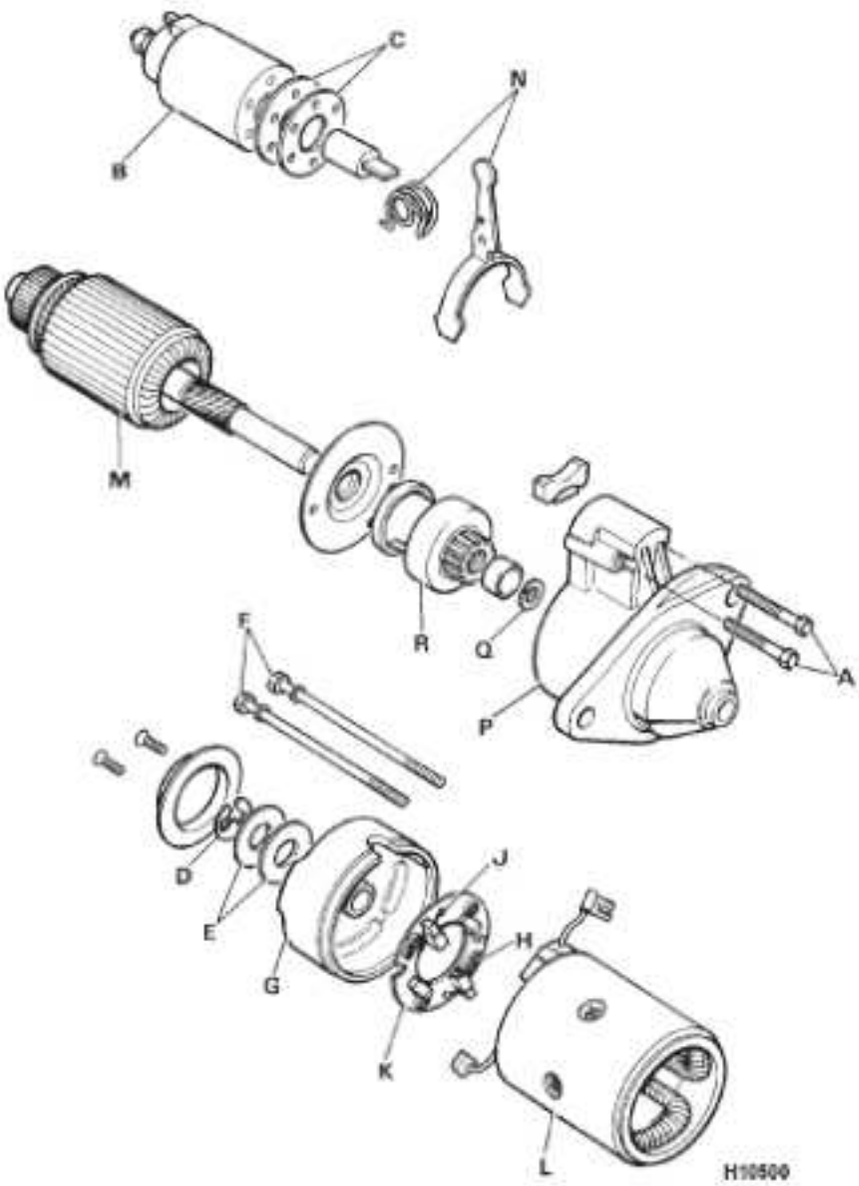
4 Remove the screws **F** and the rear cover **G**.

5 Remove the springs **H** and lift the brushes **J** from the brush assembly **K**.

6 Remove the brush assembly **K** and the yoke **L**.

7 Remove the armature **M** and the shift lever **N** from the front plate **P**.

8 Remove the snap ring **Q** and then remove the pinion **R**.



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Technical Data

General

Model		KD 103-10
Type		Vertical in-line, 3 cylinder, normally aspirated, 4 stroke, water cooled diesel.
Swept Volume		954 cm^3 (58.21 in^3)
Bore		75 mm (2.95 in.)
Stroke		72 mm (2.83 in.)
Firing Order		1, 2, 3
Valve Clearance (cold)		0.2 mm (0.0078 in.)
Compression Ratio		23:1
Compression Pressure		24.5 - 29.4 bar (25 - 30 kgf/cm^2, 355 - 425 lbf/in^2)
Injection Timing / Injection Pump		22 - 24° B.T.D.C.
Injector Setting	(Working)	112.8 - 122.6 bar (115 - 125 kgf/cm^2, 1636 - 1778 lbf/in^2)
	(Setting)	122.6 - 127.5 bar (125 - 130 kgf/cm^2, 1778 - 1850 lbf/in^2)
Oil Capacity		3.8 litres (0.8 U.K. gallons)
Oil Pressure		2.8 - 4.8 bar (2.9 - 4.9 kgf/cm^2, 42.71 lbf/in^2)
Weight (dry)		83 kg (183 lb)
Idling Speed		1050 rev/min.
Maximum No-load Speed	801.4 / 801.5	2210 - 2220 rev/min.
	801.6	2640 - 2650 rev/min.

Torque Settings

	Nm	kgf m	lbf ft
Cylinder Head Bolts	48.81 to 51.53	5.0 to 5.3	36 to 38
Connecting Rod Bolts	29.83 to 33.90	3.0 to 3.5	22 to 25
Flywheel to Crankshaft Bolts	58.30 to 67.80	6.0 to 7.0	43 to 50
Injector Nozzle / Holder Assembly	78.65 to 84.07	8.0 to 8.5	58 to 62
Main Bearing Bolts	24.54 to 29.43	2.5 to 3.0	18.1 to 21.7
Big-end Bearing Bolts	29.43 to 34.30	3.0 to 3.5	21.7 to 25.3
Cooling Fan Bolts	8.81 to 12.88	0.9 to 1.3	6.5 to 9.5

Camshaft and Timing Gears

Cam Height	(new)	26.445 to 26.5 mm (1.041 to 1.043 in.)
	(service limit)	26.1 mm (1.0275 in.)
Timing Gear Backlash	(new)	0.08 mm (0.003 in.)
	(service limit)	0.33 mm (0.013 in.)

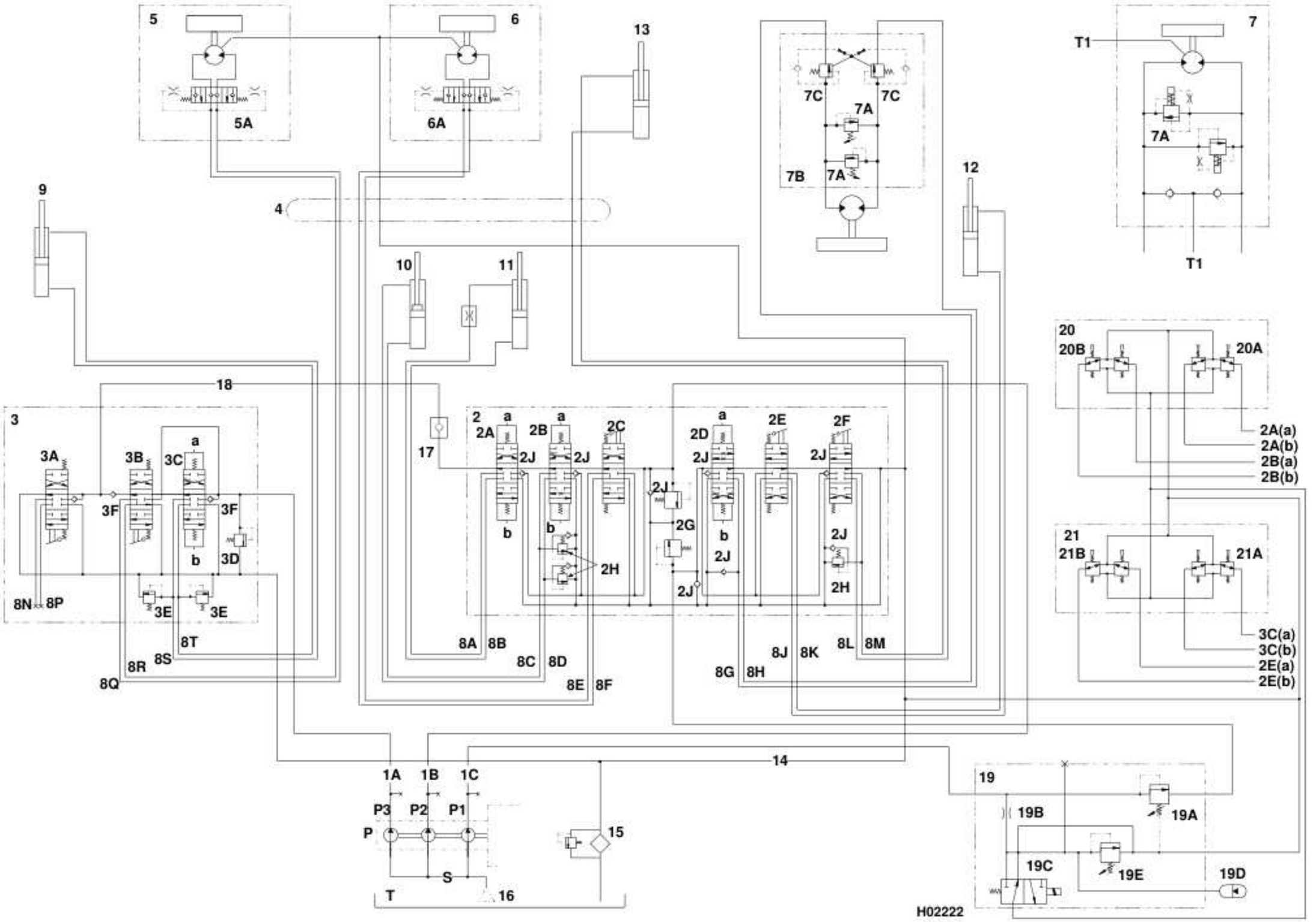
Connecting Rod

Gudgeon Pin O.D.	(new)	20.998 to 21.002 mm (0.8266 to 0.8268 in.)
	(service limit)	20.98 mm (0.8259 in.)

Gudgeon Pin Small End Bush

Clearance	(new)	0.008 to 0.023 mm (0.0003 to 0.0009 in.)
	(service limit)	0.08 mm (0.003 in.)
Small End Bush Bore	(fitted)	

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