

preface

Welcome to use the wheeled loader produced by Shandong Shanyu Heavy Industry.

This manual can guide you in the proper use and maintenance of this machine. Please place it in the cab, and all relevant personnel should read it at any time. If this manual is lost or damaged and cannot be read, please contact us or our dealer.

If you sell the machine, make sure that this manual is also forwarded to a new user.

The parameters, graphics and related contents involved in this manual are applicable to basic types. For deformed products, please consult our company or refer to relevant materials.

When selecting the working machine, assemble, replace and use according to the working manual.

In addition, please carefully read the technical documents on the operation, use and maintenance of the random equipped diesel engine and other functional components.

We are always committed to improving and improving our products to make them more advanced and more reliable. We reserve the right to make these changes, but do not commit to introduce them into products that have been delivered. We also reserve the right to change the data and machine and maintenance instructions with respect to design changes, operation and maintenance instructions without notice. Please consult us for the latest information about the machine or questions about this manual.

If you find any shortcomings in the process of using our products, please timely feedback the information to us, so that we can continuously improve the product quality and better meet your needs.

The copyright of this manual belongs to Shandong Shanyu Heavy Industry Machinery Co., Ltd. without the written permission of the company.

A: warn

Drivers and maintenance personnel must read and understand this manual before operating and maintaining this machine, otherwise it may lead to casualties. This manual should be properly kept for reference and reference by relevant personnel. If this book is inconsistent, no further notice to --

Security matters

The operator shall understand and follow the current national and local safety regulations.

Since it is impossible to foresee all possible hazards, the instructions for safety in this manual and on the machine may not include all safety precautions. If steps and operations not recommended in this manual are used, ensure that you and others are safe and do not damage the machine. If the safety of certain operations, please consult our company or dealer.

The preventive measures for operation and maintenance given in this manual are only applicable when the machine is used for the specified purposes. If the machine is used for the scope not listed in this manual, then our company will not assume any safety responsibility, and the safety responsibility in such operation will be borne by the users and operators.

Under no circumstances shall the operations prohibited in this manual be performed.

The following signs are used to identify the safety information in this manual:

△ Danger 1 If not avoided, the dangerous consequences will lead to serious injury or death. This word is also used for, if not avoided, it will cause serious damage to the machine.

△ Warning 1 If not avoided, the potentially dangerous consequences may lead to serious injury or death. This word is also used for, if not avoided, it may cause serious damage to the machine.

Eight attention to a if not avoid, may cause mild or moderate injury. This word is also used to avoid the possible damage or shorten the life of the machine.

A: warn

Incorrect operation, maintenance and repair are dangerous and can cause personal injury or death.

The operator should read this manual carefully before operating or maintaining the machine. Do not operate, maintain, and repair this machine without reading and understanding this manual.

The operating procedures and precautions provided in this manual are only applicable to the specified use of this machine. If used for operations not specified but not prohibited, make sure it does not cause harm to you or others.

Under no circumstances are operations and actions expressly prohibited in this manual allowed.

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Chapter 1: Safety

△ warn

Read through and execute all safety precautions that cause serious casualties.

1 Safety rules

1.1 Safety regulations

Only specially trained and qualified personnel can operate and maintain the machine.

Be familiar with and comply with all safety regulations, precautions and instructions when operating and maintaining the machine.

When working with other operators, or those responsible for the site traffic command tasks, ensure that all personnel understand the gesture signals used.

All the rules concerning safety are to be followed.

1.2 Safety devices

Ensure that all the shields and protective covers are in the correct position and repair the damaged parts.

Use safety devices such as parking brake handles and seat belts (when fitted) correctly.

Do not remove any safety devices to ensure that they are in good working condition.

2. Safety inspection and maintenance

2.1 General and Common Sense

Machine operation and maintenance personnel shall be trained and qualified; personnel unrelated to the ongoing maintenance and repair work are not allowed to enter the work area. If necessary, appoint a special guard.

If the repair of the vehicle, the assembly and disassembly of the parts, the person in charge of the operation should be decided in advance, formulate operation procedures and conduct step-by-step operations.

Should wear tight cuffs, pants leg work clothing, should wear safety glasses.

Please use the correct repair tools and do not use damaged, low quality tools.

In order to prevent personal injury, the working device drops to the ground level during maintenance, close the engine, pull up the parking brake handle, so that the vehicle is in the parking brake state and wedge the car.

Strictly follow the warning signs as indicated. For matters of particular importance, the vehicle is affixed with safety signs and its instructions shall be followed. If the sign is found to be peeling or contaminated, it should be subsidized or cleaned.

Before performing maintenance work, a sign with "No operation" or other similar warning signs shall be pasted on the start switch and instrument panel. Prevent others from starting the engine or operating the worker control handle. Otherwise, operational casualties.

Fuel oil and engine oil are dangerous goods. Fuel oil, engine oil, grease and oil cloth can not contact any open flame and flame, and the tarpaulin can not be stacked in the corner, which may cause spontaneous combustion.

Smoking is strictly prohibited when refueling or checking the battery.

Remove removed from the machine in a safe place and ensure that the parts do not fall. Put railings around them and hang "no entry" signs to prevent unauthorized personnel from approaching.

No non-staff member is allowed to approach the machine or the parts.

Keep the work site clean and tidy, and there is no scattered tarpaulin, lubricating oil (grease) around, to prevent fire and personnel falls.

Lock and secure the front and rear frames before inspecting and repairing the machine to prevent rotational injury.

If it is necessary to perform repair and maintenance in the boom bucket lift, each joystick must be in the middle and ensure that the necessary boom cylinder and bucket cylinder support are used to prevent the worker from falling.

2.2 Work in closed situations

The gas discharged from the engine can cause disease or even death. If the engine must be started in a closed place, it is necessary to use an exhaust device to discharge the gas in the area. If there is no exhaust device, it is necessary to open the door for ventilation.

2.3 Maintenance work when lifting the frame

When lifting the frame, do not let people into the other side of it.

Before jacking, lock the front and rear frames with the frame lock bar, placing the joystick in the middle, wedging the wheels from the opposite side. After lifting, place the pads under the machine.

2.4 Work in the lower part of the machine

Place the machine on a solid flat ground, and lower the work device to the ground flat before starting maintenance or repairs under the machine.

Hold the tire with a wedge.

It is very dangerous to keep the tire off the ground, but only to work under the machine.

Never work under a poorly supported machine.

2.5 Work at the top of the machine

When performing maintenance work on the top of the machine, ensure that the foothold is clean and free of obstacles, and follow the following precautions to prevent falling.

Absolutely do not jump off from the machine. When the upper and lower machine, to face the machine, must use a ladder and handrail, to always keep three contact (two feet one hand or two hands one foot).

Use the protective equipment if necessary.

The hood top is smooth and dangerous, and one is never allowed to stand.

The top of the tire is smooth and dangerous, and don't stand on it.

When cleaning the front glass of the cab, stand on the fender of the front frame and grab the handrail.

2.6 Maintenance of the engine during operation

To prevent injury, do not perform maintenance work when the engine is running. If it must be maintained while the engine runs, follow the following precautions:

Arrange an operator to sit on the seat to ensure that all maintenance personnel are ready to turn off the engine at any time.

Do not contact the exhaust tail pipe, muffler and other high temperature components to prevent scald.

When the operation point is close to the rotating part, there is a danger of being rolled in by the rotating part, you should be extra careful.

Do not touch any joystick. If you must operate the joystick, signal other people to go to a safe place.

Absolutely let any tool or any part of the body touch the fan blades or fan belt. Otherwise, it may cause severe trauma.

Don't adjust parts you don't know.

2.7 Do not drop a foreign body inside the machine

When opening the access window or the fuel tank refueling port for maintenance, be careful not to drop any foreign matter (such as nuts, bolts, cotton yarn, or tools, etc.) inside the machine. If such things falls inside the machine, it can cause damage, operational errors and other failures. If any foreign matter falls into the machine, be sure to remove it from the machine safely.

When overhauled, do not carry any unnecessary tools and parts in your pocket.

2.8 Please wash

When cleaning the machine, wear non-slip shoes to prevent slipping on a wet surface, and use high-pressure water to flush the machine.

To clean the machine in time, can avoid the machine dirt or mud splashed into the eyes or the machine has oil slip and injury risk.

When cleaning the machine, use a non-combustible cleaning agent.

When cleaning the inside of the machine, shut off the engine, place the operating handle in the middle, and pull the parking brake handle in the brake position.

Do not spray water directly onto electrical components (e. g. sensors, wire plugs) or into the cab. If the water enters the electrical system, it may cause operational failure or circuit damage.

When cleaning the filter element with compressed air, be sure to wear protective clothing and safety glasses.

2.9 Heavy objects

When using a hammer, be sure to wear protective clothing, protective glasses and a safety helmet, and pad a copper rod between the hammer and the hammer part.

If a hammer strikes a hard part, such as a pin or bearing, the debris can fly into the eye and cause damage.

2.10, welding and repair

Electric welding operation shall be operated by welders with appropriate qualifications and skills, in places equipped with appropriate equipment. Electric welding will produce gas, when the operation may cause fire and electric shock, so

the unqualified personnel must not be allowed to operate. The following precautions must be observed when welding:

Disconnect the terminal of the battery to prevent the battery explosion.

Remove paint where welding is required to prevent harmful gases.

If welding is performed on hydraulic equipment or pipes, or very close to it, there will be combustible steam and sparks, and there is a risk of fire or explosion, so avoid welding in such places.

Sparks during welding can fall directly on rubber hoses, wires, or stressed pipes that can suddenly break and the insulation of the wires will be damaged, so cover them with a fire baffle.

Special attention should be paid to the welding work near the tire when the tire may explode due to the heat.

Protective clothing should be worn for electric welding operation.

The ventilation of the electric welding operation site should be ensured as good.

Clean up all flammable materials, and the work site must be equipped with a fire extinguisher.

Do not affect the performance, safety and strength of the vehicle and the operating device.

2.11 Maintenance of the cooling system

At the beginning of the work, the temperature of the hydraulic oil, the oil and water in the engine, and the oil and water in the radiator was very high, and there was still pressure. At this point, any operation to open the tank cap, radiator cover, pour oil or water, or replace the filter can result in severe burns. Wait until the temperature drops and follow the specified procedures.

To prevent hot water from coming out, close the engine, let the water cool, and slowly release the cover to release the pressure. When checking whether the water temperature has dropped, the handle close to the front of the water radiator, check the air temperature. Be careful not to touch the radiator.

In order to prevent hot oil ejection, close the engine, let the oil cool, and slowly release the cover to release the pressure.

The cooling system device contains alkaline substances to avoid contact with your skin and eyes.

When replacing cooling fluid, engine oil, gearbox oil and filter, appropriate containers should be selected to hold liquid. See "8.20 Waste" for this chapter.

When removing the connecting line of the air conditioner compressor, avoid open fire.

2.12 Maintenance of the hydraulic system

Before repairing the hydraulic system, safely lock the cylinder and other hydraulic devices, cool the hydraulic oil and release all system pressure from the hydraulic system.

Do not bend or hammer the high pressure line, do not install abnormally bent or damaged hard pipe or hose on the machine.

Repair any loose or damaged fuel and lubricant routes, hard pipes and hoses of the hydraulic system. The leakage may cause a fire, please repair or replace it in time.

Carefully check the lines (hard pipe and hose) and tighten all joints at the specified torque. Do not use bare hands to check for leaks, use boards or cardboard to check for leaks. Even pinhole-sized pressure fluid leaks can penetrate the muscles and even cause casualties. If the solution is delivered to the skin, it should be handled within a few hours by a surgeon familiar with such an injury. Ensure all pipe clips, pads and heat caps are properly correctly to avoid vibration or friction with other parts.

When replacing the oil and filter parts of the hydraulic system, appropriate containers should be selected to hold the liquid. For waste liquid treatment, see "8.20 Waste of this chapter".

2.13 Avoid fire occurrence

When filling the fuel, the engine must be turned off, prohibiting smoking and proximity to the open fire during refueling.

Fuel oil, lubricating oil or other flammable materials should be stored away from the open flame.

Clean up combustible materials accumulated on the machine such as fuel, lubricating oil or other debris to ensure that no tarpaulin or other flammable materials are present.

There will be explosive gas near the battery, do not be close to the fireworks, in strict accordance with the product instructions maintenance, maintenance and use of the battery.

When parking vehicles, we should pay attention to choose the environment around the vehicle, especially near the silencer such as high temperature parts to ensure that there is no dry grass, old paper and other easy to burn objects.

Check whether fuel oil, engine oil and hydraulic oil leaks. If there is leakage, replace the damaged hose and clean it after repair.

Check whether the wire is damaged and leakage, if damaged to be repaired or replaced.

When cleaning parts, use refractory solvent, do not use gasoline or other flammable liquids.

Do not weld or flame cut pipes or boxes containing combustible liquids. Before electric welding or cutting prior electric welding or cutting.

Before maintenance, check whether the fire extinguishing system is in good condition, know the location of the fire extinguisher and first aid kit and will use it.

Check the dark places, and do not use an open flame (matches, lighters, etc.).

2.14 Gas storage tank

Open the water discharge valve at the bottom of the gas storage tank every day, especially at least once a day in winter, and confirm that the water discharge valve is closed before starting the machine.

There is high pressure gas in the gas storage tank, so the gas storage tank should be regularly checked externally to check the anti-corrosion layer and weld seam to ensure its safe use.

2.15, Electrical system

The maintenance of the electrical system should be carried out by professionally qualified personnel.

When adjusting the external power supply, to prevent sparks around the battery, please connect the grounding cable finally.

Be sure to remove the start switch key before repairing the electrical system.

2.16 Maintenance of the storage battery

The electrolyte of the battery contains sulfuric acid, which can produce hydrogen and oxygen when charging, so the battery treatment error can lead to serious injury or fire. Therefore, absolutely follow the following precautions:

The battery contains sulfuric acid liquid, with strong corrosive, please stay away from children, users should wear protective glasses and rubber gloves, once the eyes, skin and clothes splash sulfuric acid immediately with a lot of water rinse, serious cases to the hospital for treatment.

The battery will produce hydrogen and oxygen when charging. Once the open fire or exhaust port blockage, it will cause explosion, so the battery should be far away from the open fire to avoid short circuit.

Battery shell is flammable, should be away from open flame.

5 ~ 25°C The battery shall be stored in a dry, clean and well ventilated environment free from direct sunlight and at least above the heat source. Too high ambient temperature will have a great impact on the performance of the battery.

The battery shall not be inverted and lying down, and shall not be subjected to any mechanical impact and heavy pressure.

It can be stored at room temperature for 6 months, and the battery can generally be used without supplementary electricity. Batteries with a storage period of more than 6 months can still be used after power replenishment.

Before the battery installation, please pay attention to the safety mark on the battery label to prevent unnecessary accidents.

The battery shall be coated with a small amount of Vaseline on the end column to prevent corrosion. The wiring shall be firm and reliable. It is strictly prohibited to knock the end column to prevent the battery acid.

When installing, the positive electrode of the battery should be connected to the positive electrode of the car engine, and then the negative battery and the negative electrode of the engine.

Place the battery firmly flat on the battery rack to avoid battery damage caused by loosening.

The battery cover is equipped with an indicator showing the state of the battery charge. When the indicator displays green, the battery can be used normally. When the display shows black, the battery should be charged in time, and when the indicator shows white, it should be replaced immediately.

In the process of use due to various reasons caused by the loss of the battery, should be charged in time to prevent the performance decline caused by the battery sulfate flower.

If the battery has been loaded for a long time (generally more than 15 days), please remove it from the car and put it in a dry, ventilated and dry place. Power the battery once every 3-6 months (depending on whether the indicator is black).

2.17 Battery charging

If the battery is not treated correctly during the battery charging, the battery is in danger of explosion. Therefore, the charging procedures should be performed

according to the battery handling procedures and instructions, and the following precautions should be observed:

When charging the battery, the positive electrode of the charger should be connected to the positive electrode of the battery, and the negative electrode of the charger should be connected to the negative electrode of the battery. Reverse charging is strictly prohibited.

The battery will produce gas when charging. The exhaust vent on the battery should be checked regularly not to be blocked, so as not to cause the battery explosion.

During the charging process, when the electrolyte temperature of the battery exceeds, the charging voltage or charging current should be reduced as appropriate to prevent the splash of the electrolyte caused by the high temperature. 45°C

The battery should be strictly prevented from overcharging during the use and charging process to avoid premature failure of the battery due to excessive water loss, grid growth and lead paste shedding.

2.18 Start-up with a step-up cable

If any error in the connection method of the booster cable, it may lead to fire, so it should be done according to the following method.

One operator (one operator sits in the operator seat) is required to start the operation.

When another machine is started, two machines are not allowed to contact.

When connecting the booster cable, turn off both the normal machine and the faulty machine.

When installing the booster cable, be sure to connect the positive (+) cable first. When removing the booster cable, first disconnect the ground wire or negative cable. (—)

Finally, the ground wire is reliably connected to the frame of the faulty machine. Connect as far as possible.

When removing the boost cable, note that the clamps of the booster cable should not contact each other or let the clips touch the machine.

2.19 Maintenance and storage of tires

A tire explosion can push tires, rims, drive axle and other parts 500 meters away from the machine; the explosion and splashing debris can cause serious injuries and

injuries, so ensure the tire pressure is normal and not inflated above the calibration pressure.

In the vehicle driving, because the heat generated by the vehicle in the high-speed driving will increase the pressure of the tire to a certain extent, which is a normal situation, do not try to reduce it: should slow down or stop to make the tire cool. However, if the vehicle travels at high speed and the tire is overheating, which may cause the tire to explode, please note.

When adjusting the pressure, stay as far away from the tire as possible, and always stand at the back of the tire surface.

Check the tire and rim daily, prohibit low pressure operation, check the tire for cracks, foaming and other damage phenomena.

Check whether the rim connecting bolts and nuts are missing and meet the tightening torque of the manufacturer.

2.20 Waste material

When dealing with harmful substances such as lubricating oil, fuel oil, coolant, solvents, filters, storage batteries and other substances.

3 Safe transportation

3.1 Handling and unloading machines

Always potentially dangerous and should be extremely careful. When loading and unloading the machine, the engine must run at a low speed, and the machine must walk at a low speed.

3.2 Road transport

When shipping the machine in trailers, national and local laws govern weight, height, width, and length. All relevant traffic regulations shall also be observed.

3.3 Lift

When it is necessary to carry the loader to the ship or train, use the lifting hook on the front and rear frames.

According to the weight of the loader, beyond the load limit of the crane will be very dangerous, special attention should be paid to.

Chapter 2: Product Introduction

1. Composition and significance of the product model



2 Uses

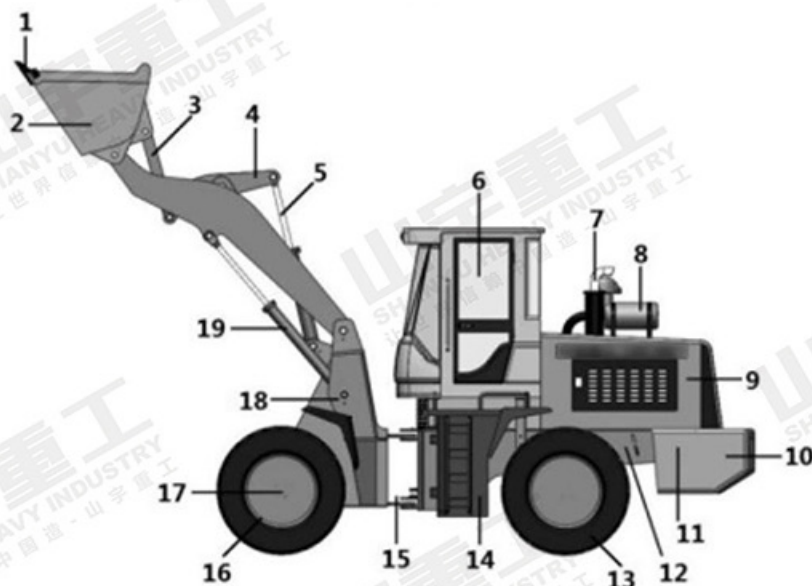
The loader is widely used for construction engineering, municipal engineering, urban and rural gardens, lime kiln, sand, cement factory, stone factory, prefabricated factory, especially suitable for loading bulk materials in open field and with trucks, tractors, agricultural truck, agricultural machinery, construction machinery (sand mixer, mixer) and other supporting use, can greatly improve the work efficiency.

Replace the working machine, can achieve wood, grass, snow removal, fork box block materials and other operations.

3 The Technical Performance and Parameters are detailed on page 73.

Chapter 3: Operation and Use

1 Familiar with machines



This diagram shows the exploded view of a planetary gear pump assembly. The components are numbered as follows:

- 1: Motor or drive unit
- 2: Input shaft or coupling
- 3: Planetary gear carrier
- 4: Planetary gear set
- 5: Output shaft or coupling
- 6: Planetary gear set
- 7: Planetary gear carrier
- 8: Output shaft or coupling
- 9: Planetary gear set
- 10: Planetary gear carrier

1.1 Control mechanism and instrument

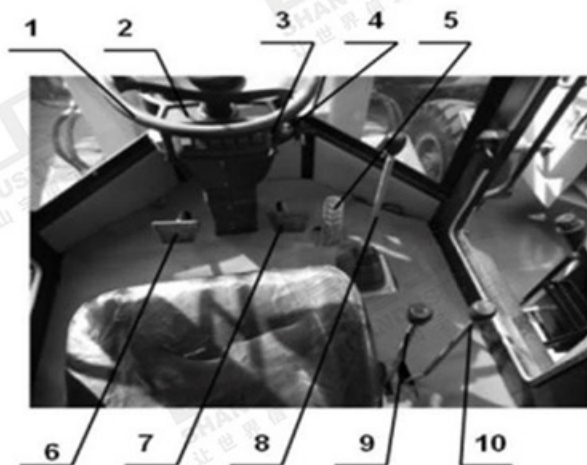


Figure 3-1 The mechanically operated transmission type

1. Steering wheel 2. Instrument panel 3. Start switch 4.
6. Clutch pedal 7. brake pedal 8. Shift control handle 9. boom control handle 10.
bucket control handle

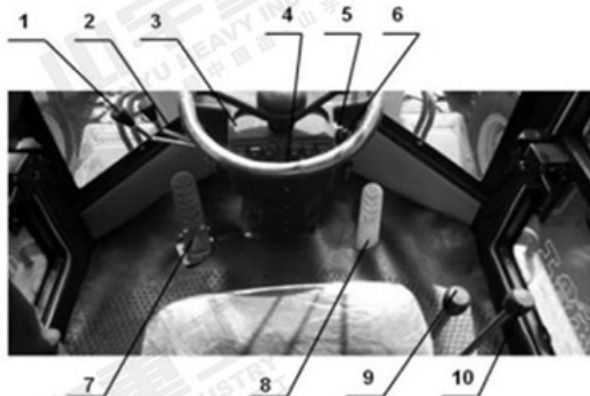


Figure 3-2 Dual-variable control transmission type

1. Shift handle 2. Forward and backward joystick 3. Instrument panel 4. Steering
wheel 5
6. Power switch 7. brake pedal 8. accelerator pedal 9. Arm joystick 10. Bucket
joystick handle



Figure 3-3 The mechanically operated transmission type

1. oil Pressure gauge 2. Current meter 3. Engine water temperature meter

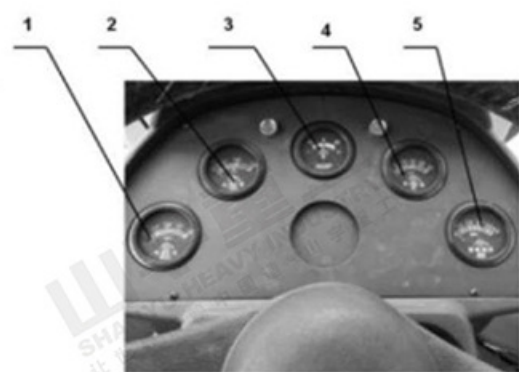


Figure 3-4 Dual-variable control transmission type

1. barometer 2. Engine water temperature gauge 3. Current gauge 4. Oil pressure gauge 5. Torque converter oil pressure gauge



1. Steering indicator 2. Rear headlight switch 3. headlight switch 4. high beam 5. Fan 6. windshield wiper

1.2 Introduction of instrument and control mechanism



Vehicle meters, lights

Engine water temperature meter

This table represents the temperature of the engine coolant.

When the water temperature gauge pointer is within the green zone (60°C 100°C), the water temperature is normal.

Transmission pressure gauge

This table indicates the pressure of the hydraulic oil of the control system.



When the pointer is within the green zone ($0, 1.1\text{MPa} \sim 1.5\text{MPa}$

The oil pressure is normal.

In other areas, stop for inspection.

barometer



This table represents the gas pressure in the braking system.

When the pointer is within the green zone ($0, 0.4\text{MPa} \sim 0.8\text{MPa}$

The pressure is normal.

In other areas, stop for inspection.

ammeter



This table indicates the charging status of the engine generator.

When the pointer is within the range of 24-28, the charge is normal.

In other areas, stop for inspection.

ammeter

This table indicates the pressure of the engine oil.



When the pointer is within the green zone (), the oil pressure is normal. $0.15\text{MPa} \sim 0.6\text{MPa}$

In other areas, stop for inspection.

pilot lamp

Steering indicator: press on the warping board, turn right, right indicator. Press under the warping, turn left, left indicator;

Rear headlight switch: press the warping board, the rear headlight is on, the lower end of the switch presses in, stop working

Headlight switch: press the warping board, the headlight, the lower end of the switch, stop working

High beam indicator: press the warping board and the headlight is illuminated; press the lower end of the switch to stop working

Fan: Press the warping board, the fan rotates, the lower end of the switch presses in, stop working

Wiper: press the upper end of the switch and the wiper works; the lower end of the switch enters and stops working

Power cut off indicator: the light indicates that the power cut off, the light out that the power is not cut off. When installing the left and right two brake pedals, press

the left brake pedal with power cut off and press the right brake pedal with power not cut off and the light is not on.

1.2 .2 Switch



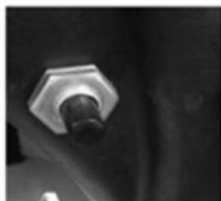
mains switch

This switch is located on the steering column on the lower right side of the steering wheel to turn on or off the electrical system of the vehicle.

In this position, the key can be inserted or pulled out, the key rotates to this position, and the circuit is closed.

Turn right to open the electrical system of the vehicle. Keep the key in position when the engine is running.ON

enable switch



Press down to start the engine

Headlight switch



This switch is on the rear of the cab, pressed and the overhead light is on.

Note: Be sure to turn off the top lights while driving.

Fan switch



Lower end of the switch pressure in, the fan swing, adjustable direction.

horn button

Press the button in the center of the steering wheel and the horn rings.

/CD Displayer Control Panel (when installed)

This panel is located at the front side of the cab roof. See the Operation and Installation Manual for the receiver / CD Player.

1.2.3 Steering wheel

The steering wheel is connected to the steering gear. When the machine works normally, turn the steering wheel clockwise, the machine turns right; turn the steering wheel counterclockwise, the machine turns left.

Its characteristics are as follows:

The Angle of the steering wheel is not equal to the Angle of the machine steering. If you turn the steering wheel continuously, the steering Angle of the machine is increased until the required steering position.

The faster the steering wheel turns around, the faster the machine turns around.

The steering wheel will not automatically return after rotation, and the steering Angle of the machine remains unchanged. Therefore, when the machine steering is complete, the steering wheel should be turned in reverse to make the machine drive in a straight direction.

1.2.4 Joystick and pedal

Change speed manipulation handle

A Joystick of the mechanical gearbox

The machine uses a gearbox of five gears in the first three and the second two.

By changing different positions of the lever, different driving speeds and directions.
The working condition of each gear position is as follows:



B Double-variable joystick control

The variable speed joystick is composed of high and low speed joystick and front and rear gear joystick, high and low speed joystick has high speed, neutral and low speed;

The front and rear gear joysticks have forward, neutral, and backward gear. Through the combined manipulation of the two joysticks, the first two and the last two and four shift gears are obtained, and the working condition of each position is as follows:

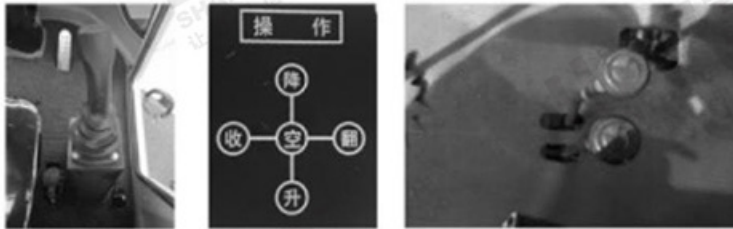


Operation signal of the working device

(1) Operating device control lever

Manipulating the arm

The front and rear direction push work device control handle enables the descent, median and lift of the boom.



Lift: Take a boom lift.

Median: Hold the boom in a certain position.

Drop: the boom will drop.

Manipulating the bucket

Moving the left and right work device operating handles enables the forward, middle and back tilt of the bucket.

Back tilt: receive the bucket.

Median: Keep the bucket in a certain position.

Forward tilt: unloading.

Parking brake handle

The parking brake handle is located on the left side of the seat, pull the brake handle up to make the vehicle in the braking state;

Press the handle end button to release the brake handle to the bottom end position and release the brake state.

brake pedal



The brake pedal controls the wheel brake.

acceleration pedal

This pedal controls the engine throttle.

Engine speed can be adjusted between idle and full speed.

Turn off and manipulate the soft shaft



This soft shaft is located at the rear end of the heater hood on the right side of the driver's seat,

After pulling up the soft shaft and holding it for a few seconds, the engine stalls.

1.2.5 Cab door lock stop lever and lock pin

180° Indoor lock rod: When the door lock of the cab is locked, close the door automatically; outside the cab, insert the key, rotate clockwise, and pull the door out. In the cab, pull the lever upward and open the door.



180° Outdoor lock rod: when the cab door is opened, the lock on the door collides with the positioning lock on the outside of the cab. The door is locked outside, and the outdoor lock lever is pulled down to remove the lock.

1.2.7 Traction pin



Traction position is as in the right.

1.2.8 Fuse



The fuse box is located on the side of the dashboard

△ pay attention to

Before changing the fuse, be sure to close the start switch first. Fuses are used to protect electrical equipment and cables from a burn out. If the fuse is corroded, oxidized or taken loose, it should be replaced promptly. When replacing, keep the same.

1.2.9 Seat adjustment

Before and after adjustment



The front and rear adjustment handle is located below the right side of the seat. Pull up the adjustment handle, move the seat to the desired position, and then lower the handle to lock the seat.

adjust vertically

At the same time, rotate to the middle seat height adjustment handle, move the seat up and down to the desired position, and then lock the seat height.

1.2 .10 Mirrors

The rearview mirror is located on the left and right sides above the outside of the cab. Before operating the machine, you must adjust the rearview mirror, turn the rearview mirror, and adjust the elevation Angle of the rearview mirror to ensure that the driver has a good rear vision.

2 New cars go and go

The use of the new car must be advanced walking, starting from idling, gradually increase the load, the purpose is to make each friction parts to fully run-in, in order to extend the service life of the machine. The new car walks for a total of 60 hours, and follows the following regulations during the walking period:

After starting up, run at low speed neutral for 5 minutes, so that the engine is fully preheated.

Do not suddenly accelerate the engine during the preheating phase.

Avoid sudden start, sudden acceleration, sudden steering, and sudden braking, except for emergencies.

Empty car driving, each gear respectively from low speed to high speed, driving should be stable left and right steering and braking.

During the walking period, the forward gear and backward gear should be evenly arranged for each gear.

During the walking period, the loading of loose materials is appropriate, and the operation should not be too fast. The loading weight shall not exceed the rated weight. The driving speed shall not exceed the maximum driving speed.70%70%

Pay attention to the lubrication condition of the machine, and replace or add the lubricating oil at the specified time.

Attention must be paid to the temperature of the gearbox, torque converter, front and rear axle, hub and brake drum. If there is overheating, the reason should be found out.

Check the tightening of the bolts and nuts of each component.

The following work shall be carried out after 10 hours of closing and the closing period:

Check the fastening condition of the bolts and nuts of each component comprehensively. In particular, the diesel engine cylinder head bolts, exhaust pipe bolts and the front and rear axle fixing bolts, rim nuts, transmission shaft connection bolts, etc., should be checked once.

Clean coarse and fine oil filters and fuel filter.

Check the tightness of the fan belt, generator belt, and air-conditioning compressor belt.

Check the hydraulic proportion and reserves of the battery, and tighten the battery connector.

Check the transmission oil level. Refer to "Chapter 3.6.3 Transmission Inilling".

Check the tightness of the hydraulic system and the brake system.

Check the attachment fixation and flexibility of each joystick.

Check the temperature and connection of the electrical system components, the power supply status of the generator, instrument, light and steering signals.

Open the drain valve at the bottom of the gas storage tank to release the water.

After the expiration of the engagement, the following work shall be performed:

Clean the transmission oil pan filter screen and the torque converter oil filter element.

Check the hydraulic oil tank return oil filter element.

Change the engine oil. Refer to "This Chapter 3.6.1 Engine Oil Supply".

2 Operational use of the loader

2.1 Notes for use

The diesel oil used by the loader must be pure and precipitated for at least 72 hours, and the diesel grade shall meet the specified requirements.

The hydraulic transmission oil used in the gearbox and torque converter, and the hydraulic oil used in the hydraulic system must be cleaned.

The loader must be regularly maintained and lubricated as specified.

0.35MPa After the engine starts, the braking pressure is reached.

—5C Generally, the temperature is below, the engine should be heated with hot water or steam before starting, and then start until the above.30 ~ 40°C

When driving, there is no need to stop or press the brake pedal. Release the throttle at low speed, operate the speed shift handle, and then press the throttle; at high speed, release the throttle first, slow down and then change the gear.

When the boom and bucket reach the desired position, the operating device handle should be brought back to the middle position.

Changing the front and rear direction is required after stopping.

60°C/50°C The engine water temperature is higher than, and the oil temperature is allowed to operate at full load. During the operation, the engine water temperature and oil temperature shall not exceed, the torque converter oil temperature shall not exceed, when the temperature exceeds the allowable value should be stopped cooling. 95°C/120°C

The bucket shall not be lifted to the highest position to transport the material, and the lower hinge point of the boom shall be kept away from the ground to ensure stable driving. 400 ~ 500mm

Diesel engine used by the loader, its power is reduced with the altitude, ambient temperature and relative temperature, therefore, the user in the loader, must notice the local environmental conditions, according to the power correction table in the diesel engine maintenance instructions, the actual power of diesel engine in the local conditions.

2.2 Start

2.2.1 Full inspection prior to initiation

Check the status of accessories and hydraulic parts.

Pre-start inspection:

1. Check the oil quantity of the fuel tank;
2. Check the oil quantity of the hydraulic oil tank;
- 3 Check the oil quantity of the engine oil pan,;
4. Unscrew the water tank cover to check the water level of the water tank;
- 5 Unscrew the oil cap of the afterpump assembly to check the brake fluid volume;
- 6 Check the sealing of each oil pipe, water pipe, pipe and parts;
- 7 Check the sealing of the hydraulic system pipeline and nearby;
8. Check the battery wiring;
- 9 Check whether the tire pressure is normal and the tire inflation pressure;
- 10 Check whether each joystick is flexible and placed in the middle;
- ⑪ Adjust the seat position so that you can control it comfortably.

⑫ Check whether the seat belt (when installed) and various safety devices are normal;

⑬ Start the engine after confirming that all components are normal.

2.2.2, the engine starts

Notes for starting the engine:

Before starting, place the loader joystick in the middle, the gear joystick in neutral, and the switch in place.

The throttle is not allowed to be added to the maximum position in the start moment to avoid damage to the diesel parts in the instant.

Other diesel engine operations shall be carried out according to the Diesel Engine Operation and Maintenance Manual. Step to start the engine:

Place the variable pace joystick in the neutral position.

ON Turn the start key clockwise to position, switch the power switch and horn.

5 ~ 10 Step down the accelerator slightly and then press start. A start time shall not exceed seconds (the continuous working time of the starting motor should not exceed 15 seconds).

If not started, the interval should be greater than 1 minute. If it cannot start for three consecutive times, identify the cause and start after confirming the troubleshooting.

2.2 .3 After the engine starts up

Turn the engine at a low speed. If the engine oil pressure indicator cannot point to the normal range within 10 seconds, find out the cause, and then start again, otherwise it will lead to engine failure.

When the oil pressure does not reach the specified value, a high engine speed will damage the turbocharger.

In order to heat up the hydraulic components quickly, use the working device control handle to circulate the preheated hydraulic oil in each hydraulic cylinder and hydraulic pipeline.

1000 ~ 1200r/min After the diesel engine starts, it runs idle for a few minutes, gradually increases the speed to, and then enters part of the load. During operation, attention must be paid to the change of instrument readings.

Do not allow the engine to run at high speed or low speed for more than 20 minutes.

If it is necessary to run the engine in neutral, from time to time or run the engine at medium speed.

2.3 Driving

2.3 .1 Start

To prevent accidents, ensure that there is no miscellaneous personnel on the vehicle or around the vehicle before driving, and keep the vehicle under control at all times. Raise the moving arms, turn the bucket back, and maintain the walking position.

Place the pace joystick in forward I or backward I. Release the parking brake.

Release the brake pedal, press the accelerator pedal slowly, and start the loader forward or backward.

Only when the braking pressure of the vehicle reaches above the specified value, can it ensure the driving safety.(0.45MPa)

The bucket shall not be lifted to the highest position to transport the material, and shall keep the hinge point under the boom away from the ground to ensure stable driving.400 ~ 500 mm

A: pay attention to

When driving on the slope or on the poor road surface, it is strictly prohibited to drive at high speed. Choose the right gear position before going downhill. Do not change your gear during the downhill process. It is strictly prohibited to overspeed when going downhill. Use the brake pedal (with double brake pedal, the left brake pedal) to slow down.

2.3.2 Speed speed, forward and backward conversion

When changing gear, press the accelerator appropriately to avoid excessive impact on the transmission system.

In order to provide driver comfort and maximize the life of the transmission element, change the driving direction (from forward to backward and from back to forward) after parking.

When changing from low speed to high speed, first loosen the throttle and operate the high and low speed joystick, and then step on the throttle. When changing the low speed, first release the throttle, slow down and then change gear.

2.3 Turn

When driving, turn the steering wheel to the direction to be changed, and the vehicle can turn.

The vehicle is centered on the hinged pin, with the front and rear frames turning down.

A: warn
Vehicles shall not turn suddenly or on steep slopes at high speed. When driving in a straight line, if the engine stalls, the vehicle cannot turn.

2.3.4 Braking

Do not place your foot on the brake pedal unless necessary.

Do not press the pedal repeatedly unless necessary.

When walking on the current slope, do not extinguish the engine, absolutely do not put the high and low speed joystick or front and rear joystick in neutral.

A: warn
The moving vehicles, except for emergency, shall not use parking brakes to slow down or stop the moving vehicle.

2.4 Parking

2.4.1 Parking steps

Release the accelerator pedal and press the brake pedal to stop the vehicle, hold the throttle handles to neutral.

The vehicle is stopped safely. Pull up the parking brake handle to brake the parking brake.

Place the bucket or other working device to the ground and level.

Park the machine on flat ground where there should be no danger of rockfalls, landslides or flooding. If the machine must be temporarily parked on the ramp, a wedge should be applied to the wheel to prevent the machine from moving.



2.4.2 Step to stop the engine

Let the engine idle at low speed for about 5 minutes, so that all parts can cool evenly.

Shut down the engine after pulling it up and holding it for a few seconds.

Turn the key to the OFF position, pull it out and keep it safe.

A: pay attention to

Before the engine cools, do not pull up the soft shaft to stall the engine.

2.4 .3 Leave the loader

Use the ladder and handrail when getting off the loader, do not jump.

Check for debris accumulation on the engine components and remove them immediately to prevent fire.

Remove all flammable materials around the vehicle to prevent fire.

Lock the doors and side doors and take the key away.

2.4.4 The following work must be carried out after the end of each day

Check the fuel oil reserves.

Check whether the hopper limit is off and worn. If there is off or wear, the welding must be repaired in time.

Check the oil surface and cleaning of the engine oil pan. If the oil surface is too high and thin, find out the reason and eliminate it.

Check for any leakage of each oil pipe, water pipe, gas pipe and all components.

Check the gearbox, torque converter, hydraulic oil pump, steering gear, front and rear axle fixing and sealing for overheating.

Check the fixing of the rim bolts, drive shaft bolts and each pin shaft for loosening.

Whether the working device is in normal condition.

Check whether the tire appearance and air pressure are normal.

Charge butter to each oil injection point of the working unit.

Unscrew the afterpump assembly cap to check the brake fluid.

Clean up the appearance of the machine and the dirt and debris in the bucket.

2.5 Homework

2.5.1 Operation Preparation

Clean the work site, fill the pits, remove the sharp stone and other obstacles that damage the tires and hinder the operation.

2.5.2 Operation mode

(1) Loading operation

Loader and truck to cooperate with the operation, especially when the transportation distance is far, the operation efficiency will be improved.

When cooperating with the operation, the loader shovels the materials, and the truck transports and discharges the materials at long distances.

There are generally two kinds of loading and unloading methods:

Cross loading



The loader faces the pile, shovels the material, the loader reverses, and then lets the dump truck enter between the loader and the pile. The handling method requires the shortest time, so it most effectively reduces the cycle time.

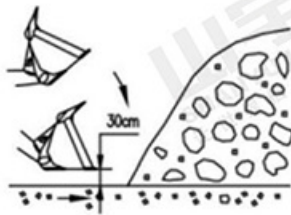
V Type loading



60° Set the dump truck position to make it roughly angle the backward direction of the loader. After the bucket is full, the loader returns, turn an Angle, and drive to the dump truck.

VThe smaller the type Angle of the loader operation, the higher the work efficiency.

(2) Shovel and loading operation

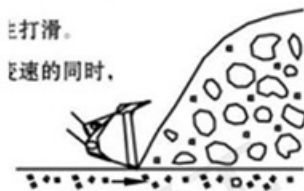


Shovel for earth block or stone

When shoveling the earth block or stone, the vehicle should be stacking the materials and operate according to the following requirements.

30 cm When putting down the bucket in the vehicle forward, stop the car when the bucket is away from the ground, and then slowly put down the bucket.

If the bucket hits the ground, the front wheel will leave the ground, creating a skid.

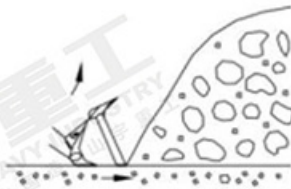


Rock pile material

Before the pile, the speed should be reduced immediately. At the speed change, the accelerator pedal should be pressed and the bucket should be inserted into the pile.

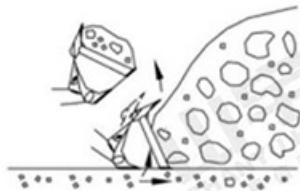
If it is crushed material, keep the bucket horizontal. If it is a stone, the bucket should have an Angle down.

pay attention to:



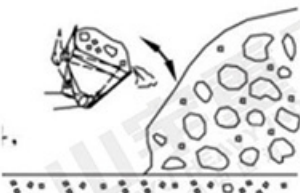
Do not put the stones into under the bucket, which will put the front wheel off the ground and produce a skid. Try to keep the load at the center of the bucket: if the center of gravity is on the side of the bucket.

While the bucket is inserted into the pile, the lifting boom should not insert the bucket too deep. By raising the boom, the tire produces sufficient traction force.



When there is enough material in the bucket, manipulate the bucket joystick to collect the bucket to fill the material.

remarks:

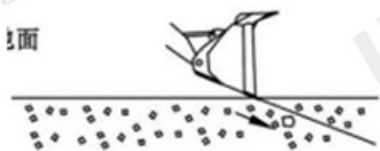


When the bucket is inserted into the pile or excavated, if the blade moves up and down, the front wheel will leave the ground to skid.

If the load in the bucket is too large, it should quickly roll over and collect the bucket to remove the excess load to prevent the material from being scattered during transportation.

Shovel the material on the level ground

When shoveling material on the flat ground, the blade tends slightly to the ground as shown in the figure, but be careful not to concentrate the load on one side, resulting in imbalance. Carefully carefully with gear I.

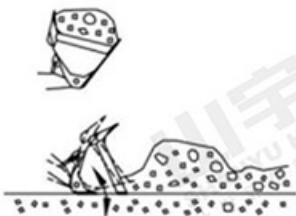


Turn the shovel blade down slightly.

When the vehicle moves forward, control the handle of the boom to lean forward and lower the boom to the appropriate position, so that a thin layer of soil can be cut off.



As the vehicle moves forward, gently move the boom joystick back and forth to reduce the resistance of the vehicle when moving forward.



Pay attention to

When shoveling operations, both sides of the bucket should be evenly cut into, try to avoid unilateral cutting into the operation, so that the loader straight to the front, rather than let the front and rear frame Angle.

(3) Handling operations

Self-handling may be used if:

When the road is too soft, not flat ground.

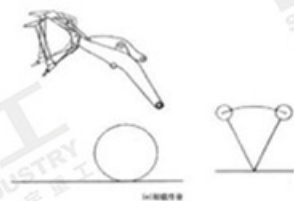
Handling distance within 500 meters, with a heavy truck is not economical.

The speed of handling is determined according to the handling distance and pavement conditions.

In order to make the handling safe and stable and good sight, turn the bucket to the limit position (the bucket touches the arm limit block) and keep the hinge point under the arm in the transport position (from the ground). 400 ~ 500 mm

(4) Uninstall jobs

To the truck or yard dump material, should lift the boom to the bucket (forward to the maximum position) can not touch the car and material pile, control the bucket control handle, make the bucket forward unloading, through the control of the handle can all unload or unloading part, unloading requirements, to reduce the impact of the material on the truck.



When the material accumulates in the bucket, the bucket control handle can be operated back and forth to make the bucket lean forward or backward, and the material can be dropped off through the vibration of the bucket.

After unloading, tilt the bucket back to the flat position and control the arm control handle and bring the arm down to prepare for the next cycle.

(5) Push and transport operation

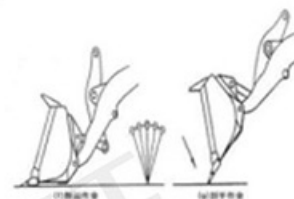


The bucket is flat to the ground, step on the accelerator to push forward, push the obstacles to the car, can slightly lift the boom to continue forward, operate the boom when the handle should be between the fall and rise, not to rise or down any position, to ensure the smooth operation of the push operation.

A: pay attention to

When pushing the operation, closely monitor the oil temperature of the working hydraulic oil. If the oil temperature is too high, you should stop for rest and work after the oil temperature drops.

(6) Scratch and leveling operation



The bucket turns to the bottom so that the blade touches the ground;

The soft pavement should be placed in the middle position;

Turn on the backgear and scrape the ground with the knife plate.

(7) Traction operation

A: warn

Before preparing for traction, you must cause the parking brake to jam the wheel to prevent the loader from rolling. During traction, great care must be taken to avoid serious or even fatal injuries.

If possible, the engine of the towed vehicle shall remain running so that both the brakes and steering can operate.

If it is impossible to start the engine of the towed vehicle, remove the front and rear drive shaft. When the steering cannot operate, remove the steering cylinder.

The connection holes on the inner rear frame of the rear wheels are only used for lifting and bundling, and cannot be used for traction.

If the towed vehicle is not braking and soft traction cannot be used, a fixed traction rod should be used to connect the traction rod to the traction pin at the rear of the loader.

If the towed vehicle is unable to turn and brake, do not let anyone on the faulty vehicle.

Check the tow rope or traction pin for sufficient strength to withstand the weight of the towed vehicle. If the vehicle is going to pass through the mud or uphill, use two tow lines or traction rods that can withstand at least 1.5 times the machine load.

Reduce the Angle of the rope as far as possible to ensure that the Angle of the rope and the center line of the two vehicles is within. The height of the traction point of both vehicles should be close to that. 30°

The connection between the towing device and the vehicle should be firm.

The towed vehicle or machine shall not be less heavy than the towed loader and must have sufficient traction and braking capacity to tow and brake both vehicles while going uphill or downhill.

When towing the vehicle downhill, use a vehicle with sufficient traction and braking force, and then use another vehicle to be towed behind the trailer. This ensures that the towed vehicle will not get out of control and roll over.

Start and stop when dragging, slow down, turn on the alarm flash.

10 km/h When towing the loader, the towing speed shall not exceed to the nearest repair place where possible. 10 km/h If the traction distance is exceeded, or the traction speed is exceeded, the front and rear drive shafts must be removed or the loader placed on the trailer for transport.

2.5 .3. Cold-weather operations

Precautions at low temperature

If the temperature is too low, the engine will be difficult to start; the radiator may freeze, so do the following:

Use low-viscosity fuel oil, hydraulic oil and lubricating oil, and fill with antifreeze. Refer to "Chapter 42.2.1 Oil Selection Table for specific oil use".

Notes for using antifreeze:

1. Do not use antifreeze containing formaldehyde, ethanol and propanol.
2. Never use any water repellent, whether it is used alone or together with antifreeze.
3. Do not mix antifreeze with different grades.
4. When replacing antifreeze, the use proportion of antifreeze shall be implemented according to the requirements, see "Chapter 42.1.2 Coolant".

A: pay attention to

When filling the antifreeze fluid, stay away from the open fire.
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Notes for using the storage battery:

100%1. When the surrounding temperature drops, the battery capacity also drops. If the battery charging rate is low, the electrolyte may freeze, and the charging rate should be kept as close as possible, and kept as warm as possible, so that the engine can start easily the next day.

2. If the battery is frozen, do not charge or start the engine, remove the battery, put it in the greenhouse or warm water (be careful not to let the water into the battery), slowly warm to, otherwise an explosion may occur.15°C

3. In the cold region, the battery can resist the cold.

Notes after the completion of the daily work:

In order to prevent the freezing stuck on the machine from affecting the vehicle operation the next day, the following work should be done:

1. Thoroughly remove the silt and water from the machine to avoid damage to the seal due to the silt, water or snow entering the seal and freezing.
2. Park the vehicle on a dry, hard ground and, if not possible, on a wooden board. The use of wooden boards can prevent the vehicle from being frozen on the ground, facilitating the vehicle to start the next day.

3. If the capacity of the battery drops significantly at low temperature, cover the battery or move it to a warm place, and install it the next day at work.

After the cold weather

When the weather gets warm, the corresponding parts should be replaced with the oil, fuel oil and hydraulic oil suitable for the ambient temperature.

2.6 Supply of various oils

2.6.1 Engine oil supply

① oil level check

A: pay attention to

The check of oil must be done before operation or 15 minutes after engine shutdown.

Park the loader in a flat place, place the shift control handle in the neutral position, pull the parking brake handle, keep the vehicle in the parking brake state, and place the tires front and back.

Open the hood side door to the left side of the hood.

Pull out the oil gauge, insert it and remove it (at least 2 times).

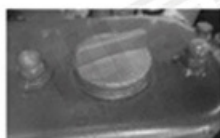
If the oil surface is lower than the lower limit, refuel through the oil port; if the oil surface is higher than the upper limit mark, identify the cause and exclude; if the oil surface is between the upper limit and the lower limit, use the oil, put back the oil gauge and close the side door of the hood.





2 Replace the oil

Park the loader on a flat field, put the variable speed control handle in the neutral position, pull up the parking brake handle, make the vehicle in the parking brake state, place the tire front and back block, start the engine, idle operation, after the oil temperature is reached, the engine flameout. $20^{\circ}\text{C} \sim 40^{\circ}\text{C}$



Unscrew the oil release plug at the bottom of the engine, release the oil and fill the container, and replace the oil filter.

Put all the old oil and reinstall the oil release plug.

Open the left door of the hood and inject the required oil from the engine oil port.

Run the engine at idle, check the oil filter and drain plug for oil leakage.

Stop the engine for about 15 minutes, let the oil fully return to the oil pan, and check the engine oil level again.

3 Change the oil filter



demolish

Clean the area near the filter mounting seat and remove the filter using the filter element wrench.

install

For specific installation methods, refer to the use instructions marked on the filter.

A: pay attention to

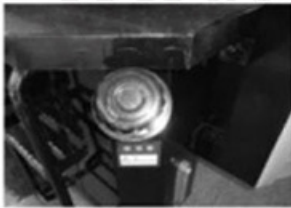
After replacing the filter element, the engine must operate at low idle for at least 1 minute to ensure that the engine is lubricated before going into work.

Mechanical overtightening may damage the thread or damage the seal of the oil filter element.

2.6.2 Inof fuel tank

Oil level inspection

Park the loader on a flat field and observe the level gauge from outside the tank to check the oil volume. Add fuel from the tank when the gauge reading is below line 0.



2.6.3



1 Oil level inspection

Park the vehicle in a flat place, place the shift joystick in the neutral position, pull up the parking brake handle, make the vehicle in the parking brake state, and place the tires front and back.

After the engine is idle for five minutes, open the oil check screw to check the oil level.

The oil level shall not be lower than the oil plug. If the oil level is lower than the oil plug, please add the specified hydraulic transmission oil. For the selection of hydraulic transmission oil, refer to "Chapter 42.2 Selection of Oil Products", the same below.

2 Replace the new oil

Park the vehicle in a flat place, place the shift joystick in the neutral position, pull up the parking brake handle, make the vehicle in the parking brake state, and place the tires front and back.



When the gearbox is at the working temperature, unscrew the oil release plug on the right side of the bottom of the gearbox to drain the oil and connect it with the container.

Note: When releasing oil, not only clean the oil in the gearbox, but also clean the oil of the torque converter.

A: warn

Hydraulic transmission oil is at a high temperature, to wear a good protective equipment, and careful operation, so as not to cause personal injury.

Remove the old oil, clean up the oil from the oil release plug, shell sealing surface and gearbox body, and install it again.

Unscrew the gearbox refueling cover at the right hinge of the loader and inject the specified hydraulic transmission oil.

Start the engine and run at idle speed. The oil surface should be above the oil check plug.

All the gears are selected once.

Check the oil level again and add it again if needed. A: Note that if the old oil is dirty, it should not be put directly refueling. Also remove the coarse filter on the side and clean each piece. If large amounts of metal powder or debris, contact maintenance personnel. Install the dismantled pieces in turn, add a small amount of hydraulic transmission oil, start the engine, idle speed for minutes, release the oil in the oil pan, and read the specified oil. 3 ~ 5 The filter must be replaced simultaneously each time the oil change. After opening the oil plug to check the oil level, make sure the oil plug is closed.

2.6.4, drive bridge oil injection

① oil level check

Drive the loader to a flat field, place the gear joystick in the neutral position, pull the parking brake handle, keep the vehicle in the parking brake state, and place the tires front and back. Unscrew the refueling plug in the center of the front and rear drive axle shell. If the oil level is at the lower edge of the refueling port, otherwise the specified gear oil should be added. Observe after refueling for about 5 minutes. If the oil level remains stable, screw on the refueling plug.



2 Replace the new oil

Turn the loader to a flat field and idle at about 10 minutes. The small throttle slowly moves the loader, so that the oil release plug at the end of the front drive axle wheel is at the lowest position.



When the engine is stalled, place the variable speed control handle in the neutral position, pull up the parking brake handle to make the vehicle in the parking brake state, and block the front and rear tires.

Unscrew the oil release plug on the side of the two wheels and the central bottom of the bridge shell, release the oil, and connect it with the container.



Remove the old oil and screw on the oil release plug at the central bottom of the bridge shell.

Start the engine, press the parking brake handle to release the parking brake, move the small accelerator slowly to the loader, and put the side side of the wheel in the horizontal shaft position of the tire. Then the engine is turned off, the variable speed joystick is placed in the neutral position, pull up the parking brake handle, so that the vehicle is in the parking brake state.

Add the specified gear oil to the side of the front drive axle and the refueling port in the side of the center of the bridge shell, and check the oil level again.

Reinstall the oil drain plug on the side of the two wheels of the front drive axle and the refueling plug in the center of the bridge housing.

Following the above procedure, replace the rear drive axle gear oil.

2.6.5 Oil injection of the hydraulic oil tank

1 Oil volume inspection

Park the loader on a flat ground, put the bucket flat on the ground, and the front and rear frame is straight with no Angle.

8 ± 2 Check the level gauge on the left side of the hydraulic tank. If the oil level is moderate in the range of the oil volume and the oil surface is below the 6 scale line, please add the specified hydraulic oil. For the selection of hydraulic oil, refer to "Chapter 42.2 Selection of oil products", the same below.

Replace the new oil

A: warn
In the process of oil change, the machine should carry out all kinds of operations, should be operated in accordance with the relevant safety procedures, pay attention to safety. In the operation process of oil change, great attention should be paid to the cleanliness of the hydraulic oil, and the foreign matter should not enter the hydraulic system

Remove the debris in the bucket, the loader parked in the flat open field, variable speed joystick in neutral position, pull up the parking brake handle, make the

vehicle in parking brake state, start the engine, idle speed for 10 minutes, repeatedly lift boom, down arm, forward bucket and back bucket, etc.

Lift the boom to the highest position, tilt the bucket to the maximum position and shut off the engine.

Push the bucket handle forward to turn the bucket forward under the weight to discharge the oil in the bucket cylinder. After the bucket is in place, push the boom handle forward to lower the arm under the weight to discharge the oil in the boom cylinder.

A: warn

Hydraulic oil may be in a high temperature, to wear a good protective equipment, and carefully operate, so as not to cause personal injury.

Remove the drain plug at the bottom of the hydraulic tank, drain the dirty oil and fill it with a container. At the same time, unscrew the refueling cover to speed up the oil discharge process. °

Remove the flange cover at the bottom of the tank and clean the tank inside.

Remove the top flange cover of the oil tank, clean the oil absorption port, oil inlet and oil inlet filter element, and replace it if the filter element is damaged.

Re-tighten the flange cover and oil drain plugs.

Add the specified hydraulic oil from the refueling port at the top of the tank to the middle scale of the level gauge. It is not allowed to remove the oil port filter element and inject oil directly into the oil tank.

2 ~ 3 Start the engine, perform the secondary lift arm and forward tilt, backtilt bucket, and left and right turn to fill the hydraulic oil with the cylinder and tubing. Then run the engine at idle speed for 5 minutes to drain the air from the system.

Stop the engine, check the oil level, and add when insufficient.

2.7 Long-term storage

2.7.1 Before storage

If the loader is stored for a long time, follow the following steps:

Clean all parts of the vehicle, dry, store in a dry room, not in the open air. If stored only in the open, parked on easily drained concrete ground and covered with canvas.

Add the lubricating grease and replace the hydraulic oil before storage.

Apply a thin layer of grease to the exposed part of the hydraulic cylinder piston rod.

Remove the battery negative electrode and cover it, or remove the whole negative electrode from the vehicle, and store it separately.

Place the bucket flat on the ground, put the joystick in the middle, pull up the parking brake handle, make the vehicle in the parking brake state, and lock the cab door.

2.7.2 In-storage

A: warn
If rust protection is used in the house, open the doors and Windows to maintain ventilation to eliminate toxic gases.

Start the vehicle once a month to coat the moving parts and parts of the surface with new lubricating oil, while also charging the battery.

Wipe the grease off the hydraulic cylinder piston rod before operation and operation.

2.7.3 After storage

When the loader ends its long-term storage, operate as follows.

Wipe the grease off the hydraulic cylinder piston rod.

All lubrication parts with grease.

2.8 Common faults and troubleshooting

2.8.1 The machine

fault tag	Possible cause	The exclusion method
The diesel engine can not run after starting	2. The cut stem of the transmission speed distribution valve is not adjusted without pressure or low pressure, and the hand brake or the clamp disc brake is not released. 65	1. Hang up or check and adjust 2. Remove and eliminate the fault 3
Lack of driving force	51. The diesel engine power is insufficient 2. The inlet oil pressure of the torque converter is insufficient or too high 3. The oil	1. See the diesel engine operation manual 2. Maintenance 3. See the later description 4. Check the oil

	temperature of the torque converter is too high 4	pressure and piston seal 5
--	---	----------------------------

2.8 .2 Transmission system

fault tag	Possible cause	The exclusion method
Low gear low pressure or no pressure	1. Insufficient oil suction of the variable speed oil pump, internal leakage or leakage of the high pressure pipeline 2. Improper adjustment of the main pressure regulating valve or broken failure of the spring 3, cut valve stuck 4	1. Clean the filter screen or replace the oil pump and refueling to the correct position; 2. Adjust or replace the spring; 3
A gear shift oil pressure	1. The piston O ring is damaged 2. The sealing ring in the oil circuit is damaged 3	1 replacement 2, replacement 3, replacement
Disorderly file	Shaft end seal ring leak	renewal
System oil leakage	1. The seal is damaged, aged or deteriorated. 2	1. Replace. 2. Tighten it down
Torque converter oil temperature is too high	1. The gearbox oil level is too low or too high 2. Oil radiator and oil circuit are blocked 3	1. Fuel to the specified position 2. Clean or replace 3. Repair and correct the variable speed oil pressure 4. Stop cooling or idle cooling

2.8 .3 Brake system

fault tag	Possible cause	The exclusion method
Driving brake, lack of power	51. There is oil between the brake disc and the friction plate. The brake friction pad is worn out and the brake master pump is insufficient6	1. Change the oil seal 2. Check whether the air path and the gas is leaking 3
Run off while braking	1. The braking force of the left and right wheel brakes is not equal. 2	1. Check the tightness of the tap pump piston. 2
The brake cannot be released normally	The brake tap pump piston is not working	Wash or replace the rectangular sealing ring
The abrwear wear wear worn	1. The brake can not be released normally. 2	1. Maintenance; 2. Repair and replacement

fault tag	Possible cause	The exclusion method
Lack of hand braking force	1. The gap between the hand brake hub and the brake pad is too large	1. Adjust; 2. Clean

2.8.4 Working device system

fault tag	Possible cause	The exclusion method
Lift and turn the bucket slowly or do not move	51. Oil cylinder oil seal is damaged 2. Pipeline system oil leakage 3. Working oil pump serious internal leakage 4. Improper safety valve adjustment, system pressure is low, working oil pump oil suction pipe and oil filter is blocked 6	1. Replace the oil seal 2. Check and repair 3. Repair or replace 4
The moving arms rise and sink by themselves	2. Middle internal leakage of multi-channel valve	1. Replace the sealing ring; 2
The oil pump is empty or the oil bubbles out	1. The oil surface is too low 2. The oil filter is blocked 3. the oil pump is leaking 4 or the oil seal is damaged	1. Fuel to the specified oil level 2. Clean the oil filter 3, overhaul the oil 4
The oil is too warm	1. Full load working time is too long. 2. The system pressure adjustment is too high. 3	1. Stop and cooling 2. Adjust the pressure according to the regulations 3

2.8 Steering system

fault tag	Possible cause	The exclusion method
The steering wheel returns still steering	1. Damaged return spring blade in the steering gear 2. Get stuck between the oil distribution sleeve and the oil distribution shaft or between the oil distribution sleeve and the valve body	1. Replace 2. Unassemble inspection
The steering wheel turns slowly and lightly	Insufficient oil supply	Adjust the priority valve
Turn to powerless	Working pressure, low oil pressure	Adjust the overflow valve on

fault tag	Possible cause	The exclusion method
		the priority valve
Turn the steering wheel to move the cylinder	There is insufficient air or oil in the system	Excluding air or replenish oil
System oil leakage	Loose joints or damaged seals	Tighten or replace

2.8.6 Drive the bridge

fault tag	analysis of causes	The exclusion method
There is a sound in driving	1. Poor main reduction gear engagement point 2. Bearing wear over or loose 3	1. Adjust or change bevel gears 2. Change bearings or adjust 3. Change gears
Blow when braking	1. Bending brake bottom plate 2. The brake friction lining plate rivet is loose 3. The brake drum is damaged	1. Repair or replace 2, repair 3, repair or replace
The car ran off the track when braking	1. Oil on the surface of the brake shoe 2. Improper gap adjustment 3	1, clean 2, readjust, 3, make the air pressure consistent
Braking is not good	1. Improper adjustment of gap between brake drum and brake shoe; 2	1. Adjust 2, clean 3, replace

2.8.7 Electrical system

fault tag	Possible cause	The exclusion method
The engine is normal, the battery is not charged or the charging rate is low	1. Sulbattery plate 2. The generator belt is too loose or damaged 4	1. Check and eliminate it; 2. Adjust or replace it 3
Insufficient storage battery capacity	1. The proportion of electrolyte or liquid level is too low 2. Short circuit between plates 3, plate vulization 4. Poor wire contact 5, plate active material off	1. Adjust the specific gravity again or add the electrolyte. 2. Eliminate the sediment and replace the electrolyte. 3
The generator does not generate	1. The remaining magnetic field disappears 2. Magnetic	1. According to the original polarity of the generator,

electricity	field coil circuit is broken 3. the rectifier contact is poor 4	charge the battery to the two ends of the magnetic field coil. Check and connect 3
-------------	--	---

2.8, and the engine

Please refer to the Random Service Manual for Diesel Engine.

Chapter 4: Maintenance

1 Maintenance guide

Read the following carefully before performing vehicle maintenance.

1.1 Notes before maintenance

Maintenance shall be performed on a solid, flat pavement.

Put the work close to the ground and level the bucket.

All joysticks must be placed in between.

Pull the parking brake handle up to keep the vehicle in the parking brake state.

Blocks shall be placed on the front and rear of the tires.

Lock the front and rear frames with the frame lock bar.

1.2 Hanging of the warning signs

During service, the warning mark should be placed near the start button to prevent someone starts the engine.

1.3 Preparation of accessories

Use our company's designated repair parts for repair and replacement.

1.4 Oil product preparation

The oil products specified in this manual shall be selected according to the ambient temperature.

1.5 Use the specified oil products

Keep the fuel tank clean. Use of the specified oil products.

1.6 Keep the machine clean

Keep the whole machine clean, especially to keep the lubricating oil cup. The oil filling parts such as the refueling port shall be cleaned to avoid impurities from entering.

1.7 Pay attention to high temperature oil and high temperature coolant

When the engine just stops, it is very dangerous to discharge high temperature oil, coolant or take down the oil filter. Must wait for the engine to cool down. The appropriate temperature for discharging the oil is generally at. If it is below the temperature, it must be heated to the temperature range before the discharge. $20 \sim 40^{\circ}\text{C}$

1.8 Check the oil and the oil filter

After replacing the oil or oil filter, check the discharged oil and the replaced oil filter. If a large number of metal particles or other impurities are found, please contact the maintenance personnel.

1.9 Fuel crude filter

Do not remove the coarse fuel filter when adding the fuel.

1.10, the replacement of the oil

Change the oil in a clean place to make sure that the oil is not contaminated when replaced.

1.11, welding instruction

Turn off the engine start switch and remove the battery cable.

The welding area is within the distance from the grounding cable. 1 m

Avoid welding near the sealing ring and the bearings.

Do not weld the lines and oil tanks with oil fluid.

1.12 Fire prevention

Clean the parts with a non-flammable detergent or light oil. No sparks or fireworks are allowed.

1.13 Seals

When replacing the ring or gasket, clean the sealing surface first, and then place the new ring or gasket into the exact position.

1.14, Check the first stand

After shoveling stones for a long time, check whether the frame is damaged and whether the parts connecting bolts and nuts are loose and damaged.

1.15 Precautions when washing the car

Should be cleaned after the engine is fully cooled.

Splashing water onto electrical components is not allowed.

1.16 Inspection in the rain and snow environment

After working in the rain and snow environment, the loader should be cleaned as soon as possible, and lubricated and coated in more parts.

1.17 A more than dusty environment

When working in a dusty environment, note the following points:

Check and clean the air filter frequently to avoid clogging.

Clean the radiator frequently to prevent a blockage.

Wash and replace the fuel filter frequently.

Clean electrical devices, especially starting motor and generator, to prevent dust accumulation and affect heat dissipation.

For the specific replacement and maintenance of the air filter, see the random Maintenance Manual for Diesel Engine.

1.18 Avoid mixed oil

Do not mix different brands of oil. If there is only one oil, and unlike the oil being used, replace all the oil being used.

2 Maintenance rules

2.1 Rules for the use of oil and coolant

A: Note that because the use conditions of the loader are relatively harsh (high temperature, high pressure), and the external environment is dusty, the oil is easy to deteriorate. Once the oil is found to deteriorate, or too many impurities in the oil, it should be replaced in time. Refueling is required according to the prescribed quantity. Too much or too little oil is added will lead to a failure. When changing the oil, the relevant oil filter should be cleaned or replaced.

The tools shall be injected when filling fuel, hydraulic oil, lubricant and grease. The container and oil filling parts should be scrubbed clean to prevent water, sludge and debris from entering the oil.

The machine must be placed horizontally when filling the various oil types. Except that the oil level indication device can be observed, generally until the oil plug overflow. The transmission oil stick is on the transmission speed cover.

When filling the lubricating oil, remove the dirty oil and inject the cleaning oil into the original working oil level. In no-load condition, allow the engine to run for several minutes. After stopping operation, clean the cleaning oil. If the viscosity of clean oil, the oil can be slightly heated and diluted before filling.

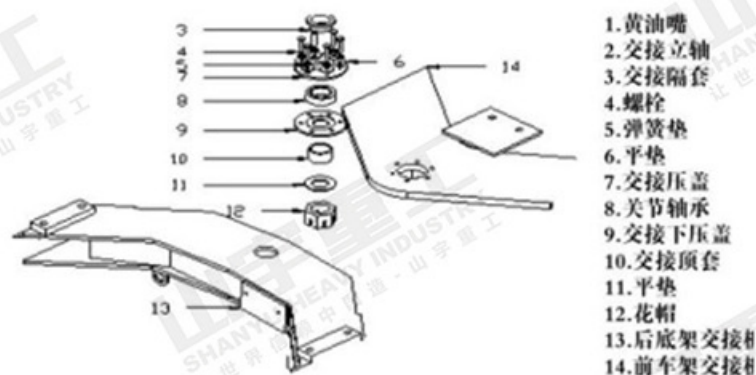
In different working environments, the working oil and lubricating oil should be replaced according to the actual situation and use requirements.

2.2. Oil product selection table

Please give priority to use special oil, you can provide the type of oil according to the table.

3.2 Maintenance every 50 hours (weeks)	Shanyu series loader
fuel tank	Summer (10°C) 0, winter (10°C) -10 diesel
oil sump tank	CC40 in summer (above 10°C) and CC30 diesel engine lubricating oil in winter
Transmission, and the drive axle	18 # hyperbolic gear oil
hydraulic oil tank	46 # anti-wear hydraulic oil
Each injection nozzle	Combined calcium-based lubricating oil
brake fluid	The "912" synthetic brake fluid

2.3 Schematic diagram of the handover part



2.4 Maintenance rules of the electrical system

If the wire is damaged in a wet environment or the insulator is damaged, the electrical system is prone to leakage, resulting in dangerous accidents.

Maintenance of the components related to the electrical system:

Check the tightness and damage of the fan belt;

Check the liquid level height of the electrolyte in the battery.

Do not remove any installed electrical components.

Except as specified by our company.

Keep the electrical system dry when cleaning the whole machine or using it in the rain and snow environment.

2.5 Tightening torque of screw thread connection

The following table lists the tightening torque of the main parts of the thread connection. Except for special cases, the following table should be strictly implemented.

order number	Threaded specifications	material	moment (N.m)
1	$M16 \times 1.5 \times 70$	8.8	70 ~ 100
2	$M18 \times 1.5$	8	265 ~ 355
3	$M20 \times 1.5 \times 70$	8.8	380 ~ 460
4	$M12 \times 1.25 \times 45$	8.8	75 ~ 105
5	$M16 \times 35$	8.8	185 ~ 265

order number	Threaded specifications	material	moment (N.m)
6	$M20 \times 2 \times 60$	8.8	250 ~ 360
7	$M16 \times 70$	45	193 ~ 257

3 Maintenance content

Regular maintenance is divided into every 10 hours, every 50 hours, every 100 hours, every 250 hours, every 500 hours, every 1000 hours

3.1 Maintenance for every 10 hours (day)

Keep the exposed parts of the machine clean before and after the operation.

Check whether the fasteners are loose or missing, and tighten and complete them.

Whether the parts of each part are damaged.

Check whether each lubrication area is filled with sufficient lubricating oil.

Check the oil level of the fuel tank, hydraulic oil tank and brake oil can, and the height of the oil level must meet the requirements.

Whether the engine cooling water is sufficient.

Check whether the wire connector of the electrical system is loose and whether the power of the battery is sufficient.

Check the instrument, whether the bulb is complete and good.

Check whether each manipulation is flexible and reliable.

After starting to check whether there is any oil leakage, water leakage, whether there is any abnormal sound.

Test whether the braking is reliable and whether the steering is flexible.

3.2 Maintenance every 50 hours (weeks)

Maintenance is simultaneous every 10 hours.

A Check whether the stroke of the brake pedal meets the requirements and adjust if it does not.

B Tighten the front and rear drive shaft connection bolts, drive axle connection bolts, and tire nuts.

C Check the liquid level height and electro-hydraulic specific gravity in the battery compartment (1.24-1.27 at 15°C), and add distilled water and charging if insufficient.

And D. Fill the calcium-based grease into the oil injection nozzle.

In addition, add the following maintenance for the first 50 hours:

A Check and clean the transmission air vent.

b Check for leakage in the hydraulic system, check and clean the air vent and the filter element of the hydraulic tank.

c Check for leakage in the brake system, clean the afterburner pump oil storage cup filter screen, clean the air vent, check the brake fluid, and add it when it is missing.

3.3 Maintenance for every 100 hours

Every 10 hours, every 50 hours of maintenance at the same time.

Clean the radiator set.

Clean the fuel tank refueling filter.

In addition, for the first 100 hours:

Check and clean the transmission air vent, clean the transmission oil pan, replace the filter element of the torque converter-transmission oil circuit system, and replace the transmission oil.

Before the replacement. Rear bridge gear oil.

3.4 Maintenance every 250 hours

It was performed simultaneously at every 10 hours, every 50 hours, and every 100 hours.

Measure the tire air pressure. If insufficient, tonic qi should be provided.

Clean the filter for fuel and hydraulic oil.

Check the brake system for oil leakage or damage.

Check and twist the hub bolts, brake disc, and bearing cover bolts.

3.4 Maintenance for every 500 hours (month)

Every 10 hours, every 50 hours, every 100 maintenance simultaneously.

Check the multi-channel valve and the leakage of various cylinders. If there is a serious decline of the working device, it should be repaired and eliminated.

Check the brake master pump leather bowl for damage.

Adjust the hub bearing clearance and make the outer end of the brake disc beat less than 0.20 mm

3.5 Maintenance for every 1,000 hours (season)

Every 10 hours, every 50 hours, every 250 hours, every 500 hours of maintenance simultaneously.

1. Replace all fuel oil and oil circuit system oil, hydraulic system oil, gearbox, gear oil and brake oil of front and rear axle, etc. And clean the pipe, oil pipe, oil filter, and then inject into the purified new oil.

2. Remove and wash the main brake pump and check the braking effect.

3 Check the front and rear axle, the main transmission gear engagement, the main and driven bevel gear gear gap is too large, it should be adjusted to within $0.2 - 0.34$ mm

Working device and frame, whether there is any deformation, weld fracture phenomenon.

Also, for the first 500 hours:

Check for leakage in the hydraulic system, check and clean the hydraulic tank air vent, replace the hydraulic tank return filter element and the pilot filter element (when installed). Check the amount and cleanliness of hydraulic oil, filter when conditions exist, add when missing, and replace if necessary.

Check for leakage in the brake system, clean the afterpump cup filter, clean the vent, and replace the brake fluid.

3.7 Maintenance for every 2,000 hours (year)

Every 10 hours, every 50 hours, every 250 hours, every 500 hours, every 1,000 hours of maintenance simultaneously.

Replace the antifreeze, or once a year, subject to the first arrival time.

Check the performance of torque converter, gearbox, front and rear axle differential, and wheel side reducer.

By testing the natural settlement of the hydraulic cylinder, check the sealing of the multiplex valve, the hydraulic cylinder, and measure the workings pressure of the system.

With junior high school students psychological development is not mature, plasticity favorable period, take appropriate

3.8 The above maintenance provisions are the basic requirements under normal use, and the maintenance work should be carried out according to the first due time period in the above two time requirements. If the working condition is bad, the user should shorten the maintenance cycle and increase the maintenance times according to the actual needs.

Chapter V System Schematics

1 Transmission system

The mechanical transmission system consists of engine, power output shaft assembly, transmission shaft, transmission shaft, front and rear drive axle and wheel, etc. See Figure 5-1 for the transmission system principle.

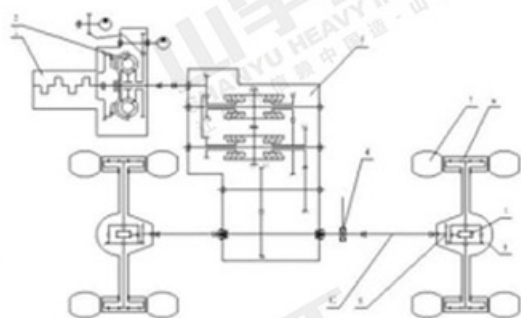
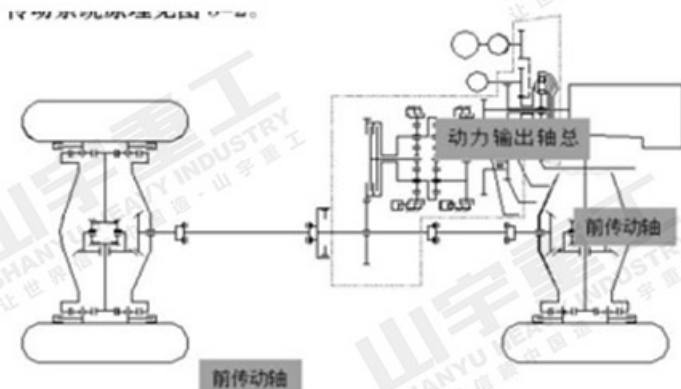


Figure 5-1 Schematic diagram of the mechanical transmission system

The dual variable transmission system consists of engine, transmission shaft, gearbox, transmission shaft, front and rear drive axle and wheels. The transmission system principle is shown in Figure 5-2.



1. 发动机 2. 液力变矩器 3. 变速箱 4. 驻车制动 5. 车轮
6. 轮边减速器 7. 差速器 8. 驱动桥 9. 主传动 10. 传动轴

图 5-2 双变传动系统原理图

2 Hydraulic system

The hydraulic system includes the working device hydraulic system and the steering hydraulic system, the working device hydraulic system by the working pump.

Priority valve, multiplex valve, boom cylinder, cylinder transfer cylinder, hydraulic tank and pipeline accessories, as shown in the figure.

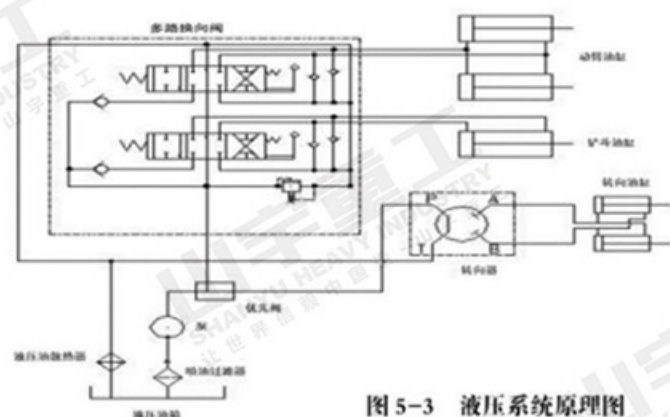


图 5-3 液压系统原理图

3 Brake system

The braking system is used to slow down or stop while driving and to stop for long periods on flat land or ramps. The schematic diagram is shown in Figure 5-4 and Figure 5-5. The dynamic system of this mechanism includes service braking system and parking brake system.

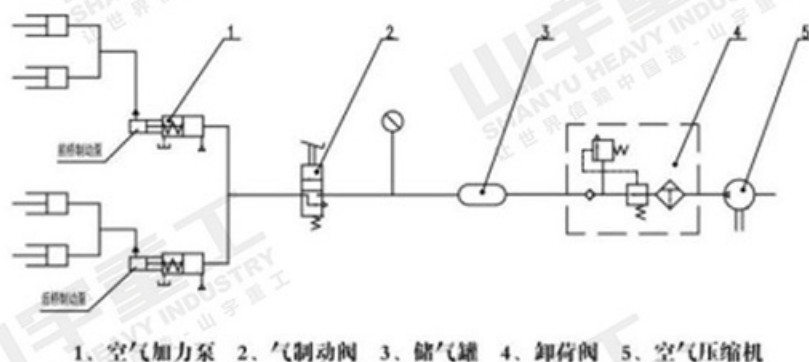


Figure 5-4 Schematic diagram of the brake pedal brake system

3.1 Service brake system

As shown in Figure 5-4, the system is a single line, gas-top oil four-wheel clamp disc brake system. In the process of driving, press the brake pedal, the compressed air in the air tank 3 through the brake valve 2 into the air afterpump 1 chamber, push the afterpump piston, into oil (oil pressure about), the brake liquid push disc brake piston, the friction plate on the brake disc to achieve the purpose of deceleration or parking. 14MPa

Release the brake pedal, the compressed air of the afterpump is discharged from the brake valve, and the braking state is lifted.

3.2 Parking brake system

The system adopts a manual internal rising shoe brake system.

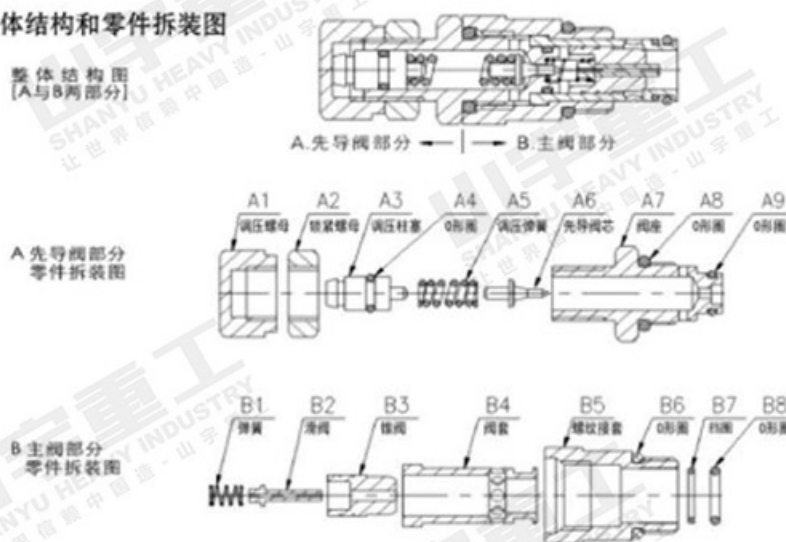
When braking, pull the control handle up, and lift the brake through the soft shaft to achieve the purpose of braking. At the same time, the electrical signal to control the parking brake indicator light is provided to prompt the operator that the vehicle is in the braking state.

4 Electrical system

Electrical system includes: battery, starting motor, charging generator, instrument, switch, lamps, air conditioning circuit and other electrical equipment.

24 V The whole system voltage is DC, negative pole tie iron, the line adopts single line system. For the interrelationship and working principle of each electrical equipment, please read the circuit schematic diagram of the electrical system carefully.

整体结构和零件拆装图



Fault analysis and troubleshooting method

B4 The safety valve will often cause the pressure instability or the pressure failure, or even the B3 cone valve is stuck in the valve sleeve, resulting in the failure of the stuck valve. In many cases, the replacement of the new oil of the hydraulic system and the disassembly and cleaning of the main valve part of the safety valve can be used to eliminate this fault.

The specific disassembly and cleaning procedures of the main valve are:

1. Gently remove the B50 sealing ring above the B4 valve sleeve in turn. B7 gear ring;

2. Open the B5 threaded socket of A7 seat of A pilot valve and B main valve with two 24 fork wrenches, and remove the B5 threaded socket;

3. Slowly pull the B4 valve sleeve off from the A7 valve seat of the A pilot valve by hand, and the B1 spring is ejected naturally;

4. Slowly turn the B3 cone valve and the B2 slide valve out from the right end of the B4 valve sleeve as shown in the figure above;

5. Clean all the above split parts in clean kerosene or gasoline, and then assemble them in the above reverse order, and reinstall the test.

pay attention to:

When the seal is aged or damaged, it should be replaced;

Before cleaning and assembly, ensure that the B3 cone valve slides freely in the B4 valve sleeve;

If the fault cannot be eliminated after cleaning and assembly, a new safety valve should be replaced;

A Pilot valve section as far as possible. It is necessary to remove and assemble, and the disassembly steps and methods are similar to those of the main valve, but after the safety valve is reinstalled, tighten the screw (or loose) A1 pressure regulating nut, and measure the pressure gauge to readjust the pressure value of the safety valve.B

Warranty precautions

"Shanyu" brand loader with its excellent quality and perfect after-sales service system to serve users,

In order to improve the after-sales service of our company and clarify the obligations and responsibilities of our company, the special provisions are as follows:

1. term of service

1. Accessories with a one-year warranty: front and rear frames, boom, outer tire (due to quality issues and tire wear of more than half),

2. Accessories with a six-month warranty: axle, torque converter, gearbox.

3. Accessories with a three-month warranty: hydraulic parts, transmission parts, pneumatic parts, oil tank

4.The engine warranty period shall be executed according to the time specified by the engine manufacturer.

5. Air conditioning, oil pipes, lighting fixtures, wiring harnesses, clutches, release bearings, and other vulnerable parts are not covered by warranty after passing the self test acceptance.

2.Warranty conditions

Users should use and maintain the product correctly according to the instructions. During the warranty period, if there is a malfunction caused by product quality, the company will arrange free repair, replacement of parts, and troubleshooting. If it is caused by improper maintenance, external damage, illegal operation, or unauthorized modification by the user, it will not be covered by warranty.

3.User instructions

1. When the user buys the machine, want to get the manual, the machine certificate, warranty card.

2. Before operating the machine, the driver must read the operation manual in detail, and should conduct operation, debugging and maintenance according to the requirements in the manual.

3. The hydraulic system of this machine cannot adjust the pressure at will. Welding limit block should be added when replacing the hopper or fittings.

4. The warranty period is three months from the date of purchase, and the warranty has quality problems existing in manufacturing. No product certificate, warranty card, electrical parts, vulnerable parts and faults caused by improper use are not within the scope of warranty. Tire in the warranty period of the layer, the package phenomenon to give three packages, other cases are not within the scope of warranty.

5. In case of mechanical failure of the machine, the user should immediately inform our company of the model number, factory number and purchase date according to the telephone of the warranty card.