TEN00401-01

Operation & Maintenance Manual

WHEEL LOADER **WA320-6**

SERIAL NUMBERS 70536 and up

ecot3

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®

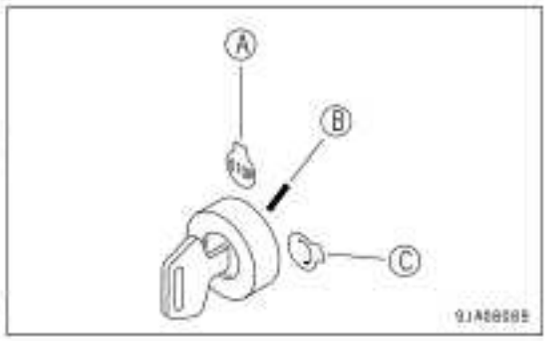
MidWestTech | Komatsu WA320-6 Wheel Loader Operation & Maintenance Manual | Publi... Order the manual at mid-west-tech.com >

GREASE PUMP ---- 3- 62
OPENING, CLOSING CAB DOORS, WINDOWS ---- 3- 63
FUSE ---- 3- 67
SLOW BLOW FUSE ---- 3- 69
STORAGE BOX ---- 3- 69
AM/FM RADIO-CASSETTE STEREO ---- 3- 70
AIR CONDITIONER ---- 3- 78
HANDLING CAB WIPER ---- 3- 85
OPERATION ---- 3- 86
CHECK BEFORE STARTING ENGINE, ADJUST ---- 3- 86
STARTING ENGINE ---- 3-102
CHECKS AFTER STARTING ENGINE ---- 3-106
OPERATIONS AND CHECKS AFTER STARTING ENGINE ---- 3-107
STOPPING ENGINE ---- 3-110
MOVING THE MACHINE (DIRECTIONAL, SPEED), STOPPING THE MACHINE ---- 3-111
TURNING ---- 3-115
OPERATION OF WORK EQUIPMENT ---- 3-117
WORK POSSIBLE USING WHEEL LOADER ---- 3-119
PRECAUTIONS FOR OPERATION ---- 3-124
ADJUSTING WORK EQUIPMENT POSTURE ---- 3-126
PARKING MACHINE ---- 3-128
CHECKS AFTER COMPLETION OF OPERATION ---- 3-130
LOCKING ---- 3-130
HANDLING THE TIRES ---- 3-131
TRANSPORTATION ---- 3-133
TRANSPORTATION PROCEDURE ---- 3-133
LOADING, UNLOADING WORK WITH TRAILERS ---- 3-133
LIFTING MACHINE ---- 3-137
COLD WEATHER OPERATION ---- 3-139
PRECAUTIONS FOR LOW TEMPERATURE ---- 3-139
PRECAUTIONS AFTER COMPLETION OF WORK ---- 3-140
AFTER COLD WEATHER ---- 3-140
LONG-TERM STORAGE ---- 3-141
BEFORE STORAGE ---- 3-141
DURING STORAGE ---- 3-141
AFTER STORAGE ---- 3-141
TROUBLESHOOTING ---- 3-142
WHEN MACHINE RUNS OUT OF FUEL ---- 3-142
METHOD OF TOWING MACHINE ---- 3-142
IF BATTERY IS DISCHARGED ---- 3-144
OTHER TROUBLE ---- 3-147
MAINTENANCE ---- 4- 1
GUIDES TO MAINTENANCE ---- 4- 2
OUTLINES 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

MidWestTech | Komatsu WA320-6 Wheel Loader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

STARTING SWITCH

This switch (1) is used to start or stop the engine.



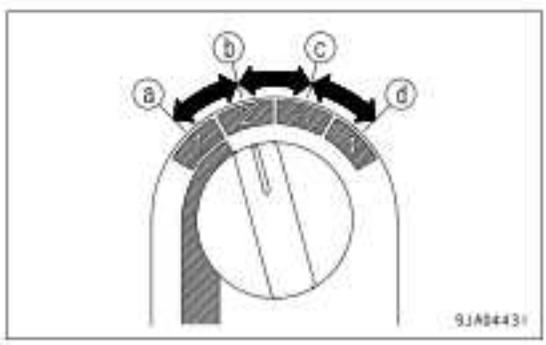
(A): OFF position
It is possible to insert and remove the starting switch key, all the electric system switches are turned off, and the engine stops. In addition, the parking brake is automatically applied.

(B): ON position
In this position, electric current flows to the charging circuit, lamp circuit, and accessory circuit.
Keep the starting switch key at the ON position while the engine is running.

(C): START position
Always turn the key to this position when starting the engine. Set the key to this position while cranking (initial rotation of starting motor), and after starting the engine, put your hand off from the key immediately. The key will return to ON position (B).

SPEED RANGE SELECTOR SWITCH

Use this switch (2) to switch the speed range.
Use 1st and 2nd for operations, and 3rd and 4th for travel.
Position (a): 1st
Position (b): 2nd
Position (c): 3rd
Position (d): 4th



REMARK
When traveling in 3rd or 4th at high speed (travel speed: 8 km/h (4.97 MPH) or more), even if the speed range is switched to 1st or 2nd, the engine overrun prevention function will act to prevent the speed range from shifting to 1st or 2nd.
If this happens, the centralized warning lamp lights up and the alarm buzzer sounds. At the same time, "OVERRUN PREVENTION" is displayed on the bottom line of the character display.
There are the following ways to cancel the alarm buzzer.

- Reduce the travel speed to less than 7 km/h (4.34 MPH). The speed range will shift to 1st or 2nd and the alarm buzzer will be cancelled.
- Return the speed range selector switch to 3rd or 4th.

MidWestTech | Komatsu WA320-6 Wheel Loader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

MAINTENANCE SCHEDULE CHART

MAINTENANCE SCHEDULE CHART

EVERY 10 HOURS SERVICE (ONLY FOR FIRST 50 HOURS)
LUBRICATING ---- 4- 53

INITIAL 250 HOURS SERVICE (ONLY AFTER THE FIRST 250 HOURS)
REPLACE HST OIL FILTER ELEMENT ---- 4- 62
REPLACE HYDRAULIC TANK FILTER ELEMENT ---- 4- 64

INITIAL 1000 HOURS SERVICE (ONLY AFTER THE FIRST 1000 HOURS)
CHECK ENGINE VALVE CLEARANCE, ADJUST ---- 4- 69

WHEN REQUIRED
CLEAN, REPLACE AIR CLEANER ELEMENT ---- 4- 17
CLEAN INSIDE OF COOLING SYSTEM ---- 4- 20
CHECK OIL LEVEL IN TRANSFER CASE, ADD OIL ---- 4- 23
CHECK AXLE OIL LEVEL, ADD OIL ---- 4- 25
CLEAN AXLE CASE BREATHER ---- 4- 26
CLEAN AIR CONDITIONER CONDENSER ---- 4- 27
CHECK WINDOW WASHING FLUID LEVEL, ADD FLUID ---- 4- 27
CLEAN RADIATOR FINS AND COOLER FINS ---- 4- 28
TURN, REPLACE BOLT-ON CUTTING EDGE ---- 4- 32
REPLACE BUCKET TEETH ---- 4- 33
CHECK AIR CONDITIONER ---- 4- 35
REPLACE SLOW BLOW FUSE ---- 4- 37
CHECKING FUNCTION OF ACCUMULATOR ---- 4- 38
SELECTION AND INSPECTION OF TIRES ---- 4- 39
CLEAN, REPLACE FUEL BREATHER FILTER ---- 4- 41

CHECK BEFORE STARTING

EVERY 50 HOURS SERVICE
DRAIN WATER, SEDIMENT FROM FUEL TANK ---- 4- 44

EVERY 100 HOURS SERVICE
LUBRICATE REAR AXLE PIVOT PIN ---- 4- 45
CLEAN ELEMENT IN AIR CONDITIONER FRESH AIR FILTER ---- 4- 46
CHECK OIL LEVEL IN HYDRAULIC TANK, ADD OIL ---- 4- 47

EVERY 250 HOURS SERVICE
CHECK BATTERY ELECTROLYTE LEVEL ---- 4- 48
CHECK PARKING BRAKE ---- 4- 49
CHECK AIR CONDITIONER COMPRESSOR BELT TENSION, ADJUST ---- 4- 50
CHECK FOR LOOSE WHEEL HUB BOLTS, TIGHTEN ---- 4- 51
CLEAN ELEMENT IN AIR CONDITIONER RECIRCULATION FILTER ---- 4- 52
CHECKING FUNCTION OF ACCUMULATOR ---- 4- 52
LUBRICATING ---- 4- 53

MidWestTech | Komatsu WA320-6 Wheel Loader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

SPECIFICATIONS

	Item			Unit	(With bolt on cutting edge)	(With tooth)
	Machine weight			kg (lb)	13,770 (30,363)	13,665 (30,131)
	Normal load			kg (lb)	4,480 (9,878)	
	Bucket capacity	Heaped		m^3 (cu.yd)	2.8 (3.7)	2.6 (3.4)
	Engine model			-	Komatsu SAA6D107E-1 diesel engine	
	Flywheel horsepower			kW(HP)/rpm	125(167)/2,000	
A	Overall length			mm (ft in)	7,515 (24' 8")	7,660 (25' 2")
B	Overall height			mm (ft in)	3,200 (10' 6")	
C	Max. dimension when shaking bucket			mm (ft in)	5,325 (17' 6")	
D	Overall width			mm (ft in)	2,590 (8' 6")	
E	Min. ground clearance			mm (ft in)	425 (1' 5")	
F	Bucket width			mm (ft in)	2,740 (9' 0")	2,760 (9' 1")
G	Dumping clearance (*1)	Cutting edge [BOC tip]		mm (ft in)	2,850 (9' 4")	2,740 (9' 0")
H	Dumping reach (*1)	Cutting edge [BOC tip]		mm (ft in)	1,035 (3' 5")	1,125 (3' 8")
I	Bucket dump angle (Max.height)			degrees	45	
	Min. turning radius	Out of chassis		mm (ft in)	6,260 (20' 6")	6,310 (20' 8")
		Center of outside tire		mm (ft in)	5,380 (17' 8")	
	Permissible towing load			kg(N)	10,200 (100,030)	
	Travel speed	Forward	1st	km/h (MPH)	4.0-13.0 (2.5-8.1)	
			2nd	km/h (MPH)	13.0 (8.1)	
			3rd	km/h (MPH)	18.7 (11.6)	
			4th	km/h (MPH)	38.0 (23.6)	
		Reverse	1st	km/h (MPH)	4.0-13.0 (2.5-8.1)	
			2nd	km/h (MPH)	13.0 (8.1)	
			3rd	km/h (MPH)	18.7 (11.6)	
			4th	km/h (MPH)	38.0 (23.6)	

*1: Indicates the value at the 45 degree bucket dump angle.

MidWestTech | Komatsu WA320-6 Wheel Loader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >