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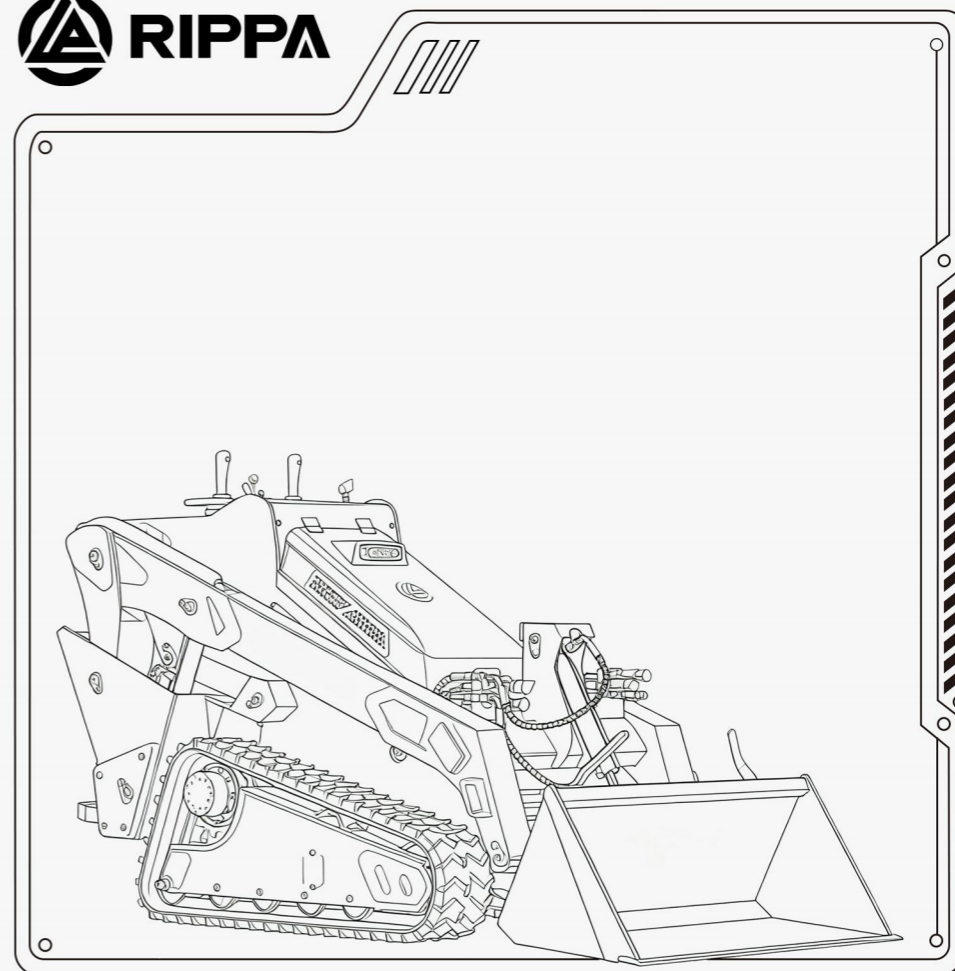
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WWW.RIPPA.COM

LP0116012857



RS06 SKID-STEER LOADER

MACHINE INTRODUCTION

Warning: Unsafe use of this machine may cause serious injury or death. Operation and maintenance personnel must read this manual before operating and maintaining this machine. This manual shall be placed near the machine for timely access and all machine-related personnel.

www.rippa.com

Second edition





Symbols for operating devices

The operating device is marked with symbols for easy operation and maintenance management. The meaning of the symbols is as follows, please pay more attention on the basis of full understanding to avoid misoperation.

	bucket dump
	Arm descent
	advance
	Machine walking at low speed
	lock
	Fuel (light oil)
	Battery charging warning
	horn
	Automatic Idle
	Floating position

	Pulling up the bucket
	boom raise
	back
	water temperature gauge
	Work light
	Machine travels at high speed
	unlock
	Working oil
	Engine Oil Pressure
	engine warm-up



Preface

Thank you for purchasing RIPPA products.

This user manual provides instructions on the correct use of the product and simple inspections and repairs. Please read and fully understand this content carefully before use, in order to fully utilize the excellent performance of the product you have purchased and perform safe and comfortable operations. Manufacturers cannot directly supervise and guide the use, operation, inspection, and maintenance of machines. Therefore, users should perform their tasks correctly and safely. In addition, please note that matters not recorded in this user manual may also be subject to relevant laws, regulations, rules, and insurance conditions depending on the content of the operation. After reading this user manual, please make sure to keep it properly in the user manual bookmark so that you can access it at any time if you have any questions. When the user manual bookmark is damaged, please be sure to replace it with a new one. In addition, due to changes in product specifications, the product you purchased may sometimes be inconsistent with the content of this manual. We apologize for any inconvenience caused.



safety first

The precautions recorded in this book and the symbolic labels posted on the machine are important items that may cause personal accidents.  Please read carefully and strictly follow.

Regarding the

This user manual indicates the following special precautions when using the machine.



dangerous

Failure to follow the precautions may result in death or serious injury.



warn

If the precautions are not followed, there is a risk of death or serious injury.



note

If the precautions are not followed, there is a risk of injury.

significant

Failure to follow the precautions may result in machine damage or malfunction.

supplement

Provide additional instructions that are helpful for use.

About Specifications

This user manual also provides instructions for products with different models and specifications. Please confirm the model and specifications of the product you purchased before proceeding to avoid any mistakes.



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Please read it carefully for safe homework

Before using this machine, please carefully read and understand this 'User Manual' to ensure safe operation. In order to carry out homework safely, the following are the precautions that must be followed.

In addition, this article also includes symbols such as,



supplement to indicate caution in such situations.

Pay attention to complying with local regulations

Some aspects require compliance with the minimum insurance level stipulated by the government, work permits or certifications, guardrails around the work area, operating hours, etc. When performing certain tasks, there may be reference standards or limitations for the equipment. View and comply with local requirements regarding underground facility and cable safety.

For safe operation, please be sure to follow the

following instructions. Basic safety

considerations

Before using this machine, please read this user manual carefully and operate it safely based on a full understanding.

2. When lending this machine to others for use, please provide detailed instructions on how to use it and guide the receiver to carefully read the "User Manual" before use.



When operating and maintaining, please wear a helmet, safety shoes, and safety clothing.

Please wear protective goggles, dust masks, soundproofing equipment, protective gloves, and safety belts according to the homework content. Please confirm that all protective equipment is functioning properly before use.

Please keep the area around the driver's seat clean. If there is oil, grease, ice, snow, and mud attached to the pedals and armrests, it is easy to slip. In addition, please check if there is any soil attached to the shoes.



4. Prepare safety equipment

Please prepare safety equipment in advance for use in case of injury or fire.

Please prepare a first aid kit and firefighting equipment.

Please note in advance the addresses of the emergency doctor, ambulance, fire department, and other emergency services.

5. Do not use this device due to alcohol consumption, lack of sleep, pregnant women, excessive fatigue, or patients.





Please read it carefully for safe homework

6. Please conduct daily checks.

Please confirm if there were any abnormal phenomena during the last use (such as oil leakage, water leakage, loose bolts and nuts, broken electrical wiring, loose terminals, etc.).
If there are any abnormal phenomena, please take corresponding measures.

Please use designated brands for fuel and grease.

7. Please make sure to install safety and protective covers before use.



8. When refueling, adding lubricating oil, checking and adjusting, please turn off the engine.

Smoking and open flames are strictly prohibited when refueling.
Also, please take full care not to spill fuel.

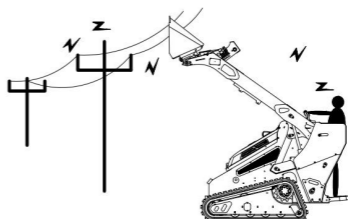


9. When pulling up the bucket, no one is allowed to enter under the bucket.

10. When pulling up the bucket, please do not touch the wires or obstacles above your head.

Especially when in contact with wires, there is a possibility of death due to electric shock, so please be careful.

11. Do not drive while drinking alcohol, taking medication, or in poor physical condition. Otherwise, it may cause accidents.





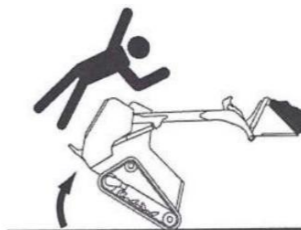
Please read it carefully for safe homework

Precautions during the homework process

1. For first-time drivers of this device, please operate it at low speed before getting used to it.
2. Perform correct operations (strictly prohibit looking around, jumping on, jumping off, etc.), and do not allow anyone other than the driver to board.
Do not sit on the bucket.
3. It shall not be used for any other purpose. Otherwise, not only will it cause malfunctions in the body, but it may also lead to unexpected accidents.

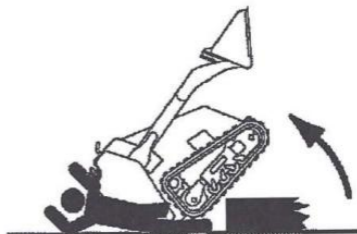


4. When moving the machine, please ensure that there are no people or obstacles around before proceeding with the operation. During the homework process, no one is allowed to enter the homework area.
5. When working in places with poor visibility and terrain ahead, please assign a commander and follow the commander's signals to carry out the work.



6. Please never make a turn or cross in an inclined area, as it may cause a rollover or skidding, which is very dangerous. Please turn on a flat surface. Please drive along the maximum incline line when going up and down hills.
7. Do not perform rotating or loading/unloading operations on inclined sections, as there is a risk of overturning. When working on inclined sections due to necessity, the machine should be placed on a level footing before proceeding with the work.
8. Do not drive the car on rocks or work on soft mounds of soil.

When climbing on sloping terrain, if the vehicle is driven to a rocky or protruding area and driven on uneven roads, there is a risk of overturning. Therefore, please do not climb in such places.





Please read it carefully for safe homework

9. When driving or climbing, please face the working device forward and keep the bucket 20-40cm off the ground so that it can be lowered directly to the ground in case of dangerous situations to ensure stable driving. Please never go up or down a slope while swinging.

Also, please never drive on slopes above 15 degrees. Otherwise, there is a risk of overturning.

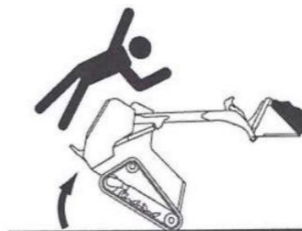
10. When going up and down a soft soil slope, if the body may slip, please immediately lower the bucket to apply the brakes.



11. When moving near cliffs or embankments, sufficient space should be left or appropriate measures such as reinforcement should be taken to prevent ground collapse. Also, do not approach the scene where there is a risk of falling rocks. Driving after rain is even more dangerous. Do not approach cliffs or embankments unprepared.

12. If the job site or road conditions are poor, the stability of the machine will decrease, and operational errors may cause accidents or even rollovers. Therefore, while leveling the work site, it is also necessary to level the road surface or avoid obstacles while driving. In addition, when driving on bridges or buildings, the allowable load should be investigated, and reinforcement should be carried out in cases of insufficient strength.

13. When using wooden boards, iron plates, etc. in rainy or wet conditions, they are prone to slipping. Please pay full attention when working in such slippery places.

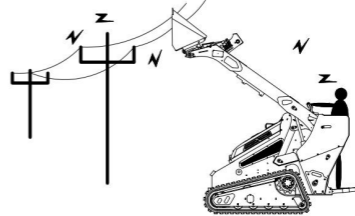


14. When working in places with electrical wiring, gas pipelines, water supply and drainage systems, experts should be present to provide guidance.



Please read it carefully for safe homework

When working in buildings, full attention should be paid to the strength of the overhead, exits, passages, and floor surfaces.



16. Regarding cargo lifting operations

The lifting operation of goods is very dangerous as it may cause the goods to fall or overturn. Please never use this machine to replace the crane for operations.



Please read it carefully for safe homework

Precautions after homework

1. Please make sure to park the vehicle on a flat surface.

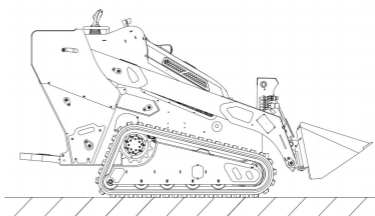
When leaving the driver's seat,

Please lower the bucket to the ground

- Lock the operating handle lock rod
- Stop the engine and remove the key.

When collecting the body, the protective cover used should be covered after the high-temperature parts such as the muffler have cooled down.

(Otherwise, there is a risk of fire.)



Precautions for maintenance and upkeep

1. When inspecting and cleaning the body and working equipment, checking and adjusting various parts, or leaving the driver's seat as a result, please make sure to do so after turning off the engine. It is very dangerous to conduct inspections while the engine is running. Please choose a place that is not dangerous and has a solid and flat ground before conducting the inspection.
2. When performing maintenance and upkeep on the machine, please hang a warning sign that reads "Maintenance and upkeep in progress" in a prominent position to prevent unauthorized contact with the machine. Also, please hang warning signs around the machine.





Please read it carefully for safe homework

3. During maintenance and refueling, it is necessary to remove any fuel that may cause damage

Items that ignite

batteries. Fire

prevention measures:

Please use non combustible oil to wash components, etc.

Please eliminate sources of ignition that pose a danger.

Please prepare fire extinguishers and other firefighting equipment.

When inspecting fuel, oil, and battery solutions,
please use explosion-proof lighting fixtures.

When carrying out grinding or welding
operations, it is especially important to stay
away from ignition sources.

4. The gas in the battery may cause a fire or explosion.

Do not spark near the battery or approach
sources of fire.

Do not use metal plates to short-circuit the two
poles for battery inspection. This is very
dangerous.

Please make sure to use a voltmeter or
densitometer for inspection. Do not charge
batteries that have already frozen.

Otherwise, there is a risk of explosion.

When the battery freezes, please ensure that
the temperature of the battery reaches 15 °C
or above.

The battery solution (dilute sulfuric acid) can
cause blindness or burns. If the battery
solution sticks to the skin or clothing, please
rinse immediately with plenty of water. In
addition, if battery solution splashes into the
eyes, rinse with plenty of water and seek
medical attention promptly.



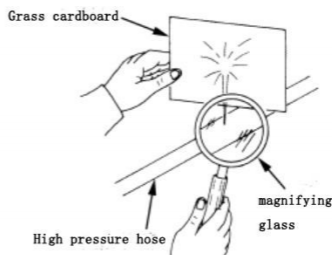
- 5.If the battery level is below the LOWER mark, do not use or charge it. Continuing to use it below the LOWER mark will accelerate aging inside the battery, which not only reduces its lifespan but can also cause an explosion. Please immediately add water to bring the level between the UPPER LEVEL and LOWER LEVEL. (For batteries that can be refilled with water)
- 6.When maintaining the equipment indoors or in poorly ventilated areas, ensure proper ventilation. Especially when the engine is emitting exhaust fumes or when handling fuel, oil, or coatings, make sure there's good airflow.
- 7.When performing maintenance, please use proper tools for the job. If you don't use the right tools, not only will the work be less efficient, but it can also lead to injury.
- 8.Maintenance and repairs around the engine should only be carried out after the brackets for the outer covers have been securely fixed in place.
- 9.If you must interrupt operation to disassemble parts of the hydraulic system, lower the bucket to the ground and then shut down the engine. Once the machine is running, all components, as well as the working oil and lubricating oil, are under high temperature and pressure. When the working oil is hot, there is a risk of burns. The working oil ejected under pressure can penetrate the skin and cause injury. Additionally, since plugs or screws may fly out and cause injury, disassembly of hydraulic system components must be done after the temperature has dropped and any residual pressure has been released. When loosening plugs or screws, do so slowly while keeping your entire body away from the area. Also, if fuel or oil leaks under high pressure, be extremely careful not to bring your hands or face near the leak. Facing the leak is extremely dangerous.



Please read it carefully for safe homework

10. When searching for oil leaks caused by invisible small holes, please wear protective goggles and use cardboard or other materials to help locate them.

Once oil seeps into the skin, it may cause severe allergic reactions, in which case seek medical attention immediately.



11. Please check, replenish, and replace the radiator cooling water only after the engine has cooled down sufficiently.

After completing the assignment, if the radiator cap becomes loose, steam or hot water will spray out, sometimes causing burns. In addition, loosening the discharge plug or plug can sometimes cause burns from hot water. In addition, just after the engine has stopped, the muffler is still in a high temperature state. Please be careful not to touch it to avoid burns.

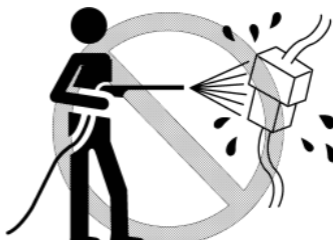


When welding directly on the machine body, please turn the starter switch to the "STOP" position. In addition, during welding, sparks may be generated due to heat generation, so do not place components between the welding and grounding areas that may cause electrical problems such as oil cylinders or sealed bearings.

13. In order to perform maintenance and inspection, it is necessary to use a working device to lift the machine

Do not enter below at this time. When it is necessary to enter below, safety pads and safety pillars should be placed below to prevent sudden drops. Additionally, please place the joystick lock lever in the locked position

If the electrical system is immersed in water, it may sometimes cause short circuits or poor operation. Please never wet electrical installation components such as instruments, starter switches, batteries, sensors, and connectors.



Transportation precautions

Please note: When moving this machine, be sure to use a truck for transportation.

1. Please be sure to comply with transportation related
2. regulations and ensure safe driving.

When loading and unloading, the truck should be parked on a flat surface and the brakes should be applied. The brakes should be applied in front and behind the tires to ensure that they do not move. Then, a loading and unloading platform with sufficient strength and width should be set up for loading and unloading.

When using the loading and unloading board as a last resort, please make sure to use a sturdy loading and unloading board and remove any oil or substances that may cause slipping from the board, then proceed with slow loading and unloading.

Place the working device facing the direction of travel, and position the boom and loading/unloading plate in a vertical or slightly raised position, leaving a distance of 20-40cm between the bucket and loading/unloading plate. Please use a loading and unloading board with a length

of at least 4 times the height of the carriage (H). If the bending degree of the loading and unloading board is significant, please use a "bracket" (support platform) to prevent the loading and unloading board from bending.

Do not use loading and unloading boards for loading and unloading on rainy days, as loading and unloading boards are prone to slipping and are very dangerous.

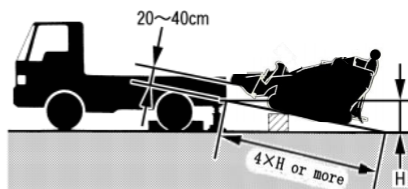
Never use the boom to lift the machine body during loading and unloading operations without using a loading platform or loading and unloading board, as it may cause falling or overturning, which is very dangerous. In addition, it is strictly prohibited to adjust the direction on the loading and unloading board.

3. On the truck, place the bucket in contact with and secure it to the truck's surface, then brake the tracks and fix the body to the truck's surface with a wire rope.

In addition, due to different truck models, some trucks need to store the bucket in the truck's baffle and fix it with steel wire ropes to prevent the bucket from moving.

4. Please never make sudden starts, stops, or turns during transportation, otherwise the machine may move or lose balance, which is extremely dangerous.

(For detailed information, please read the "Truck Transportation" project carefully before proceeding with the above operations.)





 Please read it carefully for safe homework

Regular inspections should be conducted

To ensure safe use of the machine and prevent potential issues, it is essential to conduct regular inspections. The time recorded in this article is the time indicated on the hour meter. In actual inspection, the date should be determined on a daily, weekly, and monthly basis for maintenance based on this time.

The above lists the main precautions to prevent errors that may occur during machine use. In addition, this article also includes symbols such as,,, and to indicate caution in such situations.

Please read carefully and strictly follow.

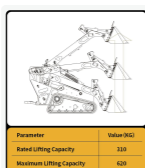


Please read it carefully for safe homework

Labeling and posting locations

This machine has posted safety labels. Please drive based on a thorough understanding. The following content is recorded in this regard, please read it carefully.

1.Lift icon



2.No one is allowed to stand within the work



3.Direction



4.Bundle shipping points



5.lifting



6.Brand model (right)



7. CE



8.Euro 5



9.EPA Tier 4 emission standards

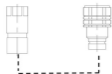


10.No one is allowed to stand under the working device

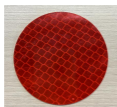




11.quick connector



12.Nighttime work reflective reminder



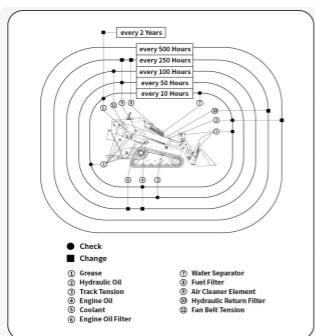
13.Emergency Operation and Safety Warnings for the Loading Arm



14.Core warnings for safe equipment operation



15.Equipment Regular Maintenance Schedule



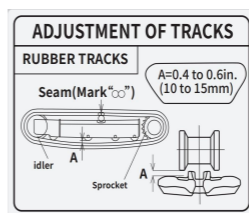
16.Brand model (left)



17.Authorized representative

Authorized representative :
RIPPA Europe LLC, Irmin Garbers 1
Racho Dimchev, Sofia 1000, Bulgaria

18.Track adjustment



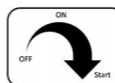
19.Power outage



20.Wear personal protective equipment



21.Key fob

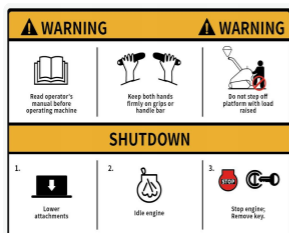


22.accelerator

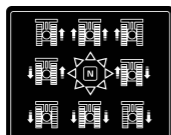




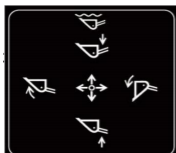
23.Operator Safety Guidelines Warning



24.Walking style



25.Operation



26.Danger: Check the clearance at the top of the live wire



27.QR code for the Lippi Technology Exchange Group



28.Noise



29.Do not touch the fan blades here to avoid injury



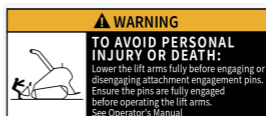
30.hydraulic tank



31.diesel tank



32.Before operating the boom safely





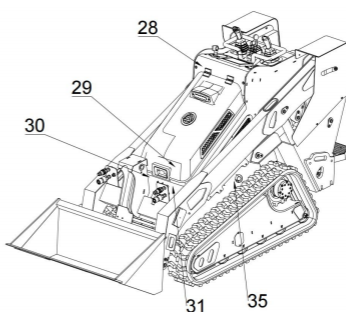
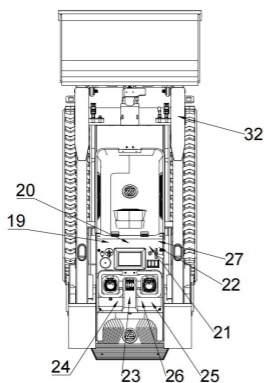
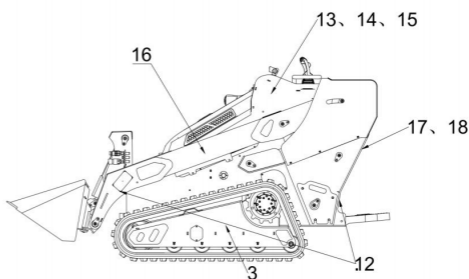
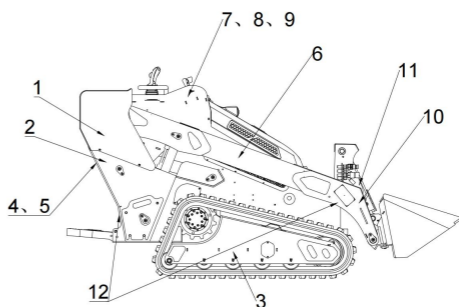
33. Caution: Avoid fire hazards (Do not remove the fuel filter until the engine and muffler are cool)



34. slogan

Stop Renting, Start Owning

35. The smoke vent is extremely hot - do not touch it. transportation points and hoisting.





Please read it carefully for safe homework

Maintenance of label labeling

1. Labels should always be kept clean and careful not to scratch them.

If the label is dirty, please rinse it with soapy water and then wipe it clean with a soft cloth.

If a high-pressure washer is used to wash the car, it may cause the label to peel off. Therefore, please do not rinse the label directly with high-pressure water.

When the label is damaged or lost, please place an order with the product purchasing department and re attach a new label.

4. When posting a new label, please thoroughly wipe off any dirt on the surface and re post it in its original position after drying.

When replacing parts with labels with new ones, please also replace the labels at the same time.





Regarding Maintenance and Warranty

If there are any malfunctions or unclear areas during use, or if repairs are needed, please contact the sales store where you purchased the product or the repair shop designated by our company.

Please provide the following information when contacting:

- (1) Model name
- (2) Engine name and engine number

In addition, the sales store has an authentic parts list.

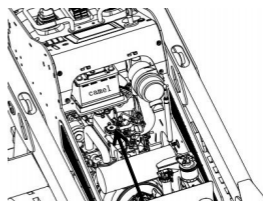
When ordering parts, please discuss with the sales store.

This product is equipped with an electronic key for theft prevention (hereinafter referred to as the anti-theft device), but this device is only a device for suppressing theft and cannot guarantee that theft will not occur.

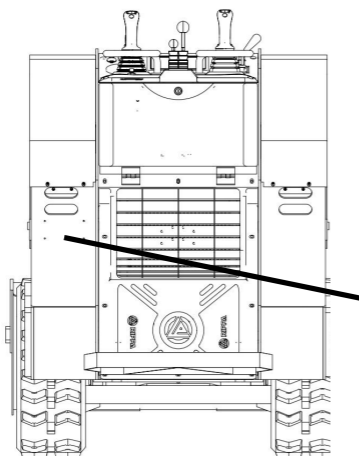


warn

*Modifying the machine will be very dangerous, please do not modify the machine. When the purpose of modification or use is different from the correct purpose described in the user manual, it is not within the scope of the manufacturer's warranty, so please note.



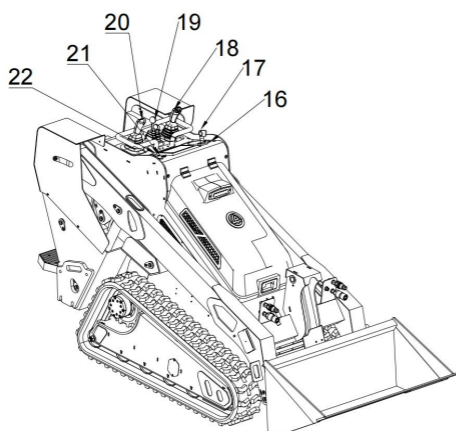
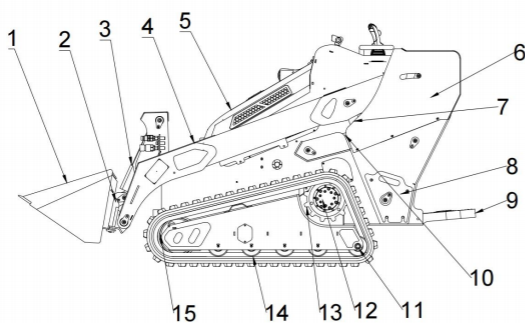
Model of engine



 SHANDONG RIPPA MACHINERY GROUP CO.,LTD.			
Product Name	Skid steer loader	Model	RS06-3
Engine power(kw)	17.1	Operating Mass(kg)	1505
Serial Number		Year	2026/5
The north of Guang'an Road and east of Gaoxin Avenue (Liaochi Road), High tech Zone, Jining City, Shandong, P.R. China.		TEL:+86-0537 2339712 Web:www.rippa.com	



Description of each device



serial number	name
one	bucket
two	quick change
three	Bucket Cylinder
four	Boom
five	Front cover
six	Swing arm and guard
seven	boom cylinder
eight	counterweight
nine	foot pedal
ten	connecting rod
eleven	track roller
twelve	travel motor
thirteen	drive sprocket
fourteen	track roller
fifteen	tensioner pulley
sixteen	lighter
seventeen	power switch
eighteen	Right handle
nineteen	Dual pilot handle
twenty	Left handle
twenty-one	rocker switch
twenty-two	Accelerator cable



Regarding the use of various devices

The use of safety devices

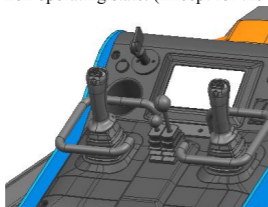
■ Operating handle lock rod

**note**

*When parking or leaving the machine, be sure to lower the bucket to the ground and lock the operating handle lock rod. It is very dangerous for the working device to fall. Therefore, please make sure to confirm that the lock is in the starting position before getting off the car. Also, please remove the key to prevent others from operating the machine by mistake.

supplement

- *When the operating handle lock lever is not properly lowered, the vehicle cannot function properly.
- *Even if the lock rod of the operating handle is not fixed to the operating handle, the working device is still in a non operating state. (Except for the driving handle)



supplement

- *Pull up the left operating handle lock rod, but the working device cannot be operated.
When getting on and off the car, please pull up the left joystick lock lever to the maximum position.
- *When the locking lever of the operating handle is in its maximum position, the driving handle is mechanically locked and in an inoperable state.

The use of switches and instrument indicator lights

■ Starter switch

- "SIARTER SWITCH CONTACT" (starter switch contact)
The key can be inserted at the "SIARTER SWITCH CONT. position.
- "START" (operation)
If you turn one gear to the right from the "SIARTER SWI CONTACT" position to enter the "START" position, all circuits will be powered on, and preheating and glow display will be performed.
At this time, in order to perform a light off check, the indicator light will light up for about 1 second.

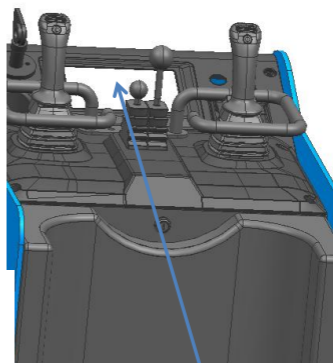
● "START" (Start)

If the lock lever of the joystick is in the "lock" position, and the "SIARTER SWITCH CONTACT" position is turned one gear to the right to enter the "START" position, the starter motor will rotate and the engine will start. When you release the key, it will automatically return to the "SIARTER SWITCH CONTACT" position. Therefore, when the engine starts, please release the key.



Electronic display screen

Gently turn the key to the "START" position on the LCD display of the electronic instrument panel, and release the key to start the display screen



Display screen position



Regarding the use of various devices

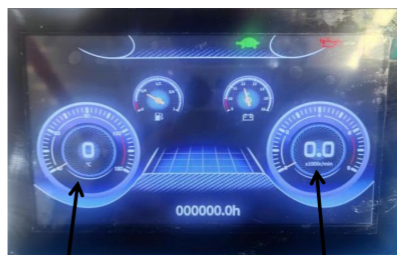
■ Electronic instrument display area (usually)

◆ Water temperature gauge

	note
*If it is opened during operation or just after the operation has stopped The radiator cap can sometimes spray hot water and cause burns. Therefore, please open the radiator cap after the radiator has cooled down.	

Gently turn the key to the "START" position on the LCD display of the electronic instrument panel, and release the key to start the display screen. The LCD display device will show the temperature of the cooling water. If the water temperature gauge is close to "H", then

1. Suspend the assignment,
 2. After idling the engine for approximately 5 minutes,
 3. Stop the engine and perform the following checks (1) to (3).
- (1) The presence and leakage of cooling water.
 - (2) Loose fan belt.
 - (3) Is there any dirt or dust attached to the radiator.



temperature

speed

◆ Engine tachometer

*Due to different viewing angles, the display content of the LCD display may sometimes be difficult to see clearly, which is not abnormal.

Preheater switch

When the starter key is located at the "STARTER SWITCH CONTACT" (starter switch contact)

When in position, turn the preheater switch to the right to start preheating.



start switch



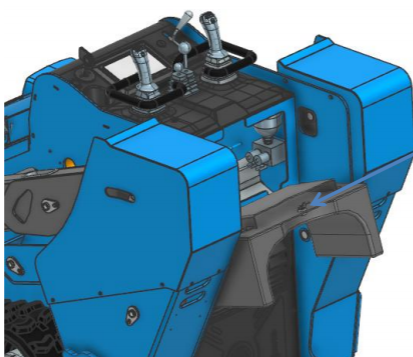
Regarding the opening.

■ Cushion opening



warn

*Before flipping the cushion backwards, please make sure to close the hair Motivate and place the joystick lock lever in the "locked" position.



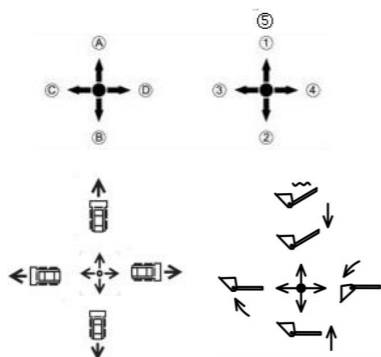
Cushion
key switch





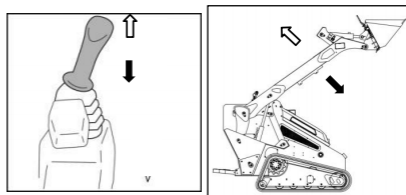
■ Use of joystick

joystick		action
Right joystick	one	Lower the boom
	two	Raise the boom
	three	Retract the bucket
	four	Open the bucket
	five	Floating position
left joystick	A	advance
	B	back
	C	Turn left
	D	Turn right



■ Operation of the boom

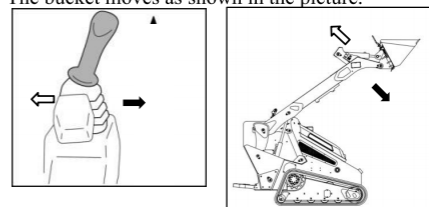
When the skid steer loader encounters overload, be sure to lower the boom until the load reaches the ground. To raise the boom, use the right joystick to pull it backwards. To lower the active arm, use the right joystick to push forward.



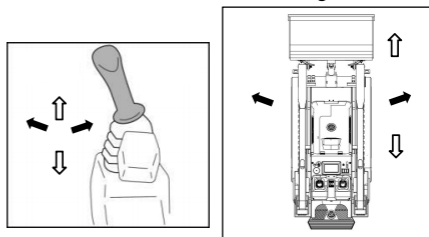
■ Operation of the bucket

Lift the bucket and use the right control lever to pull it to the left. To clear the bucket, use the right control lever to push it to the right.

The bucket moves as shown in the picture.



Move forward, use the left joystick to push forward. Step back, use the left joystick to pull back. When turning left, use the left joystick to push forward to the left. When turning to the right, use the left joystick to push forward to the right. Move in the direction shown in the figure.





■ Throttle lever

If the throttle is pushed to the front (high-speed side), it will increase the engine speed.

To turn off the engine, push the throttle all the way and then place the starter switch in the "STARTER SWITCH CONTACT" position.

supplement

- *Due to the use of a hydraulic pilot system, the operating device can only be operated when the engine is running. To make the bucket touch the ground, please do so after placing the engine in low-speed rotation.
 - *When getting on and off the vehicle, please pull up the operating handle lock lever and make sure to place it in the "locked" position.
 - *Due to the slow response of the working device to the operating handle when the working oil temperature is low, it is necessary to implement warm-up operation.
 - *During periods of low working oil temperature, the operating handle feels slightly heavy, but this is not a fault.
 - *When disassembling hydraulic equipment, please follow the steps below.
 - Reduce the engine speed to make the bucket touch the ground.
 - Stop the engine and move the handle in all directions.
 - Please wait for more than 10 minutes to release the residual pressure in the hydraulic circuit.
- These steps are extremely necessary to prevent danger from occurring.



Pre operation inspection

■ Inspection and replenishment of cooling water



note

*If it is triggered during operation or just after the operation has stopped

Open the radiator cap, sometimes steam or hot water will spray out and lead to Causing burns. Therefore, please open the radiator after it has cooled down
Heater cover.

Please check if the water tank is filled with the specified amount of cooling water. If the cooling water is insufficient, please replenish the cooling water in the water tank.

*When adding cooling water, please do not let the water level exceed half the height of the auxiliary kettle.

*Please never add mud or seawater.

*Under normal circumstances, please do not open the radiator cap.

supplement

*Please check the cooling water through the water tank when the engine is cooling down.

*Long term coolant (mixture ratio: antifreeze 50% water 50%) has been added as cooling water at the factory.

■ Fuel inspection and replenishment



note

*Please make sure to stop the engine when refueling.

*Please never approach the fire source.

▶ If neglected
May cause a fire.

1. Please use a fuel gauge for inspection.

2. When fuel is low, please open the fuel tank cap to replenish it.

3. If the key is not inserted into the fuel tank cap, the fuel tank cap cannot be opened.

*After the homework is completed, fuel should be replenished until the fuel tank is full, and then the fuel tank cap should be securely fastened.

*When refueling, please make sure to pass the fuel through the filter of the fuel tank.

*Please take full care not to mix dust or water into the fuel tank.

*Unless the fuel tank is emptied, the fuel system generally does not allow air to enter. If air is mixed in, please deflate it.



Pre operation inspection

Check and replenish engine oil

1. Please check if the specified amount of engine oil has been installed.

If the oil level measured by the dipstick is within the range indicated on the dipstick, it is considered normal.

If the fuel level is insufficient, please replenish it through the refueling port.

*Please use engine oil with appropriate viscosity according to temperature conditions.

*After the engine has just stopped, the correct amount of oil cannot be measured due to residual oil in various parts. Please place the body in a horizontal position and wait for at least 5 minutes before checking.

*Please insert the oil label accurately after inspection.

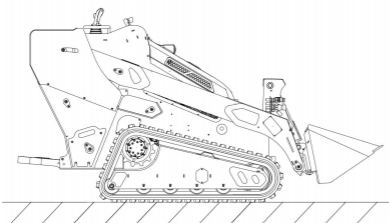
■ Inspection and replenishment of working oil



note

*Please remove the oil filling port of the working oil tank only after the oil temperature has completely decreased. Otherwise, the working oil will spray out, causing burns.

1. Park the machine in a horizontal position, extend the piston rods of each oil cylinder to approximately the middle position, and make the bucket touch the ground.



2. Please check if the working oil is in the center of the oil level gauge at room temperature.

If it is located in the center of the oil level gauge, it is considered normal.

When the fuel level is insufficient, please replenish it through the refueling port.

When impurities such as water are mixed into the working oil and it is necessary to replace it completely, please replace it in a timely manner.

When supplementing, please clean up the nearby sand or garbage and make sure to use the same brand of working oil.





Pre operation inspection

■ Inspection and cleaning of radiators and oil coolers

1. Check if the heat sink is blocked. If blocked, blow with compressed air (or steam). At this time, please be sure to wear protective goggles.
2. Please also check the radiator hose.
If the hose cracks or becomes brittle, please replace it, and also check if the clamping clamp is loose.

■ Inspection and cleaning of batteries, wiring, and engine surroundings



note

*If the wiring harness and battery (+) wires are damaged, it will conduct

Short circuit caused, therefore please make sure to check.

*If the battery, wiring, muffler or engine

Surrounding garbage or fuel may cause a fire

Disaster, therefore, please check before each day's homework.

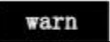
The wire harness and battery (+) wire wrapping in contact with the corners of various components may cause natural aging due to damage, so please check the following items.

1. The wiring harness must not be damaged, and the wire clamp must not be loose.
2. The connection parts of terminals and terminal blocks (sockets) must not be loose.
3. All switches must be able to operate normally.



Starting and stopping of the engine

Engine Start



*Please be sure to sit in the driver's seat and confirm that all operating handles are in place
Start up after reaching the 'neutral' position.

► If neglected
At the same time as the engine starts, the machine will generate motion, causing
Unable to operate normally, which is very dangerous.

*The engine exhaust contains harmful carbon monoxide, which can cause poisoning
danger
Please do not stay indoors where exhaust fumes are prone to gather or in areas with poor ventilation
Machine operation in the venue.

1. Please confirm that all handles and pedals are in the stop position before operating the switch.
2. Please place the joystick lock lever in the 'locked'
3. Insert the key into the switch.

4. Turn the throttle knob to the maximum position on the high-speed side.
5. Turn the key to the right until it reaches the end



After starting the engine, please release the key. The key will automatically return to the "STARTER SWITCH CONTACT" position.

significant

- *Due to the high current consumption of the starter motor, please avoid continuous use for more than 10 seconds.
If it fails to start within 10 seconds, stop for more than 20 seconds, and then repeat steps 5 and 6.
- *If equipped with a battery, be sure to use a 12V battery when connecting auxiliary cables to other batteries.
Please never use a 24V battery.





Starting and stopping of the engine

■ Startup during cold season

1. Please confirm that all handles and pedals are in the stop position before operating the starter switch.
2. Insert the key into the switch.
3. Please turn the throttle knob to the maximum position on the highway side.
4. Place the starter key in the running position and keep it in the running position until the display on the LCD screen disappears.

If the engine starts, please release the key. The key will automatically return to the (running) position.

If the engine does not start, please repeat steps 4 and 5.

supplement

*Due to the slow response of the working device to the operating handle when the working oil temperature is low, it is necessary to implement warm-up operation.

*During periods of low working oil temperature, the operating handle feels slightly heavy, which is not a fault.

*When the working oil temperature is low, the automatic idle function may not work, rather than a fault phenomenon.

*Before the cooling water temperature rises to the specified temperature, the function of increasing idle rotation is activated.

*In the case of "air conditioning specifications", turn the air conditioning switch to (on).

■ Inspection of each department

After the engine warms up, please confirm the following item

Is there any abnormal display on the LCD display.

Is the exhaust color normal.

Is there any abnormal sound or vibration.

Are there any leaks of oil, fuel, water, etc.

◆ In the following situations, please immediately turn off the

1. The speed drops sharply or rises sharply.
2. Suddenly make an abnormal sound.
3. The exhaust color has deteriorated.

■ Precautions for overheating

**note**

*If it is opened during operation or just after the operation has stopped
The radiator cap can sometimes spray hot water and cause burns.
Therefore, please open the radiator cap after the radiator has cooled down.

significant

Once the temperature of the cooling water approaches the boiling point (indicated by "H" on the water temperature gauge) (known as overheating), please take the following actions.

1. Please stop working in a safe

3. Please wait for 10 minutes or stay away from the machine during the steam spraying period.
4. After confirming that there is no danger of burns, follow the instructions in the "Backhoe Excavator Problems and Handling Measures" project to eliminate the cause of overheating. Then restart the engine.

Stop of engine

**warn**

*Do not use work equipment while the engine has stopped
Ignore the lifting status of the bulldozer and bulldozer. Otherwise, it will
Due to its own weight slowly falling, it resulted in an accident.

Turn the throttle knob to the maximum position on the low-speed side and let the engine idle for about 5 minutes to slowly cool down.

1. Slowly move the left and right operating handles of the working device and place it on the ground.

Stop the engine and remove the key.

3. Pull up the operating handle lock lever and place it in the "locked" position.

significant

*Before stopping the engine, make sure the bucket contacts the ground. Cannot rely on the self weight of the working device to touch the ground.

*When the throttle knob is in the high-speed position, the engine sometimes cannot be stopped. At this point, please make sure to place the throttle knob in the low-speed position and then place the key in the (stop) position.

*Set a time interval of 2 seconds after the engine stops before restarting.



Operation of skid steer loader

run in

significant

*The first 100 hours of use will determine the lifespan of the machine. Therefore, it should be used with caution.

Especially in the case of a new car, do not apply excessive load.

Before 50 hours, the load remained below 50%.

Before 100 hours, the load remained below 70%.

Start and drive



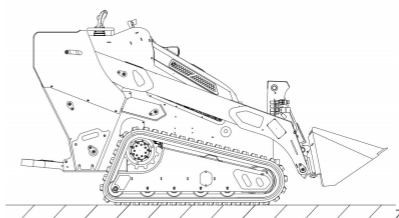
warn

*Please confirm the safety condition before starting.

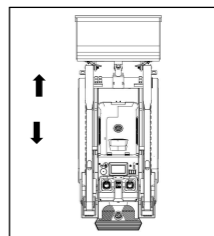
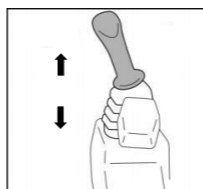
Please never drive on steep slopes above 15 degrees.

► If neglected, it may lead to a rollover and result in injury accidents.

1. Press the locking lever of the operating handle to the "release" position and operate the working device to lift the bucket 20-40cm off the ground.



2. Slowly push the left handle forward (forward) or backward (backward) to make the machine move.



3. High

If the rabbit button is pressed while operating the driving handle, the vehicle speed will increase. Pressing the turtle button will release acceleration and restore normal driving speed.



note

*When driving uphill or on uneven ground, do not use acceleration if the driving resistance is high.



Operation of skid steer loader

steering



*Do not turn (turn, etc.) when driving on steep slopes.
No

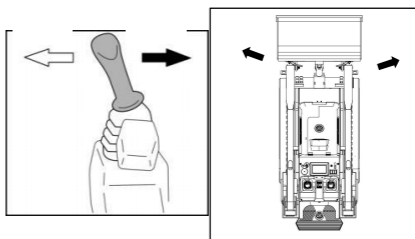
There will be a risk of overturning. Please rotate on a flat surface
Towards.

*Please make sure there is no one around before turning.

*Never make a turn in place or a roundabout turn, it should be done
Turn by increasing the number of zigzag turns.
► If neglected
It may lead to injury accidents.

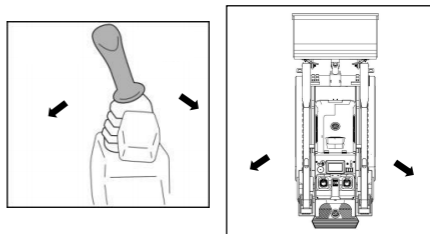
Turn while driving (turn in place)

When moving forward, if the left handle is pushed forward to the left (right), it will turn left (right).



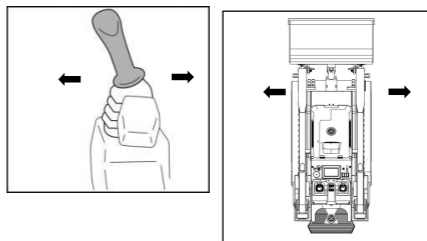
Below is an explanation of the steering operation method.

When retreating, if the left handle is pulled to the left (right), it will turn to the left (right).



■ Turning when stopping (turning in place)

If the left handle is pushed to the left (right), it will turn to the left (right).





Operation of skid steer loader

Up and down ramps



warn

*When driving on sloping terrain, please make sure to align the rotating frame with the vehicle

The frames are parallel to each other.

► If neglected

It is possible to rotate in the opposite direction, causing a rollover and resulting in injury accidents.

*When going uphill, please lift the bucket so that the lower part of the bucket is off the ground

Drive after 20-40cm.

*When going downhill from a steep slope where the tracks are prone to slipping, please

Lower the bucket to the ground and slide it downwards at the same time

Let's go. When descending from a non steep downhill slope, please use the bucket

Place it at a height where it can immediately touch the ground.

*When going up and down hills, please adjust the throttle knob to drive slowly.

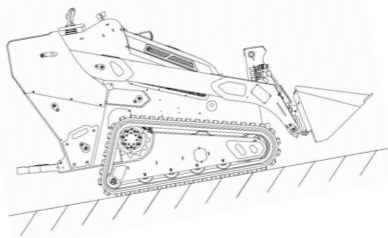
*When going up and down hills, please turn the automatic idle switch to "OFF"

(Lamp off) position.

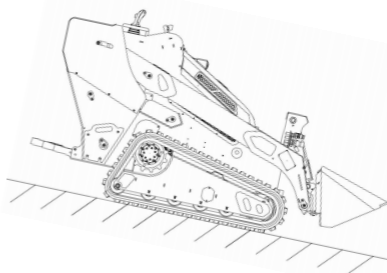
► If neglected

The engine speed will change, which may cause injury accident.

When
going uphill



When going
downhill





Operation of skid steer loader

Parking of vehicles in sloping areas



*Parking vehicles in sloping areas is dangerous.
Therefore, please do not
Park vehicles in sloping areas.

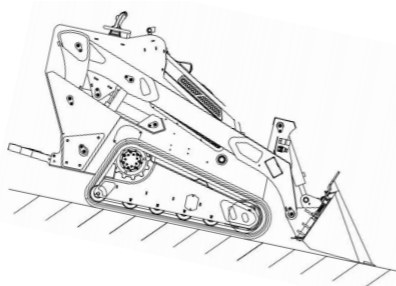
When you have no choice but to park your
vehicle in a sloping area, please
Keep the bucket close to the ground and place
each handle in neutral position
Afterwards, apply the brakes.

► If neglected

The machine may slip and cause injury accidents.

parking

1. Please park the machine on a flat and sturdy ground. Lower the boom and lower the bucket to the ground.
2. Please turn the throttle knob back to the maximum position on the low-speed side and let the engine idle for about 5 minutes to slowly cool down the engine.
3. Please place the starter key in the "STOP" position, turn off the engine, and then remove the key.
4. Please pull up the operating handle lock lever and place it in the "locked" position.
5. When leaving the machine, please turn off all power sources.



Arm operation

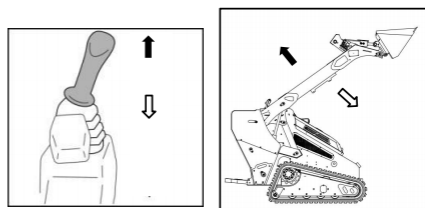
Lift the boom... Pull the operating handle of the right working device backwards.

Lower the boom... Push the operating handle of the right working device forward.

In order to reduce collisions caused by the boom falling too quickly, a buffer structure is used at the end of the boom's descent.

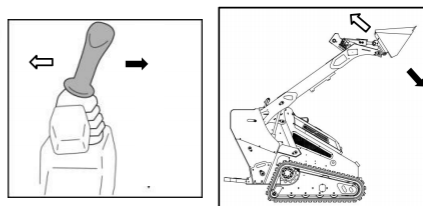
When the working oil temperature is low (such as shortly after starting the engine, etc.), the buffering time may sometimes be longer than the usual working hours.

This is due to the viscosity of the working oil, not an abnormal phenomenon



Pull up the bucket... and turn the operating handle of the right working device to the left.

Bucket dumping... Turn the operating handle of the right working device to the right.





truck transportation



warn

*Please choose a truck that is suitable for the weight and size of the machine, and do not exceed Load.

► If neglected

During loading, the driver's seat of the truck will float upwards, causing transportation issues
Security risks.

*Please use hooks to securely hang the loading and unloading board on the surface of the truck compartment

Up there. Additionally, wet loading and unloading plates may slip. Especially wood
Attention should be paid to anti slip when making loading and unloading boards.

► If neglected

It may cause injury accidents due to falling or tipping over.

*Please never use loading and unloading platforms or loading and unloading boards

The installation should be carried out by lifting the machine body with the boom and bucket
Vehicle and unloading operations.

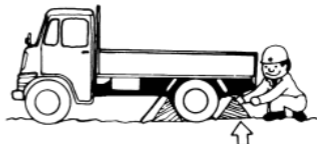
► If neglected

It may cause injury accidents due to falling or tipping over.

Please be sure to comply with relevant regulations such as the Road Traffic Safety Law, Road Transport Vehicle Law, and Vehicle Restriction Orders during transportation.

Loading and transportation

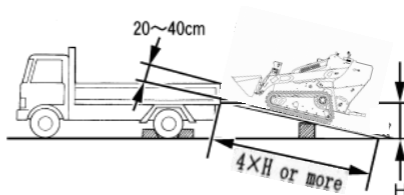
1. Attach the truck's brakes and apply the brakes in front and behind the tires to ensure they do not rotate.



2. Please set up a loading and unloading platform with sufficient strength and width before loading.

When using loading and unloading boards as a last resort, please work in a flat and sturdy place. The loading and unloading boards used should have sufficient strength, width, and length. The loading and unloading boards should be parallel on both sides and aligned with the tracks. In addition, the length of the loading and unloading board should be at least 4 times the height (H) of the truck bed. In addition to using loading and unloading boards with hooks to prevent them from detaching from the truck, it is also necessary to check for cracks in all parts before use. Additionally, place a support platform underneath the loading and unloading board to prevent it from bending.

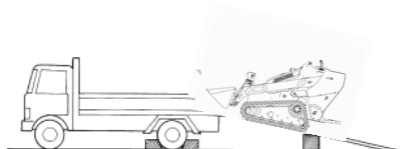
When installing this machine onto a truck, the working device should face the direction of travel (upper side), the boom should be perpendicular or slightly pulled up from the loading and unloading plate, and the height between the bucket and the loading and unloading plate should be maintained at 20-40cm.





truck transportation

5. Before moving the machine in front of the truck compartment, please temporarily stop in the state shown in the figure below, let the bucket gently touch the truck compartment surface, and then slowly move forward. Then, make the vehicle body level.



Adjusting the direction on the loading and unloading board is extremely dangerous. If it is necessary to adjust the direction, please be sure to get off the loading and unloading board first, adjust the direction, and then install and unload the board.

7. Lower the bucket onto the surface of the truck, stop the engine, and place the operating handle lock lever in the "locked" position.

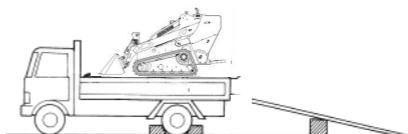
8. Use steel wire ropes or other materials to firmly fix the machine on the surface of the truck compartment.

supplement

*When loaded onto the truck, the total height should not exceed a certain height. If it exceeds a certain height, permission must be obtained from the local transportation department.

Unload from the truck

1. With the working device facing in the direction of travel, move forward to the loading and unloading board while keeping the boom perpendicular or slightly pulled up from the truck bed surface.
2. Stop the machine before moving to the loading and unloading board, allowing the bucket to gently touch the ground or loading and unloading board, and then slowly move forward to prevent the center of gravity of the machine from moving too quickly.
3. When about half of the entire track is out of the truck compartment, stop the machine, slowly lift the boom, and install the machine onto the loading and unloading plate.
4. Please move the bucket forward after gently touching the ground and lower it from the loading and unloading board. At this moment, please take care not to touch it





truck transportation

Body lifting

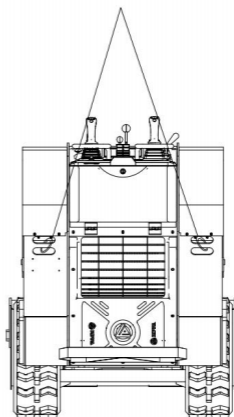


note

- *Do not carry out lifting operations while standing on the vehicle, as it is very dangerous.
- *The steel wire rope used for lifting should have sufficient strength relative to the machine.
- *Do not use a round rod when lifting. This is very dangerous, so please do not tie the steel wire rope to the round rod for lifting operations.

Please follow the following steps when lifting the machine body.

1. Rotate the upper rotating body so that the bulldozer blade is 180 degrees opposite to the working device.
2. Lift the bulldozer to the highest position.
3. Lift the boom to maximize the lift of the bucket. Then place the joystick lock lever in the "locked" position.
4. Without using the boom, cover the pedal cover and stop the engine.
5. Add padding around the boom angle and hang steel wire ropes. Please also add a cushion and hang a steel wire rope at the bulldozer shovel as shown in the picture.
6. Keep the lifting angle of the steel wire rope at 55 degrees before lifting.



supplement

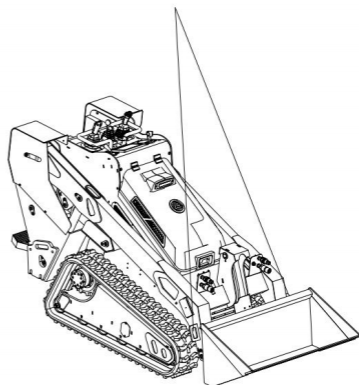
- *Please pay attention to the center of gravity position when lifting to fully maintain balance.
- *Do not swing the boom or rotate the upper part during lifting.

Main traction method



note

- *The steel wire rope, sling, and hook and loop used should have sufficient strength Degree.
- Also, please confirm if there are any fractures or turtles before use Crack.



In emergency situations where the machine is stuck in muddy ground and cannot be pulled out, please use steel wire rope, sling, and hook and loop as shown in the diagram to pull the machine out of the muddy ground.



maintenance



note

*During refueling and maintenance,

1. Place the device in a flat and spacious area
2. Lower the bucket to the ground
3. Turn off the engine
4. Confirm whether the operating lever of the working device has released residual pressure
5. Remove the key and confirm safety before proceeding with the task

Regarding the



warn

Please do not casually discard or burn waste, otherwise it will not only cause environmental pollution, but also face legal sanctions.

When dealing with waste

*Put the waste liquid discharged by the machinery into a container.

*Do not pour waste liquid into ditches, rivers, lakes, or oceans.

*When disposing or burning waste oil, fuel, cooling water (non freezing liquid), refrigerants, solvents, filters, batteries, rubber, and other harmful substances, please consult with the sales store or industrial waste disposal unit in order to dispose of them according to the specified rules.



maintenance

Regular Inspection Checklist

No.	period		quantity	The hour meter displays the time																	thereafter																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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maintenance

No.	period		quantity	The hour meter displays the time																thereafter
	project			five 00	one 00	one five 00	two 00	two five 00	three 00	three five 00	four 00	four five 00	five 00	five five 00	six 00	six five 00	seven 00	seven five 00	eight 00	
seventeen	Electrical wiring The use of fuses	check	-																Every year	
eighteen	cooling water	replace	one																Every 2 years	

(1) The symbol indicates that it is only implemented for the first time.

(2) The symbol indicates that the replacement time will be shortened when using hydraulic front-end working devices such as breakers.

If used in a dusty environment, it is necessary to flush and replace the filter more frequently. When it is severely dirty, please replace the filter.

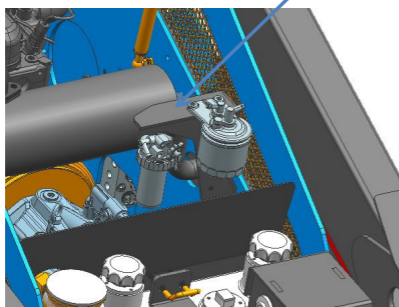
Maintenance every 50 hours of use

Oil water separator

If there is water accumulation, the red float will float up. At this time, the oil cup should be removed and the accumulated water should be poured out.

1. Please place the handle of the water separator in the "CLOSE" position.
2. Loosen the fixing ring on the upper part of the oil cup, remove the oil cup, and pour out the accumulated water inside.

Oil water separator handle



significant

*Please be careful not to get dust or dirt on during assembly.

*After draining the accumulated water from the oil cup, please exhaust it. (Please refer to the "Fuel System Bleeding" project)

■ Battery level check



There are two types of batteries, one that does not require water replenishment and the other that requires water replenishment. For batteries that require water replenishment, please follow the following instructions.

*If the battery level is below the LOW line, do not use or charge it.

*If it continues to be used below the LOWER (lowest liquid level line), it will accelerate the aging of the internal parts of the battery, not only shorten the service life of the battery, but may also lead to explosion.

*Please replenish water immediately to bring the liquid level between UPPER LEVEL and LOWER LEVEL.



*Please do not apply battery solution to your body or clothing.

If it gets stuck, please rinse immediately with plenty of water.

► If neglected

Dilute sulfuric acid may cause burns.

*When checking and disassembling the battery, please stop the engine and

Place the starter key in the 'STOP' position.

*Due to the generation of gas during the charging process, there is a risk of fire and explosion

danger Please never get close to the source of fire, and do not fire

flower

When charging the battery, please plug all the liquid ports of each battery

Disassemble it.

*When working near the battery, please be sure to wear goggles

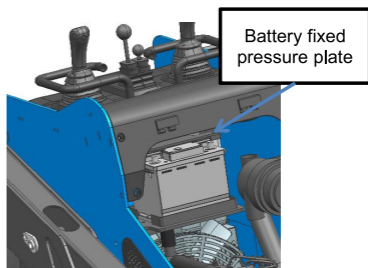
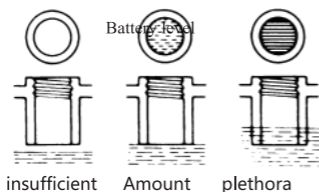
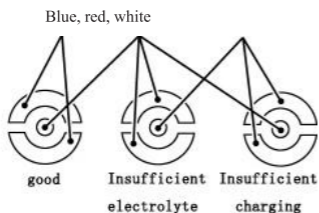
Protect your eyes.

1. Open the front cover and confirm the battery indicator light.

When the solution is insufficient, please add distilled water.

When the electrolyte decreases due to overflow, please go to the battery specialty store to replenish the same concentration of dilute sulfuric acid.

How to view indicator lights



◆ Disassembly method of battery

1. Please stop the engine and place the starter key in the "STOP" position.
2. Please remove the (-) wire from the battery.
3. Please remove the (+) wire of the battery.
4. Please remove the nut of the battery bolt and then remove the battery bolt.
5. Misalign the fixing fixtures of the battery and remove the battery.



note

*When charging the battery, be sure to detach the battery from the main body

Disassemble and carry out in a well ventilated area.

*When removing wires from the battery, please proceed from the (-) side

Please proceed from the (+) side when installing. If reversed, when encountering When using tools, it can cause a short circuit.

*When charging, connect the (+) of the battery to the charger separately

Connect the (-) of the battery to the (-) of the charger,

Charge according to the usual charging method. Please note, no

Make a mistake in connecting the wires.

*Please never connect both the (-) and (+) batteries on this device

Charge while connected to the battery.

*Loose terminals can cause sparks or electrical installation components to malfunction

Obstacles. Therefore, please tighten it firmly.

*The display of the battery indicator light is only a rough standard. Therefore,

Not only do we need to confirm the indicator light display, but we also need to carry out practical actions

Inspection of liquid level, etc.

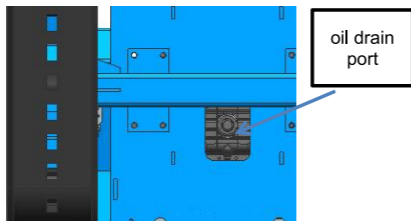
maintenance

significant

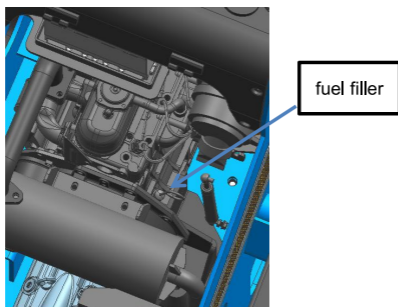
- *When the battery solution is insufficient, it will damage the battery, and when it is excessive, the solution will overflow and corrode the metal parts of the body.
- *In addition to damage to electrical installation components, wiring may also be damaged at times. Also, please try to avoid rapid charging as much as possible. Otherwise, it will shorten the service life of the battery.
- *When connecting wires to the battery, do not mistake (+) and (-). If made wrong, it can lead to battery and electrical system failures.

Oil change (50 hours for the first time, every 250 hours after the second time)

1. Remove the oil drain plug at the bottom of the engine and drain the oil.
After draining the oil, please tighten the drain plug firmly.
3. Please add the specified amount of engine oil from the fuel inlet.



4. Let the engine idle, then stop the engine, and after 5 minutes, use the oil gauge to confirm whether the specified amount of oil has been added.

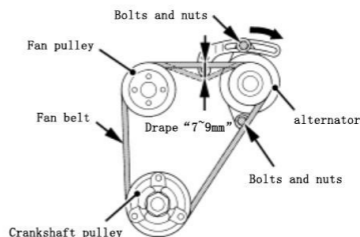


Maintenance every 200 hours of use

Please perform maintenance every 50 hours and 100 hours of use simultaneously.

Check and adjust the tension of the fan belt

1. Press the center of the belt with fingertips [58.8-68.6N (6-7kgf)], and the appropriate bending degree is between 7-9mm. If not appropriate, loosen the bolts and move the generator in the direction of the arrow to tighten the belt.



2. Check the damage condition of each pulley, the wear condition of the V-groove, and the wear condition of the V-belt, especially whether the V-belt touches the bottom of the V-groove.
If the belt is stretched, has no adjustment allowance, scratches or cracks, please replace it.

significant

*If the belt continues to operate with low tension, it will slip, which not only reduces the engine's capacity but also shortens its service life. Therefore, please check and adjust it.



maintenance

supplement

Oil quantity	RS06	Approximately 4L (including filter)
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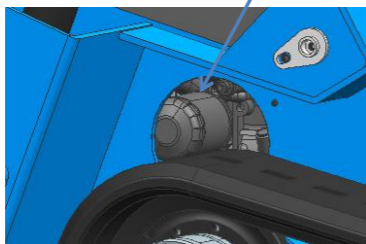
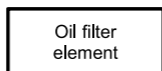
() indicates the filter and oil replacement time.

*Please use engine oil of CF grade or higher.

*Even if it is less than 250 hours, please replace it once every 6 months.

■ Replacement of oil filter element (50 hours for the first time, every 500 hours after the second time)

1. Please perform the oil change simultaneously.
2. Please use the included filter wrench to remove the filter element.



3. Please apply a thin layer of engine oil on the O-ring of the new filter element, and then fix it in place by hand (without using a filter wrench).
4. Add the specified amount of engine oil to the engine.
5. Run for about 5 minutes and turn off the engine after confirming that there is no warning of "engine hydraulic abnormality".
6. Please use the oil gauge again to confirm the oil level and replenish it if it is insufficient.

Maintenance every 100 hours of use

Please also perform maintenance every 50 hours of use.

■ Replacement of driving motor oil (100 hours for the first time, every 500 hours after the second time)

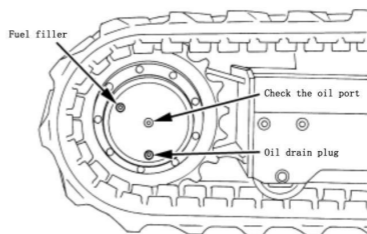
1. Rotate the track to lower the drain plug of the travel motor downwards.
2. Remove the oil drain plug and drain the oil.
3. After tightening, remove the fuel filler and inspection plug, and add gear oil from the fuel filler.
4. The prescribed oil quantity is as follows.

The prescribed oil level for the travel motor	RS06	Approximately 0.5L
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Inject gear oil until oil flows out of the filling port, and then firmly tighten the plug.

5. Please use gear oil SAE # 90 for engine oil.

(Please refer to the "Recommended Lubricating Oil List" item)



maintenance

Maintenance every 200 hours of use

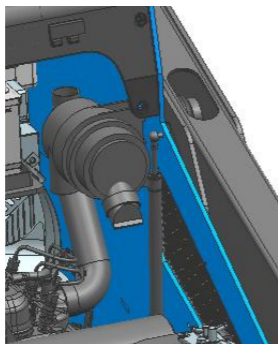
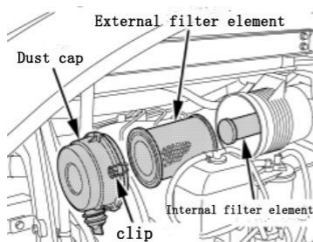
Cleaning and inspection of air filter element

**note**

*Due to the scattering of dust when using compressed air to forcefully sweep it away, please be sure to wear protective goggles.
Especially when working in places with a lot of sand and dust, please clean and inspect as soon as possible.

Remove the clip, take out the external filter element, clean the external filter element and the inside of the housing, and then install it.

Do not remove the internal filter element.



◆ Cleaning method

Blow the outside of the filter element with dry compressed air [below 205kPa (2.1kgf/cm²)] to forcefully remove any attached dust, and then blow from the inside to the outside to remove all dust.

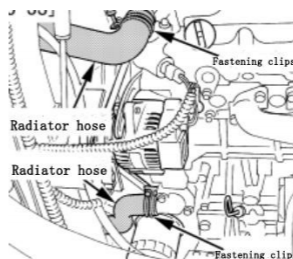


■ Inspection of radiator hoses and clamps

Perform a tightening check on the radiator hose every 200 hours of operation or every 6 months.

When the clamping pipe clamp becomes loose or leaks water, please tighten the pipe clamp firmly.

When the radiator hose expands, hardens, or cracks, please replace the hose and firmly tighten the pipe clamp.





maintenance

Maintenance every 250 hours of use

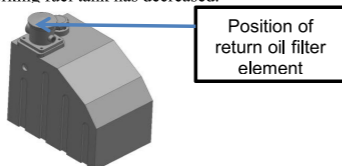
Please also perform maintenance every 50 hours of use.

Oil change (50 hours for the first time, every 250 hours after the second time)

For the method of changing engine oil, please refer to the "Maintenance every 50 hours of use" item.

- **Replacement of working oil return filter** (250 hours for the first time, and every 500 hours after the second time)

Please remove the filter after the oil temperature in the working fuel tank has decreased.



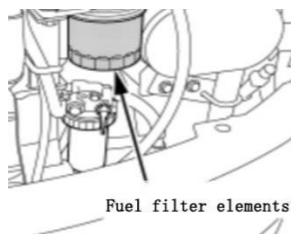
1. Hold the upper part of the filter bracket and remove it from the working fuel tank.
2. Loosen the positioning bolt, then remove the return oil filter from the filter bracket and replace it with a new filter.
3. Please remove the bolts from the cover, take out the protective filter, and replace it with a new one.

Maintenance every 500 hours of use

Please also perform maintenance every 50, 100, and 250 hours of use.

- **Replacement of fuel filter element**

1. Use a filter wrench to remove the filter.
2. When assembling, gently apply a layer of fuel on the sealing layer and tighten the filter by hand without using a filter wrench.
3. Please deflate.
(Please refer to the "Fuel System Exhaust" project)



significant

*When using hydraulic front-end working devices such as breaking hammers, it is different from the above. In this case, please replace them according to the following instructions based on the frequency of use of the hydraulic front-end working device.

The usage time ratio of hydraulic auxiliary devices	Change time of working oil	Replacement time of return oil filter
Standard homework (backhoe operation)	Every 1000 hours	Every 500 hours (Every 250 hours for the first time)
The usage rate of the breaking hammer is 20%	Every 800 hours	Every 200 hours
40%	Every 400 hours	
60%	Every 300 hours	
More than 80%	Every 200 hours	Every 100 hours

supplement

*After replacing the filter, please make sure to perform an oil level check.

significant

*Please be careful not to get dust or dirt on during assembly.

- **Replacement of driving motor oil** (100 hours for the first time, every 500 hours after the second time)

For the method of changing engine oil, please refer to the "Maintenance every 100 hours of use" item.

- **Replacement of working oil return filter** (250 hours for the first time, every 500 hours after the second time)

For the replacement method of the return oil filter, please refer to the "Maintenance every 250 hours of use" item.

- **Replacement of oil filter element** (50 hours for the first time, every 500 hours after the second time)

For the replacement method of the filter element, please refer to the "Maintenance every 50 hours of use" item.



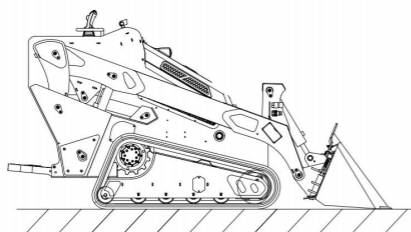
maintenance

Maintenance every 1000 hours of use

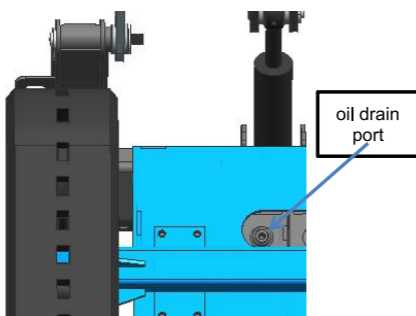
Please also perform maintenance every 50, 100, 200, 250, and 500 hours of use.

■ Replacement of working oil (please also replace the suction filter in the working oil tank)

1. Park the machine in a horizontal position, extend the piston rods of each oil cylinder to approximately the middle position, and make the bucket touch the ground.



2. Remove the drain plug at the bottom of the fuel tank and drain the oil.



3. Please use a wrench or other tool to remove the suction filter and replace it with a new component.
4. Next, please tighten the oil drain plug firmly.
5. Please add a specified amount of working oil from the fuel port.
6. Let the engine idle for about 5 minutes. After stopping the engine, please confirm whether the specified amount of working oil has been added.

● Working oil replacement capacity

Working oil replacement capacity	RS06	Total oil volume 37L
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supplement

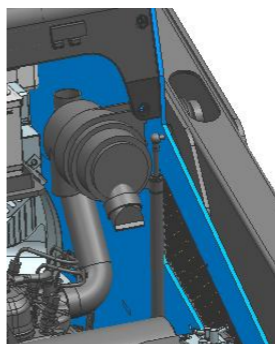
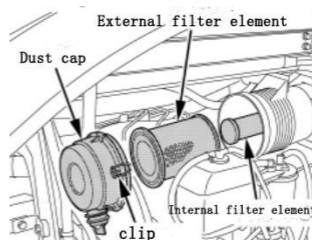
*When sediment accumulates in the fuel tank, please flush the inner surface.

*Please be careful not to mix foreign objects into the fuel tank.

*When replacing the suction filter, please discuss with the sales store or the designated repair factory of our company.

■ Replacement of air filter element

Remove the clip, take out the external and internal filter cartridges, replace them with new ones, and reinstall them.





maintenance

Maintenance every 2000 hours of use

Please also perform maintenance every 50, 200, 250, 500, and 1000 hours of use.

■ Oil and grease replacement for supporting wheels, idlers, and idlers

Please discuss with the sales store or the designated repair factory of our company.

■ Inspection of AC generator and starter motor

Please discuss with the sales store or the designated repair factory of our company. **Maintenance every year of use**

■ Inspection of electrical wiring and use of fuses



note

*Due to damage to the wiring harness and battery wires, it can cause short circuits

Please make sure to check the road.

*If the battery, wiring, muffler, and generator are around

If there is garbage and fuel attached, it may cause a fire, therefore
Please conduct a check.

Loose wiring terminals can lead to poor contact. If the wiring is damaged, it not only damages the performance of electrical components, but also sometimes causes accidents such as short circuits, leakage, or burning. Therefore, please replace or repair the damaged wiring as soon as possible.

significant

*When replacing a fuse but it immediately melts, please do not use metal wire instead. Instead, it should be inspected and repaired at the designated repair factory of our company.

*Due to the fact that the wiring harness of this machine has fully considered factors such as waterproofing during wiring, it should not be repaired or used without authorization. It should be inspected and repaired at the sales store or the designated repair factory of our company.

Check the air conditioning piping and hoses



note

*Do not touch the water pipe or preheating plug. Otherwise, it may cause burns.

1. Confirm that all fixtures for wiring and hoses are securely connected and undamaged.
If the hose and fixture are found to be worn or damaged, please repair or replace them immediately.

Maintenance every 2 years of use

■ Replacement of cooling water (when using long-lasting coolant)



note

*If it is opened during operation or just after the operation has stopped

The radiator cap may spray steam or hot water, causing overheating

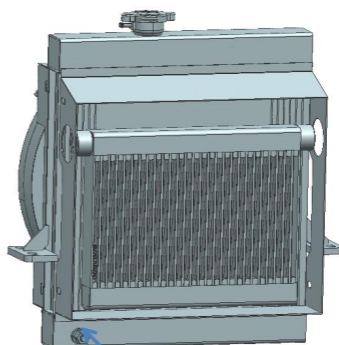
Injury. Therefore, please open the radiator after it has cooled down
Cover up.

1. Remove the radiator cover, remove the drain plug at the bottom of the radiator, and drain all the cooling water.

When draining the water tank, please remove the tank, unscrew the tank cover, and drain the water.

2. Please drain the water while filling it from the radiator inlet, and continue until clean water flows out from the outlet.

3. Then, firmly tighten the drain plug and inject the long-lasting coolant into the radiator and water tank. After injecting water, tighten the cover, start the engine and let it idle for about 5 minutes, then turn off the engine and confirm if the specified amount of cooling water has been added.



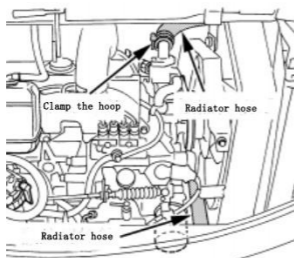
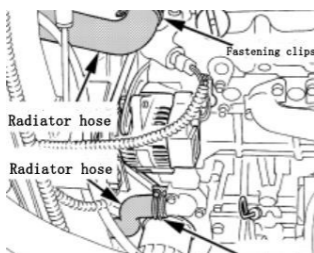
drain
outlet

■ Replacement of radiator hoses and pipe clamps


note

*When the radiator hose and pipe clamp are used for too long, it will produce
Rupture, causing hot water to spray out, sometimes accidentally causing
Causing burns. Therefore, please replace it as soon as possible.

Please replace the radiator hose and hose clamp every 2 years. If the radiator hose is found to be swollen, hardened, or cracked during inspection, it should be replaced even if it is less than 2 years old.



◆ Instructions for using antifreeze (In cases other than long-term coolant)


note

*Please do not mix antifreeze from different manufacturers.

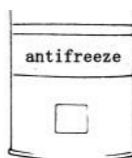
Antifreeze has the effect of reducing the freezing temperature of water, which can prevent damage to the oil cylinder and radiator caused by the freezing of cooling water.

When the temperature reaches below 0 °C in winter, be sure to mix permanent (PT type) antifreeze with clean water and then replenish it to the radiator and water tank.

significant

*The mixing ratio of antifreeze varies depending on the manufacturer and temperature. Please follow the mixing ratio recorded in the "Low Temperature Preparedness Measures" project.

*Please do not mix antifreeze from different manufacturers.



▷ - The effective service life of long-lasting coolant is 2 years.

*Please replace it once a year in spring and autumn, except for long-term coolant.



maintenance

On demand maintenance Inspection and use of batteries



*Due to the possibility of short circuits when removing battery wires
Please make sure to remove the negative wire first. Additionally, during assembly, please First, connect the positive wire.

*Batteries can produce flammable hydrogen gas, which may come close to a source of ignition
Fire and explosion may occur, therefore, please never approach the fire Source.

*Please never place tools on or around the battery
Metal objects or flammable materials. Otherwise, a short circuit may occur
May cause fire, explosion, and fire.

*Battery solution (dilute sulfuric acid) can cause blindness or burns,
If the battery solution sticks to the skin or clothing, please do so immediately
Rinse with plenty of clean water. Additionally, if the battery solution
Splashing into the eyes, after rinsing with plenty of water, it is necessary to go see a doctor.

*When charging, please remove all the liquid port plugs of each battery
Come down.

*When working near the battery, please be sure to wear glasses to ensure safety
Protect your eyes.

Please check and use the battery when the engine is stopped and the starter key is in the "STOP" state.

Maintenance and repair of batteries

The latest batteries have extremely high performance, and if used incorrectly, it can shorten the battery's lifespan and result in unnecessary expenses. Therefore, please adopt the correct usage method to fully utilize the function of the battery.

1. The battery, as the power source for engine starting and indicator lights, is an essential component.

If the amount of stored electricity in the battery decreases, the engine cannot be started, which is related to the misoperation of electrical components. After reaching this state, sometime it's already too late, so please recharge as soon as possible.

3. Due to the evaporation of water in the electrolyte, the amount of solution in the battery will decrease during the charging process. Insufficient solution can damage the battery. When there is too much, the liquid will overflow and corrode the body.

4. Please check if the electrode plate partition is exposed, and if it is insufficient, be sure to replenish the battery solution or distilled water.

When storing this machine for a long time, please remove the battery from the machine for charging, adjust it to the correct liquid level, and store it in a dry place away from light.

Due to the automatic discharge of the battery during storage, please recharge it once a month.

■ Precautions for battery charging

1. Please make sure to turn the key to "STOP" before removing the battery from the vehicle.

Insufficient battery solution can damage the battery. When excessive, the liquid will overflow and corrode the metal parts of the vehicle body.

3. Please avoid rapid charging as much as possible.

Otherwise, it will shorten the service life of the battery.

4. Rapid charging method is a high current charging method used to partially compensate for the discharge of a battery in a short period of time, so it can only be carried out in emergency situations.

When connecting the wires to the battery, please do not mistake (+) and (-). If made wrong, it can lead to battery and electrical system failures.

When removing wires from the battery, please proceed from the (-) side, and when installing, please proceed from the (+) side. If reversed, it will cause a short circuit when the tool touches the battery.

7. When charging, connect the (+) of the battery to the (+) of the charger, and connect the (-) of the battery to the (-) of the charger. Charge according to the normal charging method.

When using a battery, in addition to measuring the specific gravity, it is also necessary to remove the cables connected to the battery before checking the amount of battery solution.

9. Please remove all the liquid port plugs of each battery.

■ Check the liquid level of the battery

For the liquid level inspection method of the battery, please refer to the "Maintenance every 50 hours of use" item.

■ Precautions for charging while keeping the battery loaded (only when absolutely necessary)

The correct approach is to remove the battery from the body before proceeding.

1. As applying abnormal voltage to the AC generator can cause damage, insert the key and turn it to "STOP". After removing the (-) terminal wiring of the battery, proceed with charging.

During the charging process, remove all liquid port plugs to release the generated gas.

When the battery overheats (liquid temperature exceeds 45 °C), stop charging.

After charging is completed, please stop charging immediately. If charging continues beyond the necessary level, it can lead to the following adverse conditions.

● Overheating of battery

The amount of battery solution decreases

Poor condition of battery

5. When connecting the battery, please be careful not to reverse (connect (+) and (-), (-) and (+) together).

Otherwise, it may cause damage to the AC generator and other components.

6. In addition, after starting the engine in this way, please recharge it correctly according to the instructions in the charger user manual as soon as possible after the operation is completed. If this supplementary charging is not carried out, it will seriously shorten the service life of the battery, so please pay attention.

■ Use auxiliary cables to start the engine

1. Due to the production of flammable gases by batteries, sparking or approaching a fire source near the battery is extremely dangerous as it may cause ignition and explosion.

Therefore, please avoid using boost cables to start the engine as much as possible.

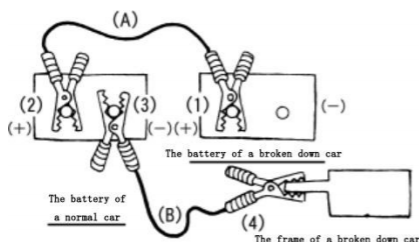
To prevent malfunctions, batteries that are nearing the end of their lifespan should be replaced with new ones as soon as possible.

When it is necessary to use auxiliary cables to start the engine, please use batteries as follows to avoid accidents.

Before connecting

1. Use auxiliary cables and clamps with a capacity suitable for the battery.
2. Whether the (+) and (-) terminals of cables, clamps, and batteries are broken or corroded.
3. Is the starter key in the "STOP" position.
4. The battery of a typical car should have the same capacity as the battery of the faulty car.

◆ Connection of auxiliary cables



1. (1) Connect the clamp of auxiliary cable (A) to the (+) terminal of the faulty vehicle, (2) Connect one of the clamps to the (+) terminal of the normal vehicle.
2. (3) Connect the clamp of auxiliary cable (B) to the (-) terminal of the normal vehicle, and (4) securely connect one of the clamps to the body of the faulty vehicle.

*The connection with the vehicle body should be kept away from the battery.

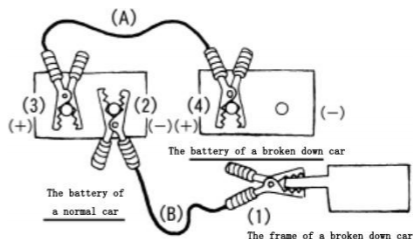
3. After connecting each terminal, it is necessary to confirm whether it is properly connected before starting the engine.

The engine of the faulty car starts

After completing the connection confirmation, start the engine.

When the startup fails, wait for a while (2-3 minutes) before restarting the engine.

Disassembly of auxiliary cables



1. (1) Remove the clamp of auxiliary cable (B) from the frame of the faulty car, (2) Next, remove the connection between the (-) terminal of the normal car.
2. (3) After removing the clamp of auxiliary cable (A) from the (+) terminal of the normal vehicle, (4) remove the (+) terminal connection of the faulty vehicle.



maintenance

■ Precautions for engine start-up and battery charging

Please follow the following instructions for starting the engine and using the battery when the battery is depleted.

significant

*Prohibited operations for charging and starting when the battery is depleted

If excessive voltage is applied to electrical installation components (including controllers and instruments) in the following situations, it may cause damage. Therefore, please pay full attention during maintenance.)

Please do not use large construction machinery with a working voltage of 24V or

Start the truck after crossing over. Please make sure to start with 12V.)

Please do not charge the battery without removing the battery terminals.

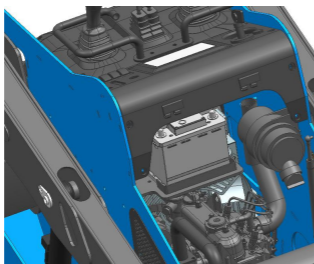
(Please be sure to remove the terminal when charging.)

Please do not use a battery charger for starting.

Please do not use 24V batteries for starting.

Please make sure to start with a 12V battery.)

Please do not remove the battery terminals during engine rotation.



About fuses



note

*Please make sure to place the starter key in the "STOP" position

Position the fuse and slow melt after stopping the engine
Replacement of fuses.

► If neglected

It will generate sparks, causing danger.

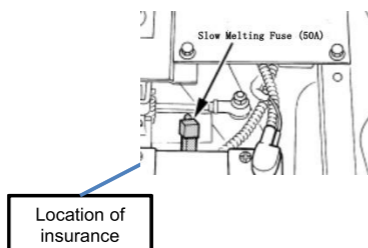
■ Replacement of fuses

1. Please place the starter key in the "STOP" position.
2. Remove the cover under the seat and open the cover of the fuse box.
3. Please replace it with a fuse with the same capacity as the blown fuse. The fuse can be easily removed through the fuse box cover.

significant

*When replacing a fuse but it immediately melts, please do not use metal wire or silver foil cored wire as a substitute. Instead, check and repair it at a sales store or a repair factory designated by our company.

■ Location of fuse box



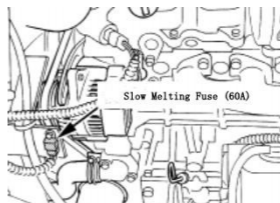
■ Capacity of fuses and adapted circuits

12000A Preheating relay	12000A start relay	30A Air conditioning
		20A Reverse valve
		20A Excitation
		20A Left
12000A Start relay	30A Start switch	50A Preheating
		30A Rocker panel electric
		20A Left
		20A Rocker panel electric
		10A Instrument

Do not use fuses outside the specified capacity.

■ Replacement of slow melting fuses

Slow melting fuses are used to protect wiring. If the slow melting fuse blows, please be sure to investigate the cause of the blow and never use substitutes. Instead, use authentic components.



Fuel system venting

Please replenish fuel into the fuel tank.

2. Please insert the key into the starter switch and turn it to the "START" position.



3. Perform automatic deflation for approximately 1 minute.

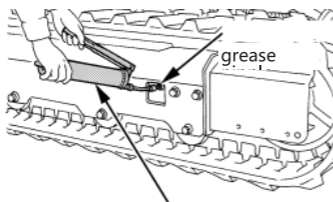
supplement

*When the air is not completely expelled once, repeat steps 2 and 3 when stopping the engine after starting.

Adjustment of track

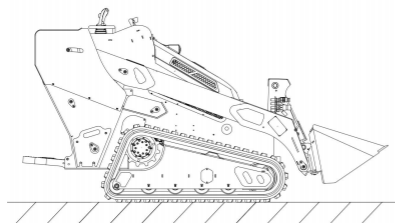
When tightening the rubber tracks

1. Insert the grease gun into the nozzle of the grease gun and add grease.



Grease gun

2. Please adjust the tension of the track as shown in the diagram.



*After adjustment, please rotate the track 1-2 times to confirm the tension allowance.

When relaxing the rubber tracks

note

*Due to the high pressure inside the grease cylinder, if the grease cylinder

If the nozzle is relaxed too much or too quickly, it will fly out

Come on, the high-pressure grease in the grease cylinder will also spray out, causing danger

Danger, therefore do not bring your face or other parts close to the nozzle, maintain

Keep your body away from the front of the nozzle and slowly relax the nozzle.

*When stones or other debris get stuck in the final drive, please remove them before proceeding

Perform homework.

1. Insert the socket wrench into the base of the grease cylinder nozzle and slowly rotate it 3-4 times to relax.
 2. If grease flows out of the threaded part, then idle the track while it is floating for sufficient relaxation.
- After the adjustment is completed
3. Use a socket wrench or other tools to tighten the hexagonal part of the nozzle.
- The tightening torque is approximately 98-108Nm (10-11 kgfm)...

significant

- *If the slack margin reaches 25mm, please readjust.
- *Confirm the tension allowance for the first time and readjust it after 30 hours of use, and then confirm the tension allowance and readjust it every 50 hours thereafter.
- *If it is too tight, it will
 - Accelerate the wear of rubber tracks.
- *If it is too loose, it will
 - Causing poor meshing of the final drive.
 - Accelerate the wear of rubber tracks.
 - Causing the rubber tracks to fall off.
- *After completing the homework, please thoroughly clean the rubber track section and do not ignore it due to soil or other attachments.
- *If the rubber track part is too tight due to being filled with soil or other debris during the homework process, use the boom, arm, and bucket to lift the rubber track part and rotate it side by side without load to remove the soil.

Pay attention to the seams of the tracks

Rubber tracks have seams. When adjusting the track, be sure to move the joint to the upper center position.

If the joint position is mistaken, it will result in greater looseness than the appropriate tension condition, and instead require readjustment.

In order to use rubber tracks with ease

When turning, try to avoid turning in place as much as possible and perform low-speed rotation.

(Can reduce claw wear and stone jamming)

When the safety valve is activated due to sand getting stuck during a turn, please do not force the turn. Instead, immediately retreat and remove the sand before turning again.

3. Due to the risk of damaging the rubber and shortening the service life of the tracks when used on riverbanks, gravel surfaces, steel bars, and iron filings, please never use them in such environments.

Bucket replacement



note

*When performing replacement tasks, please wear helmets, protective goggles, etc
Protective equipment.

*When working together, one should thoroughly understand the agreed upon signals and be precise
Realize mutual communication and pay full attention to safety.

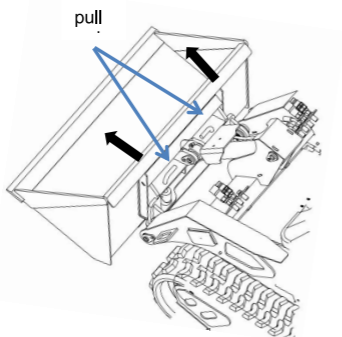
Please replace the bucket according to the following steps.

significant

- *Please be careful not to let the pulled out pin get stuck with sand or soil.
- *Due to the dust accumulation at both ends of the liner, be careful not to damage the dust accumulation when loading and unloading the pin.

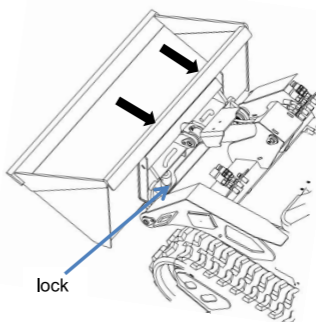
■ Disassembly of bucket

1. Place the bucket in contact with the ground on a flat horizontal surface.
2. Stop the engine and remove the pressure from the hydraulic system.
3. Move the pull rod to both sides and pull the pin out of the socket in the direction shown in the diagram.



■ Installation of bucket

1. Align the quick change position of the boom with the installation slot of the bucket
2. After confirming alignment, move the pull rod inward and insert the pin head into the pin mouth in the direction shown in the diagram.





maintenance

Maintenance during long-term storage

When parking for a long time, please save as follows

After flushing and cleaning each part, please store the machine indoors and do not place it outdoors.

If you have no choice but to place it outdoors, please choose a flat ground and place it on a piece of wood, then cover it with a cloth.

2. Please do not forget to refuel, grease, or change the oil.
3. Please apply sufficient grease to the exposed part of the hydraulic cylinder piston rod.
4. Please remove the battery ground wire or remove the battery from the vehicle and store it.

When the temperature drops below 0 °C, antifreeze should be added to the cooling water or the water should be completely drained.

When using after long-term parking, please perform the following operations

1. Please wipe off the grease applied to the piston rod of the hydraulic cylinder.
2. Start the engine and perform actions on the working device and driving in an unloaded state to ensure that the oil flows fully to all directions.
(If the parking time exceeds one month, please perform operations 1 and 2 once a month.)

Usage during cold seasons

Low temperature prevention measures

1. Engine oil and hydraulic working oil
Please replace with oil of the specified viscosity.
2. Fuel
Choose the appropriate diesel according to the temperature.
3. Battery

Under low temperature conditions, the battery capacity will decrease, and when the charging amount decreases, the solution will also freeze. Therefore, when stopping the engine, ensure that the charging rate is above 75% and pay attention to insulation for starting the next morning. When adding distilled water due to low liquid level, do not add it after the end of the operation, but before starting the operation the next morning to prevent freezing.

4. Cooling water

Please add antifreeze.

If the temperature drops below 0 °C during parking, add antifreeze to the cooling water and replenish it to the radiator and water tank to prevent freezing.

Mixing ratio table of water and antifreeze

Minimum temperature (°C)	-5	-10	-15	-20	-25	-30	-35	-40
Antifreeze volume (%)	thirty	thirty	thirty	thirty-five	forty	forty-five	fifty	fifty-five
Water volume (%)	seventy	seventy	seventy	sixty-five	sixty	fifty-five	fifty	forty-five

supplement

*Antifreeze should use permanent brand or long-lasting coolant.

*The mixture of water and antifreeze should be injected after completely draining the cooling water and removing scale.

*Due to the addition of rust inhibitor in antifreeze, there is no need to add detergent when using antifreeze.

*Cooling water

Please refer to the "Replacement of Cooling Water" project.



■ Precautions after homework completion

Clean the soil and water attached to the vehicle body, and place the tracks on concrete ground or in a dry place.

Especially the soil attached to the wheels, if not completely removed, sometimes cannot be driven after freezing.

Therefore, if there is no suitable parking space, the car can be parked on a wooden board on the ground or on a grass mat.

If parked directly on the ground, the tracks may freeze the next morning and become unable to move or cause damage to the driving motor.

Especially thoroughly wipe off the water droplets on the surface of the hydraulic cylinder piston rod. If soil and frozen water droplets enter the seal together, it may damage the seal.





maintenance

Regarding the regular replacement of important components

In order to ensure the safety of operation and operation at all times, machine users are required to carry out regular maintenance and upkeep. In order to further improve safety, especially the following important components related to safety and fire, regular replacement should be entrusted to sales stores or designated repair factories of our company.

These components will undergo material changes over time, which can easily cause wear or aging. Due to the difficulty in determining its usage status during regular maintenance operations, even if no abnormalities are found after reaching a certain usage period, it is necessary to replace it with a new product to ensure that it always maintains normal functionality.

However, if some abnormalities are found in these components before reaching their service life, they should also be repaired or replaced with new ones according to convention. For the hose section, when deformation, cracking, or other aging phenomena are found in the hose clamp, it should be replaced with a new one along with the hose clamp.

In addition, the following inspections should be conducted on hydraulic hoses that are not regularly replaced components. If any abnormalities are found, reinforcement, replacement, etc. should be carried out. When replacing hydraulic hoses, please also replace the O-ring and sealing components at the same time.

Please ensure the replacement of important components to the sales store or the designated repair factory of our company.

Please also inspect the fuel hose and hydraulic hose during the following regular inspections.

Check classification	inspection items
routine inspection	Oil leakage at the connection and riveting parts of fuel and hydraulic hoses
Monthly routine inspection	Fuel and hydraulic hose connection parts, oil leakage at riveting parts, damage to hydraulic hoses (cracking, wear, pilling)
Specific self inspection (annual inspection)	Oil leakage at the connection and riveting parts of fuel and hydraulic hoses Interference, cracking, aging, squeezing, and damage (cracking, wear, and fuzzing) of fuel and hydraulic hoses

● List of important components

No.	Regularly replace components	quantity	Change time
one	Fuel hose (fuel tank to fuel filter)	one	Replace every 2 years or every 4000 hours, whichever comes first.
two	Fuel hose (fuel filter~fuel pump)	one	
three	Fuel hose (fuel pump to fuel nozzle)	one	
four	Fuel hose (fuel nozzle to fuel tank)	two	
five	Hydraulic hose (main pump suction)	two	
six	Hydraulic hose (main pump output)	five	
seven	Hydraulic hose (boom cylinder)	four	
eight	Hydraulic hose (stick cylinder)	four	
nine	Hydraulic hose (bucket cylinder)	four	
ten	Hydraulic hose (swing cylinder)	two	
eleven	Hydraulic hose (bulldozer cylinder)	six	
twelve	Hydraulic hose (auxiliary device)	six	
thirteen	Hydraulic hose (rotary motor)	two	





Problems and Solutions of Sliding Loader

If the small skid steer loader excavator has any adverse conditions, please diagnose according to the table below and take appropriate measures. If you have any questions, please consult the sales store where you purchased the product or the repair factory designated by our company.

	current situation	reason	disposal
Regarding the engine	Cannot start	(1) Using an incorrect key to start the engine. (2) The key comes with metal parts (keychains, etc.)	(1) The dashboard displays 'key error', please use the correct key to start the engine. (2) Remove the metal parts from the key and start the engine.
	When starting difficulty occurs	(1) Fuel does not flow.	(1) Check the fuel tank to remove any impurities or moisture that may have settled. (2) Check the fuel filter and replace it if it becomes dirty.
		(2) Air or water mixed into the fuel delivery system	(1) Check the piping and clamp the pipe clamps. If they are damaged, replace them with new ones or repair them. (2) Perform deflation. (Please refer to the "Fuel System Bleeding" project)
		(3) When it is cold, the viscosity of the engine oil increases, and the engine itself rotates heavily.	(1) Inject hot water into the radiator. (2) Use different engine oils according to the temperature. (Use SAE10W30 in winter)
		(4) The battery seems to be depleted, and the rotational force has weakened, without exceeding the compression force.	(1) Charging the battery.
	When the output power is insufficient	(1) Insufficient fuel.	(1) Supplement fuel.
		(2) The air filter is clogged.	(1) Clean the filter element.
	When suddenly stopping	(1) Insufficient fuel.	(1) Supplement fuel.
	When the exhaust color is abnormally black	(1) Poor fuel quality.	(1) Replace with high-quality fuel.
		(2) Excessive engine oil.	(2) Adjust to normal oil level.
Hydraulic	When the water temperature gauge shows "H" (engine overheating)	(1) Poor sealing of the water pump. (2) Fan belt extension or disconnection. (3) The thermostat is faulty. (4) Insufficient cooling water. (5) The radiator mesh and radiator fins are filled with dust. (6) The rust on the cylinder head and crankcase has contaminated the cooling water. (7) Poor radiator cap (evaporation). (8) Corrosion in the cooling water pathway. (9) Continuous overload operation. (10) The cover gasket is damaged (due to a decrease in cooling water). (11) Insufficient engine oil. (12) Poor fuel injection period. (13) Poor fuel quality.	(1) Replace it. (2) Make adjustments or replacements. (3) Replace it. (4) Supplement to the specified amount. (5) Perform cleaning. (6) Replace the cooling water and add rust inhibitor. (7) Replace it. (8) Perform rinsing. (9) Reduce the load. (10) Replace it. (11) Adjust to normal oil level. (12) Make adjustments. (13) Please replace with high-quality fuel.
	The working device (boom, bucket) rotates, travels, has a slow speed, or does not move	(1) Insufficient working oil. (2) The hose and piping joints are leaking oil.	(1) Supplement working oil. (2) Reinforce or replace.
Driving	Unable to drive smoothly	(1) The track gets stuck with stones. (2) The track is too tight or too loose.	(1) Remove the stones. (2) Make adjustments.



Precautions for using hydraulic breaker

Precautions for installing hydraulic breaker

Please install a suitable breaking hammer for the machine. If a hammer other than the recommended one is installed, it will not only affect the service life of the machine, but also pose safety issues.

In addition, when installing crushers and front-end working devices from other manufacturers, please consult with the sales store or our designated repair factory in advance.



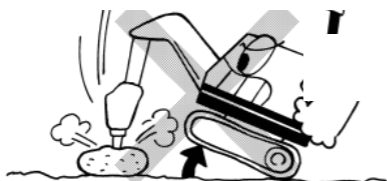


Precautions for using hydraulic breaker

Precautions for using a breaking hammer

Prohibit 1 homework posture

If the machine is lifted more than 5cm in front of the machine for striking, the machine will also rapidly tilt forward while the rock is broken, causing the main body of the crusher or the top of the bracket to collide with the rock, sometimes resulting in damage. In addition, due to the vibration generated during the striking process spreading to the track part, please do not use this striking method to protect the track.



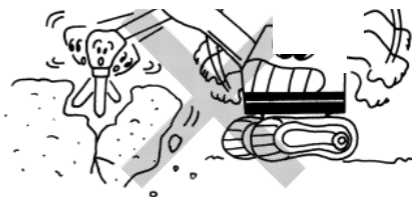
Prohibition 2: It is forbidden to move rocks and other objects

As shown in the figure, please never use the hydraulic pressure of the boom, bucket, etc. of this machine to rotate or knock down rocks through the top of the hammer or the side of the bracket, otherwise it may cause damage to the installation bolts of the hammer, damage to the bracket, damage to the hammer, jamming, and damage to the bucket and boom.



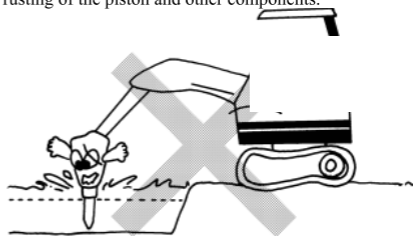
Prohibition 3: Do not engage in pry type crushing operations

If rocks are broken by prying with a hammer rod, it will cause bruises on bolts, hammer rods, etc.



Prohibition 4: Crushing operations are prohibited in water or mud

Please do not place parts other than the hammer rod in water or mud for crushing operations. Otherwise, premature failure of the hammer may occur due to rusting of the piston and other components.



Prohibition 5: Do not let the breaking hammer fall to break rocks, etc

If excessive force is applied to the hammer or machine, it may cause damage to various parts of the hammer or machine.

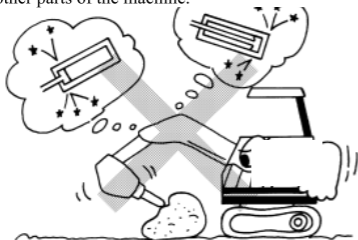




Precautions for using hydraulic breaker

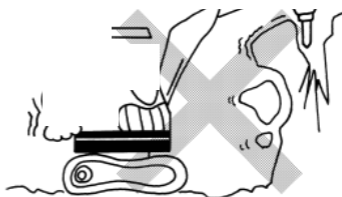
Prohibition 6: It is prohibited to carry out crushing operations when the hydraulic cylinder of this machine is at the end of its stroke

If striking operation is carried out when each hydraulic cylinder of the machine is at the end of its stroke (the state where the hydraulic cylinder is extended to the maximum position or contracted to the maximum position), it may cause damage to the hydraulic cylinder or other parts of the machine.



Prohibited 9

High altitude crushing is prohibited. Otherwise, it may cause rockfall and overturning.



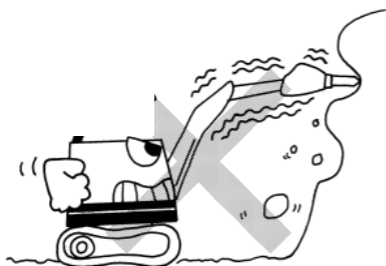
Prohibition of lifting goods operations

It is prohibited to use hydraulic breakers for lifting cargo operations.



Prohibited 8

Horizontal and upward striking operations are prohibited.

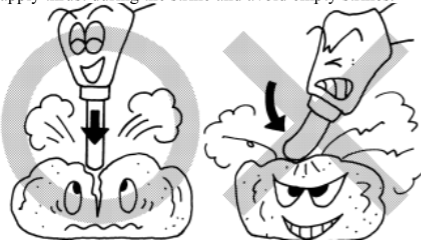




Precautions for using hydraulic breaker

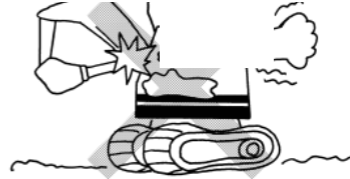
Note 1

Please press the chisel vertically onto the striking surface for striking. Additionally, be sure to always apply thrust during the strike and avoid empty strikes.



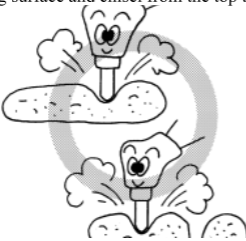
Note 3

When pulling up the hydraulic breaker, be careful not to let the steel rod hit the boom or boom cylinder.



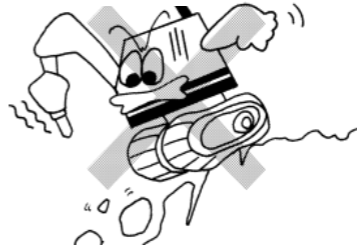
Note 2

When continuously striking the same striking surface but failing to break or penetrate within 1 minute, please change the striking surface and chisel from the top to break it.



Note 4

Please confirm that the ground beneath your feet is solid before proceeding with the task.





Recommended lubricating grease

Please make sure to use RIPPA genuine oil and grease as shown in the table below.

manufacturer	RIPPA working oil	RIPPA engine oil	multipurpose grease
Shell SHELL	Hydraulic working oil 46	D30CD or D10W-30CD	—
Cartel Oil	—	—	Engineering King (General No.3 Lithium)

Recommended lubricating grease

manufacturer	engine oil	hydraulic oil	gear oil
Mobil	Black Overlord Delvac MX (15W-40) Super Black Overlord Delvac Surper Multigrades(10W-30/15W-40)	DTE 25(VG46)	Mobilube HD 80W-90 Automotive Gear Oil
Esso ESSO	Superflo (10W-40)	NUTO H46	Gear oil GX 80W-90
Shell SHELL	Jinba/IMULA (SAE10W-30)	Delix/Tellus ST46	SPIRAX EP90
Jiashiduo CALTEX	RX Super SAE15W-40; RX Super Plus SAE10W-30	HYDRAULIC series hydraulic oil (VG46)	
Kades TEXACO	Havoline a Motor Oil 10W-30		Havoline Gear Oil 80W-90®
Jiaoma JOMO	Advanced diesel engine oil JOMO DIESEL CF-4 (SAE15W-40)/ Advanced diesel engine oil JOMO DIESEL CD (SAE10W-30)	JOMO Hydflux (VG46)	Advanced Automotive Gear Oil JOMO GEAR 5

When changing the oil, please drain all the oil and then inject new oil. Please use the following fuels.

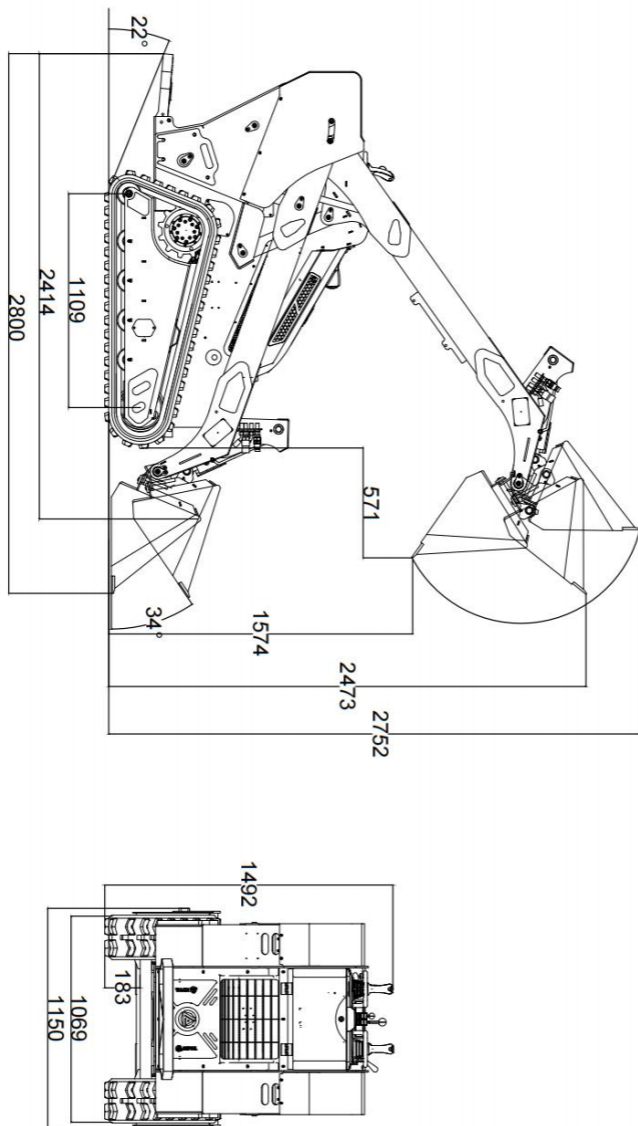
- 0 # Diesel: Used in summer
- -10 #, -20 #, -35 #: Winter, selected according to local temperature



Appendix

Size chart

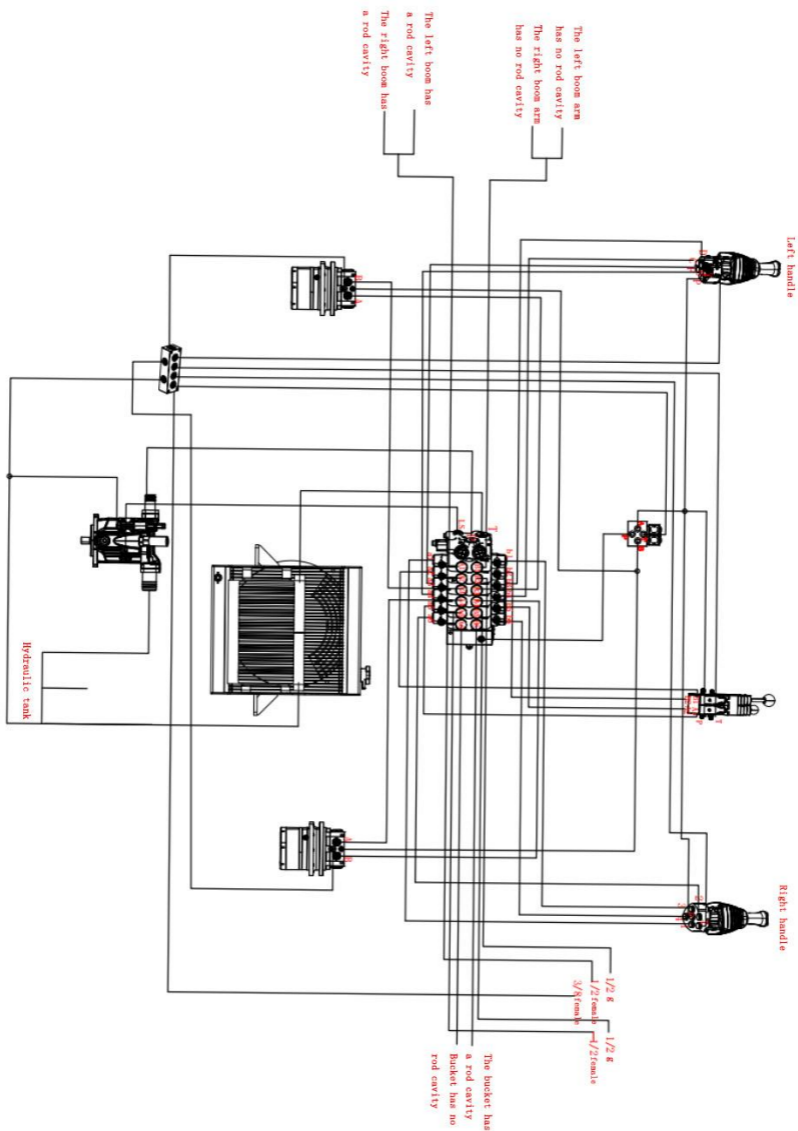
Unit: mm

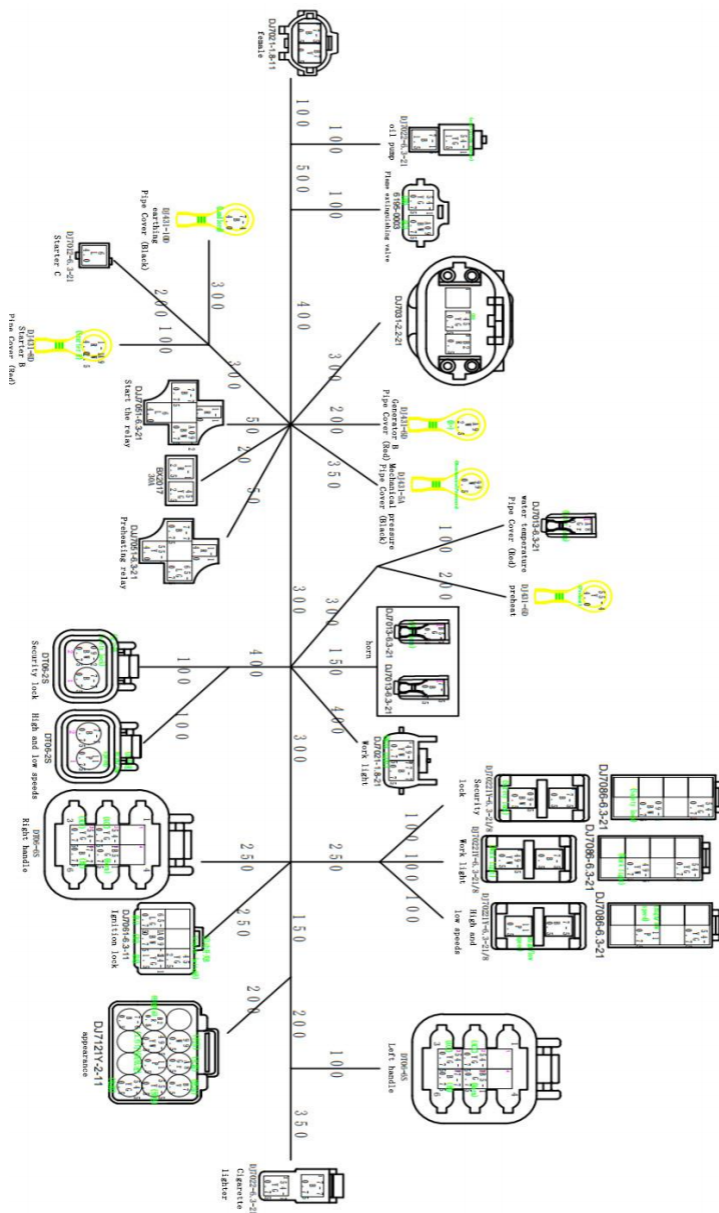
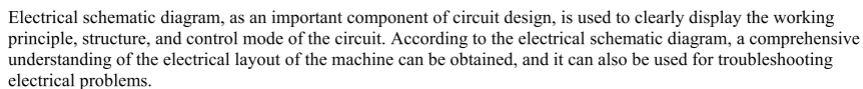




Hydraulic schematic diagram and detailed information

The hydraulic schematic diagram, as an important component of hydraulic system design, serves to clearly display the working principle, structure, and control mode of the hydraulic system. According to the hydraulic schematic of the machine, the hydraulic circuit can better solve the problem of hydraulic pipelines.







Excavator parameter table

Model information configuration status ● Standard configuration ○ Optional - None			Slip RS06-XD-JBT (D1105) - ZS-0-FS-0-XJ-BJ		
Basic performance parameters	Working weight of the whole machine (kg)	one thousand four hundred and seventy-five	engine	Engine brand	Kubota
	Bucket capacity (m ³)	zero point one six		Engine model	D1105
	Rated loading weight (kg) (safe load capacity)	three hundred		Maximum horsepower (ps)	twenty-five
	Maximum loading weight (kg)	six hundred		Maximum power (Kw)	eighteen point two
	Walking speed low/high (Km/h)	0-3.5/0-6.5		Maximum speed (rpm)	three thousand
	Climbing ability (%)	28%		Displacement (L)	one point one two three
	Ground voltage ratio (Kpa)	thirty-two point five		Number of cylinders	three
	Maximum unloading height (mm)	one thousand five hundred and seventy-four		cooling method	water cooling
	Maximum loading height (mm)	two thousand four hundred and seventy-three		Engine oil change quantity (L)	four
	Maximum unloading distance (mm)	five hundred and seventy-one		Fuel form	diesel
	Minimum ground clearance (mm)	one hundred and eighty-three		ROZ	Number 0/- Number 10
	cockpit	-		Theoretical fuel consumption (L/h)	1.3-1.5
configuration	armrest	●	Vehicle body	Transport length - with bucket (mm)	two thousand seven hundred and ten
	quick change	●		Transport length - without bucket (mm)	two thousand two hundred and twenty
	Hydraulic quick change	-		Transportation width (mm)	one thousand one hundred and fifty



	four in one bucket	○		Transportation height (mm)	one thousand five hundred and twenty-two
	fork	○		Bucket width (mm)	one thousand one hundred and fifty
	robot vacuum cleaner	○	fuel tank	Fuel tank (L)	twenty
	Hydraulic Breaker	○		Hydraulic oil tank (L)	twenty-eight
	counterweight	●	crawler track	● - Rubber (bandwidth * pitch * number of sections)	230*72*45
	Tension form	Hydraulic tightening			
	air conditioner	-			
hydraulic system	Main pump type/model	Piston pump HP3VO45LA7DS-01SR - _S1C12N00			
	Main pump brand	HYTEK			
	Maximum flow rate of main pump (L/min)	one hundred and twelve point five			
	Multi-way valve	Load sensitive multi way valve			
	Main valve brand	HYTEK			
	Rated set pressure (Mpa)	22.5MPa			
	Type of walking hydraulic motor	Dual speed walking motor			
	Brand of walking motor	Send one			
	Motor displacement	three hundred and ninety			



EC DECLARATION OF CONFORMITY

Original Declaration

MANUFACTURER:

Name: SHANDONG RIPPA MACHINERY GROUP CO., LTD.
Address: No. 6 Industrial Park, No. 2166 Chongwen Avenue, High tech Zone, Jining City, Shandong Province, P.R.China

AUTHORIZED REPRESENTATIVE:

RIPPA EUROPE LLC EOOD

1 Racho Dimchev str., entr. A, 1st floor, office 1 1000 Sofia, Bulgarian

AUTHORIZED TO HOLD TECHNICAL FILE ON BEHALF OF MANUFACTURER ABOVE

HEREBY DECLARES THAT THE BELOW MENTIONED MACHINE:

DESCRIPTION OF MACHINERY

PRODUCT NAME: HYDRAULIC EXCAVATOR
MODEL/TYPE: _____
SERIAL NO.: _____
PRODUCTION YEAR: _____

IN ACCORDANCE WITH:

MACHINERY DIRECTIVE	2006/42/EC EN 474-1:2022; EN 474-5:2022
EMC DIRECTIVE	2014/30/EU EN ISO 13766-1:2018; EN ISO 13766-2:2018

AS WELL AS TO THE FOLLOWING OTHER DIRECTIVES AND THE CORRESPONDING NATIONAL REGULATIONS:

NOISE DIRECTIVE 2000/14/EC & 2005/88/EC, DLGS 262/02

EQUIPMENT ACCORDING TO THE DEFINITION GIVEN BY ANNEX I, ITEM 20 OF NOISE DIRECTIVE.
CONFORMITY ASSESSMENT PROCEDURE FOLLOWED: ANNEX VII OF 2000/14/EC
NOTIFIED BODY: EUROPEAN CERTIFYING ORGANIZATION S.P.A. NB 0714, VIA MENGOLINA 33, FAENZA(RA), ITALY
HOLDER OF THE TECHNICAL DOCUMENTATION: MANUFACTURER
MEASURED SOUND POWER LEVEL: 92 dB(A)
GUARANTEED SOUND POWER LEVEL: 93 dB(A)

SIGNED ON BEHALF OF SHANDONG RIPPA MACHINERY GROUP CO., LTD

STAMP&SIGNATURE: Jacky Yan
NAME: Jacky Yan
POSITION: GENERAL MANAGER
PLACE: JINING, CHINA
DATE: _____





Attachment and spare parts list

Attachment List

Attachment List

1. Foot pads

2. Accessories

Accessory name	quantity	type
		RS06
14 inch toolbox	one	○
grease gun	one	○
Tool butter	one	○
belt wrench	one	○
Tool wrench set	one	○
hex key	1 group	○
New funnel	one	○
open-end wrench	one	○
air filter element	one	○
Return oil filter element	one	○
RS06 complete set of car stickers	one	○
RS06 Parts Manual	one	○
RS06 Manual	one	○

3. Random files

- ①. 1 operation and maintenance manual
- ②. 1 copy of service certificate with three guarantees
- ③. 1 copy of qualification certificate
- ④. 1 engine manual