SEBM0425M102

# SHOP MANUAL

KOMATSU®

# WA500-1

MACHINE MODEL | SERIAL No.

**WA500-1** | **20001 and up**

- This shop manual may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require. Materials and specifications are subject to change without notice.

- WA500-1 mount the S6D140-1 engine;
  For details of the engine, see the 6D140-1 Series Engine Shop Manual.

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# WEIGHT TABLE

⚠ This weight table is a guide for use when transporting or handling components.

Unit: kg

| Machine Model | WA500-1 |
|---|---|
| Serial Number | 20001 and up |
| Engine assembly | 1,453 |
| Radiator assembly | 285 |
| Torque converter assembly | 216 |
| Transmission assembly | 995 |
| Damper | 91 |
| Upper drive shaft | 18 |
| Center drive shaft | 33 |
| Front drive shaft | 44 |
| Rear drive shaft | 42 |
| Front axle assembly | 2,116 |
| Rear axle assembly | 1,952 |
| Front differential assembly | 282 |
| Rear differential assembly | 276 |
| Planetary carrier assembly (1 piece) | 62 |
| Planetary hub assembly (1 piece) | 103 |
| Axle pivot (Rear axle) | 94/114 |
| Wheel (1 piece) | 240 |
| Tire (1 piece) | 421 |
| Steering valve | 55 |
| Steering cylinder (1 piece) | 47 |
| Brake (1 piece) | 182 |
| Hydraulic tank | 229 |

| Machine Model | WA500-1 |
|---|---|
| Serial Number | 20001 and up |
| Hydraulic pump | 13 |
| Steering and PPC pumps | 20 |
| Switch pump | 13 |
| PPC valve | 3.5 |
| Main control valve | 90 |
| Lift cylinder (1 piece) | 271 |
| Dump cylinder | 285 |
| Engine hood | 45 |
| Front frame | 2,245 |
| Rear frame | 2,035 |
| Bucket link (with bushing) | 108 |
| Tilt lever (with bushing) | 489 |
| Lift arm (with bushing) | 2,040 |
| Bucket (with teeth) | 2,536 |
| Counterwiehgt | 1,500 |
| Fuel tank | 298 |
| Battery (1 piece) | 53 |
| Cab assembly | 310 |
| Air conditioner unit | 41 |
| Operator's seat | 37 |
| Floor plate | 115 |

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# TABLE OF OIL AND COOLANT QUANTITIES

| RESERVOIR | KIND OF FLUID | AMBIENT TEMPERATURE | CAPACITY (ℓ) | |
|---|---|---|---|---|
| | | −22 −4 14 32 50 68 86 104 122°F<br>−30 −20 −10 0 10 20 30 40 50°C | Specified | Refill |
| Engine oil pan | Engine oil | SAE 30 / SAE 10W / SAE 10W-30 / SAE 15W-40 | 40 | 28.5 |
| Brake | Engine oil | SAE 10W | 5 | 3 |
| Transmission case | Engine oil | SAE 30 / SAE 10W | 70 | 62 |
| Hydraulic system | Engine oil | SAE 10W | 260 | 150 |
| Axle (Front and rear) | | See NOTE (4) | each 75 | each 75 |
| Fuel tank | Diesel fuel | ASTM D975 No. 2 / ASTM D975 No. 1 | 435 | – |
| Cooling system | Water | Add antifreeze | 80 | – |

ASTM: American Society of Testing and Material
SAE: Society of Automative Engineers
API: American Petroleum Institute

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Specified capacity: Total amount of oil including oil for components and oil in piping.
Refill capacity: Amount of oil needed to refill system during normal inspection and maintenance.

**NOTE:**

(1) When fuel sulphur content is less than 0.5%, change oil in the oil pan every periodic maintenance hours described in this manual.
Change oil according to the following table if fuel sulphur content is above 0.5%.

| Fuel sulphur content | Change interval of oil in engine oil pan |
|---|---|
| 0.5 to 1.0% | 1/2 of regular interval |
| Above 1.0% | 1/4 of regular interval |

(2) When starting the engine in an atmospheric temperature of lower than 0°C, be sure to use engine oil of SAE10W, SAE10W-30, and SAE15W-40, even though an atmospheric temperature goes up to 10°C more or less in the day time.

(3) Use API classification CD as engine oil and if API classification CC, reduce the engine oil change interval to half.

(4) For axle oil, use only recommended oil as follows.
SHELL: DONAX TT or TD
CALTEX: RPM TRACTOR HYDRAULIC FLUID
CHEVRON: TRACTOR HYDRAULIC FLUID
TEXACO: TDH OIL
MOBIL: MOBILAND SUPER UNIVERSAL

★ It is possible to substitute engine oil CLASS-CD SAE30 for axle oil.
If noise comes from the brake, it is no problem of durability.



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## ELECTRICAL WIRING DIAGRAM CIRCUIT





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