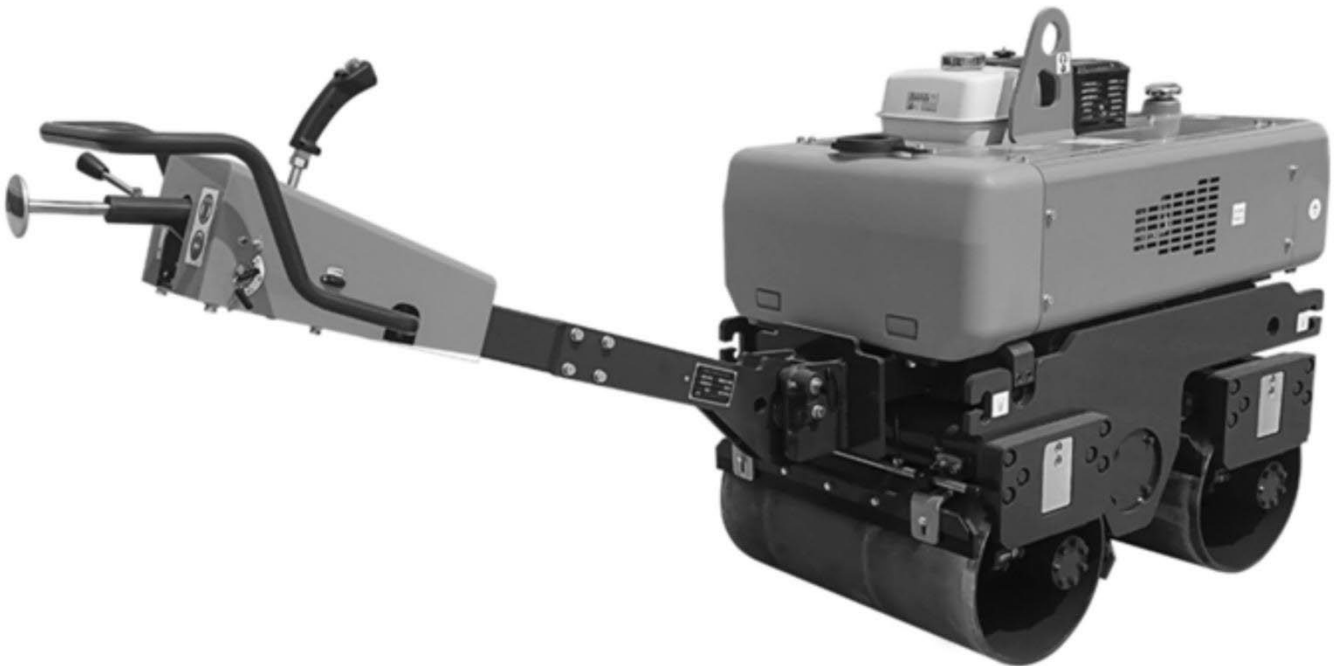


# VIBRATORY ROLLER

Model:TMG-MVR30



- Please read the product manual completely before assembly
- Check against the parts list to make sure all parts are received
- Wear proper safety goggles or other protective gears while in assembly

Missing parts or questions on assembly?

Please call: 1-877-761-2819 or email: [cs@tmgindustrial.com](mailto:cs@tmgindustrial.com)

Do not return the product to dealer, they are not equipped to handle your requests

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## **1. Preface**

- Thank you very much that you have purchased the products.
- This operation manual will tell you how to correctly operate and maintain your machine. Before using the machine, please read the operation manual thoroughly to guarantee the correct operation. Following the operation requirements in the operation manual will make that your machine is in the best operation state so as to extend the life of the set. For you own safety and protection injury, carefully read, understand and observe the safety instructions described in this manual.
- Keep this manual or a copy of it with the machine. This machine is built with user safety in mind; however, it can present hazards if improperly operate and serviced. Follow operating instructions carefully!
- With the increasing improvement and enhance of the products made by the company, there may be some differences between the contents described in the operation manual and the practical products, it is our desire that the users will pay attention to the differences.
- The walk-behind double drums roller is light road roller. It is used to compress on the asphalt, sand soil gravel and it is also used to planish the lawn and playground.
- This machine is with hydraulic unit, variable plunger pump, and constant displacement hydraulic motor, which make the machine has excellent performance.

## **2. Safety alerts**

- In order to operate the machine safely, it is very necessary to maintain the machine regularly. Please read the Safety alerts carefully to master the skills of maintenance and operation.

## **3. Driving qualification**

- Qualified staffs are allowed to operate the machine
- Compaction task Operator should get training on the aspects of compaction before operating the machine.

- 
- Loading and unloading the machine Operator should get training on the aspects of Loading and unloading the machine

## **4. Safety precautions**

### **4.1 General precaution**

- Read the Manual carefully to understand and master the operating methods and functions, know the operation device and meanings of labels.
- Comply with the rules
- Be familiar with the working site in advance.
- Be familiar with the functions of the machine.
- Please operate the machine within the allowed range.
- Check the machine before operating. Make sure the functions of the machine are sound.
- Pay attention to the bystanders during working.
- Do not touch fire components.
- Pay attention to fireproof. fuel and oil catch fire easily, do not smoking and using match and lighter. The engine should be turned off the engine before filling fuel and far from open fire

### **4.2 Preparations for safety operation**

- Cleaning the machine
- Check the machine before operation. Make sure the functions of the machine are sound.
- Check and make sure the enough level of all the liquid.
- Check and make sure no leaking of hydraulic oil, fuel and water.

### **4.3 Attentions before starting up engine**

- Make sure each control levers are in the neutral position before starting up the engine. Using manual brake lever to stop the engine.

- 
- Ensure safety around the machine before starting up engine.
  - Be care of ventilate.
  - It is danger to inhale the exhaust gas, ensure enough ventilate during working.
  - Do not near exhaust pipe.
  - The exhaust gas is poisonous.

#### **4.4 Attentions after starting up engine**

- Preheat the machine.
- Idle the machine several minutes after starting up the engine. Do not operate the machine in high speed at the beginning of operating. Those will avoid damaging the machine, and prolong the life of machine.
- Trial run
- Trial operate the machine and check if every function are sound.

#### **4.5 Attentions during working**

- Avoid operation errors.
- Focus on operation, and pay attention to bystanders.
- Be careful of bystanders and barriers when forward and back the machine.
- Repair the machine at once when meeting shortcomings.
- Attentions to park the machine.
- The machine should be parked on level surface. If must be parked on slope, block should be put in the front of drum.

#### **4.6 Attention of loading and unloading the machine**

- Use the hard climbing board with appropriate width, length and thickness for safe loading and unloading
- Don't use redirector on the climbing board.
- Use the rope with the adequate strength to lifting the machine

- 
- Please vertical lifting the machine
  - After loading, the machine firmly fixed. Then inset the block under the double side of drums

#### **4.7 The correct usage of the battery (note: For the battery needing to maintain, maintenance-free except)**

- The battery will produce flammable gas, may cause an explosion. Do not smoke around the battery, so that the battery can be far away from fire, sparks and fire
- Battery electrolyte contains sulfuric acid; it will destroy the clothing and skin. If it exposed to clothes and skin, rinse with plenty of water. In case of contact with eyes, rinse with water and seek for medical help.
- During checking and processing the battery, please turn off the engine and turn the switch to the OFF position.
- Ensure the wire ends tighten.
- Battery liquid under the minimum line, please don't charge. If you continue to use the battery at this time, it will shorten the battery life, or even cause an explosion.
- Should add distilled water immediately to the right charge location.

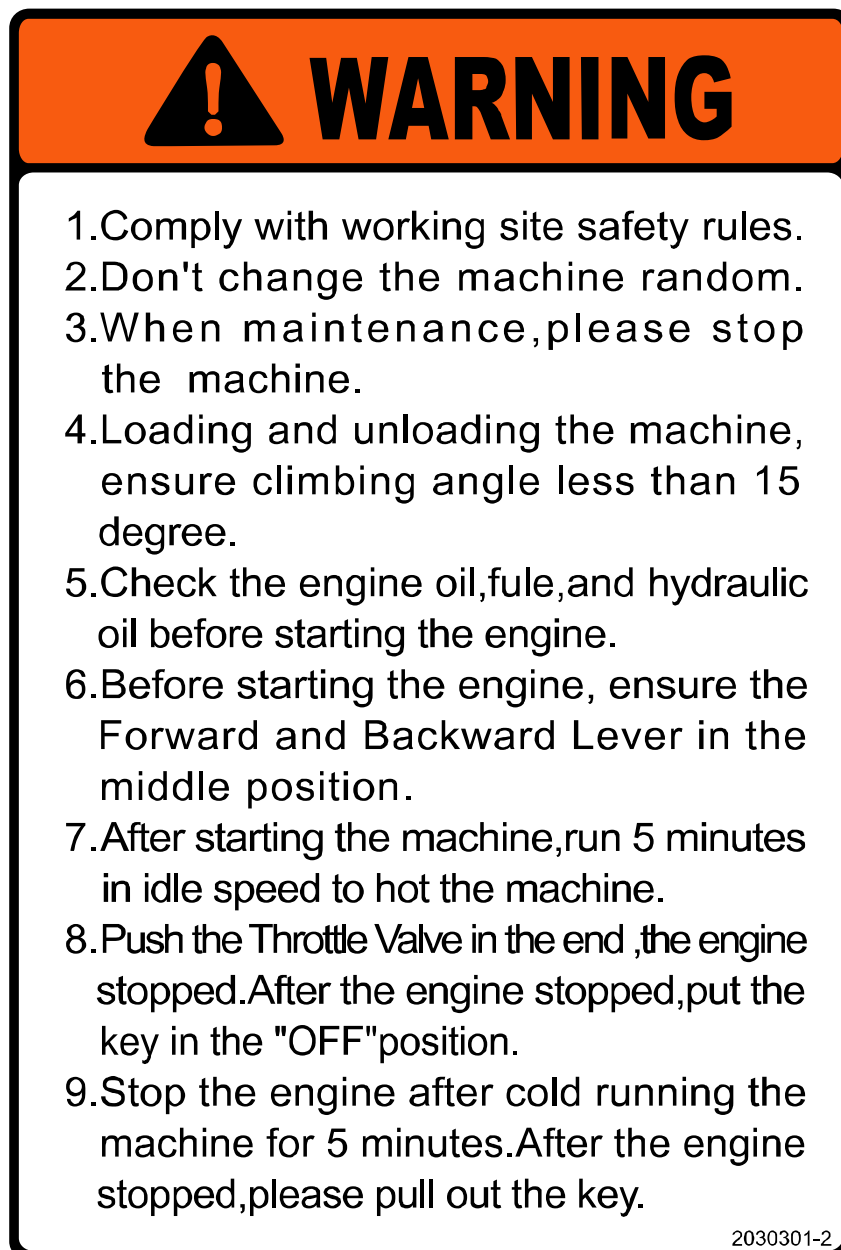
#### **4.8 Attention of the maintenance**

- Keep the machine clean
- Detach the negative pole of the battery to disconnect the power when repairing the electric system or doing the electric welding.
- Attention of operating the high-pressure pipe
- Maintenance of hydraulic oil.
- There is high pressure within the hydraulic system, don't add, discharge, check or repair the hydraulic system until the internal pressure is released.
- Be Careful of the hot components

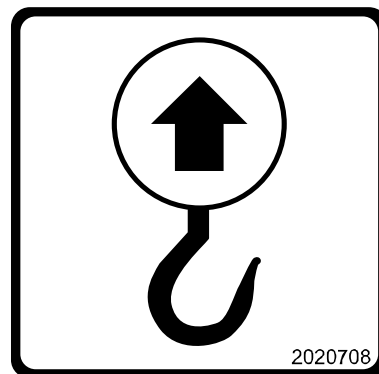
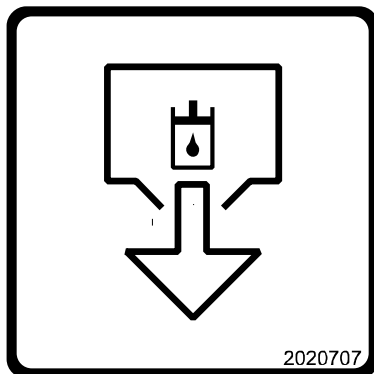
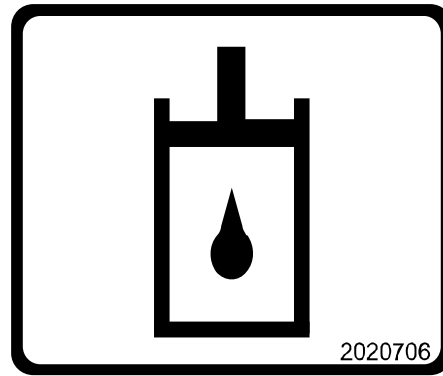
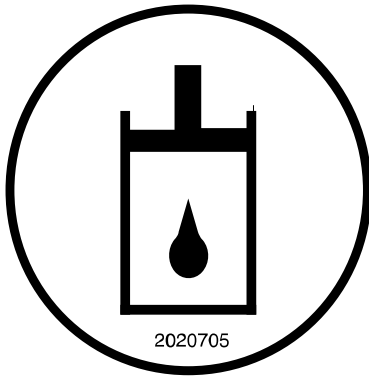
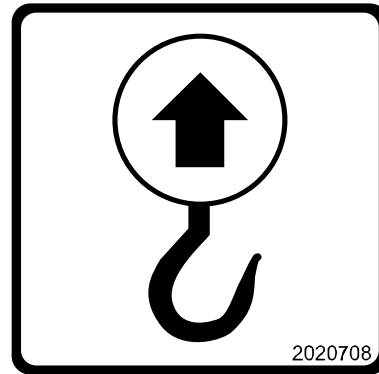
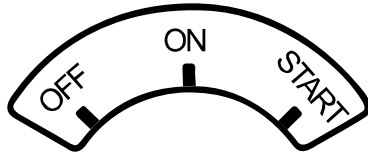
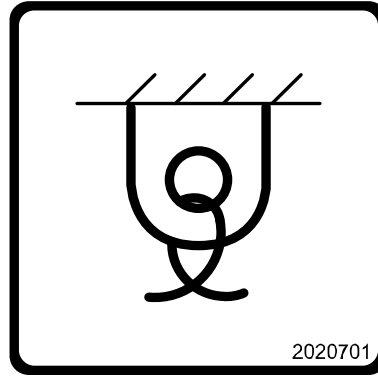
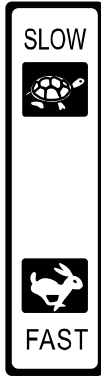
- 
- Engine oil and hydraulic oil will be hot after the machine has run for a few minutes, don't do the repair until the machine become cool.
  - Disposal of the waste oil.
  - Discharge the oil into a suitable container instead of draining the waste oil to the river and sewer. Attention to protect environment.

## 4.9 Safety labels

- Keep the identification clean, once it is lost, paste the new one.





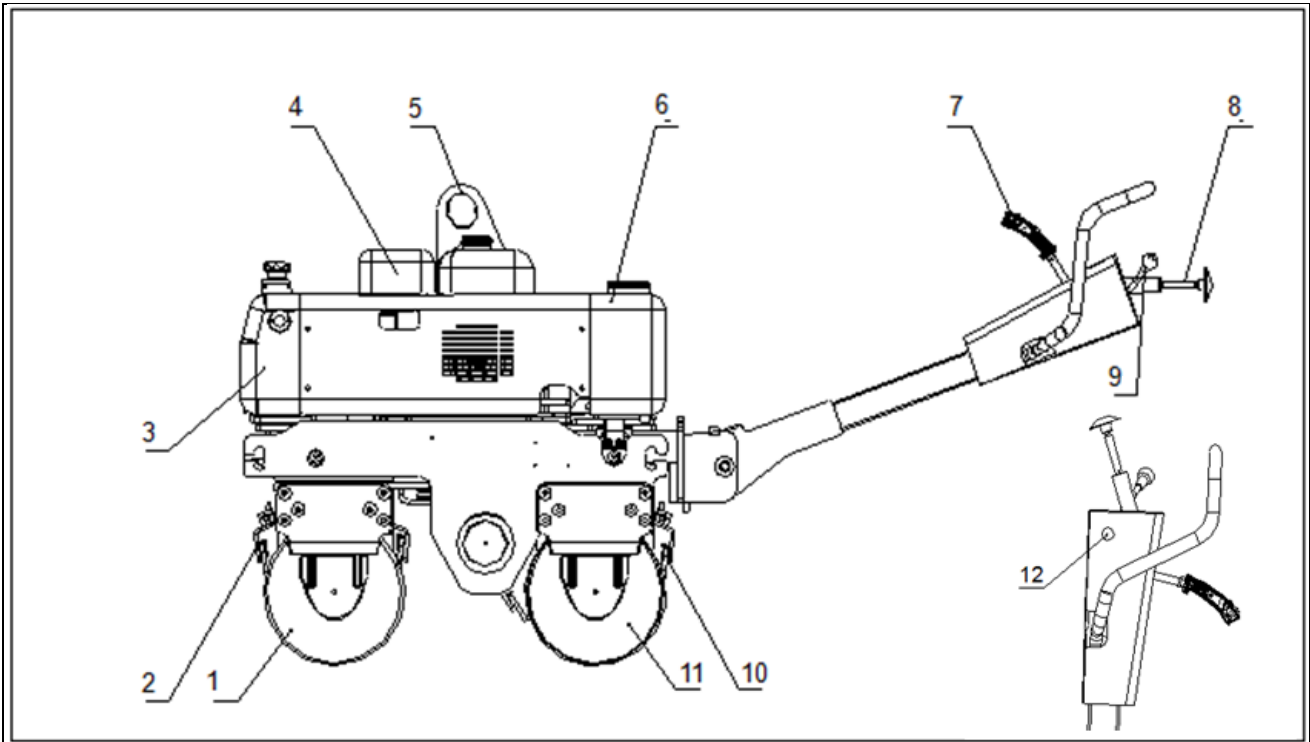


# 5. Operation

## 5.1 The name and function of operation device

### 5.1.1 The name of operation device

- Overall structure



1. Front wheel	2. Scraper
3. Hydraulic oil tank	4. Engine
5. Sling rack	6. Water tank
7. Forward and backward handle/ vibration switch/ steering button	8. Safety lever
9. Throttle lever	10. Scraper
11. Back wheel	12. Starting switch

---

### 5.1.2 Function of the operation device

- Familiar with the function of the operation device, for safe operation
- Forward and backward handle
- The handle has three functions: to walk (forward and backward) stop and stepless speed.
- Moving “Forward and backward handle” forward or backward, road roller moves forward or backward correspondingly. Put it in the middle position, the machine stops
- Speed proportional changes with the tilt angle of the handle.
- Vibration switch

“Vibration switch” in the “ I ” position, vibration begins

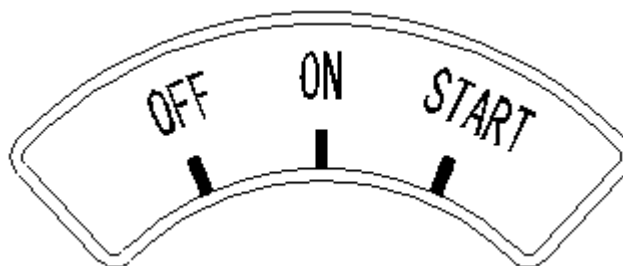
“Vibration switch” in the “O” position, vibration stops

## **! Attention**

**Don't vibrate above the hard concrete road or iron plate. The machine stops, turn off the vibration button Vibrating and compacting, if the machine falls into the mud, please immediately turn off the vibration button**

- Turning switch  
The switch is located in the upper part of the “forward and backward handle”. Press the right side of the switch, the front wheel turn to the right; press the left side of the switch, front wheel turn to the left. Operations in the straight, gently press the button can be fine-tuning.
- Safety lever
- Press down the “safety Lever”, the machine will slow or stop walking or reverse, in order to protect the operator.

### **Starting switch**



- 
- The switch can control the machine to start, run and stop  
In the “ON” position, the circuit connected. The engine starts, the key will stop at this location
  - In the “ON” position, engine start. Engine started, release hand, the key will automatically return to the (ON) position
  - In the “OFF” position, the key can pulled out. All electronic systems are shut down. The key to “OFF” position can turn off the engine. Or the battery power on their own, and led to the engine fails to start.
  - Throttle switch
  - Used to control the engine speed
  - Press down the “throttle switch”, the engine speed will increase. Lift up the “throttle switch”, the engine speed will decrease to stop
  - Attention: When starting the engine, should press down the “throttle switch” to the suitable position (full throttle)
  - Lock spanner
  - Can be folded during transportation (see the overall structure)
    - 1) When folding, pull back the “lock spanner” until the position locked automatically.
    - 2) When normal running, have to unfold the tail parts. Pull back the “lock spanner” to the run position, and then the “lock spanner” is automatically locked,

## **5.2 Diving operation**

### **5.2.1 Inspection before operation**

- Ensure that the “forward and backward handle” in the middle position, vibration switch is in the “OFF” position.

### **5.2.2 Start up the engine**

- 1) Turn on the throttle lever (full throttle)
- 2) Starting switch turn to “start” position, to start the engine. At the same time

---

of engine start, release the hand, the key will return to the “ON” position.

## **! Attention**

**Do not keep starting more than 15 seconds**

**If the starting fails, starting again wait for 30 seconds!**

**Excessive use the starter, will burn the starting motor!**

### **5.2.3 After starting up the engine**

Do not run machine immediately after starting, please observe the following

## **principles:**

- 1) Low-speed to warm engine a few minutes, until warm the machine
- 2) Ensure that the exhaust color normal, no unusual sounds and smells

### **5.2.4 Machine running**

## **! Attention**

**Before running the machine, please ensure that there is no person and obstacles nearby.**

**Adjust the “forward and backward handle” to make machine forward and backward.**

## **! Attention**

**Should gentle push “forward and backward handle”, not too fast.**

### **5.2.5 Machine stopping**

## **! Warning**

- Avoid stopping on the slopes
- If you has to park on the slopes, please put obstacles before the front wheel to prevent the machine slide down alone the slopes.
- Leave the machine, please keep “forward and backward handle” in the middle

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position, turn off the engine, and take away the key.

- 1) The machine will stop moving when the forward and back handle on the middle position.
- 2) Lock the machine by hand.
- 3) Insert wedge-shaped objects under the drums.
- 4) The Engine runs 2 to 3 minutes under the idle situation.
- 5) Engine will stop when the throttle switch is pushed to the bottom position.
- 6) Put the start switch to the OFF position.

### **5.3 Operation of vibration and compaction**

- 1) Machine begin to vibrate when the vibration switch is on the ON position.
- 2) Machine stop to vibrate when the vibration switch is on the OFF position

### **! Attention:**

**Stop the vibration when the machine stops moving.**

**Stop the vibration at once when the machine runs into the mud.**

### **5.4 Operation of the sprinkler system**

- 1) Check the water level before open the sprinkler system, try to fill the water tank full.
- 2) The sprinkler system will be opened by turning the sprinkler valve switch.

### **! Attention**

**In the cold weather, make sure the tank is empty to prevent the water from freezing after the work finished.**

**Presentation: Drain plug is under the water tank.**

### **5.5 Adjustment of the fender**

- Loosen the screw bolt, and then move the fender up and down to make sure the fender is installed on the drum tightly.

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## 5.6 Operation under the low temperature.

- Take the following methods to prevent the faults occurring in the low temperature:
  - 1) Use the fuel and oil of low viscosity
  - 2) Keep the battery away from the low temperature.
- Battery will be of low efficiency and even freeze in the low temperature. Please make sure the battery is full and keep the battery away from the low temperature during the night.

## 5.7 Attention after the operation

- 1) Remove dirt and water on the machine, especially dirt and water on the piston rod of the steering cylinder. If the dirt is brought into the oil cylinder, the seal system will be damaged.
- The machine should stop on the hard and dry place.
  - Low temperature may cause low efficiency of the battery. For the work of the next day, cover the battery or remove the battery from the machine and keep it in a warm place.
  - Please discharge the water tank to prevent freezing.

## 5.8 Attention of the storage

- If the machine will not be used beyond one month, please attention the following requirements
  - 1) Stop the machine in the closed area after cleaning it.  
If it is stored outdoors, keep the car under the cover.
  - 2) Inject the oil and butter, change the engine oil, then check there is leak or not.
  - 3) Coat the grease on the exposed piston rod of hydraulic steering cylinder.
  - 4) Disconnect the negative of the battery, or remove the battery
  - 5) Discharge the water in the tank.

- 
- 6) Put the forward and back switch on the middle position, make sure the vibration switch on the OFF position, lock the machine by hand.
  - 7) Insert wedge-shaped objects under the drums to prevent the machine moving.
  - 8) Put away the key switch.
  - 9) If long-term storage is needed , please start the machine regularly to prevent corrosion. Start the machine at least one time per month to prevent the oil layer deteriorates, and charge at the same time.

## 6. Regular maintenance and repairs

### ! Attention

- Regular maintenance of machinery can keep the machine in the best situation.
- Engine oil should be changed after the machine has run 50 hours or so.
- Electrical wiring needs the inspection and maintenance every month.
  - 1) Check the wiring is damaged or not.
  - 2) Check the wiring loose or not.
  - 3) Check the electrical device can work properly or not.

### 6.1 Regular maintenance

#### 6.1.1 Maintenance and repairs every 10 hours

##### 1) Engine oil

Put the engine in the horizontal position, check the oil level.

If the oil level is not within the scale of oil level indicator, please add.

##### 2) Oil Tank

Check the fuel oil level.



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### **6.1.2 Maintenance and repairs every 50 hours**

#### 1) Hydraulic oil

Observe the position of the oil level indicator; it should be at the center or the higher position of the liquid indicator. If the oil is not enough, please add.

#### 2) Storage battery

Observe the state of the battery, and then confirm it should be replaced or not.

Check the bolts loose or not, if loose, please tighten.、

### **6.1.3 Maintenance and repairs every 100 hours**

#### 1) Change the engine oil.

Open the oil plug and discharge the engine oil when the oil is still warm.

Tighten the drain plug; inject the engine oil through the oil filling port.

#### 2) Clean the fuel filters.

#### 3) Clean the air filters

### **6.1.4 Maintenance and repairs every 200 hours**

#### 1) Replace hydraulic oil filter.

#### 2) Inject the grease to the drums.

### **6.1.5 Maintenance and repairs every 500 hours**

#### 1) Replace the hydraulic oil in the hydraulic oil tank.

Open the oil plug and discharge the hydraulic oil when the oil is still warm.

Clean the inside of the hydraulic tank.

Add the new hydraulic oil to the standard scale.

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Start the engine and keep it run 2-5 minutes in the idle situation, then turn off the engine and check the oil level again, if the oil level is low, please inject the oil.

- 2) Inject butter to the rotating support used for steering.
- 3) Inject butter to the axis pin and hinge parts of the steering cylinder.

## 6.2 Injections of hydraulic oil, water and lubricants

### 6.2.1 General norms

- 1) When filling the water and oil, do not remove the filtering net in which situation dirt will not be brought into the tank easily.
- 2) Use the recommended lubricants and hydraulic oil.
- 3) Do not use different brands of lubricants and hydraulic oil.
- 4) Filling the new oil after the old oil is discharged and the container is cleaned completely.

### 6.2.2 Recommended lubricant

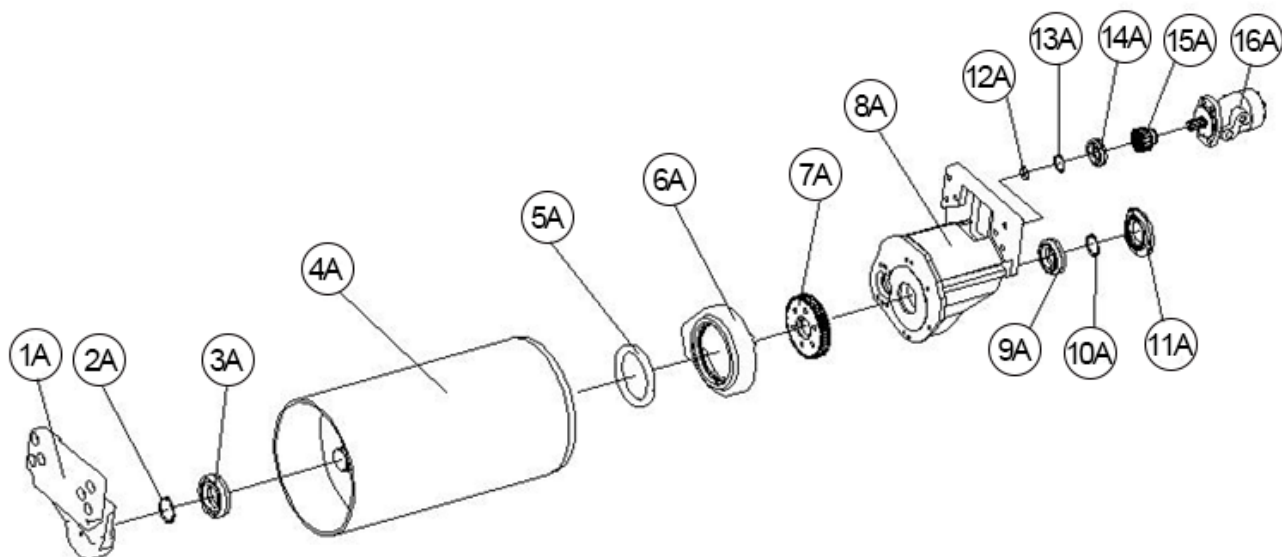
- |                       |                                       |
|-----------------------|---------------------------------------|
| 1) Engine oil         | in low temperature SAE 10W-30         |
|                       | in high temperature SAE 40            |
| 2) Hydraulic oil      | wear-resistant VG46                   |
| 3) lubricating grease | Heat-resistant lithium saponify       |
| 4) Fuel oil           | gasoline oil (meet national standard) |

## 7. Main technical parameters

Type	TMG-MVR30
Engine model	HONDA GX390
Engine type	Gasoline, air cooled, 4 stroke, single cylinder
Max.power	13hp/3600rpm
Starting method	Electric starting

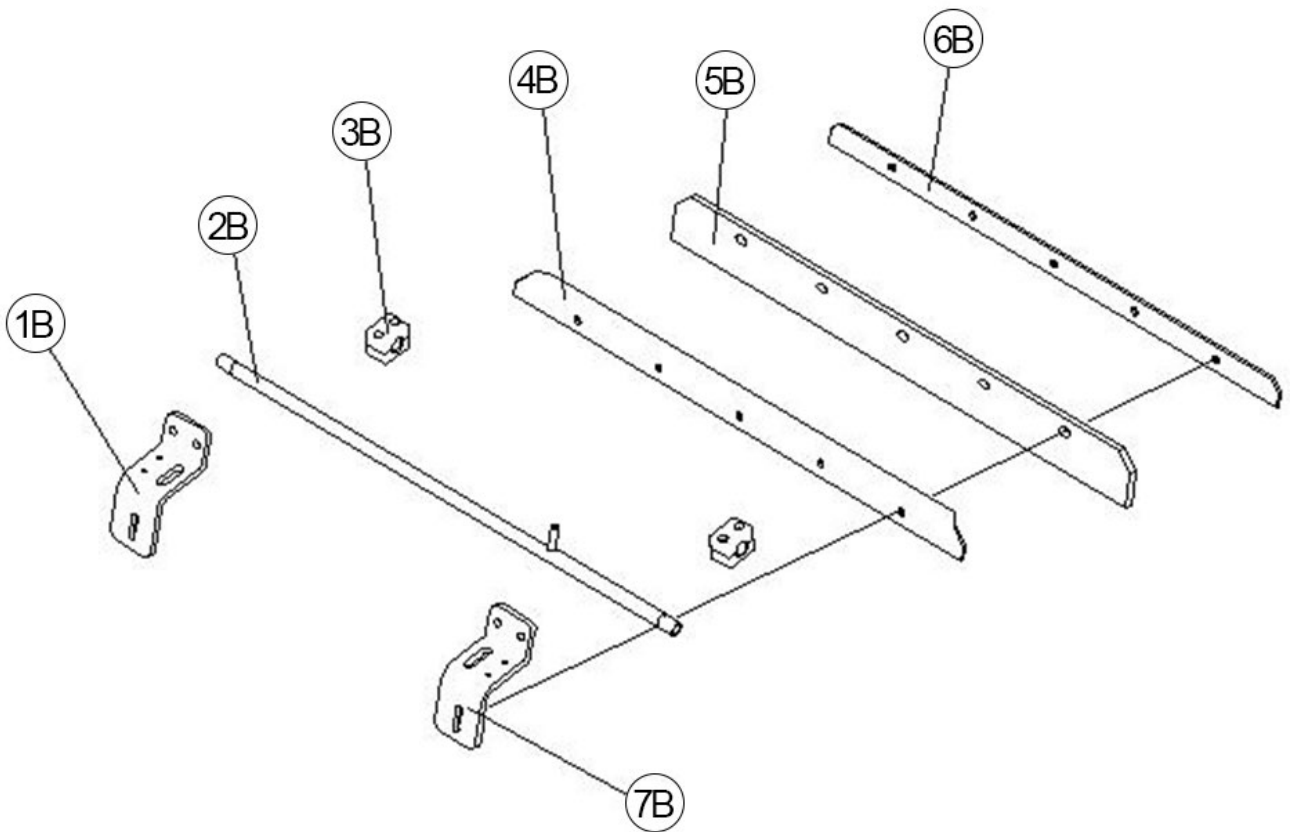
Fuel tank volume	6.5L
Run speed	0—3.5km/h
Drive method	Variable plunger pump, constant displacement hydraulic motor
Steering	Hydraulic steering
Diameter of the steel wheel(forward /back)	Φ355×680mm/Φ355×680mm
Exciting force	17KN
Vibration frequency	65HZ
Vibration clutch method	Electromagnetic clutch
Climbing capacity	25%
Water tank volume	38L
Working weight	840kg

## 8. DRUM ASSEMBLY



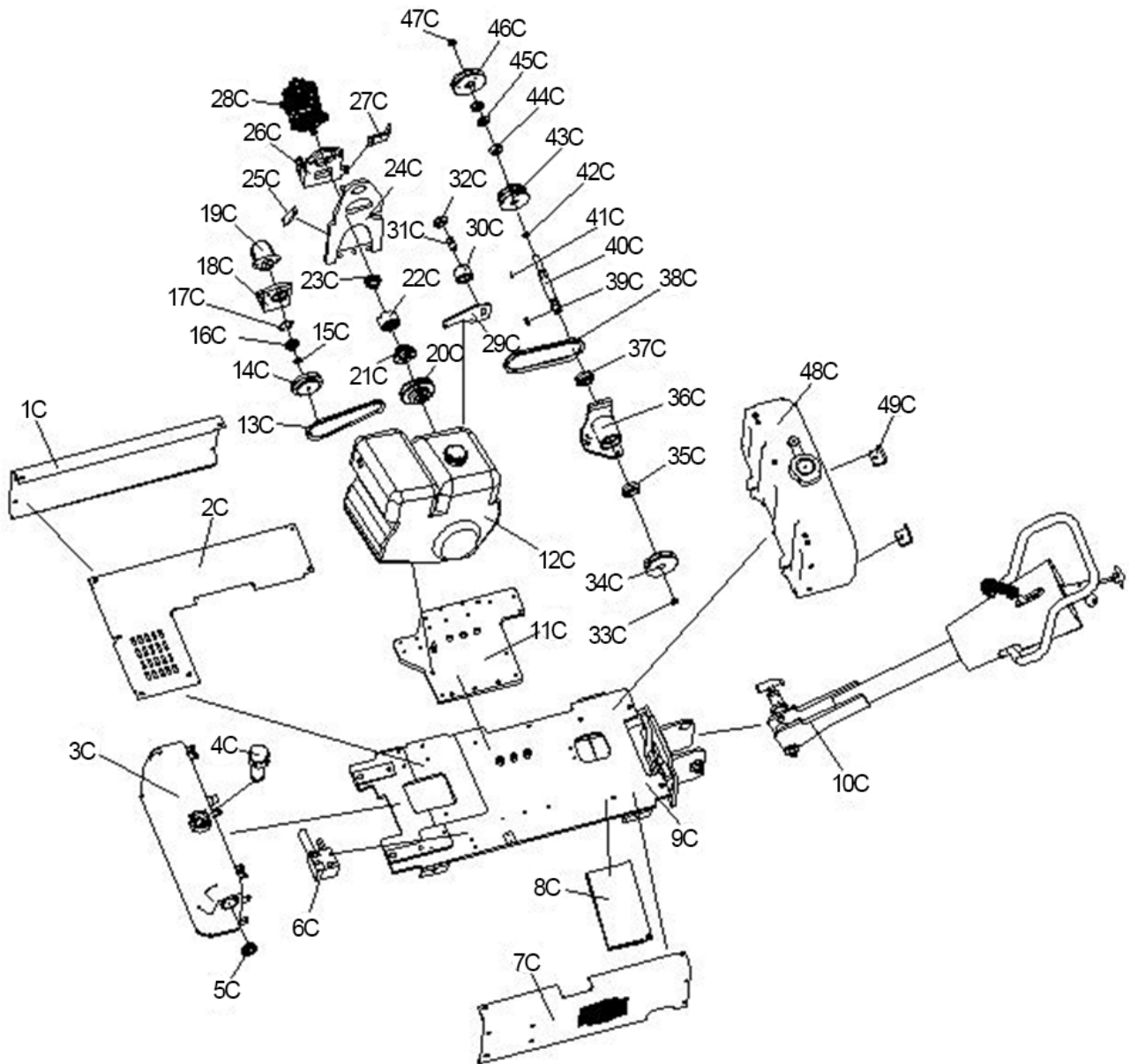
NO.	CODE	DESCRIPTIONS	QTY	MODEL
1A	2100113A	Left front support	1	Self-made parts
2A	DQK010137	Circlip	1	60
3A	NZC012213	Deep groove ball bearing	1	6212-2RS
4A	2100101A	Front drum	1	Self-made parts
5A	MFJ023601	framework oil seal	1	TC125*160*12
6A	2100106	End cover	1	Self-made parts
7A	2100103	Big gear	1	Self-made parts
8A	2100105	Right front support	1	Self-made parts
9A	NZC010611	Deep groove ball bearing	1	HRB 6210 ZZ
10A	DQK010132	Circlip	1	50
11A	2100116	End cover	1	Self-made parts
12A	DZK060302	Galvanized flat washer	1	φ8.5*φ28*δ4
13A	DQK010128	Circlip	1	40
14A	NZC012109	Deep groove ball bearing	1	6008-2RS
15A	2100104	Small gear	1	Self-made parts
16A	YYJ110101	Drive motor	1	JS130

## 9. Scraper assembly



NO.	CODE	DESCRIPTIONS	QTY	MODEL
1B	2100228	Fix plate for scraper	1	Self-made parts
2B	2100221	Water pipe assembly	1	Self-made parts
3B	<b>YFJ100106</b>	Tube clamp	2	T LPG-217.2
4B	2100223	Fix plate	1	Self-made parts
5B	2100224A	Scraper	1	Self-made parts
6B	2100225	Locking plate	1	Self-made parts
7B	2100222	Fix plate for scraper	1	Self-made parts

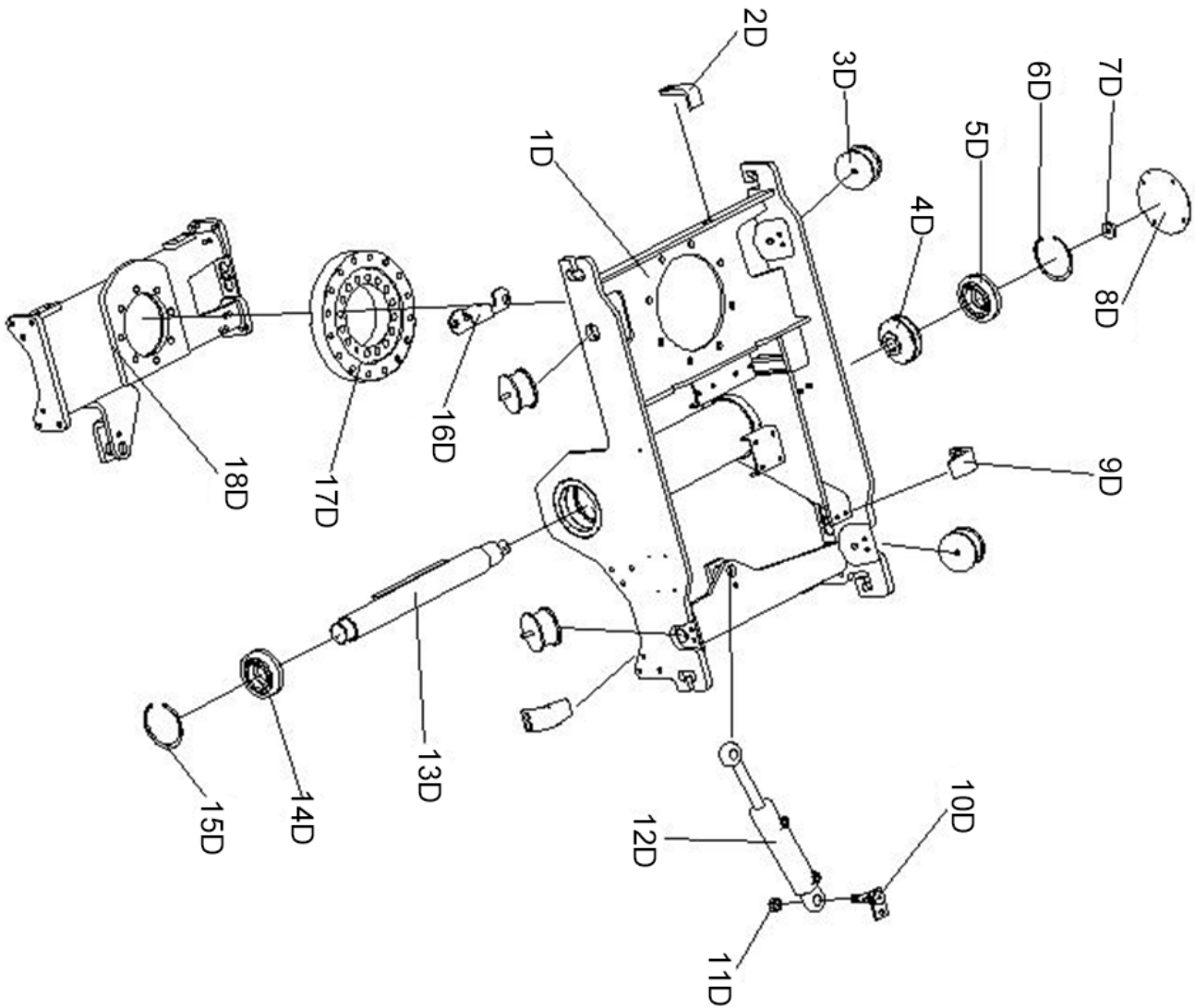
## 10. The upper frame assembly



NO.	CODE	DESCRIPTIONS	QTY	MODEL
1C	2100429C	Right side cover	1	Self-made parts
2C	2110103B	The upper cover	1	Self-made parts
3C	2100421A	Hydraulic oil tank	1	Self-made parts
4C	YFJ060102	Air filter	1	EF2-32
5C	YFJ040101	Hydraulic oil level indicator	1	YB-M42X1.5
6C	2111009A	Steering valve block	1	11063096
7C	2110104B	Left side cover	1	Self-made parts
8C	2110107A	Cover	1	Self-made parts
9C	2100213A	The transmission base	1	Self-made parts
10C	210BSZC	The operation handle assembly	1	Self-made parts
11C	2110101	The engine base	1	Self-made parts
12C	FDJ010704	Electric start engine	1	

13C	PDK010122	V belt	1	SPZ670
14C	2100411A	Steering pump pulley	1	Self-made parts
15C	DQK010117	Circlip	1	25
16C	NZC010306	Deep groove ball bearing	1	6005ZZ
17C	DQK020130	Circlip	1	47
18C	TZJ070201	Gear pump support	1	Self-made parts
19C	YYJ010603	Gear pump	1	1APF3.4F02P18
20C	2110102	Engine pulley	1	Self-made parts
21C	2100412	Engine coupling	1	Self-made parts
22C	TZJ040109	Gear coupling	1	Self-made parts
23C	TZJ040301	Pump coupling	1	Self-made parts
24C	2100218A	Lifting frame	1	Self-made parts
25C	2100219	Lifting plate	1	Self-made parts
26C	2110106	Pump support	1	Self-made parts
27C	2100420	Fixing plate for control cable	1	Self-made parts
28C	YYJ021601	Plunger pump	1	KPL-10CR
29C	2100427	Fixing plate for tension roller	1	Self-made parts
30C	3070402A	Tension roller	1	Self-made parts
31C	3101009	Tension roller shaft	1	Self-made parts
32C	NZC012105	Deep groove ball bearing	1	6004-2RS
33C	DZK060302	Flat wahser	1	φ8.5*φ28*δ4
34C	2100404A	Pulley	1	Self-made parts
35C	WZC010706	Deep groove ball bearing	1	6305
36C	2100401B	Support for assembling vibration system	1	Self-made parts
37C	WZC010706	Deep groove ball bearing	1	6305
38C	PDK010316	V belt	1	A27
39C	JBM030603	Flat key	1	C8*7*24
40C	2100403A	Clutch shaft	1	Self-made parts
41C	JBM010308	Flat key	1	A5*5*25
42C	DQK010117	Circlip	1	25
43C	3070503B	Electromagnetic clutch	1	Self-made parts
44C	2100406	Clutch cover	1	Self-made parts
45C	WZC010305	Deep groove ball bearing	2	NSK 6004 ZZ
46C	2100405A	Vibration shaft pulley	1	Self-made parts
47C	DZK060302	Flat washer	1	φ8.5*φ28*δ4
48C	2100422B	Plastic water tank	1	Self-made parts
49C	2100437	Press plate for water tank	2	Self-made parts

# 11. The lower frame assembly



NO.	CODE	DESCRIPTIONS	QTY	MODEL
1D	2100201A	Frame	1	Self-made parts
2D	2100202A	Fixing plate	1	Self-made parts
3D	<b>TZJ020103</b>	Rubber shock absorber	4	Self-made parts
4D	2100211	Vibration pulley	1	Self-made parts
5D	WZC040204	Cylindrical roller bearing	1	NSK NJ310EWC3



6D	DQK020155	Circlip	1	110
7D	MFJ050110	Axle end cover	1	φ110*10
8D	2100216	Vibration cylinder cover	1	Self-made parts
9D	2100208	Limit block	2	Self-made parts
10D	2100206A	Pin	1	Self-made parts
11D	2100232A	Sleeve	1	Self-made parts
12D	YYJ511103	Steering cylinder	1	Self-made parts
13D	WZC040204	Cylindrical roller bearing	1	NSK NJ310EWC3
14D	DQK020155	Circlip	1	110
15D	2100209A	Vibration shaft	1	Self-made parts
16D	2100117	Oil pipe fixing plate	1	Self-made parts
17D	TZJ160302	Slewing ring	1	Self-made parts
18D	2100108	Steering support	1	Self-made parts