CEAM014102

Operation & Maintenance Manual

HD785-5LC

DUMP TRUCK

SERIAL NUMBERS HD785-5LC A10316 and up

ENGINE 12V140ZE-2

May 2016

KOMATSU®

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TABLE OF CONTENTS

SUBJECT . . . . . .SECTION / PAGE

INTRODUCTION . . . . . .SECTION 10
Foreword 10-1
ALERTS - a description of DANGER, WARNING, and CAUTION symbols used in this manual. 10-2
TABLE OF CONTENTS 10-3
Truck Model Illustration 10-11
About This Manual 10-12

STANDARD CHARTS AND TABLES . . . . . .SECTION 12
Index of Tables 12-1

GENERAL SAFETY . . . . . .SECTION 20

Safety records of most organizations will show that the greatest percentage of accidents are caused by unsafe acts of persons. The remainder are caused by unsafe mechanical or physical conditions. Report all unsafe conditions to the proper authority. These safety rules are provided as a guide for the Komatsu Truck operator. However, local conditions and regulations may add many more to this list.

GENERAL SAFETY 20-1
Safety Rules **20-1**
Safety Features **20-1**
Clothing And Personal Protective Items **20-1**
Unauthorized Modification **20-1**
Leaving The Operator's Seat **20-2**
Mounting And Dismounting **20-2**
Fire Prevention For Fuel And Oil **20-2**
Precautions When Handling At High Temperatures **20-3**
Asbestos Dust Hazard Prevention **20-3**
Prevention Of Injury By Work Equipment **20-3**
Fire Extinguisher And First Aid Kit **20-3**
Precautions When Using ROPS **20-4**
Precautions For Attachments **20-4**
PRECAUTIONS DURING OPERATION 20-5
BEFORE STARTING ENGINE 20-5
Safety At Worksite **20-5**
Fire Prevention **20-5**
In Operator's Cab **20-5**
Ventilation For Enclosed Areas **20-5**
In Operator's Cab - Before Starting Engine **20-6**
Keep Mirrors, Windows, And Lights Clean **20-6**
OPERATING THE MACHINE **20-6**
When Starting Engine **20-6**
Truck Operation - General **20-6**
Check When Traveling In Reverse **20-7**
Traveling **20-7**
Traveling On Slopes **20-8**
Ensure Good Visibility **20-8**
Operate Carefully On Snow **20-8**
Avoid Damage To Dump Body **20-8**

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TABLE OF CONTENTS (Continued)

SUBJECT . . . . . **SECTION / PAGE**

Do Not Go Close To High-voltage Cables **20**-8
When Dumping **20**-9
Working On Loose Ground **20**-9
When Loading **20**-9
Parking The Machine **20**-9
TOWING **20**-9
When Towing, Attach Cable To Hook **20**-9
BATTERY **20**-10
Battery Hazard Prevention **20**-10
Starting With Booster Cables **20**-10
PRECAUTIONS FOR MAINTENANCE 20-11
BEFORE CARRYING OUT MAINTENANCE 20-11
Warning Tag **20**-11
Proper Tools **20**-11
Periodic Replacement Of Critical Parts **20**-11
Stopping The Engine Before Service **20**-11
Securing The Dump Body **20**-12
DURING MAINTENANCE 20-12
Personnel **20**-12
Attachments **20**-12
Work Under The Machine **20**-12
Keep The Machine Clean **20**-12
Rules To Follow When Adding Fuel Or Oil **20**-13
Radiator Water Level **20**-13
Use Of Lighting **20**-13
Precautions With Battery **20**-13
Handling High-Pressure Hoses **20**-13
Precautions With High Pressure Oil **20**-14
Precautions When Carrying Out Maintenance At High Temperature Or High Pressure **20**-14
Rotating Fan And Belt **20**-14
Waste Materials **20**-14
TIRES 20-15
Handling Tires **20**-15
Storing Tires After Removal **20**-15

WARNINGS & CAUTIONS . . . . . **SECTION 22**

Operators and maintenance personnel should observe and understand the various warning and caution labels attached to the truck. These labels provide important information regarding service requirements, operational procedures and safety issues when operating or performing maintenance on the truck.

WARNING, CAUTION, and Instruction Plates / Decals 22-1

OPERATION . . . . . **SECTION 30**

This portion of the manual provides information regarding the safe operation of the truck by proper preparation for operation, inspection prior to operation, truck start-up and shutdown procedures, and truck operation procedures.

OPERATING INSTRUCTIONS 30-1
PREPARING FOR OPERATION 30-1

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TABLE OF CONTENTS (Continued)

SUBJECT . . . . . .SECTION / PAGE

SAFETY IS THINKING AHEAD 30-1
At The Truck - Ground Level Walk Around Inspection **30-1**
ENGINE START-UP SAFETY PRACTICES 30-5
Before Starting The Engine **30-5**
Starting The Engine **30-6**
Starting The Engine In Cold Weather **30-6**
AFTER ENGINE HAS STARTED 30-7
MACHINE OPERATION SAFETY PRECAUTIONS 30-8
LOADING **30-8**
HAULING **30-9**
RETARDER OPERATION **30-9**
Engine Overspeed **30-10**
PASSING **30-11**
DUMPING **30-11**
To Raise dump body: **30-11**
To Lower Body: **30-12**
SAFE PARKING PROCEDURES 30-12
SHUTDOWN PROCEDURE 30-12
TOWING 30-13
BRAKE RELEASE 30-14
Release Of Parking Brake **30-14**
Release Of Emergency Brake **30-14**

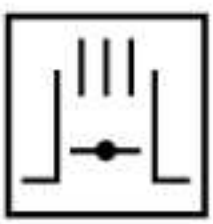
OPERATOR CAB AND CONTROLS . . . . . .SECTION 32

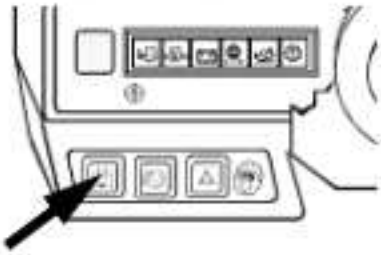
This portion of the manual covers Identification, location, and operation of the controls, switches, and indicators in the Operator's Cab and use / function of these controls, switches, and indicators.

OPERATOR CAB AND CONTROLS 32-1
(1) STEERING WHEEL AND CONTROLS 32-1
(2) Tilt Lever 32-1
(3) Turn Signal Lever Switch 32-1
(4) Horn 32-1
(5) Windshield Wiper / Washer Switch 32-1
(6) Headlights and Dimmer Switch 32-2
(7) Retard Control Lever 32-2
(8) BRAKE PEDAL 32-2
(9) THROTTLE PEDAL 32-2
(10) CENTER CONSOLE AND CONTROLS 32-2
Transmission Range Selector (1, Figure 32-2) 32-2
Shift Limiter Switch (2, Figure 32-2) 32-4
Economy / Power Mode Switch (3, Figure 32-2) 32-4
Emergency Steering Switch (4, Figure 32-2) 32-4
Emergency Brake Lever (5, Figure 32-2) 32-5
Parking Brake Valve Lever (6, Figure 32-2) 32-5
ENGINE ELECTRONIC CONTROL SYSTEM 32-6
Engine Shutdown Light (Stop Engine) 32-6
Engine Maintenance Light (Check Engine) 32-6
Engine Maintenance Light 32-6

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52. Exhaust Brake Switch (Optional)





For operation of the exhaust brake switch (52, Figure 32-8), refer to the following switch positions:



OFF Position

The exhaust brake is actuated when the foot brake is depressed or the retarder control lever is operated and the torque converter is in the lockup condition.



ON Position

The exhaust brake is actuated when the accelerator pedal is released and the torque converter is in lockup condition.

53. Fog Light Switch (Optional)



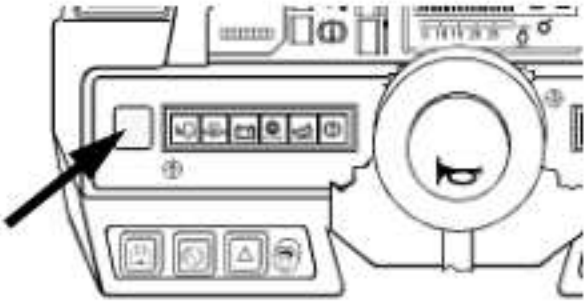
Fog lights are optional equipment. If truck is equipped, they are useful in foggy conditions and heavy rain.



Fog lights are off when switch is in this position (switch OUT - light OFF).

Depressing the switch to this position (switch IN - light ON) turns fog lights on.

54. Central Warning Lamp (Red Convex Lens)



This central warning lamp (54, Figure 32-8) flashes whenever an abnormality has occurred in any one of the following systems:

- Battery charging monitor
- Emergency steering monitor
- Parking brake monitor
- Body float monitor automatic
- Transmission monitor (Mechatronics)
- Suspension monitor
- Fuel level monitor

(Refer to Engine Start-up Safety Practices and Warning & Caution Lamps.)

This lamp flashes, *and at the same time an alarm buzzer sounds intermittently*, whenever an abnormality has occurred in any one of the following systems:

- Air pressure monitor
- Coolant temperature monitor
- Torque converter oil temperature monitor
- Retarder oil temperature monitor
- Coolant level monitor
- Engine oil pressure monitor
- Transmission oil filter monitor

This lamp will also flash and the alarm buzzer will sound, ***if the parking brake is applied and range selector lever is not at Neutral***.

Note: There may be additional instances when the central warning lamp may flash depending on optional equipment installed on the truck.

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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 40-11, -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_t gain potentiometer can be checked.

There are two gain factors that can be applied to the payload measurement. The first is the G_t 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. CHEC
2. Press and hold the CAL/CLR switch until "CALL0" is flashing on the display. CALL0
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. CHEC
5. Press MODE once and the meter will return to normal operation.

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