CEAM006100

Operation & Maintenance Manual

HD1500-5

DUMP TRUCK

SERIAL NUMBERS **A30039 thru A30048**

KOMATSU®

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STANDARD TABLES

This manual provides dual dimensioning for many specifications. Metric units are specified first, with U.S. standard units in parentheses. References throughout the manual to standard torques or other standard values will be to one of the following Tables.

For values not shown in any of the charts or tables, standard conversion factors for most commonly used measurements are provided in TABLES I and .

NOTE: Portions of this truck may be assembled with SAE (U.S.) hardware.
BE SURE TO REFER TO THE CORRECT TABLE!

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TABLE I – COMMON CONVERSIONS METRIC -to- ENGLISH

TO CONVERT FROM	TO	MULTIPLY BY
millimeter (mm)	inch – in.	0.0394
centimeter (cm)	inch – in.	0.3937
meter (m)	foot – ft.	3.2808
meter (m)	yard – yd.	1.0936
kilometer (km)	mile – mi.	0.6210
sq. centimeters (cm^2)	sq. in. – $in.^2$	0.1550
sq. centimeters (cm^2)	sq. ft. – $ft.^2$	0.001
cu. centimeters (cm^3)	cu. in. – $in.^3$	0.061
liters (l)	cu. in. – $in.^3$	61.02
cu. meters (m^3)	cu. ft. – $ft.^3$	35.314
liters (l)	cu. ft. – $ft.^3$	0.0353
grams (g)	ounce – oz.	0.0353
milliliter (ml)	fluid ounce – fl. oz.	0.0338
kilogram (kg)	pound (mass)	2.2046
Newton (N)	pound (force) – lbs.	0.2248
Newton.meters (N.m)	kilogram.meters (kg.m)	0.102
Newton.meters (N.m)	ft. lbs. (force)	0.7376
kilogram.meters (kg.m)	ft. lbs. (force)	7.2329
kilogram.meters (kg.m)	Newton.meters (N.m)	9.807
kilopascals (kPa)	psi (pressure)	0.1450
megapascals (MPa)	psi (pressure)	145.038
kilograms/cm^2 (kg/cm^2)	psi (pressure)	14.2231
kilograms/cm^2 (kg/cm^2)	kilopascals (kPa)	98.068
kilogram (kg)	ton (short)	0.0011
metric ton	ton (short)	1.1023
liters (l)	quart – qt.	1.0567
liters (l)	gallon – gal.	0.2642
Watts	HP (horsepower)	0.00134
kilowatts (kW)	HP (horsepower)	1.3410

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R.H. Control/Indicator Panel (Pod)

The Control/Indicator Panel (3, Figure 3-9), located to the right of the steering wheel, contains the following:

Cold Weather Starting Aid (Ether Injection) Switch



The Starting Aid Switch (1, Figure 3-10) is an "ON-OFF" type "rocker" switch that is spring-loaded to the "OFF" position.

When the outside temperature is below -5°C (23°F), depress the top of this switch and hold for 2-3 seconds before starting the engine. The Cold Starting Aid atomizes ether into the engine intake manifold.

Refer to KEYSWITCH, "START" for further details regarding the use of this switch.

DO NOT push ether injection switch after engine has started!
SERIOUS DAMAGE TO ENGINE MAY OCCUR!

Hazard Warning Lights Switch



The Hazard Warning Light switch (2, Figure 3-10) causes all turn signal lights to flash simultaneously.

The "rocker" switch is an "ON-OFF" type.
Depressing the bottom turns the switch "Off".
Depressing the top turns the switch "On".

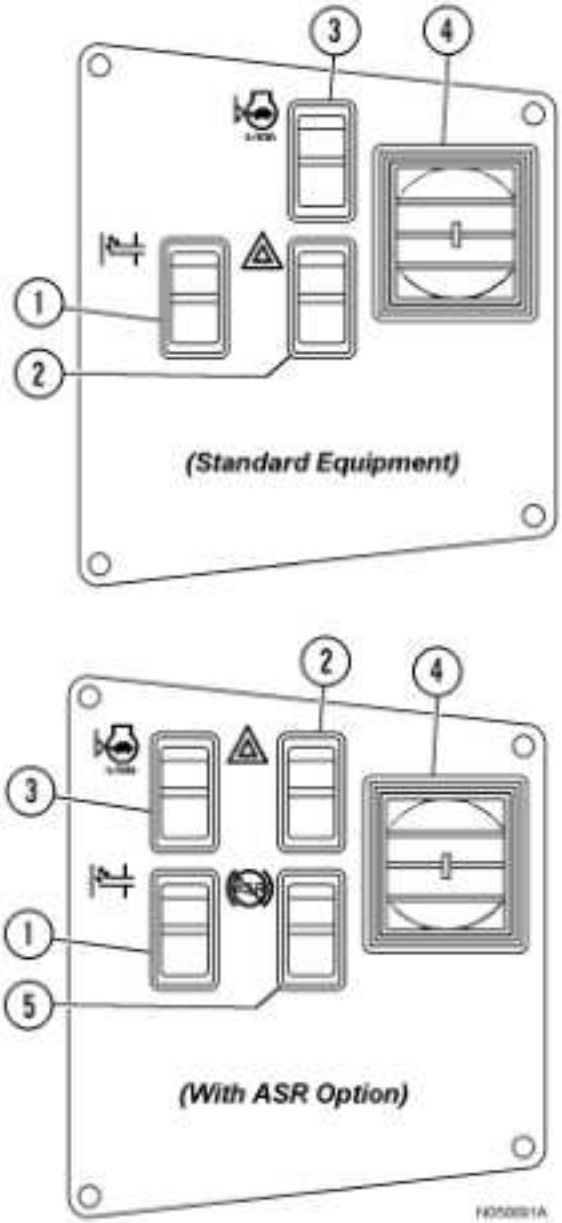


FIGURE 3-10. R.H. CONTROL/INDICATOR PANEL

1. Cold Weather (Ether) Starting Aid Switch
2. Hazard Flasher Switch
3. AISS Automatic Engine Idle System
4. A/C & Heater Vent
5. ASR Cut (Traction Control) Switch (Optional)

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1000 HOUR SERVICE

Truck Serial Number _____
Site Unit Number _____
Date:_____Hour Meter_____
Serviceperson Name_____

In addition to the 250 and 500 hour lubrication and inspection schedules, perform the following:

1. LUBRICATION (Manual)

   - Parking brake linkage - 6 points - Lube key "D".

   - Driveshafts - Lubricate rear driveshaft splines. If driveshaft U-joints are equipped with grease fittings, apply one or two pumps of grease from a hand operated grease gun - (Recommended Lubricant: Mobil SHC, Shell Alvania, or Lithium complex soap based E.P. 2 multipurpose grease.) ***Note: In extremely severe operating conditions, more frequent lubrication may be required.***

2. TRANSMISSION CASE

   Drain oil, remove and replace element. Remove clean, and reinstall strainer. Refill sump with oil - Capacity, approximately **153 liters (40.5 U.S. gal)**. Lube key "C".

3. STEERING, BRAKE, HOIST, and REAR BRAKE COOLING OIL FILTERS.

⚠WARNING

When removing tank caps, turn cap slowly at first to relieve inner pressure. Remove cap only after pressure has been completely relieved.
Any operating fluid, such as hydraulic oil or brake fluid escaping under pressure, can have sufficient force to enter a person's body by penetrating the skin. Serious injury and possibly death may result if proper medical treatment by a physician familiar with this injury is not received immediately.

Remove & replace (4) filter elements.
Refer to "Hydraulic Tank Service", page 4-11.

4. FRONT & REAR BRAKE WEAR -
   Refer to Shop Manual Section "J", *Brake System*, for proper inspection procedure.

⚠WARNING

Carry out inspection when the oil temperature is below 60°C (140°F).
Hot oil may cause serious personal injury.

COMMENTS	√'d	INITIALS

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In order to adjust this gain:

1. Start with the payload meter in normal operation mode.
2. Adjust the gain pot, left to reduce the value and right to increase the value.
3. Press and hold the LIGHT/INC and MODE switches until "CHEC" is flashing on the meter.



4. Press and hold the LIGHT/INC switch until "ALL0" is flashing on the display. "A.FUL" may also be displayed.



5. Press the LIGHT/INC switch14 times. The number displayed will be the current Gt gain. This is not a "live" reading. Any time the potentiometer is changed, this cycle must be repeated to view the change.
6. Press MODE once and "CHEC" will flash on the display.



7. Press MODE once and the meter will return to normal operation.

These calculations used a 13" front suspension diameter and 10" rear suspension diameter.

Sprung Weight = $\frac{\pi}{4}$ Suspension Diameter^2 (Psi Left + Psi Right)

Sprung Weight = Axle Weight(lbs)/2000

Example Calculation of Payload

Front Weight (6)	106.00	Rear Weight(7)	75.10
X Incline Factor (9)	0.95	X Incline Factor (10)	0.98
	100.70		73.90
X Link Factor (11)	1.00	X Link Factor (12)	1.53
Front Weight	100.70	Rear Weight	113.70
Front Weight	100.70		
Rear Weight	113.70		
Total Weight	214.40		
XGain Factor (14)	1.00		
	214.40		
- Calibration (13)	-70.60		
Current Load(15)	143.80		

Figure 6-5.

Calculation of the Calibration Load

This procedure is similar to the manual calculation of load. This calibration load is used as item #13 from the manual calculation procedure.

1. Press and hold the LIGHT/INC and MODE switches until "CHEC" is flashing on the display.



2. Press and hold the CAL/CLR switch until "CALL0" is flashing on the display.



3. Press the CAL/CLR switch to cycle through the following data. The sequence repeats.

Item and Description	Units
1. Year of Calibration	Last 2 digits of year
2. Month:Day of Calibration	XX:XX
3. Hour:Minute of Calibration	XX:XX
4. Truck Model Setting	
5. Pressure Front Left	Psi
6. Pressure Front Right	Psi
7. Pressure Rear Left	Psi
8. Pressure Rear Right	Psi
9. Front Sprung Weight	Tons
10. Rear Sprung Weight	Tons
11. Degree of Incline	±° Nose Up Positive
12. Incline Factor - Front Axle	
13. Incline Factor - Rear Axle	
14. Link Factor Front Axle	
15.Link Factor Rear Axle	
16. Calibration Weight	Tons

4. Press MODE once and "CHEC" will flash on the display.



5. Press MODE once and the meter will return to normal operation.

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