Henan Master Machinery Co., Ltd

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OPERATION MANUAL

FRT36A

Ride-on Power Trowel

PERFORMANCE · EFFICIENT ·RELIABLE

Master sincerely thanks you for selecting the Plate Compactor Machine. For your Safety and proper operation, before you start to operate or carry out any maintenance on this equipment, YOU MUST READ and STUDY this manual carefully. Be sure to always keep it ready for reference.

Produced By Henan Master Machinery Co.,Ltd

Dear Customer,

Thanks for choosing Master machine.

To ensure the safety and proper use of the machine, please read the instruction book carefully before use.

Also, please fill this card and save it for warranty use.

Buyer Name		Purchase Time	
Tel		Contact Person	
Address			
Product Name	Power Trowel		
MODEL	FRT36A		
Motor Model			
Note			

The Master Ride-on Trowel is the product of extensive engineering development designed to give long life and unmatched performance. Once machines are fully assembled, a run-in test is performed to ensure quality standards of the highest level. A series of operational tests are conducted on concrete, incorporating a phase of operations at 1/2 to 3/4 throttles for a minimum of 20 minutes and a final run phase at full throttle for a minimum of 25 minutes.

You can help ensure that your Ride-on will perform at top levels by observing a simple routing on first use. Consider that your new Ride-on Trowel is like a new car. Just as you would break in a new car to the road or any new machine to the job, you should start gradually and build up to full use. Learn what your machine can do and how it will respond. Refer to the engine manufacturer manual for run-in times. Full throttle and control may be used after this time period, as allowed by material. This will serve to further break in the machine on your specific application, as well as provide you with additional practice using the machine.

We thank you for the confidence you have placed in us by purchasing a Master Ride-on Trowel and wish you many years of satisfied use.

RIDE-ON POWER TROWEL WARRANTY

Master agrees to furnish without charge, F.O.B. our plant, a replacement for any part or portion thereof, comprising the drive train of the Master Ride-on Power Trowel, consisting of the drive shaft assembly and the gear case assemblies, save and except drive belts, power units, and/or bearing or electrical controls which prove upon our examination, to be defective in either material or workmanship within a period of twelve （12） months from date of purchase, provided that notice of such defective part or portion thereof is given to Master Ltd. Within the twelve month warranty period. No further or other guarantee

or warranty expressed or implied in connection with the sale of the Ride-on Power Trowel is given and our sole liability consists in replacing defective parts or portions thereof. We shall not be responsible for any special, indirect or consequential damages arising in any manner whatsoever.

This guarantee is for the sole benefit of the original purchaser as end user. Our responsibility under this guarantee ends in the case the original purchaser transfers ownership of the Ride-on Power Trowel, makes any changes or adds any parts or devices not of our manufacture to the Ride-on Power Trowel.

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Maintenance record

Preventative maintenance and routine service plan

This Master ride-on power trowel has been assembled with care and will provide years of service. Preventative maintenance and routine service are essential to the long life of your Master ride-on power trowel. Your dealer is interested in your new trowel and has the desire to help you get the most value from it. After reading through this manual thoroughly you will find that you can do some of the regular maintenance yourself. However, when in need of parts or major service be sure to see your Master dealer. For your convenience we have provided this space to record relevant data about your ride-on Trowel. When in need of parts or service be prepared to provide your trowel serial number.

Routine Service Intervals		Each use	After 1.5 Months Or 50 hrs	Each 3 Months Or 100 hrs	Each6 Months Or 200 hrs	Each9 Months Or 300 hrs	Each 12 Months Or 400 hrs
General Inspection:							
Operation of lights	Check		O	O	O	O	O
Battery	Clean & Check			O	O	O	O
	Recharge			O	O	O	O
	Replace						2yrs
Guards	Check	O	O	O	O	O	O
Warning stickers	Check		O	O	O	O	O
Test run:	Check operation		O	O	O	O	O
Controls:							
Dead-man switch operation	Check	O	O	O	O	O	O
Throttle pedal operation	Check	O	O	O	O	O	O
Steering linkages	Check	O	O	O	O	O	O
	Lubricate		O	O	O	O	O
	Replace						
Pitch control levers	Check	O	O	O	O	O	O
	Lubricate		O	O	O	O	O

Joystick controls(N/A)	Check	O					
Hydraulic system(N/A)	Check levels			O	O	O	O
Hoses	Check hoses			O	O	O	O
	Replace hoses						2yrs
Engine:							
Fuel pipes & clamps	Check		O	O	O	O	O
	Replace						2yrs
Engine oil	Check Level	O	O	O	O	O	O
	Change		O		O		O
Engine oil filter	Replace				O		O
Oil cooler	Clean				O		O
Cooling Fins	Clean		O	O	O	O	O
Air cleaner	Check-Clean	O	O	O	O	O	O
	Replace						O
Air intake Line	Check				O		
	Replace						2yrs
Fan Belt	Check tightness				O		O
	Replace						500 hrs
Valve clearance	Check-adjust				O		O

Fuel filter	Check & Check			O	O	O	O
	Replace				O		O
Fuel Tank	Clean						500 hrs
Fuel injection Nozzles	Check pressure						500 hrs
Fuel Injection Timer	Check						500 hrs
Injection Pump	Check						500 hrs
Engine wiring	Check						O

Routine Service Continued		Each use	After 1.5 Months Or 50 hrs	Each 3 Months Or 100 hrs	Each 6 Months Or 200 hrs	Each 9 Months Or 300 hrs	Each12 Months Or 400 hrs
Drive Train:							
Bearings	Lubricate	O	O	O	O	O	O
Universal couplings	Lubricate			O	O	O	O
Belt tension / Condition	Check	O	O	O	O	O	O
Clutch / Pulley operation	Check	O	O	O	O	O	O
LH spider plate assembly	Check	O		O	O	O	O
	Lubricate	O	O	O	O	O	O

RH spider plate assembly	Check	O		O	O	O	O
	Lubricate	O	O	O	O	O	O
Gearboxes:							
LH Gearbox oil	Check Level	O	O	O	O	O	O
RH Gearbox oil	Change	O			O		O
Gearbox breathers	Check Level			O	O	O	O
Retardant Spray System							
Water pump operation	Check	O	O	O	O	O	O
Spray nozzles	Clean	O					
Retardant Fluid	Check levels	O					

Due to the mature and environment of use, power trowels are exposed to severe operating conditions. Some general maintenance guidelines will extend the useful life of your trowel.

- The initial service for your power trowel should be performed after 25 hours of use, at which time your mechanic (or authorized repair shop) should complete all of the recommended checks in the schedule above. The chart on page 6 (six) is handy for keeping a record of the maintenance performed and the parts used for servicing your trowel.
- Regular service according to the schedule above will prolong the life of the power trowel and prevent expensive repairs.
- Keeping your power trowel clean and free from concrete residue is the single most important regular maintenance operation, over and above the checks in the service schedule above, that can be

performed. Components such as oil seals, belts, drive line parts and bearings are prone to premature wear from exposure to concrete residue. Using a spray-on non-stick coating on your power trowel before each use will make clean-up after use easy and extend the time between replacements of most of the wearing components of the machine.

- After each use your power trowel should be cleaned to remove any concrete residue from the undercarriage and surrounding components. Use of a power washer will make clean up quick and easy, especially if a non-stick coating was applied prior to use.
- In the Service Schedule above, items that should be checked, replaced or adjusted are indicated by in the appropriate column. Not all power trowel models include the same features and options and as such not all service operations may have to be performed. For ease of recording place a checkmark through the when the item is complete. If an item is not required or not completed place through in the box.
- For all fuel-line powered trowels the governed speed of the engine is 2000 to 3600 rpm. See engine manufacturer manual for exact specifications. Care should be used when making any adjustments to the power trowel not to change the governed speed. Increasing the governed speed of the engine may lead to premature failure and void the manufacturers' warranty.
- Failure to have your power trowel regularly serviced and properly maintained in accordance with the manufacturer instructions will lead to premature failure and void the warranty.

FOREWARD

◇For your own safety and protection from bodily injuries, carefully read, understand and follow the safety instructions in this manual.

◇Please operate and maintain your machine in accordance with the instructions in this manual.

◇Defective machine parts are to be replaced as soon as possible.

◇Keep this owner's manual handy, so you can refer to it at any time.

◇No part of this publication may be reproduced without written permission.

◇We expressly reserve the right to technical modifications- even without express due notice - which aim at improving our machines or their safety standards.

FEATURE

Ride-on Power Trowel can be used in surface finishing of concrete road, terrace, boatyard, airport and floor ect. Variable clutch provides proper torque and speed range to match concrete conditions. Ride-on operation reduces intensity of labor and increases efficiency of work. With dual rotor, heavier weight and much better compaction, the efficiency is higher than walk-behind power trowel. Safety switch can shut off engine at once to ensure security of operator. Low barycenter design provides stable operation.

TECHNICAL SPECIFICATION

Diameter: 189×91.5cm
Weight: 338Kg
Dimension: 198×102×140cm
Engine type: Electric starter Honda 20HP or 24HP
Fuel capacity: 12.5L
Operation time (approximately): 3 hours
Dual rotor speeds: 150-155rpm

Voltage: 12V
Current: 25A

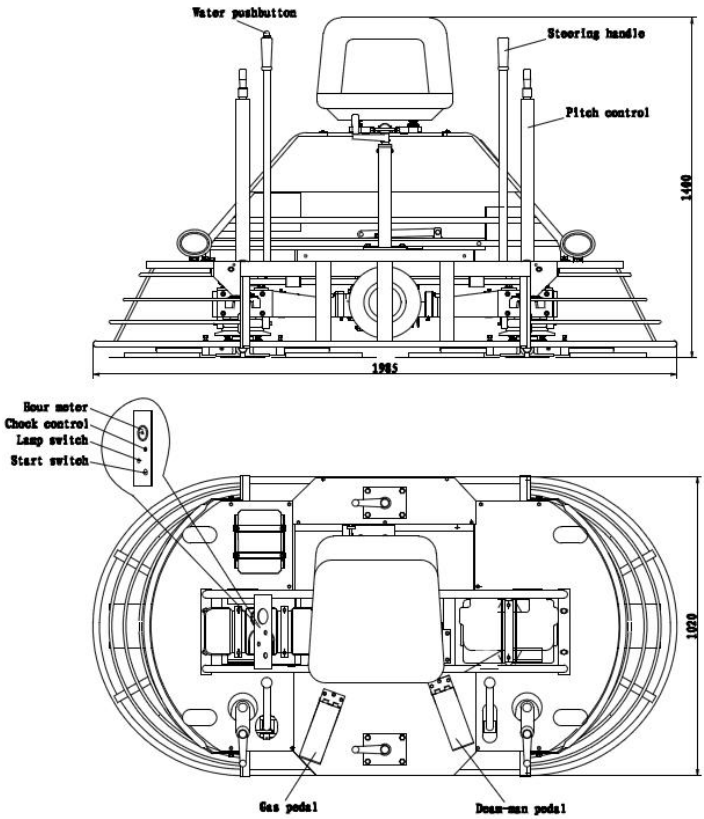
SAFETY PRECAUTIONS

- Always keep unauthorized, inexperienced, untrained people away from this machine.
- Rotating and moving parts will cause injury if contacted. Make sure guards are in place. Keep hands and feet away from moving parts.
- The engine must always be stopped before attempting any repair or adjustments. Ignition key should be off.

  Danger: Never operate the machine in an explosive atmosphere, near combustible materials or where ventilation does not clear exhaust fumes. Repair fuel leaks immediately. Refer to your engine owner manual for more safety instructions.
- Be careful not to come in contact with the muffler when the engine is hot, serious bums may result!
- Always operate the machine in a seated position to maintain machine balance.
- The transporter is designed for moving the unit around the job site only. It is not to be used for towing the Ride-On unit off-site.
- When starting the trowel, do not exceed the 1/4 throttle position as recommended. A higher setting could cause the centrifugal clutch to engage, activation the trowel blades.
- Be careful with the trowel around stub pipes or other obstructions on the floor. Should the machine catch, or hit such an obstruction, serious damage may result to the machine, or operator may be thrown from the machine.
- Excess surface water may result in sudden loss of control of steering.

- Disconnect battery before attempting any electrical maintenance.
- Ensure that the electrical dead-man switch, located under the left foot pedal is operating. Placing your left foot flat on the pedal will engage the safety switch. Removing you foot from the pedal will disengage the safety switch and stop the engine. The engine will not start unless the safety switch is depressed. This safety feature must be used as designed.

DIMENSION AND OPERATION INSTRUCTION



ASSEMBLY INSTRUCTIONS

Your new Master Ride-On Trowel has been shipped to you partially disassembled. To prepare for operation use the following instructions.

1. BATTERY-SHIPPED DRY-NO ACID

Connect and secure the battery cables before attempting starting procedures.

2. STEERING HANDLE ASSEMBLY

The steering handles are shipped ready to connect. Position the handles over the handle sleeves so that the set-screws (2 per handle) are lined up with the tapped holes on the sleeves. Tighten the set-screws and test the mobility of the handles.

3. PITCH CONTROL ASSEMBLY

Bolts pitch control tube(C) to pitch control bracket (D) with bolts provided. Put cable end (E) through yoke arm (F) and secure with nylon insert locknut (G). For proper cable adjustment, turn crank (A) counter-clockwise to the stop position. Tighten nut (G) until all slack in the cable is removed. If more than 2 or 3 threads show through the nut, it should be turned back and the guide screw (B) moved to the next lower hole. Tension in the cable should then be readjusted. After adjusting tension, turn hand crank full clockwise (ABOUT 24 TURNS) and

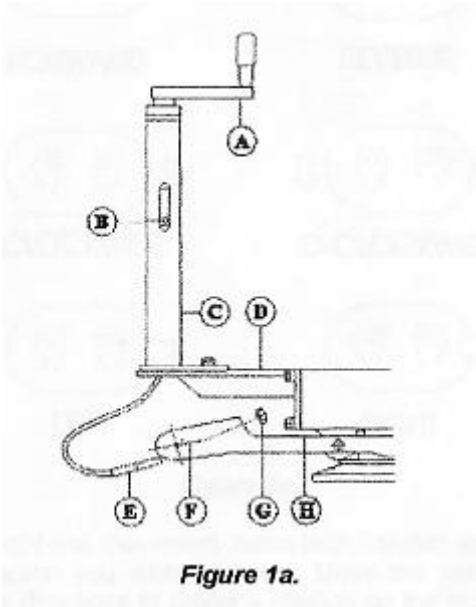


Figure 1a.

check for clearance between the yoke arm (F) and the gear box at point (H). There should be enough space to pass a business card through but not more than 1/8 inch.

4. SEAT ASSEMBLY

Remove protective wrapping from seat. The seat is now ready to secure to the frame using included washers and hex nuts. If the seat adjuster is ordered, the slider bars must be positioned between the seat and the frame using included screws to secure the seat to the sliders, and then securing the sliders to the frame as indicated above.

5. TRANSPORTER ASSEMBLY

The components of the transporter (handle, frame, wheels, and parts bag) are shipped separately, requiring some assembly. Extend the handle outside the frame. Slide the handle along the frame cross-bar to align the hole on the handle with the hole on the frame. Insert the large hitch pin (part 10911) through the hole to secure the handle to the frame. Position one of the wheels on the axle and secure in place by inserting pin (part 10910) into the hole on the end of the axle. Repeat procedure for the other wheel.

CAUTION! The transporter is designed to be used on the job site only. Do not use the transporter to tow the machine off-site.

OPERATING INSTRUCTIONS

1. STARTING PROCEDURES

WARM TEMPERATURES

a) Prior to starting the trowel, check the engine and gearbox oil levels. Be sure the fuel tank is full. Fuel is not shipped with the unit. Before attempting to start, fill the fuel tank. Check engine and gearbox oil levels. WARRANTY IS VOID IF RUN WITHOUT OIL. Fill tank with

safety approved fuel containers. DO NOT MIX OIL WITH FUEL.

b) Maintain left foot pressure on the dead-man safety switch. Engine will disengage and stop if safety switch is released. Do not to tape, tie-down, or otherwise attempt to bypass safety device.

c) Turn ignition key all the way. Allow engine to warm up before proceeding with full trowel operation.

2. STARTING PROCEDURES

COLD TEMPERATUES

Follow same procedure as above but allow for a longer warm up period 3-5 min. (In cold weather oil is much heavier to move. Extra time is required to heat the oil,)

3. TO STOP ENGINE

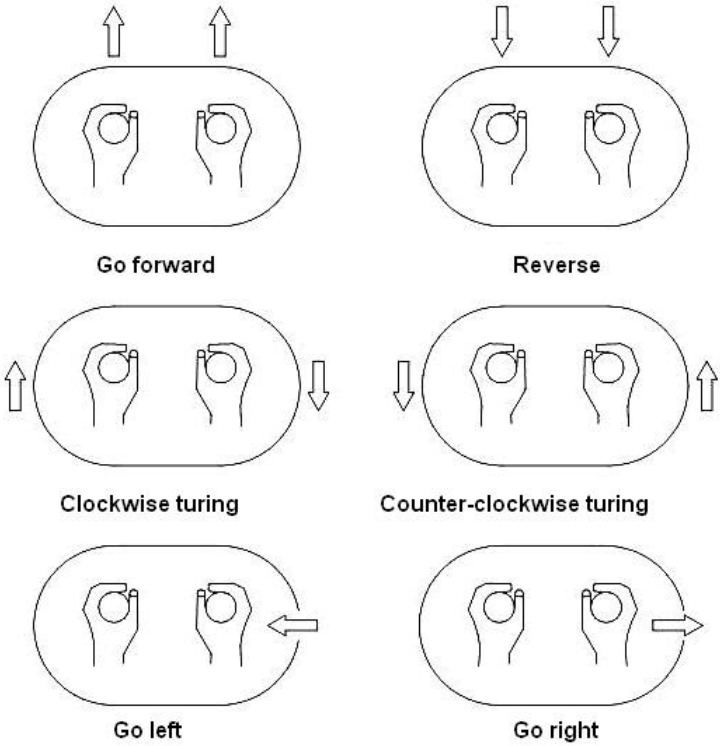
a) Bring throttle to low idle, wait a few seconds.

b) Remove left foot from dead-man safety switch.

c) Turn off ignition key.

4. STEERING

Guiding the machine on the slab is quite simple but does require some familiarity before actually working with the machine. The controls respond as shown in figure 2a below. Test the machine on a finished section of the floor, with the blades in a fiat position, and the engine at a low revolution to gain the necessary feel for the steering.



For straight-line movement, move both handles as one in the direction you wish to travel. Move the handles in opposite directions to produce rotation on the machines axis. Left handle forward, right handle backward for clockwise rotation. Left handle backward, right handle forward, for counter-clockwise rotation. Sideways direction is achieved by sideways movement of the right handle in the required direction of travel.

Warning! Serious injury or property damage may result due to temporary loss of control if operated with fresh water.

5. FLOAT/TROWEL PITCH SETTING

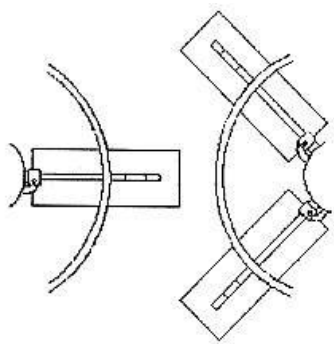
Once you are familiar with the steering functions on a flat floor, you are ready to combine the steering with float/trowel pitch settings to produce the finish you require. The pitch adjustment feature of the Master RIDE-ON TROWEL permits quick and accurate pitch changes of the finishing/float blades, without having to stop the machine. Turning the adjustment crank-handle at the end of the pitch control tubes enables you to change the pitch whenever necessary to allow for varying conditions over the slap surface.

Each spider plate is adjusted independently. The pitch setting will affect the steering of you unit. Experiment with the settings as you test drive so you will know what to expect.

CAUTION! Do not let the machine stand in one spot on the soft cement; this may place unnecessary strain on the clutch to break it free of the cement. If the unit has been sitting for any length of time, break it free from the concrete before attempting operation.

CAUTION! When finishing concrete above grade, erect a situation barrier along the edge of the slab as a protective measure. The barrier should be such that it will stop the trowel from riding over the edge of the slab in case of loss of control.

6. BLADE SYNCHRONIZATION
(SPECIALLY MODIFIED UNITS ONLY)



To avoid blades hitting, make sure spider plates are positioned

as-shown with respect to each other after performing any maintenance.

7. TRANSPORTER USE

CAUTION! The transporter is designed to be used on the job site only. Do not use it to tow the machine off-site.

The transporter has pick-up brackets located on the inside of the wheels, which should be positioned under the pick-up points on the frame. Before connection, the handle will be pointing upwards at approximately a 45 degree angle. Pull the handle down, engaging the transporter and secure the bracket and transporter to the frame by locking the handle bracket in the frame lock by means of the hitch pin. Using the handle as a lever, the ride-on may now be moved. To disconnect the transporter, follow the above steps in reverse.

MAINTENANCE INSTRUCTIONS

1. **GENERAL**

- Keep engine oil clean. Change according to engine manufacturer specifications.
- Maintain the oil levels in the engine and gearbox assemblies. Change as required.
- Use only clean fuel in the engine.
- Check for loose nuts and bolts on the trowel and tighten as necessary.
- Check belts for wear, replace if worn.
- Grease all fittings daily. See diagram.
- Clean the unit after every use to prevent hardening of sludge. Hard concrete is very difficult to remove, greatly increases weight and reduces efficient subsequent operation of unit.
- Check clutch linings regularly for wear. Linings should be changed when 3/4 worn. Do not allow metal to metal contact as this

will damage the clutch drum. (New lining is 8mm.)

2. AIR CLEANER

Maintaining a clean engine will extend engine life. Keep air filter dean at all times. Clean air filter using the recommended solvent daily. See engine manual for proper cleaning procedure. Let the filter dry before reinstalling.

3. SPARK PLUG

Check and dean spark plugs regularly. A fouled, dirty spark plug caused hard starting and poor engine performance. Set spark plug gap to recommended clearance. Refer to engine manual.

4. BELT CHANGE PROCEDURE

Remove belt cover from the machine to expose the drive components. To change the primary drive belt, remove clutch from engine drive shaft, by removing boll from the clutch. This releases belt from both the clutch and driven unit.

5. BELT TENSIONING SPECIFICATIONS

NOTICE! Belts may become slightly loose after the first few hours of operation. It is important to retention the belts with the tool provided and use the table given as reference.

LUBRICATION

1. ENGINE OIL

The long life and successful operation of any piece of machinery is dependent on frequent and thorough lubrication.

Before using the trowel, always check your engine for oil. Use proper engine oil as recommended in the engine manufacturer manual. Fill crankcase to levels as recommended.

2. SPIDER PLATE

There are 8 (eight) grease fittings on the spider plates. 4 (four) on

each must be greased daily.

SPIDER PLATES MUST BE GREASED EVERY TIME MACNINE IS USED.

3. GEARBOX

Check the oil level sight plugs on both gearboxes daily to ensure the oil is half way on the site glass. Top up with Agma 8 compounded gear oil only.

Gearbox capacity on the TS78 is 27zJ767ml

4. TO CHANGE GEARBOX OIL

Place a p beneath the drain plug to catch the oil. Remove the drain plug and the filler plug from the gearbox. After the oil has drained completely, replace the drain plug and tighten. Fill the gearbox through the filer plug with 27z/67ml. of Agma 8 compounded gear oil, Replace the filer plug and tighten.

5. GREASE FITTINGS

There are 6 bearings in total. Grease all bearings and U-joints to ensure adequate supply of lubricant. They are located above the gearboxes (2 per gearbox) and 2 located in the drive system. The U-joints are located in the drive system as well.

TROUBLESHOOTING

Won't start engine

- Throttle fully open
- Hand lever wire broken
- No gas
- Dirty gas
- Gas filter plugged
- Gas line plugged
- Hole in gas line

- Gas supply valve turned off
- Dead-man safety switch inoperab1e (foot lever must be depressed)
- Safety switch wire or connectors not making good contact
- Other engine problems (Refer to engine manual)

STARTS BUT NO HIGH SPEED

- Engine problems
- Throttle cable broken or seized
- Throttle lever and connectors loose or out of adjustment
- Clutch shoes worn

TROWELS TURN, ENGINE AT IDLE

- Idle too fast
- Belt too tight
- Clutch seized

MACHINE JUMPS ON FLOOR

- Concrete hardened on bottom of spider plate
- Trowels unevenly worn
- Spider plate seized
- Spider plate loose
- Trowel arms bent
- Adjusting screws (carnage bolts) incorrectly set use spider plate adjustment jig (pg,13)
- Mainshaft bent
- Steering handle too far right or left

SPIDER PLATE HARD TO GREASE

- Fittings plugged
- Cement in grease grooves of arms
- Grease fittings too tight

PITCH CONTROLS WILL NOT OPERATE BLADES

- Cable broken or out of adjustment

- Slot screw missing (under-side of handle)
- Pressure plate and/or yoke arm broken or badly
- Hand crank adjuster not working

BELT WEARING RAPIDLY

- Belt adjusted improperly
- Pulley out of alignment
- Wrong belt/defective belt
- Clutch sticking
- Gearbox seizing

OIL LEAKS

a) Top of gearbox

- Engine leaks
- Relief valve broken
- Too much oil in gearbox
- Set screw missing in cover

b) Between end cap and gearbox (recoil side)

- ring damaged
- End cap not tight

C) At main shaft or countershaft

- Relief valve seized
- Shaft and/or seal worn

BLADES HITTING EACH OTHER

(MODIFIED MODELS ONLY)

- Blades out of synchrony
- Sheared key in spider plate or gearbox
- Drive shaft misaligned

WON'T MOVE FORWARD OR REVERSE

- Pins or forward/reverse lever broken
- Rod end seizing on F/R lever

- Connecting rod broken

WON'T STEER LEFT OR RIGHT

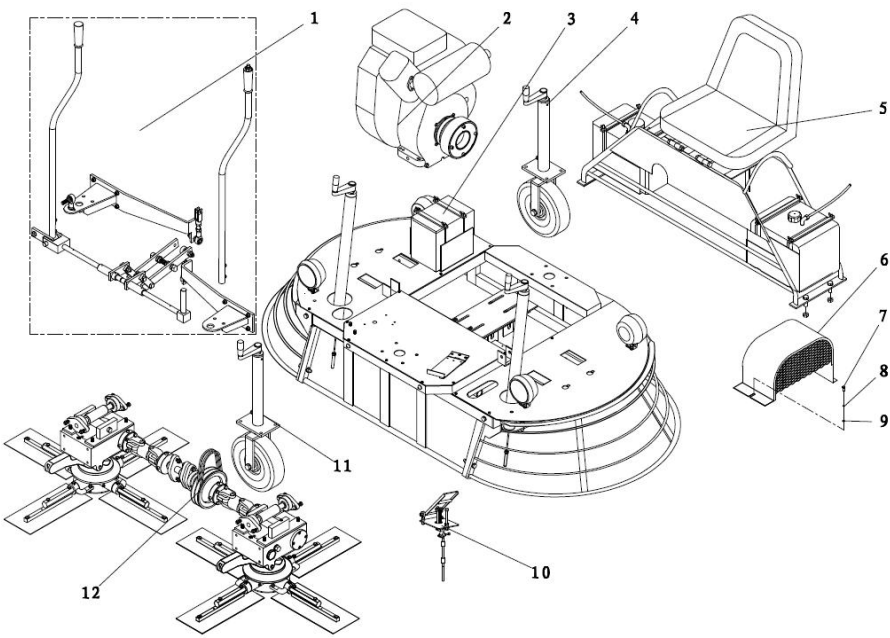
- Steering arms broken
- Linkage worn out
- Gearbox stud sheared
- Rod end connecting shaft loose

DRIVE SHAFT WILL NOT TURN

- Universal joint(s) seized
- Yoke arm broken
- Spline stripped
- Key sheared

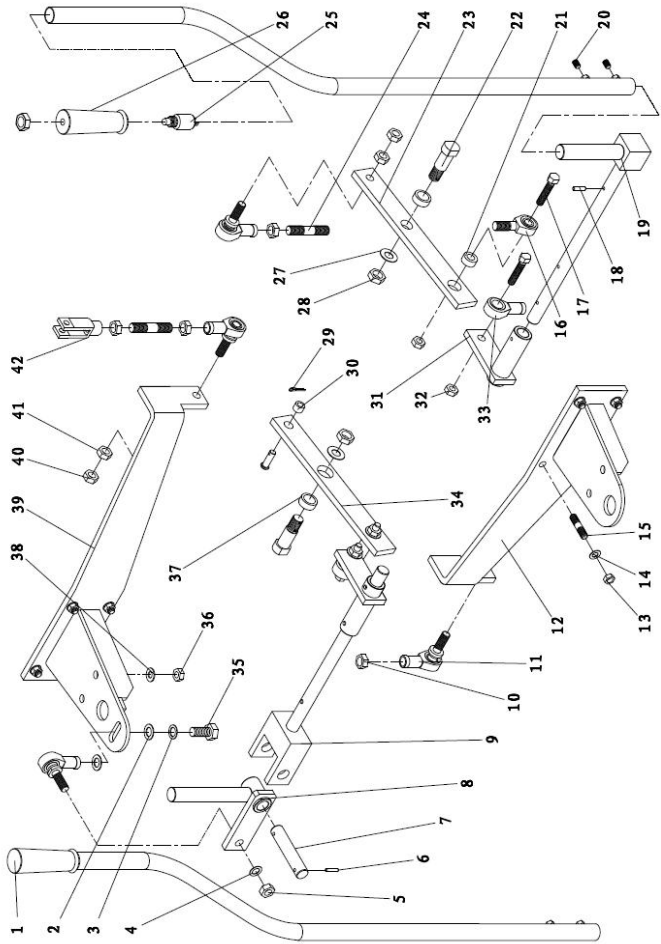
Diagram

1. Complete FRT36A Ride-on Trowel



Item	Part	Drawing No.	Part name	Qty
1	100	FRT36A-08	Steering assembly	1
2	102		Powerplant assembly	1
3	103	FRT36A-20	Bed plant assembly	1
4	104	FRT36A-28	Wheel	1
5	105	FRT36A-02	Seat Frame assembly	1
6	106	FRT36A-25	Belt Guard	1
7	107	GB/T5783-2000	Bolt M8×16	3
8	108	GB/T93-1987	Gasket 8	3
9	109	GB/T95-1985	Washer 8	3
10	110	FRT36A-18	Accelerator pedal	1
11	111	FRT36A-28	Wheel	1
12	112	FRT36A-10	Drive train assembly	1

2. Complete Steering

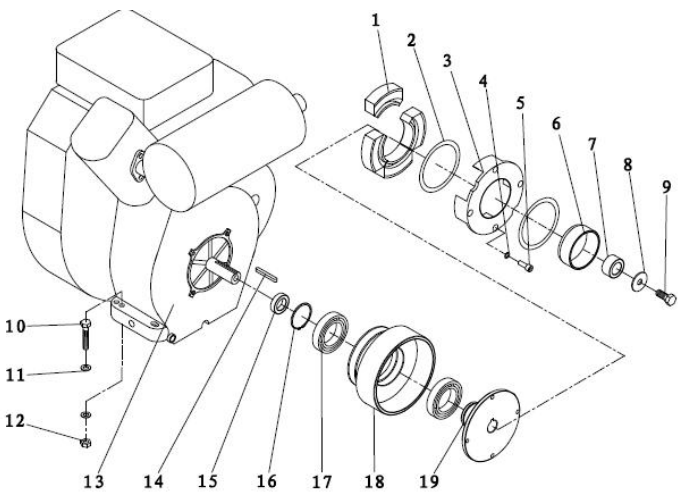


Item	Part	Drawing No.	Part Name	Qty
1	10001	FRT36A-07-02	Steering Handle	2
2	10002	GB/T95-1985	Washer 14	2
3	10003	GB/T93-1987	Gasket 14	1

4	10004	GB/T95-1985	Washer 12	1
5	10005	GB/T6182-2000	Locknut M12	1
6	10006	GB/T879.2-2000	Pin 5×22	2
7	10007	FRT36A-08-03-01	Steering Pin	1
8	10008	FRT36A-08-03-05	Steering Bracket	1
9	10009	FRT36A-08-03	Steering Bracket	1
10	10010	GB/T6170-2000	Nut M14	4
11	10011	FRT36A-08-02	Joint bearing SIJK12C	4
12	10012	FRT36A-08-10	Handle Ass RH	1
13	10013	GB/T6182-2000	Lock nut M10	8
14	10014		Gasket 10	8
15	10015	GB/T901-1988	Stud M10×45	8
16	10016	FRT36A-08-11	Joint bearing SAJK10C	2
17	10017	GB/T5783-2000	Bolt M10x40	4
18	10018	GB/T879.2-2000	Pin 5×22	6
19	10019	FRT36A-08-11	Steering	1
20	10020	GB/T77-2000	Screw M8×16	4
21	10021	FRT36A-08-16	Bushing Ⅲ	2
22	10022	FRT36A-08-06	Shoulder Bolt M16	2
23	10023	FRT36A-08-08	Control Arm Ⅰ	1
24	10024	FRT36A-08-05-01	Stud M14×70	2
25	10025		Switch	1
26	10026	FRT36A-07-01	Handle Grip	2
27	10027		Gasket 16	2

28	10028	GB/T6182-2000	Lock nut M16	2
29	10029	GB/T91-2000	Pin 4x20	1
30	10030	FRT36A-08-15	Bushing Ⅱ	1
31	10031	FRT36A-08-12	Steering Lever	2
32	10032	GB/T6182-2000	Lock nut M10	4
33	10033	FRT36A-08-10	Joint bearing SIJK10C	2
34	10034	FRT36A-08-07	Control Arm Ⅱ	1
35	10035	GB/T5783-2000	Bolt M14×2×30	1
36	10036	GB/T6182-2000	Lock nut M10	4
37	10037	FRT36A-08-14	Bushing Ⅰ	2
38	10038	GB/T95-1985	Washer 10	4
39	10039	FRT36A-08-01	Handle Ass LI-I	1
40	10040	GB/T6182-2000	Lock nut M12	3
41	10041	GB/T6170-2000	Nut M12	3
42	10042	FRT36A-08-04-02	Yoke End Clevis	1

3.Complete Power plant

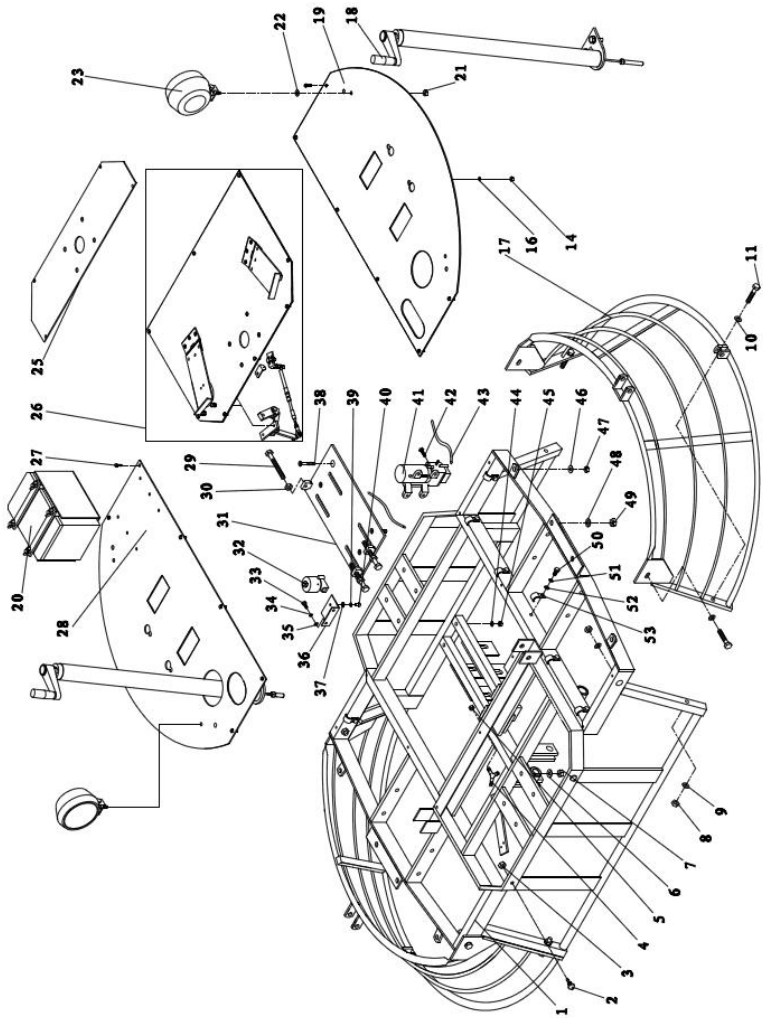


Item	Part	Drawing No.	Part Name	Qty
1	10201	FRT36A-24-02	Lining	4
2	10202	FRT36A-24-03	Spring	2
3	10203	FRT36A-24-04	Centrifugal bracket	1
4	10204	GB/T93-1987	Gasket 8	4
5	10205	GB/T70.1-2000	Screw M8×30	4
6	10206	FRT36A-24-05	Bushing	1
7	10207		Spacer(24HP)	1
8	10208		Washer 12	1

9	10209	GB/T5783-2000	Bolt M12×30	1
10	10210	GB/T5783-2000	Bolt M10×55	4
11	10211	GB/T95-1985	Washer 10	8
12	10212	GB/T6182-2000	Lock Nut M10	4
13	10213		Engine (GX 670)	1
14	10214	GB/T1095-1979	Key 6×6×55	1
15	10215	FRT36A-24-07	Spacer	1
16	10216	GB/T894.1-1986	Retaining Ring 50	1
17	10217	GB/T276-1994	Bearing 6010-2RS	2
18	10218	FRT36A-24-01	Pulley	1

19	10219	FRT36A-24-06	Shaft	1

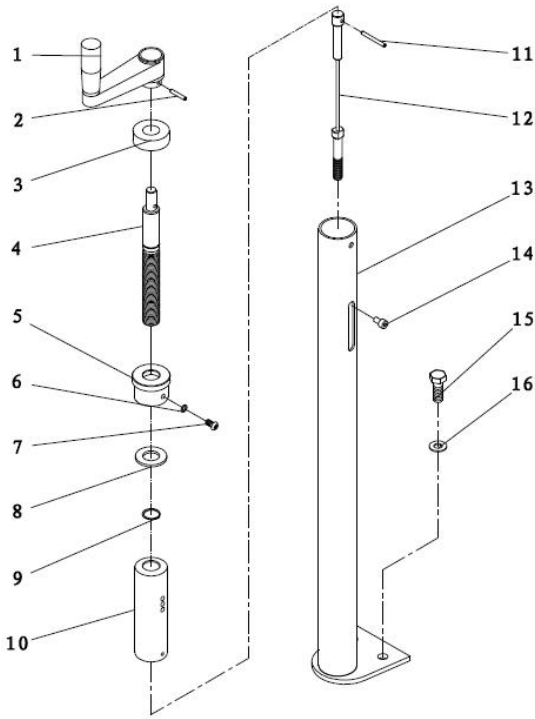
4. Complete Chassis



Item	Part	Drawing No.	Part Name	Qty
1	10301	FRT36A-20	Bedplate	1
2	10302		Water nozzle	2
3	10303	GB/T5783-2000	Nut M10	2
4	10304		Clamp(copper)	1
5	10305		Copper nut	1
6	10306	GB/T95-1985	Washer 10	8
7	10307	GB/T6182-2000	Nut M10	8
8	10308	GB/T6182-2000	Lock Nut M10	8
9	10309	GB/T95-1985	Washer 10	8
10	10310	GB/T93-1987	Gasket 10	8
11	10311	GB/T5783-2000	Bolt M10×55	8
12	10312		Hose	1
13	10313	FRT36A-05-06	Fitting Hose Barb	1
14	10314	GB/T5783-2000	Nut M6	4
15	10315	FRT36A-05-05	Spray Nozzle Set	1
16	10316	GB/T95-1985	Washer 6	4
17	10317	FRT36A-09	Ring	2
18	10318	FRT36A-03	Pitch Control assembly	2
19	10319	FRT36A-13	RH Floor Plate	1
20	10320	FRT36A-05	Tank water assembly	1
21	10321	GB/T6182-2000	Locknut8	4
22	10322	GB/T93-1987	Gasket 8	4
23	10323		Lamp 20W	4
25	10325	FRT36A-27	Floor Plate	1
26	10326	FRT36A-18	Throttle Control	1

			assembly	
27	10327		Bolt M5×16	24
28	10328	FRT36A-13	RH Floor Plate	1
29	10329	GB/T5783-2000	Bolt M10×95	3
30	10330	GB/T5783-2000	Nut M10	3
31	10331	FRT36A-11-02	Engine Plate	1
32	10332		Valve	1
33	10333	GB/T5783-2000	Bolt M6×16	2
34	10334	GB/T93-1987	Gasket 6	2
35	10335	GB/T95-1985	Washer 6	2
36	10336	FRT36A-20-33	Valve-mounting plate	1
37	10337	GB/T95-1985	Washer 5	2
38	10338	GB/T70.3-2000	Flat Heed Bolt M8×45	4
39	10339	GB/T93-1987	Gasket 5	2
40	10340		Screw M5×12	2
41	10341		Pump	1
42	10342	GB/T5783-2000	Bolt M6×20	4
43	10343		Water hose	2
44	10344	GB/T95-1985	Washer 8	4
45	10345	GB/T6182-2000	Nut M10	4
46	10346	GB/T95-1985	Washer 8	4
47	10347	GB/T6182-2000	Nut M7	4
48	10348		Gasket 12	4
49	10349	GB/T6182-2000	Lock nut M12	4
50	10350	GB/T5783-2000	Bolt M8×16	18
51	10351	GB/T93-1987	Gasket 8	18
52	10352	GB/T95-1985	Washer 8	18
53	10353	FRT36A-14	Wiring Clamp	18

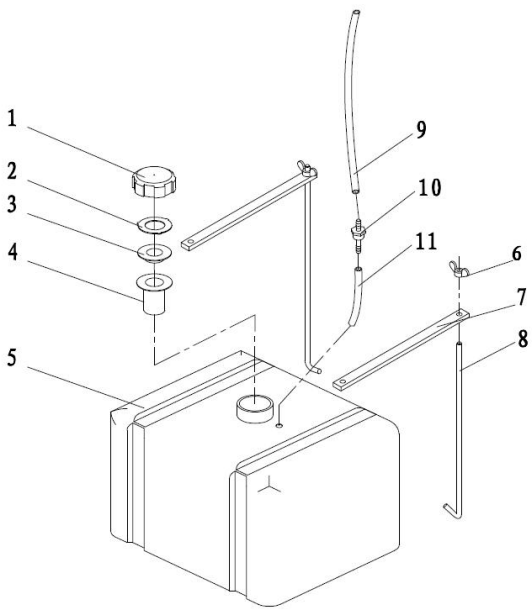
5. Pitch control assembly



Item	Part	Drawing No.	Part Name	Qty
1	1031801	FRT36A-03-01	Crank Handle	2
2	1031802	GB/T879.2-2000	Spring Pin 4×26	2
3	1031803	FRT36A-03-01	Bearing 51203	2
4	1031804	FRT36A-03-03	Threaded rod	2
5	1031805	FRT36A-03-02	Bushing	2
6	1031806	GB/T93-1987	Gasket 6	2
7	1031807	GB/T818-2000	Screw M6×12	2

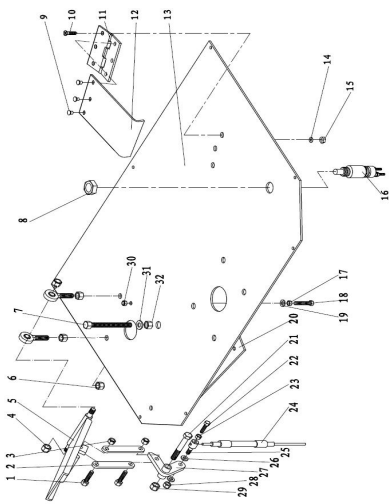
8	1031808	FRT36A-03-11	Washer	2
9	1031809	GB/T894.1-1986	Retaining Ring 17	2
10	1031810	FRT36A-03-04	Slide Bushing	2
11	1031811	GB/T879.2-2000	Spring Pin 4×38	2
12	1031812	FRT36A-03-09	Thotter cable	2
13	1031813	FRT36A-03-05	Tube	2
14	1031814	GB/T70.1-2000	Screw M6×10	2
15	1031815	GB/T5783-2000	Bolt M10×30	4
16	1031816		Gasket 10	4

6. Complete water tank



Item	Part	Drawing No.	Part Name
1	1032001	FRT36A-04-01	Rubber Cover
2	1032002	FRT36A-04-03	Rubber pad
3	1032003	FRT36A-04-02	Oil cover pad
4	1032004	FRT36A-04-04	Oil were
5	1032005	FRT36A-04-06	Rubber box
6	1032006	GB/T62-1988	Nut M6
7	1032007	FRT36A-04-07	Battery Clamp
8	1032008	FRT36A-04-08	Hold Down Bolt
9	1032009		Conduit
10	1032010	FRT36A-04-05	Nozzle
11	1032011		Conduit

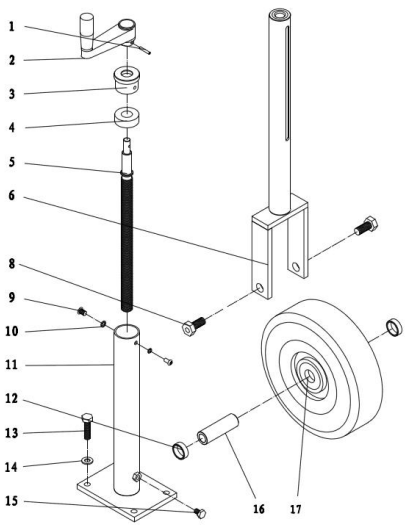
7. Throttle Control assembly



Item	Part	Drawing No.	Part name	Qty
1	1032601	GB/T5783-2000	Bolt M6x25	2
2	1032602	QUM80-19-05	Link Rod	2
3	1032603	GB/T6182-2000	Locknut M6	2
4	1032604	GB/T6182-2000	Locknut M8	2
5	1032605	QUM80-19-01	Accelerator pedal	1
6	1032606	GB/T5783-2000	Bolt M8x80	1
7	1032607	GB/T6182-2000	Locknut M8	2
8	1032608		Nut	1
9	1032609		Screw	8
10	1032610		Screw M5×20	6
11	1032611	FRT36A-19-02	Hinge	2
12	1032612	FRT36A-19-01	Dead-man Pedal	1
13	1032613	FRT36A-17	Floor Plate	1
14	1032614	GB/T95-1985	Washer 5	6
15	1032615	GB/T6170-2000	Nut M5	6
16	1032616		Dead-man switch	1
17	1032617	GB/T6170-2000	Nut M6	1
18	1032618	GB/T5783-2000	Bolt M6x30	1
19	1032619	GB/T95-1985	Washer 6	1
20	1032620	FRT36A-18-01	Throttle installation	1
21	1032621	GB/T5783-2000	BoltcM8x55	1

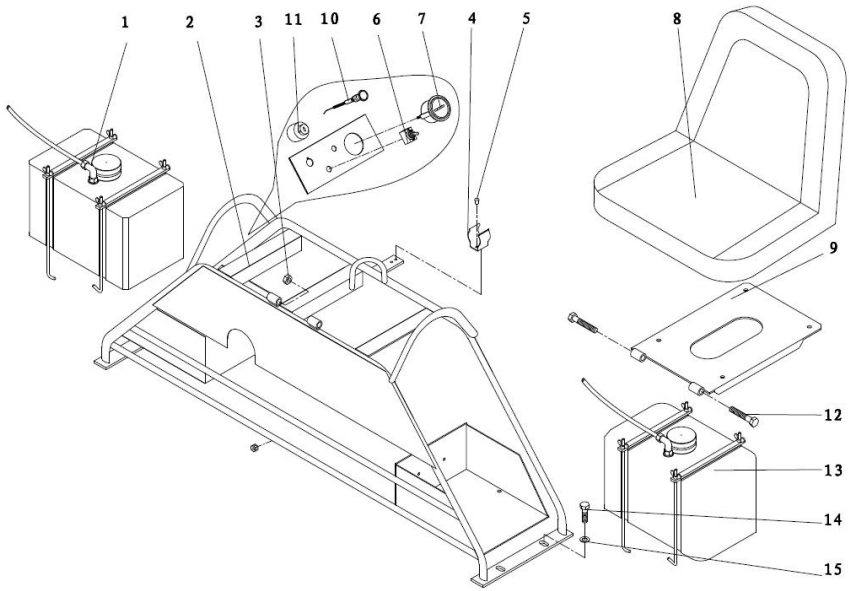
22	1032622	GB/T5783-2000	Bolt M5x20	1
23	1032623	GB/T6170-2000	Nut M5	1
24	1032624	QUM80-18-02	Throttle Cable	2
25	1032625	QUM80-19-08	Running Link	1
26	1032626	GB/T95-1985	Washer 6	1
27	1032627	QUM80-19-03	V-rod	1
28	1032628	GB/T6182-2000	Locknut M6	1
29	1032629	GB/T6182-2000	Locknut M8	1
30	1032630	GB/T6182-2000	Locknut M8	1
31	1032631	GB/T95-1985	Washer 8	1
32	1032632	GB/T6170-2000	Nut M8	1

8. Wheel assembly



9. Seat frame assembly

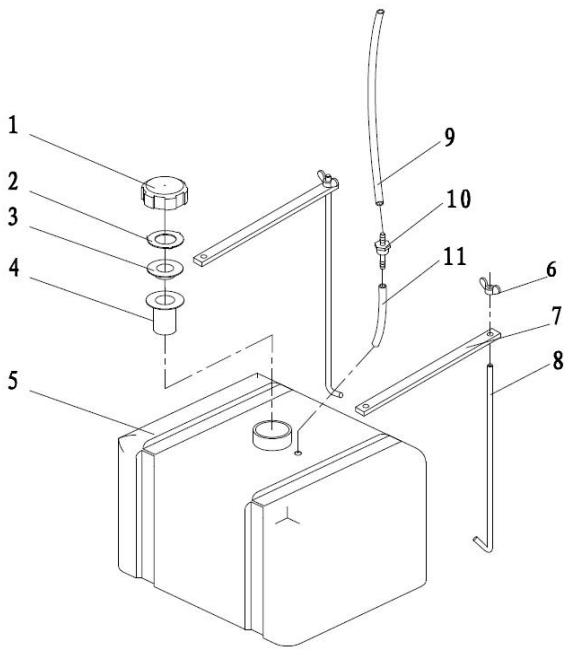
Item	Part	Drawing No.	Part name	Qty
1	10401	GB/T879.2-2000	Pin 4×26	2
2	10402	FRT36A-26-11	Crank Handle	2
3	10403	FRT36A-26-03	Bushing	2
4	10404	GB/T301-1995	Bearing 51202	2
5	10405	FRT36A-26-05	Thread	2
6	10406	FRT36A-26-06	Adjustment nut	2
8	10408	GB/T70.3-2000	Bolt M10×25	4
9	10409	GB/T818-2000	Screw M8×12	4
10	10410	GB/T93-1987	Gasket 8	4
11	10411	FRT36A-26-07	Tube	2
12	10412	FRT36A-26-09	Washer	4
13	10413	GB/T5783-2000	Bolt M10×40	8
14	10414	GB/T93-1987	Gasket 10	8
15	10415	GB/T5783-2000	Bolt M8×12	2
16	10416	FRT36A-26-08	Shaft	2
17	10417	FRT36A-26-10	Wheel	2



Item	Part	Drawing No.	Part Name	Qty
1	10501	FRT36A-04	Fuel tank assembly	1
2	10502	FRT36A-02	Seat Frame	1
3	10503	GB/T6182-2000	Lock nut M12	2
4	10504	FRT36A-02-12	U-Clamp	1
5	10505	GB/T876-1986	Screw M6×10	2
6	10506	FRT36A-15	Choke Control assembly	1
7	10507		Hour Meter	1

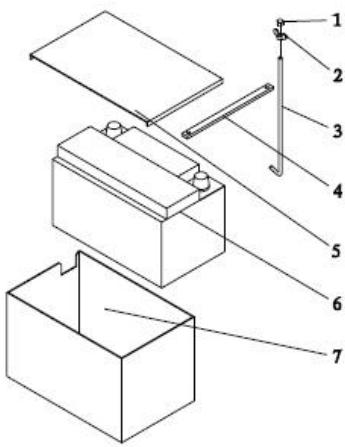
8	10508	FRT36A-01	Seat assembly	1
9	10509	FRT36A-01-02	Hinged Plate	1
10	10510		Switch	1
11	10511		Starter Switch	1
12	10512	GB/T5783-2000	Bolt M12×70	2
13	10513	FRT36A-06	Battery Box assembly	1
14	10514	GB/T5783-2000	Bolt M12×40	4
15	10515		Gasket 12	4

10. Complete fuel tank



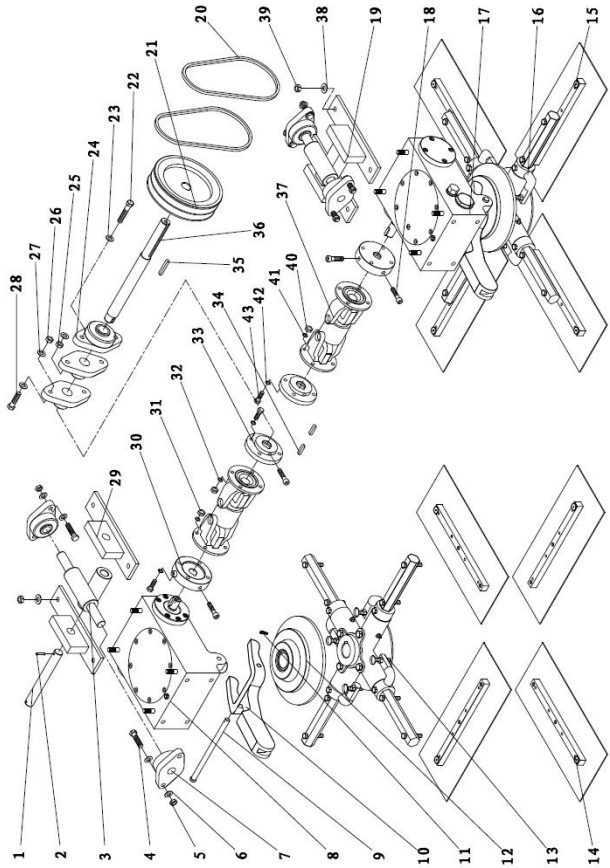
Item	Part	Drawing No.	Part Name	Qty
1	1032001	FRT36A-04-01	Rubber Cover	1
2	1032002	FRT36A-04-03	Rubber pad	1
3	1032003	FRT36A-04-03	Oil cover pad	1
4	1032004	FRT36A-04-04	Oil were	1
5	1032005	FRT36A-04-06	Rubber box	1
6	1032006	GB/T62-1988	Nut M6	4
7	1032007	FRT36A-04-07	Battery Clamp	1
8	1032008	FRT36A-04-08	Hold Down Bolt	2
9	1032009		Fuel hose	1
10	1032010	FRT36A-04-05	Nozzle	1
11	1032011		Fuel hose	1

11. Complete battery box



Item	Part	Drawing No.	Part name	Qty
1	1051301	GB/T932-76	Nut M6	2
2	1051302	GB/T62-1988	Nut M6	2
3	1051303	FRT36A-06-04	Hold Down Bolt	2
4	1051304	FRT36A-06-03	Battery Clamp	1
5	1051305	FRT36A-06-01	Cover	1
6	1051306		Battery	1
7	1051307	FRT36A-06-02	Battery Box	1

12. Complete Drive train

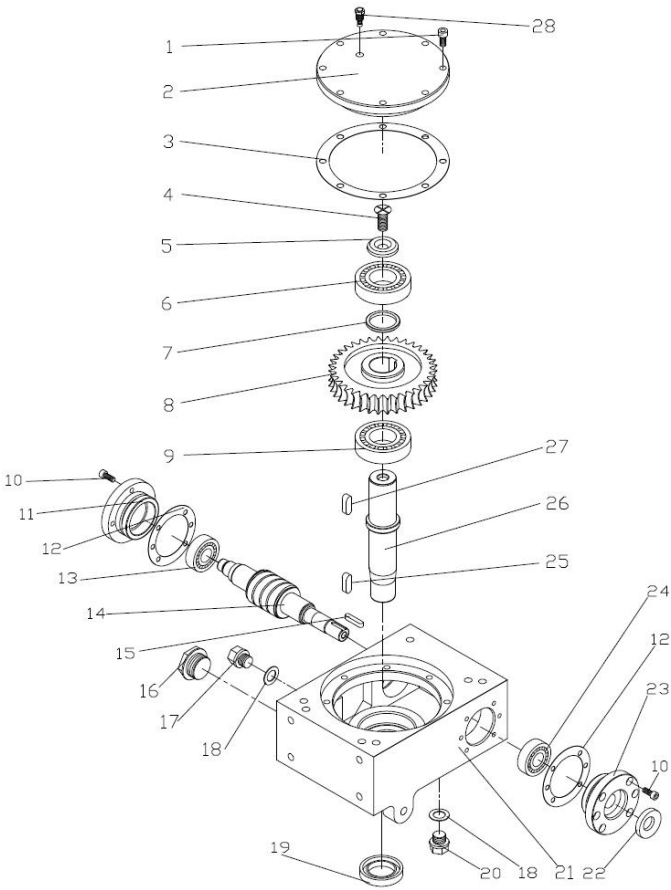


Item	Part	Drawing No.	Part name	Qty
1	11201	FRT36A-22-02	Drivetrain pin	1
2	11202	GB/T879.4-2000	Pin 5×22	2
3	11203		Cross Bracket	1
4	11204	GB/T5783-2000	Bolt M10×40	8

5	11205	GB/T6183-2000	Lock nut M10	8
6	11206	GB/T95-1985	Washer 10	16
7	11207	GB/T7810-1995	U-Joint (UCEFLU204)	4
8	11208	FRT36A-10-07	LF Gearbox	1
9	11209	FRT36A-10-03	Pin	2
10	11210	FRT36A-10-04	Yoke Arm	2
11	11211	GB/T894.1-1986	Pin 3×20	2
12	11212		Pressure Plate	2
13	11213	FRT36A-10-02	LH Spider Plate	1
14	11214	FRT36A-10-01	LF Finishing Blade	1
15	11215	FRT36A-10-01	RH Finishing Blade	1
16	11216	FRT36A-10-02	RH Spider Plate	1
17	11217	FRT36A-10-07	RH Gearbox	1
18	11218	GB/T70.1-2000	Screw M8×35	8
19	11219	FRT36A-12	RH GB Pivot	1
20	11220		Belt (BX-33)	2
21	11221	FRT36A-10-09	Pulley	1
22	11222	GB/T5783-2000	Bolt M12×55	2
23	11223		Gasket 12	4
24	11224		U-Joint(ASFL205 NSK)	3
25	11225	GB/T6183-2000	Lock nut M12	2
26	11226	GB/T6183-2000	Lock nut M12	2
27	11227		Gasket 12	4
28	11228	GB/T5783-2000	Bolt M12×40	2
29	11229		LF GB Pivot	2
30	11230	FRT36A-10-13	Drive Flange Ⅰ	2
31	11231	GB/T6183-2000	Bolt M8×25	8
32	11232	GB/T95-1985	Washer 6	8

33	11233	FRT36A-10-11	Drive Flange Ⅱ	2
34	11234	GB/T1095-1979	key 6×6×28	2
35	11235	GB/T1095-1979	Key 6×6×45	1
36	11236	FRT36A-10-10	Drive Shaft	1
37	11237	FRT36A-10-12	Coupling	2
38	11238		Gasket 10	8
39	11239	GB/T6183-2000	Lock nut M10	8
40	11240	GB/T6183-2000	Lock nut M6	8
41	11241	GB/T93-1987	Gasket6	16
42	11242	GB/T95-1985	Washer 6	8
43	11243	GB/T5783-2000	Bolt M6X30	16

13. LF Gearbox Assembly

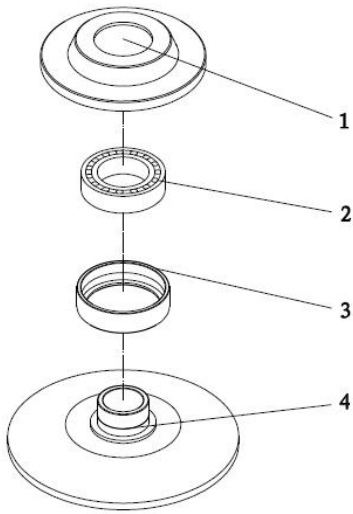


Item	Part	Drawing No.	Part name	Qty
1	10110801	GB/T70.1-2000	Screw M8×16	8
2	101108	FRT36A-10-07-01	Large Flange	1

	02			
3	10110803	FRT36A-10-07-02	Large-Flange washer	Some
4	10110804	GB/T819.1-2000	Screw M12×25	1
5	10110805	FRT36A-10-07-04	Washer	1
6	10110806	GB/T297-1994	Bearing 30207	1
7	10110807	FRT36A-10-07-05	Spacer	1
8	10110808	FRT36A-10-07-06	Worm Gear（RH）	1
9	10110809	GB276-64	Bearing 207	1
10	10110810	GB/T70.1-2000	Screw M6×16	12
11	10110811	FRT36A-10-07-10	Flange	1
12	10110812	FRT36A-10-07-14	Washer	Some
13	10110813	GB276-64	Bearing 304	1
14	10110814	FRT36A-10-07-12	Worm Shaft（RH）	1
15	10110815	GB/T1095-1979	Key 6×6×20	1
16	101108	FRT36A-10-07-09	Sight Plug	1

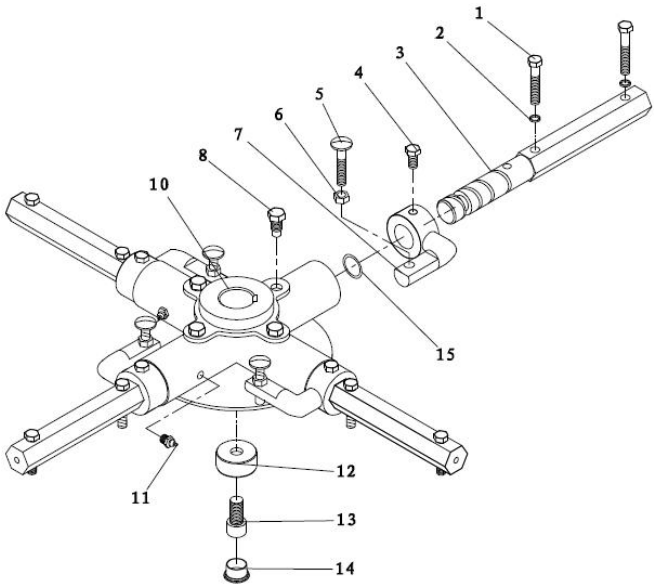
	16			
17	10110817		Drain Plug M16×1.5	1
18	10110818		Washer 16（Cu）	2
19	10110819		Oil Seal NAK35 54 8	1
20	10110820		Drain Plug M16×1.5	1
21	10110821	FRT36A-10-07-07A	Gear Box	1
22	10110822		Oil Seal NAK20 40 7	1
23	10110823	FRT36A-10-07-13	End Cap	1
24	10110824	GB/T297-1994	Bearing 30304	1
25	10110825	GB/T1095-1979	Key 10×8×28	1
26	10110826	FRT36A-10-07-08A	Main Shaft	1
27	10110827	GB/T1095-1979	Key 10×8×28	1
28	10110828	FRT36A-10-07-03	Relief Valve	1

14. Pressure Plate Assembly



Item	Part	Drawing No.	Part name	Qty
1	1121201	FRT36A-10-05	Pressure plate cap	2
2	1121202	GB/T301-1995	Bearing 51209	2
3	1121203	FRT36A-10-06	Bushing	2
4	1121204	FRT36A-10-08	Pressure plate	2

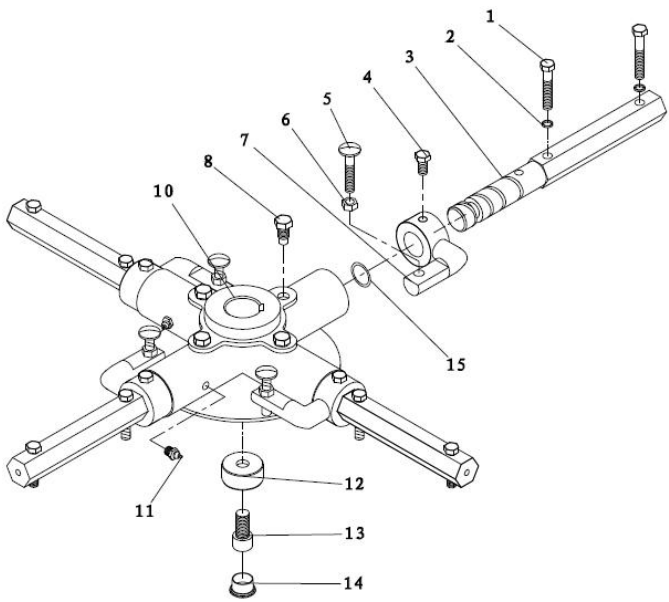
15 .LF Spider Plate Assembly



Item	Part	Drawing No.	Part name	Qty
1	1121301	GB/T5783-2000	Bolt M8×40	8
2	1121302	GB/T93-1987	Gasket 8	8
3	1121303	FRT36A-10-02-01	Trowel Arm	4
4	1121304	GB/T5783-2000	Bolt M8×16	4
5	1121305	FRT36A-10-02-06	Adjusting Screw	4
6	1121306	GB/T6170-2000	Nut M8	4
7	1121307	FRT36A-10-02-02	Lift Lever	4
8	1121308	FRT36A-10-02-04	Screw	4
10	1121310	FRT36A-10-02-03A	Spider Plate	1
11	1121311	JB/T7940.1-199	Grease Fitting	4

		5	M8×1	
12	1121312	FRT36A-10-02-05	Retainer	1
13	1121313	GB/T70.1-2000	Screw M12×25(RH)	1
14	1121314	FRT36A-10-02-09	Cap Plug	1
15	1121315	GB/T1235-1976	○-ring 30×2.4	4

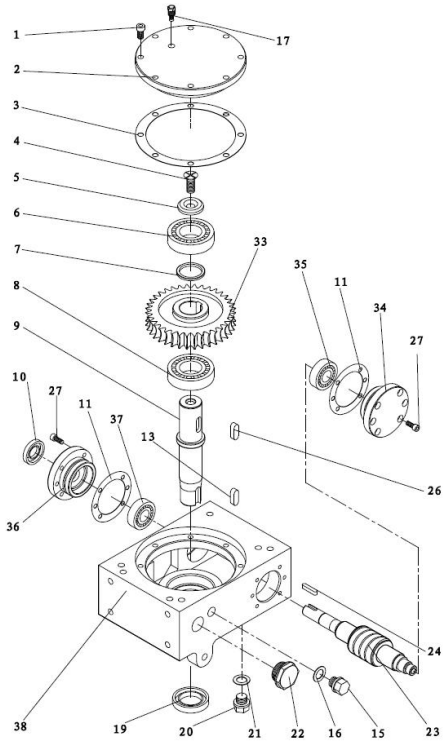
16. RH Spider Plate Assembly



Item	Part	Drawing No.	Part name	Qty
1	1121601	GB/T5783-2000	Bolt M8×40	8
2	1121602	GB/T93-1987	Gasket 8	8

3	1121603	FRT36A-10-02-01	Trowel Arm	4
4	1121604	GB/T5783-2000	Bolt M8×16	4
5	1121605	FRT36A-10-02-06	Adjusting Screw	4
6	1121606	GB/T6170-2000	Nut M8	4
7	1121607	FRT36A-10-02-02	Lift Lever	4
8	1121608	FRT36A-10-02-04	Screw	4
10	1121610	FRT36A-10-02-03B	Spider Plate	1
11	1121611	JB/T7940.1-1995	Grease Fitting M8×1	4
12	1121612	FRT36A-10-02-05	Retainer	1
13	1121613	GB/T70.1-2000	Screw M12×25(LF)	1
14	1121614	FRT36A-10-02-09	Cap Plug	1
15	1121615	GB/T1235-1976	○-ring 20×2.4	4

17. RH Gearbox Assembly



Item	Part	Drawing No.	Part name	Qty
1	1121701	GB/T70.1-2000	Screw M8x16	8
2	1121702	FRT36A-10-07-01	Large Flange	1
3	1121703	FRT36A-10-07-02	Large-Flange washer	1
4	1121704	GB/T820-2000	Screw M12x25(RH)	1

5	11217 05	FRT36A-10-07-04	Washer	1
6	11217 06	GB/T297-1994	Bearing 30207	1
7	11217 07	FRT36A-10-07-05	Spacer	1
8	11217 08	GB276-64	Bearing 207	1
9	11217 09	FRT36A-10-07-08 B	Main Shaft	1
10	11217 10		Oil Seal NAK20x40x7	1
11	11217 11	FRT36A-10-07-14	Washer	So me
13	11217 13	GB/T1095-1979	Key 10x8x28	1
15	11217 15		Fill plug M16x1.5	1
16	11217 16		Washer 16(Cu)	1
17	11217 17	FRT36A-10-07-03	Relief Valve	1
19	11217 19		Oil Seal NAK35x54x8	1
20	11217 20		Drain plugM16x1.5	1

21	11217 21		Washer 16(Cu)	1
22	11217 22		Sight Plug	1
23	11217 23	FRT36A-10-07-12	Worm Shaft (LH)	1
24	11217 24	GB/T1095-1979	Key 6x6x32	1
26	11217 26	GB/T1095-1979	Key 10x8x28	1
27	11217 27	GB/T70.1-2000	Screw M6x16	12
33	11217 33	FRT36A-10-07-06	Worm Gear（LH）	1
34	11217 34		Flange	1
35	11217 35	GB276-64	Bearing 304	1
36	11217 36		End Cap	1
37	11217 37	GB/T297-1994	Bearing 30304	1
38	11217 38	FRT36A-10-07-07 B	Gearbox	1