Service Manual

VMD70/VMD100

Section 1 - General Information

Section 2 - Care and Safety

Section 3 - Routine Maintenance

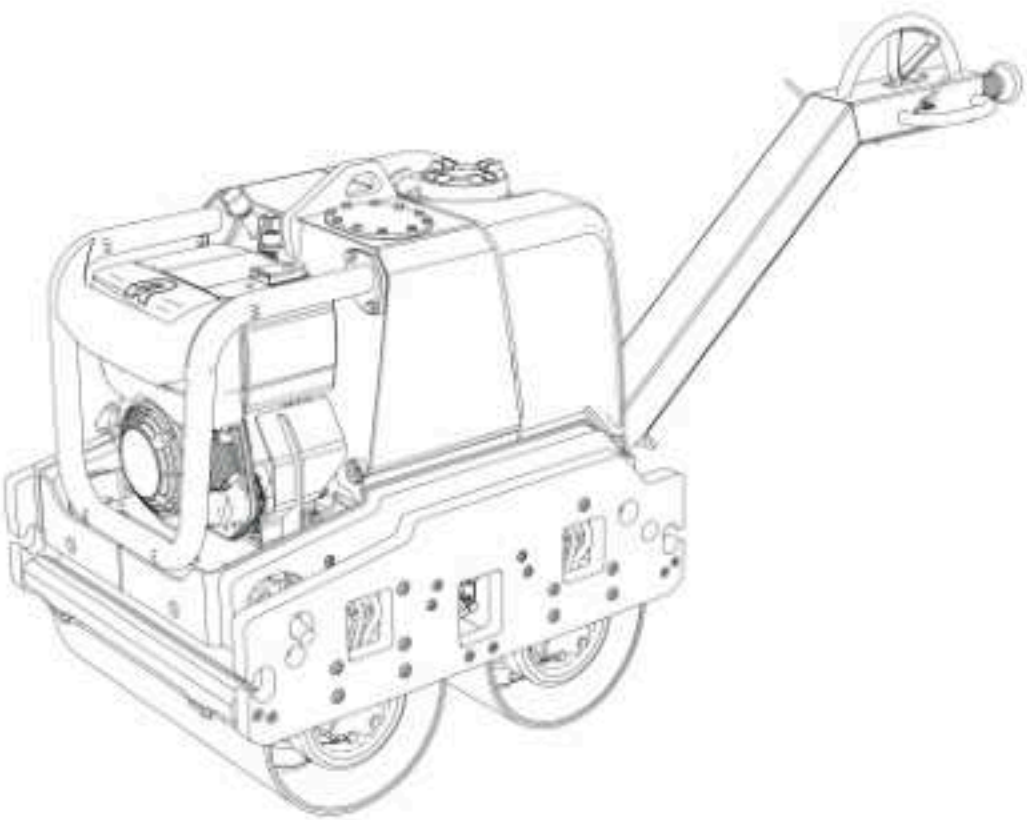
Section B - Body and Framework

Section C - Electrics

Section E - Hydraulics

Section K - Engine

Section L - Vibration



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Guiding Handle Assembly

Removal

1 Make the machine safe. ⇨ *How to Make the Machine Safe (📄 1-13).*

2 Remove the 3 x bolts securing the engine speed control lever. Remove the engine speed control lever from the handle assembly.

3 Remove the 3 x bolts securing the vibration control lever. Remove the vibration control lever from the handle assembly.

4 Remove the 2 x bolts securing the drive control lever. Remove the drive control lever from the handle assembly.

5 Cut the cable ties securing the control lever cables to the machine.

6 Lock the handle assembly in its upright position and support it with a crane and sling.

7 Remove the 2 x bolts at the handle assembly pivot point.

8 Remove the handle assembly.

Replacement

Replacement is a reversal of the removal procedure.

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Technical Data

Main Components

Pumps

Table 1.

Item	Make	Model	Type
Transmission Hydraulic Pump/Charge Pump	Comer	V0 13 S1 N 38 AL 20 R 20 05 G 05 F0 00	Variable displacement piston pump/gear pump
Vibrator Hydraulic Pump	CASAPPA	PLP 20.6.3-D 0 95 B6-L-BC/ BE-N-EL	Gear pump

Motors

Table 2.

Item	Make	Model	Type
Transmission Hydraulic Drive Motor	Poclain	MSE02	Fixed displacement orbital motor (22.2 in^3/rev = 364 ccm/U)
Vibrator Hydraulic Motor	CASAPPA	PLM 20-4 R 0-12 B2-L BC/ BC-N-EL-GB	Fixed displacement orbital motor

Hydraulic Tank

Table 3.

Capacity	35 Litres (7.7 gallons)
Cover Sealant	JCB Multi-gasket 4102/1212

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All Machines

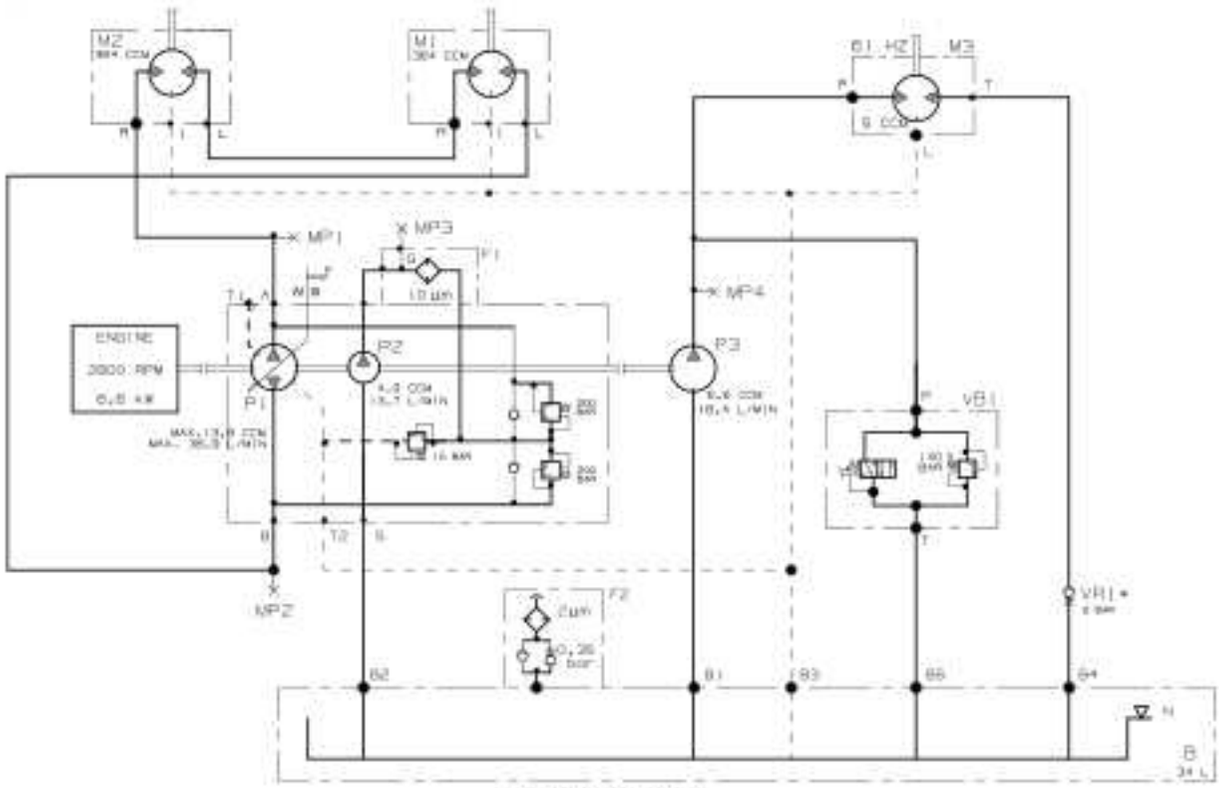


Fig 1. 332/N2000-4

Table 1. Components

Item	Description
P1	Drive Pump
P2	Charge Pump
P3	Vibration Pump
M1/M2	Drive Motor
M3	Vibration Motor
VB1	Vibration Control Block
F1	Filter
F2	Input and Breather Filter
B	Hydraulic Tank
N	Level Indicator

Table 2. Test Points

Item	Description
MP1	Driving Forwards
MP2	Driving Backwards
MP3	Charge Pressure
MP4	Vibration Pressure

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Fig 7.

4 The length of these parts define the dimensions of the frame which consists of:

a 1x vibrator housing **Y**.

b 2x scraper bar **Z**.

c 2x side plates **W**

5 .

6 Choose the correct shims to ensure the correct bearing preload of 0.1-0.6mm to the drum.

The following shims are available: ⇨ *Fig 10. (B-11)*.

- shim (upper - shape A) 0.5mm Vibrator 332/N4646 **A**
- shim (lower - shape B) 0.5mm Vibrator 332/N4648 **B**
- shim 0.5mm Drum 332/N4590 **D**
- shim 1mm Drum 332/N3467 **C**
- shim 0.5mm Scraper bar 332/N4643 **E**

7 If necessary install the shims **C** or **D** to the drums before you fit them to the side plate **W**.

8 Install the vibrator **Y** to the side plate and add shims **A** and **B** if necessary.

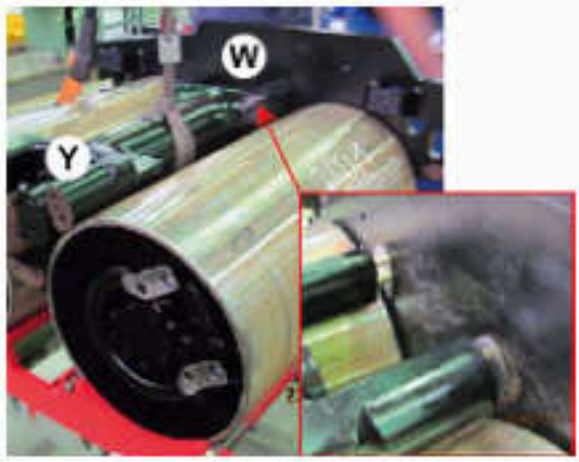


Fig 8.

9 Fit the 2 x scraper bars **Z** last.



Fig 9.

10 Connect the hydraulic motors and fit the other side plate **W** (no further shimming necessary).

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Fluids, Lubricants and Capacities

Table 1.

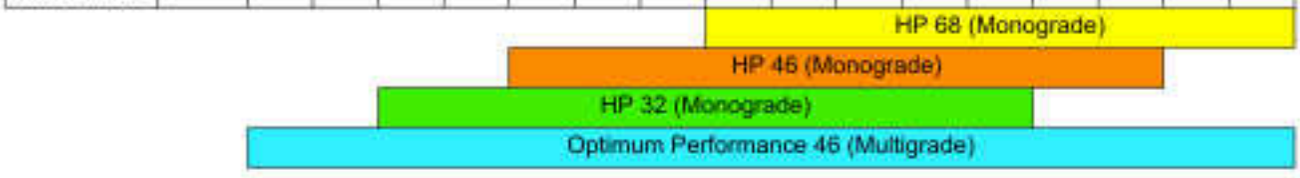
ITEM	CAPACITY Litres (UK Gal)	FLUID/LUBRICANT	INTERNATIONAL SPECIFICATION	JCB Part No.	Container Size(1)
Fuel Tank	5 (1.1)	Diesel.	Diesel. ⇨ *Fuel (12)*.	-	-
Engine (Oil)	1.5 (0.3)	JCB Engine Oil EP 15W40	ACEA E5/B3/A3, API CH-4/SJ	4001/1505	20 Litres
Hydraulic System	35 (7.7)	JCB Optimum Performance Hydraulic Fluid 46 (Multigrade)(2)	HLP 46 DIN 51524	4002/2005	20 Litres
Drive Motor	-	Sealed for life	Sealed for life	-	-
Vibration System	0.15 (0.003)(VMD70) 0.2 (0.004)(VM100)	JCB Optimum Performance Gear Oil	CLP 100 DIN 51517	4000/3701	5 Litres
Sprinkling Device front/rear	70 (15.4)	Water	-	-	-

(1) For information about the different container sizes that are available (and their part numbers), contact your JCB dealer

(2) JCB recommend that only JCB Optimum Performance 46 (Multigrade) oil is used. This provides the recommended viscosity oil across the operating temperature range. However, recognising that multigrade oils are not always available in some regions, the chart below advises the best monograde type oil, e.g. HP32, HP46 or HP68 depending on the region in which the machine is working, and the ambient temperatures.

Table 2.

Ambient Temperature	°C	-10	-5	+5		+15			+25					+35		+46	
Oil temperature	°C	0	5	10	12	15	20	25	30	35	40	50	60	70	80	90	100



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