

TYPHON

TYPHON FURY
3,300lbs Vibratory Roller
TYPH-0915



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1.Foreword

Manual provides relevant information of safe operation and maintenance for road rollers.For your safety, please read carefully and comply with the contents described in the manual.

Please keep this manual. If you lose or need a copy, please contact us. This machine has been designed with security in mind; but wrong operation or maintenance may be dangerous! If you are not clear about the operation and maintenance of machinery problems, please contact us. This manual is based on information that our company is producing. Rights of change any part of the machine are reserved by us.

2.Safety precautions

Manual includes danger, warning, caution and attention, in order to reduce personal injury, damage to the machine as well as non-normal maintenance ,please follow these instructions.

Safety warning signs to alert you of potential dangers. Observe all safety information to avoid potential harm.



Warning signs of a dangerous situation, if not avoided, will result in death or serious injury.

Carefully labeled hazardous situation, if not avoided, will result in minor or moderate injuries.



CAUTION:Carefully identify potentially hazardous situation, if not avoided, could result in spare parts and property suffered damage.

2.1 Safety operation

Familiar with the equipment and proper training is necessary for the safe operation of mechanical equipment condition. It may be dangerous by improper operation or untrained operator. Read the operating instructions (including this manual, the engine manual), get familiar with surroundings and the proper operation of the machine. Inexperienced operators should to operate the machine after learning from the experienced operator.

Before operating the machine,loosen the hinge connecting the fixed steering rods, if not released, the machine will not turn. After starting, immediately check whether all the control elements work well! Operate the machine when all the parts work well.

2.1.1 When operating the machine,operator should sit on the seat.

2.1.2 When the machine working on slope, soft or coarse land, be careful of accidental movement or slide.

2.1.3 When the machine working on mines, canals or platform edge, Check road surface to make sure the road is stable enough to carry the weight of the machine, in case the drum will slide,incline or fall.

2.1.4 Wear suitable protective clothing in job site.

Keep the hands, feet and clothing away from running equipment.

2.1.5 Read and follow the steps described in the operating manual before operation.

2.1.6 Store the machine when it's not used. Equipment should be stored out of the reach of children in a clean, dry place.

2.1.7 Use safety devices and operate the machine in the order.

Prohibit any untrained personnel to operate the machine. The operator should be familiar with potential risks of the machine.

2.1.8 Do not touch the engine or silencer when the machine is working or finished working for a little while. It is very hot and will cause burns.

2.1.9 prohibit the use of the machine without the Company approved attachments or accessories, in case machine damaged or operator injury.

2.1.10. Do not leave the machine when it's running.

2.1.11 Do not operate the machine in case of fuel cap loosen or missing.

2.2 Safety operation of using internal combustion engine

There is risk when operate and fill the internal combustion engine. Please read

the warning instructions in the engine manual, strictly follow the safety standards. Otherwise it can cause injury or even more serious consequences.

2.2.1 Do not smoke when operating the machine

2.2.2 Do not smoke when filling the engine.

2.2.3 Do not refuel a hot engine or running engine.

2.2.4 Do not refuel near flames.

2.2.5 Do not let the oil spill

2.2.6 Do not run the engine near flames.

2.2.7 Do not run the machine indoors. Unless there is sufficient ventilation equipment, like exhaust pipe and hose, do not work in deep and bounded region like ditches. Exhaust gas of the engine include carbon monoxide, it may cause loss of consciousness or death.

2.2.8 Fill the engine in ventilation place.

2.2.9 Cover the fuel tank after filling.

2.2.10 Exhaust pipe work in place without wastes,in case sudden burns.

2.3 Security Services

Improper maintenance of equipment will produce a security risk! In order to make the device safe long run, regular maintain and repair equipment.

2.3.1 Do not maintain or clean the equipment when it's running. Rotating part will cause damage.

2.3.2 Do not use gasoline or other fuels or flammable solvents to clean parts, especially in enclosed areas.

The smoke and solvents can accumulate and cause an explosion.

2.3.3 Do not modify equipment without get written permission from the manufacturer

2.3.4 Periodic inspection external button.

2.3.5 Keep silencer attachment from leaves, paper or other chippings.Hot silencer can burn the chippings and cause fire.

2.3.6 Use the recommended accessories replace damaged parts.

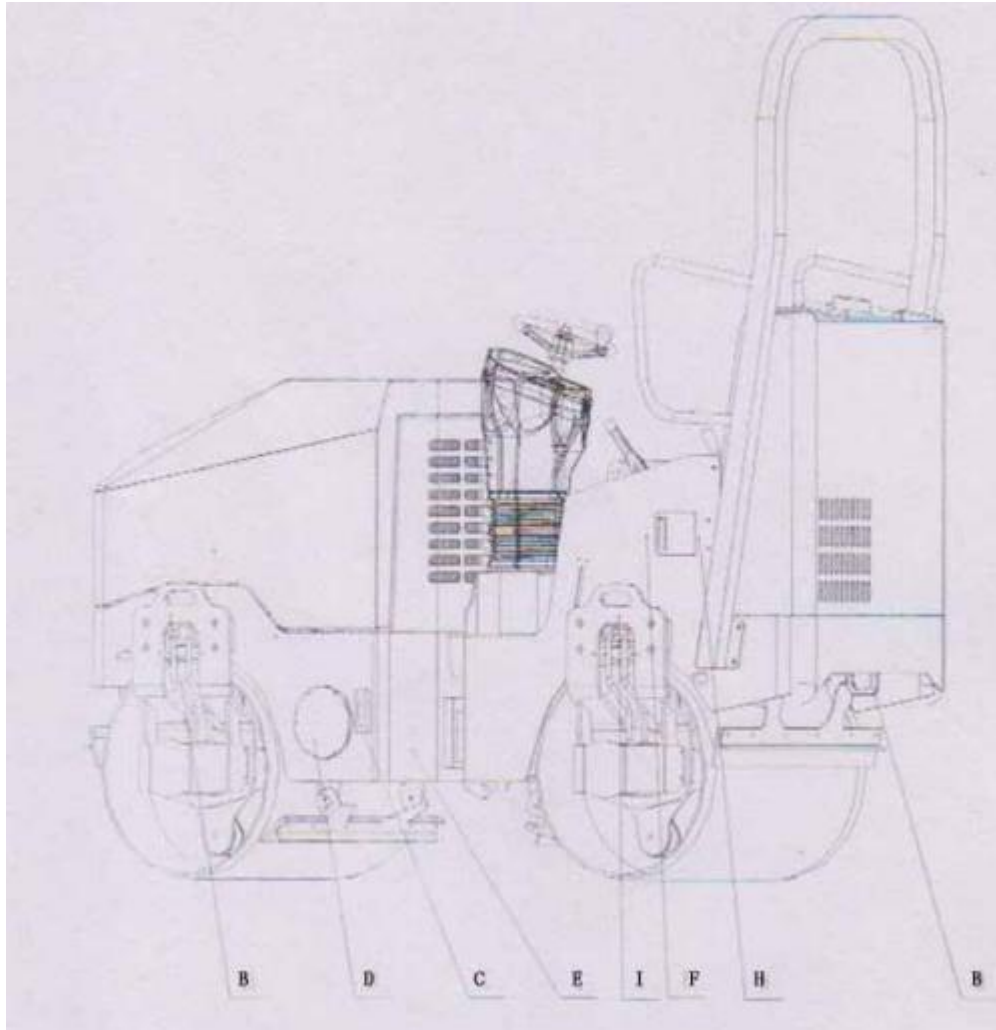
2.3.7 keep the machine clean and labels clear. Replace all missing and unclear label. Tags provide important operating instructions and warnings to the dangers and hazards.

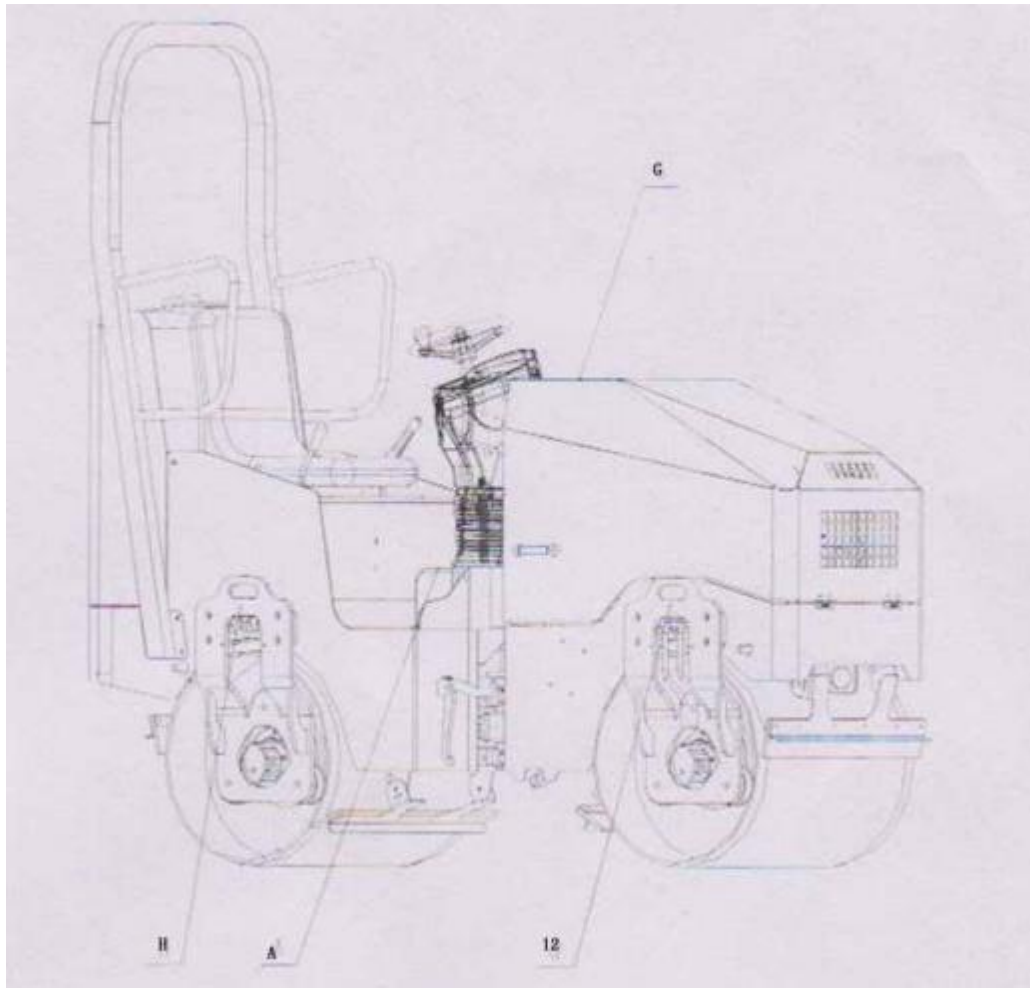
2.3.8 Before adjustment or repair the equipment, turn off the power and battery.

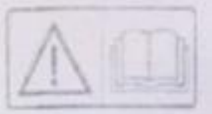




2.3.9 Regularly maintain the machine with instructions of this manual.





2.4 Security Label

The company use international standards labels. Tag is described as follows:





No.	Label	Meaning
A		Security Alert Read the operating manual for instructions
B		Tie-down point
C		Hydraulic oil level
D		Hydraulic Tank
E		Oil discharge

F		Security Alert When refueling, do not appear sparks, flames or burning objects around the machine
G		Hot surfaces
H		Fuel Tank
I		Lifting points

3. Technical Parameters

TYPH-0915

Walk speed:0-8km/h

Gradeability:30%

Drive type:hydraulic transmission

Vibration Type: hydraulic vibration

Vibration frequency:65Hz

Exciting force:30KN

Water tank:100L

Hydraulic oil tank:60L

Engine type:Briggs & Stratton Gasline Engine XR627CC With EPA

Power:23HP

Starting mode:Electric

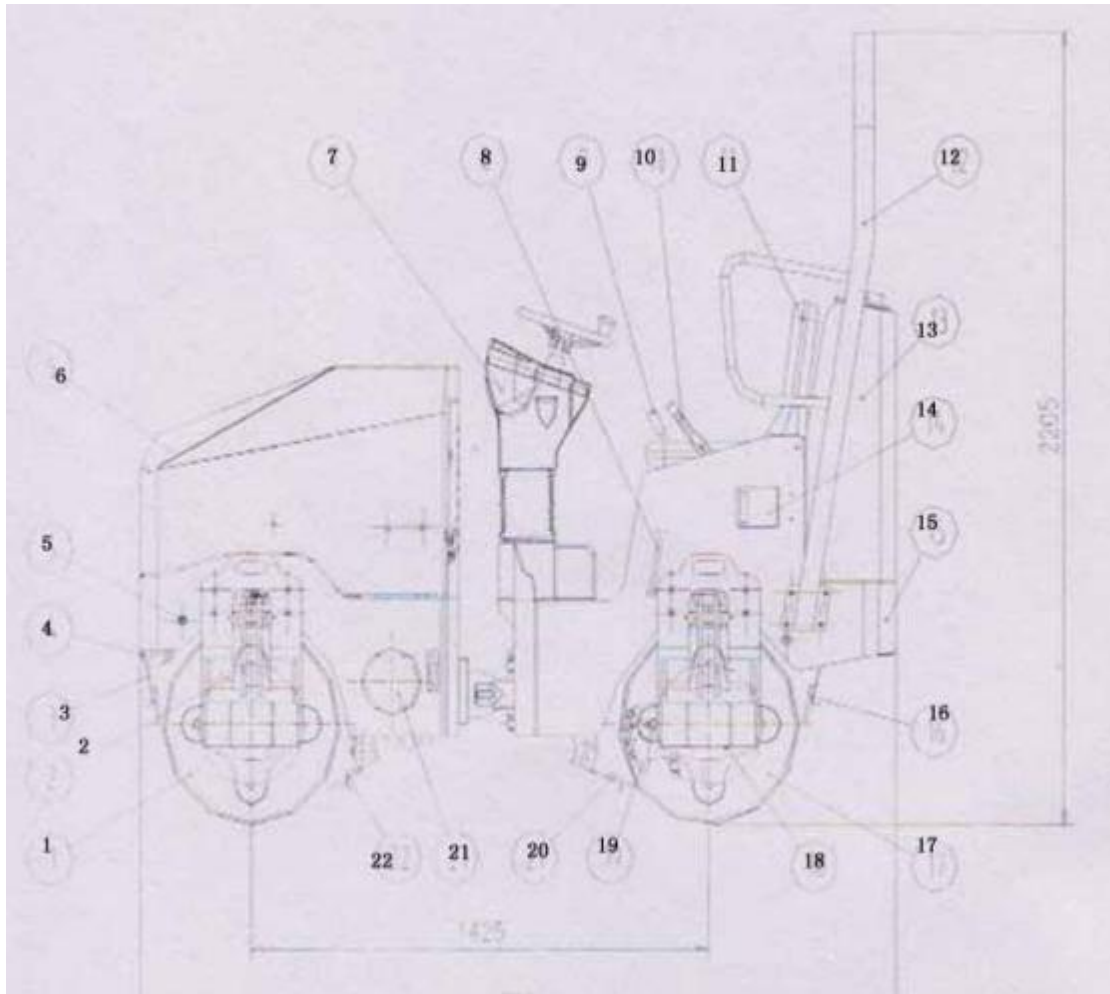
Steel drum size:φ560X900mmX2

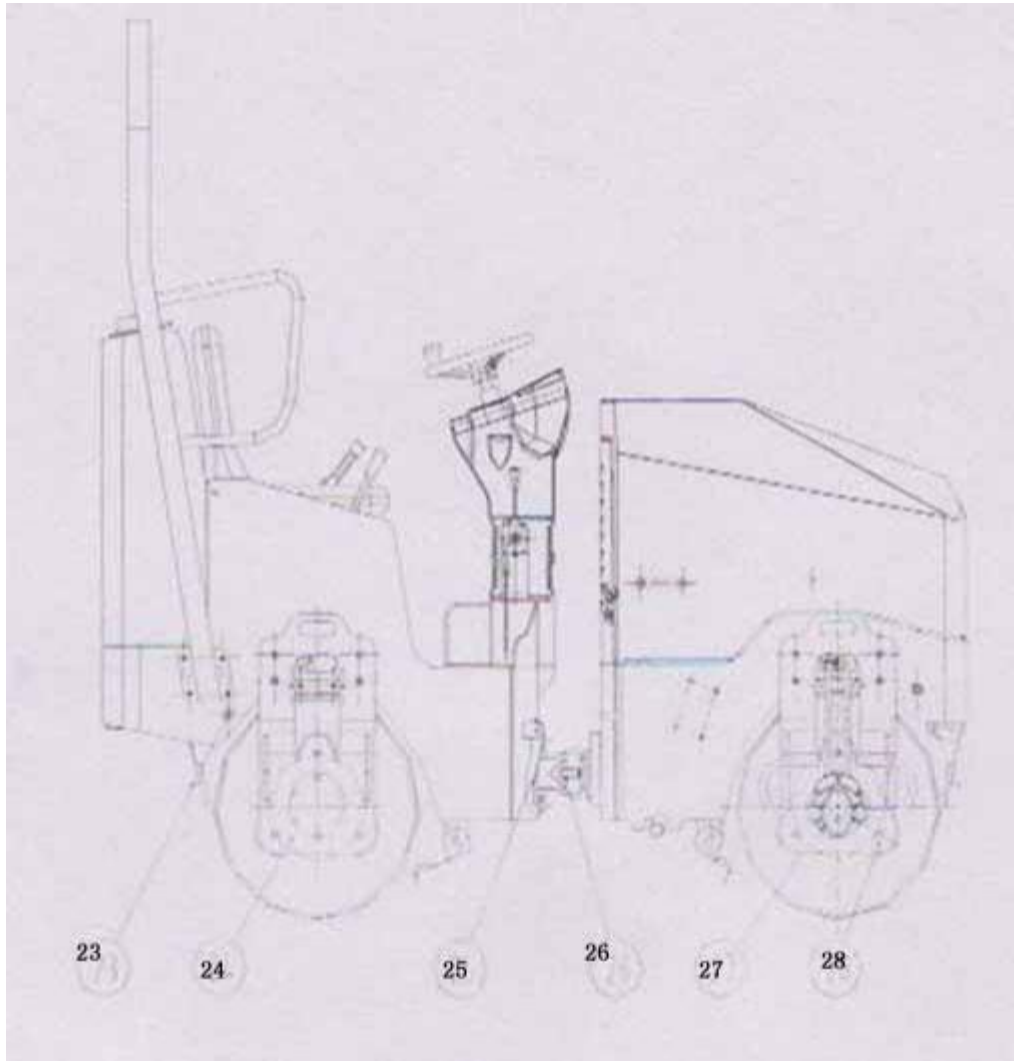
Net weight:1500kg

Size: 2125X985X2325mm

4.Operation

4.1 Operation and service parts





No.	Description	No.	Description
1	Front wheel	15	Rear frame
2	Front frame	16	Scraper
3	Scraper	17	Rear wheel
4	Tethering points	18	Brake assembly
5	Sprinkler pipe	19	Scraper
6	Machine housing	20	Drive motor
7	Steering assembly	21	Tank cleaning cover
8	Fuel-bit display	22	Scraper
9	reverse control handle	23	Sprinkler pipe
10	Handbrake	24	Rear support
11	Seat	25	Locking the fixed plate
12	Rollover protection frame	26	Collectively articulated steering
13	Water tank	27	Vibration motor
14	Fuel filler	28	Front support

4.2 Applications

The machine is light vibratory roller for compaction of the asphalt road surface, ground, driveways, parking and other surfaces. The machine used for other purposes is prohibited.

4.3 Recommendations Fuel

This roller need general type diesel. Use fresh, clean diesel. Water or ash will damage the fuel system. Read engine manual for proper use of fuel.

4.4 Before start

Please check before starting the following points:

Engine lubricating oil level

Hydraulic oil level

Oil-way

Air filter

Brake system

Fuel level

Water

Scraper to clean and properly adjusted

Note: all the liquid of the machine should be at correct position

Ensure regular maintenance.

Ensure clean driving platform.

Use the stairs and handle when go up and get down the roller.

4.5 Start up

4.5.1 If the engine is cold, warm up the engine (in particular when the temperature is low), preheating not more than 5 seconds.

4.5.2 Forward / reverse lever is in the neutral position before starting the roller.

4.5.3 Check the parking brake.

4.5.4 Rotation starting device to start the engine,turn off the vibration.

4.6 Stop / Park

4.6.1 Turn off the vibration.

4.6.2 Turn off two valves.

4.6.3 Stop by keys

4.6.4 After stopping the engine, the starter in the off position.

Note: Turn off the engine and take away the key, otherwise it will lead to battery discharge, engine can not be started.

4.6.5 Set the brake. Set the brake, pull the brake lever until the wheel does not move. Before leaving the machine, set the parking brake.

Parking brake is connected with the brakes, you can adjust the knob on the handle.

Note: The brake only control the rear wheel

Caution: Do not stop roller on the slopes or ramps. If you must stop, put a block underneath the drum after setting the brake.

4.7 Direction and speed

Forward / backward handle controls the direction and speed of forward and backward. Use the handle to control the speed instead of throttle cable.

Before each operation, check whether the machine moves when the handle is in middle position, then adjust it. Adjust the speed by control reverse handle.

4.8 Brake machine

When the handle is in middle position, the machine will automatically stop. Control the handle, then the machine moves.

slightly move to opposite direction to stop the roller, then the handle is returned to middle. If the machine could not stop when the handle is in middle position, adjust it with requirement.

4.9 Vibration

Vibration control switch is located on the control panel. Press button to turn on the vibration then press again to turn off the vibration.

CAUTION: If the machine is turned off when vibrating, when restart the machine and vibration will continue. Therefore, in order to easy start up, maintain a flat road, when you start the engine , turn off vibration.

4.10 Water Supply System

Water supply system is controlled by two valves, each turning handle controls one valve. Valve switch is one the right of operator, rotate the valve handle to control the water supply for rolling steel wheels.

4.11 Clearly marked joint locking

Placed in clearly identified link above connecting rods, is to ensure that front and rear halves of the wheels firmly together. Once connected, the two halves at the same time can be prevented from swinging. Before transportation and maintenance, lift machine to connect the connecting rod. Place the front connecting rod to the hole in the front of the machine frame provided.

4.12 Anti-rollover device

The machine is equipped with anti-rollover device
Anti-rollover device usually folded for easy transport
Before using the machine, you must equip anti-rollover device correctly.

Note: Do not use anti-rollover device for hoisting machines. Check if anti-rollover device screws are tightened monthly.

Note: Do not use the machine without anti-rollover device. Anti-rollover device is used to protect the operator in rollover accident.

4.13 Hours meter / tachometer

Tachometer is placed on the control panel when the engine start, it's used for speed measurement . House meter is used to record the engine running time. It could be used for regular maintenance.

4.14 Operation on slopes

When operating on slopes, should pay special attention to reduce personal injury or damage to the machine.

For safe operation, angle of inclination generally be limited to around 17 degrees or less.

Do not operate the machine on incline, it will cause rollover.

4.15 Disconnect the battery pack

Disconnect the battery pack before electrical equipment repair.

5. Regular repair and maintenance

Note: Regular maintenance will remain the machine at best condition.

Note: For the new machine, change engine oil every 250 running hours.

Inspect and maintenance the wires every month.

- 1) check whether wires are damaged.
- 2) check whether wires are loosen.
- 3) Check whether electrical device is working properly.

5.1 Routine maintenance

5.1.1 Maintenance every 10 hours

1) Engine Oil

The engine is placed in a horizontal position, check the oil level.

If the oil level is not in scale between dipstick, add oil.

2) Fuel tank

Check the fuel level.

5.1.2 Maintenance every 50 hours

1) Hydraulic oil

Check the oil level indicator, oil should be in the position of the middle to upper level. If the oil is not enough, please supplement by filler.

2) Battery

Observe the state of the battery, confirm if need to replace or not.

Check the bolts, fastening it when it is loosen.

Note: The battery is located in the lower right pedals.

5.1.3 Maintenance every 100 hours

- 1) Clean fuel filter
- 2) Clean air filter

5.1.4 Maintenance every 200 hours

- 1) Replace the hydraulic oil filter.
- 2) Add grease to vibrating drum.

5.1.5 Maintenance every 500 hours

- 1) Replace the engine oil

Open the plug to discharge oil when it's not completely cooling. Tighten the drain plug, add oil from the grease injection.

- 2) Replace the hydraulic oil within the hydraulic tank

Open the plug and discharge the oil when the hydraulic oil is hot.

Clean the inside of hydraulic oil.

Add a new oil tank calibration scale.

Start the engine and idle for 2-5 minutes, then turn off the engine and check oil level again. If the oil level is low, add.

- 3) Fill grease to steering cylinder pin and hinged parts.

5.2 Fill hydraulic oil, water and lubricants

5.2.1 General specification

- A) Do not take away strainer when filling oil, this will fill some sundries.
- 2) Use the recommended lubricants and hydraulic oil.
- 3) Do not use different brand of lubricants and hydraulic oil.
- 4) When changing the oil, completely drain the oil and clean the container before fill new oil.

5.2.2 The recommended lubricant

- 1) Engine oil recommendation API CH-grade lubricants
- 2) VG46 hydraulic oil
- 3) high-temperature lithium grease grease
- 4) Fuel:Diesel

5.3 Fuel Filter

Fuel Filters

Replace the fuel filter once a year. Check fuel tank,make sure no cracks and leaks.Before replacing the fuel filter, turn off the engine and let it cool.

5.4 Lubricants

When the lubricating oil is still hot, pour it. The oil discharged into an appropriate container.

Note: attention to environmental protection, put a plastic paper or container below to receive all discharged liquid. Dispose all liquids to make it consistent with the environmental regulations.

Read technical parameters to ensure that the type and amount of oil. Be careful when discharge lubricating oil. Hot oil can burn.

5.5 Scraper

Scraper placed in front of and behind of each wheel to prevent the clay,soil and asphalt attach on the drum.Scraper must be periodically checked.

Note: scraper incline to drum excessive will make rubbers loading too much, this will lead to damage.

5.6 Grease fitting

5.6.1 hinged links

Fill oil to grease fitting on hinged links will prevent the two parts of the machine pressed.

5.6.2 Rear drum

Placed on the rear drum driven bearing.

5.6.3 Rubber

Rubber is lubricated by grease. There are two grease fittings. Placed below the front wheel support.

5.7 Clean hydraulic system

Keep the hydraulic oil Clean is important to hydraulic component service life. Hydraulic oil in the hydraulic system is not only used to transfer energy, but also lubricate hydraulic component. Keep hydraulic systems clean helps avoid maintenance. The main reasons of the hydraulic system contamination include:

When you open the hydraulic system for routine maintenance and repair, there is dust.

Pollutants produced during operating machine.

Improper storage and handling of hydraulic oil
Using the wrong type of hydraulic oil

leaks in the tube and nozzle

Reduce hydraulic oil pollution

Clean hydraulic connections before opening hydraulic oil tube. Wash hydraulic tank filler cap when you fill hydraulic oil. Make the oil tank cap around clean before open it.

Avoid opening the pump,motor or coupling hose. .

Replace the hydraulic oil and hydraulic filters within the recommended service period.

5.8 Hydraulic Oil Requirements

Recommended to use a good anti-wear hydraulic oil in the petroleum-based hydraulic system. Good quality hydraulic oils contain special additives to reduce oxidation, prevent foaming, better separation with water. When selecting hydraulic oil for your machine, make sure wear-resisting hydraulic oil performance. Most of the hydraulic oil suppliers will help you choose the correct hydraulic oil. Do not mix different brands and grades of hydraulic oil. Most hydraulic oil have different viscosity. SAE is used for hydraulic oil viscosity,not for oil type (like engine, hydraulic, gear, etc). When you select hydraulic oil, ensure that: it reaches SAE viscosity standards, and it is the right hydraulic oil can be used.

5.9 Hydraulic oil level, hydraulic oil level display

Hydraulic oil level visible. If not, please fill oil from oil filter. Use clean hydraulic oil.

Before move away the fuel tank cap, please clean surround. Keep dust from tank.If fill oil frequently, please check the tube and fittings to make sure there is no leakage.

5.10 Suction filters

Hydraulic oil filter installed in the hydraulic tank. There is no need to replace oil filter when replace hydraulic oil. There is no need to check and maintain oil filter frequently.

5.11 Replace the hydraulic oil and suction filter

When use the machine, the hydraulic oil will gradually decrease or thinning, it will reduce their ability to lubricate. High temperature, oxidation, pollution may cause the system dross, viscous. Due to various reasons, the regular replacement of hydraulic oil is essential.

5.11.1 Open the filler cap on top of the hydraulic tank.

5.11.2 Remove the drain plug rotation, drained hydraulic oil.

Note: attention to environmental protection, put a plastic paper or container below to receive all discharged liquid. Dispose all liquids to make it consistent with the environmental regulations.

5.11.3 Unscrew reflux filter, replace the filter element.

5.11.4 install the drain plug.

5.11.5 Fill hydraulic oil tank with clean hydraulic oil by oil filter.

5.12 Leakage of the hydraulic system

5.12.1 Turn off the engine or take away the key to prevent the engine from starting.

5.12.2 The engine idle for 5-10 seconds to make hydraulic oil into the pipeline.

5.12.3 Reverse handle to Middle position. Then start the engine and idles for 3-4 minutes

5.12.4 When the engine idles, let the machine go forward and backward by reverse handle, this will help exhaust gases in the driving system.

5.12.5 Increase the engine speed, operate all parts of the hydraulic system to discharge the residual gas.

5.12.6 Check the hydraulic oil level, fill oil if necessary.

5.13 Brake adjustment

Braking the drive motor is placed in the support at the rear wheel to prevent movement of the wheels when the machine is stopped.

Loosen the brake lever until the brake adapted to an appropriate force (about 30 lbs)

Start the machine on level ground and in the case of the front and rear brakes driving machine. If the roller in the case of brakes can travel, stop the machine and tighten the operating lever and redo the above process

When the roller is not moving in the case of braking, stop the machine more to ensure that the brake is normal.

5.14 Throttle cable adjustment

5.14.1 When the engine is running, adjust the throttle so that the engine speed to 2800rpm.

5.14.2 Start the engine and adjust to a maximum speed of 2800rpm

5.15 Transportation machinery

When deliver the machine, set a block under the front drum and rear drum, use the hook on the front drum and rear drum to make sure the machine is set tightly in the truck.

Caution: Do not use any place but the hook to tie the machine.

5.16 Storage

If you want to store the machine more than 30 days:

Please run out of fuel and water

Please open the valve to drain the water from the sprinkler system.

Please change the engine oil

Please clean engine and heat sink.

Please remove the batteries, regular charging.

Please cover the entire machine in a dry and protective area.

5.17 Drag

Drive the drag valve will make oil to bypass the drive motor, the wheels can be coasting.

Drag valve is used when the engine or hydraulic system is breakdown, and the machine can not be operated on the soft stagnant or muddy soil.

When dragging the valve is turned on, the machine can move free. When the drag operation is finished, turn off the valve to stop the machine immediately in case of gliding.

Caution: Do not drag the machine for a long time or at speed of 3-5km/h, this will damage the drive motor.

For more information, please contact TYPHON Machinery.

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