



Read and understand these instructions.  
Failure to do so can cause injury or death.

OC3-106E0

Product: Takeuchi TB015 Compact Excavator Operators Manual  
Full Download: <https://www.repairmanual.com/downloads/takeuchi-tb015-compa-ct-excavator-operators-manual/>

# TB015

## COMPACT EXCAVATOR

# OPERATORS MANUAL

Serial No. 1154619~

**TAKEUCHI MFG.CO.,LTD.**

# OPERATOR PRECAUTIONS

If this machine is used by an employee, it is the employer's responsibility to fully instruct each operator in the proper and safe operation of all operative equipment. Both employer and employee should thoroughly familiarize themselves with the following sections.

All operators must be instructed on the proper operation of the excavator before they operate the unit.

## ● Personnel Precautions

- Avoid loose fitting clothing, loose or uncovered long hair, jewelry and loose personal articles.
- Know and use the protective equipment that is to be worn when operating this machine. Hard hats, protective glasses, protective shoes, gloves, and ear protection are examples of types of equipment that may be required.
- Do not rush. Walk, do not run.
- Know and use the hand signals required for particular jobs and know who has the responsibility for signaling.

## ● Operator-General Precautions

- It is the responsibility of the operator to read and understand the Operators Manual and other information provided and use the correct operating procedure. Machines should be operated only by qualified operators.
- Wear the seat belt.
- Do not permit riders on the machine.
- Make sure all protective guards, canopies, doors, etc, are in place and secure.
- Remove all loose objects stored in the machine. Remove all objects which do not belong in or on the machine and its equipment.

## ● Mounting and Dismounting Precautions

- Use the recommended hand holds and steps with at least three points of support when getting on and off the machine. Keep steps and platform clean. Face the access system when climbing up and down.
- Do not jump off the machine.
- Do not dismount while the machine is in motion.

- **Starting and Stopping Precautions**

- Walk around the machine and warn all personnel who may be servicing the machine or are in the machine path prior to starting. Do not start until all personnel are clearly away from the machine.
- Check that the parking device is applied, place the travel levers in neutral before starting the machine.
- Adjust, secure and latch the seat and fasten the seat belt before starting the machine.
- Start and operate the machine only from the operator's station.
- Do not bypass the machine's neutral-start system. The neutral-start system must be repaired if it malfunctions.
- Use jumper cables only in the recommended manner. Improper use can result in battery explosion or unexpected machine motion.
- Do not operate the engine in an enclosed area without adequate ventilation.
- Park the machine on level ground whenever possible and apply the parking device. On grades, park the machine with the crawler belts securely blocked.
- Before leaving the operator's station, place the travel levers in the neutral position, lower the equipment to the ground or put in the locked position, set the parking device and shut off the engine.
- Remove the starter key or disconnect switch key when leaving the machine parked or unattended.

- **Operating Precautions**

- Check brakes, steering and other machine control devices prior to starting operation. Observe all gauges or warning instruments for proper operation. Operate all controls to insure proper operation. If any malfunctions are found, follow the shutdown procedure and report the malfunction for resolution.
- If a failure that causes loss of control such as steering, service brakes or engine occurs, stop the machine motion as quickly as possible, follow the shutdown procedure, and keep machine securely parked until the malfunction is corrected.
- Understand the machine limitations and keep the machine control.
- Operate the machine with care and at speeds compatible with conditions. Use extra caution when operating over rough ground, on slopes, and when turning the machine.
- Note and avoid all hazards and obstructions such as ditches, underground lines, trees, cliffs, overhead electrical wires or areas where there is danger of a slide.
- Carry loads in recommended positions for maximum stability.
- Never lift loads in excess of capacity.
- Use the recommended machine ballast and counterweighting.

- Know and understand the job site traffic flow patterns and obey flagmen, road signs and signals.
- Watch for bystanders and never allow anyone to be under or to reach through the machine and its equipment while operating.
- Select the 1st. speed (low gear) that will prevent excessive speed when going downhill.
- When roading a machine, know and use the signaling devices required on the machine. Provide an escort for roading when required.

### ● **Maintenance Precautions**

- Do not attempt repairs unless trained. Refer to manuals and experienced repair personnel for help.
- Wear protective glasses and other required safety equipment when servicing or repairing the machine.
- Wear gloves to protect hands when handling cable.
- Disconnect the battery before working on the electrical system.
- Avoid lubrication or mechanical adjustments with the machine in motion or the engine operating. If the engine must be in operation to make certain adjustments, place the travel levers in neutral, apply the parking device, place the equipment in a safe position, securely block the crawler belts and use extreme caution.
- Securely block the machine or any component that may fall before working on the machine or component.
- To prevent unexpected movement, securely block working elements when repairing or changing working tool parts such as cutting edges.
- Never make repairs on pressurized components, fluid, gas or mechanical until the pressure has been relieved.
- Use extreme caution when removing radiator caps, drain plugs, grease fitting or pressure taps. Park the machine and let it cool down before opening a pressurized compartment.
- Release all pressure before working on the hydraulic system. Use a piece of cardboard or wood to check for pressurized leaks to prevent fluid penetrating the skin.
- Observe proper maintenance procedures.
- Whenever servicing or replacing hardened pins, etc, use a brass drift or other suitable material between the hammer and pin.
- Keep the brakes and steering systems in good operating condition.
- Replace all missing, illegible or damaged safety signs. Keep all safety signs clean.

● **Fuel Handling Precautions**

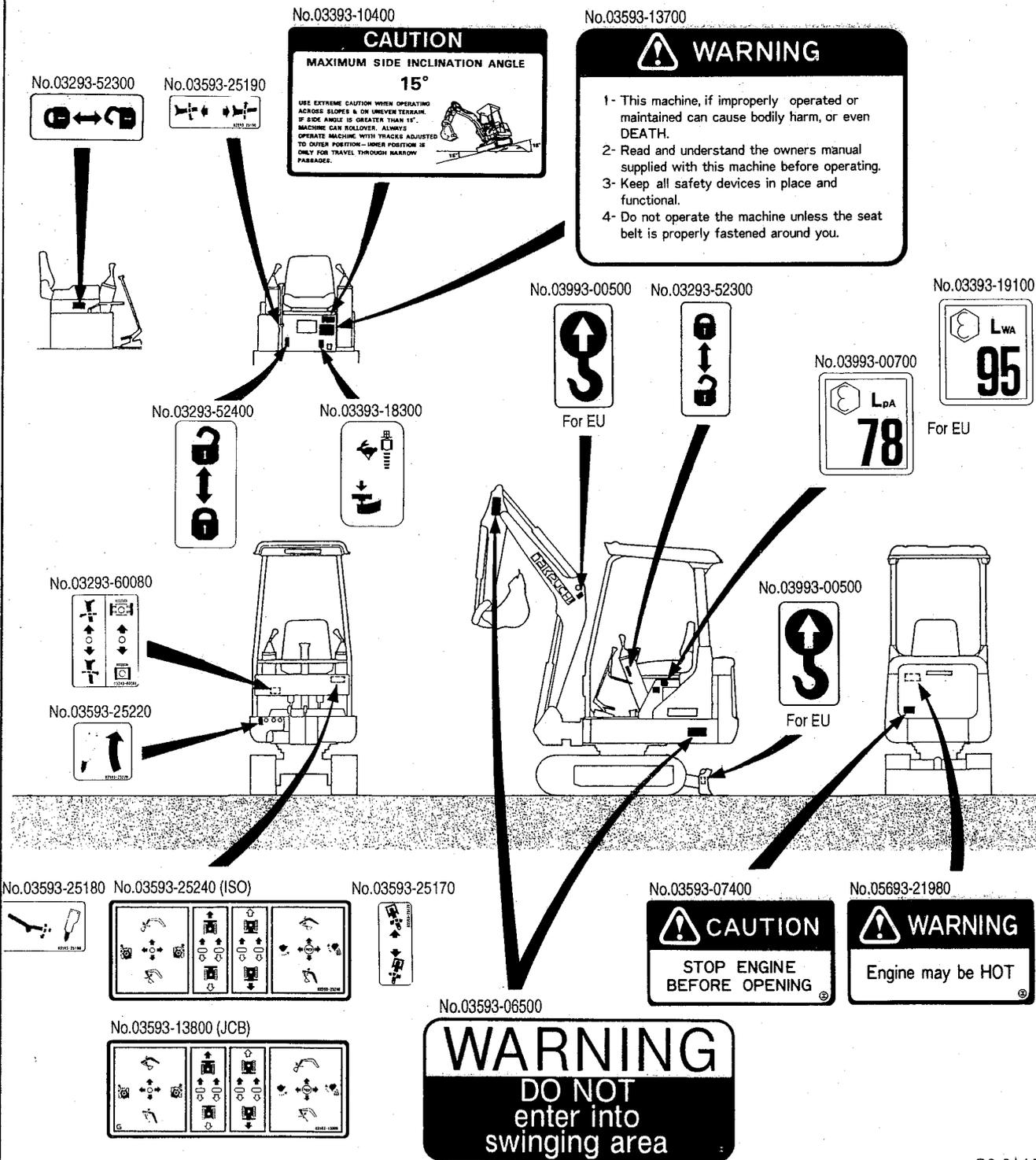
- Do not smoke or permit open flames while fueling or near fueling operations.
- Never remove the fuel cap or refuel with the engine running or hot. Never allow fuel to spill on hot machine components.
- Maintain control of the fuel filler nozzle when filling the tank.
- Do not fill the fuel tank to capacity. Allow room for expansion.
- Clean up spilled fuel immediately.
- Tighten the fuel tank cap securely. Should the fuel cap be lost, replace it only with the original manufacturer's approved cap. Use of a non-approved cap without proper venting may result in pressurization of the tank.
- Never use fuel for cleaning purposes.
- Use the correct fuel grade for the operating season.

# SAFETY SIGNS (Decals)

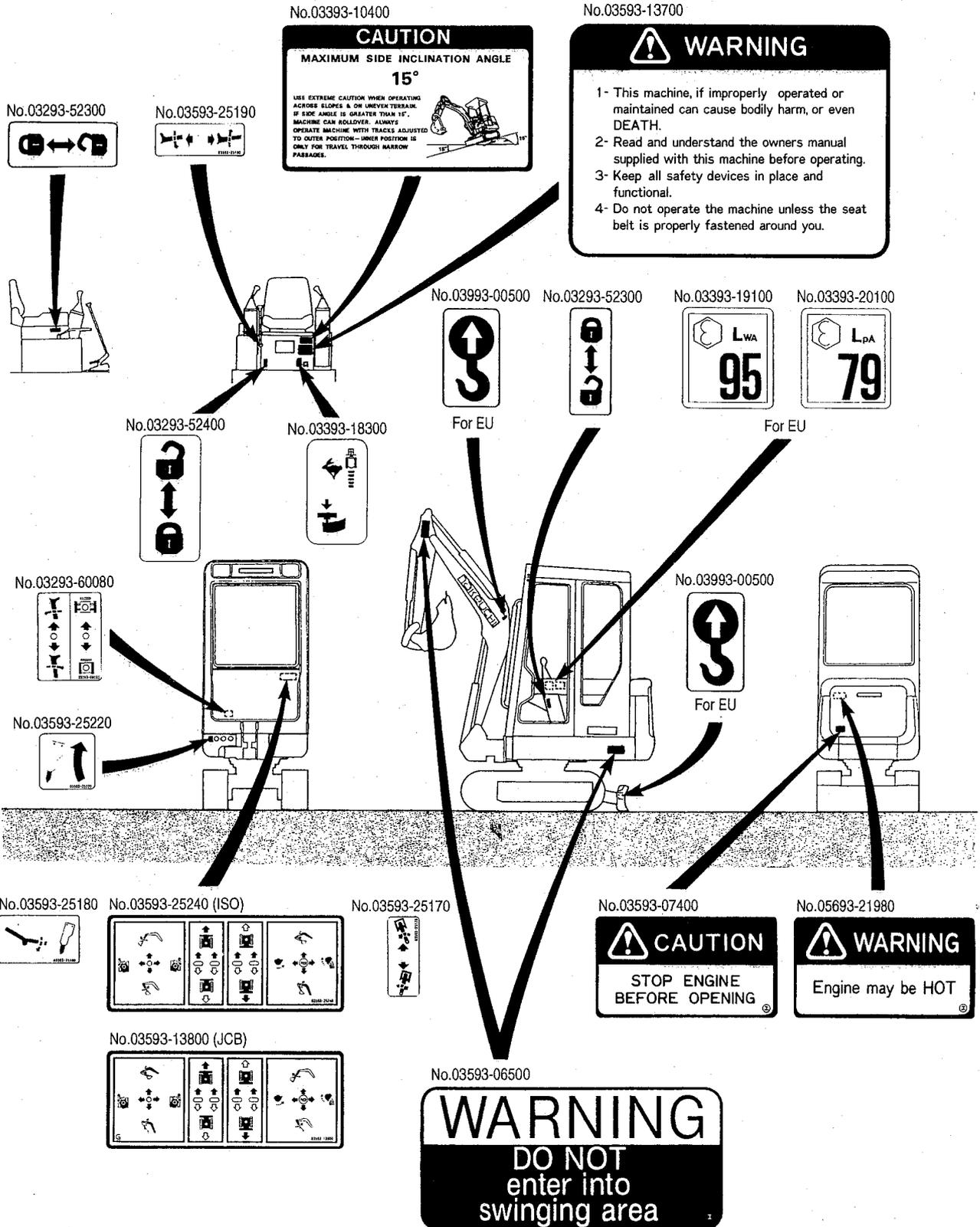
The following safety signs (decals) have been placed on your machine in the areas indicated. They are intended for the personal safety of you, and those working with you. Please take this manual, walk around your machine and note the content and location of these safety signs. Review these signs and the operating instructions in this manual with your machine operators.

- Keep the signs legible. If they are not, obtain replacements from your Service outlet.

## Canopy



**Cab**



## Introduction

Congratulations on your purchase of a Takeuchi construction machine. This manual explains operation and maintenance so that you can use your compact excavator efficiently and economically. Read this manual carefully, and operate and service your excavator accordingly. Please note that due to improvements, the explanations and diagrams in this manual may differ in some points from the actual excavator and the explanations in the engine's manual.



This mark indicates important information on safety. Be sure to follow the instructions indicated after this mark.



This mark indicates advice for the operator.

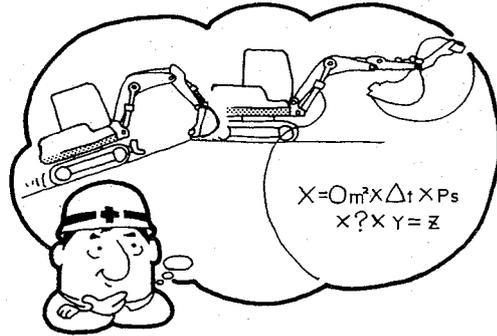
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## < BEFORE OPERATION > SAFETY INSTRUCTIONS

### ▲ Know your excavator well.

- Make sure you know and understand the excavator's performance, working capacities, sizes, weights, etc.



00-005P

### ▲ Read this manual carefully and inspect and service the excavator accordingly.

- Proper handling of the excavator is the basis for safe operation. Read this manual and the stickers on the excavator carefully and make sure you understand them.
- Conduct pre-operation and daily inspections rigorously.



00-006P

### ▲ Wear the proper clothing.

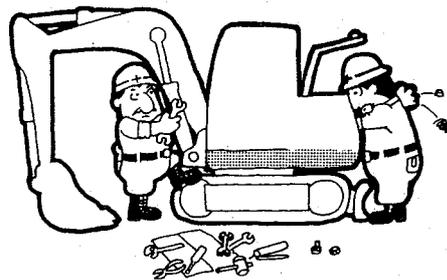
- Always use a helmet, work shoes, protective tools and work clothes.



00-007A

### ▲ Service and repair defects or problems carefully before operating the excavator.

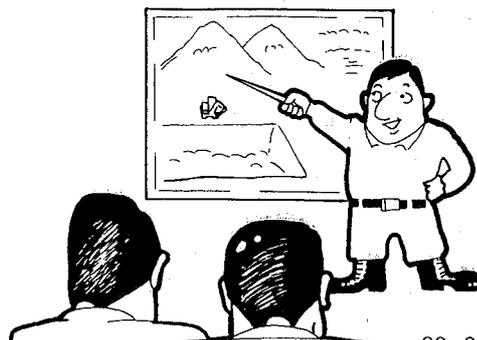
- Mark non-serviced excavators with the words "DO NOT OPERATE".
- Reinspect problem parts serviced or repaired the previous day before operating the excavator.



00-008P

### ▲ Perform operations systematically.

- Carefully discuss the work to be done for the day and the procedures.
- Survey the area on which the excavator is to be used, checking the ground, road shoulders, etc., for dangerous places, and prepare plans.

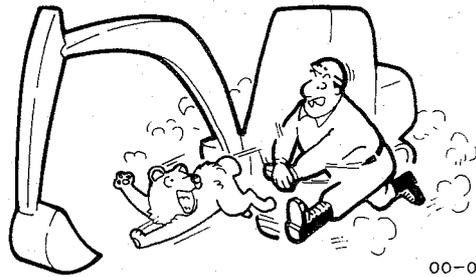


00-032

# SAFETY INSTRUCTIONS <BEFORE OPERATION>

## ⚠ Check the area around the excavator before starting operations.

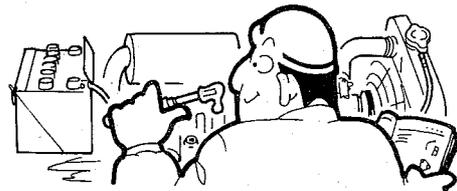
- Walk around the excavator once to check whether it is safe to move it. While doing so, check the outside of the excavator for scratches or damage.



00-033

## ⚠ Carefully perform the proper inspections before starting.

- Before starting, perform the inspections explained in the section "Before Starting". If you find any problems, adjust or repair them completely before starting.



00-034

## ⚠ Do not jump onto or off of the excavator!

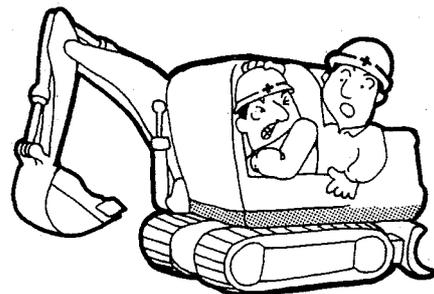
- Check that the engine is stopped and hold onto the handrail when climbing off.
- Do not grab operating levers when climbing in or out.
- Keep the floor and pedals clean, as dirt can make them slippery.



00-035

## ⚠ No passengers!

- No one but the operator should be in the excavator.



00-011P

## ⚠ Be careful of noise.

- Loud prolonged noise can cause hearing impairments, even the total loss of hearing. Use ear plugs or ear covers when operating the excavator.

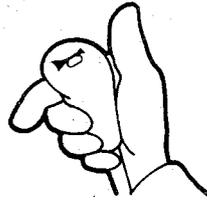


00-036

## < DURING OPERATION > SAFETY INSTRUCTIONS

### ▲ Honk the horn as a warning before starting the engine, starting up or slewing.

- To prevent accidents, signal others around the excavator before moving it by honking the horn or flashing the lights.



00-037

### ▲ Be careful of exhaust gases!

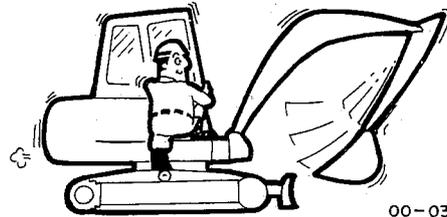
- The exhaust gases from the engine are extremely toxic. Take the following measures:
  - Ventilate thoroughly when working indoors.
  - Extend an exhaust pipe outdoors.



00-038P

### ▲ Always operate from the operator's seat.

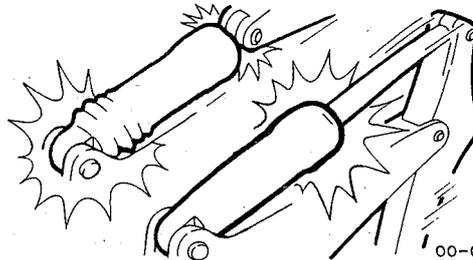
- Do not start the engine or operate the operating or travel levers except when in the operator's seat with the seat belt fastened. Doing so is extremely dangerous.



00-039

### ▲ Treat the hydraulic cylinders gently.

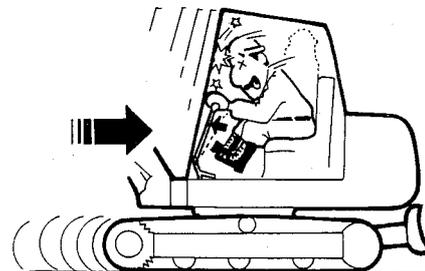
- Whenever possible, do not operate the hydraulic cylinders to the stroke ends. Leave a little leeway.



00-040P

### ▲ Check the position of the blade before starting to travel.

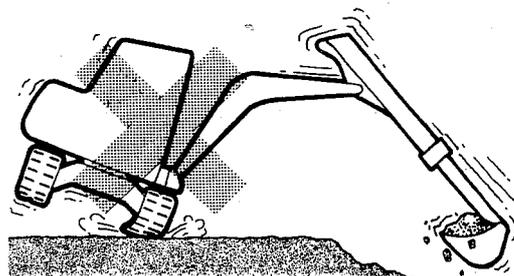
- The side on which the blade is located is the front of the travel frame. Lift the blade before travelling.
- Travelling long distances in reverse can damage the crawler belts.
- Remember that when the blade is to the rear of the operator's seat, the excavator will move backwards when the travel levers are pushed forwards.
- Be careful not to damage asphalt surfaces which are soft in the summer.



00-041

### ▲ Cautions on using the telescopic arm!

- When using the telescopic arm, stability decreases and the risk of tipping increases, so only operate in the following conditions:
  - Do not operate the telescopic arm in the slewing or swinging posture.
  - Operate with the spanner cylinder fully extended.
  - Set the boom swing directly to the front.
  - To dig, set the blade against the ground in the front.

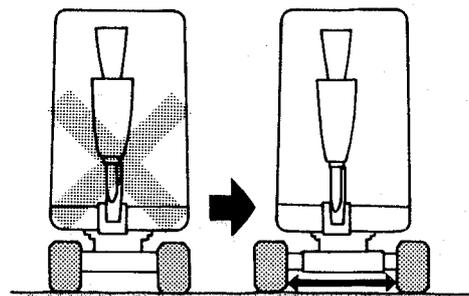


00-081P

# SAFETY INSTRUCTIONS < DURING OPERATION >

## ▲ Operate with fully extended crawlers!

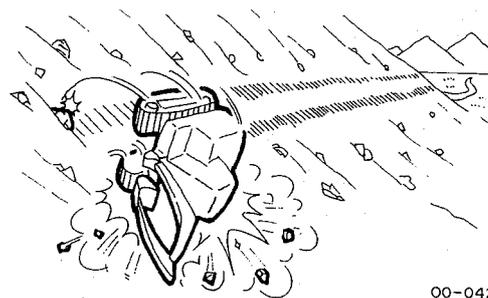
- When operate the machine, always extend the crawlers for greater stability. Operation with retracted crawlers the machine may be unstable and tip over.
- When travel with retracted crawlers, position the attachment facing straight forward.
- When operate the optional attachments such as Breaker, Tilt-Bucket, Cramshell, machine should be operated only in the extended width of 1300mm (51.2 in.).



00-080

## ▲ Never travel sideways or change directions on slopes!

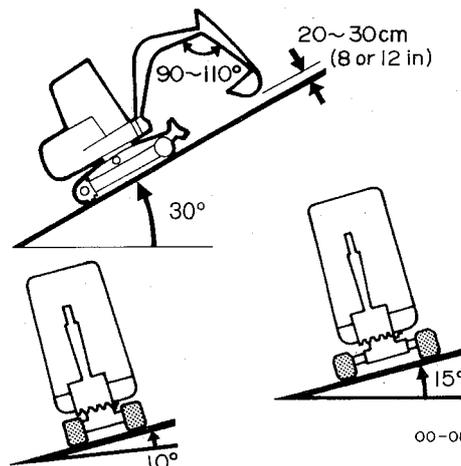
- Doing so is extremely dangerous. First move down the slope, then travel or change directions.
- When slewing on slopes, first pull the boom in as close as possible to the body and lower the bucket, then slew slowly.



00-042P

## ▲ Use within the maximum gradeability 30° and lateral tipping angle 15°. (10° when a retracted crawler width)

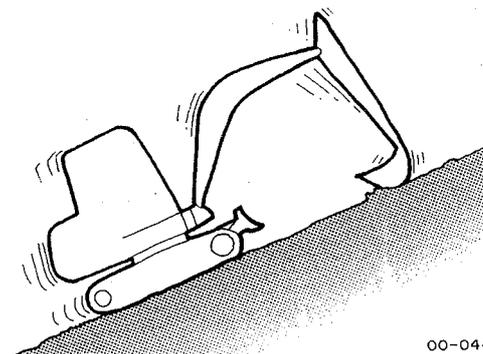
- Never use on slopes steeper than the excavator's specified maximum gradient.
- On slopes, set the bucket 20 or 30cm (8 or 12 in.) from the surface and use it for support in emergencies.
- When travelling down slopes, setting the travel levers to the neutral position provides automatic braking force.



00-081

## ▲ Cautions when climbing and descending slopes!

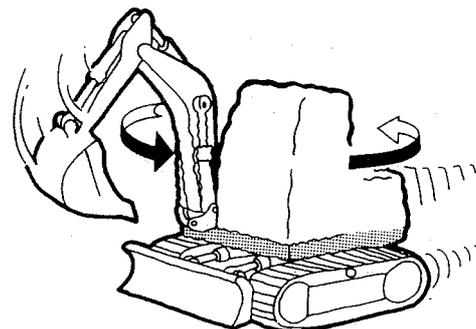
- If the crawlers slip and it is not possible to climb the slope, use the force of the arm pulling in to help.
- Travelling in high speed on slopes or non-leveled ground is dangerous as it could result in tipping or sliding. Always travel slowly in low speed.
- If the engine stops when climbing a slope, set the travel levers to the neutral position, lower the bucket to the ground and stop the excavator before starting the engine back up. Also, never slew when the engine is stopped. The excavator slews from its own weight.



00-044P

## ▲ Never slew while travelling!

- It is dangerous to slew while traveling, since it is not possible to pay attention to all factors. Also do not operate the hoe attachment while traveling.
- Do not drive the bucket's teeth into the ground while slewing, as this could damage the excavator.

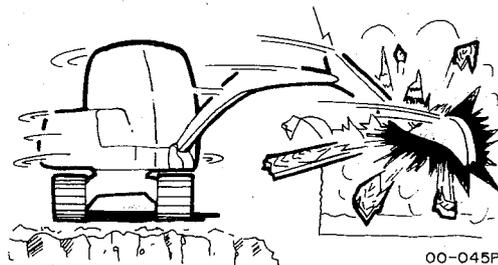


00-015P

## < DURING OPERATION > SAFETY INSTRUCTIONS

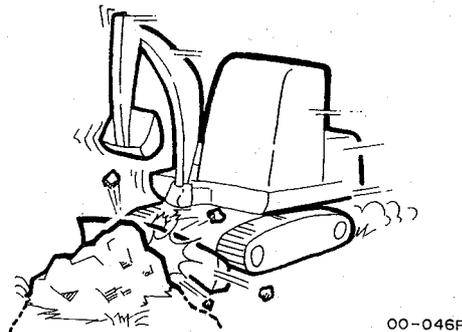
### ▲ Watch for obstacles!

- Be very careful that the hoe attachment does not come into contact with obstacles while operating the excavator.



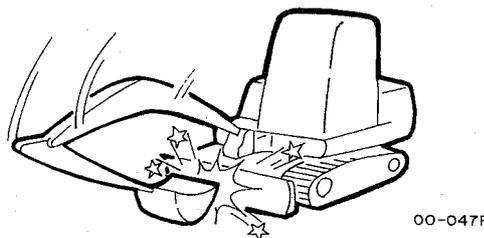
### ▲ Be careful not to subject the blade to shocks!

- Hitting the blade against large rocks, etc., can damage the blade or blade cylinder.



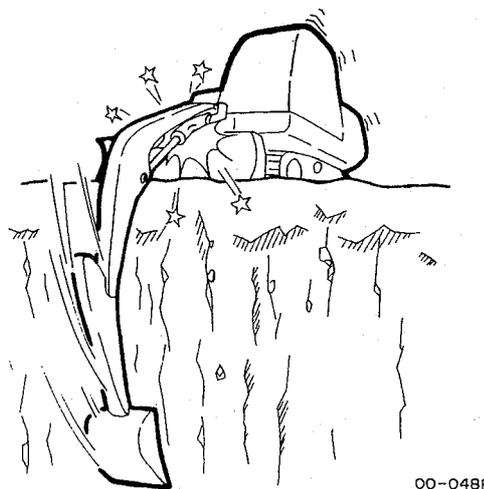
### ▲ Be careful when folding the hoe attachment!

- When folding the hoe attachment, be careful that the bucket does not hit the blade.



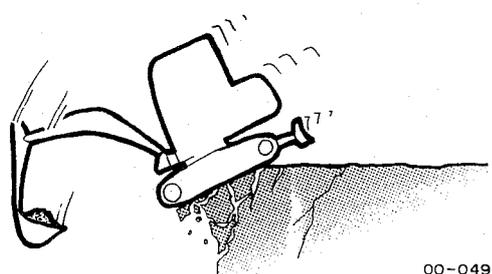
### ▲ Be careful of the blade when digging!

- When digging deeply with the blade at the front, be careful that it does not hit the boom cylinder or bucket. Always operate with the blade at the back unless otherwise necessary.



### ▲ Be careful when operating on the edges of cliffs or road shoulders!

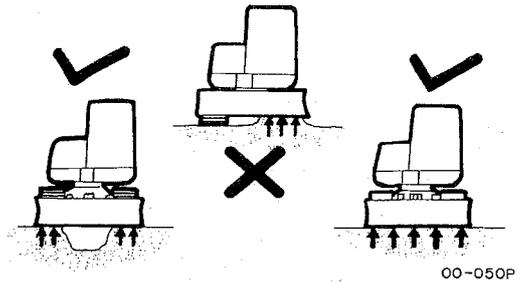
- To avoid unforeseeable situations, keep the crawlers at right angles to the cliff or road shoulder so that it can be moved back easily.
- Check the hardness of the ground beforehand for safety.
- Be careful not to dig the area directly in front of the excavator too deeply.



# SAFETY INSTRUCTIONS < DURING OPERATION >

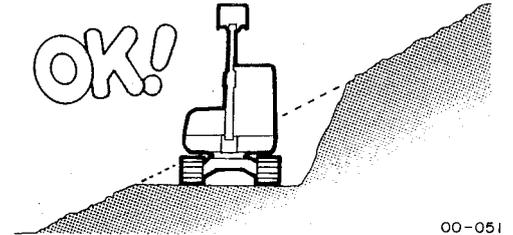
## ▲ Support the blade on both sides.

- When supporting the blade to stabilize the excavator while digging, do not support it on one side only.



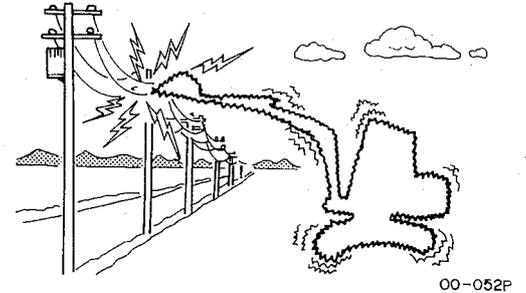
## ▲ Operating on slopes is dangerous!

- Level the ground on which the excavator is sitting before operating on slopes.



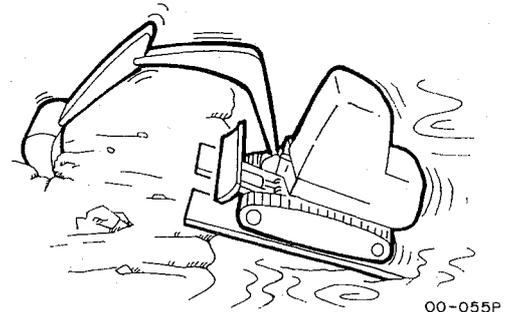
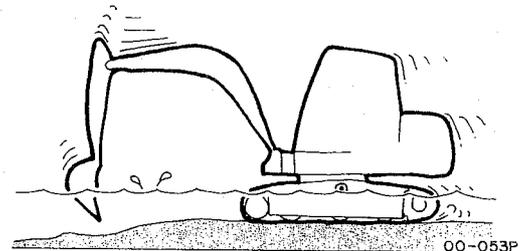
## ▲ Be careful of electric cables!

- Coming into contact with electric cables can result in shocks. Keep the hoe attachment and excavator body a sufficient distance from electric cables.
- If there are electric cables in the area in which you are to work, consult with the electric company so that work can be done safely.



## ▲ Cautions on using in water and on soft ground.

- The excavator can be used in water up to the middle of the carrier rollers. When operating in a river, check the depth of the river floor constantly with the bucket and operate carefully.
- For parts used over long periods of time under water, supply new grease until the old grease is expelled.
- Never let water or sand on the slew bearings or excavator body. If water or sand gets on these, have the excavator inspected at a service factory.
- When leaving water at a steep angle, be sufficiently careful that the back of the excavator does not get in the water, getting the radiator fin wet or damaging it.
- On soft ground, constantly observe the area around the excavator to make sure the excavator does not sink in.
- Getting out of mud
  - If only one side is stuck in mud, lift that side using the hoe attachment then place planks or boards underneath. When doing so, always push on the ground with the bottom of the bucket.
  - When both sides are stuck in the mud, set boards or planks underneath using the above procedure, dig the bucket into the ground in front, then pull the arm in and push the travel levers forward to get the excavator out.



## < DURING OPERATION > SAFETY INSTRUCTIONS

### ⚠ Never use the excavator as a crane!

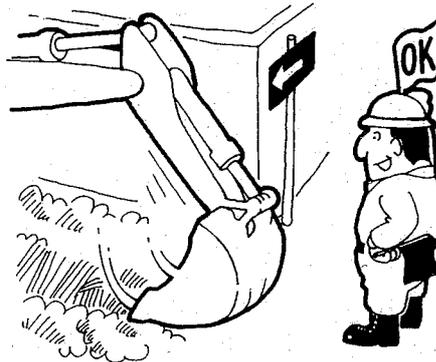
- Do not use the excavator as a crane. The excavator is not equipped for such operations.
- However, lifting operations within the specified limits are possible using the proper attachment.



00-030P

### ⚠ Use a guide in dangerous places or places where visibility is poor.

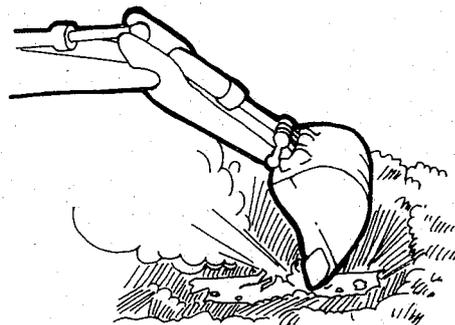
- Establish hand signals, etc., ahead of time.



00-009P

### ⚠ Watch for buried objects!

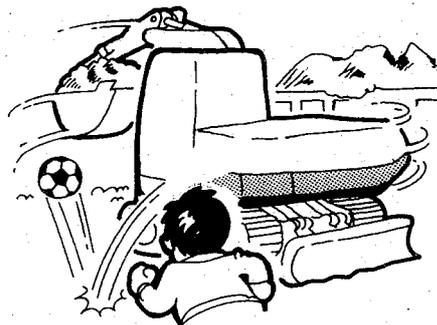
- Dig shallowly first to check for the presence or position of buried objects before starting actual operations.



00-010P

### ⚠ Do not let anyone within the slewing range!

- Blow the horn as a warning before slewing so that no one but the guide comes near the excavator.



00-012P

### ⚠ Only use the excavator for its designated purposes!

- Never let people ride in the bucket.

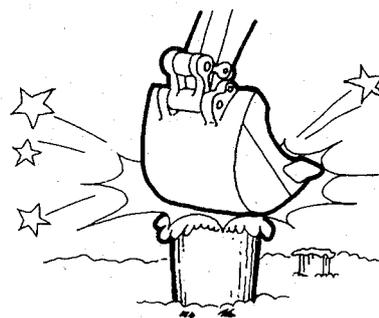


00-013P

# SAFETY INSTRUCTIONS < DURING OPERATION >

**⚠ Do not try to drive piles or clear away dirt by banging the bucket down!**

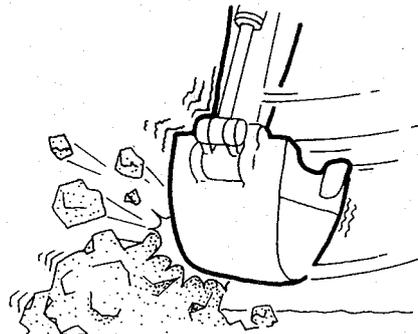
- This can shorten the service life of the hoe attachment parts. Always dig using the hydraulic force.



00-001P

**⚠ Do not fill in holes or break earthen walls using the slewing or swinging force!**

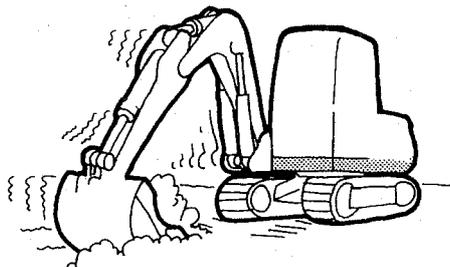
- Subjecting the swing bracket or slew mechanism to excessive force can result in damage.



00-004P

**⚠ Do not try to dig while traveling!**

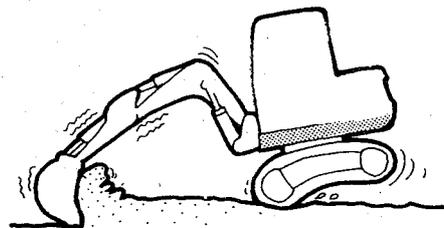
- Do not dig the bucket in first then try to pull it with the motion of the excavator.



00-003P

**⚠ Do not try to use the weight of the excavator to add force when digging!**

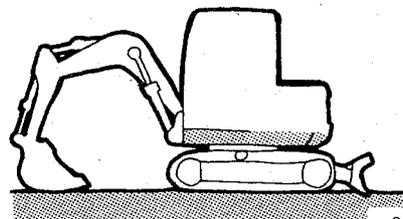
- Use the hydraulic force of the hoe attachment and always dig with shallow, long strokes.



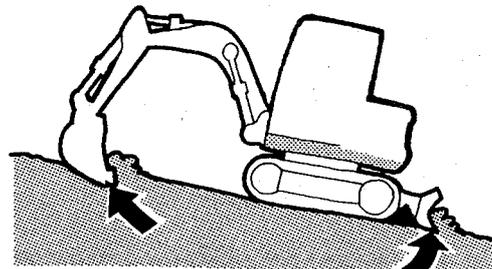
00-002P

**⚠ Do the following before leaving the operator's seat:**

- When parking or stopping on flat surfaces:
  - Set the bucket and blade against the ground.
  - Stop the engine and lock the operation levers.
  - Lock slewing and store the starter switch key away.
- When parking and stopping on slopes:
  - Do the above and also set stoppers against the crawler belts.



00-016P



00-017P

## < DURING INSPECTION AND MAINTENANCE > SAFETY INSTRUCTIONS

### Cautions on Inspection and Maintenance

#### ⚠ Inspection and maintenance schedule.

- Perform inspection and maintenance according to the time indicated on the hour meter.

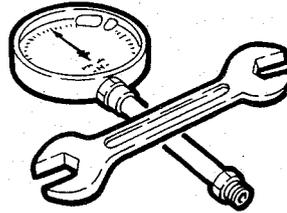
Check and add oil at regular intervals, determined in function of the type of operation, the load, the weather, etc., using as a basis that if the excavator is operated 8 hours a day, the oil should be checked and replenished after 1 week or 50 hours, 1 month or 250 hours, 6 months or 500 hours, 1 year or 1000 hours.



00-056

#### ⚠ Have a service factory perform major inspections and servicing.

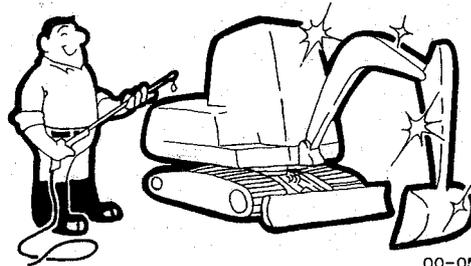
- Have a service factory perform any inspections, maintenance, and adjustments not explained in this manual. Also feel free to contact a service factory should you have any questions.
- If any of the situations for which this manual says to contact a service factory arise, do so as soon as possible.



00-057

#### ⚠ Wash the excavator methodically.

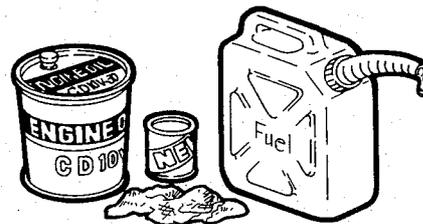
- Make it a habit to wash the excavator every day after using it. Dirt on the pedals can make them slippery, so clean it off carefully.
- When washing the excavator, cover electrical parts with vinyl to protect them from water. If they get wet, this could result in short circuits, malfunction or errors.



00-058P

#### ⚠ Handling fuel and oil.

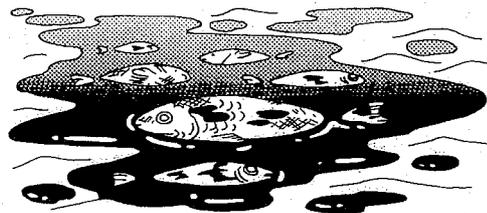
- Fuel and oil are extremely inflammable, so handle them with sufficient care.
  - Replenish fuel outdoors with the engine stopped.
  - Carefully wipe off any fuel which may have spilled while fueling or servicing the excavator.
  - Store fuel and oil in places away from flames.
  - Cloths on which there is fuel or oil may ignite spontaneously, so dispose of them following the prescribed rules.



00-059

#### ⚠ Disposing of spent oil!

- Place spent oil in oil barrels, etc. Do not pour the oil on the ground or into rivers or lakes, as this can damage the environment. Dispose of it following the prescribed rules for industrial wastes. Do the same for filters.



00-060

# SAFETY INSTRUCTIONS < DURING INSPECTION AND MAINTENANCE >

## ⚠ Never try to modify the excavator!

- Never try to modify the excavator by yourself, as this could lead to reduced safety, function and service life.

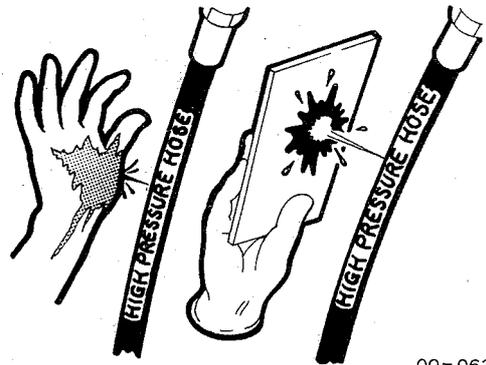
## ⚠ Have welding repairs done by a service factory.

- Heating hydraulic parts, pipes or nearby areas can generate combustible steam or gases which may explode, so have welding repairs done by a service factory.



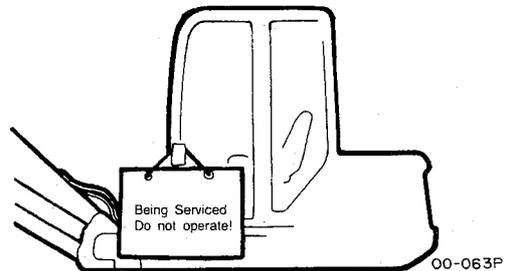
## ⚠ High pressure oil is dangerous!

- Do not let oil under high pressure spurt out onto the hands or body.
- If high pressure oil spurts out and gets into the skin, it can cause necrosis after several hours. If you should be exposed to high pressure oil, contact a physician immediately.
- Release the remaining oil pressure before removing hydraulic parts and pipes. Inversely, inspect the hoses and pipes carefully before pressurizing.
- Use boards to check for high pressure oil leaks.



## ⚠ Use signs during inspection.

- To prevent accidents, during inspecting and maintenance, place a sign on an easily visible part such as the door or operating levers saying "Being Serviced Do not operate!" so that others will not touch the excavator inadvertently.



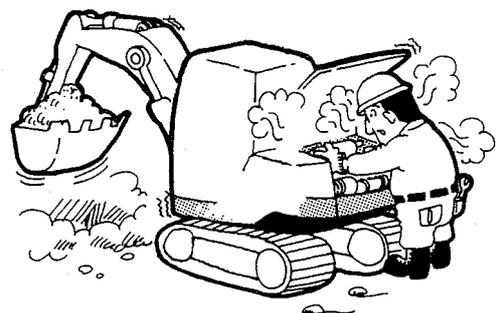
## ⚠ Cautions on handling the radiator!

- If the radiator cap is removed inadvertently when the engine is hot, hot water may spurt out, resulting in burns.
  - Let the engine cool down, then slowly turn the cap to release the pressure.



## ⚠ Do not service while the excavator is operating!

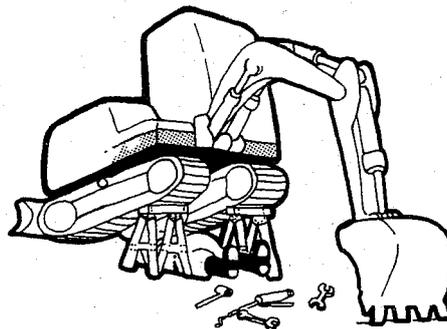
- Be sure to turn the engine off when inspecting or servicing.
- If a problem should arise with the excavator during operation, stop operating it immediately, inspect carefully and find the cause of the problem. Conduct repairs as soon as possible.



## < DURING INSPECTION AND MAINTENANCE > SAFETY INSTRUCTIONS

### ▲ Place safety blocks under the body!

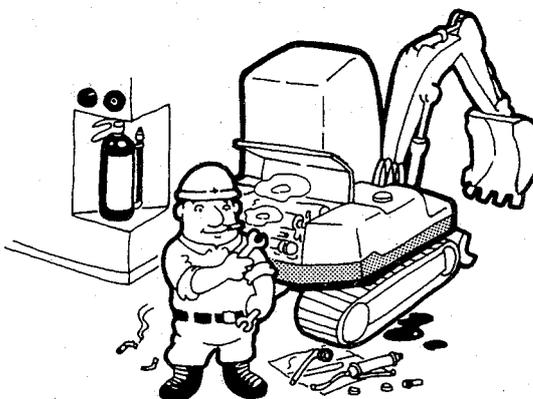
- Always set safety blocks under the body when inspecting or servicing underneath the excavator to prevent it from falling.



00-020P

### ▲ Keep sources of fire away from the excavator!

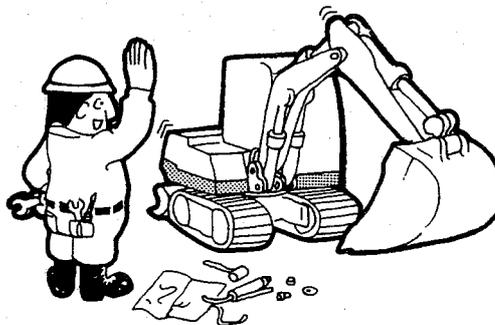
- Always be prepared – check the location and operation of the nearest fire extinguisher.
- Never smoke while inspecting the excavator, as this can cause fires.
- In particular, the battery can explode. Be careful of the following:
  - Inspect and service in a well ventilated place.
  - Keep sparks, cigarettes and other flames away from the battery.
  - Do not charge frozen batteries. Heat up the battery first to melt the battery fluid, and only charge the battery when the temperature is 15°C (59°F) or above.



00-021P

### ▲ Use proper signals when inspecting and servicing!

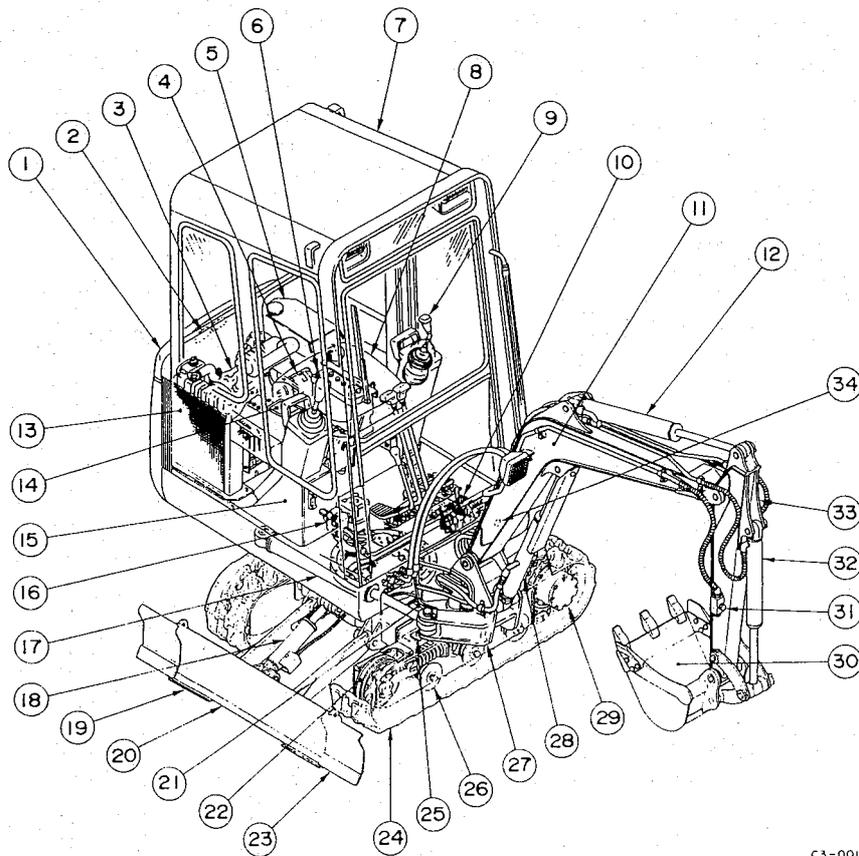
- Inspect and service on a flat, firm surface.



00-018P

# PART NAMES AND FUNCTIONS

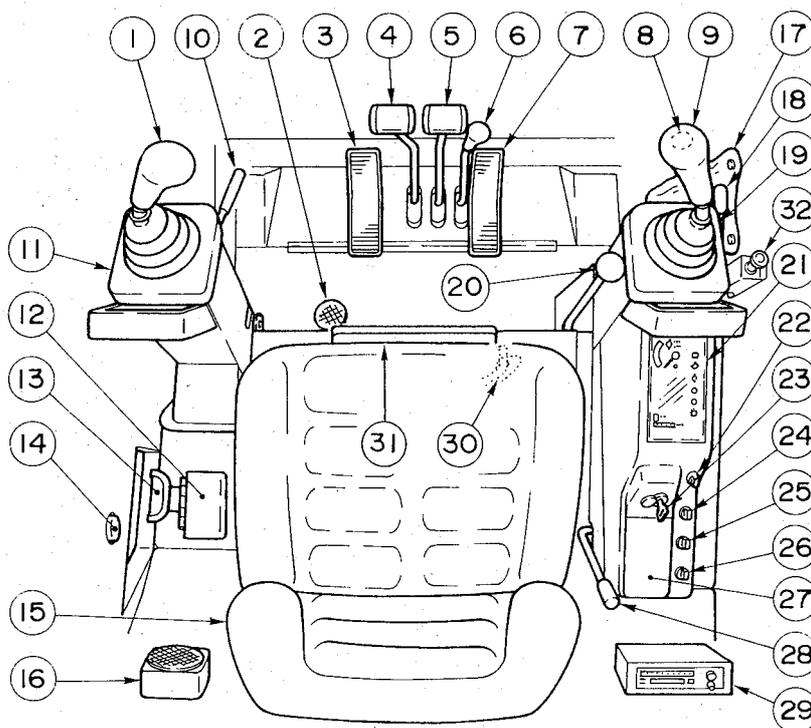
## Part Names



1. Bonnet
2. Flasher lamp
3. Engine
4. Hydraulic pump
5. Fuel tank
6. Battery
7. Cab
8. Seat
9. Left operating lever
10. Control valve
11. Boom
12. Arm cylinder
13. Radiator
14. Monitor
15. Hydraulic oil tank
16. Slew motor
17. Swing cylinder
18. Blade cylinder
19. Road protector\*
20. Blade
21. Spanner cylinder
22. Idler
23. Plate
24. Crawler belt
25. Slide
26. Track roller
27. Swing Bracket
28. Boom cylinder
29. Travel motor
30. Bucket
31. Auxiliary port
32. Bucket cylinder
33. Arm
34. Electric socket DC 12V (for EU)

C3-001A

## Levers and Instruments



1. Left operating lever
2. Acceleration pedal
3. Auxiliary port pedal
4. Left travel lever
5. Right travel lever
6. Blade/spanner selector lever
7. Swing pedal
8. Horn switch
9. Right operating lever
10. Left operating lock lever
11. Left lever stand
12. Heater (Cab)
13. Air switching plate (Cab)
14. Releasing button (Cab door)
15. Seat
16. Speaker (Cab)
17. Washer fluid tank (Cab)
18. Right operating lock lever (Cano)
19. Right lever stand
20. Blade/spanner lever
21. Monitor
22. Flasher switch
23. Starter switch
24. Light switch
25. Wiper and washer switch (Cab)
26. Heater switch (Cab)
27. Fuse box
28. Throttle lever
29. Radio (Cab)
30. Slew lock lever
31. Operator's manual holder (Cano)
32. Cigarette lighter (Cab: for EU)

C3-011D

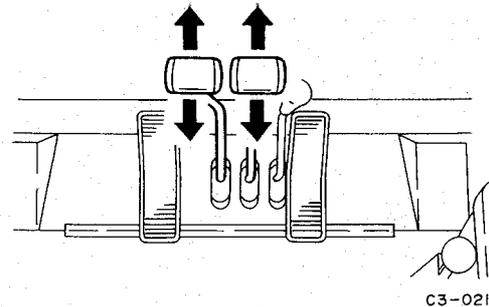
Parts marked "\*" are optional.

# PART NAMES AND FUNCTIONS

## Left and Right Travel Levers

Use these to move the left and right crawlers forward and backward.

- The crawlers move forward when the levers are pushed forward, backward when the levers are pulled backward. (Refer to pages 27 and 28.)
- ☞ The side with the blade is the front. Remember that when the blade is to the rear of the operator's seat, the excavator will move backwards when the travel levers are pushed forwards.



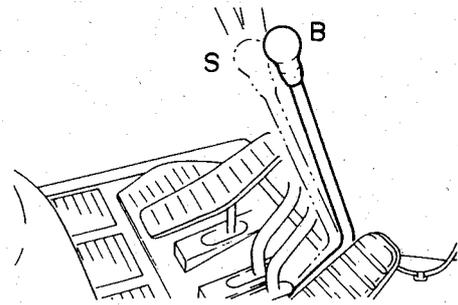
C3-021

## Blade/spanner selector lever

With this excavator, the crawler width can be changed.

Usually leave this lever in the "B" position to use the blade. To change the crawler width, first set the lever to the "S" position, then operate the spanner cylinder with the blade/spanner lever to change the crawler width.

(Refer to page 33 and below.)

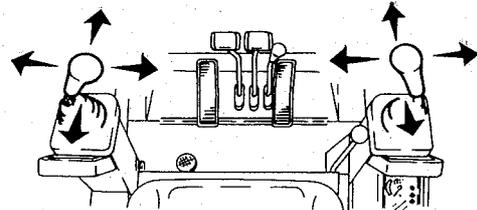


Y2-031

## Left and Right Operating Levers

These levers are for operating the attachment and slewing.

- The speed changes depending on how far the lever is operated.
- (Refer to pages 27 to 32.)



C3-031

## Blade/spanner lever

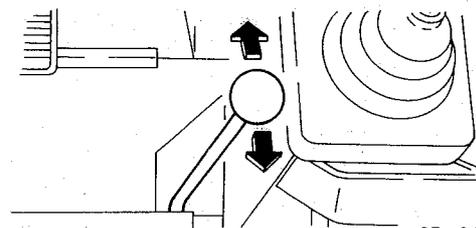
This lifts and lowers the blade, and or this lever is the crawler width can be extended and retracted.

The blade lowers when the lever is pushed forward, and lifts when the lever is pulled backward.

(Refer to pages 27 through 33.)

Also, when changing the crawler width, this lever is used as the blade/spanner selector lever.

- When lever is pushed away from you ..... Extend
- When lever is pulled towards you ..... Retract



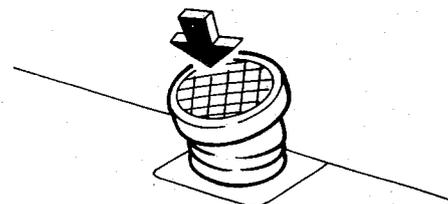
C3-041

## Acceleration Pedal

Use this to change the speed of travel.

- The travel speed increases when the pedal is pressed during travel. The speed decreases when the pedal is released.
- ⚠ **Never travel at high speeds on slopes and rough surfaces, as this is extremely dangerous.**

(Refer to pages 27 to 28.)



SK2-281

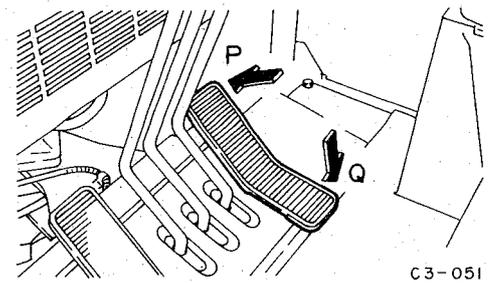
# PART NAMES AND FUNCTIONS

## Swing Pedal

Use this pedal to swing the hoe attachment left and right.

- Press on the heel side "Q" to swing to the right.
- Press on the toe side "P" to swing to the left.

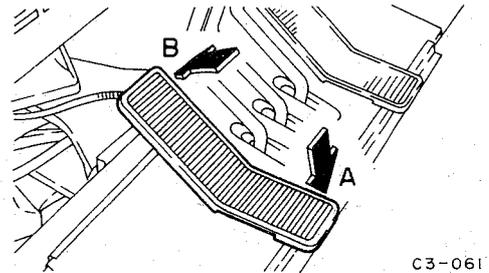
(Refer to page 27 and 30.)



## Auxiliary port pedal

Use this pedal when an attachment other than the included one is connected to the auxiliary ports.

Hydraulic oil flows from port "a" when the heel side "A" is pressed, from port "b" when the toe side "B" is pressed. (See below.)



## Auxiliary Ports

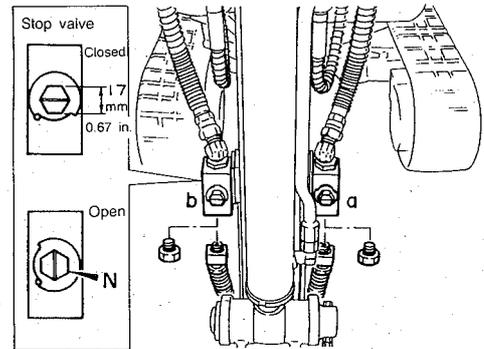
The auxiliary ports are used for replacing the bucket with a breaker, crusher, etc.

Connect the attachment's hoses to stop valves "a" and "b" on the tip of the auxiliary piping connected to the auxiliary ports and open the stop valves.

Operate with the auxiliary port pedal.

Refer to "Using the Auxiliary Ports" on page 34.

⚠ Keep the plugs securely attached to unconnected ports.



## Stop Valve (for Auxiliary ports)

This valve is for switching between two-way flow and one-way flow when using attachments other than the included one.

### • For two-way flow

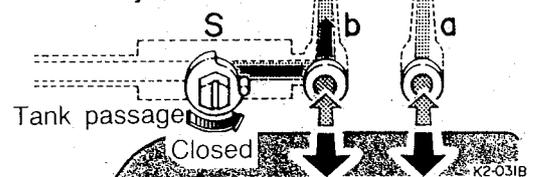
Turn stop valve "S" 90° counterclockwise to close the passage to the tank.

### • For one-way flow

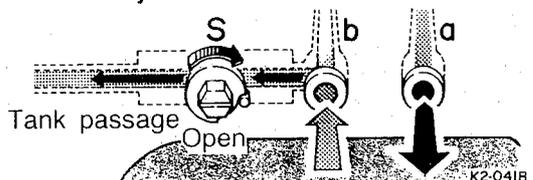
Turn stop valve "S" 90° clockwise to open the passage to the tank.

Connect the return side (OUT) of the new attachment to arm port "b", the supply side (IN) to arm port "a". Refer to "Using the Auxiliary Ports" on page 34.

### < Two-way flow >



### < One-way flow >



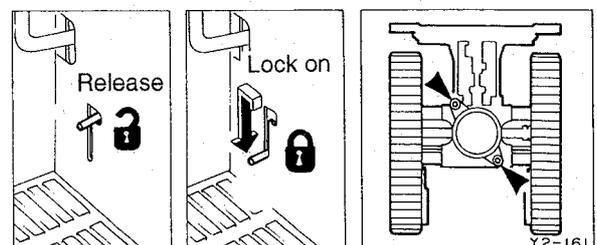
## Slew Lock Lever

Use when fixing the turntable to the track frame in order to transport the machine. (Refer to pages 38 and 39)

When the turntable is facing straight forward or backward, the turntable can be locked in two locations (marked by black dots).

⚠ Lowering the lock lever while the slew is in progress will damage the machine.

Wait until the slew is fully completed before locking.



# PART NAMES AND FUNCTIONS

## Lock levers

This locks the hoe attachment and slewing operation.

Lock levers are located on the outer sides of left and right lever stands "S", and are operated in the same way. Cab type is left lever lock only.

- The operating levers can be locked by locking only one of the lock levers.
- Both lock levers must be released to unlock the operating levers. (Canopy type)

## Releasing

Lower lock lever "L" fully until the stand stops.

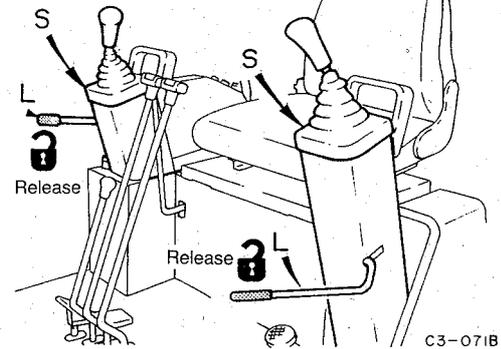
## Locking

Lift lock lever "L". The lever stand rises automatically and is locked.

This locking device is of the hydraulic type. The left and right operating levers will move when locked, but the hoe attachment and slew will not move.

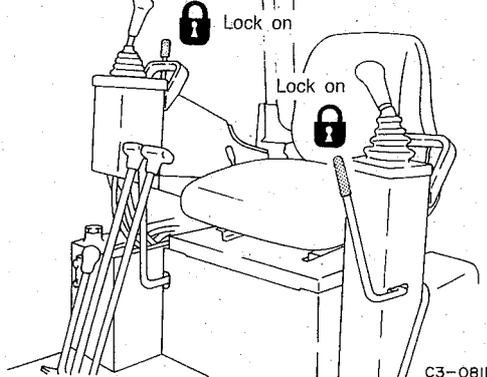
- ▲ **Always set the attachment against the ground and lock the operating levers when not performing work operations or when leaving the excavator.**
- ▲ **The travel, boom swing and blade operations are not locked when the operating levers are locked.**
- ▲ **When locking, be careful not to touch the operating levers. The hoe attachment and slew may move if the lock lever is not fully lifted.**

UNLOCKED



C3-071B

LOCKED

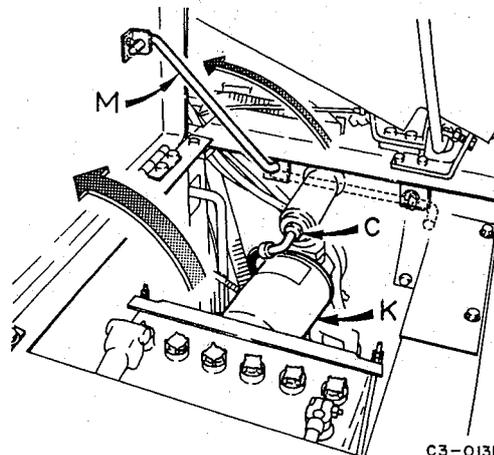


C3-081B

## Seat Stay

▲ To check and service, turn the starter switch to the OFF position.

1. Gently push the seat forward and fasten it in place with the stay "M".

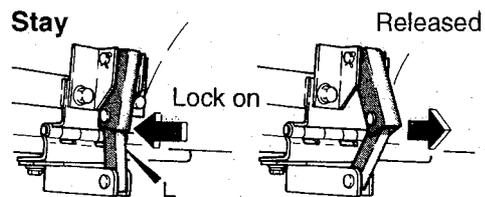


C3-013B

## Bonnet Stay

▲ Be sure to press firmly against the joint to secure the stay "L" in place.

1. Unlock with the starter switch key.
2. Fully open the bonnet and press the stay "L" into place. This will lock the bonnet into an open position.
3. To close the bonnet, support one side of the bonnet with your hand while pulling the stay "L" to release it from the locked position and close.



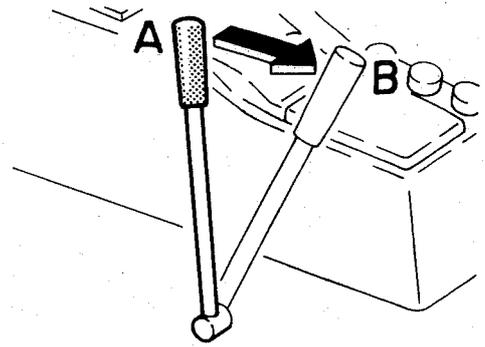
Y2-331

# PART NAMES AND FUNCTIONS

## Throttle Lever

This controls the engine speed.

- A ..... Idling
- B ..... Maximum speed

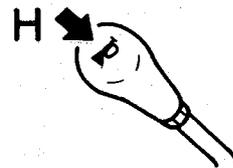


SK2-071A

## Horn Switch

Press "H" on the right operating lever grip while the starter switch is ON to sound the horn.

- ☞ Make it a habit to sound the horn as a signal when starting to operate the excavator.

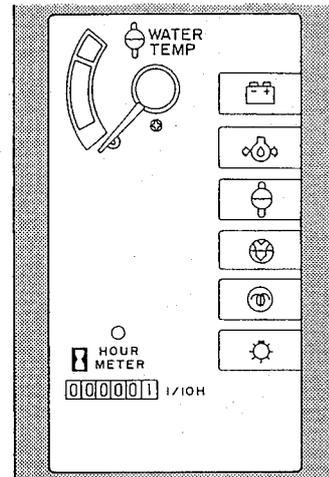


SK2-181

## Monitor

The monitor displays information sent from sensors positioned at various places on the excavator, making it possible to monitor the excavator's operating status.

- When the starter switch is set to "ON", the battery charge and engine oil pressure lamps on the monitor light and the water temperature meter starts operating. In addition, the battery charge and engine oil pressure lamps light until the engine is started, and turn off once the engine is started.
- ☞ Always pay attention to the gauges and the lamps to prevent problems before they happen.

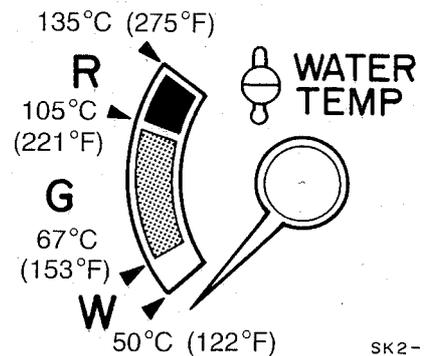


D3-081

## WATER TEMP (water temperature meter)

This indicates the temperature of the engine cooling water. The temperature is normal in the green area (approx. 67 to 105°C or 153 to 221°F).

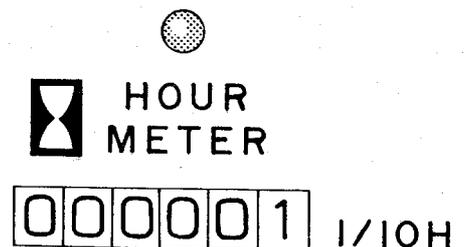
- If the needle rises to the red area, refer to the section on page 19 on the coolant temperature lamp.
- R = red, G = green, W = white



SK2-091

## HOUR METER

This indicates the total time the engine has run. Even if the excavator is not moving, the meter continues to count as long as the engine is on.



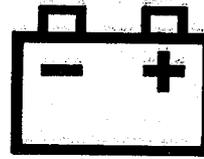
SK2-111

# PART NAMES AND FUNCTIONS

## Battery Charge Lamp

This lamp lights when a problem arises in the charging system.

☞ Have the excavator inspected at a service outlet.



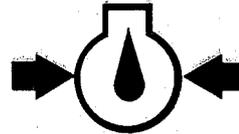
ST2-016

## Engine Oil Pressure Lamp

This lamp lights when a problem arises in the lubricant oil system.

- Stop the engine and check the quantity of engine oil. (Refer to page 24.)
- If the cause is elsewhere, have the excavator inspected at a service outlet.

⚠ **Continued operation of the excavator can cause the engine to burn.**



SF2-104

## Coolant Temperature Lamp

This lamp lights when the coolant temperature rises abnormally (above 105°C or 221°F).

- The engine is overheating. Stop operation immediately and let the engine idle (refer to page 25) to let the coolant cool down.
- Once the coolant has cooled down, stop the engine.
- Once the engine has cooled down, inspect the amount of coolant, and check the fan belt for breaks or slack. (Refer to page 24.)
- The coolant temperature may rise abnormally if the engine is run with an excessive load.

☞ Let the coolant cool down as explained above, then start operating the excavator again, being careful not to overdo it.



SF2-103

## Air Cleaner Lamp

This lamp lights when the air cleaner filter is clogged.

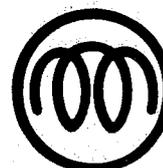
- Clean the dust cap and element. (Refer to page 49.)



SF2-102

## Glow Lamp

This lamp lights when the starter switch is turned to the "GLOW" position, indicating that the power to the glow plug is on. The lamp turns off when the switch is turned to the "OFF" position. The glow lamp turns on. Wait for 3 seconds to heat the glow plug. (Refer to page 25 and 26.)

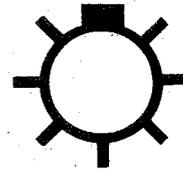


SZ3-091

# PART NAMES AND FUNCTIONS

## Flasher Lamp Monitor

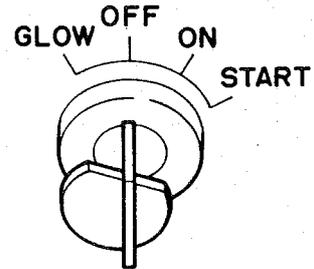
This indicates whether the flasher lamp is on, making it possible to check whether or not the flasher lamp is on without looking back. (Refer to page 21.)



SK2-131

## Starter Switch (refer to pages 25 and 26)

- GLOW ..... In this position, the air in the combustion chamber is heated, making it easier to start the engine. (The glow lamp lights.)
- OFF ..... In this position, the power circuit is interrupted. (Engine stop position)
- ON ..... In this position, the power circuit is connected. (Engine on position)
- START ..... In this position, the engine is started. (The switch automatically returns to the "ON" position when the hand is released.)



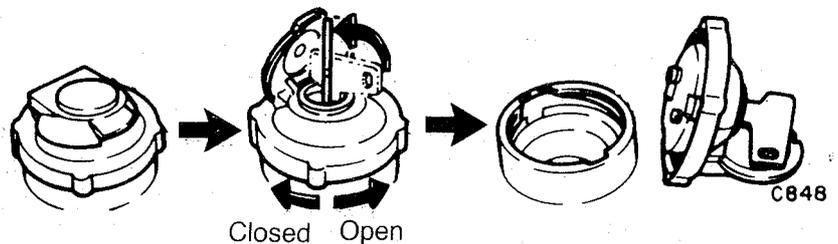
SZ2-041

- The key plate can be used for all the following places:
  - Starter switch
  - Operator's manual holder (Canopy)
  - Cab door
  - Bonnet

## Fuel Supply Port

Opening the Fuel Supply Port

1. Open the lid, insert the key, and turn counterclockwise to unlock.
2. Turn the entire cap counterclockwise and remove it.
3. Follow the above procedure in reverse order to reinstall and lock the cap.



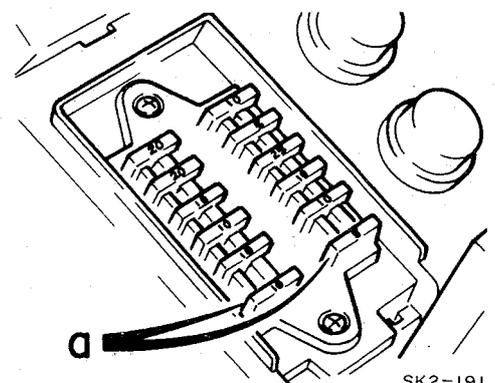
C848

## Fuse Box

The fuses are lined up as shown on the table below. If a fuse should blow, turn the starter switch off and replace it with one of the spare fuses "a".

Serial No. 1153068 ~

Capacity	Circuit(s) protected	Capacity	Circuit(s) protected
30A		10A	Radio, room light, heater
30A	Stop solenoid	5A	Monitor
10A	Limit switch, feed pump solenoid valve (sub valve)	25A	Wiper, Windshield Washer Cigarette lighter (Cab: for EU)
10A	Head lights, boom light, monitor light	10A	Flasher lamp
10A	Charge indicator, current limiter	10A	Horn Electricsocket (for EU)
10A	Spare fuse "a"	5A	Spare fuse "a"



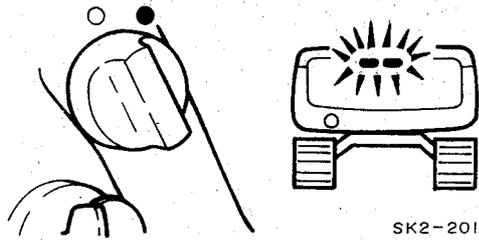
SK2-191

# PART NAMES AND FUNCTIONS

## Flasher Switch and Lamp

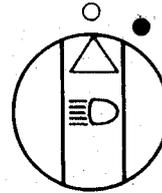
If this switch is turned when the starter switch is set to "ON", the flasher lamp at the rear of the bonnet begins flashing.

- position: Off
- position: Flasher lamp flashes.



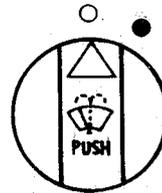
## Light Switch

- position: Off
- position: Monitor lights, headlights, and boom light turn on.



## Wiper and Washer Switch (Cab)

- position: Off
  - position: Wiper operates.
- PUSH: Washer fluid is squirted from the nozzle while pressed, and stops when released.

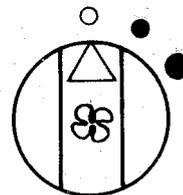


## Heater Switch (Cab)

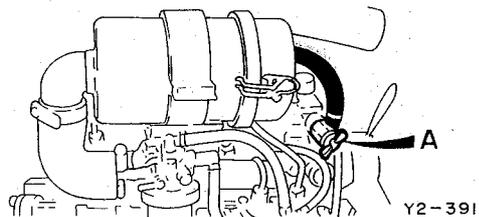
- position: Off
- position: Heater fan rotates at low speed.
- position: Heater fan rotates at high speed.

▲ **Ventilate well when using the heater.**

(Refer to page 23)



- ☞ Handle the heater carefully in warm seasons. The coolant circulates in the heater even when the heater switch is off. When the external temperature becomes warm and the heater is no longer needed, close valve "A" so that the coolant no longer circulates in the heater.
- ☞ When the external temperature gets cold, remember to open valve "A" before using the heater.



## Cigarette Lighter (for EU)

- ▲ **Do not leave the cigarette lighter's knob pressed in. Doing so heats up the lighter, and could be dangerous.**
- ▲ **If the knob does not pop out after 30 seconds, it may be broken. Pull it out by hand.**
- ▲ **Do not use other cigarette lighters, as they may get stuck.**

1. Press in the lighter's knob.
2. Release the knob and wait for it to pop out automatically.
3. When the knob pops out, pull on it to pull out the lighter.



# PART NAMES AND FUNCTIONS

## Seat and seat belt

### Weight adjustment

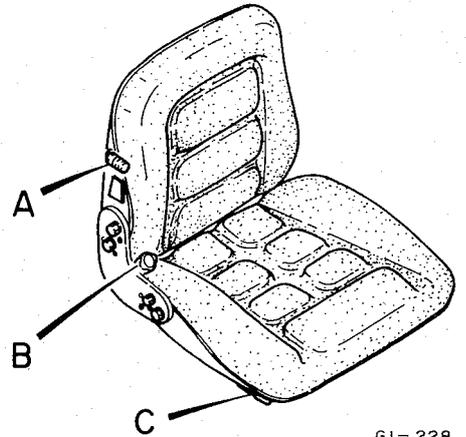
- By pulling lever "A" upwards or downwards, the seat can be adjusted according to driver's weight.
  - Lever position up ..... Light driver
  - Lever position middle ... Medium weight driver
  - Lever position down ..... Heavy driver

### Backrest inclination adjustment

- Can be effected by turning handle "B".
  - Adjustment scope of backrest ..... 5 deg. -20 deg.

### Longitudinal adjustment

- After releasing adjustment rails by using lever "C" the seat can be adjusted by 150mm (5.9 in.) in increments of 15mm (0.6 in.).



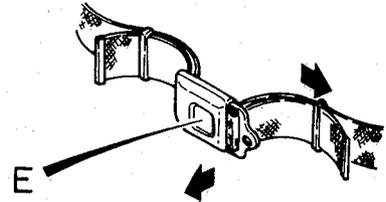
G1-228

### Seat belt length adjustment

- Set the belt and buckle at right angles to each other.
- Then the length can be adjusted easily by pulling on the end of the belt.

Always make sure that the seat belt is buckled up tightly so it will not come loose. Release by pressing at "E" with a finger.

**▲ Do not operate the excavator unless the seat belt is properly fastened around you.**



LO-030

## Radio (Serial No. 1153001~1157564)

The radio can be used when the starter switch is at the "ON" position.

### • Operation

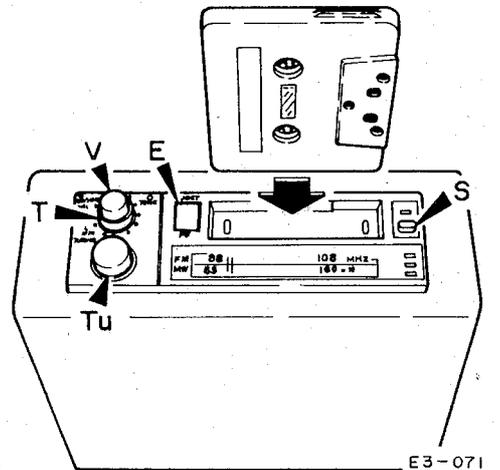
- Turn "V" clockwise to turn on the power.
- Turn "V" to adjust the volume.
- Turn "T" to adjust the tone.
- Turn "Tu" to tune.
- Press "E" to eject the cassette.
- Press "S" to select "TAPE", "FM" or "MW".

### Listening to cassette tapes

1. Turn "V" to turn on the power.
2. Insert the cassette tape as shown on the diagram at the right.
3. Press "S" to switch to "TAPE".
4. Turn "V" and "T" to adjust the volume and tone.

### Listening to the radio

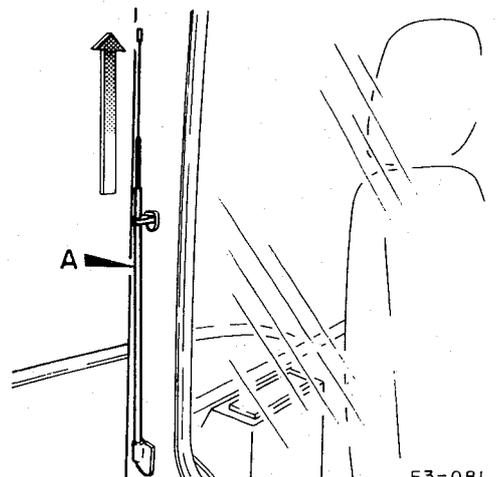
1. Extend antenna "A".
2. Turn "V" to turn on the power.
3. Press "S" to select "FM" or "MW".
4. Turn "Tu" to tune.
5. Turn "V" and "T" to adjust the volume and tone.



E3-071

## Radio (Serial No. 1157565~)

(Refer to page 90.)



E3-081

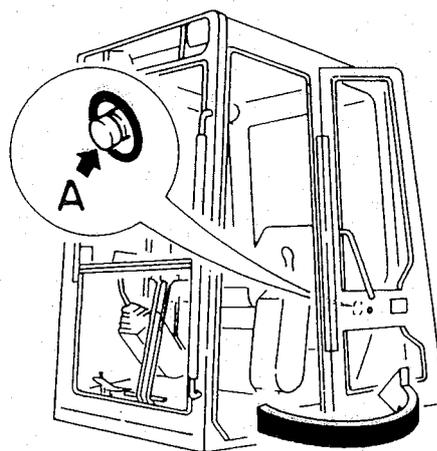
# PART NAMES AND FUNCTIONS

## Cab

**⚠ Always keep the windows clean. Working with the windows dirty or foggy is dangerous as this limits visibility.**

The door can be locked in the fully open position (turned 180°).

- To lock the door in the fully open position, press it against the cab until a click is heard.
- To close the door, press releasing button "A" inside the cab to unlock the door.

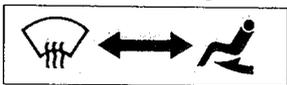


SK2-221

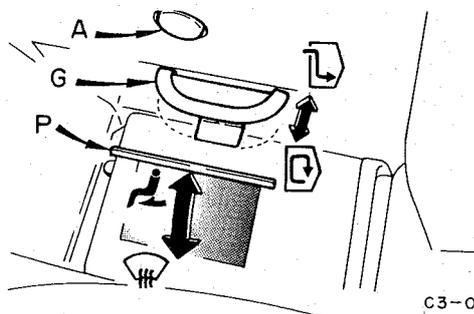
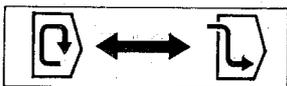
## Adjusting the Air in the Cab

Use the gate "G" and plate "P" shown in the diagram at the right to adjust the air in the cab when using the heater.

- Air port switching



- Internal/external air switching



C3-091

**⚠ Be sure to ventilate properly when using the heater.**

## Opening and Closing the Front Window

The front window can be opened and closed. When opened, the window is housed in the ceiling. Open and close the window with the excavator on a flat surface.

**⚠ Note that the front window is heavy. When closing it, let it down slowly. Letting it down abruptly can cause it to break.**

- 1 Pull the pins of left and right locks "B" to the inside then turn them to the locked position to unlock the front window. If the lock pins are partially sticking out they may cause damage. (Refer to Figure 1.)
- 2 Using the handle "C", lift the front window in the direction indicated by arrow "D" and slide it to the back. (Refer to Figure 2.)
- 3 Lock the window securely into the roof using lock "B". (Refer to Figure 3.)
- 4 Follow these steps in reverse order to close the window.

**⚠ Always lock "B". If not, vibration may cause the front window to fall out.**

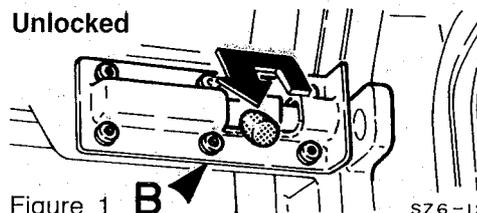


Figure 1 B

SZ6-121A

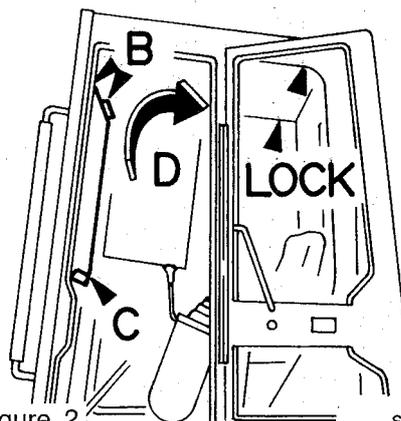


Figure 2

SK2-231

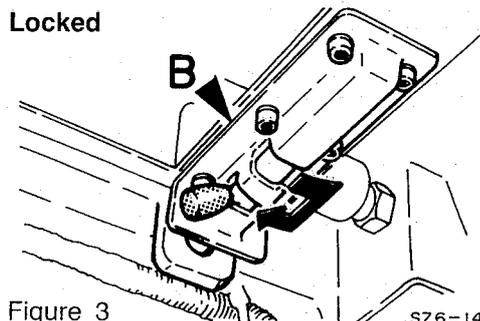


Figure 3

SZ6-141A

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