VIBROMAX

253 / 263 TANDEM ROLLER

SERVICE MANUAL SM60001

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AFTER S/N JKC5300100

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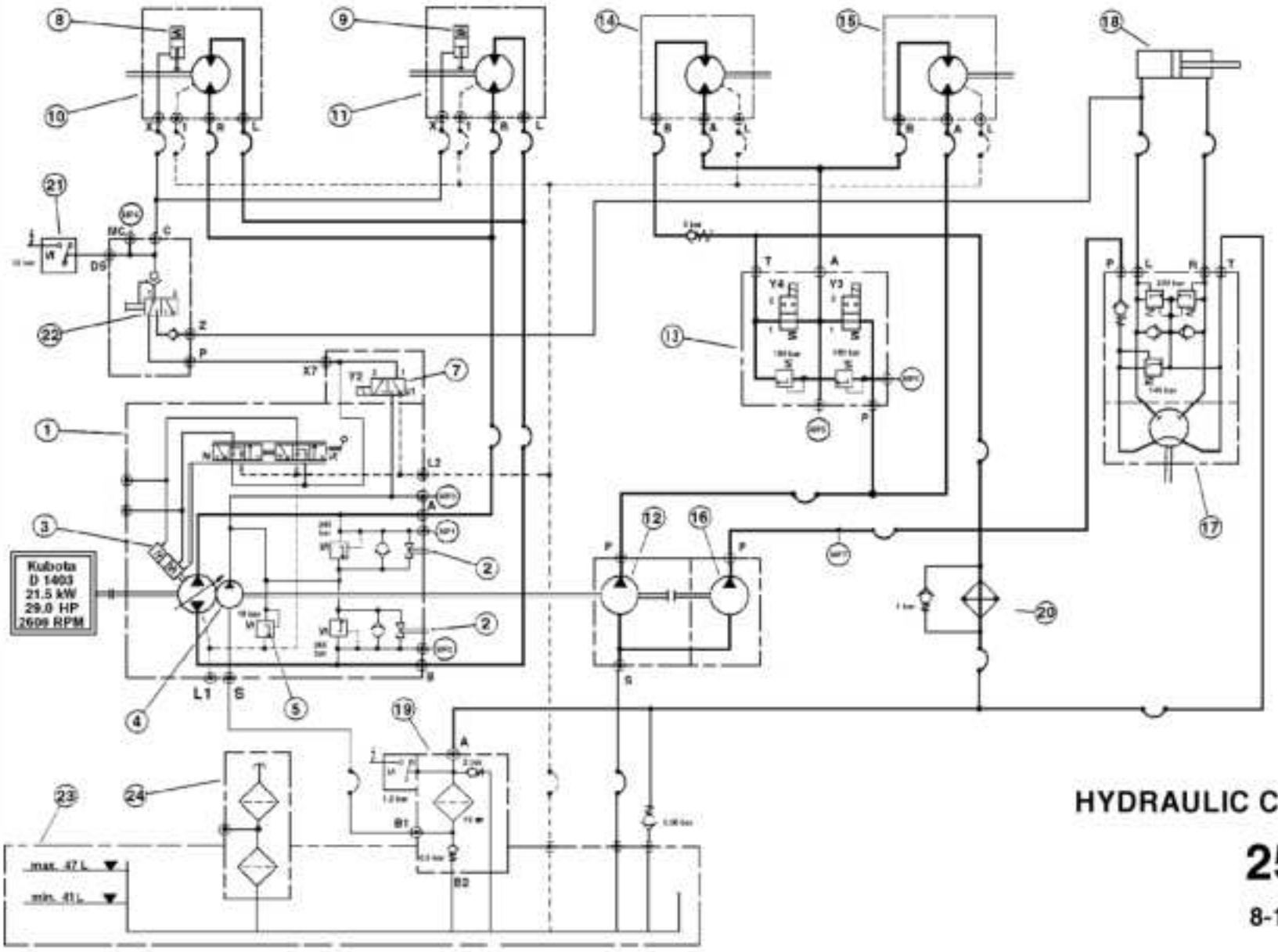
FLUID SPECIFICATIONS

MACHINE PART	CAPACITY USA (metric)	SPECIFICATIONS
Fuel tank	13.2 gal (50 l)	see diesel fuel
Engine crankcase	6 qts(5.6 l)	engine oil API classification API-CD MIL-L-2104C multigrade engine oil (see oil chart) single grade engine oil (see oil chart)
Hydraulic system Reservoir only	15.9 gal (60 l) 12.4 gal (47 l)	cold weather HLP 46 DIN 51524 hot weather HLP 68 DIN 51524 Mobil DTE 25,26 Shell Tellus OL 46,68,100 Amoco Rykon HD 46,68,100 Texaco Rando HD 46,68,100
Vibration system 253 263	(each drum) 1.3 qts. (1.2 l) 1.9 qts. (1.8 l)	Mobil Gear 627
Battery	as required	Distilled water
Grease	as required	KP3K DIN 51502 Mobil Oil - Mobilux 3 Shell Oil - Alvania 3 Texaco Oil - Starplex 3
Engine coolant	8.5 qts (8 l)	50% ethylene glycol and 50% water
Sprinkling Device	52.8 gal (200 l)	Tap water

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HYDRAULIC SCHEMATIC



1. Propulsion pump
2. Drive relief valves
3. Servo control, drive
4. Charge pump
5. Charge relief valve
7. Emergency stop solenoid
8. Brake, front
9. Brake, rear
10. Drive motor, front
11. Drive motor, rear
12. Vibration pump
13. Vibration control valve
14. Vibration motor, front
15. Vibration motor, rear
16. Steering pump
17. Steering control valve
18. Steering cylinder
19. Hydraulic oil filter
20. Hydraulic oil cooler
21. Brake pressure switch
22. Brake low valve
23. Hydraulic reservoir
24. Breather, reservoir

HYDRAULIC CIRCUIT DIAGRAM

253

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DRUM REMOVAL

1. Block the machine before start of disassembly.
2. Remove the front or rear drum scraper depending on which drum is to be removed.
3. Remove the left and right cover plates (item #6) by removing the four M8x12 Hex. bolts (item # 38).
4. Although it is not considered necessary to remove the water tank, it can make handling the hydraulic hoses easier. The tank is held in place with four buffer nuts and one water line connection.
5. Disconnect, plug, and tag the hydraulic lines to the drive and vibration motors. The drain line for the front vibration motor can not be loosened until the left front support bracket (item #3) is ready for removal. A check valve located at the support bracket manifold prevents loosening the hose fitting because of a lack of wrench clearance. Removal of this hose connection requires loosening the four socket head capscrews holding the hose manifold. Once the support bracket is free of the drum and machine, the manifold can be pushed in enough to loosen the return hose fitting.
6. Support the frame and remove the four buffer nuts (item #40) for the left and right buffers.
7. Remove the right and left drum support brackets (items #2 & #3) by removing the eight M16x40 Hex. bolts (item #35).
8. The drum is now free to be removed from under the machine. Jack the machine up to get the needed clearance and roll the drum from under the machine.

DRIVE MOTOR REMOVAL

CAUTION: The drum drive motor should not be removed until the drum is removed and sitting on end with the drive motor up. If this procedure is not followed, damage to the exciter shaft bearings may occur.

1. Set the drum on its end with the drive motor facing up.
2. Remove the buffer bracket (item #11) by removing the four M16x45 bolts (item #36).
3. Remove the eight M12x35 bolts (item #34) holding the motor adapter flange.
4. Install two of the M12x35 bolts in the two jacking bolt holes in the drive motor flange. Turn the two bolts in at an even rate to jack the motor flange out of the drum.
5. Remove the flange and motor as one assembly. The bearing supporting the exciter shaft is also in the motor adapter flange. Motor removal should be done with caution to avoid damage to the exciter shaft and bearings.
6. Remove the seven M16x40 socket head capscrews (item #32) to separate the motor and adapter flange.

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