Operation and maintenance Original instructions instrutions **RB06 BACKHOE LOADER** Warming: 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 should be placed noar the

machine for timely reference and all personnel rotated with this machine should consult this manual regularty.

Address:Rippa Group Co., Ltd., Guang'an Road, High-tech Zone, Jining City, Shandong Province

Name:Shandong Rippa Machinery Group Co., Ltd.

Operation and Maintenance Instructions

RB06

Hydraulic Loader

WARNING: Use of this machine contrary to the operating instructions may result in serious injury or death. Operators and maintenance personnel must read this manual before operating and maintaining this machine. This manual should be placed near the machine for prompt reference and should be consulted regularly by all personnel associated with the machine.

Company name: Shandong Lipai Machinery Group Co.

Address: 36 meters north of Guang' an Jiayuan, Guang' an Road

Jining City, Shandong Province, China

I Introduction to the machine

Dear user.

Thank you for your trust and love to our company, the company's production of two busy models is a loader-based, digging operations as a supplement to the small machinery. Clever design structure, strong power, good machine stability, cost-effective, can meet the plains forest areas and other different operating conditions



under the loading and excavation requirements, applicable to housing, river, construction, construction sites, dredging, road construction. It can reduce the labor intensity of workers, speed up the work progress, improve the working efficiency and mechanization level, and is the most ideal main force for farm work and small projects.

In order to enable the user to correctly grasp the use of the machine, adjustment, maintenance, maintenance and other aspects of the amount of knowledge, the effective implementation of the two busy models of the efficacy of the user to carefully read the operation and maintenance manual, and the effective implementation of the provisions of this manual, the use of supporting engines and maintenance, please refer to the supporting engine factory to prepare the "engine instruction manual"! The operation part is the technical reference for the driver to use the machine, during which the illustrations are used to guide the driver to use the correct procedures to check, start, operate and stop the machine, the operation techniques outlined in the manual are a basis for the driver to obtain the knowledge of the machine and its functions, so as to improve their own technology and skills.

The maintenance section is a guide for the user to carry out maintenance on the entire machine. The specific maintenance of the machine is based on the different working hours of the machine on the maintenance program respectively, in harsh, dusty or rainy working conditions, the number of lubrication times should be increased appropriately according to the operation of the machine.

In order to show certain structural features of the machine more intuitively, some of the demonstration pictures in this manual are set up as structural drawings, so there will be differences in appearance from the actual product. For changes in the mechanical structure and technical parameters of the actual excavator due to technological improvements that

are not shown in this manual, please consult our company for the latest product information of the product.

Before using or repairing the machine, approve the relevant information and contact our Technical Service Department if necessary. When purchasing parts, please specify the model's factory date and number.

In order to facilitate your use, the company has set up a perfect "three packages of technical service network". If during the warranty period, you buy our two busy models in the correct use of quality problems, please contact the user in a timely manner with the region of the three packages of maintenance service station.

As the company's product technology is constantly innovating, we reserve the right to modify all interpretations of this manual.

If the actual product is different from the pictures in this manual, the actual product shall prevail.

Safety Precautions

In the maintenance and overhaul of the machine, we must pay attention to safety at all times, which is very important for the occurrence of personal accidents and to ensure the quality of maintenance of the machine, for this reason, the maintenance personnel should carefully read the model: "Instruction Manual" mentioned in the safety matters, must comply with the following safety matters.

Safety precautions for preparatory work

- 1. Read the "Instruction Manual" carefully before starting the machine.
- 2. Wear overalls and a helmet during all operations. When cutting with a cutter, wear protective glasses.
- 3. When welding treatment is required, it should be operated by a trained welder.
- 4. When disassembling or assembling, support the machine securely with jacks or stands.
- 5. When working underneath a vehicle, hang a "Repair Below" sign on top of the vehicle.

Precautions during work

- 6. Before starting work, remove the battery terminals, first remove the negative terminal.
- 7. Remove the oil filler cap, oil drain plug, antifreeze filler port and oil drain port,, first slowly loosen to remove the internal pressure to prevent oil and water from splashing out or hot oil and water injuries.
- 8. When removing the cover under internal pressure or spring pressure, leave two screws on the relative position, slowly release the internal pressure, and then remove it.
- 9. When removing or installing components, be careful not to break or damage the wires; damaged wires may cause electrical sparks.
- 10. When disassembling the seals, do not break or damage the seals (0-rings, oil seals) and sealing surfaces.

- 11. Do not disassemble by directly striking bearings, bushings and other fits with a hammer.
- 12. When installing hoses and wires, pay attention to the position of these parts in the work of the machine and do not damage them by collision or friction with other parts.
- 13. Install the high-pressure hose with great care so as not to distort it, and at the same time ensure that the connecting parts are installed correctly.
- 14. When dismantling tires, be careful that they will suddenly blow up and hurt people.
- 15. When lifting the parts, first try to lift in the lifting, never in the lifting under the operation of the object. Clean up the ground and oil at any time to prevent people from scratching and falling.

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I. Safety Precautions and Safety Signs

It is your responsibility to follow the relevant departmental safety codes and laws and to operate check and maintain the machine in accordance with the manufacturer's requirements. Virtually all accidents are caused by failure to observe basic safety regulations and precautions. Most accidents can be avoided by identifying potentially hazardous situations in advance.

Read and understand all safety information describing how to prevent accidents. Do not operate the machine incorrectly until you are sure you know how to operate, check and maintain it properly.

Observe all safety regulations

The machine must be operated, inspected and maintained by trained and qualified personnel.

All rules, regulations, precautions and safety measures must be understood and followed when operating, inspecting and maintaining the machine.

Do not operate, inspect and maintain the machine while under the adverse influence of alcohol, drugs, medication, fatigue or sleep deprivation.

When an abnormality in the machine is detected

If any abnormality (noise, vibration, odor, oil leakage, false alarm, etc.) is detected in the operation or inspection and maintenance of the machine, immediately notify the after-sales or service agent and take appropriate measures. Do not operate the machine until the abnormality is removed

Operating Temperature Range

To maintain the performance of the machine and avoid premature wear, observe the following operating conditions.

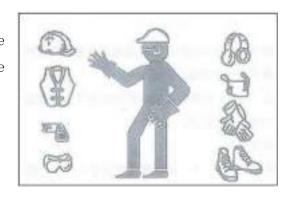
Do not operate the machine if the outdoor temperature exceeds $+40^{\circ}$ C or is below 15° C.

If the machine is operated when the outdoor temperature exceeds $+40^{\circ}$ C, the engine may overheat, resulting in a deterioration of the engine oil

performance. Also, the hydraulic oil may become very hot, causing damage to the hydraulic equipment.

If operated at outdoor temperatures below 15°C, rubber parts such as gaskets may harden, causing premature wear or damage to the machine. Inoperable.

If it is necessary to operate the machine outside the above outdoor temperature range consult your sales or service agent. Wear safety shoes, helmets, goggles, dust masks, rubber gloves, noise-proof earplugs and other protective



equipment such as goggles and dust masks as required by the work environment, as splashing of stones and debris or other objects may cause serious injury.

Use hearing protection when operating the machine. Prolonged exposure to high levels of noise can cause hearing damage or even complete loss.

Do not wear loose clothing or accessories that could hang up on the control levers or moving parts. Do not wear clothing with oil or fuel contamination that could easily catch fire. Wear safety shoes, helmets, eyeglasses, face shields, heavy gloves, ear protection and other protective equipment as required by the work environment because splashing objects can cause serious injury. Use hearing protection when operating the machine. Prolonged exposure to high levels of noise can cause hearing damage or even complete loss.

General Safety Precautions

- ① Before using the loader, the driver and related personnel must carefully read the instruction manual or operation and maintenance manual provided by the manufacturer and follow the instructions. Otherwise, it will bring serious consequences and unnecessary losses
- ② The driver should be dressed in line with safety requirements, and wear the necessary protective equipment

- ③In the case of a small operating area or a dangerous area, a warning sign must be displayed within the area or at the dangerous point.
- ④ It is absolutely strictly prohibited for the driver to drive the operation under the influence of alcohol or excessive fatigue.
- ⑤ When performing maintenance or inspection work in the center articulation area, install an "anti-rotation bar" to prevent the front and rear frames from rotating relative to each other.
- ©When the loader is parked, get on and off the loader where there is a handrail with stirrups. Do not jump on or off the loader while it is operating or traveling.
- 7 When it is necessary to lift the arm for maintenance of the loader, the lifted arm must be firmly padded to ensure that the arm will never fall under any maintenance situation.

Safety precautions before starting the engine

- ①Check and make sure that all lamps are illuminated and that the various display lamps can be displayed properly. In particular, check that the turn signal lamps and brake indicator lamps are properly displayed.
- ② Check and make sure that no one is allowed to work under the vehicle or close to the loader when the engine is started to ensure that no one will jeopardize his/her own safety or the safety of others in the event of an accident.
- ③ The loader's variable speed manipulator handle should be triggered to the neutral position before starting.
- ④ For braking system without emergency brake, the hand brake handle should be triggered to the stop position.
- ⑤ Start or run the engine only in places with good air flow. If running indoors, connect or face the exhaust port of the engine to the outdoors.

Safety precautions after starting the engine and during operation

① After starting the engine, wait for the vehicle to be in a safe condition all around before preparing to start to ensure the safety of braking when traveling. Only start in gear after the emergency and parking brake is released. No emergency brake only need to put down the parking brake handle, parking brake to start

- ② remove the loader on the road to travel the fault of the material, pay special attention to iron, ditches and other obstacles, so as not to cut the tires.
- 3Adjust the rearview mirror so that the driver can have the best visual effect after taking his seat.
- ④ Make sure the loader's horn, back-up signal light, and all safeties are working properly.
- ⑤ When you are about to start or when you are checking that the steering is flexible left and right in place, you should honk the horn first to warn the people around you to pay attention to safety.
- ® Before starting to walk, you should try all the maneuvering handles, pedals and steering wheel once to make sure that they are in normal condition before starting to enter the operation. Pay special attention to check whether the steering and braking are intact. Determine the steering, braking is completely normal, before starting to run.
- (7) When traveling, place the bucket at a height of about 400mm above the ground. When working on mountainous slopes or crossing ditches and other obstacles, decelerate, make small turns, and pay attention to avoid tipping over. When the loading surface in the steep slope began to slide to one side, it must be unloaded immediately to prevent the continued slide down
- ® operation to avoid too many tires, too much skidding; try to avoid two wheels hanging, do not allow only two wheels on the ground and continue to work.
- ①The loader should be parked into the flat ground, and put the bucket flat on the ground. When the engine is turned off, it is necessary to repeatedly trigger the work device maneuvering handle several times to ensure that the hydraulic cylinders are in a no-pressure resting state. When the loader can only be parked on the ramp, the tires should be firmly padded.

- 2Place the handle in neutral or middle position
- 3 Remove the electric lock key first, then turn off the power main switch, and finally close (doors and windows).
- 4Do not allow to park in the area with open fire or high temperature, in order to prevent the tire from heat explosion and cause accidents.
- ⑤ When using the combination valve or air storage tank to inflate the tires, people are not allowed to stand on the front side of the tires to prevent explosion and injury.

Loader driving precautions and operating points a,

A. start

(A) steps

- 1. lift the arm, turn the bucket, so that the lower hinge point of the arm 40 to 50 cm above the ground.
- 2. the right hand holding the steering wheel, the left hand will be the operating handle in the required gear.
- 3. observe the situation around the machine, sound the horn.
- 4. relax the hand brake lever.
- 5. gradually step down on the accelerator pedal to make the loader a smooth (B) loader

operating points When starting, listen to the sound of the engine, if the speed drops, the gas pedal should continue to step down to increase the engine speed, in order to facilitate the start.

B. shift

- 1. accelerate (1) gradually increase the throttle, so that the vehicle speed to a certain degree.
- 2. decelerate
- (1) relax the gas pedal, driving speed down.
- (2) will step down the brake pedal at the same time. Loader forward and reverse gear interchange should be parked.
- (B) the operation should be accelerated, step on the gas pedal, the action should be rapid.

In addition to slowing down the engine, you can also use the foot brake to slow down. Add, reduce the speed of both eyes should look ahead, maintain a correct driving posture, not to look down at the operating handle; at the same time to grasp the steering wheel, not to increase or decrease the speed of the loader to run off the road, in order to prevent accidents.

C. steering

(A) steps 1

1. one hand holding the steering wheel, the other hand turn on the turn signal switch.

- 2. two hands holding the steering wheel, according to the need to manipulate the steering wheel to amend the direction of travel.
- 3. turn off the turn signal switch.
- (B) the main points of the operation
- 1. before turning, depending on the road conditions to reduce the driving speed, if necessary, into the low speed.
- 2. in a straight line when driving to correct the direction of travel, to slightly hit a little back in time to hit the timely back, do not hit hard back, resulting in the loader "dragon" driving. Turning, according to the curvature of the road, turn the steering wheel, so that the front wheel according to the curved road. When the front wheel is close to the new direction, that is to start back to the wheel, back to the wheel speed should be suitable for the needs of the curve.
- 3. the turn signal switch to use correctly, to prevent only on not off.
- D. the braking brake method can be divided into predictive braking and emergency braking. In traveling the operator should be correctly selected to ensure driving safety.
- (A) predictive braking loader driving, the operator has found the terrain, pedestrians, vehicles and other changes in traffic conditions, or expected to the possible complexities, purposeful deceleration or parking measures, known as predictive braking. Anticipatory braking not only ensures driving safety, but also avoids damage to the machine parts and tires. Therefore, it is one of the best braking methods and should be used frequently.

Anticipatory braking operation method has the following two kinds:

- 1. deceleration braking; it is in the operating handle is in the working position, mainly used to reduce the engine speed to limit the traveling speed of the loader, generally used in the parking before, downhill and through the uneven section when used. The method is: after the discovery of the situation, first relax the accelerator pedal, the use of low engine speed to restrain the driving speed, so that the loader decelerates, and according to the situation of continuous or intermittent tap on the brake pedal, so that the loader to further reduce the speed of the loader.
- 2. stopping brake: used when parking. The method is: relax the gas pedal, when the loader traveling speed reduced to a certain extent, tap the brake pedal, so that the loader smooth parking.
- (B) emergency braking loader encountered in traveling emergency, the operator quickly use the brake, in the shortest distance to stop the loader to avoid accidents, known as emergency braking. Emergency braking on the loader's components, tires will cause greater damage, and often due to the inconsistency of the left and right wheel braking torque, or left and right wheels and the road surface adhesion differences, will cause the loader to "run off", "sideslip", loss of directional control. Therefore,

the emergency brake can only be used in the case of last resort. The method of operation is; hold the steering wheel, quickly relax the gas pedal, step down hard on the brake pedal, while tightening the hand brake lever, give full play to the brake's maximum braking force, so that the loader immediately stop. Loader using emergency braking, the wheels to hold, this time often rear wheel side slip, causing the loader to rotate violently vibration, when serious, can make the loader turn around, especially in the poor adhesion on the road (such as snow, ice, muddy roads, etc.), more common and obvious. In order to prevent and reduce the rear wheel skidding, loader training said the following measures can be used:

- 1. the use of "interval braking" method of operation, so that the wheels as far as possible do not hold dead or less hold dead. The specific method of operation is: the left foot with the greatest force down on the brake pedal, and strive to brake in a short period of time to hold the wheel; began to hold the moment of death, and then immediately weaken the force on the pedal (not completely relax the brake pedal), in order to prevent the wheels to hold dead or sideways slip; and then, step on the brake pedal with great force, and strive to hold the wheels in a short period of time to hold the wheel, and then to weaken the force on the pedal. So repeated operation, can make the loader to get a better braking effect, and can reduce the side slip.
- 2. when found side slip, should immediately stop braking; and turn the steering wheel toward the direction of wheel side slip. When the loader position is correct, and then smoothly turn the steering wheel to the normal driving position.
- E. parking
- 1. relax the gas pedal, so that the loader deceleration.
- 2. according to the stopping distance to step on the brake pedal, so that the loader stops in the designated place. 3, will be the operating handle in neutral. 4. will be the hand brake lever to the braking position.
- 5. lowering the moving arm, so that the bucket is placed on the ground.
- 6. reversing the truck should be reversed, and then smoothly turn the steering wheel to the normal driving position.
- F. reversing reversing to be carried out after the loader is completely stopped, reversing the start, steering and braking operations with the same forward.

(A) driving posture

when backing up in time to observe the situation behind the machine, available in the following postures:

1. from the rear window to look at the reverse: the left hand holding the upper edge of the steering wheel to control the direction of the upper body to the right side of the turn, the lower body slightly tilted, the right arm relying on the backrest at the upper end of the head, head to the rear, the two eyes looking at the rear target. 2. looking at

the rear-view mirror backing up: this is a kind of indirect way to look at the target, i.e., from the rear-view mirror to see the rear end of the car and the target to determine how many distance to rotate thesteering wheel. How much the steering wheel to turn. Generally in the rear-view observation is inconvenient to use.

- (C) target selection from the rear-view mirror to watch the reverse, you can choose the garage door, site and parking position near the building or tree for the target, look at the rear of the car in the center or the two corners of the car, backward.
- (D) the essentials of the operation

when reversing, you should first observe the surrounding terrain, vehicles, pedestrians, if necessary, get out of the car to see, send a signal to reverse, sound the horn to warn pedestrians; and then, put into reverse gear, with the method of forward start to reverse. When reversing, the car should not be too fast, to stabilize the pedal, not fast or slow, to prevent stalling or reversing too hard to cause accidents.

When reversing, if you want to turn the rear of the car to the left, turn the steering wheel to the left; conversely, turn it to the right. Turn more quickly, turn quickly, turn slowly, turn slowly. To master the "slow driving, fast steering" operation. Since the radius of travel of the outer front wheel tracks is larger than that of the rear wheels when turning in reverse, pay special attention to the front and outer wheels and the work equipment to ensure

that they do not touch other objects or obstacles, while taking care of the direction.

Precautions when standing up or leaving the driver's seat

When standing up from the cab, lower the support legs on both sides of the work unit to the ground and stop the engine. Inadvertent touching of any of



the control handles can cause the machine to move and result in serious injury or death.

Please note: Boom controls and bucket hydraulic controls, do not touch these controls. Before leaving the cab seat, lower the work unit to the ground and turn off the engine. Also turn off the key switch and the main power switch.

Do not smoke or have an open flame while handling fuel or working on the fuel system. Do not leave the job site while refilling fuel or lubricating oil. Do not remove the fuel cap to refuel while the engine is running or has not cooled down. Also, do not splash fuel on hot surfaces of the machine or electronic system component wiring.

Clean up spilled fuel or hydraulic oil immediately. Check for fuel and hydraulic oil leaks. Remove leaks and clean the machine before operation. Do not use fuel for cleaning purposes. Always use non-flammable solvents. Store all flammable fluids and materials in a safe and well-ventilated place. A short circuit in the electrical system can cause a fire. Check daily for loose or damaged wire connections. Reconnect cord tie-down clips. Repair or replace damaged cords.

Be careful to avoid crushing

Never place hands, feet, or other body parts between the upper and lower frames or between tires, between the body and work unit, or between cylinders and moving parts. The dimensions of these gaps change



when the machine moves and could cause serious injury or death.

Using Optional Products

Consult for review before installing options. Depending on the type of attachment or their combination, the attachment may contact the cab or other parts of the machine. Before use, make sure the installed option does not come into contact with other parts.

Do not use parts that have not been reviewed and approved. Doing so may jeopardize safety or adversely affect the operation or service life of the machine.

The company is not responsible for any injuries, accidents or product damage caused by the use of unauthorized parts.

II. Operation and Use

1. Operation steps

- 1. Before driving and operating, the operator should familiarize himself with the performance, structure, technical maintenance, operation method of the loader, and carry out the operation according to the regulations. In addition to the driver, other places on the machine are strictly prohibited.
- 2. When unloading materials to the car, the bucket must be lifted to a height that will not touch the car box, preventing the bucket from touching the car box, and forbidding the bucket from crossing the top of the car cab.
- 3. When going downhill, use automatic deceleration, do not step on the gas pedal to prevent acceleration of the power of overturning, resulting in serious accidents.
- 4. The loader should stop immediately for inspection after wading in the water, if it is found that the brake fails due to water immersion, it should be braked continuously, using heat to eliminate the water in the brake pads, so as to make the brake return to normal as soon as possible.
- 5. When the loader is working, no one is allowed to stand in front of it, and the bucket is not allowed to carry people during traveling.
- 6. When working, it is forbidden to stand under the moving arm, and it is forbidden to work and pass by other people and other machines.
- 7. It is strictly prohibited to use high-speed throttle gear operation.

When the operator leaves the driving position, he must put the bucket on the ground, turn off the engine and cut off the power supply.

- 8. Strictly prevent the bucket from touching the trunk of the car, and forbid the bucket from crossing the top of the cab of the car.
- 9. Don't step on the gas pedal to prevent the running power from collision.
- 10. Find the brake failure caused by water immersion, carry out continuous braking, use to



remove the water in the brake pads, so that the brake returns to normal. Heat

- 11. No one is allowed to stand in front of the machine, and the bucket is not allowed to carry people during the traveling process.
- 12. Keep the machine clean, tighten the loose parts to prevent the loose and increase the wear and tear of parts or lead to the loss of parts.
- 13. Stop the machine in time to remove any abnormality, and stop the operation before the cause is found and the fault is removed.

First of all

It is necessary to sit in the cab. Rotate the seat to the working state, use the front loader or excavator state, in general, as shown in the right figure, the power master switch on the right side of the body, the seat of the lower right side direction, find the parts shown in the illustration, now in power off state.



1. Turn on the power main switch.

Pass point

2. As shown in the right figure, rotate the power master switch to the right by another 90 degrees to the position shown in the illustration, the power is turned on, the vehicle body is powered, and all lines are energized.

Starting

Front loader operation steps

The illustration is as follows

Operation steps:

As shown in the right figure.

Firstly, insert the key into the keyhole on the right side of the steering wheel, after inserting the key, press and hold the key to rotate downward for 30 degrees first, and the display will be



energized and light up. In the downward rotation of 30 degrees, press and hold the key for 3-6 seconds, the vehicle starts, the vehicle ignition is successful.

The right picture shows

Loader operating handle, on the right side of the seat.

- 1. gear is forward gear, the vehicle moves forward straight, the wheels turn forward.
- 2. gear for neutral, the vehicle does not move in place.
- 3. Gear is reverse gear, the vehicle travels straight backward. The wheels turn backward.
- 4. gear for the moving arm up.
- 5. gear for the moving arm up.
- 6. gear for bucket retracting
- 7. gear for bucket down
- 8. gear for quick-change extend
- 9. gear for quick shift retract

10. gear for auxiliary equipment operation gear handle.

As shown in the picture on the right side

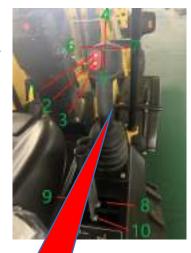
Installed on the left side of the steering wheel in the cab, the left side of the brake pedal, brake pedal, for the vehicle to take emergency braking, braking.

Brake

Gas pedal

As shown in the picture on the right side

Installed on the right side of the steering wheel of the cab, the right side of the accelerator pedal, for the vehicle to take a strong power, the accelerator pedal is pressed down the height of the vehicle, determines the speed of the vehicle and the



Loader operating



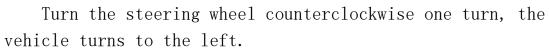
progress of the work. The smaller the angle of the accelerator pedal, the bigger the gas pedal, and the opposite is the same.

Steering Wheel Operation Procedure

Pay attention when operating the steering wheel:

The steering wheel is rotated one turn clockwise and the vehicle is turned to the right.

Turn the steering wheel clockwise for three and a half turns, the vehicle will turn to the right maximum limit.



Turn the steering wheel counterclockwise three and a half times, the vehicle turns to the left at the maximum limit.

> Horn Lights

Lower steering wheel operation

buttons

As shown in the picture, the buttons on the lower side of the steering wheel and the lever are used.

The red round horn button is the horn button, which serves as a warning. Lights button lever The status shown is the light off status.

The light button lever is rotated to the left for low beam.

Rotate the lever to the right for low beam.

The light button lever is rotated twice to the right for high beam.

Turn Button Lever Rotate up one click for left turn signal.

Turn Button Lever Parallel turns turn signal off.
Turning Button Lever down one turn for right turn signal.

Rear Excavator Operating Procedure

The following procedure is shown in the picture

- 1. Push the left handlebar lever forward to deploy the small arm.
- 2. Pull the left handlebar lever backward to retract the arm.
- 3. Push the left lever to the right to rotate the arm to the right.
- 4. Push the left lever to the left to rotate the arm to the left.
- 5. Push the right shift

lever forward to expand the arm.

Rear Excavator

- 6. Pull the right lever back to retract the arm.
- 7. Push the right handlebar lever to the right to deploy the bucket.
- 8. Push the right handlebar lever to the left to retract the bucket.
- 9. Left one is the crushing button.
- 10. The second left lever is pushed forward to deploy the left support leg.
- 11. The second left lever pulls back to retract the left support leg. Left three
- 12. The fourth left lever pushes forward to deploy the right support leg.
- 13. Pull back the left 4 lever to retract the right supporting leg.

On the left side of the operating platform is the big arm light button.

- 14. Push forward to turn on the light.
- 15. Push backward to turn off the light.

On the right side of the platform is the throttle button.

16. Turn to the right and the throttle gets bigger and bigger.

Forward

Turn the throttle to the left and the throttle smaller.

becomes smaller and

Procedure for switching the fuel line

As shown in the diagram above.

The oil switch is on the left side of the seat, turn the oil switch, forward 30 degrees, to supply oil to the front loader tubing, the oil supply to the rear

backhoe tubing is cut off, and the rear backhoe cannot be used.

As shown in the following figure.

With the oil line toggle switch on the left side of the seat, turn the oil line toggle switch, backward 30 degrees, to supply oil to the rear backhoe tubing, cut off oil supply to the front backhoe tubing and render the front loader inoperable.



Rearwar

Vehicle

Handbrake Operation Procedure

Operation steps:

As shown in the upper side picture, the handbrake is in the flat state when in working condition, as shown in the upper side picture.

According to the picture shown below, the lower side picture shows, when the working state stops, the



handbrake is pulled up, in the braking state, and the vehicle does not move to prevent the vehicle from skidding and causing unpredictable consequences.

Note; If you return to the running state from the braking state, you need

to press the brake button on the front of the handbrake lever, press and hold the front button, and release the handbrake after the handbrake is flattened to the running state. The machine is then used.



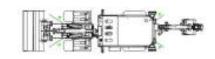
Vehicle

Fixed machine pay attention to

In order to prevent damage to the quick changing cylinder during transportation, put the quick changing end on a wooden pad to prevent it from touching the bottom plate.



- 1. Drop the bucket
- 2. Extend the bucket and barrel cylinder completely and slowly fall it down.



- 3. Close the engine and remove the key from the start switch.
- 4. Turn off the power master switch
- 5. Place pads under both ends of the tire to prevent movement of the machine during transportation. Tie the machine firmly with iron chains or wire ropes of suitable strength. Pay special attention to secure the machine so that it does not slide to one side.

unload

- 1. It can only be installed and unloaded on a solid and complete ground, to maintain a safe distance from the road edge.
- 2. Apply the brake and put the pad on the tire to ensure that the vehicle does not move.
- 3. Remove the chains or wire ropes that fix the machine.

- 4. Turn on the power switch and insert the key
- 5. Start the engine
- 6. Do not tread on the accelerator pedal.
- 7. Lift the working device and go off the ground.
- 8. Lift the bucket.
- 9. The machine walks slowly.
- 10. Keep the working device as low as possible without touching the ground or other objects

Matters needing attention in parking in rainy season

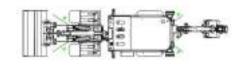
In the rainy season in the narrow or gully place to remove the soil discharge danger, must be coordinated with the excavator. Because excavators are much better equipped than loaders in places where the water is deep or where the road conditions are unclear. The loader must not be rushed straight up, in order to avoid danger. There are also relevant risk evacuation personnel beside the observation and command, to ensure personal safety. After the excavator finds a safe and appropriate position, let the excavator first dig the soil to the appropriate position and eradicate the loader. Or the excavator directly into the loader bucket for shovel, in the car of the road to focus on driving, do small throttle uniform speed forward. Do not suddenly refueling door or suddenly brake, slippery road emergency braking is easy to make the direction of the loader out of control, the vehicle elegant is very dangerous. Do not put the boom up too high leading to unstable center of gravity, in the wheel of excessive tilt or bias, the soil should be immediately removed, back to repair the road surface before work. In the rainy season, the loader must ensure the safety of the loader when using the tractor. Only by ensuring our own safety can we rescue others. Especially when supporting the car on the ramp, be sure to see the road conditions, if there is too much mud, it is best to remove the soil first. If possible, it is best to stop in the garage, and try to avoid parking in the excessively humid environment to choose indoor storage. If the rust prevention operation is very important, it is best to stop in the garage, and try to avoid parking in an excessively humid environment to choose indoor storage. Rust prevention operation is very important, long time parking should start

the machine once a month and drive, so that the battery charge. After storing the machine for a long time, dry the grease on the piston rod and fill each part with grease. In the machine parking is to keep the working device dry and clean, do not put the water in, so as not to rust and make the machine operation is not effective.

Keep the chassis clean

After the rainy season operation, the loader chassis must be cleaned, and the necessary place should be maintained to prevent rust. Check whether the oil release screws are loose, if so, maintain them in time. Where the machine has water, it should be removed in time to avoid rust affecting the spirituality of the machine. When parking in the open





air, pay attention to check whether the fuel tank and hydraulic tank cover are tightly to avoid unnecessary trouble caused by rainwater seeping into the tank. In rainy days, but also check the filter element of the loader air filter to avoid rain water. When the paper filter element is damaged and blocked, it should be replaced and maintained in time. In addition, we should pay attention to the wear of the sealing ring on the engine oil ruler, to avoid its wear caused by rain seepage into the inside of the oil, the oil filling mouth should also be checked, park in the open air when necessary, can cover a plastic bag, so as to check the use of the starting machine line to see whether the right loose or rust sodium. Safety precautions when parking

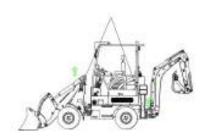
① The loader shall stop on the flat ground and level the bucket on the ground. When the engine is stalled, the operating handle should be pulled repeatedly to ensure that each hydraulic cylinder is in a unfree rest state. Hold the tires when the loader can only stop on the ramp. Press the brake pedal to cause the loader to stop the hand brake lever to place the shift lever in neutral and level the bucket to the ground; gradually reduce the engine speed to idle for a few minutes, pull the stall button to stall

the engine and then disconnect the power main switch; stop on the ramp to put a wedge on the rear (or front) pad of the tire

- 2 Place the various handles in a neutral or intermediate position
- 3 Take the power lock key, then close the power switch, and finally close the doors and Windows.
- 4 Do not stop in areas with open fire or high temperature, to prevent tire heat explosion, causing accidents.
- ⑤ When using the combination valve or air storage tank to inflate the tire, people should not stand on the front of the tire to prevent explosion injury.

Lift the machine

Don't lift the machine when there is someone on it. Ensure that the wire rope used for lifting the machine has sufficient strength to withstand the weight of the machine. Do not lift the



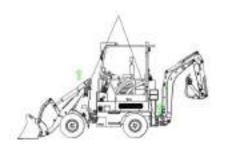


machine in any position other than the position provided in the following steps. Otherwise the machine will lose its balance. Do not lift the machine on the steering side of the upper car body. Put the working device down before lifting. When lifting, keep the machine level. It is dangerous to walk under the machine when raised. In this case, do not walk under the machine.

- 1. Start the engine. The working unit is located in the front part of the machine.
- 2. Extend the bucket cylinder and the bucket rod cylinder completely, and then drop the working device to the ground with the boom cylinder.
- 3. Lock the safety lock lever firmly,
- 4. Turn off the engine and make sure there is nothing around the cab. Then leave the machine and close the cab door and front window glass.
- 5. After the machine leaves the ground, carefully check whether the machine is balanced, and then slowly lift the machine.

Machine equipped with a lifting ditch

- 1. Start the engine. The working unit is in the front of the machine.
- 2. Extend the bucket cylinder and the bucket rod cylinder completely, and then drop the working





device to the ground with the boom cylinder

- 3. Lock the safety lock lever firmly,
- 4. When lifting, check whether the oil leakage of the hydraulic oil road at the top of the boom cylinder will cause the posture change.
- 5. When the machine leaves the ground, it should stop for a while. After the machine is stable, it should continue to rise slowly.

towage

Use instructions

To ensure the safety of the person and the equipment, the driver should observe the following precautions

- 1. Personnel with training and driving license can drive the vehicle.
- 2. Before starting, the vehicle should be routinely checked
- 3. driving, should smoothly start, steering, driving, braking, parking. Slow down early when driving or steering on wet or smooth roads.
- 4. driving should pay attention to pedestrians, obstacles and potholes.
- 5. No one is allowed to stand on the towed goods. Do not operate the vehicle from a position outside the driver's seat.
- 6. Do not tow the unfixed or loosely stacked goods
- 7. refueling, to make the engine flameout.
- 8. When checking the battery or oil level, stay away from fireworks. (Hydrogen is produced in the battery and may explode on fire)
- 9. when the car, the shift lever should be placed in neutral, the engine flameout, pull the hand brake, cut off the power supply. When parking on the ramp (neutral on the upper ramp and forward on the downhill) and cover the wheels with blocks.

Two operating procedures

1. Before driving every day, check the oil, fuel oil and coolant quantity, which should be replaced; check whether external bolts and nuts are loose

or fall off; check whether the tire pressure is normal; check whether the free travel of steering wheel, clutch pedal and brake pedal is normal; whether the lights and horn are working normally; whether the accelerator pedal is flexible and normal; check no leakage trace under the car; check any abnormal maintenance or report. Note: for any fault or failure, do not start the vehicle before repair.

2. When starting the engine normally, the shift lever should be placed in neutral, press on the accelerator pedal, and then turn the ignition switch to the start position. After starting, immediately release the key to automatically reset to the ignition position, each start time should not exceed five seconds, the interval between the two start should be ten seconds, can not start for three consecutive times, should check whether the oil supply system and other systems have a fault, and start after troubleshooting. After the engine starts, the accelerator pedal is lifted to 1/3, so that the engine runs at low speed for several times, so that the tractor can start when the water temperature rises to $60\text{--}70\,^{\circ}\text{C}$.



pay attention to:

When the ambient temperature is low, the key should be rotated counterclockwise to the end for preheating, and preheating for 20 seconds before starting.

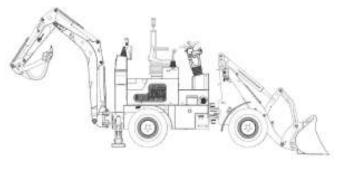
- 2. just driving, should experiment and ensure that the performance of the foot braking and hand braking system is good and reliable.
- 3. in the process of driving, we should often pay attention to whether the instrument reading and alarm lights are normal.
- 4. The car is stable when no-load.
- 5. the tractor traction trailer should avoid emergency stop, sharp drive or sharp turn.

- 6. When the tractor is running normally, do not put your feet on the clutch pedal.
- 7. the tractor can not be emergency braking when driving, when pressing the brake pedal should not be too fierce, a free tire drag slip caused by the accident.
- 8. In the process of driving, the tractor should pay attention to listen to no normal sound, and if necessary, stop to check and eliminate.
- 9. When parking, the gearbox handle should be placed in the neutral position. After the car stops, the engine should still run idle for a little time before stalling, and the hand brake should be tightened after stalling.
- 10. every day to stop to fall down the power switch, cut off the vehicle circuit.
- 12. in the cold season, the tractor to use antifreeze or parked in the warm garage, one side of the frozen crack engine cylinder block, cylinder head. If there is no warm garage, the cooling water should be put in, and the long-term antifreeze is not put off. If the temperature is below- 30° C, the electrolyte should also be protected from freezing. When receiving the car, the shift lever should be placed in neutral, the engine should be off, pull the hand to brake, and cut off the power supply. When parking on the ramp, hang the corresponding gear (forward on the ramp, down on the downhill), and pad the wheels with blocks.

safety regulations

No one else should stand on the tractor, tow bolt or trailer when the

vehicle is running A large turning radius must be required to tow more trailers Make sure that the fixed position is firmly on the trailer, and be more careful when driving in bad road



conditions Avoid fast downhill and sharp braking to avoid falling or overturned after the tractor is completely stopped vice versa. When driving downhill, use the engine brake, do not operate the speed control handle, if the tractor is beyond the gear speed range, you can use the brake pedal The traction shall not exceed 1.5 times of its own weight. Traction should be based on its own weight.

Operation in uphill

state

Attention:

1. Note that when the vehicle is running empty uphill, the front bucket device, the big arm must be raised, the big arm must be raised above the height of the incline, and the front bucket needs to be raised to avoid collision, as shown in the above picture.

2. Note that when the vehicle is running empty, switch the fuel line switch



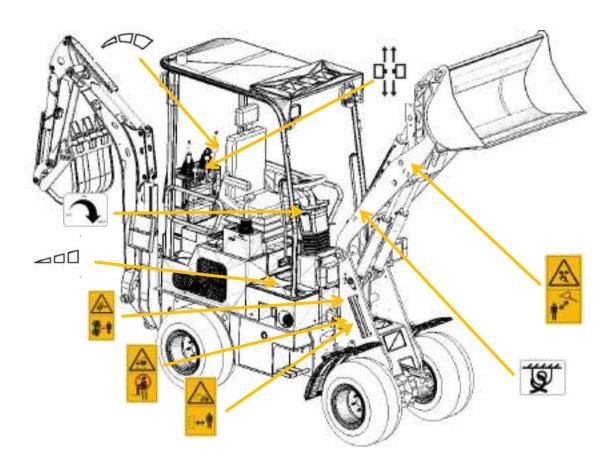
adjust the fuel line switch to the rear side, the rear bucket big arm is retracted, the small arm must be retracted, and the rear bucket device is retracted, note that all running devices must be retracted.

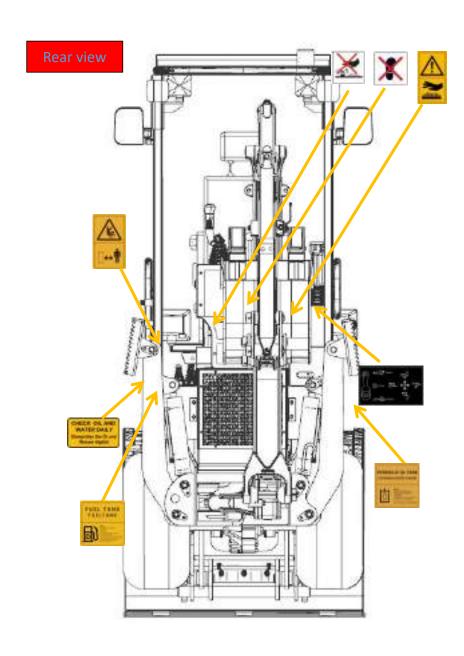
- 3. Pay attention to the vehicle heavy vehicle operation, the front bucket such as the upper part of the operation, the rear bucket device needs to be the body on both sides of the support legs down, to prevent the rear bucket device work when the vehicle's center of gravity is unstable, resulting in serious consequences of the overturning of the vehicle.
- 4. When the vehicle is parked in the uphill state, you need to operate the steps, step on the brake pull up the handbrake, to prevent the vehicle from skidding, to avoid danger.
- 5. When the vehicle works uphill, pay attention to the front bucket of the maximum shovel lifting capacity, work, must ensure that the parameters

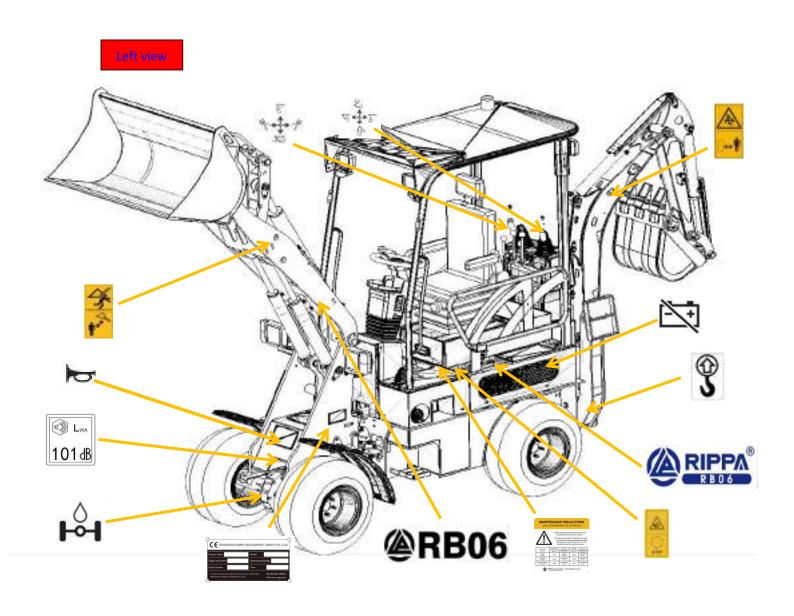
- of the vehicle limit, to ensure that the vehicle works in the controllable range, prohibit overloading overweight, resulting in the occurrence of serious consequences.
- 6. When the vehicle is working uphill, pay attention to the maximum lifting capacity of the rear bucket, and put down the supporting leg devices on both sides of the vehicle, when working, the maximum lifting capacity of the vehicle must be guaranteed within the parameter limits to ensure that the vehicle is working within the controllable range, and it is prohibited to overload and overweight, which may lead to the occurrence of serious consequences.
- 7. When the vehicle completes the work. When the vehicle is downhill, the front bucket is withdrawn, the front arm is lifted and withdrawn, pay attention to the length of the rear bucket to avoid collision, resulting in serious consequences of overturning.
- 8. When the vehicle downhill state. First of all, switch the fuel pipe control switch, rotate the seat to the back side of the body, the rear body on both sides of the support legs retracted, the big arm lifted above the height of the slope, to avoid collision, pay attention to the rear of the body bucket length, to avoid collision, resulting in overturning serious consequences. Then step on the brake pedal, release the hand brake, and then gently lift the brake pedal, the vehicle slowly downward running, prohibit the pedal on the gas pedal, resulting in excessive speed, resulting in the phenomenon of overturning.
- 9. When the vehicle is driving on a smooth road, the braking distance is within two meters. After the vehicle starts, there is a buffer distance, brake pedal braking within two meters is qualified. When the vehicle is traveling on a smooth road surface to stop, when stopping sharply, you must step on the brake pedal and gas pedal at the same time. Pull up the handbrake to prevent skidding, resulting in serious consequences.

11. Vehicle sticker labeling position

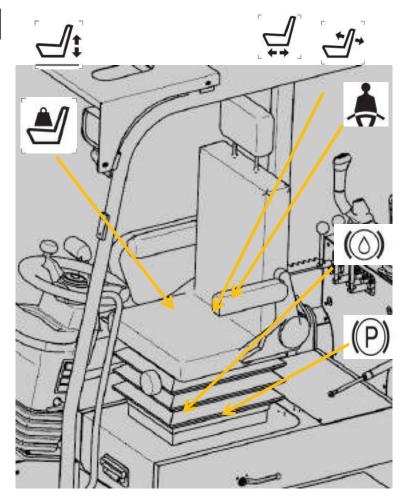
Right











(1) It is prohibited to touch the engine fan blade to avoid cutting off hands or fingers.



Note: Touching the engine fan blade is prohibited to avoid injury to life.

(2) Keep a safe distance when the loader lifts the arm and bucket. Avoid squeezing the whole body.



Note: When the loader arm is lifted, it is prohibited to stand on both sides of the moving arm to avoid serious personal injury.

(3) Keep a distance from the joint area to avoid injury by squeezing the whole body.



Note: Keep a distance from the machine. Avoid receiving injuries.

(4) Wire hazard, keep distance from wire hazard.



CAUTION: Avoid operating under high voltage lines when maneuvering the machine to prevent electric shock.

(5) Schematic diagram of loader operating handle



NOTE: Perform basic operation of the loader machine according to the above diagram. It is strictly prohibited to operate the loader without following the signs.

(6) It is prohibited to open the antifreeze cap filler port under high temperature operating condition.



NOTE: It is prohibited to open the filler port under the vehicle's operating condition to avoid burns.

(7) Fuel tank filler port



Note: Fuel is filled in accordance with the specified amount of oil. (8) Hydraulic oil tank



Note: Fill hydraulic oil according to the specified amount.

(9) Daily check of oil and water



NOTE: Hydraulic oil and fuel need to be checked daily.

(10) Warning to watch out for burning hands



CAUTION: Avoid burning hands on oil pipes or machine parts.

(11) No standing under the working device



CAUTION: Standing in the area of the machine's work unit is strictly prohibited. Do not damage or remove markings on the machine.

(12) No stepping on



CAUTION: No stepping on the locations with markings.

(13) Maintenance Precautions



CAUTION: Maintain the machine at the required time as shown in the diagram.

(14) Lifting position marking diagram



Note: Specify the lifting position. It is prohibited to tear the label. (15) Avoid running over automobile tires and prohibit sitting on the tracks.



Note: Prohibit in the blind zone area of automobile.

(16) Company Logo Model Sticker



(17) Model sticker



(18) Lanyard position



Note: Can use the sling lifting position within the labeling position.

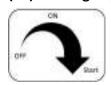
(19)



Note: The noise decibel of the horn is at 94 (20)



Attention: Take good precautions (21) Starting key



Note: Guard it well (22) Seat lock



(23) Seat tilt forward and backward



(24) Seat forward/backward movement adjustment



(25) Seat up/down adjustment



(26) Operation lever marking



(27) Horn



(28) Mechanical throttle marking



(29) Battery disconnect and shut-off



(30) Electronic Throttle Marking



(31) Fasten seat belt



(32) Axle hydraulic fluid marking



(33) Brake fluid marking



(34) Hand Brake Braking System Marking



(35) Locking device fixed cylinder marking



Note: No one is allowed to stand under the cylinder.

(38) Bucket left handle marking



(39) Marking of the operating handle on the right side of the bucket



(40) Nameplate marking



III. Improper Behavior

Do not operate in swampy areas.

Do not steer sharply while walking. If
you must operate the digging bucket or
bucket operating device while walking
do so slowly enough so that you have
full control at all times.

 Do not use the bucket for dismantling, prying or leveling operations.



When operating the front bucket, you

need to be aware that there is a maximum limit for the loading section, pay attention to the parameters of the maximum limit and do not overload the bucket. Result in uncontrollable consequences.

The front loader section has a maximum limit. Refer to the basic parameters, please do not overload the bucket.

Operation norms

1. Slamming the throttle just after starting

When the engine is just started, the body temperature is low, the oil viscosity is large, the fluidity is poor, and the oil cannot flow smoothly to each lubrication point in a short time. If the throttle is blown at this time, it will lead to an instantaneous increase in engine speed, and even though the oil supply and pressure of the oil pump will increase, it will not be able to meet the requirements of the lubricant volume and oil pressure of the moving parts instantly, and the moving parts will not be able to establish a good lubricant film, which will result in instantaneous dry friction and lead to severe wear. Poor lubrication of the moving parts, operating resistance will also increase, if the throttle, pistons, connecting rods, crankshaft will produce violent impact, accelerating the damage of machine parts. In addition, the diesel engine with turbocharger, it is very easy to destroy the oil seal due to poor lubrication, resulting in turbocharger failure, reducing the power of the diesel engine. Therefore, after the loader starts, it should run smoothly at low speed (about 500-700r/min), and it is forbidden to blow the throttle.

2. Direct operation without warming up the engine after startup

Due to the low temperature of the body, the viscosity of the oil is large, the oil pump will not supply enough oil, resulting in a short period of time, the moving parts can not get good lubrication, wear and tear. When the load is large, even the cylinder pulling, holding tile and other accidents will occur. In winter, the hydraulic hose is brittle, direct operation is easy to burst, will make the hydraulic oil leakage. Therefore, after the loader is started, it should idle to warm up, and test run the institutions, until the oil temperature and oil pressure reach normal, before operation.

- 3. Directly replenish coolant during operation
- 4. Insufficient coolant will lead to water shortage and overheating of the diesel engine.
- 5. The diesel engine is directly replenished with coolant at high temperature.

The entire cooling system will instantly produce a large temperature difference, so that the cylinder head, cylinder liner, cylinder block, etc. instantly brittle, resulting in micro-cracks, and gradually leakage of cooling water, resulting in oil leakage, air leakage. Therefore, when the diesel engine temperature is too high, should be slightly higher speed idle running, to be the water temperature drops to about 50 $^{\circ}$ C, and then turn off the engine, unscrew the radiator cap, discharging water vapor, slowly injected coolant.

6. Prolonged idling

Especially in the winter field operation, cold weather, not easy to start, many drivers are accustomed to the loader does not work to let it idle for a long time. Prolonged idling oil pump will appear pumping oil shortage, low oil pressure, the movement of the demand for lubrication of the oil

volume and oil pressure can not meet the requirements, friction resistance increases, wear and tear, especially the piston, cylinder liner wear and tear, easy to cause gas; sometimes also lead to the valve and piston ring jamming. In addition, prolonged idling diesel atomization is poor incomplete combustion, will cause lag period extension, serious carbon deposits, work rough.



Therefore, the loader can not idle for a long time, idling time is generally about 5min.

7. Warm up the machine when it is difficult to start

When the loader is not easy to start, some drivers use open fire in the air intake or air intake branch pipe and air pump gas pipe interface, start

the diesel engine, forced combustion diesel engine. This practice will not only make the air filter burned, and will lead to ignition is not correct, diesel engine early or lagging ignition, work rough, cylinder liner, piston, engine and other stressed parts by the violent impact, uneven force, damage to the machine parts. Therefore, it is strictly prohibited to start the difficult to ignite the car.

8. Stopping with load or stopping immediately after operation

When the loader stops with load or stops immediately after operation, the cooling system stops working immediately, and the heat dissipation capacity decreases sharply. Work generated by a large amount of heat accumulation in the vicinity of the heat source can not be distributed in a timely manner, so that the cylinder head, cylinder liner, cylinder block and other heated parts of the cooling water boiling, overheating, high temperature erosion. At the same time will also make the oil attached to its surface deterioration, resulting in the next start-up difficulties. In addition, if the engine suddenly stops, it will make the supercharger temperature rise to about 600 °C, easy to cause seal ring damage. Therefore, the loader should be unloaded before the flameout, and no-load running 3 °5 min, so that the temperature down to below 40 °C, the water temperature down to below 50 °C, before stopping.

9. Blast the gas pedal before stopping

Many drivers mistakenly think that before stopping a few feet of throttle, so that excess unburned diesel fuel to stay in the cylinder, in order to facilitate the next start. In fact, this will cause incomplete combustion, black smoke, increased carbon; at the same time, a few feet of throttle will make the moving parts of the inertia force suddenly increased, exacerbating the wear and tear of the moving parts; secondly, unburned fuel will flow down the cylinder wall into the oil sump to dilute the oil, shorten the oil life cycle. Therefore, the correct operation is, no load state in the low-speed smooth operation after stopping.

10. Walking in the process of skidding into the shovel

In the loading operation, many drivers are accustomed to the inertia of high-speed machine to the pile of material rushed, natural deceleration, then shoveling materials. The use of driving inertia to the pile will make the whole machine by the violent impact, the uneven force of the components, the entire body of the machine is very harmful. This will cause deformation of the bucket, moving arm, front frame, etc., cracks, due to violent force, torque increase, easy to slip and twisted deformation; transmission components are also very easy to damage. The correct operation is, the loader in the shoveling before the front of the low-speed drive to the

pile of material Insert the loader into the pile slowly at a constant speed and gradually increase the throttle for shoveling.

IV. Basic Parameters

	Overall kerb quality (kg)	2250			
	Overall dimension (mm)	Length 4800, width 1150 and height 2350			
	Bucket width (mm)	1150			
Basic perfo	Wheelbas e (mm)	1730			
rmanc e param	Track (mm)	840			
eters	Minimum clearanc e from the ground (mm)	155			
	Maximum driving speed (km/h)	12			
	Climbing ability (%)	20			
	Minimum turning radius	3. 6			

	L Walking o pump	mode1	HP3G32ARA2MFS2A 1K35CLJPN-LP01
o a		brand	Hengli
d i n g		Rated pressure (MPa)	34. 5
h y d		Rated flow (1/min)	90
a u		mode1	PGP5114GLP
i c s y	s Working pump	brand	pike
e m		Rated pressure (MPa)	25
		Rated flow (1/min)	56
	Working valve	mode1	M45/4

	(m)	
	Engine model	D-1105
	Rated speed (r/min)	3000
	Rated power (kw)	18. 2
	displace ment	1. 123
Kubot a	Cylinder number	3
engin e	Cooling mode	Water cooling+h ydraulic oil
	Engine oil change (L)	3. 2
	Fuel form	diesel
	Fuel label	No. 0/-No.
Perki ns engin	Engine model	403J-11-I J84527R

		brand	Hyde
		Rated	
		pressure (MPa)	18
		model	BM5-315
	Walking motor	brand	DETON
		Rated displacem ent (ml/r)	315*2
		mode1	101S-5-100-10-H C+PVFD-40-0.7-B
	Steering gear	brand	Zhenjiang Dali
		Displacem ent of steering gear (ml/r)	100
		Rated flow (1/min)	40
D i g	Working valve	mode1	CDB15-8

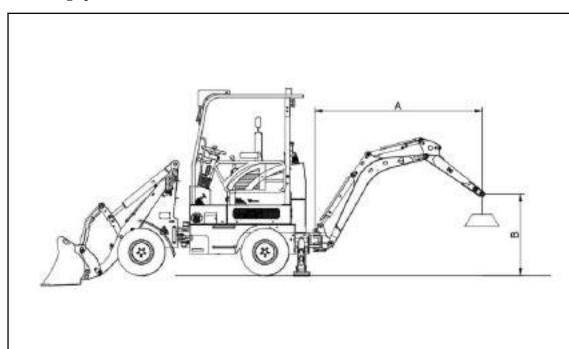
е	Rated speed (r/min)	2800	g i n g		brand	TF
	Rated power (kw)	18. 4	h y d r a u 1 i c s y s t e m		Rated pressure (MPa)	18
	displace ment	1. 1			Loading part	Excavation part
	Cylinder number	3	В	Rated bucket capacity (m3)	0. 23	0.08
	Cooling mode	Water cooling+h ydraulic oil	d y d a	Rated charging mass (kg)	300	80
	Engine oil change (L)	3. 2	t a	Maximum charging mass (kg)	600	
	Fuel form	diesel		Maximum dischargin g height (mm)	2025	3200

	Fuel label	No. 0/-No. 10
	Engine model	3B11-X51
	Rated speed (r/min)	3000
	Rated power (kw)	18. 5
Xinch ai	displace ment	1. 12
engin e	Cylinder number	3
	Cooling mode	Water cooling+h ydraulic oil
	Engine oil change (L)	3. 5
	Fuel form	diesel
	Fuel label	No. 0/-No.
tyre	tyre size	26× 12.00-12
fuel tank	Hydrauli c oil	22

Maximum		
excavation depth (mm)		2490
Discharge distance (mm)	650	2600
Deflection angle (degree)	75	111
Bucket lifting time fully loaded (s)	8	6
Bucket lowering time (s)	4	4
Arm length (mm)	1680	1840
Arm length (mm)		1190

tank (1)	
Fuel tank (1)	22

Lifting parameters

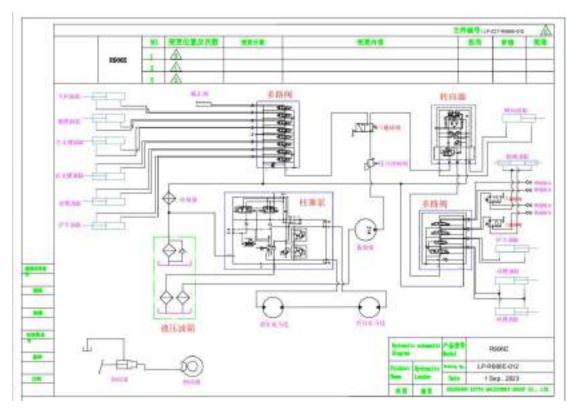


A:Load radius	Conditions of operation
B:Lond point height	940mm Big arm
C:Lift capacity ratings	1780mm ARm
Cf:Rated loads over front	weight:1835kg
Cs:Rated loads	Track width:230mm
(Unit:kg)	Track spacing:840mm

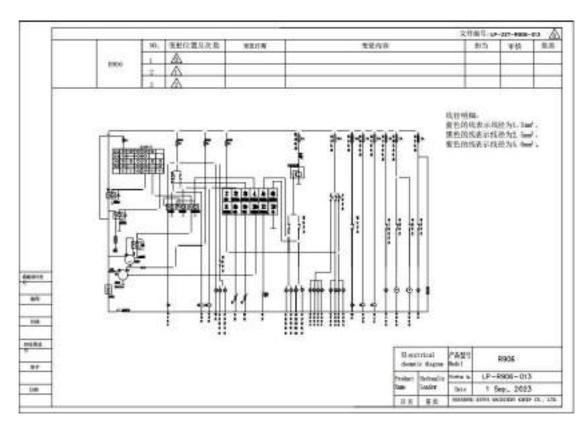
		Load radius A (Staticbulldozer support)									
Long point height (Unit:m)	1.	5	2		2. 5		Load radius A (Staticbulldozer support 1.5 2 2.5)				
(01111.111)	С	С	С	С	С	С	Cf	Cs	A (mm)		
	f	S	f	S	f	S	CI	CS	A (IIIII)		
	5	6	1	3	3	3					
1.5	6	2	0	8	8	0	330	0 222	3201		
	5	5	4	3	8	4					
	6	6	5	3	4	2					
1	8	4	2	8	4	9	334	220	3300		
	6	7	1	8	9	8					
0.5	8	5	6	3	4	2	339	218	3376		
0. 5	0	7	3	9	5	8	 	210	3370		

	4	1	5	4	4	6			
	9	6	6	4	4	3			
0 (Grade)	3	1	8	3	8	0	423	230	3317
	4	6	3	8	1	1			
	9	6	5	4	5	3			
1	4	3	8	5	0	2	438	258	2. 2862
	8	5	3	3	8	3			
	9	7	5	4	5	3			
1.1	6	0	3	6	2	4	454	274	2784
	2	4	8	4	5	0			

Hydraulic schematic



Electrical schematic



V. Common Failures and Solutions

Common Failures	Failure causes	Solutions
Machine powerless,	Clogged oil pipe or	Disassemble and clean or
slow movement	tightened oil	tighten the oil pipe
	leakage	
	Damaged brake pump	Replace the brake pump
	Oil pump oil inlet	Clean or replace oil inlet
	pipe is clogged	pipe
	Engine failure	Contact factory to overhaul
		engine
Machine does not	Pump damaged	Replace piston pump
move	Damaged coupling	Replace coupling
	Hydraulic oil	Add hydraulic fluid or
	deflection due to	level the machine
	machine tilt	
	to one side	
Machine will not	Travel motor hose is	Install hose in place or
travel	disconnected or	replace travel motor
	damaged	
	Fuse blown or	Replace the corresponding
mi .	damaged	fuse
The engine emits	Overfill the engine	Adjust the oil level
black smoke and has	oil	according to the upper and
no power		lower limits of the oil
	Engine malfunction	dipstick.
	Engine mailunction	Contact factory for engine repair
Steering wheel does	Steering gear	Clean or replace steering
not turn	clogged	gear
	Steering gear	Lubricate or replace
	clogged or no	steering gear
	internal	
	lubrication	
Engine won't start	Water mixed in	Drain oil and refill
	diesel fuel	
Engine holding	Engine speed is too	Adjust engine speed to 800
	low	rpm
	Relief valve is too	Loosen the relief valve
	tight	
Engine does not	Insufficient	Charge or use external
fire	battery voltage	battery to start the fire

		ah an min m
	Dry diesel fueling leads to pipe Air in the pipeline Frozen diesel fuel Engine failure Injector nozzle clogged Filter element	charging Unplug the diesel fuel line from the engine and drain the air before installing or press the hand pump to drain the air. Choose the right grade of diesel fuel according to the local temperature. Contact the manufacturer to have the engine serviced. Replace injectors Replace filter element
	clogged	
	Damaged filter	Replace filter
	Blown fuse	Check and replace fuse
	Faulty electronic fuel pump	Replace electronic oil pump
	Damaged oil-water	Replace oil-water
	separator	separator
	0il too thick due to	Replace the oil with the
	low temperature	right grade
Engine throttle fluctuates	Diesel fuel hose breaks causing fuel supply Poor fuel supply	Check the diesel fuel line and adjust the direction to make sure the fuel supply is smooth.
Increase throttle continuously	Engine throttle ferrule too tight	Loosen engine throttle ferrule
Throttle cannot be increased	Throttle cable ferrule is loose	Tighten throttle cable ferrule
Common	Cause of	Solution to the
Failure	Failure	problem
The headlight does	The wiring plug is	Check whether the wiring
not light up, or	detached	plug is detached or loose.
the display does not work	Damaged fuse	Replace fuse
Battery not charging	Damaged generator	Check the engine generator that

	Fuse damaged	Replace fuse.	
	Damaged wires	Replace wires	
	Battery damaged	Replace Battery	
High engine	Lack of antifreeze	Add antifreeze	
temperature	Clogged radiator	Cleaning out the radiator	
	holes	holes in the water tank	
	Damaged sensor	Replace sensor	
	Highland climate	Replacement of suitable	
	effects	antifreeze	
	Engine failure	Contact factory to overhaul	
		engine	
0il pressure alarm	Lack of oil	Add oil	
	Engine overheating	Check coolant	
	Damaged sensor	Replace sensor	
	Wiring Failure	Troubleshoot wiring	

VI. Maintenance and Care

Engine Maintenance

As the main power system of the model — the engine needs to be maintained in accordance with the "engine instruction manual" carried with the vehicle, in strict accordance with the engine instruction manual in the content of the maintenance of maintenance can effectively improve the engine life, reduce the occurrence of failures.

The main maintenance content mainly includes the following parts:

- 1. Engine break-in period care after the first use of 250 hours will need to maintain.
- 2. Oil replacement cycle. (Oil will be used with the machine, slow consumption, so you need to regularly check the amount of oil, not a refill until the next time to replace the refill, oil shortage needs to be timely supplement, otherwise it will cause serious consequences such as cylinder pulling, due to the lack of oil caused by engine damage to the manufacturers do not warranty)
- 3. Oil filter, diesel filter replacement cycle
- 4. Air filter replacement cycle

When checking or maintaining the machine, if an unauthorized person starts the engine or touches the control handle, it may cause a serious injury accident.

List of machine safety components

Machine body	Parts to be replaced periodically (mandatory)	Replacement time	
	Diesel Filter	First 250 hours 500 hours	
Engine	0il filter	500 hours or one month	
Eligine	Air filter	2000 hours or when warning	
	All lilter	light is on	
Radiator	Antifreeze	12 years	
Parking	Brake fluid	500 hours	
system	brake fruit		
Fue1	Hydraulic oil	25003000 hours	
	Diesel oil	500 hours	
system	Motor oil	500 hours	

Before performing maintenance, turn off the engine, remove the key and keep it with you.

Do not use damaged or deteriorated tools or tools designed for other uses. Use tools suitable for the job in question.

Replace safety critical parts regularly

To ensure that the machine can be used safely over a long period of time, it should be regularly oiled and inspected and maintained. To enhance safety, regularly replace safety-critical parts such as oil hoses and safety belts.

The term "regularly replaced safety critical parts" refers to parts that age, wear and deteriorate in function after repeated use, and whose performance changes over time. These characteristics of these parts can lead to serious mechanical damage or personal injury, and it is difficult to determine their remaining useful life based on visual inspection or the feel of their operation.

Replace "Periodic Replacement of Safety-Critical Components" as soon as you notice any damage during a visual inspection, even if you have not yet reached the specified replacement interval.

Replace the fuel line regularly. Fuel lines wear out over time, even if they do not yet show any signs of wear. Replace them at the first sign of wear, regardless of the replacement schedule.

When checking fuel, lubricating oil, coolant or battery electrolyte, use an explosion-proof light to prevent fire or explosion. Failure to do so may result in an explosion, causing serious injury or death.

Cleaning the machine before maintenance

Turn off the engine before cleaning the machine. Cover the electrical parts to prevent water ingress. Water ingress into electrical parts may cause a short circuit or malfunction. Do not clean the battery, electronic control components, sensors, connectors or cab with water or steam.

Turning off the engine before maintenance

Avoid lubricating or making mechanical adjustments to the machine while it is running, or while the engine is running even though the machine is not running.

If maintenance must be performed while the engine is running, arrange for two people to work as a team and stay in communication with each other. One person must sit in the driver's seat so that the engine can be turned off immediately if necessary. This person must take special care not to touch the control levers and pedals, except when necessary.

The other person performing maintenance must ensure that his/her body or clothing is kept away from the moving parts of the machine. If tools or other objects are thrown or inserted into the fan, they can be blown or shredded. Do not throw or insert anything into the fan.

Refueling Precautions

No smoking or open flames are allowed during refueling or near the refueling point.

Do not remove the fuel tank cap or refuel while the engine is running or has not cooled down. Do not spread fuel on hot surfaces of the machine.

Fill the fuel tank in a well-ventilated area. Do not fill the fuel tank. There



should be room for oil to expand. Spilled fuel should be wiped up immediately. Tighten the fuel tank securely. If the fuel cap is missing, replace it with the original one. The use of an unauthorized and poorly ventilated fuel cap can create internal pressure in the fuel tank. Select the proper fuel, oil and grease according to the temperature. Whether or not the specified time has elapsed, if the oil becomes too hot, it is not a good idea to replace it. Replace the oil if it becomes too dirty or rancid, regardless of the specified time. When refueling, do not mix different brands of oil. If you change brands, replace all fuel/oil.

Fuel	Part	Diesel	Part
specifications		Specification	
GB252	China	BS2869A1 or A2	United
			Kingdom

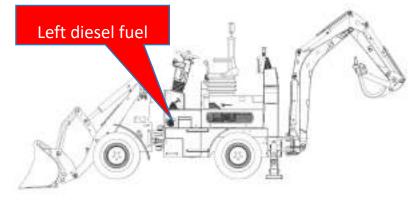
ASTM D975	United	ISO 8217DMX	International
No. 1D, S15	States		
Biodiesel	Canada		
Biodiesel			
blends to B5			
ASTM			
D6751, D7467			
EN590:96	European	JIS K2204	Japan
Biodiesel	Union	Grade 2	
Biodiesel			
blends to B5			
ENI4214, EN590			

Diesel fuel should meet the above standards. This table lists several fuel specifications in force in the world.

Caution:

1. Diesel fuel tank filling port, when filling diesel fuel, pay attention

to first unscrew the diesel fuel tank cover on the right side of the body, use the funnel to connect with the fuel tank filling port, then use the



fuel tank bucket to fill diesel fuel, pay attention to turn on the power switch, pay attention to the meter displaying the filling position of the fuel tank, to prevent the filling from being overfilled, which will lead to the tank cover not being able to be capped, resulting in serious consequences.

Fuel tank capacity: 22 liters

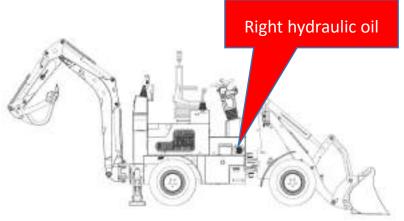
- When the fuel tank is filled, the instrument panel shows full.
- 2. After refueling, tighten the fuel tank cap clockwise
- 3. Hydraulic oil tank filling port, when filling hydraulic oil, pay attention to the left side of the car body first hydraulic oil tank cover unscrewed, use the funnel and the tank filling port connection, and then use the tank bucket to fill the hydraulic oil, pay attention to the observation of the hydraulic oil window, pay attention to the filling position of the window, when the hydraulic oil exceeds the window, the hydraulic oil to immediately stop filling, prohibit overfilling, resulting in the fuel tank cover can not be covered, resulting in serious

• Hydraulic oil tank capacity: 22

consequences

liters

• The first time you refill the hydraulic oil, hydraulic oil window is full, hydraulic oil can



stop filling, operation of the test machine after normal operation, the second oil refill, when the hydraulic oil window inside the red dot refill to one-half of the place, stop refilling.

1. After refueling, tighten the oil tank cover clockwise.

Be careful when handling high-temperature and high-pressure parts.



Turn off the engine and wait for the machine to cool down before performing maintenance.

The engine, exhaust, radiator, hydraulic hoses, silencer and many other parts of the machine are hot when the engine is turned off. Touching these parts can cause burns.

Engine coolant, hydraulic fluid and other oils are also under high temperature and pressure.

Be careful not to touch the hydraulic oil when loosening the cover or plug. Operating the machine in this manner can result in burns or injuries due to hot oil spray.

Relieve the pressure before working on the hydraulic system.

If you remove the cap or filter or disconnect the piping before relieving the pressure in the hydraulic system, hydraulic fluid may spurt out. Slowly loosen the tank cap to relieve tank pressure.

When removing plugs or screws or disconnecting hoses, stand to one side and slowly loosen them to gradually relieve internal pressure before removing them.

Oil or the oil plug may spurt out due to the pressure in the running motor oil tank. Release the oil plug slowly to relieve the internal pressure.

Battery cable

Disconnect the battery cable before working on the electrical system or welding. Disconnect the negative (+) battery cable first. When reconnecting, connect the negative () battery cable last.



Be careful when handling the battery The battery contains sulfuric acid, which can damage the eyes or skin if touched inadvertently.

If it accidentally gets into your eyes, flush them immediately with water and seek medical attention quickly. If accidentally swallowed, drink plenty of water or milk and seek medical attention immediately. If sulfuric acid touches skin or clothing, wash off immediately with plenty of water. Wear goggles and gloves when handling the battery. The battery can generate flammable hydrogen gas, which may cause an explosion. Keep away from sources of ignition such as open flames, sparks or lighted cigarettes. Use a flashlight when checking the electrolyte level. Before checking or handling the battery, be sure to turn the engine off by turning

the starter switch off. Be careful not to allow metal tools or any metal objects to touch the electrodes and cause a short circuit. Electrical sparks will be generated when the electrodes are loose. Always tighten them. Make sure the battery cap is securely fastened.

Diagram of grease lubrication area

Grease Lubrication Area Diagram (Two-Headed Busy)

There are a total of 30 grease fittings on the two-busy model.

Grease Nozzle Position	Number of
	nozzles
(1Front quick-change plate)	2 grease
	nipples
(2) Rocker linkage	5 grease
	fittings
(3) Front frame	5 grease
	nipples
(4) Front Arm	3 grease
	fittings
(5) Rear Support Legs	4 grease
	nipples
(6) Rear Arm	9 grease
	nipples
(7) Rear bucket	2 grease
	nipples
(8) Rear cylinder	6 grease
	nipples (the
	cylinder
	comes with)
(9) Front frame total	15 grease
	nipples
(10) Rear frame total	15 grease
	nipples

Tv	Two Heads Busy RB06 Grease Filling Standard					
Ser	Filling	Diagnom	Filling	Remarks		
ial	position	Diagram	Requireme	Remarks		

num			nts	
hon				
ber				
1	Position of pin on the left side of front frame		When filling the grease, the grease filling port connection is filled with grease to be qualified.	Avoid overfilling of grease, which may cause grease dripping down the body, resulting in grease stains that are difficult to clean.
2	Front frame right side pin position		When filling the grease, the grease filling port connection is filled with grease to be qualified.	Avoid overfilling of grease, which will cause grease dripping down the body, resulting in oil pollution and difficult to clean.
3	Position of the front frame arm connection end		When filling the grease, the grease filling port connection is filled with grease to be qualified.	Avoid overfilling of grease, which will cause grease dripping down the body, resulting in oil pollution and difficult to clean.
4	Front frame upper end cylinder right side pin position	9	When filling the grease, the grease filling port connection is filled with grease to be qualified.	Avoid overfilling of grease, which will cause grease dripping down the body, resulting in oil pollution and difficult to clean.
5	Boom cylinder front end Left pin	Q	When filling the grease, the grease filling port	Avoid overfilling of grease, which will cause grease dripping down the

				lander111
	position		connection is filled	body, resulting
				in oil pollution
			with grease to be	and difficult to
			qualified.	clean.
			When filling	Avoid overfilling
			the grease,	of grease, which
	Boom		the grease,	may cause grease
	Cylinder		filling port	dripping down the
6	Front End	0	connection	
0	Right side		is filled	body, resulting in grease stains
	pin	100		that are
	position		with grease to be	difficult to
				clean.
			qualified.	
	Pin		When filling the grease,	Avoid overfilling
				of grease,
	position at the bottom		the grease	resulting in
7	of		filling port	grease dripping
'		A MI	connection is filled	down the body,
	connecting			resulting in oil
	rod		with grease	pollution and
			to be	difficult
			qualified.	to clean.
			When filling	Avoid overfilling
			the grease,	of grease,
	Connecting	34.00 AF	the grease	resulting in
	rod center		filling port	grease dripping
8	pin	7 7	connection	down the body,
	position		is filled	resulting in oil
			with grease	contamination, which is
			to be	difficult
			qualified.	
				to clean up. Avoid overfilling
			When filling	
			the grease,	of grease,
	Connectina	KS IA PAZA IKA	the grease	resulting in
	Connecting	300	filling port	grease dripping
9	rod upper		connection	down the body,
	pin		is filled	resulting in oil
	position		with grease	contamination,
			to be	which is
			qualified.	difficult
				to clean.

10	Rocker arm front pin position	When filling the grease, the grease filling port connection	Avoid overfilling of grease, resulting in grease dripping down the bodywork
		is filled with grease to be qualified.	and generating oil stains.
11	Position of the pin on the left side of the quick-chang e plate	When filling the grease, the grease filling port connection is filled with grease to be qualified.	Avoid overfilling of grease, resulting in grease dripping down the body, resulting in oil pollution, which is difficult to clean up.
12	Right pin position of quick-chang e plate	When filling the grease, the grease filling port connection is filled with grease to be qualified.	Avoid overfilling of grease, which will cause grease dripping down the body, resulting in oil pollution and difficult to clean.
13	Balance ball head position	When filling the grease, the grease filling port connection is filled with grease to be qualified.	Avoid overfilling the grease, resulting in grease dripping down the body, resulting in oil stains, difficult to clean.
14	Positive silk ball head position	When filling the grease, the grease filling port connection is filled with grease to be	Avoid overfilling of grease, resulting in grease dripping down the body, resulting in oil stains, difficult to clean.

		qualified.	
	Front	When filling the grease, the grease	Avoid overfilling of grease, which will cause grease
15	steering cylinder position	filling port connection is filled with grease to be qualified.	dripping down the body, resulting in oil pollution and difficult to clean.
16	Position of upper part of movable arm bracket	When filling the grease, the grease filling port connection is filled with grease to be qualified.	Avoid overfilling of grease, resulting in grease dripping down the body, resulting in oil pollution, difficult to clean.
17	Position of the lower part of the movable arm bracket	When filling the grease, the grease filling port connection is filled with grease to be qualified.	Avoid overfilling of grease, resulting in grease dripping down the body, resulting in oil contamination, which is difficult to clean up.
18	Position of arm bracket connecting pin	When filling the grease, the grease filling port connection is filled with grease to be qualified.	Avoid overfilling of grease, resulting in grease dripping down the body, resulting in oil contamination, difficult to clean.

			T .	
			When filling	Avoid overfilling
	Bucket		the grease,	of grease, which
			the grease	will cause grease
	cylinder		filling port	dripping down the
19	head pin		connection	body, resulting
	position		is filled	in oil pollution
			with grease	and
			to be	difficult to
			qualified.	clean.
			When filling	Avoid overfilling
	Position of		the grease,	of grease, which
	the pin at	W 1/45	the grease	will cause grease
	the end of	(0) A T	filling port	dripping down the
20	the		connection	body, resulting
	bucket		is filled	in oil pollution
	cylinder		with grease	and
	Cylinder		to be	difficult to
			qualified.	clean.
			When filling	Avoid overfilling
			the grease,	of grease, which
	Position of boom cylinder end pin		the grease	will cause grease
			filling port	dripping down the
21			connection	body, resulting
			is filled	in oil pollution
			with grease	and
			to be	difficult to
			qualified.	clean.
			When filling	Avoid overfilling
	Room		the grease,	of grease, which
	Boom cylinder head pin position		the grease	will cause grease
			filling port	dripping down the
22			connection	body, resulting
			is filled	in oil pollution
		400	with grease	and
			to be	difficult to
			qualified.	clean.
			When filling	Avoid overfilling
	Puoles+		the grease,	of grease, which
	Bucket	W = 16	the grease	will cause grease
00	cylinder		filling port	dripping down the
23	end pin	TO STATE OF THE ST	connection	body, resulting
	position		is filled	in oil pollution
			with grease	and
			to be	difficult to
	I	I		<u> </u>

			qualified.	clean.
	Position of		When filling	Avoid overfilling
	the pin at the		the grease, the grease	of grease, which will cause grease
	connection		filling port	dripping down the
24	of the		connection	body, resulting
	movable arm		is filled	in oil pollution
	and bucket		with grease	and
	rod		to be	difficult to
			qualified.	clean.
			When filling	Avoid overfilling
	D. I.		the grease,	of grease,
	Bucket cylinder	WE WE	the grease filling port	resulting in
25	head		connection	grease dripping down the body,
20	position		is filled	resulting in oil
	position		with grease	pollution, which
			to be	is difficult
			qualified.	to clean up.
			When filling	
	Connecting		the grease,	Avoid overfilling
	rod	The state of the s	the grease	the grease,
0.0		(D)	filling port	resulting in
26	pin	0	connection is filled	grease dripping down the body and
	position		with grease	generating oil.
			to be	generating off.
			qualified.	
			When filling	Avoid overfilling
			the grease,	the grease, which
	Connecting		the grease	will cause the
	rod right		filling port	grease to drip
27	side pin		connection	down the body and
	position		is filled	produce oil, which is
			with grease to be	difficult to
			qualified.	clean.
	Position of		When filling	Avoid overfilling
28	pin on the		the grease,	of grease, which
	left side of		the grease	will cause grease
	connecting	- 18	filling port	dripping down the

	rod		connection	body, resulting
	100		is filled	in oil pollution
			with grease	and
			to be	difficult to
			qualified.	clean.
			When filling	Avoid overfilling
			the grease,	of grease, which
			the grease,	will cause the
	Bottom of		filling port	grease to drip
29			connection	
29	left		is filled	down the body,
	support leg			resulting in oil
			with grease	pollution
			to be	and difficult to
			qualified.	clean up.
			When filling	Avoid overfilling
	0 . 1		the grease,	the grease, which
	Support leg		the grease	can cause grease
	support		filling port	to drip down the
30	claw connection		connection	body and create
			is filled	oil stains
			with grease	that are
			to be	difficult to
			qualified.	clean.
			When filling	Avoid overfilling
	Bottom of right side support leg	3	the grease,	of grease, which
			the grease	may cause grease
31			filling port	dripping down the
			connection	body, resulting
			is filled	in oil stains
			with grease.	and difficult to
			with grease.	clean.
32	Support leg support claw connection		When filling the grease,	Avoid overfilling
				of grease,
			the grease,	resulting in
			_	grease dripping
			filling port connection	down the
			is filled	bodywork,
				generating oil
			with grease	stains and making
			to be qualified.	it difficult
				to clean up.
	<u> </u>			co crean ap.

When filling Avoid overfilling the grease, of grease, which Pivoting the grease will cause grease cylinder filling port dripping down the 33 oil pipe connection body, resulting in oil pollution connection is filled with grease and to be difficult to qualified. clean.

Attention:

Pay attention to the filling of grease in bad sandy weather when filling the grease, pay attention to the first gently press the grease gun a few times, to prevent the sand from blocking the grease nozzle, to avoid the pipeline into the sand, resulting in damage to the machine.

1. Pay attention to filling the grease in good weather conditions when filling the grease, pay attention to first gently press the grease gun twice, to prevent dust will be grease nozzle blocked, use to avoid grease pipe into the dust, resulting in wear and damage to machine parts.

Oil change method

Notes on oil change

1. Oil change must be carried out ten the machine is hot.

Oil Filter

2. Do not start the engine during an oil change or until the oil has been drained and new oil has been added.

3. The best oil filling quantity is close to the upper limit of the dipstick but not exceeding it.

4. Put the oil catch pan under the oil

drain of the diesel engine and screw down the oil drain bolt to protect the environment.

- 5. WARNING: Be careful not to get burned by hot oil and dispose of old oil properly.
- 6. Pay attention to the type of oil used.
- 7. Replace with new oil and check the dipstick level.
- 8. Note: The added oil must wait for five minutes before checking the oil level height.
- 9. Diesel engine if you are ready to stop using for a long period of time, should be drained while hot oil, coolant, fuel, clean the engine oil pan and oil filter.

Antifreeze replacement method

1. The engine requires the use of antifreeze, and the use of water as

Antifreeze

coolant is prohibited.

2. Prohibit the use of poor quality antifreeze or mixing different types of antifreeze and antirust fluid to avoid corrosion of body parts.

3. Fill the appropriate antifreeze according to the local ambient temperature.

In cold seasons and regions, the vehicle

should not be parked in the open air, otherwise the diesel engine will not start until the coolant is heated up to preheat the body when it is started.

Note: The radiator fan does not work when you first start the car, after starting the car for some time, the hydraulic oil temperature rises to 60 °C $^{\sim}$ 70 °C, the fan begins to power on the work, until the temperature drops will automatically cut off, to save electricity.

(Friendly reminder: It is recommended that when the temperature is too

high, please wait until the machine stops, the engine stops running, and the temperature drops before replacing it, and the machine must be stopped when it is in operation) Diesel fuel tank filling steps





Antifreez

Precautions:

1. diesel fuel tank filling port, filling diesel fuel, pay attention to the first diesel fuel tank cover on the left side of the car body unscrewed,

use the funnel and the fuel tank filling port connection, and then use the fuel tank bucket to fill diesel fuel, pay attention to open the power switch, pay attention to the meter shows the filling position of the fuel tank, to prevent overfilling,



resulting in the fuel tank cover can not be covered, resulting in serious consequences.

Hydraulic oil tank filling port steps

Precautions:

1... Hydraulic oil tank filling port, filling hydraulic oil, pay attention to the right side of the car body first hydraulic oil tank cover unscrewed,

using a funnel connected to the tank filling port, and then use the tank bucket to fill hydraulic oil, pay attention to the observation of the hydraulic oil window, pay attention to the filling position of the window, when the hydraulic oil did not pass



window, the hydraulic oil to stop filling, prohibit overfilling, resulting in the tank cover can not be closed, resulting in severe consequences

Brake fluid filling process

Precautions:

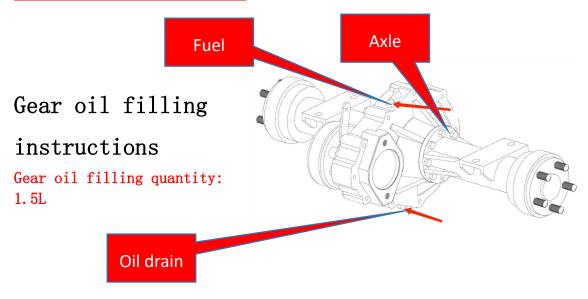
Brake fluid jug filling volume: 1/2 filling volume

(MIN) is higher than the minimum fill amount and lower than the maximum fill amount (MAX).

When filling the brake fluid, note that the



cover on the lower side of the seat is opened, note that the brake fluid jug cap is opened at the position shown on the right side, and add it using the standard brake fluid, note that the brake fluid jug bottle has a minimum limit and a maximum limit on the body of the jug. When adding brake fluid, note that the brake fluid is above the minimum limit and below the minimum limit, and add it according to the regulations, note that it must be strictly enforced, and it is prohibited to add it too full, which may lead to serious consequences.



Long-term storage

Before storage

Note

When storing the machine (for one month or longer), protect the cylinder piston rod by holding the machine in the position shown in the figure below. (To prevent the cylinder piston rod from rusting)

When storing the machine for a long period of time (one month or more), do the following.

- Clean and rinse all parts, then place the machine indoors. If you have to store the machine outdoors, choose a flat surface and cover the machine with a cloth.
- Fill the fuel tank so that moisture can collect.

Before storing, lubricate and change the oil.

 Apply a coat of grease to the metal surface of the hydraulic cylinder piston rod. • Disconnect the battery terminals and cover the battery or remove the battery from the machine and store it separately.

During storage

When the machine is indoors, if it is necessary to perform rust prevention operations, open the windows and doors to promote air circulation to prevent gas poisoning. During storage, the machine should be operated and moved a short distance once a month to attach a fresh film of oil to the surfaces of the moving parts. Also, charge the battery.

After storage

Note: If the machine has been stored without the monthly rust prevention operation, contact the after-sales personnel before using the machine. When using a machine that has been stored for a long period of time, follow the steps below before use:

- Wipe some grease applied to the surface of the cylinder piston rod.
- Fill all parts with oil and grease.

Parts list

Serial number	Part Name	QUANTIT Y
1	Xinchai 3B11 engine	1
2	Traveling motor	2
3	Engine shock pads	8
4	Oil return filter	1
5	Oil level meter	1
6	Xinchai muffler	1
7	New Chai Silencer Flexible Connection	1
8	Radiator	1
9	Seats	1
10	Electronic gas pedal	1
11	Fender	2
12	Headlight	2
13	Square tail light	2
14	Tires	4
15	Six-button joystick	1
16	Plunger pump	1
17	Steering gear	1

Four solenoid multiway valves	1
Coupling	1
Gear pumps	1
Air filter element	1
Axle	1
Balance ball head	1
Steering tie rod ball head	1
Bell shaped cover	1
Trailer coupling ball	1
Power main switch	1
Steering wheel	1
Handbrake	1
Horn	1
Battery	1
Handbrake	1
	Coupling Gear pumps Air filter element Axle Balance ball head Steering tie rod ball head Bell shaped cover Trailer coupling ball Power main switch Steering wheel Handbrake Horn Battery

Notes:

- 1. Where this instruction manual is inconsistent with the original model, please refer to the physical description.
- 2. If there is any difference between the actual product and the pictures in this manual, the actual product shall prevail.



DATE .



EC DECLARATION OF CONFORMITY

Original Declaration

MANUFACTUR	RER.				
Name. SHANDONG R		RIPPA MACHINERY GROUP CO., LTD.			
Name:	36 meters north of Guang'an Jiayuan,Guang'an Road Jining City,				
SHANDONG	Shandong Province, China				
RIPPA					
MACHINERY					
GROUP CO.					
AUTHORIZED	REPRESENTA	ΓIVE.			
	Irmin Garbers				
	WALDERSEESTRASSE 9, 23566 LUBECK, GERMANY				
authored to ho	old technical file	e on behalf of manufacurer above			
		v mentioned machine.			
description of	machinery				
PRODUCT	NAME:	HYDRAULIC LOADER			
Excavator					
MODEL/TYPE.		RB06			
SERIAL NO.					
PRODUCTION	YEAR.				
IN ACCORDANCE WITH.					
machine directive		2006/42/EC			
		en 4741:2022; en 4745:2022			
EMC DIRECTI	√E	2014/30/EU			
		en iso 137661:2018; en iso 137662:2018			
AS WELL AS	TO THE FOLLO	WING OTHER DIRECTIVES AND THE			
CORRESPONI	DING NATIONA	L REGULATIONS.			
NOISE DIRECT	TIVE	2000/14/ec & 2005/88/ec, dlgs 262/02			
equipment acco	ounting to the de	finition government by annex i, item 20 of noise directive.			
CONFORMITY ASSESSMENT PROCEDURE FOLLOWED.ANNEX VII of 2000/14/EC					
NOTIFIED BODY: EUROPEAN CERTIFYINGeuropean 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)93 dB(A)					
signed on behalf of shandong rippa machinery group co.					
stamp&signature : name : shandong rippa machinery group co.					
NAME :					
POSITION .					
PLACE .					

Additional list mat Supporting

- 1. accessories random file An operation
- 2. and maintenance manual One
- 3. three-package document of the service
- 4. certificate qualification
- 5. certificate Engine manual Engine
- 6. three guarantees certificate List of
- 7. market service networks