# Safety

### $\triangle$ !warn:

For safety reasons, these safety precautions must always be followed. Failure to do so may result in serious injury or machine damage.

### 1. Basic considerations

### 1.1Safety Rules

☐ Only trained or designated personnel can operate and maintain the machine.			
$\hfill\square$ When performing operating and maintenance work on the machine, be sure			
to follow all safety rules, precautions and instructions.			
Donotoperatethemachineifyoufeelunwell,orhavetakenmedication that causes			
drowsiness, or have drunk alcohol. Operating in this situation can affect your			
judgment and cause accidents.			
☐ Whenworkingwithanotheroperatororwithaworkplacetraffic			
controller, be sure that all personnel understand all hand signals used.			
☐ Alwaysfollowallregulationsregardingsafety.			

### 1. 2safety devices

Make sure all guards and covers are in the correct position. If damaged, have them repaired.

Use safety devices correctly, such as safety lock bar ① and seat belts. Do not remove any safety devices and always keep them in good working condition.

For safety lock bar, see Parking the machine

For seat belts, see Use of seat belts

Improper use of safety devices may cause serious personal injury.

#### 1. 3Always lock the driver's seat when leaving it

When standing up from the driver's seat, be sure to put the safety lock lever firmly in the LOCK position. If the control levers are not locked, the working device may move suddenly and cause serious injury or damage if they are accidentally touched.

When leaving the machine, the working device should be completely lowered to the ground and the safety lock lever should be placed in the LOCK position. Then turn off the engine and lock all equipment with the key. Be sure to remove the key and carry it with you.

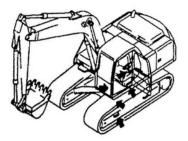
### 1. 4Boarding and disembarking

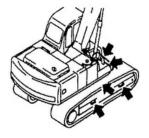
☐ Neverjumponoroffthemachine.Nevergetonoroffamovingmachine.

When getting on or off the machine, always face the machine and use the handrails and ladders. Do not grab any joysticks or safety lock bars.

Frequently wipe the handrails and ladders to remove oil and dirt to keep them clean.

When getting on or off the machine, or when walking on the tracks, if you need to grab the handrail on the door, open the door and lock it firmly in the open position. Otherwise, the door may move suddenly, causing you to lose balance and fall.







#### 1. 5Fuel and oil fire protection

☐ Fuel, engine oil and antifreeze can ignite when exposed to open flames, so stay away from open flames or lit cigarettes.

When refueling, turn off the engine and do not smoke.

Tighten all fuel and oil tank caps.

#### 1. 6Safety measures when working at high temperatures

☐ Whentheoperationhasjuststopped,theengineoilandhydraulicoilare both at high temperature and under pressure. At this time, if you open the cover to drain the oil or water, or replace the filter element, it will cause serious burns. When performing these operations, be sure to wait for the temperature to drop and follow the prescribed steps.

To prevent hot water from spraying out, turn off the engine, wait for the water to cool down, then slowly loosen the cover to release the pressure, and then remove the cover. (When checking whether the water temperature has dropped, you can put your hand close to the front of the radiator to check the air temperature. Be careful not to touch the radiator.)

To prevent hot oil from spraying out, turn off the engine, wait for the oil to cool down, then slowly loosen the cover to release the pressure, and then remove the cover. (When checking whether the oil temperature has dropped, you can put your hand close to the front of the hydraulic oil tank to check the air temperature. Be careful not to touch the hydraulic oil tank.)

### 1. 7Protection against falling or flying objects

If there is a danger of falling or flying objects hitting the driver, for each specific situation, a protective shield should be installed in an appropriate position to protect the driver.

When working with a hydraulic hammer, a front shield should be installed on the front window. Laminated safety glass should also be installed on the front window. (Purchased by the user)

For demolition or crushing work, in mines, tunnels or other places where there is a danger of falling objects, a front shield should be installed on the front window and a top shield should be installed above the cab. Laminated safety glass should also be installed on the front window. (Purchased by the user)

#### 1. 8Use of accumulator

For machines equipped with accumulators, within a short period of time after the engine is turned off, when the working device lever plate is in the lowered position, the working device will descend due to its own weight. After turning off the engine, the safety lock lever should be placed in the locked position, and the attachment pedal should also be locked with the lock pin.

The accumulator is filled with high-pressure nitrogen, which is very dangerous if not handled properly. The following safety measures should always be followed.

It is prohibited to drill holes in the accumulator or expose it to flames or open flames.

Do not weld any bosses on the accumulator.

When disassembling or repairing the accumulator, or when handling the accumulator, it is necessary to discharge the nitrogen in the accumulator. This operation requires a special exhaust valve. So please contact the company's sales department.

# 2. Safety precautions before operation

☐ Checktheconditions and soil types of the construction site, as well as the above-ground and underground facilities (including underground pipes and cables) to determine the best operating method. Work can only be carried out

after the unsafe environmental factors are eliminated.

Check whether there is oil leakage in the fuel, lubricating oil and hydraulic system. After eliminating the oil leakage, wipe off the leaking oil.

Check whether the track bolts are loose and whether other parts are damaged or missing. If the above conditions are found, the vehicle must not be operated.

Check the oil and water levels of fuel, lubricating oil and cooling water.

Do not smoke when filling oil. Check and tighten the radiator cap and each oil cap and oil plug.

Wipe off grease, oil and dirt on the handrails, floor and joystick. Use handrails and stairs when getting on and off the vehicle. Do not jump up and down to avoid falling.

Do not place tools and other things in the cab to prevent affecting operation and accidents.

Flammable materials such as wood chips, dead trees, branches and leaves, and paper may cause fire sources. They should be cleaned when checking the inside of the engine hood.

Adjust the driver's seat to the most comfortable position for operation.

Do not drive the vehicle in any other position.

Before starting the engine, make sure all control levers are in the neutral position.

# 3. Safety precautions after starting the engine

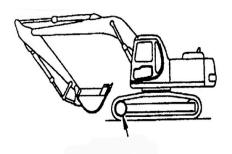
	Confirm that all instruments and alarm devices are in normal performance
and	that the instrument readings are within the specified range.
(	Check the clearance and travel of each joystick.
(	Operate the working device to check whether their performance is normal.

Before operating the walking and steering, pay attention to whether the
track frame is facing forward or backward. If the track frame is facing
backward, then the method of operating the walking and steering joysticks is
exactly the opposite of the method of the track frame facing forward. Before
driving, press the horn to warn people around the vehicle to get
out of the way.

☐ Start the vehicle slowly and listen to whether there are any abnormal sounds from the engine and gears.

☐ Drive the vehicle to a safe place, turn it left and right, and confirm that the walking and steering performance are normal.

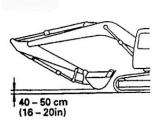
☐ Any problems found during the inspection and test run, even minor problems, must be resolved through consultation with the person in charge of the vehicle. Otherwise, the vehicle can only be started after the person in charge agrees.

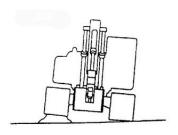




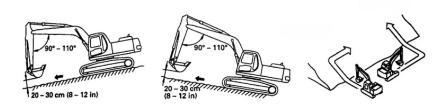
## 4. Safety matters during operation

- □ Pay full attention during operation and do not be careless or sloppy.
- Before driving and turning, be sure to look around to see if there are people or obstacles on the road.
- ☐ When driving on the road, try to retract the working device to increase stability.
- ☐ Keep the bucket 40 to 50 cm above the ground, so that in an emergency, the bucket can be immediately dropped to the ground and the machine stopped.
- During operation, try not to tilt the vehicle (even when stationary, the tilt angle of front and rear and left and right should not exceed 35°).





When operating on a slope, the excavator should avoid turning to prevent rollover or side sliding accidents.



☐ ☐ The machine should be operated at normal speed, and it is absolutely forbidden to: ① Overspeed. ② Start suddenly, brake suddenly, turn suddenly. ③ Go round. ④ Slide.

During operation, pay attention to the instrument indication, sound,
vibration, exhaust color and changes in the reaction of the joystick at any
time. If any abnormal situation is found, stop the car immediately and take
appropriate measures. Pay special attention to whether the fuel tank is
leaking, which may cause fire.
Non-staff members are not allowed to enter the construction site.
Keep the working surface as flat as possible, which can improve work
efficiency and ensure safety.
Check the solidity of the earthquake layer or the subsidence layer. Check
whether there are unexploded explosives on the ground after blasting.
When working on the river bank or other piling places, be careful of the
vehicle sinking.
When working after rain and snow, pay attention to the loose and slippery
geology, and prevent the vehicle from sinking or sliding.
Do not drive the vehicle into the muddy pond. In case of being stuck in
the mud pond. Rescue it according to the following methods. $\mathop{\Large \textcircled{$\mathbb I$}}$ f one track
is stuck in the mud, turn the bucket to the side that is stuck, use the bottom
of the bucket to support the ground, suspend the track, and then pad wood
under the track, increase horsepower to drive the vehicle out.
②If both tracks are stuck in the mud, first use the above method to pad wood
under the track, then insert the bucket into the soil in front of the machine,
and pull the vehicle out by folding the arm as when digging. (At this time,
the travel and steering joysticks are in the forward position)
Before crossing the bridge, the load capacity of the bridge body should
be verified.
When working in shallow water and swamps or passing through shallow water
and swamps, first find out the water depth, water flow rate and soil
conditions. ★The water depth cannot exceed the bottom of the vehicle
turntable. ★When working on soft soil, put some thick wooden boards on the
ground to prevent the machine from sinking.

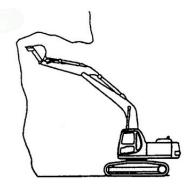
In the case of poor visibility due to smoke or fog, do not work reluctantly,
and wait until visibility improves before working.

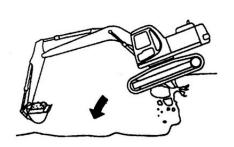
 $\square$  When working at night, be sure to install a bright enough lighting system.  $\bigstar$ 

□ Pay attention to the deviations in estimating the height and distance between objects at night. When working between cables, be especially careful
 □ and always think of the danger of electric shock. ★ Wear rubber or leather shoes and boots. ★ Set up a full-time observation commander to ensure
 □ construction safety. ★ If you are close to the transmission line at a certain
 □ distance, you will suffer from discharge shock. Therefore, keep a certain

□ Do not dig at the bottom of the cliff, and do not dig the soil under the machine, otherwise it is very dangerous.

distance between the vehicle and the wire during work.





low		minimum safety distance
low volt age	1 0 .200V	Leave 2m 2m
	0	3m
extre melv	6 6	4m
mely high volta ge	0 0	5m
ge	V	

22000V

66000V

154000

/

187000V	6m
275000V	7m
500000V	11
	m

☐ Whenthe

is near a cliff, on the side of a road shoulder, on a slope, or through a narrow area, if you need to operate the working device, stop driving before operating.

When working on loose soil or easily collapsed ground, if the ground collapses and the machine does not have time to leave the site, do not panic, and raise the working device as soon as possible. This state is more stable than putting the working device on the ground.

During the work process, always observe the changes in the surrounding environmental conditions to prevent accidents. When rotating the bucket, be careful not to let the bucket hit the side of the soil trough and the truck body.

# 5. Parking of the machine

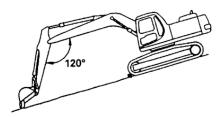
☐ Whenparking, the vehicles hould be parked in a safe place outside the working surface to prevent the threat of landslides, rockfalls and floods.

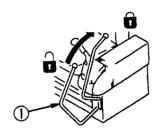
If the machine must be parked on a slope, wedges should be placed under the crawler to prevent the machine from moving. Then insert the working device into the ground.

After the engine is turned off, operate the right working device joystick to the up and down positions several times to release the residual pressure in the hydraulic circuit.

Before leaving the machine, check the following:  $\bigstar$  Is the slewing lock locked?  $\bigstar$  Is the bucket on the ground?  $\bigstar$  Is the working device joystick in neutral and locked?  $\bigstar$  Is the starting key removed?

★ Be sure to close the door of the cab.





### 6. Battery

o. Dattery
Battery electrolyte contains sulfuric acid, and batteries can generate
hydrogen, so incorrect use can cause serious injury or fire. For this reason,
be sure to follow the following precautions.
Always wear safety glasses and rubber gloves when working on batteries.
If acid splashes onto clothing or skin, rinse immediately with plenty of
water.
Battery acid splashing into the eyes can cause blindness. If acid splashes
into the eyes, rinse immediately with plenty of water and seek medical
attention immediately.
Before handling the battery, turn off the engine and turn the starter
switch to the OFF position.
Avoid accidental contact between battery terminals with metal objects
such as tools, which can cause short circuits between battery terminals.
When installing a battery, first connect the positive terminal, and when
removing it, first disconnect the negative terminal.
When removing and installing, check which end is the positive and which is
the negative, and tighten the nut securely. If the battery electrolyte is close to
the lower limit level, add distilled water. Do not add distilled water above the
upper limit.
When cleaning the upper surface of the battery, wipe it with a damp cloth.
Do not use gasoline, thinners or other organic solvents or cleaning agents.
If the battery electrolyte is frozen, do not charge the battery or start

the engine with a different power source. This may cause the battery to catch fire.

- ☐ Always remove the battery from the chassis before charging.
- □ The set voltage of the charger must match the voltage of the battery being charged. If the voltage is set incorrectly, it will cause the charger to overheat and catch fire, which may cause an explosion. ★ Connect the positive charging clamp of the charger to the positive terminal of the battery, and then connect the negative charging clamp to the negative terminal of the battery. Make sure to tighten both terminals firmly.
- ☐ If the battery has less than 1/10 of its rated capacity and you want to perform a fast charge, the set value should be lower than the rated capacity of the battery. If the charging current is too large, it may cause electrolyte leakage or evaporation. This may cause a fire and explosion.







### 7. Lifting operations

☐ Thismachineisequippedwithanelectrichoist,whichcanliftnomorethan 250 kg of goods.

The electric hoist is operated by remote control and manual control. Voltage 12 volts

### 8. maintenance

Understandthemaintenanceproceduresbeforestartingwork.
 Never lubricate or maintain the machine while it is moving.
 Before starting to maintain the machine, do the following:

- 1.) Park the machine on flat ground.
- 2.) Lower the bucket to the ground.
- 3.) Let the engine idle at low speed for 5 minutes.
- 4.) Turn the key switch to the OFF position to stop the engine.
- 5.) Release the pressure in the hydraulic system by moving each control lever several times.
- 6.) Remove the key from the switch.
- 7.) Hang a "Do Not Operate" sign on the control lever.
- 8.) Let the engine cool.

If a maintenance procedure must be performed with the engine running, someone must supervise the machine.

If the machine must be lifted, keep the angle between the boom and the dipper arm between 90· and 110·. All machine parts that must be lifted for maintenance must be firmly supported.

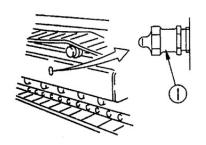
Do not work under a machine that is lifted by the boom.

When cleaning parts, always use non-flammable cleaning oil. Never use highly flammable oils such as fuel and gasoline to clean the surface of parts.

Before adjusting the electrical system or welding the machine, disconnect the battery ground cable (-).

Precautions when adjusting the track length with high-pressure grease

- 1.) Grease is pumped into the track tension adjustment system under high pressure. During adjustment, if the prescribed maintenance method is not followed, the screw plug ① may fly out and cause damage or personal injury.
- 2.) When loosening the grease drain plug ①, never loosen it more than one turn.
- 3.) It is forbidden to face the front of the drain plug with your face, hands, feet or any part of your body.





# operate

# 1. ExcavatorGeneralDiagram

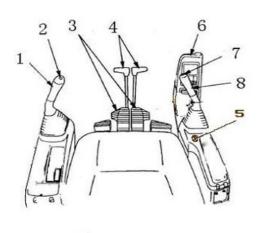
The directions mentioned in this section are the directions indicated

by the arrows in the figure below.



# 2. General diagram of controls

## and instruments



- 1. Left working device joystick
- 2. Horn switch
- 3. Travel pedal
- 4. Travel joystick
- 5. Start switch and instrument
- 6. Monitor
- 7. Idle speed
- 8. Right working device joystick

# 3. Check before starting the engine

3. 1Patrol Inspection

## $\triangle$ !warn

Oil or fuel leaks or accumulation of flammable materials around hot components (such as the engine muffler or turbocharger) can cause a fire.

Before starting the engine, check around and under the machine to see if there are any loose bolts and nuts, and check the status of the working device and hydraulic system. Also check if the wires are loose, the size of the gap, and the accumulation of dust in high-temperature places.

Check the damage, wear, and string movement of the working device, cylinder, connecting rod, and hose. If any abnormality is found, it should be repaired.

Clean the dirt and dust around the engine, battery, and radiator.

Check for water and oil leakage around the engine.

Check if there is oil leakage from hydraulic equipment, hydraulic oil tank, pipelines, and joints.

Check if the lower vehicle (tracks, drive wheels, guide wheels, guard plates) is damaged, worn, loose bolts, or oil leaks from the supporting wheels and supporting wheels.

Check if the handrails are damaged or the bolts are loose.

Check if the instruments and monitors are damaged or the bolts are loose.

Clean the rearview mirror and check for damage.

Safety seat belts and fixing buckles.

### 3. 2Check before starting

### $\triangle$ ! warn

Do not open the radiator cap unless necessary. When checking the coolant, always check the radiator reservoir when the engine is cool.

©Check cooling water level. Open the door on the left side of the machine and check whether the cooling water in the auxiliary water tank is between the LOW and FULL marks. If the water level is too low, add water to the middle level through the water filling port.

□□Check the oil level of the engine oil tank and add oil.

The oil level should be between the H and L marks on the dipstick.

★ When checking the oil level after the engine is running, wait at least 15 minutes after the engine is shut down before checking. If the machine is tilted, make it level before checking.

Check the fuel level.

After the fuel filler cap is opened, the float reflecting the amount of oil will rise. The position of the float when the fuel tank is full: about 130mm from the top of the fuel tank. After refueling, press the float vertically down with the fuel filler cap, and cover the fuel filler cap while being careful not to clamp the float at the fuel filler cap. If the vent on the cap is blocked, the pressure in the tank will drop, and this hole should be cleaned in time.

Check the hydraulic oil tank.

Run the engine at a low speed, retract the arm and bucket cylinder, lower the boom, make the bucket teeth contact the ground, and then stop. Within 15 seconds after shutting down the engine, operate each joystick (working device and travel) in each direction until the end of the stroke to release the internal pressure. If the oil level is between the H and L marks, the oil level is normal. If the oil level exceeds the H mark, do not add oil. Note: The oil level changes with temperature. Therefore, the following two items are used as reference. ① When the oil temperature is close to the ambient temperature (10°C~30°C), the oil level should be close to the low (L) line of the oil dipstick. ② When the oil temperature reaches the normal operating temperature (50°C~80°C), the oil level should be close to the high (H) line of the oil dipstick.

Check the electrical circuit.

Check whether there is a short circuit, fuse damage and open circuit in the circuit part.

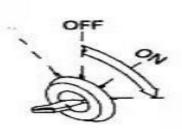
Check whether the terminal is loose. Carefully

check the following places  $\odot$  Battery  $\odot$  Starter motor  $\odot$  Alternator Check the water and sediment in the oil-water separator and drain the water. The oil-water separator separates the water mixed in the fuel. If the float ② reaches or exceeds the red line ①, the water should be drained as follows:

- 1. Loosen the drain plug ③ and drain the accumulated water until the float drops to the bottom.
- 2. Tighten the drain plug ③. 3. When draining water, if air is sucked into the fuel line, be sure to bleed the air in the same way as the fuel filter.

# 4. Starting the engine.

- ①. Preparation before starting
  - □□ Do the initial inspection. (See before start Preplacationine for details)
  - $\hfill\Box$  Place the safety lock lever in the release position.





### ②. Starting the engine

☐ Turn the key of the starter switch to the (START) "start" position, and the engine will start.

After the engine starts,
release the key of the
starter switch, and the
key will automatically
return to the ON
position.

If the engine does not
start, restart it after 2

start, restart it after 2 minutes. Do not leave the starter start position sovitchmore thean 20 seconds.

When starting in cold weather, keep the key in the starter switch in the preheat (HEAT) position and check that the preheating monitor light should light up. After about 30 seconds, the preheating monitor light ③ goes out, the indicating that preheating is complete. Turn the key in starter switch 2 to the to "start" position start the engine.

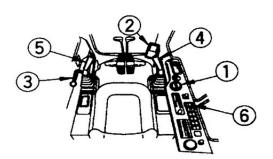
### ③. Operation after starting the engine

If the working device is operated before the engine is fully warmed up, the working device will react slowly to the lever action and will not move as the driver wishes, so warm-up operation should always be performed. Especially in cold areas, full warm-up operation must be performed.

When the hydraulic oil temperature is below 20 °C, do not suddenly operate the lever. The most suitable temperature for hydraulic oil is 50 °C~80 °C. In order to extend the service life of the machine, the oil temperature should be raised to at least 20 °C before starting work.

Do not suddenly increase the engine speed before the warm-up operation is completed. Do not run the engine continuously at low idle or high idle for more than 20 minutes. This may cause leakage in the turbocharger oil inlet pipe. If you need to idle the engine, you should add a little load or switch to medium speed frequently.

After the warm-up operation is completed, check whether the instruments and monitoring lights are in the following states: the engine water temperature gauge is in the green zone; the fuel gauge is in the green zone; the engine oil pressure monitoring light is off; the charging level monitoring light is off;



 $\hfill\Box$  Put the safety lock lever in the release position and lift the bucket from the ground.

Slowly operate the bucket joystick and the stick joystick to move the bucket cylinder and the stick cylinder to their stroke ends.

Operate the bucket and stick at full stroke for 5 minutes, and operate the bucket and stick alternately with a time interval of 30 seconds.

When the working device is retracted, be careful not to touch the chassis and the ground.

Check whether the exhaust color, noise or vibration are abnormal.

Monitor Description:

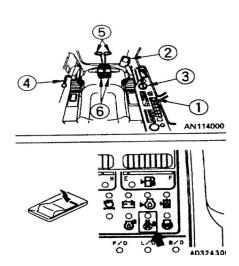
The monitor mainly monitors the engine water temperature, oil pressure, fuel level, machine working time, and hydraulic oil temperature. When the above data exceeds the specified limit, the buzzer alarms.

### 5. Start the vehicle

### $\triangle$ !warn

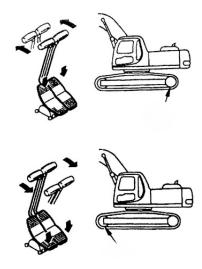
Before operating the travel lever, check the direction of the crawler frame. If the drive wheel is in front, the operation of the lever is in the opposite direction. When moving, check whether the area around the machine is safe and sound the horn before moving. The rear of the machine is a blind spot, so pay special attention when reversing.

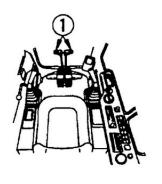
#### 5.1The machine moves forward



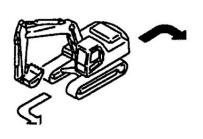
☐ Fold back the working device and lift it off the ground40cm~50cm₀

□□ Operate the left and right travel levers or left and right travel pedals as follows. ① When the drive wheel is the rear of the at machine, slowly push the lever forward, or press down the front of the travel pedal. This allows the machine to move. ② When the drive wheel is at the front of the machine, slowly pull the lever backward, or press down the back of the travel pedal. This allows the machine to









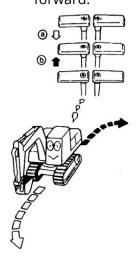
#### 5.2Steering

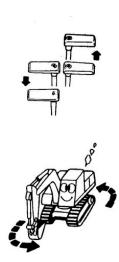
Use the travel lever to change direction. Check the position of the drive wheels. If the drive wheels are in front, the travel lever operation is opposite. Avoid sudden changes in direction as much as possible. Especially when making a left or right directional rotation (turning on the spot), first stop it and then turn it.

□□Changing the direction of the machine when parking When turning left: When driving forward, turn left and push the right travel joystick forward; when driving backward, turn left and pull the joystick right travel backward. When turning right: operate the left travel joystick in the same way. Steering while driving (operate the left and right joysticks in the same direction at the same time) When turning

left: If the left joystick returns to the middle position, the machine will turn to the left. When turning right: Operate the right travel joystick in the same way.

Turning with the two crawlers in the opposite direction (turning place) When the two crawlers turn in the opposite direction turn left, pull the left travel joystick backward and push the right travel joystick forward. When the two crawlers turn in the opposite direction to turn right, pull the joystick right travel backward and push the joystick left travel forward.

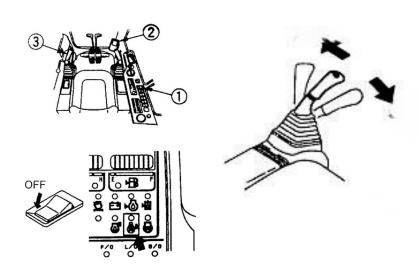


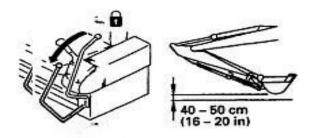


#### 5.3turn around

When operating the swing, check whether the surrounding area of the machine is safe.

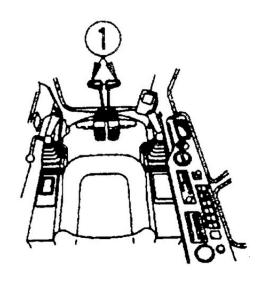
Operate the left working device joystick  $\ensuremath{\mathfrak{I}}$  to swing the upper structure,

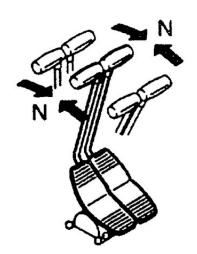




# 6. Machine parking

 $\hfill\Box$  Put the left or right travel joystick in the middle position to stop the machine.





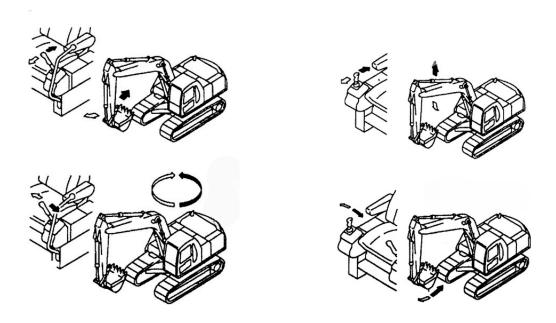
# 7. Operation of working equipment

The working device is operated by the left and right working levers. The left working device lever operates the dipper and slewing, and the right working device lever operates the boom and bucket.

The movement of the lever and working device is shown in the figure below. When

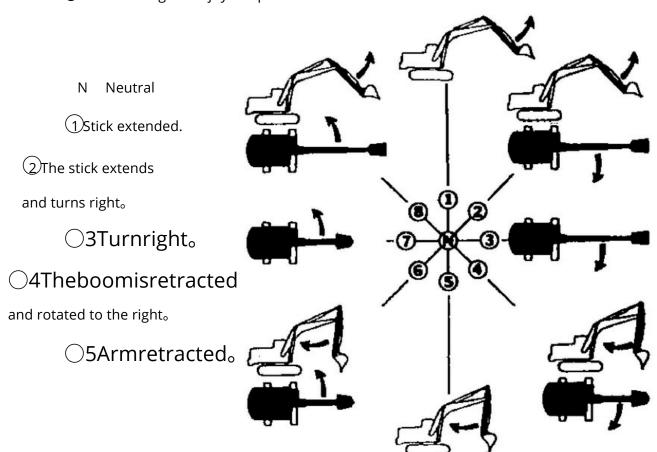
the lever is released, the lever automatically returns to the middle position. The working device stops at this position.

★ When the machine stops, if the working device control lever returns to the middle position, even if the throttle control panel is in the high position,

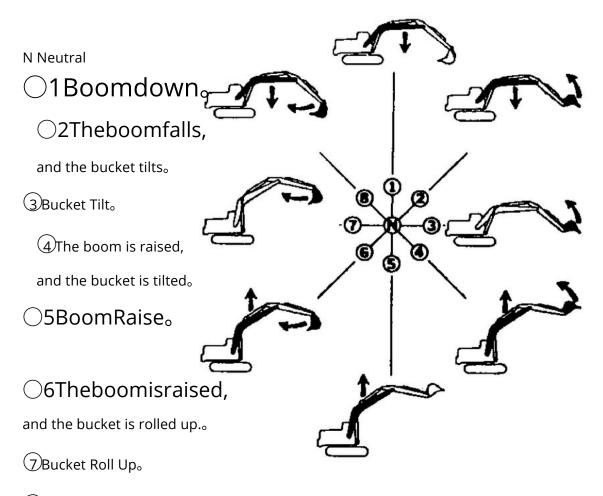


position, the automatic deceleration mechanism will also work, reducing the engine speed to a medium speed。

Leftworkingdevicejoystickposition



- 6The boom is retracted and rotated to the left.
- 7Turn left。
  - 8The stick extends and turns left.
- □□ Right working device joystick position



8The boom drops and the bucket rolls up。

#### : ★ Operation of crawler extension and retraction

The crawler can be retracted when passing through narrow roads. When retracting the crawler, the handle is at the lower right.

When retracting the crawler, use the bucket and bulldozer to support

the crawler so that the crawler leaves the ground.

★ Phenomenon that is not a malfunction

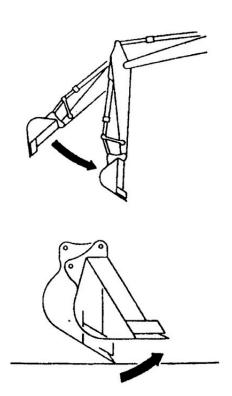
Note that the following phenomenon is not a malfunction

When the arm is retracted, the movement speed occasionally decreases when the arm exceeds or falls short of the vertical position.

When the bucket teeth exceed or fall short of the horizontal position, the arm speed sometimes decreases.

Noise is emitted from the brake valve when starting or stopping the s wing.

Noise is detected from the travel motor when driving down a steep slope at low speed.



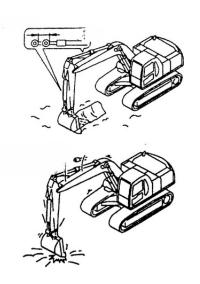
9. Prohibited Operations

□□ If you need to operate the working device joystick while the machine is driving, you should stop the machine temporarily before operating. If you move the joystick within the automatic deceleration range, the engine speed will suddenly increase. Be especially careful when operating the joystick₀

□□Operations using swing force are prohibited: Do not use swing force to compact soil or destroy soil piles and walls. Or insert the bucket teeth into the ground while swinging. These actions will damage the working device.

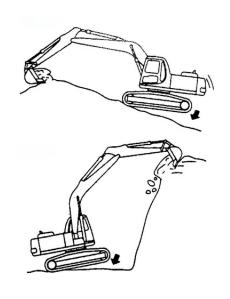
Operations using walking force are prohibited: Do not dig the bucket into the ground and use walking force to dig. This will cause excessive force on the rear of the machine.

□□Pay attention to the operation of the hydraulic cylinder to the end of its stroke: During operation, if the hydraulic cylinder is operated to the end of its stroke, the force will be applied to the internal stop



reducing the service life of the machine. To prevent this from happening, always keep a small safety distance when operating the □□ Patayyeindeotpærratitoion the hydraulic cylinder to the end of its stroke: During operation, if the hydraulic cylinder is operated to the end of its stroke, the force will be applied the internal stop of the cylinder, thereby reducing the service life of the machine. To this from prevent happening, always keep a small safety distance when operating the cylinder...

of the cylinder, thereby



□□ Do not move the joystick suddenly when driving in high gear: ① Do not move the joystick suddenly, which may cause the machine to start suddenly. ② Avoid sudden switching of the joystick from forward to reverse (or vice versa). ③ Avoid sudden repositioning of the joystick, such as stopping suddenly from near the speed limit



(releasing the joystick operation).