Operation & Maintenance Manual

EEAM027602

HM250-2

ARTICULATED DUMP TRUCK

SERIAL NUMBERS
HM250-2 - 2001 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 HM250-2 Articulated Dump Truck Operation & Maintenance Manua... Order the manual at mid-west-tech.com >

CONTENTS

FOREWORD

BEFORE READING THIS MANUAL 1-2

SAFETY INFORMATION 1-3

Noise emission levels 1-4
Vibration levels 1-4
Guide to Reduce Vibration Levels on Machine 1-5

INTENDED USE 1-6

USE OF MACHINE 1-6
DIRECTIONS OF MACHINE 1-6
VISIBILITY FROM OPERATOR'S SEAT 1-6

LOCATION OF PLATES, TABLE TO ENTER SERIAL NO. AND DISTRIBUTOR 1-7

PRODUCT IDENTIFICATION NUMBER (PIN)/MACHINE SERIAL NO. PLATE 1-7
EPA REGULATIONS, ENGINE NUMBER PLATE 1-7
SERVICE METER POSITION 1-8
TABLE TO ENTER SERIAL NO. AND DISTRIBUTOR 1-8
MACHINE SERIAL NUMBER PLATE 1-9
MACHINE SERIAL NUMBER PLATE (according directive 2006/42/EC) 1-10
Declaration according Directive 2006/42/EC Annex I point 1.7.4.2 (c) 1-11

SAFETY

SAFETY 2-2

SAFETY LABELS 2-5

POSITION FOR ATTACHING SAFETY LABELS 2-6
SAFETY LABELS 2-7

GENERAL PRECAUTIONS COMMON TO OPERATION AND MAINTENANCE 2-16

PRECAUTIONS BEFORE STARTING OPERATION 2-16
PREPARATIONS FOR SAFE OPERATION 2-16
FIRE PREVENTION 2-18
PRECAUTIONS WHEN GETTING ON OR OFF MACHINE 2-20
DO NOT GET CAUGHT IN ARTICULATING PORTION AND DUMP BODY 2-22
PRECAUTIONS RELATED TO PROTECTIVE STRUCTURES 2-22
UNAUTHORIZED MODIFICATION 2-24
PRECAUTIONS RELATED TO ATTACHMENTS AND OPTIONS 2-24
PRECAUTIONS WHEN RUNNING ENGINE INSIDE BUILDING 2-24

PRECAUTIONS FOR OPERATION 2-25

PRECAUTIONS FOR JOBSITE 2-25
STARTING ENGINE 2-27

MidWestTech | Komatsu HM250-2 Articulated Dump Truck Operation & Maintenance M... Order the manual at mid-west-tech.com >

OPERATION 2-30
TRANSPORTATION 2-34
TOWING 2-35

PRECAUTIONS FOR MAINTENANCE 2-36
PRECAUTIONS BEFORE STARTING INSPECTION AND MAINTENANCE 2-36
PRECAUTIONS FOR INSPECTION AND MAINTENANCE 2-40
TIRES 2-46
DISMANTLING THE MACHINE END OF SERVICE LIVE 2-47

OPERATION

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
CHARACTER DISPLAY 3-7
CAUTION ITEMS 3-13
EMERGENCY STOP ITEM 3-16
METER DISPLAY PORTION 3-20
CENTRAL WARNING LAMP 3-26
OTHER FUNCTIONS OF MACHINE MONITOR 3-27
SWITCHES 3-31
CONTROL LEVERS AND PEDALS 3-43
BODY PIVOT PIN 3-48
ARTICULATE LOCK 3-49
LOCATION OF FIRE EXTINGUISHER 3-49
DUST INDICATOR 3-49

HANDLING BATTERY DISCONNECTOR SWITCH 3-50
CIRCUIT BREAKER 3-51
FUSES 3-52
FUSE CAPACITY AND CIRCUIT NAME 3-53
CAR RADIO 3-56
EXPLANATION OF COMPONENTS 3-56
METHOD OF OPERATION 3-59
PRECAUTIONS FOR USE 3-61
CAR STEREO 3-62
EXPLANATION OF COMPONENTS 3-62
METHOD OF OPERATION 3-67
PRECAUTIONS FOR USE 3-69
AIR CONDITIONER 3-70
GENERAL LOCATIONS ON CONTROL PANEL 3-70
METHOD OF OPERATION 3-73
PRECAUTIONS WHEN USING AIR CONDITIONER 3-75

MidWestTech | Komatsu HM250-2 Articulated Dump Truck Operation & Maintenance M... Order the manual at mid-west-tech.com >

INSPECTION AND MAINTENANCE 3-75

OPERATION 3-76
CHECK BEFORE STARTING ENGINE 3-76
WALK-AROUND CHECK 3-76
CHECK BEFORE STARTING 3-79
ADJUSTMENT BEFORE OPERATION 3-87
OPERATIONS, CHECKS BEFORE STARTING 3-92
STARTING ENGINE 3-93
OPERATIONS, CHECKS AFTER STARTING ENGINE 3-95
BREAKING-IN THE MACHINE 3-95
WARMING-UP OPERATION 3-95
CANCELLING DUMP BODY HOLD CONDITION 3-96
STOPPING ENGINE 3-96
CHECKS AFTER STOPPING ENGINE 3-96
MOVING MACHINE OFF (FORWARD, REVERSE), STOPPING 3-97
MOVING MACHINE FORWARD 3-97
MOVING MACHINE IN REVERSE 3-99
STOPPING MACHINE 3-100
SHIFTING GEAR 3-102
TRAVELLING DOWNHILL 3-104
BRAKE PERFORMANCE CURVE 3-106
STEERING THE MACHINE 3-110
OPERATION USING DIFFERENTIAL LOCK 3-111
METHOD OF USING INTER-AXLE DIFFERENTIAL LOCK 3-111
WHEN TIRES ARE STUCK IN GROUND 3-112
LOADING OPERATIONS 3-112
HANDLING TAILGATE 3-113
DUMP OPERATIONS 3-114
CAB TILT OPERATION 3-116
WHEN USING CRANE 3-117
WHEN USING TILT CYLINDER 3-118
PRECAUTIONS FOR OPERATION 3-119
PERMISSIBLE WATER DEPTH 3-119
PARKING MACHINE 3-120
CHECKS AFTER COMPLETION OF WORK 3-121
LOCKING 3-121
HANDLING TIRES 3-122
PRECAUTIONS WHEN HANDLING TIRES 3-122
PRECAUTIONS FOR LONG DISTANCE TRAVEL 3-123

DETERMINING AND MAINTAINING TRAVEL ROAD 3-124
DETERMINING TRAVEL ROAD 3-124
MAINTAINING TRAVEL ROAD 3-124

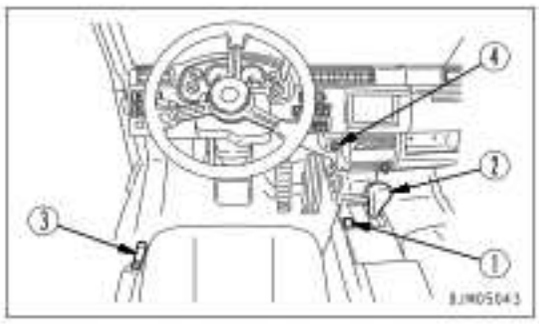
TRANSPORTATION 3-125
PRECAUTIONS WHEN TRANSPORTING 3-125
STEPS FOR TRANSPORTATION 3-125

MidWestTech | Komatsu HM250-2 Articulated Dump Truck Operation & Maintenance M... Order the manual at mid-west-tech.com >

OPERATIONS, CHECKS BEFORE STARTING

⚠ WARNING

- **When starting the engine, check that the gear shift lever is set in the N (neutral) position and that the parking brake switch is at PARKING position.**
- **Before standing up from the operator's seat, place the gear shift lever at N (neutral) position, and set the parking brake switch to the PARKING position.**

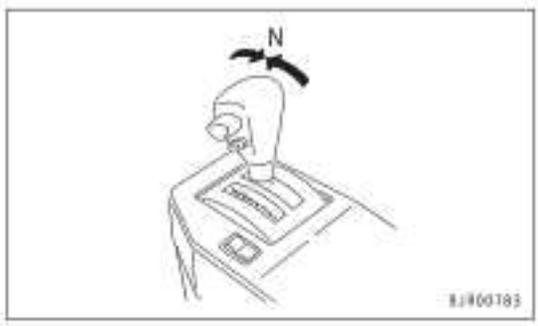


1. Check that parking brake switch (1) is in the PARKING position.

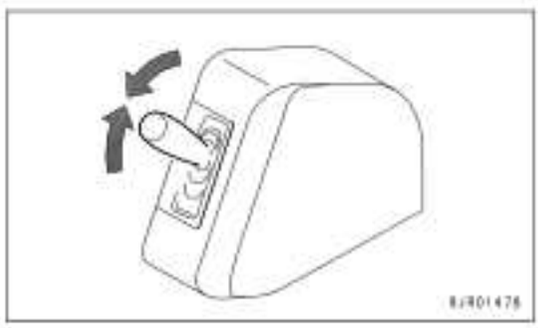


2. Check that gear shift lever (2) is at the N position.

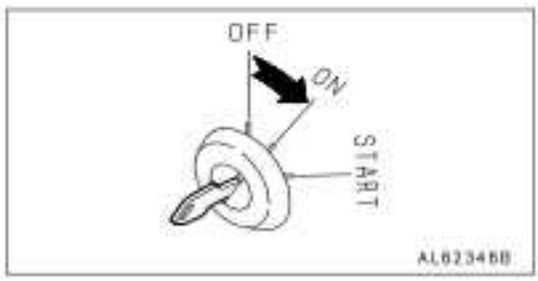
REMARK
If the starting switch is turned to the ON position when the gear shift lever is not at the N position, the gear shift lever position pilot lamp and central warning lamp will flash, and the alarm buzzer will sound.



3. Check that dump lever (3) is at the HOLD position.



4. Check that there is no abnormality in the machine monitor when starting switch (4) is turned to the ON position.



MidWestTech | Komatsu HM250-2 Articulated Dump Truck Operation & Maintenance M... Order the manual at mid-west-tech.com >

EVERY 500 HOURS SERVICE

Maintenance for every 50 and 250 hours service should be carried out at the same time.

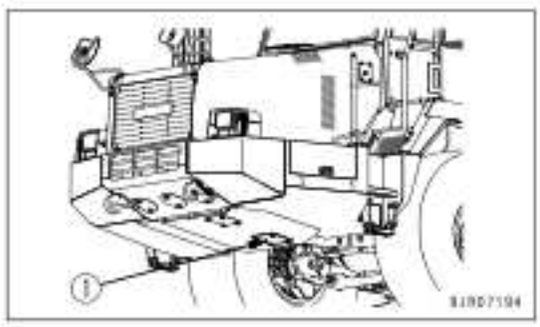
CHANGE OIL IN ENGINE OIL PAN, REPLACE ENGINE OIL FILTER CARTRIDGE

⚠ WARNING

The parts and oil are at high temperature after the engine is stopped, and may cause burns. Wait for the temperature to go down before starting the work.

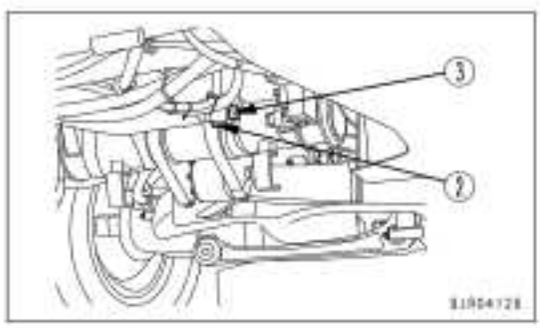
- Refill capacity: 37 litres
- Prepare a filter wrench

1. Remove the bolts and cover (1).
2. Place a drain oil container just under the drain valve.



3. Remove drain plug (2), then loosen drain valve (3) slowly to avoid getting oil on yourself, and drain the oil. Be careful not to loosen the drain valve too far and deform the stopper pin inside the valve.
4. Check the drained oil, and if there are excessive metal particles or foreign material, please contact your Komatsu distributor.
5. Tighten drain valve (3) and drain plug (2).

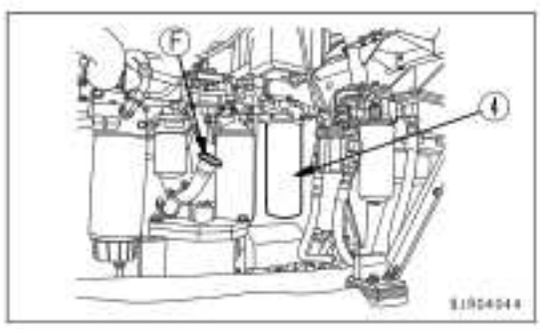
   Tighten both of drain plug (2) and drain valve (3) to 68.6 ± 9.8 Nm {7 ± 1 kgm}.



6. Using the filter wrench, turn filter cartridge (4) to the left to remove it.

   When doing this, to prevent getting oil on yourself, do not carry out this operation from immediately under the cartridge.

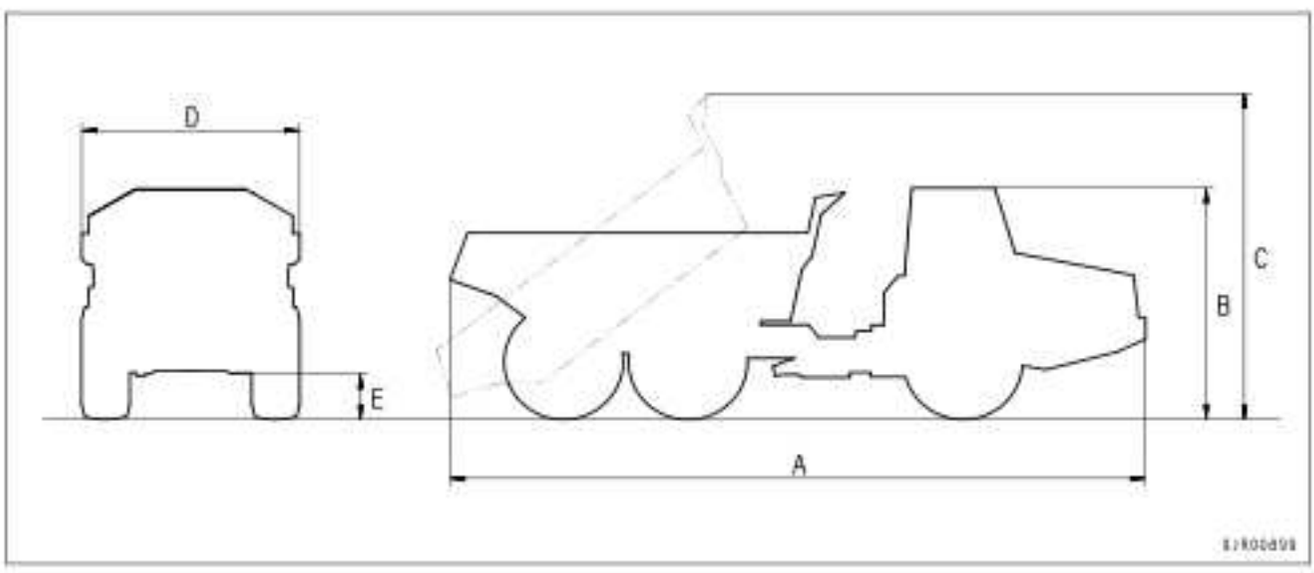
   In particular, if this operation is carried out immediately after stopping the engine, a large amount of oil will come out, so wait for 10 minutes before starting the operation.
7. Clean the filter holder, fill the new filter cartridge with oil, coat the packing face and thread with oil (or coat thinly with grease), then install the filter cartridge.



MidWestTech | Komatsu HM250-2 Articulated Dump Truck Operation & Maintenance M... Order the manual at mid-west-tech.com >

SPECIFICATIONS

	Item			Unit	HM250-2
	Overall weight (unladen weight + max. payload + 1 operator (75kg)			kg	47675
	Unladen weight			kg	23600
	Max. payload			kg	24000
	Dump body capacity	Struck		m^3	11.1
		Heaped (2 : 1)		m^3	14.7
	Dumping speed (at 2000 rpm) (raised)			sec	12
	Name of engine			-	Komatsu SAA6D125E-5 diesel engine
	Engine power			kW/rpm	232/2000 (ISO 14396) 222/2000 (ISO 9249)
	Max. torque			Nm(kgm)/rpm	1706 (174)/1400
A	Overall length			mm	10060
B	Overall height			mm	3500
C	Overall height when dumping			mm	6185
D	Overall width			mm	2900
E	Min. ground clearance (bottom of rear axle)			mm	512
	Min. turning radius			mm	7960
	Travel speed	Forward	1st	km/h	5.9
			2nd	km/h	10.2
			3rd	km/h	15.4
			4th	km/h	24.3
			5th	km/h	36.8
			6th	km/h	57.6
		Reverse	1st	km/h	7.2
			2nd	km/h	17.2
	Ambient temperature working range for operation and storage			°C	-20 - 40



MidWestTech | Komatsu HM250-2 Articulated Dump Truck Operation & Maintenance M... Order the manual at mid-west-tech.com >