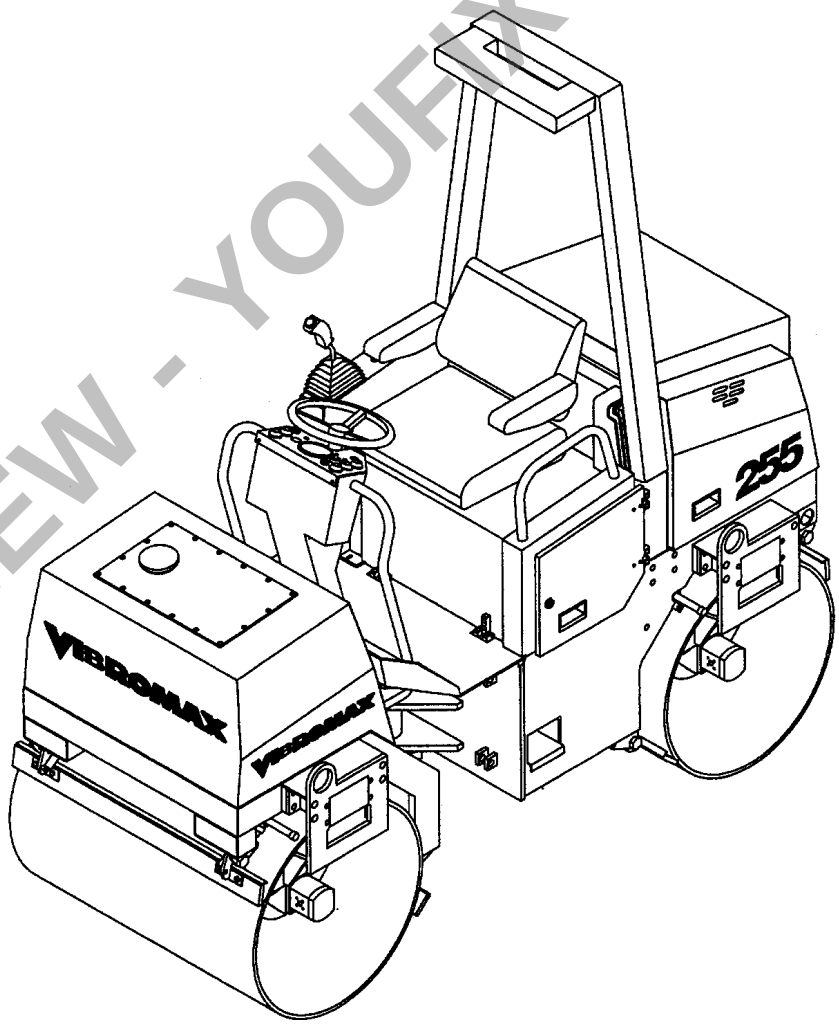
VIBROMAX

255 / 265 TANDEM ROLLER

SERVICE MANUAL SM61005

December 2000



PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

table of contents

SECTION ONE

GENERAL INFORMATION

MACHINE DESCRIPTION ..... 1 - 3
SAFETY, GENERAL ..... 1 - 7
SAFETY, PERSONAL ..... 1 - 7
SAFETY, MACHINE OPERATION ..... 1 - 8
SAFETY, MAINTENANCE ..... 1 - 10
GENERAL INFORMATION ..... 1 - 12
STANDARD TORQUE DATA ..... 1 - 13
METRIC/USA CONVERSIONS ..... 1 - 14
MACHINE SPECIFICATIONS ..... 1 - 15
FLUID SPECIFICATIONS ..... 1 - 17
DIESEL FUEL SPECIFICATION ..... 1 - 18
ENGINE OIL SPECIFICATION ..... 1 - 19

SECTION TWO

ENGINE R&I

ENGINE REMOVAL & INSTALLATION ..... 2 - 3

SECTION THREE

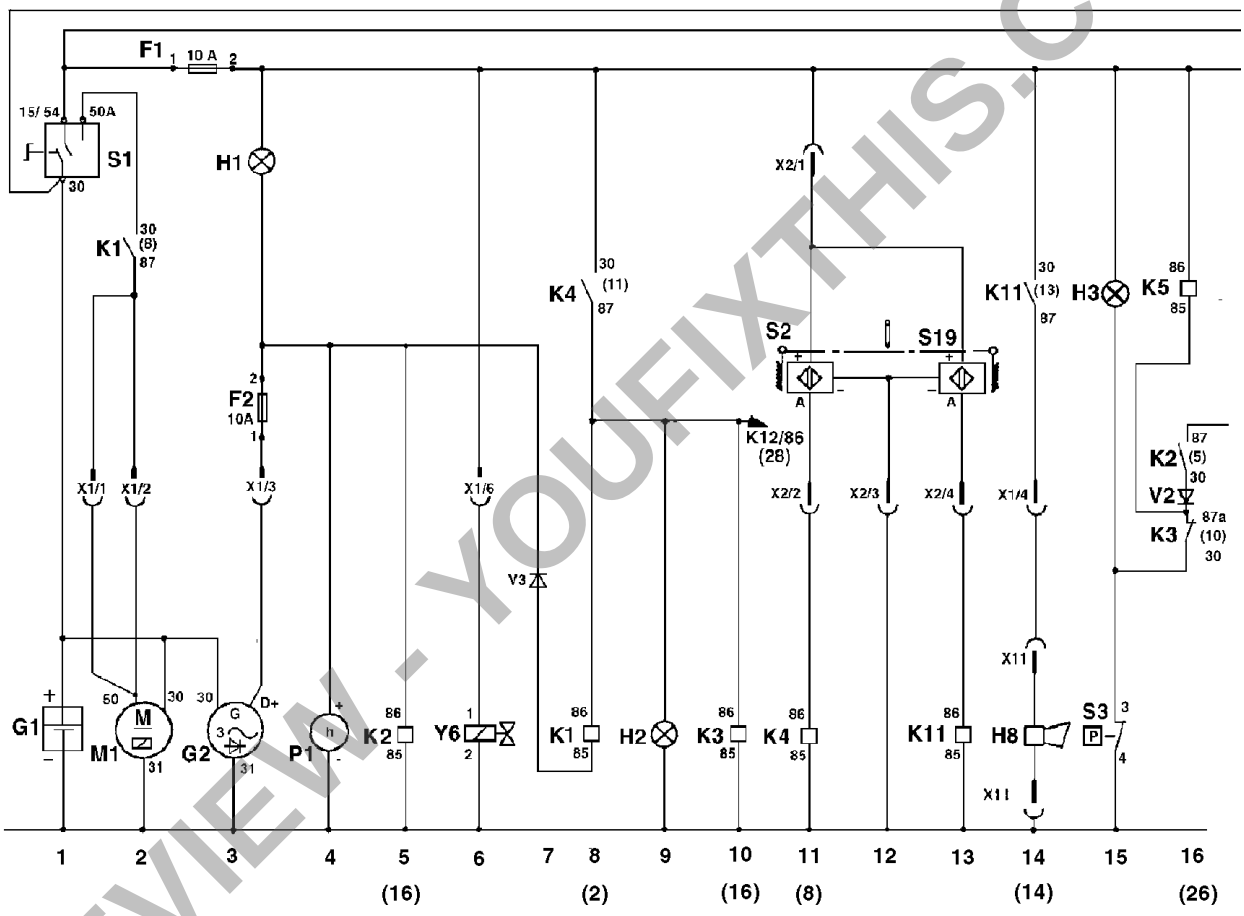
ELECTRICAL CIRCUITS

INSTRUMENT PANEL ..... 3 - 2
Instrument panel, left side ..... 3 - 3
Combination indicator ..... 3 - 4
Instrument panel, right side ..... 3 - 5
OPERATOR'S CONSOLE ..... 3 - 6
ELECTRICAL INFORMATION ..... 3 - 8
RELAY LOCATION CHART ..... 3 - 9
FUSE LOCATION CHART ..... 3 - 9
UNDERSTANDING ELECTRICAL SCHEMATICS ..... 3 - 11
UNDERSTANDING RELAYS ..... 3 - 14
EMERGENCY STOP CIRCUIT ..... 3 - 17
STARTER/ CHARGING CIRCUIT ..... 3 - 19
UNDERSTANDING BATTERIES ..... 3 - 19
UNDERSTANDING ALTERNATORS ..... 3 - 21
STARTER SYSTEM DIAGNOSTICS ..... 3 - 25

PREVIEW - YOUFIXTHIS.COM

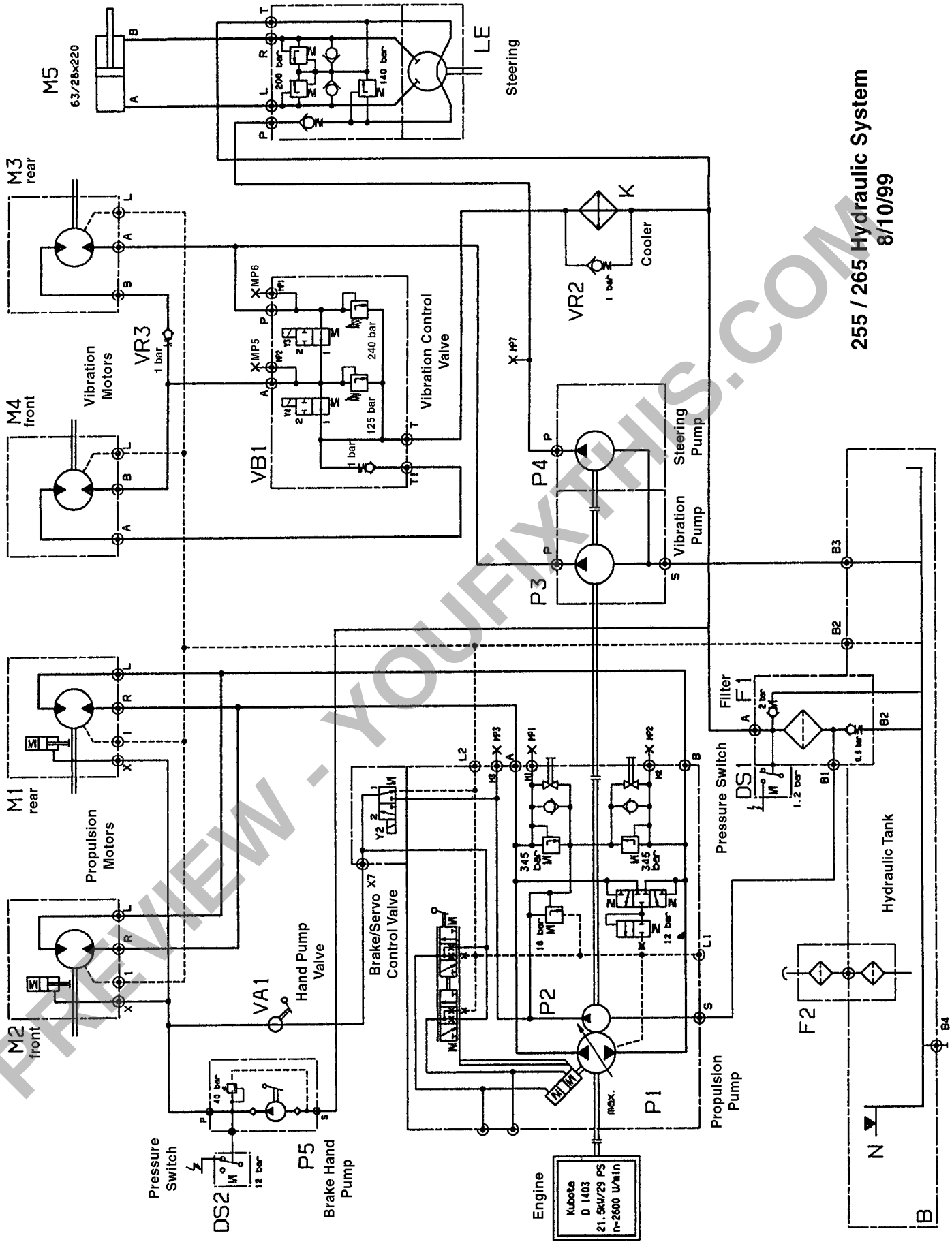
Download full manual at youfixthis.com

UNDERSTANDING ELECTRICAL SCHEMATICS



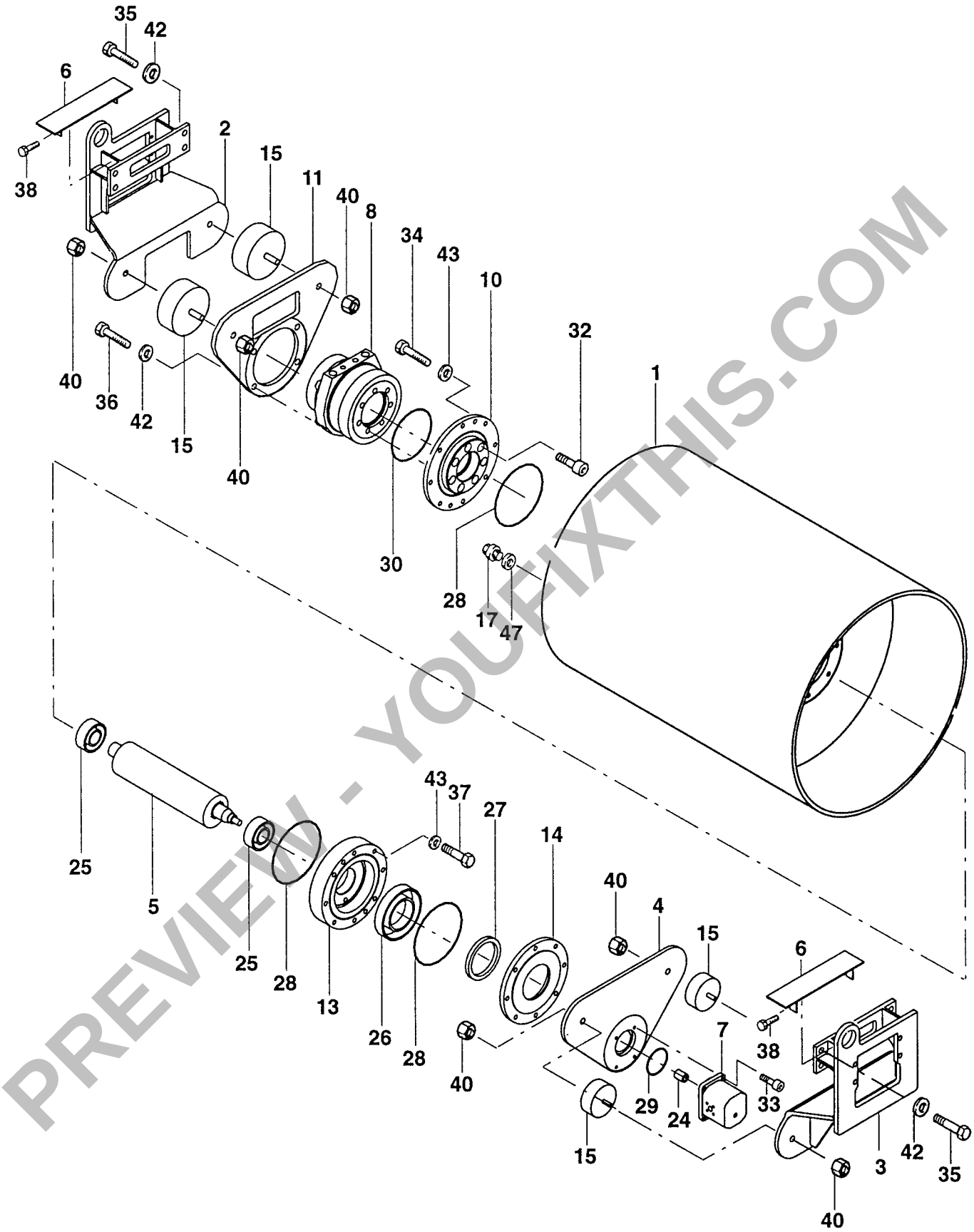
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

ENGINE REMOVAL

1. Open the left and right doors below the operator's seat.
2. Remove the wing nuts holding the seat platform to the frame and tilt the seat platform forward.
3. Disconnect and remove the battery.
4. Remove the engine compartment hood by removing the hood hinge bolts and the support cylinder.
5. Drain the engine oil and radiator cooling system.
6. Disconnect the upper and lower radiator hoses and the coolant bottle hose.
7. Disconnect, cap, and mark the two lines to the hydraulic oil cooler.
8. Remove the radiator and shroud assembly from the machine by removing the four buffer nuts.
9. Disconnect the flexible exhaust pipe at the exhaust manifold. The muffler assembly can remain in the machine's rear frame.
10. Disconnect, cap, and tag the engine fuel supply and return lines.
11. Engine removal can be made easier by taking the time to remove the coolant bottle on the right side and the air cleaner assembly on the left side of the machine.
12. Disconnect and tag the following electrical connections: engine oil pressure switch, air cleaner indicator switch, engine temperature switch, engine shutdown solenoid, three starter wires, two alternator connectors, engine ground strap, hydraulic pump solenoid and neutral switch.
13. Disconnect the hydraulic pump control cable and the two speed control linkage.
14. Disconnect, cap, and tag the hydraulic lines at the propulsion, vibration, and steering pumps.
15. Remove the bolts holding the vibration valve mounting plate and slide the vibration valve assembly to the side.
16. Loosen the engine mounts at the mount buffers.
17. Remove the engine and hydraulic pump assembly using the two lifting eyes provided on the engine. The pump assembly can then be removed outside of the machine.

ENGINE OVERHAUL

The Kubota Model 1403B engine in your machine is warranted by Kubota. If you experience problems with your engine during the warranty period, contact your local Kubota repair center. This manual is not intended to supersede engine overhaul material provided by Kubota. Beyond the warranty period, it is highly recommended that you obtain the Kubota Engine Overhaul Manual 97897-01096 from your local dealer for proper overhaul instructions. The Kubota manual is also available through your Vibromax dealer by ordering part# V40102.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PROPULSION SYSTEM

The propulsion, or drive system, consists of an engine driven, Sauer-Sunstrand, Model 42, variable displacement, bi-directional, axial piston pump with a maximum delivery of approximately 18 gallons per minute. The pump supplies oil to a front and a rear MC05 Poclain, fixed displacement drive motor in a parallel path, completing the hydrostatic loop. The pump is servo controlled and activated by a forward/reverse lever on the operator's platform.

A charge pump is built into the propulsion pump and provides all the needed oil for loop charging and for pilot pressure. Oil for the charge pump is drawn from the discharge side of the system filter. A 20 bar (290 PSI) charge relief valve, located at the bottom of the propulsion pump, regulates charge pressure which is used to pressurize the pump/motor loop, to provide pilot oil to the pump servos and to provide pilot pressure for brake release.

Also built into the propulsion pump is a neutral start switch/back up alarm switch located on top of the pump near the forward/reverse lever. Immediately to the right of the switch is a solenoid valve, controlled by the emergency stop circuit and the brake switch, designed to remove pilot pressure to the servo and vent the oil from the brakes when deactivated.

The two drum drive motors, manufactured by Poclain, include a built in multi-plate brake. The motors are of a low speed, high torque design, eliminating the need for costly gear reduction. Hose connections at the top of the motor provide drive oil through ports 1 and 4. Port 2 is the case drain and Port 3 provides pilot pressure for the brake.

The relief valves on the propulsion pump can be opened for towing purposes by depressing the button on the end of each relief valve. Combined with the activation of the brake tow valve, this allows the machine to be towed without damage. The buttons will remained depressed until the engine is started and system charge pressure is obtained.

PROPULSION SYSTEM DIAGNOSTICS

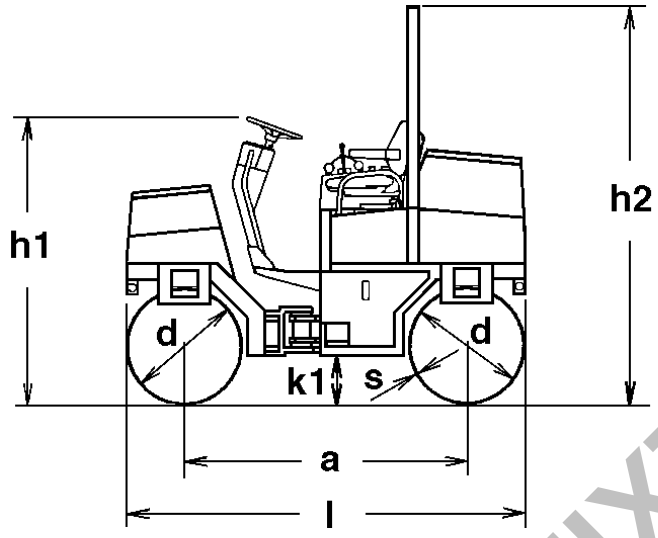
INTERNAL LEAKAGE

All hydrostatic systems require charge pressure to function properly. This is because a hydrostatic system cannot operate at a negative pressure. The charge pump provides a positive pressure to the hydrostatic pump inlet. On the model 255/265, normal charge pressure is about 290 PSI and can be checked at port MP3 on the test station located in the left side of the engine compartment. Hydrostatic systems are designed to leak a small amount of oil from the pumps and motors for lubrication of parts and cooling, and in some instances, leakage is strictly due to operating clearances. The greater the system pressure the higher this leakage rate. Fresh charge oil will make up for normal system losses.

When components fail, leakage under pressure increases tremendously and is noted by a drop in charge pressure (the charge pump is not capable of keeping up with the hydrostatic system leakage rate). The condition of a hydrostatic pump/motor circuit can be determined by a simple charge pressure test at maximum engine RPM and normal operating temperature. Under the previously mentioned conditions (RPM and temperature), compare the charge pressure readings with the hydrostatic system at no load and maximum

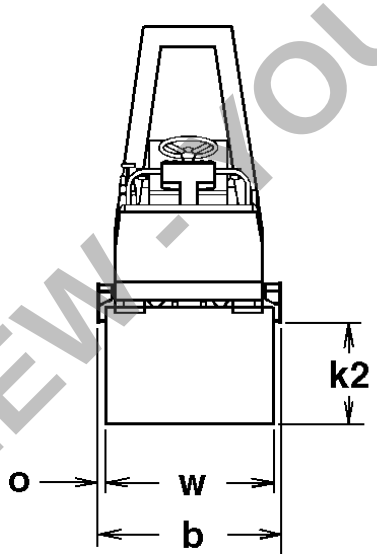
PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

MACHINE SPECIFICATIONS



SIDE VIEW
255 / 265

	in.	mm
a	66.9	1700
d	27.6	700
h1	67.7	1720
h2	98.4	2500
k1	11.4	290
l	94.5	2400
s	0.5	12



FRONT VIEW
255 / 265

	model	in.	mm
b	255	43.1	1096
	265	51.0	1296
k2	255	22.4	570
	265	22.4	570
o	255	1.9	48
	265	1.9	48
w	255	39.4	1000
	265	47.2	1200

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

ITEM	PART #	QTY.	DESCRIPTION
1	07130/21100	1	255 Drum 1000mm
1	07130/22100	1	265 Drum 1200mm
2	07130/21200	1	Suspension bracket, right side - model 255
2	07130/22200	1	Suspension bracket, right side - model 265
3	07130/21300	1	Suspension bracket, left side - model 255
3	07130/22300	1	Suspension bracket, left side - model 265
4	07130/21400	1	Support bracket
5	87130/21500	1	Exciter shaft - model 255
5	87130/22500	1	Exciter shaft - model 265
6	07130/21550	2	Cover - model 255
6	07130/22550	2	Cover - model 265
7	07130/21700	1	Vibration gear motor
8	07130/21800	1	Drum drive motor
10	07130/21010	1	Flange, drive motor
11	07130/21011	1	Support bracket
13	07130/21013	1	Bearing plate
14	07130/21014	1	Seal plate
15	04003/01019	4	Buffer
17	06180/01033	1	Screw plug
24	06755/00026	1	Coupling sleeve
25	02712/06081	2	Exciter shaft bearing
26	02700/02180	1	Drum drive bearing
27	02773/10513	1	Shaft seal
28	02772/19530	3	O-ring seal
29	02772/08030	1	O-ring seal
30	02772/15930	1	O-ring seal
32	02027/16040	7	Socket Capscrew, M16x40 DIN912
33	02027/08025	4	Socket Capscrew, M8x25 DIN912
34	02018/12035	8	Hex Capscrew, M12x1.5x35 DIN 961
35	02018/16040	8	Hex Capscrew, M16x1.5x40 DIN 961
36	02021/16045	4	Hex Capscrew, M16x45 DIN 933
37	02017/12090	8	Hex Capscrew, M12x1.5x90 DIN 961
38	02021/08012	4	Hex Capscrew, M8x12 DIN 933
40	02118/31600	8	Lock Nut, VM16 DIN 980
42	02208/00116	12	Washer
43	02208/00012	16	Lock Washer
47	02766/01215	1	Seal Ring, A12x15.5 DIN 7603

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

SAFETY, GENERAL

The information in this manual does not replace any safety rules and laws used in your area. Before you operate this machine, learn the rules and laws for your area and make sure your machine has the correct equipment according to these rules and regulations.

Your safety and the safety of other persons in the work area are dependent on your correct operation of this machine.

- Know the location and function of all machine controls.
- Clear the area of other persons before you start the engine.
- Check all controls in a safe area before you operate the machine.
- Understand the limits of the machine.
- Do not try to do too much too fast.
- Keep the machine under control at all times.

SPARK ARRESTER

NOTE: Rules or laws in some areas can make it necessary for this machine to be equipped with a spark arrester or spark arrester muffler. Check the rules or laws in your area.

SAFETY, PERSONAL

⚠ WARNING ***Loose clothing and jewelry can cause an accident. Do not wear loose clothing or jewelry that can catch on controls, etc. Do wear safety shoes, hard hat, heavy gloves, etc. when required for your protection.***

⚠ WARNING ***A fire can cause injury or death. Always have a fire extinguisher on the job site near the machine. Make sure the fire extinguisher is serviced according to the manufacturer's instructions.***

⚠ WARNING ***Foreign materials and loose objects on the steps, hand rails, and in the operator's compartment can cause accidents and injury. Keep the steps, hand rails, and operator's compartment clear at all times.***

⚠ WARNING ***Always use the seat belt when operating the machine. Make sure the buckle for the seat is fastened correctly.***

⚠ WARNING ***Make sure cab windows are clean and unobstructed.***

⚠ WARNING ***Know and understand the arrangements for movement of trucks, machines, and persons on your job site. Understand and follow the instructions of flagmen, road signs, or signals.***

⚠ WARNING ***Always wear the proper ear protection when operating this machine. Permanent hearing loss can result from extended exposure to loud noises.***

⚠ WARNING ***Check machine controls for proper operation prior to starting the machine.***

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

index

A

access panels ..... 9 - 3, 9 - 4
accessory sockets ..... 3 - 37
alternator voltage checks ..... 3 - 23
alternators explained ..... 3 - 21
articulation joints ..... 8 - 5
articulation parts ..... 8 - 6
auxillary power socket ..... 3 - 3

B

back-up alarm circuit ..... 3 - 42
batteries explained ..... 3 - 19
battery diagnostics ..... 3 - 20
bolt torque chart ..... 1 - 13
brake repairs ..... 6 - 8
brake tow valve ..... 4 - 21

C

California Proposition 65 ..... 1 - 2
charge system diagnostics ..... 3 - 22
charging circuit ..... 3 - 19
cleaning parts ..... 1 - 12
combination indicator ..... 3 - 4, 3 - 32
console lever control ..... 3 - 17

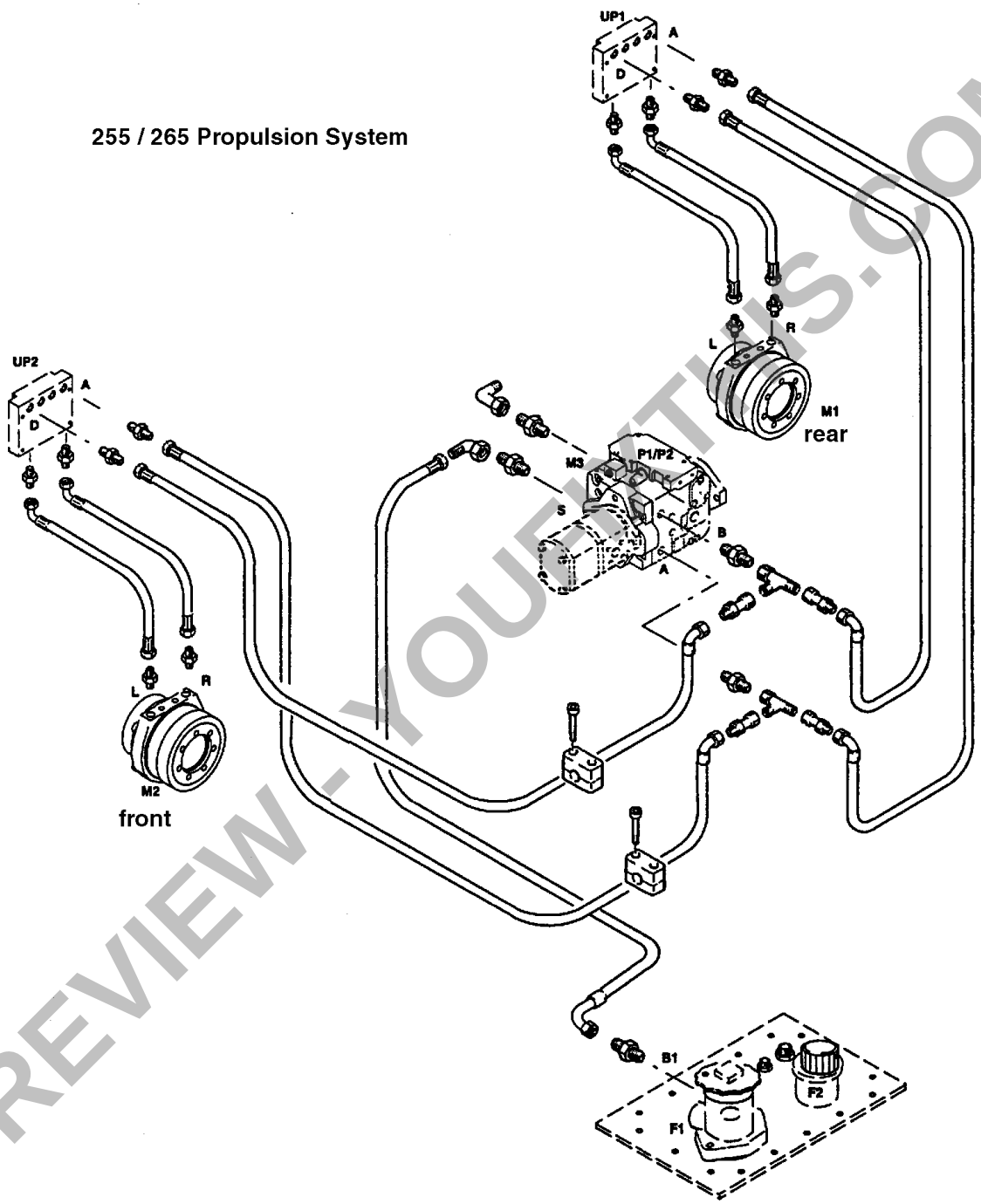
D

diesel fuel specification ..... 1 - 18
directional switch ..... 3 - 5
drive bearing removal ..... 5 - 13
drive lever ..... 3 - 6, 3 - 33
drive system specifications ..... 1 - 16
drum installation ..... 5 - 15
drum parts list ..... 5 - 9
drum removal ..... 5 - 11
drum scrapers ..... 10 - 6

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PROPULSION DRAWINGS



PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 12 of 220 pages

The full manual includes:

- All 220 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Vibromax 255, 265 Service Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual