TEN00042-05

Operation & Maintenance Manual

DUMP TRUCK **HD785-5**

SERIAL NUMBERS 4254 and up

WARNING

Unsafe use of this machine may cause serious injury or death. Operators and maintenance personnel must read this manual before operating or maintaining this machine. This manual should be kept near the machine for reference and periodically reviewed by all personnel who will come into contact with it.

NOTICE

Komatsu has Operation & Maintenance Manuals written in some other languages. If a foreign language manual is necessary, contact your local distributor for availability.

KOMATSU®

MidWestTech | Komatsu HD785-5 Dump Truck Operation & Maintenance Manual | Publicat... Order the manual at mid-west-tech.com >

CONTENTS

FOREWORD ---- 1- 1
FOREWORD ---- 1- 2
SAFETY INFORMATION ---- 1- 5
INTENDED USE ---- 1- 7
DIRECTIONS OF MACHINE ---- 1- 7
LOCATION OF PLATES, TABLE TO ENTER SERIAL NO. AND DISTRIBUTOR ---- 1- 8
PRODUCT IDENTIFICATION NUMBER (PIN)/MACHINE SERIAL NO. PLATE ---- 1- 8
ENGINE SERIAL NO. PLATE POSITION ---- 1- 8
SERVICE METER POSITION ---- 1- 8
TABLE TO ENTER SERIAL NO. AND DISTRIBUTOR ---- 1- 9
SAFETY ---- 2- 1
SAFETY ---- 2- 2
SAFETY LABELS ---- 2- 4
POSITION FOR ATTACHING SAFETY LABELS ---- 2- 5
SAFETY LABELS ---- 2- 6
GENERAL PRECAUTIONS ---- 2- 11
PRECAUTIONS DURING OPERATION ---- 2- 19
BEFORE STARTING ENGINE ---- 2- 19
AFTER STARTING ENGINE ---- 2- 21
BATTERY ---- 2- 24
TOWING ---- 2- 26
PRECAUTIONS FOR MAINTENANCE ---- 2- 27
PRECAUTIONS WITH TIRES ---- 2- 33
OPERATION ---- 3- 1
GENERAL VIEW ---- 3- 2
GENERAL VIEW OF MACHINE ---- 3- 2
GENERAL VIEW OF CONTROLS AND GAUGES ---- 3- 3
EXPLANATION OF COMPONENTS ---- 3- 5
MACHINE MONITOR ---- 3- 5
SWITCHES ---- 3- 22
CONTROL LEVERS AND PEDALS ---- 3- 30
MECHATRONICS EQUIPMENT CONTROLLER ---- 3- 34
BODY PIVOT PIN ---- 3- 35
DUST INDICATOR ---- 3- 35
FUSES ---- 3- 36
CAR STEREO ---- 3- 38
AIR CONDITIONER ---- 3- 47
CAR HEATER ---- 3- 52
LOCATION OF FIRE EXTINGUISHER ---- 3- 53
LOCATION OF FIRST AID KIT ---- 3- 53
OPERATION ---- 3- 54
CHECK BEFORE STARTING ENGINE ---- 3- 54
STARTING ENGINE ---- 3- 70
OPERATIONS, CHECKS AFTER STARTING ENGINE ---- 3- 73
STOPPING ENGINE ---- 3- 74
CHECKS AFTER STOPPING ENGINE ---- 3- 74
MOVING MACHINE OFF (FORWARD, REVERSE), STOPPING ---- 3- 75
SHIFTING GEAR ---- 3- 80
TRAVELING DOWNHILL ---- 3- 81

MidWestTech | Komatsu HD785-5 Dump Truck Operation & Maintenance Manual | Pu... Order the manual at mid-west-tech.com >

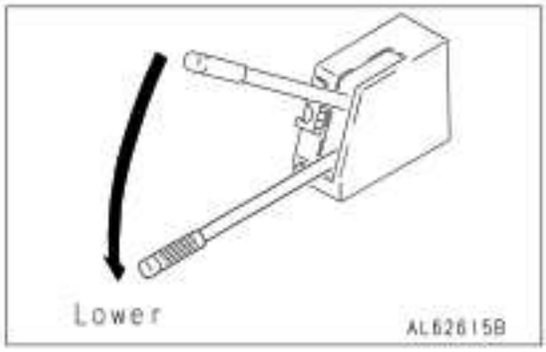
STEERING THE MACHINE ---- 3- 87
LOADING OPERATIONS ---- 3- 87
DUMP OPERATIONS ---- 3- 88
PRECAUTIONS FOR OPERATION ---- 3- 89
PARKING MACHINE ---- 3- 90
CHECKS AFTER COMPLETION OF WORK ---- 3- 91
DRAIN WATER FROM AIR TANK ---- 3- 91
LOCKING ---- 3- 92
HANDLING TIRES ---- 3- 93
DETERMINING AND MAINTAINING TRAVEL ROAD ---- 3- 95
DETERMINING TRAVEL ROAD ---- 3- 95
MAINTAINING TRAVEL ROAD ---- 3- 95
TRANSPORTATION ---- 3- 96
PRECAUTIONS WHEN TRANSPORTING ---- 3- 96
STEPS FOR TRANSPORTATION ---- 3- 96
METHOD OF SECURING MACHINE ---- 3- 97
METHOD OF LIFTING MACHINE ---- 3- 98
COLD WEATHER OPERATION ---- 3-100
PRECAUTIONS FOR LOW TEMPERATURE ---- 3-100
PRECAUTIONS AFTER COMPLETION OF WORK ---- 3-101
AFTER COLD WEATHER ---- 3-102
LONG-TERM STORAGE ---- 3-103
BEFORE STORAGE ---- 3-103
DURING STORAGE ---- 3-103
AFTER STORAGE ---- 3-103
PRECAUTIONS BEFORE TRAVELING AFTER LONG-TERM STORAGE ---- 3-103
TROUBLESHOOTING ---- 3-104
AFTER RUNNING OUT OF FUEL ---- 3-104
METHOD OF TOWING MACHINE ---- 3-104
IF BATTERY IS DISCHARGED ---- 3-109
OTHER TROUBLE ---- 3-113
MAINTENANCE ---- 4- 1
GUIDES TO MAINTENANCE ---- 4- 2
OUTLINE OF SERVICE ---- 4- 4
HANDLING OIL, FUEL, COOLANT, AND PERFORMING OIL CLINIC ---- 4- 4
OUTLINE OF ELECTRIC SYSTEM ---- 4- 7
WEAR PARTS ---- 4- 8
WEAR PARTS LIST ---- 4- 8
RECOMMENDED FUEL, COOLANT, AND LUBRICANT ---- 4- 9
USE OF FUEL, COOLANT AND LUBRICANTS ACCORDING TO AMBIENT TEMPERATURE ---- 4- 10
RECOMMENDED BRANDS, RECOMMENDED QUALITY FOR PRODUCTS OTHER THAN KOMATSU GENUINE OIL ---- 4- 11
STANDARD TIGHTENING TORQUES FOR BOLTS AND NUTS ---- 4- 12
TORQUE LIST ---- 4- 12
PERIODIC REPLACEMENT OF SAFETY CRITICAL PARTS ---- 4- 13
SAFETY CRITICAL PARTS ---- 4- 14
MAINTENANCE SCHEDULE CHART ---- 4- 15
MAINTENANCE SCHEDULE CHART ---- 4- 15
SERVICE PROCEDURE ---- 4- 18
INITIAL 250 HOURS SERVICE (ONLY AFTER THE FIRST 250 HOURS) ---- 4- 18

MidWestTech | Komatsu HD785-5 Dump Truck Operation & Maintenance Manual | Pu... Order the manual at mid-west-tech.com >

WHEN REQUIRED ---- 4- 19
CHECK BEFORE STARTING ---- 4- 36
EVERY 100 HOURS SERVICE ---- 4- 37
EVERY 250 HOURS SERVICE ---- 4- 38
EVERY 500 HOURS SERVICE ---- 4- 53
EVERY 1000 HOURS SERVICE ---- 4- 58
EVERY 2000 HOURS SERVICE ---- 4- 65
EVERY 4000 HOURS SERVICE ---- 4- 71
EVERY 15000 HOURS SERVICE ---- 4- 73
SPECIFICATIONS ---- 5- 1
SPECIFICATIONS ---- 5- 2
ATTACHMENTS, OPTIONS ---- 6- 1
HANDLING PAYLOAD METER ---- 6- 2
NAME OF PARTS ---- 6- 2
EXTERNAL DISPLAY LAMPS ---- 6- 3
OPERATING PAYLOAD METER ---- 6- 5
TACHOGRAPH (TCO 15-6) ---- 6- 13
EXPLANATION OF COMPONENTS ---- 6- 13
METHOD OF USING KEY ---- 6- 15
METHOD OF USE ---- 6- 15
REVO TACHOGRAPH (TCO 15-7) ---- 6- 17
EXPLANATION OF COMPONENTS ---- 6- 17
METHOD OF USE ---- 6- 19
USING DIFFERENTIAL LOCK ---- 6- 21
DIFFERENTIAL LOCK PEDAL ---- 6- 21
PRECAUTIONS AND METHOD OF USE ---- 6- 22
OPERATION OF ABS AND ABS/ASR ---- 6- 23
EXPLANATION OF COMPONENTS ---- 6- 23
OPERATION METHOD ---- 6- 25
PRECAUTIONS FOR USE ---- 6- 26
TROUBLESHOOTING ---- 6- 26
ARSC (AUTOMATIC RETARDER SPEED CONTROL) ---- 6- 27
EXPLANATION OF COMPONENTS ---- 6- 28
METHOD OF OPERATION ---- 6- 30
TROUBLESHOOTING ---- 6- 32
PMC (POWERTRAIN MANAGEMENT CONTROLLER) AND MOM (MESSAGE FOR OPERATION AND MAINTENANCE) ---- 6- 35
CHECK BEFORE STARTING ---- 6- 35
ABNORMALITY DISPLAYED DURING OPERATION ---- 6- 35
HOW TO DOWNLOAD THE STORED DATA IN PMC AND OTHER CONTROLLERS ---- 6- 35
MESSAGE FOR OPERATION AND MAINTENANCE (MOM) ---- 6- 36
ASR-II (AUTOMATIC SPIN REGULATOR II) ---- 6- 41
EXPLANATION OF COMPONENTS ---- 6- 41
ACTUATION OF ASR-II SYSTEM ---- 6- 42
PRECAUTIONS WHEN USING ---- 6- 42
TROUBLESHOOTING ---- 6- 43
HANDLING AUTO-GREASING SYSTEM ---- 6- 45
OUTLINE OF AUTO-GREASING SYSTEM ---- 6- 45
SETTING GREASE CAN ---- 6- 46
INITIAL SETTING OF AUTO-GREASING SYSTEM ---- 6- 47

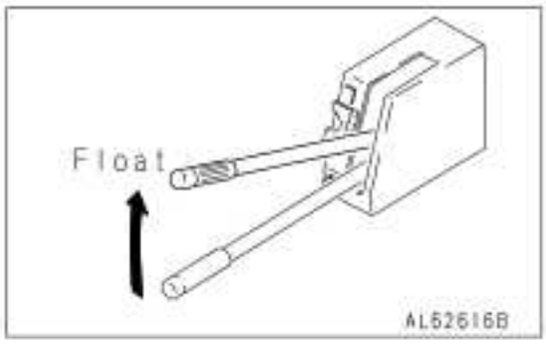
MidWestTech | Komatsu HD785-5 Dump Truck Operation & Maintenance Manual | Pu... Order the manual at mid-west-tech.com >

4. When dump lever (3) is moved to the LOWER position, the dump body will start to move down.



5. When the dump body has moved down a certain distance, move dump lever (3) to the FLOAT position. (When the lever is released, it will return to the FLOAT position.) The dump body will then move down under its own weight.
   In the dump body raising operation, slow down the engine speed when the dump body has risen near the maximum angle to avoid any impact load on the hydraulic circuit or hoist cylinders.

   When the dump body has risen, the speed range is locked to 2nd if shift lever is at the D position. While traveling, lower the dump body.



PRECAUTIONS FOR OPERATION

- When traveling on roads in rain or snow, or when traveling on muddy or soft ground, consider the loaded condition of the machine and be extremely careful not to let the tires slip or the machine spin and sink into the ground.
- If the engine should stop when the machine is traveling, stop the machine immediately, then move the gear shift lever to the N position, and start the engine again.
- If the central warning lamp and pilot lamp for any EMERGENCY item on the machine monitor should flash and the buzzer sounds during operation, stop the machine immediately and investigate the cause.
  For details, see "TROUBLESHOOTING (PAGE 3-104)".
- When loading, be careful to load the dump body uniformly, and be particularly careful to avoid loading too much at the front.
- On slippery road surfaces, apply the retarder control lever slowly and shift the transmission down to prevent the rear wheels from locking.
- When traveling through pools of water, water may get inside the front brakes and cause a big drop in the braking force, so drive carefully in such areas. If water should get into the brakes, apply the brakes several times while traveling to produce friction heat between the pad and disc to remove the water.

MidWestTech | Komatsu HD785-5 Dump Truck Operation & Maintenance Manual | Pu... Order the manual at mid-west-tech.com >

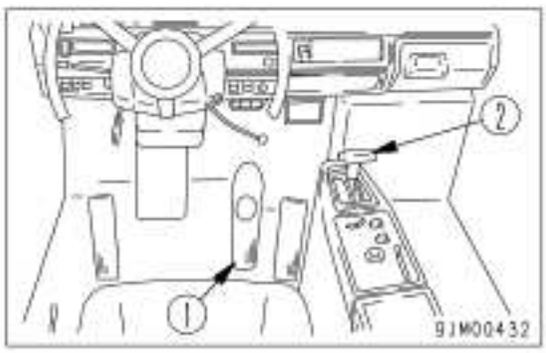
CHECK BRAKING CAPACITY OF FOOT BRAKE

⚠ WARNING

If the machine moves, it will lead to serious injury or death. If machine begins to move during the inspection of braking capacity, lower the engine speed immediately, set shifting lever at N position, and then set parking brake valve lever at PARKING position.

Check the braking capacity of the foot brake as follows.

1. Set the air pressure to the maximum with the machine on flat ground, and depress foot brake (1).
2. Set shift lever (2) to the D position, gradually raise the engine speed, and check that the machine does not move even when the engine speed reaches 1750 rpm. If the machine does not move, it is normal.
3. Lower the engine speed, set shift lever at N position, and then set parking brake valve lever at PARKING position. If any abonormality is found, ask your Komatsu distributor for repair.



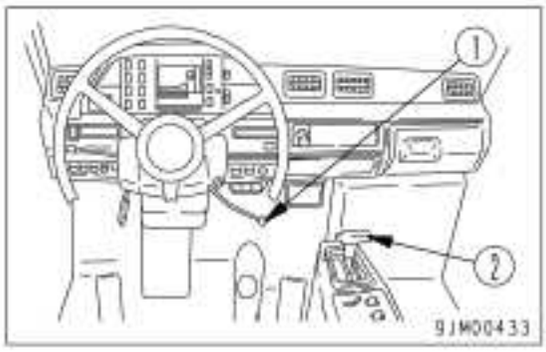
CHECK BRAKING CAPACITY OF RETARDER BRAKE

⚠ WARNING

If the machine moves, it will lead to serious injury or death. If machine begins to move during the inspection of braking capacity, lower the engine speed immediately, set gear shift lever at N position, and then depress the foot brake.

Check the braking capacity of the retarder brake as follows.

1. Set the air pressure to the maximum with the machine on flat ground, and pull retarder lever (1) fully.
2. Set shift lever (2) to the D position, gradually raise the engine speed, and check that the machine does not move even when the engine speed reaches 1300 rpm. If the machine does not move, it is normal.
3. Lower the engine speed, set gear shift lever at N position. If any problem is found, ask your Komatsu distributor for repair.



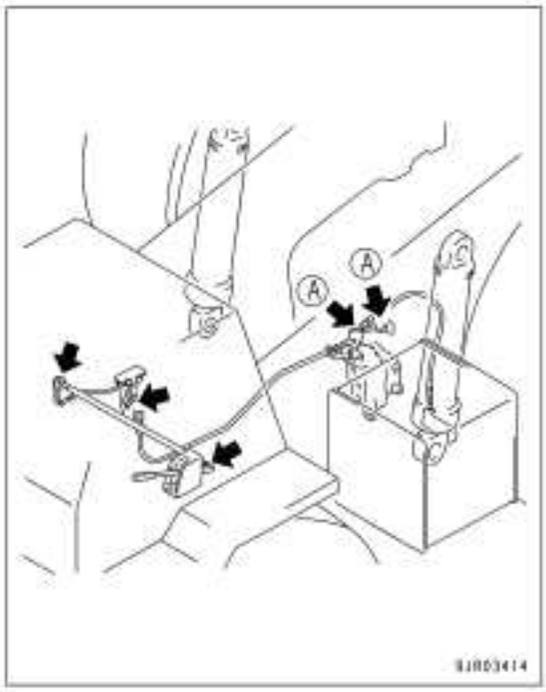
MidWestTech | Komatsu HD785-5 Dump Truck Operation & Maintenance Manual | Pu... Order the manual at mid-west-tech.com >

LUBRICATE DUMP CONTROL LINKAGE

(5 places)

1. Stop the engine.
2. Use the grease pump to pump in grease through the grease fitting marked by the arrow.
3. After greasing, wipe off any old grease that was pushed out.

Apply grease to the parts of (A) mark (2 places) once every year regardless of the operation time of dump control linkage.



MidWestTech | Komatsu HD785-5 Dump Truck Operation & Maintenance Manual | Pu... Order the manual at mid-west-tech.com >