Service Manual

Backhoe Loader

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Model Reference:		Double pump PGP620 37-33		
Mounting		Gearbox		
Theoretical displacement:		**cc/rev**	**cu in/rev**	
	Pump section 1 (mounting flange end)	37	2.26	
	Pump section 2	33	2.01	
Flow at 2200 rev/min and system pressure (90% min displacement):		**litres min**	**UK gal min**	**US gal min**
	Pump section 1 (mounting flange end)	73.26	16.14	19.38
	Pump section 2	65.3	14.4	17.2
Maximum speed		3000 rev/min		
Minimum speed		500 rev/min		
Weight		28.5 kg (63 lbs)		

Model Reference:		Double pump PGP620 37-37		
Mounting		Gearbox		
Theoretical displacement:		**cc/rev**	**cu in/rev**	
	Pump section 1 (mounting flange end)	37	2.26	
	Pump section 2	37	2.26	
Flow at 2200 rev/min and system pressure (90% min displacement):		**litres min**	**UK gal min**	**US gal min**
	Pump section 1 (mounting flange end)	73.26	16.14	19.38
	Pump section 2	73.26	16.14	19.38
Maximum speed		3000 rev/min		
Minimum speed		500 rev/min		
Weight		24.2 kg (53 lbs)		

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Ref.	Description	Warning Displays		Action
11	Water In Fuel (WIF) detected	LCD message displayed. Warning light ON continuously. Buzzer activated continuously. Fault code logged.		Drain water from water separator bowl. Refer to the applicable machine ***Routine Maintenance*** procedures.
12	WIF sensor signal fault	LCD message displayed. Warning light flashes ON and OFF continuously. Buzzer activated continuously. Fault code logged.		Check the fault code log. Possible WIF sensor fault. Refer to ***Section K, Electronic F.I. Engine - Machine Devices***.
13	Transmission oil temperature above normal (more than 110 °C). Warnings active when the transmission oil temperature is above normal for more than 2.5 seconds.	LCD message displayed. Warning light ON continuously. Buzzer activated continuously. Fault code logged.		Check the fault code log. Disconnect the electrical connector at the transmission oil temperature switch, if the warnings do not stop the associated electrical wiring may be faulty. Refer to ***Section C***. If the warnings stop, fault find the transmission. Refer to the applicable gearbox system in ***Section F***. Replace the transmission oil temperature switch. Refer to the applicable gearbox in ***Section F***.
14	Transmission oil pressure below normal. Warnings active when the engine is running.	LCD message displayed. Warning light ON continuously. Buzzer activated continuously. Fault code logged.		Check the fault code log. Disconnect the electrical connector at the transmission oil pressure switch, if the warnings do not stop the associated electrical wiring may be faulty. Refer to ***Section C***. If the warnings stop, fault find the transmission. Refer to the applicable gearbox system in ***Section F***.
15	Transmission oil pressure switch signal fault. Warnings active when the engine is not running	LCD message displayed. Warning light flashes ON and OFF continuously. Buzzer activated continuously. Fault code logged.		Check the fault code log. Check the associated electrical wiring. Replace the transmission oil pressure switch. Refer to the applicable gearbox in ***Section F***.

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Pressure Switch

Removal and Replacement

The overload warning pressure switch **A** is located in the steel pipe at the boom ram.

Removal

1 Prepare the machine for maintenance. Refer to ***Section 2***.

2 Vent the hydraulic pressure. Refer to ***Section 2***.

3 Clean off all debris and dirt from around the pressure switch **A**.

4 Disconnect the harness electrical connector at the pressure switch, then carefully unscrew the pressure switch from the pipe.

5 Cap the open port to prevent contamination.

Replacement

Note: *The pressure switch setting is not adjustable.*

Switches are colour coded to indicate their pressure setting as follows:

Colour Code:	Pressure Setting:
Khaki	130 bar; 132 kg cm^2; 1885 lb in^2
Mint Green	145 bar; 148 kg cm^2; 2100 lb in^2
Lilac/Purple	155 bar; 158 kg cm^2; 2250 lb in^2
Yellow	170 bar; 173 kg cm^2; 2450 lb in^2
Red	180 bar; 184 kg cm^2; 2600 lb in^2
Blue	190 bar; 194 kg cm^2; 2750 lb in^2
Silver/Grey	215 bar; 219 kg cm^2; 3100 lb in^2

Important: *DO NOT replace a pressure switch with one that has a different pressure setting. If you are unsure about the type of pressure switch contact JCB Service.*

Replacement is the opposite of the removal procedure. During the replacement procedure do this work also:

– On completion, operate the excavator and check for hydraulic leaks. Set the overload warning system switch to ON, and check that the overload warning functions correctly.

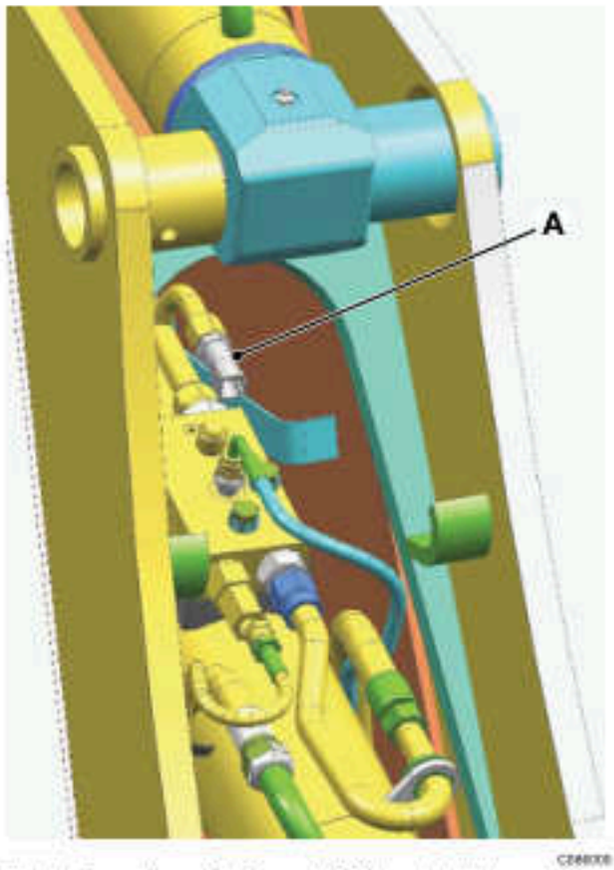


Fig 5. Excavator with Boom HBPV and Variflow shown.

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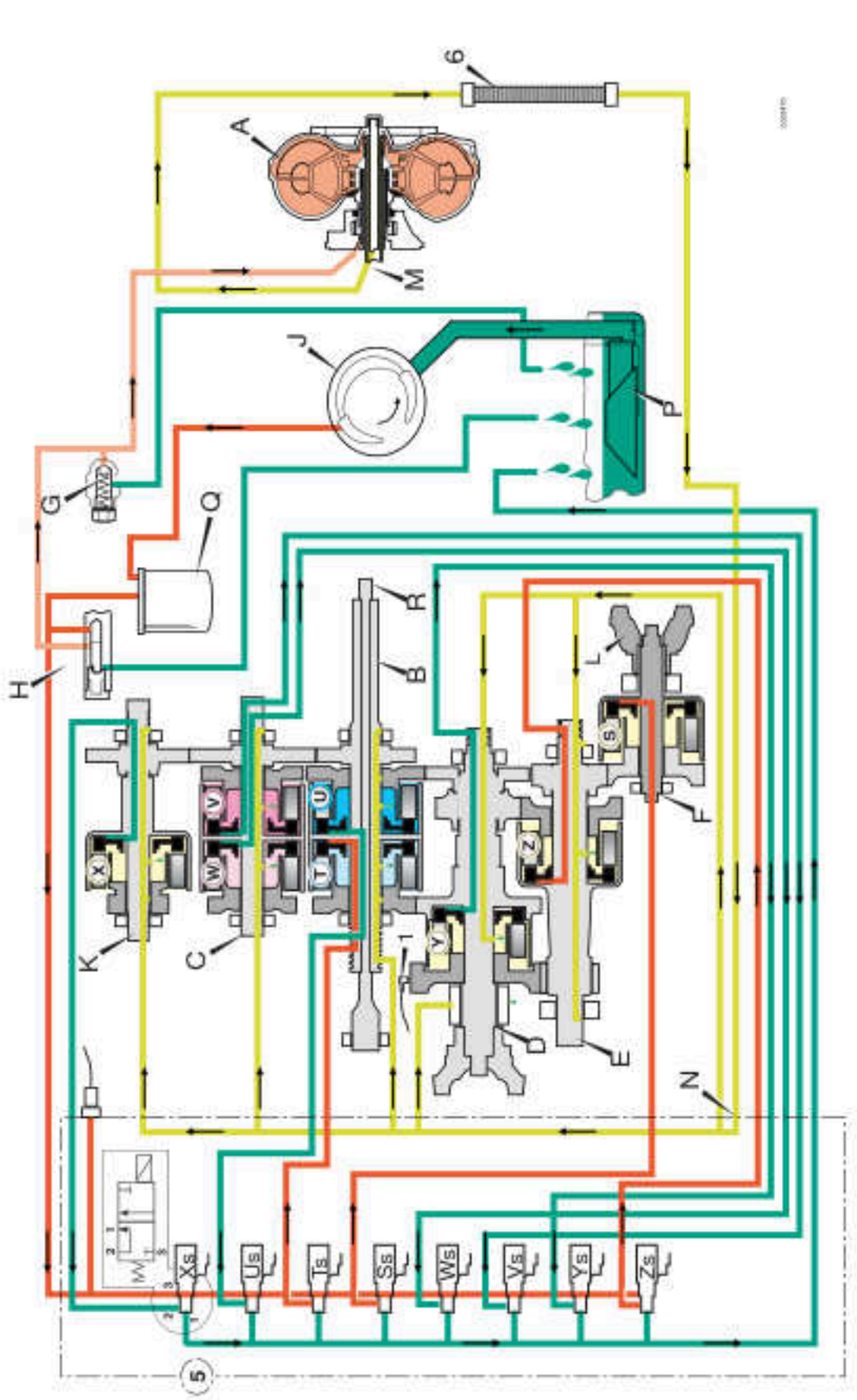


Fig 3. Hydraulic Operation

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