

Operation & Maintenance Manual

SEAM051900T

PC400,400LC-6 PC450,450LC-6 HYDRAULIC EXCAVATOR

SERIAL NUMBERS PC400,400LC-32488 and up
PC450,450LC-12629

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

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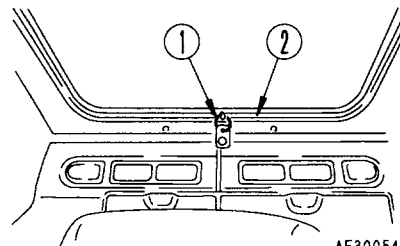
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EMERGENCY EXIT FROM OPERATOR'S CAB

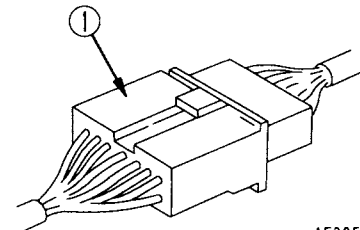
- If it should become impossible to open the cab door for any reason, open the rear window and use it as an emergency escape.
- Remove the rear window as follows.
 1. Pull ring ① and completely remove seal ② from the window frame rubber.
 2. Push the corner of the rear window glass strongly to remove it to the outside.
- Remove the rear window only when it is used as an emergency exit.



AE300540

PRECAUTIONS IN COLD WEATHER

- After completing operations, remove any drops of water, snow, or mud stuck to the wiring harnesses, connector ①, switches, or sensors, and cover these parts.
If drops of water get in and freeze, the machine may malfunction when it is next used, and this may lead to an unexpected accident.
- Carry out the warming-up operations thoroughly. If the control levers are operated before the machine is fully warmed up, the response of the machine will be slow, and this may lead to an unexpected accident.
- Operate the control levers to relieve the hydraulic pressure (raise the pressure to above the set pressure of the hydraulic circuit and relieve the pressure oil to the hydraulic tank) to warm up the oil in the hydraulic circuit.
This improves the response of the machine and prevents mistaken operation.
- If the battery electrolyte is frozen, do not charge the battery or start the engine with power from another source. There is danger that the battery may catch fire.
When charging the battery or starting with power from another source, let the battery electrolyte melt and check that there is no leakage of battery electrolyte before starting the operation.
Battery charge ratio → See "14.1.3 BATTERY".
- In cold weather, do not touch metal surfaces with your bare hands. If you touch a metal surface in extremely cold weather, your skin may freeze to the metal surface.



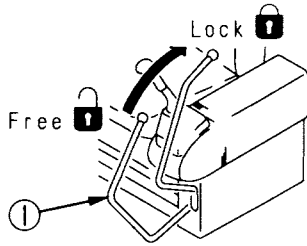
AE305820

NEVER LET ANYONE RIDE ON ATTACHMENT

Never let anyone ride on any work attachment, such as the bucket, crusher, grapple, or clamshell (grab bucket). There is danger of the person falling and suffering serious injury.

SUPPORT FOR WORK EQUIPMENT

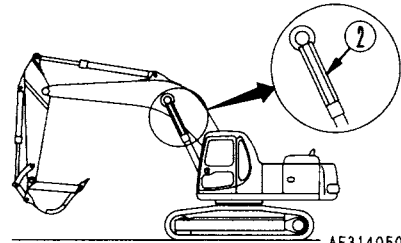
When carrying out inspection and maintenance with the work equipment raised, fit stand ② under the boom to prevent the work equipment from moving down. In addition, set the work equipment control levers to HOLD, then set safety lock lever ① to the LOCK position.



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PROPER TOOLS

Use only tools suited to the task. Using damaged, low quality, faulty, or makeshift tools could cause personal injury. There is danger that pieces from chisels with crushed heads or hammers may get into your eyes and cause blindness.

Tools → See "21.1 INTRODUCTION OF NECESSARY TOOLS".



A0055120

PERIODIC REPLACEMENT OF SAFETY CRITICAL PARTS

Hoses in the fuel system, hydraulic system, and brake system are important parts for safety, so they must be replaced at periodic intervals.

The replacement of such safety critical parts requires skill and experience, so please contact your Komatsu distributor for replacement.

- Replace these components periodically with new ones, regardless of whether or not they appear to be defective. These components deteriorate over time, and leakage of oil may cause fire or failure of the work equipment system.
- Replace or repair any such components if any defect is found, even though they have not reached the time specified.

Replacement of safety critical parts → See "22. PERIODIC REPLACEMENT OF SAFETY CRITICAL PARTS".

9. POSITION FOR ATTACHING SAFETY LABELS

1. Warnings for operation, inspection and maintenance (09651-03001)

⚠ WARNING

Improper operation and maintenance can cause serious injury or death.

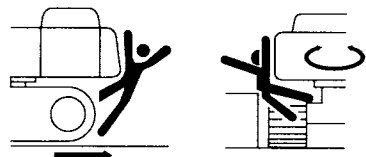
Read manual and labels before operation and maintenance.
Follow instructions and warnings in manual and in labels on machine.

Keep manual in machine cab near operator.
Contact Komatsu distributor for a replacement manual.

09651-03001

2. Warnings before operating machine (09802-03000)

⚠ WARNING



To prevent SEVERE INJURY or DEATH. Do the following before moving machine or its attachments:

- Honk horn to alert people nearby.
- Be sure no one is on or near machine or in swing area.
- Rotate cab for full view of travel path if it can be done safely.
- Use spotter if view is obstructed.

Follow above even if machine equipped with travel alarm and mirrors.

09802-03000

3. Warnings for leaving operator's seat (09654-03001)

⚠ WARNING


To avoid hitting unlocked operation levers, lower equipment to ground and move SAFETY LOCK LEVER (located near seat) to LOCK position before standing up from operator's seat.

Sudden and unwanted machine movement can cause serious injury or death.

09654-03001

4. Warnings for high voltage (09801-03001)

⚠ DANGER



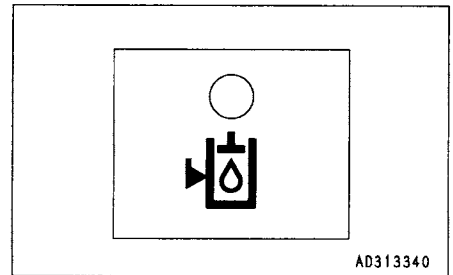
Hazardous voltage hazard. Serious injury or death can occur if machine or attachments are not kept safe distance away from electric lines.

Line voltage	Safe Disatnce
6.6 kv	At least 10 ft (3 m)
66.0 kv	At least 16 ft (5 m)
275.0 kv	At least 33 ft (10 m)

09801-03001

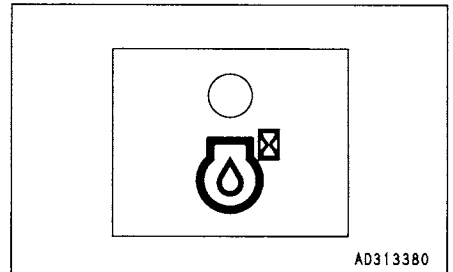
3. HYDRAULIC OIL LEVEL

This warns that the hydraulic oil level is too low.
If the monitor lamp flashes, check the hydraulic oil level, and add oil.

**4. REPLACEMENT OF ENGINE OIL (For only set machines)**

If the set time (125, 250, 500H) passes after the engine oil is replaced, this lamp lights up. At this time, replace the engine oil.

If you want to change the set time for replacement of oil, please consult your Komatsu distributor.

**11.1.2 B: CAUTION ITEMS**

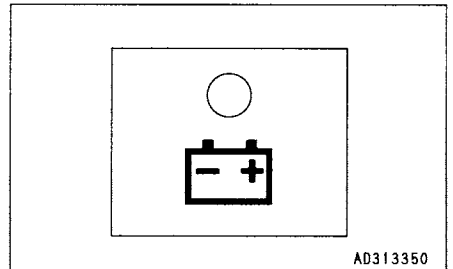
 **CAUTION**

If the caution monitor lamp flashes, repair the problem as soon as possible.

1. CHARGE LEVEL

This monitor indicates an abnormality in the charging system while the engine is running.

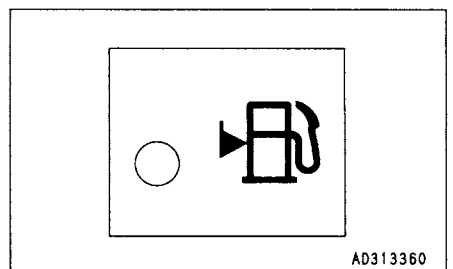
If the monitor lamp flashes, check the V-belt tension. If any abnormality is found, see "16.6 OTHER TROUBLE".

**REMARK**

While the starting switch is ON, the lamp will remain lit and will go off once the engine is started.

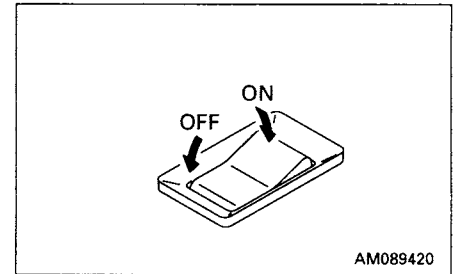
2. FUEL LEVEL

If the fuel drops below 55 liters (14.5 US gal, 12.2 UK gal), the lamp will flash. Top up the fuel before this.

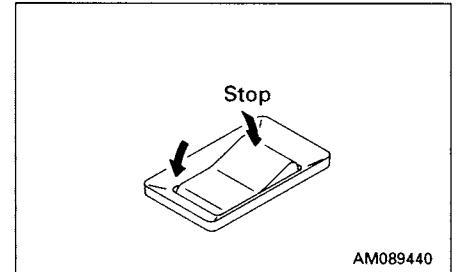


6. LAMP SWITCH

This switch is used to turn on the front lamps, working lamps, additional lamp at the top front of the cab, rear lamps, and monitor lighting.

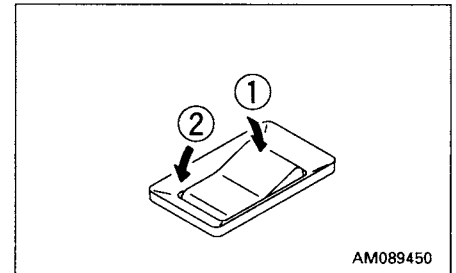
**7. ALARM BUZZER STOP SWITCH**

This is used to stop the alarm buzzer if it sounds to warn of an abnormality during operation.

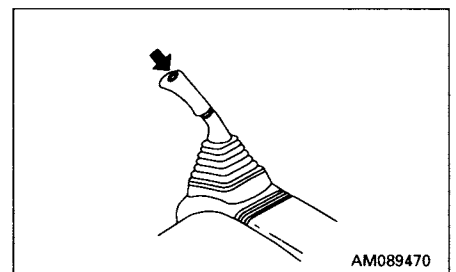
**8. MACHINE PUSH-UP SWITCH**

This switch is used to switch the safety valve set pressure at the head end of the boom cylinder to two levels.

- ① Low pressure setting: The boom thrust force is weak, so the swaying of the chassis is small during digging operations, and digging operations can be carried out smoothly. This is used for general digging operations on normal ground, soft rock, or blasted rock.
- ② High pressure setting: The thrusting force of the boom becomes more powerful, so it is easy to twist and swing or escape from soft ground. It is effective in carrying out digging operations using the bucket and the weight of the machine in confined areas.

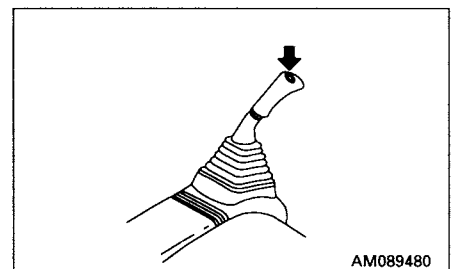
**9. HORN SWITCH**

Press the switch on the right work equipment control lever to sound the horn.

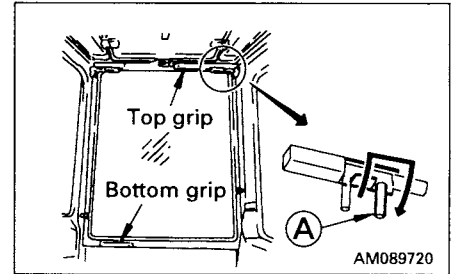
**10. KNOB SWITCH**

The knob switch on the left work equipment control lever is used to actuate the power max. or swift slow-down functions.

Keep the switch pressed. The power max. function can be used for a maximum of 8.5 seconds in H/O or G/O mode. The swift slow-down function can be used for as long as the switch is kept pressed.

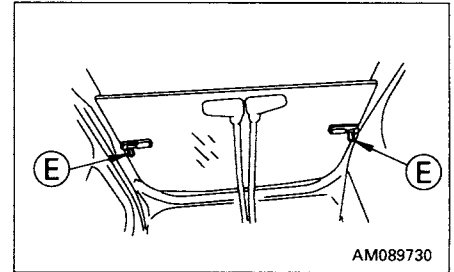


5. Lock securely with lock pins (A) at the left and right sides.

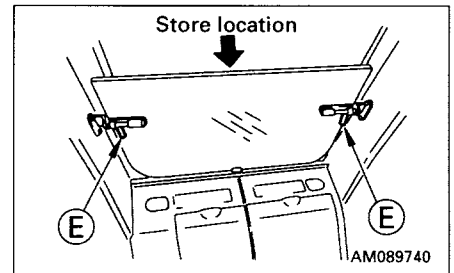


Removing front window (bottom)

With the front window open, remove lock pins (E), and the bottom part of the front window can be removed.



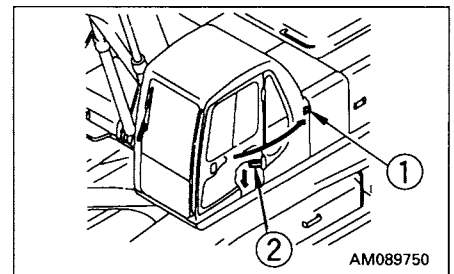
Store the removed bottom part of the front window at the rear of the operator's cab and lock with lock pins (E).



11.6 DOOR LOCK

Use the door lock to fix the door in position after opening it.

1. The door will become fixed in place when it is pressed against catch (1).
2. To release the lock, press knob (2) down at the left side of the operator's seat to release the catch.
When fixing the door, fix it firmly to the catch.



11.12.3 PRECAUTIONS WHEN USING

- To ensure safety, always keep the sound to a level where it is possible to hear outside sounds during operation.
- If water gets into the speaker case or car radio (auto tuning), it may lead to an unexpected failure, so be careful not to get water on the equipment.
- Do not wipe the scales or buttons with benzene, thinner, or any other solvent. Wipe with a soft dry cloth. Use a cloth soaked in alcohol if the equipment is extremely dirty.
- When the battery is replaced, the settings for the preset buttons are all cleared, so set again.

11.12.4 SPECIFICATIONS

Tuning method:	PLL synthesizer method
Reception frequency:	AM 522 kHz – 1629 kHz (in 9 kHz steps) FM 76.0 MHz – 90.0 MHz (in 0.1 MHz steps)
Actual max. sensitivity:	AM 30 dB FM 15 dB
Actual max. output:	10 W x 2
Current consumption:	Max. 2 A
External dimensions:	Width 184 mm, Height 56 mm, Depth 116 mm
Weight:	0.65 kg

11.13 ELECTRIC POWER TAKE-OUT ADAPTER

Pull out the connector plug for taking out electric power from the rear side of the panel.

Maximum usable electric power is 85 W (24 V x 3.5 A).

NOTICE

Do not use as a 12 V power supply. It will cause machine failure.

12.1.3 ADJUST BEFORE OPERATION

⚠ WARNING

- Adjust the seat position before starting operations or after changing the operator.
- Adjust the seat so that the brake pedal can be depressed fully with the operator's back against the backrest.

A: Fore-and-aft adjustment

Move lever ① to right. After the seat is set to the desired position, release the lever.

Adjustable distance: 100 mm (3.3 in) in 10 steps

B: Adjusting reclining

NOTICE

The seat can be reclined to a large angle when the seat is pushed fully forward, but the reclining angle is reduced when the seat is moved back, so when moving the seat to the rear, return the seat back to its original position.

Pull lever ② and set the seat back to a position which is comfortable for operation, then release the lever.

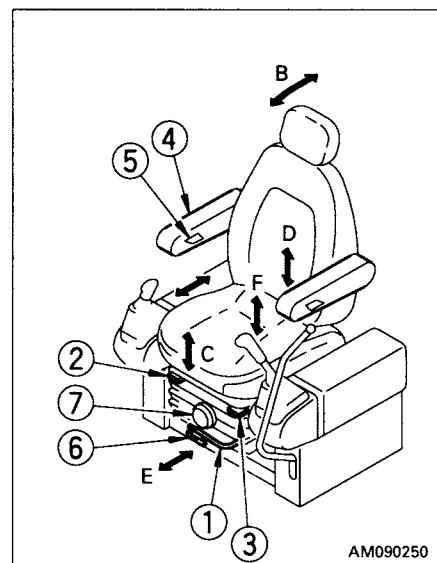
Sit with your back against the seat back when adjusting. If your back is not touching the seat back, the seat back may suddenly move forward.

C: Adjusting seat tilt

1. Forward tilt (↕)

Push lever ③ down to adjust the angle of the front of the seat. (4 stages)

1. To raise the angle at the front of the seat, keep the lever pushed down and apply your weight to the rear of the seat.
2. To lower the angle at the front of the seat, keep the lever pushed down and apply your weight to the front of the seat.



12.3.2 IN COLD AREAS (AUTOMATIC WARMING-UP OPERATION)

When starting the engine in cold areas, carry out the automatic warming-up operation after starting the engine.

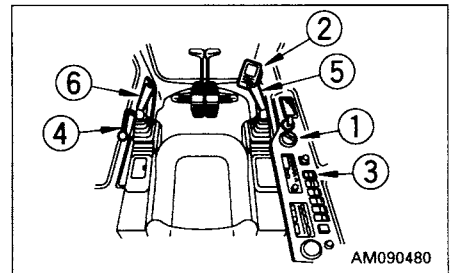
When the engine is started, if the engine water temperature is low (below 30°C), the warming-up operation is carried out automatically.

The automatic warming-up operation is canceled if the engine water temperature reaches the specified temperature (30°C) or if the warming-up operation is continued for 10 minutes. If the engine water temperature or hydraulic oil temperature are low after the automatic warming-up operation, warm the engine up further as follows.

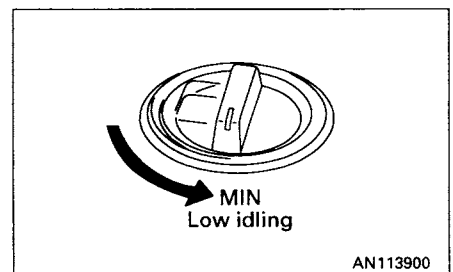
NOTICE

- When the hydraulic oil is at a low temperature, do not carry out operations or move the levers suddenly. Always carry out the warming-up operation. This will help to extend the machine life.
- Do not suddenly accelerate the engine before the warming-up operation is completed.

Do not run the engine at low idling or high idling continuously for more than 20 minutes. This will cause leakage of oil from the turbocharger oil supply piping. If it is necessary to run the engine at idling, apply a load from time to time or run the engine at a mid-range speed.



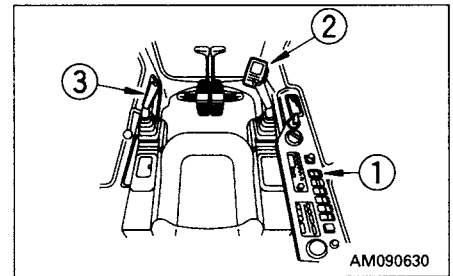
1. Set fuel control dial ① to the low idling (MIN) position and run the engine for about 5 minutes without load.



12.7 SWINGING

WARNING

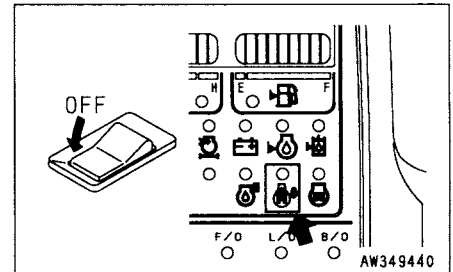
When operating the swing, check that the area around the machine is safe.



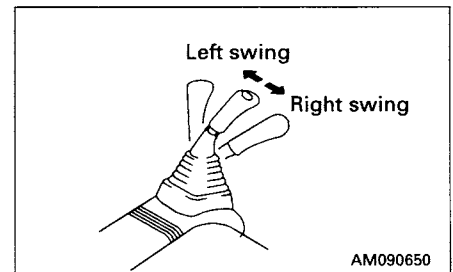
1. Before operating the swing, turn swing lock switch ① OFF (CANCELED).

NOTICE

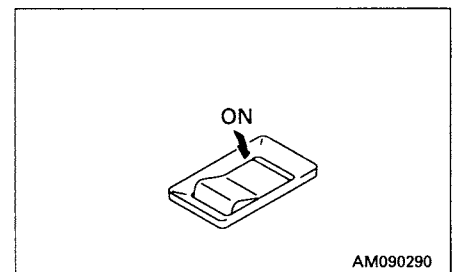
Check that swing lock monitor ② goes out at the same time.



2. Operate left work equipment control lever ③ to swing the upper structure.



3. When not operating the swing, turn swing lock switch ① ON (ACTUATED).

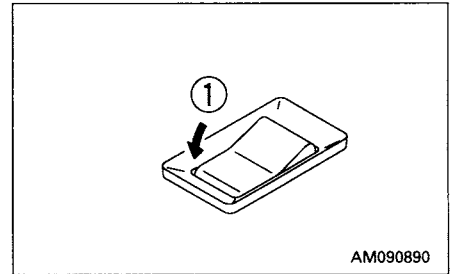


12.14 HOW TO ESCAPE FROM MUD

Always operate carefully to avoid getting stuck in mud. If the machine does get stuck in mud, use the following procedures to get the machine out.

Be careful not to get stuck in mud when operating. If you do get stuck in mud, do as follows to escape.

- Place the machine push-up switch at position ①. This will increase the pushing power of the boom and make it easier to escape.



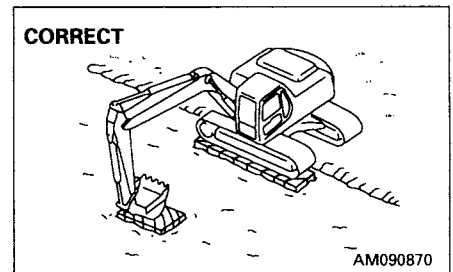
12.14.1 WHEN ONE SIDE IS STUCK

When only one side is stuck in mud, use the bucket to raise the track, then lay boards or logs and drive the machine out. If necessary, put a board under the bucket also.

NOTICE

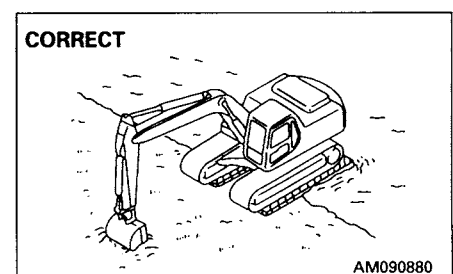
When using the boom or arm to raise the machine, always have the bottom of the bucket in contact with the ground. (Never push with the teeth). The angle between the boom and arm should be 90° to 110°.

The same applies when using the inverting bucket.



12.14.2 WHEN BOTH SIDES ARE STUCK

When the tracks on both sides are stuck in mud and the machine will not move, lay boards as explained above, and dig the bucket into the ground in front. Then pull in the arm as in normal digging operations and put the travel levers in the FORWARD position to pull the machine out.



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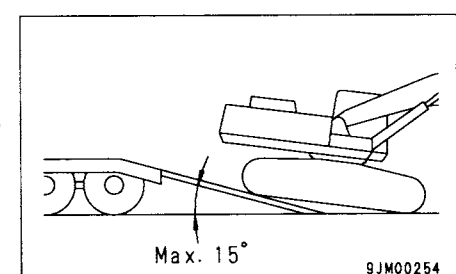
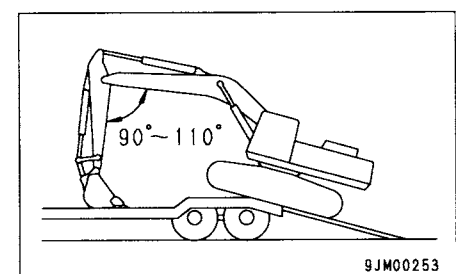
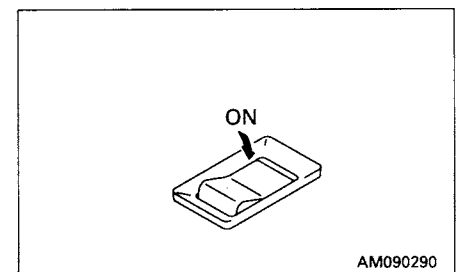
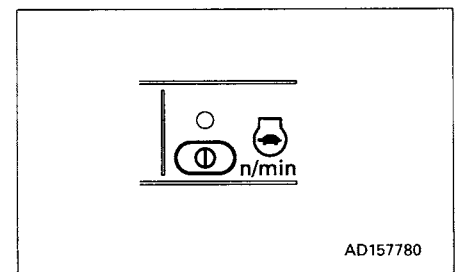
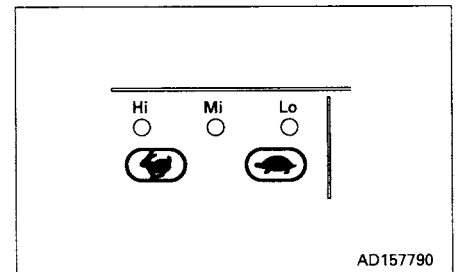
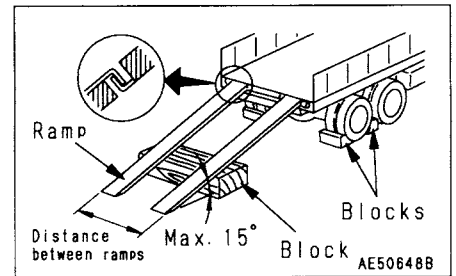


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13.2.1 LOADING

1. Perform loading and unloading on firm, level ground only. Maintain a safe distance from the edge of a road.
2. Properly apply the brakes on the trailer and put blocks under the tires to ensure that the trailer does not move. Then fix the ramps in line with the centers of the trailer and the machine.
Be sure that the two sides are at the same level as one another. Make the slope of the ramps a maximum of 15°. Set the distance between the ramps to match the center of the tracks.
3. Set the travel speed switch to Lo.
4. Turn the auto-deceleration switch OFF and turn the fuel control dial to lower the engine speed.
5. Turn the swing lock switch ON to apply the swing lock.
6. If the machine is equipped with work equipment, set the work equipment at the front, and travel forward to load it; if it has no work equipment, travel in reverse to load it.
7. Align the direction of travel with the ramps and travel slowly. Lower the work equipment as far as possible without causing interference. When on the ramps, operate only the travel lever. Do not operate any other lever or pedal.



15.2 DURING STORAGE

 **WARNING**

If it is unavoidably necessary to carry out the rustpreventive operation while the machine is indoors, open the doors and windows to improve ventilation and prevent gas poisoning.

Operate the engine and move the machine for a short distance once a month so that a new film of oil will be coated over movable parts and component surfaces. At the same time, also charge the battery.

Also carry out cooler operation in the case of machines equipped with an air conditioner.

15.3 AFTER STORAGE

NOTICE

If the machine is stored without carrying out the monthly rust prevention operation, request your Komatsu distributor for service.

Carry out the following procedure when taking the machine out of long-term storage.

- Wipe off the grease from the hydraulic cylinder rods.
- Add oil and grease to all places.

15.4 STARTING MACHINE AFTER LONG-TERM STORAGE

When starting the machine after a long-term storage, first cancel the automatic warming-up function as follows.

1. Turn the starting switch key to the ON position.
2. Turn the fuel control dial from the low idling (MIN) position to the full (MAX) position, hold it there for 3 seconds, then return it to the low idling (MIN) position and start the engine.

ENGINE (cont'd) (16.6.3)

Problem	Main causes	Remedy
Exhaust gas is white or blue	<ul style="list-style-type: none"> ● Too much oil in oil pan ● Improper fuel 	<ul style="list-style-type: none"> ● Add oil to specified level, see CHECK BEFORE STARTING ● Change to specified fuel
Exhaust gas occasionally turns black	<ul style="list-style-type: none"> ● Clogged air cleaner element ● Defective nozzle ● Defective compression ● Defective turbocharger 	<ul style="list-style-type: none"> ● Clean or replace, see WHEN REQUIRED (● Replace nozzle) (● See defective compression above) ● Clean or replace turbocharger
Combustion noise occasionally makes breathing sound	<ul style="list-style-type: none"> ● Defective nozzle 	<ul style="list-style-type: none"> (● Replace nozzle)
Abnormal noise generated (combustion or mechanical)	<ul style="list-style-type: none"> ● Low grade fuel being used ● Overheating ● Damage inside muffler ● Excessive valve clearance 	<ul style="list-style-type: none"> ● Change to specified fuel ● Refer to "Radiator water level monitor lights up" as above (● Replace muffler) (● Adjust valve clearance)

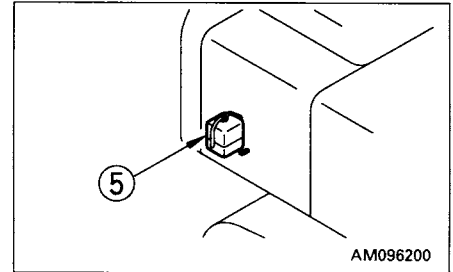
18.3 OUTLINE OF HYDRAULIC SYSTEM

- During operation and immediately after operation is ended, the temperature of the hydraulic system still remains high.
In addition, high hydraulic pressure is applied to the system. Take care when inspecting and maintaining the hydraulic system.
 - Stop the machine on level ground, lower the bucket to the ground, then set so that there is no pressure applied to the cylinder circuit.
 - Always stop the engine.
 - Immediately after operations, the hydraulic oil and lubricating oil are at high temperature and high pressure, so wait for the oil temperature to go down before starting maintenance.
Even when the temperature goes down, the circuit may still be under internal pressure, so when loosening the plug or screw, or the hose joint, do not stand in front of the part. Loosen it slowly to release the internal pressure before removing it.
 - When carrying out inspection or maintenance of the hydraulic circuit, always bleed the air from the hydraulic tank to remove the internal pressure.
- Periodic maintenance includes the inspection of the hydraulic oil level, replacement of the filter and refilling of hydraulic oil.
- When the high pressure hose, etc. is removed, check the O-ring for damage. If necessary, replace it.
- After the hydraulic filter element and strainer are cleaned or replaced, or after the hydraulic system is repaired or replaced or the hydraulic piping is removed, bleed air from the hydraulic circuit.
- The accumulator is charged with high-pressure nitrogen gas. Incorrect handling may be dangerous. For the handling procedure, see "11.19 HANDLING ACCUMULATOR".

SAFETY CRITICAL PARTS

No.	Safety critical parts for periodic replacement	Q'ty	Replacement interval
1	Fuel hose (fuel tank – engine)	2	Every 2 years or 4000 hours, whichever comes sooner
2	Spill hose (nozzle – fuel tank)	1	
3	Spill hose (between nozzles)	2	
4	Fuel hose (fuel filter – injection pump)	2	
5	Pump output hose	2	
6	Work equipment hose (boom cylinder inlet port)	4	
7	Work equipment hose (bucket cylinder line, boom foot)	2	
8	Work equipment hose (bucket cylinder inlet port)	2	
9	Work equipment hose (bucket cylinder inlet port, 4.0 m arm)	2	
10	Work equipment hose (arm cylinder line, boom foot)	2	
11	Work equipment hose (arm cylinder inlet port)	2	
12	Attachment additional line hose (boom foot)	2	
13	Attachment additional line hose (boom intermediate)	2	
14	Attachment additional line hose (boom top)	2	
15	Swing line hose (swing motor inlet port)	2	
16	Main suction hose	1	
17	Gear pump suction hose	1	
18	Heater hose	2	
19	Seat belt	1	Replace every 3 years

10. When the water is completely clean, stop the engine, close drain valve ③, then wrap with sealing tape and close drain valve ④.
11. Replace the corrosion resistor cartridge and open valves ①.
For details of replacement of the corrosion resistor, see "24.8 EVERY 1000 HOURS SERVICE".
12. Install the undercover.
13. Open air bleed valve ④ of the aftercooler and add coolant (antifreeze) and tap water from the water filler port to the edge of the port. When water comes out from air bleed valve ④, tighten the valve.
14. To remove the air in the cooling water, run for five minutes at low idling, then for another five minutes at high idling.
When doing this, leave radiator cap ② off.
15. After draining off the cooling water of reserve tank ⑤, clean the inside of the reserve tank and refill the water between FULL and LOW level.
16. Stop the engine, wait for about three minutes, add cooling water up to near the radiator water filler port, then tighten cap ②.



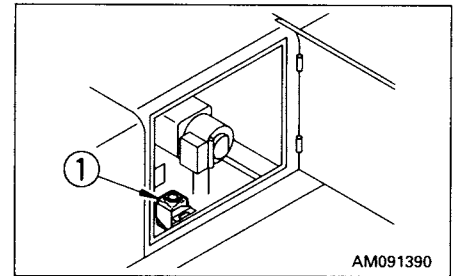
24.2.9 CHECK WINDOW WASHER FLUID, ADD FLUID

If there is air in the window washer fluid, check the level of the fluid in window washer tank ①. Add automobile window washer fluid if necessary.

When adding fluid, be careful not to let any dust get in.

- Proportion for mixing washer fluid with water

The proportion differs according to the ambient temperature, so dilute the washer fluid with water to the following proportions before adding.



Area, season	Proportions	Freezing temperature
Normal	Washer fluid 1/3: water 2/3	-10°C (14°F)
Winter in cold area	Washer fluid 1/2: water 1/2	-20°C (-4°F)
Winter in extremely cold area	Pure washer fluid	-30°C (-22°F)

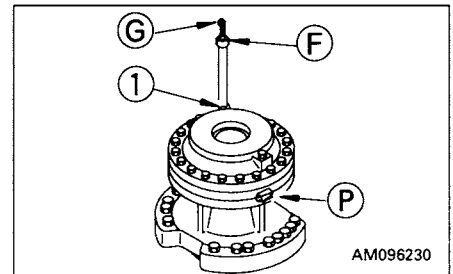
There are two types depending on the freezing temperature: -10°C (14°F) (general use) and -30°C (-22°F) (cold area use), so select according to the area and season.

24.5.2 CHECK OIL LEVEL IN SWING MACHINERY CASE, ADD OIL

⚠ WARNING

The oil is at high temperature immediately after the machine has been operated. Wait for the oil to cool down before carrying out this check.

1. Remove dipstick ⑥ and wipe the oil from the dipstick with a cloth.
2. Insert dipstick ⑥ fully in the guide.
3. When dipstick ⑥ is pulled out, if the oil level is between the H and L marks of the gauge, oil level is proper.
4. If the oil does not reach the L mark on dipstick ⑥, add engine oil through dipstick insertion hole ⑦.
When refilling, remove bleeding plug ①.



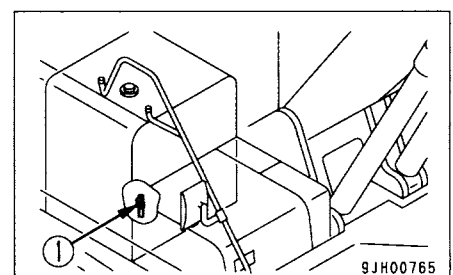
NOTICE

For details of the oil to use, see "20. USE OF FUEL, COOLANT AND LUBRICANTS ACCORDING TO AMBIENT TEMPERATURE".

5. If the oil level exceeds the H mark on the dipstick, loosen drain valve ② to drain the excess oil.
6. After checking oil level or adding oil, insert the dipstick into the hole and install air bleeding plug ①.

24.5.3 DRAIN WATER AND SEDIMENT FROM FUEL TANK

1. Carry out this procedure before operating the machine.
2. Prepare a container to catch the fuel that is drained.
3. Open valve ① at the bottom of the tank and drain the sediment and water that has accumulated at the bottom together with fuel. When doing this, be careful not to get fuel on yourself.
4. When only clean fuel comes out, close drain valve ①.



NOTICE

Never use trichlene for washing the inside of the tank.

6. When installing, tighten until the packing surface of the cartridge contacts the seal surface of the filter holder, then tighten a further $3/4 - 1$ turn.
7. Clean the bypass filter holder, fill new bypass filter cartridge ② with clean engine oil, coat the packing and thread of the filter cartridge with engine oil (or coat thinly with grease), then install.
8. When installing, tighten until the packing surface of the cartridge contacts the seal surface of the filter holder, then tighten a further $3/4 - 1$ turn.
9. After replacing the filter cartridge, add engine oil through oil filler port ⑤ so that the oil level is between the H and L marks on dipstick ⑥.
10. Run the engine at idling for a short time, then stop the engine and check again that the oil level is between the H and L marks on the level gauge. For details, see "24.3 CHECK BEFORE STARTING".

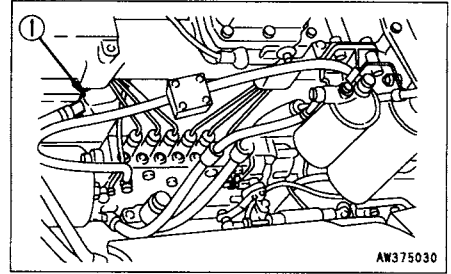
Replace the filter at least once every 6 months, even if the machine has been operated for less than 500 hours.

Replace the filter at least once every 500 hours, even if the machine has been operated for less than 6 months.

24.9.3 CLEAN ENGINE BREATHER

⚠ WARNING

- The parts and oil are at high temperature after the engine is stopped, and may cause serious burns. Wait for the temperature to go down before cleaning the engine breather.
- When using compressed air, there is a hazard that dirt may be blown up and cause serious injury. Always use safety glasses, dust mask, or other protective equipment.



1. Wipe away dust around the breather.
2. Loosen the clamp and remove the hose. Remove breather ①.
3. Clean the breather body with light oil or cleaning oil.
4. Replace O-ring with new one. Coat a new O-ring with engine oil, set it, then install breather ①.
5. Check the breather hose. If caked oil (sludge) adheres to the inside, replace the hose with a new one.

24.9.4 CLEAN, CHECK TURBOCHARGER

Contact your Komatsu distributor for cleaning or inspection.

24.9.5 CHECK ALTERNATOR, STARTING MOTOR

The brush may be worn, or the bearing may have run out of grease, so contact your Komatsu distributor for inspection or repair. If the engine is started frequently, carry out inspection every 1000 hours.

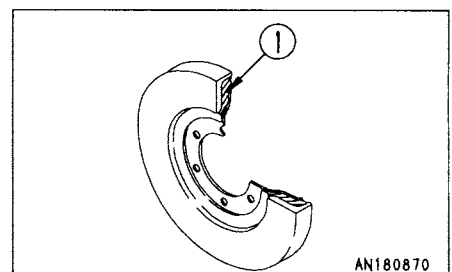
24.9.6 CHECK ENGINE VALVE CLEARANCE, ADJUST

As special tool is required for removing and adjusting the parts, you shall request Komatsu distributor for service.

24.9.7 CHECK VIBRATION DAMPER

Check that there are no cracks or peeling in the outside surface of the rubber ①.

If any cracks or peeling are found, contact your Komatsu distributor to have the parts replaced.



AN180870

PC450-6 AVANCE
PC450LC-6 AVANCE



		PC450-6 AVANCE	PC450LC-6 AVANCE
WEIGHT			
● Operating weight (without operator)		42240 kg (93140 lb)	43500 kg (95920 lb)
PERFORMANCE			
● Bucket capacity (standard bucket) SAE/CECE		1.8 m ³ (2.08 cu.yd)/1.6 m ³	
● Width of opening	(Standard bucket)	1424 mm (56.1 in)	
	(With side cutter)	1574 mm (62.0 in)	
● Travel speed	Low speed	3.2 km/h (2.0 MPH)	
	Middle speed	4.5 km/h (2.8 MPH)	
	High speed	5.5 km/h (3.4 MPH)	
● Swing speed		9.1 rpm	
TRACK SHOE			
● Triple grouser shoe (standard)		600 mm (23.6 in) width	600 mm (23.6 in) width
ENGINE			
● Model		Komatsu SAA6D125E-2 diesel engine	
● Flywheel horsepower		228.01 kW (306 HP)/2050 rpm	
● Starting motor		24 V 11 kW	
● Alternator		24 V 33 A	
● Battery		12 V 150 Ah x 2 pieces	

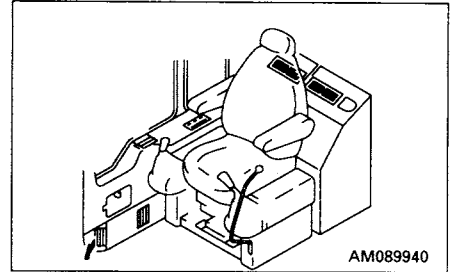
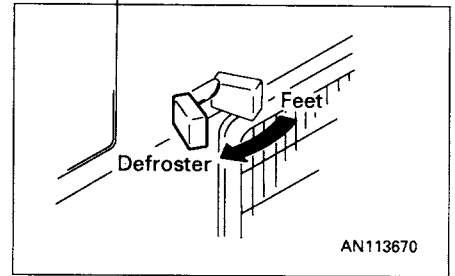
3. DEFROSTER SELECTOR LEVER

This is used to clear the mist from the front glass in cold or rainy conditions.

Selector lever forward : Defroster

Selector lever back : Feet

The defroster can be used when the vent selector panel is at the  or  position.



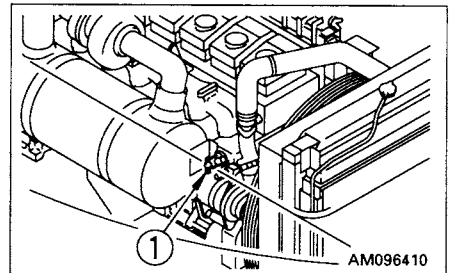
29.2 PREPARATION FOR CAR HEATER

Use the car heater when the temperature drops. When using the car heater, turn valve ① on the water pump to the left to open it.

When the warm season returns and the car heater is not to be used for a long period, turn valve ① to the right to close it.

REMARK

For machines equipped with an air conditioner, keep valve ① open at all times.

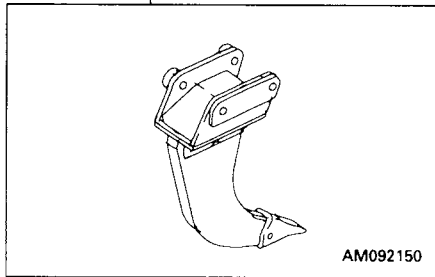


31. INTRODUCTION OF ATTACHMENTS

PC450, 450LC

Name	Specifications, use
Ripper bucket	Capacity CECE 1.16 m ³
	Outside width 1,250 mm
One tooth ripper bucket	Shank width 118 mm
	Crushing depth 1,130 mm

Name	Specifications, use
Track shoes (PC450)	Triple grouser shoe width 700 mm
Track shoes (PC450LC)	Triple grouser shoe width 700 mm



- Long life teeth, self-sharpening teeth, track frame center guard, arm holding valve, auto pull-up front window, additional front lamp, rear lamp, and travel alarm are also available, so please contact your Komatsu distributor.

32.3 FORK GRAB

MAIN FIELDS OF APPLICATION

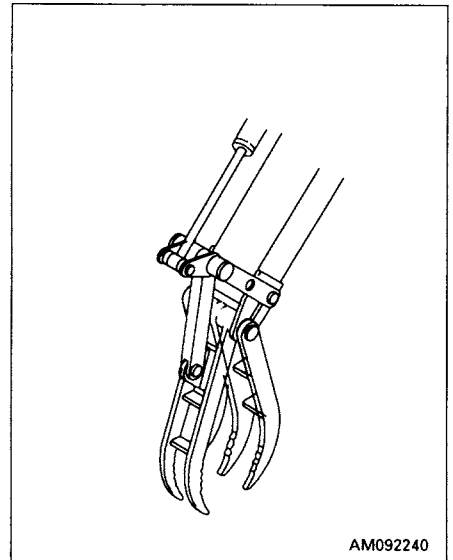
- Disposing of industrial waste
- Disposing of demolition waste

This can be used for a wide range of work including collecting or loading demolition waste materials and debris, timber, grass etc.

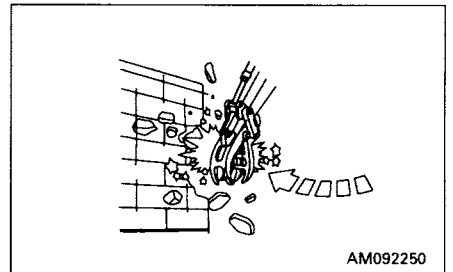
MISTAKEN METHODS OF USE

To ensure that the machine has a long life, and to ensure that operations are carried out in safety, do not operate the machine in any of the following ways.

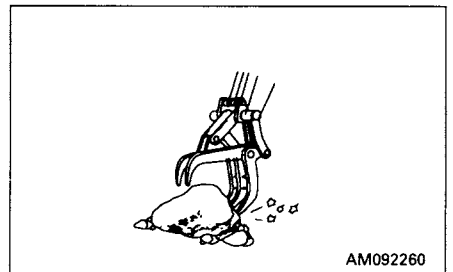
- Do not operate the cylinder to the end of its stroke.
Always leave approx. 5 cm (2 in) to spare.



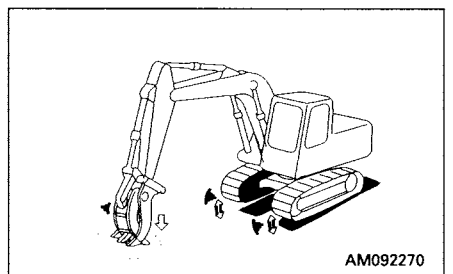
Operations using the swing force



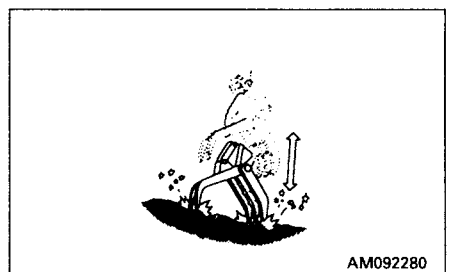
Operations using one side of work equipment



Pushing fork into ground surface to jack up and change direction of machine



Impact operation with no load



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