DG745

Operation & Maintenance Manual

330M

DUMP TRUCK

SERIAL NUMBERS **A10212 - A10223**

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 the conversion table below.

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COMMON CONVERSIONS		
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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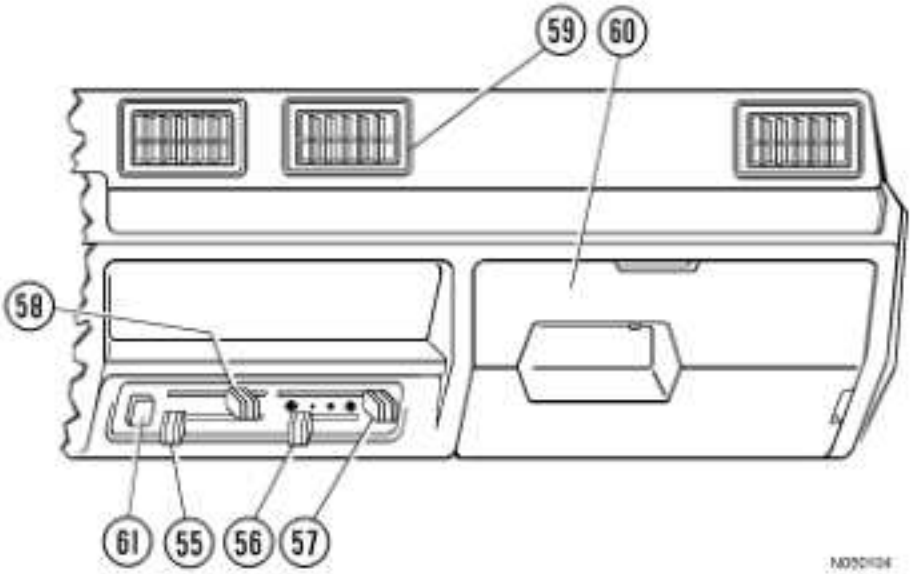


FIGURE 3-8. INSTRUMENT PANEL - RIGHT SIDE

55. Temperature Adjustment Lever

The Temperature Adjustment Lever (55, Figure 3-8) is used to adjust the cab air temperature for heating or cooling.

Move the lever to the left toward "WARM" (red bar) for higher temperature.

Move the lever to the right toward "COOL" (blue bar) for lower temperature.

56. Blower Switch

The Blower Switch (56) is a four position switch to control fan speed. Move the lever to fan position desired.



The positions - from left to right - are as follows:

"OFF" - Low - Medium - High

Low, Medium, and High are indicated by circular marks of increasing size.

When in the "OFF" position, the air conditioner compressor is de-activated.

57. Air Selector Lever

The Air Selector Lever (57) selects the source of air. Outside air enters through a filter and is sent to the cab to ventilate the inside the cab. In this way, a pleasant working environment is always maintained even on dusty job sites.

Move the lever to the left toward "FRESH" for outside air. Air is taken from outside to mix with the air inside the compartment.

Move the lever to the right toward "RECIRC" for recirculation of cab air only. This is generally used to cool the cab quickly.

58. Vent Selector Lever

The Vent Selector Lever (58) directs the cool or warm air through one or more of the following outlets: front vents; foot vents; or defroster vents.

Move the lever to the left toward "VENT" to direct heated or cooled air through the front vents (59).

Move the lever to the center to "HEAT" to direct air to the foot vents and defroster vents for heating and dehumidifying.

Move the lever to the right to "DEF" to direct air to the defroster vents to remove and/or prevent mist from forming inside the windshield.

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250 HOURS SERVICE

INITIAL 250 HOURS SERVICE ONLY

Perform the following maintenance **after** running the machine for **the first 250 hours**. Thereafter, these services are to be accomplished at the 500/1000/2000 hour interval as scheduled. Refer to pages 4-11, -12, & -13.

a. Steering, Hoist Oil Tank and Rear Brake Cooling Oil Tank, replace elements.

b. Transmission Case, change oil.

c. Steering, Hoist Oil Tank, change oil.

d. Rear Brake Cooling Oil Tank, change oil.

e. Differential Case, change oil.

f. Final Drive Case, change oil.

g. Fuel Filter, replace cartridges.

h. Transmission Oil Filter, replace elements.

EVERY 250 HOURS SERVICE

1. Lubricating - Apply ample grease supply to grease fittings.

- Dump body hinge pin - 2 points.
- Rear Suspension - 4 points.
- Axle Supports pins - 8 points.
- Hoist Cylinder pin - 4 points.
- Front Suspension Assembly - 8 points.
- Steering Cylinder pin - 4 points.
- Steering Linkage - 5 points.
- Drive Shafts - Front, 2 points, Rear, 3 points.

2. BATTERY - Check electrolyte level and add distilled water if necessary to maintain proper level.

3. ALTERNATOR BELT - Check condition of the 24V alternator belt for evidence of belt slippage, looseness or physical defects.

4. AIR CONDITIONER COMPRESSOR BELT - Check for condition of belt and proper tension.

5. TRANSMISSION CASE BREATHERS - Remove breathers, disassemble breathers remove filter element, clean in solvent. Dry with air pressure and reassemble then reinstall.

Truck Serial Number _____

Site Unit Number _____

Date: _____ Hour Meter _____

Name of Service Person _____

COMMENTS	CHECKED	INITIALS
EVERY 250 HOURS		

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NOTE: This screen is the only place that the value of the G_I gain potentiometer can be checked.

There are two gain factors that can be applied to the payload measurement. The first is the G_I gain factor and the other is the UP gain factor. They are not applied uniformly to all payload calculations.

Example Calculation of Payload

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

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

$$\text{Sprung Weight} = \text{Axle Weight(lbs)}/2000$$

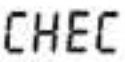
Front Weight (6)	106.00	Rear Weight (7)	75.10
x Incline Factor (9)	0.95	**x** Incline Factor (10)	0.98
	100.70		73.90
x Link Factor (11)	1.00	**x** Link Factor (12)	1.53
Front Weight	100.70	Rear Weight	113.70
Front Weight	100.70		
Rear Weight	113.70		
Total Weight	214.40		
x Gain Factor (14)	1.00		
	214.40		
- Calibration (13)	-70.60		

FIGURE 3-5.

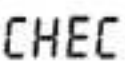
Viewing Payload Calculation Inputs

The PLM II™ estimates payload by monitoring suspension pressures when the truck is loaded and compares them to truck empty pressure values. The PLM II™ uses one empty truck weight for all payload calculations. This empty truck weight is called the 'tare weight'. It is not the empty vehicle weight (EVW). It is an estimate of the empty weight of all the truck components suspended above the suspensions. The process of making the PLM II™ calculate the tare weight is called the calibration procedure.

This calibration weight is used as item #13 from the manual calculation procedure in Figure 6-4.

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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