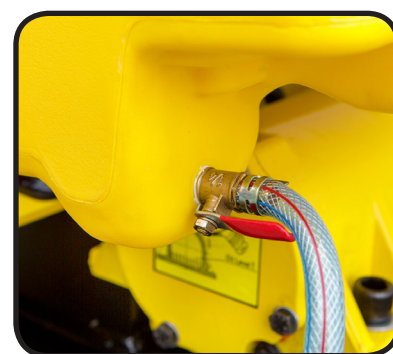




## PLATE COMPACTOR

ITEM: 61006/61007



### OWNER'S MANUAL AND SAFETY INSTRUCTIONS

SAVE THIS MANUAL: KEEP THIS MANUAL FOR SAFETY WARNINGS, PRECAUTIONS, ASSEMBLY, OPERATING, INSPECTION, MAINTENANCE AND CLEANING PROCEDURES. WRITE THE PRODUCT'S SERIAL NUMBER ON THE BACK OF THE MANUAL NEAR THE ASSEMBLY DIAGRAM (OR MONTH AND YEAR OF PURCHASE IF PRODUCT HAS NO NUMBER)



## GENERAL SAFETY WARNINGS

Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference.

## SAFETY

**WARNING DO NOT** use this product or any available optional equipment without first completely reading and understanding these instructions and any additional instructional material such as owner's manuals, service manuals or instruction sheets supplied with this product or optional equipment. When using an electrical appliance, basic precautions **MUST** be followed to reduce the risk of fire, electric shock and personal injury.

- **DANGER: CARBON MONOXIDE** Using a plate compactor indoors **CAN KILL YOU IN MINUTES**. Engine exhaust contains carbon monoxide (CO). This is a poison gas you cannot see or smell. If you can smell the engine exhaust, you are breathing CO. Even if you cannot smell the exhaust, you could be breathing CO.
- **NEVER** use a plate compactor inside homes, garages, crawl spaces, or other partially/fully enclosed areas. Deadly levels of carbon monoxide can build up in these areas. Using a fan or opening windows and doors does **NOT** supply enough fresh air. **ONLY** use outside and far away from windows, doors, and vents. These openings can pull in engine exhaust.
- **WARNING:** The exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.
- **WARNING:** This engine may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death if ignited. A nearby open flame can lead to explosion even if it isn't directly in contact with gasoline.
- **DO NOT** operate near an open flame.
- **DO NOT** smoke near the plate compactor.
- **ALWAYS** turn the plate compactor off before refuelling, allow it to cool for at least 2 minutes before removing the fuel cap. Loosen the cap slowly to relieve pressure in the tank.
- **DO NOT** overfill the tank. Gasoline may need to expand during operation. **DO NOT** fill to the top of the tank, allow for expansion.
- **ALWAYS** wipe up spilled fuel before operating.
- Empty the fuel tank before storing or transporting the plate compactor.
- **DO NOT** use the plate compactor in wet conditions.
- **DO NOT** allow children or non-qualified persons to operate the plate compactor.
- **DO NOT** touch hot surfaces. Pay attention to warning labels on the machine identifying hot parts.
- Allow the unit to cool down after use before touching the engine or areas of the plate compactor that become hot during use.
- Only use the compactor for intended purposes.
- **KEEP** hands and feet clear of rotating and moving parts as they will cause injury if contacted.

- Operate the plate compactor on flat, level surfaces only.
- Turn the engine OFF when the compactor is not in use.
- **DO NOT** operate or service this machine before reading this entire manual.
- Never operate this equipment without proper protective clothing, shatter proof ANSI-approved glasses, steel-toed boots, and other protective job site devices.
- **NEVER** operate the equipment while under the influence of medication, drugs or alcohol.
- **ALWAYS** check the machine for loosened bolts and threads **BEFORE** every use.
- **ALWAYS** wear proper respiratory, hearing and eye protection during operation.
- The Manufacturer does not assume responsibility for any accident due to equipment modifications and will also void the warranty.
- **NEVER** use accessories or attachments that are not recommended by STARK for this model of plate compactor.
- **DO NOT** add fuel to the plate compactor if it placed on top of a plastic surface such as a pickup truck bed with a plastic liner. This creates the possibility of ignition or explosion due to static electricity build up.
- **ALWAYS** refuel in a well ventilated area. **NEVER** operate near open flames, sparks or other item that could cause the gas fumes to ignite.
- Before performing compacting work near buildings or above pipelines, check the effect of the vibrations on the buildings and pipelines. If necessary, immediately stop the compacting work.
- **WARNING:** This unit produces heat when running. Temperatures near exhaust can exceed 150 F (65 C).
- **NOTE:** We suggest running the plate compactor engine at least once a month in order to maximize the lifespan of the machine.
- Plate compactors are heavy units and should be positioned by two people of appropriate strength. Using the lifting handles provided on the machine, along with correct lifting techniques.
- **DO NOT** operate the machine unless all protective guards are in place.
- **ENSURE** that the walls of a trench are stable and will not collapse due to the action of the vibration, prior to commencing compaction.
- **ENSURE** that the area to be compacted does not contain any “live” electrical cables, gas, water or communication services which may be damaged by the action of the vibration.
- **EXERCISE CARE** when operating unit. Exposure to vibration or repetitive work actions may be harmful to hands and arms.
- **DO NOT** increase the governed no-load motor speed above 3,500 r/min. Any increase may result in personal injury and damage to the machine. **BE CAREFUL** not to come in contact with the muffler when the engine is hot, since it can cause severe burns.
- **FIRE & EXPLOSION HAZARDS: PETROL** is extremely flammable and explosive under certain conditions. **ENSURE** that petrol is only stored in an approved storage container. **DO NOT** refuel the motor while it is in operation or hot.

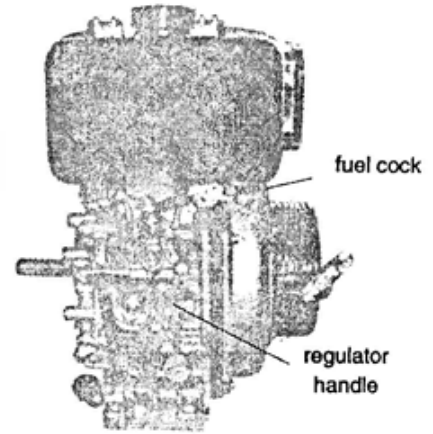
# OPERATION

**PRE-START INSPECTION:** The following Pre-start-up inspection must be performed before the start of each work session or after every four hours of use, whichever is first. If any fault is discovered, the compactor must not be used until the fault is rectified

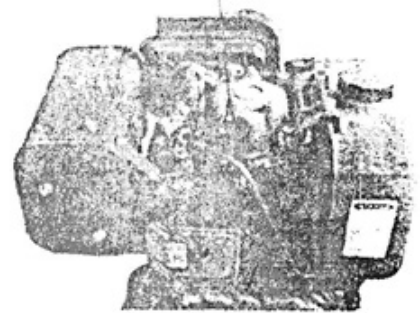
1. Thoroughly inspect the compactor for signs of damage. Check components are present and secure. Pay special attention to the belt drive safety guard fitted between the engine and the vibrator unit.
2. Check the engine oil level and top up as necessary.
3. Check the engine fuel level and top up as necessary.
4. Check for fuel and oil leaks.

## START AND STOP PROCEDURE - DIESEL ENGINE

1. Open the fuel cock.
2. Turn the governor lever to "STARTING" position.
3. Hold the recoil starter handle.
4. Pull the starter handle until you feel the resistance, then return handle slowly.
5. Press the decompression lever to "Non-compression" position. The lever will return back automatically after the engine started.
6. Hold the recoil starter handle with two hands and pull it hard.
7. It is difficult to start the engine at cold weather. Remove the rubber plug on the cylinder head and fill about 2CC engine oil before starting.
8. To stop the engine, set the governor lever to the low speed position, then run the engine at zero load five minutes.
9. Set the governor lever to the "STOP" position. Do not stop the engine with the decompression lever.
10. Set the fuel cock the "OFF" position.
11. Pull the recoil starter handles slowly, until you feel resistance. (At this point, the decompression just begins and intake/exhaust valves are both closed, thus the cylinder can be prevented from rust.)
12. Concerning the electric starting engine, directly turn the starting key to "CLOSE" position.



decompression lever



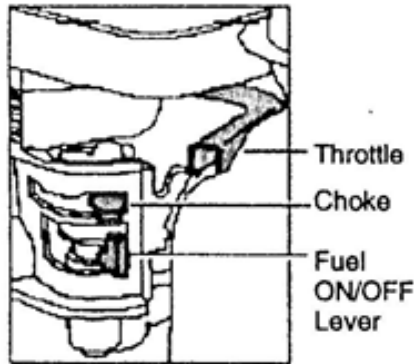
## START AND STOP PROCEDURE - PETROL ENGINE

1. Open the fuel tap by moving the fuel ON/OFF lever fully to the right.
2. If starting the engine from cold, set the choke ON by moving the choke lever fully to the left. If restarting a warm engine, the choke is usually not required. However, if the engine has cooled to a degree, partial choke may be required.
3. Turn the engine ON/OFF switch clockwise to the "1" position.
4. Set the throttle to the idle position by moving the throttle lever fully to the right. Do not start the engine on full throttle, as the compactor will vibrate as soon as the engine starts.



## OPERATION

5. Taking a firm hold of the control handle with one hand, grasp the recoil starter handle with the other. Pull the recoil starter until engine resistance is felt, then let starter return.
6. Taking care not to pull the starter's rope fully out, pull the starter handle briskly.
7. Repeat until the engine fires.
8. Once the engine fires gradually, set the choke lever to the OFF position by moving it to the right.
9. If the engine fails to fire after several attempts follow the trouble-shooting guide on page 5. To stop the engine, set the throttle to idle and turn the engine ON/OFF switch counter-clockwise to the "0" position.
10. To stop the engine □ set the throttle to idle and turn the engine ON/OFF switch anticlockwise to the "0" position.
11. Turn the fuel off



The machine is best suited to the compaction of bituminous and granular materials e.g. granular soils such as silt and clay are best compacted using the impact force produced by a vibrating rammer. Where possible the site should be graded and leveled before commencing compaction.

Correct moisture content in soil is vital to proper compaction. Water acts as a lubricant to help slide soil particles together. Too little moisture means inadequate compaction; too much moisture leaves water-filled voids that weaken the soil's load-bearing ability. Compaction of dry materials will be facilitated by moistening with a water hose fitted with a sprinkler.

Excessive watering or water content will cause the machine to stall. The optional water tank kit is recommended when the machine is used on bituminous surfaces as the water film prevents a build up of material on the underside of the plate. Use unleaded grade petrol and ensure that the fuel is free from contamination. The vibratory motion provides a self propelling action. Position the handle at the opposite end of the machine to the vibrator.

Increase the motor speed to the maximum setting using the hand throttle lever, before commencing compacting. The machine should be controlled by grasping the handle with both hands and applying restraint to control the forward motion. Steer the machine by moving the handle sideways to the right or left.

**ALWAYS** maintain good footing so that you do not slip and lose control when starting or operating the machine. If the optional water tank is fitted □ the flow rate can be controlled by adjusting the cock in the supply hose to the sprinkler bar.

# CARE AND MAINTENANCE

- Check the oil level in the motor crankcase daily.
- Check the vibrator oil level weekly.
- Inspect the rubber anti vibration mounts for wear or deterioration.
- If the optional water tank is fitted inspect the water hose and its connections to ensure that they do not leak.
- Clean the underside of the plate regularly to prevent a build up of material.

Inspection and other services should always be carried out on hard and level ground with the engine shut down.

## INSPECTION AND MAINTENANCE SERVICE TABLES

To make sure your plate compactor is always in good working condition before using, carry out the maintenance inspection in accordance with Tables 1 through 3

TABLE 1. MACHINE INSPECTION

Item	Hours of Operation
(Starting check)	Every 8 hours(every day)
Loosened or lost screws	Every 8 hours(every day)
Damage of any part	Every 8 hours(every day)
Function of controlling system part	Every 8 hours(every day)
Vibrator oil check	Every 100 hours
Vibrator oil replacement	Every 200 hours
V-belt(clutch)check	Every 200 hours

These inspection intervals are for operation under normal conditions. Adjust your inspection intervals based on the number hours plate compactor is in use, and particular working conditions

TABLE 2. ENGINE CHECK

(For details, see separate engine Manual)	
Item	Hours of Operation
Leakage of oil fuel	Every 8 hours(every day)
Tightness of fastening Threads	Every 8 hours(every day)
Engine oil check and replenishment	Every 8 hours(every day) (Replenish to specified Max . level)
Engine oil replenishment	At first 20 hours . Then every 100 hours
Air cleaner cleaning	Every 50 hours

Check for loose screws including tightness. See Table 3 below(tightening torque), for re-tightening.

TABLE 3. TIGHTENING TORQUE(in/kg/cm)Diameter

Material	6mm	8mm	10mm	12mm	14mm	16mm	18mm	20mm
4T	70	150	300	500	750	1100	1400	2000
6-8T	100	250	500	800	1300	2000	2700	3800
11T	150	400	800	1200	2000	2900	4200	5600
*	100(6mm) 300-350(8mm) 650-700(10mm)							
* (In case counter-part is of aluminum								
(Threads in use with this machine are all right handed)								
Material and quality of material is marked on each bolt, and screw.								

## CHANGING VIBRATOR OIL

When changing the vibrator oil, remove the drain plug located at the bottom-right of the vibrator, and simply tip the compactor to drain the oil. Note that the oil will drain more easily while it is hot. Replace the oil with 200ML of 10W-3C motor oil.

## AIR FILTER

1. The air filter element should be cleaned because a clogged air cleaner can cause poor engine starting, lack of power and shorten engine life substantially.
2. To clean or replace air filter loosen the wing nut on the air filter housing(Figure 1), remove the cover and take out air filter cartridge. If only cleaning of the air filter is desired blow through the air filter cartridge from the inside, moving a jet of dry compressed air up and down until all dust is removed.

**NEVER** attempt to check the V-belt with the engine running. Severe injury can occur if your hand gets caught between the V-belt and the clutch. Always use safety gloves.

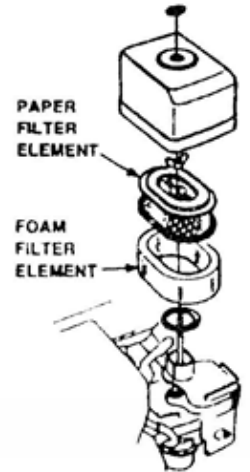


Figure 1 Air Filter

## CHECKING AND REPLACING THE V-BELT AND CLUTCH

- After 200 hours of operation, remove the upper belt cover to check the V-belt tension (Figure 2). Tension is proper if the belt bends about 10mm when depressed strongly with finger between shafts. Loose or worn V-belts reduce power transmission efficiency, causing weak compaction and reduces the life of the belt itself.

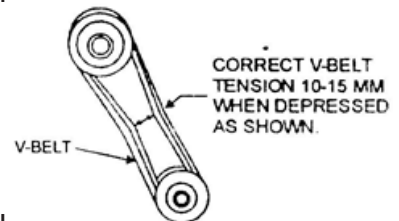


Figure2.V-Belt Tension

Whenever the compactor's vibration, becomes weak or lost during normal operation regardless of operation hours□check the V-belt and clutch immediately.

- **Replacing the V-belt:** Remove the upper and lower belt covers. Engage an offset wrench(13mm) or the like to vibrator pulley (lower)fastening bolt. Engage waste cloth or the like at midway of V-belt on the left side and while pulling it back strongly,rotate the offset wrench clockwise so that the V-belt will come off
- **Re-installing the V-belt:** Engage V-belt to lower vibrator pulley and push the V-belt to left side of upper clutch and in the same manner as in removal, rotate offset wrench clockwise so that the V-belt goes back on.
- **Checking the Clutch:** Check the clutch simultaneously with V-belt checking. With belt removed, check outer drum of the clutch for seizure and "V" groove for wear or damage with your eyes. Clean the "V" groove as necessary. Wear Of lining or shoe should be checked with running check. If the shoe is worn, power transmission becomes deficient and slipping will result.

# SPECIFICATIONS

**MOTOR: MODEL #61006** Chinese Petrol Engine, 4.8 kW output. **MODEL #61007** Petrol, Honda GX160, 4.0 kW output.

**GOVERNED SPEED:** 3,500r/min

**DRIVE BELT:** 1 x 'A' section v belt

**VIBRATOR FREQUENCY:** 5,500 Vibration/min

**VIBRATOR CENTRIFUGAL FORCE:** 13.0kN

**OPERATION MASS:** 84kgs

## ACOUSTIC NOISE (ACCORDING TO 2000/14/EC)

Measured sound power level	102.2dB
Guaranteed sound power level	105.2dB
Uncertainty	3dB

Hand-Arm-Vibration (as per ISO8662, Part 1, m/s<sup>2</sup>) 4-9

## NAMEPLATE

<b>PLATE COMPACTOR</b>		<b>CE</b>	
Frequency(vpm):	5500	Operation Mass(kg):	94
Power(kW):	3.2	Centrifugal Force(kN):	13.0
Speed(cm/s):	40	Compaction Depth(cm):	30
Manuf.Yr.:	2006	Serila NO.:	

The following bearing are sealed. Centrifugal clutch-grease lubricated Vibrator-oil bath lubricated.

## TRANSPORTATION

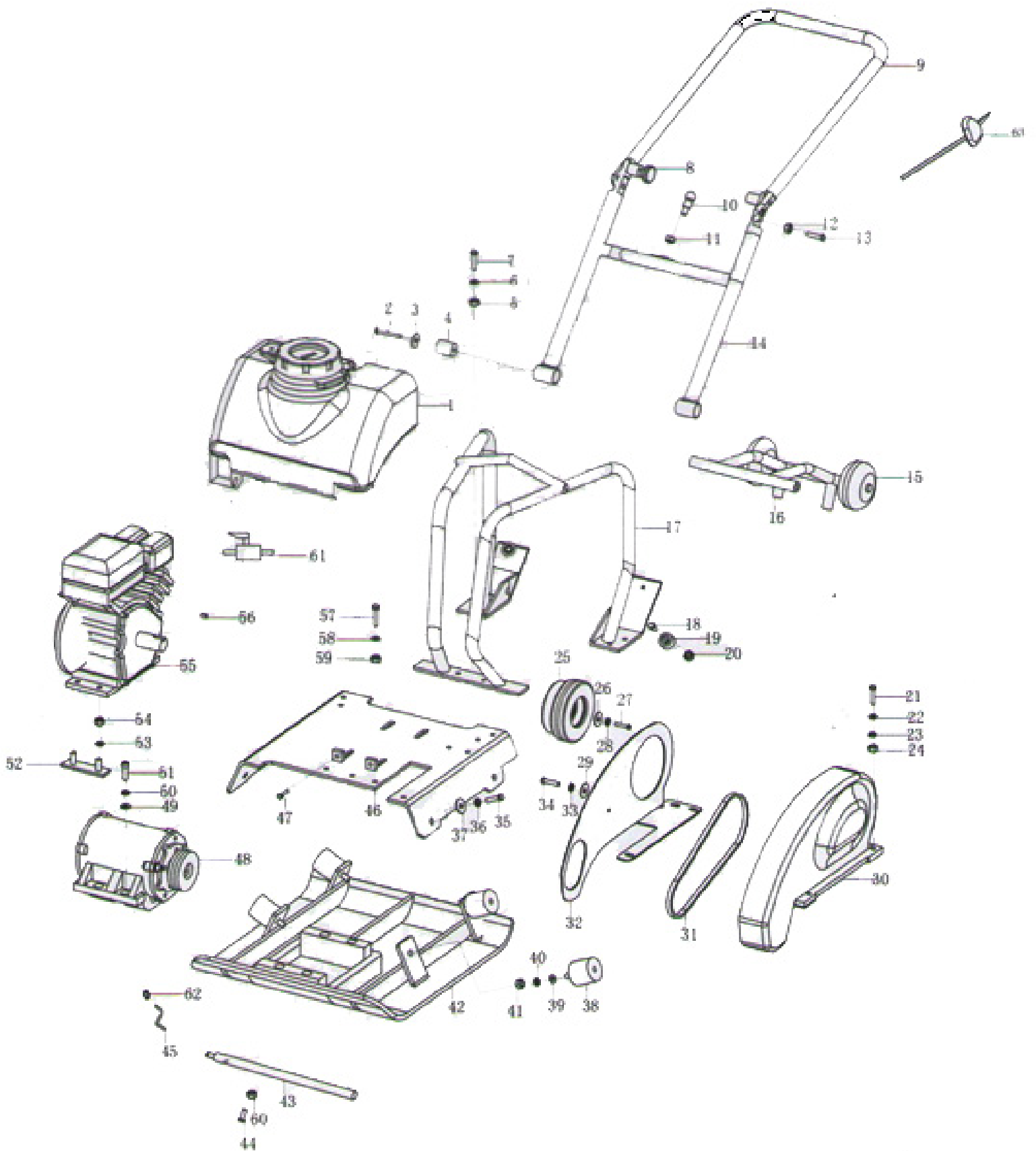
1. Always shut off engine when transporting machine.
2. Make sure lifting device has enough capacity to hold machine.
3. Use central lifting point (a )when lifting machine.
4. Trolley wheel (b) is used for short distance transportation.



# TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTION
Travel speed too low and vibration is weak	Engine speed too low	Set engine speed to correct RPM
	Clutch slips	Check or replace clutch
	V-belt slips?	Adjust or replace V-belt
	Excessive oil in vibration	Drain excess oil and fill to proper level
	Malfunction in vibrator housing	Check eccentric, gears and counter weights
	Bearing Failure	Replace Bearing
	Insufficient engine output	Check engine, compression etc
Difficult to start, "fuel is available but no SPARK at spark plug"	Spark plug bridging	Check gap, insulation or replace spark plug
	Carbon deposit on spark plug	Carbon deposit on spark plug
	Short circuit due to deficient spark plug insulation	Check spark plug insulation, replace if worn
	Improper spark plug gap	Set to proper gap
Difficult to start "fuel is available, and SPARK is present at spark plug"	ON/OFF switch is shorted	Check switch wiring, replace switch
	Ignition coil defective	Replace ignition coil
	Improper spark gap, points dirty	Set correct spark gap and clean points
	Condenser insulation worn or short circuiting	Replace condenser
	Spark plug wire broken or short circuiting	Replace defective spark plug wiring
Difficult to start, "fuel is available, spark is present and compression is normal"	Wrong fuel type	Flush fuel system, and replace with correct type of fuel
	Water or dust in fuel system	Flush fuel system
	Air cleaner dirty	Clean or replace air cleaner
Difficult to start, "fuel is available, spark is present and compression is low"	Suction/exhaust valve stuck or protruded	Re-seat valves
	Piston ring and/or cylinder worn	Replace piston rings and or piston
	Cylinder head and/or spark plug not tightened properly	Torque cylinder head bolts and spark plug
	Head gasket and/or spark plug gasket damaged	Replace head and spark plug gaskets
	Fuel not available in fuel tank	Fill with correct type of fuel
	Fuel cock does not open properly	Apply lubricant to loosen fuel cock level
	Fuel filter clogged	Replace fuel filter
	Fuel tank cap breather hole clogged	Clean or replace fuel tank cap
	Air in fuel line	Bleed fuel line
Weak in power" compression is proper and does not misfire	Air cleaner not clean	Clean or replace air cleaner
	Improper level in carburetor	Check float adjustment, re-build carburetor
	Defective Spark plug	Clean or replace spark plug
"Weak in power" compression is proper but misfires	Water in fuel system	Flush fuel system, and replace with correct type of fuel
	Dirty spark plug	Clean or replace spark plug
	Ignition coil defective	Replace ignition coil
Engine overheats	Spark plug heat value improper	Replace with correct type of spark plug
	Correct type of fuel	Replace with correct type of fuel
	Cooling fins dirty	Clean cooling fins
Rotational speed fluctuates	Governor adjusted correctly	Adjust governor
	Governor spring defective	Replace governor spring
	Fuel flow restricted	Check entire fuel system for leaks or clogs
Recoil starter malfunction	Recoil mechanism clogged with dust and dirt	Clean recoil assembly with soap and water
	Spiral spring loose	Replace spiral spring

# PARTS DIAGRAM



# PARTS LIST

#	DESCRIPTION	QTY	#	DESCRIPTION	QTY
1	Water tank	1	33	Spring washer $\varnothing 8$	1
2	Hexagonal bolt M12*80	2	34	Hexagonal bolt M8*20	1
3	Enlarge flat washer $\varnothing 12$	2	35	Hexagonal bolt M10*25	4
4	Handle 25*43	2	36	Spring washer $\varnothing 10$	4
5	Lock nut M10	6	37	Enlarge flat washer $\varnothing 10*35$	4
6	Flat washer $\varnothing 10$	6	38	Shock absorber	4
7	Hexagonal bolt M10*25	6	39	Flat washer $\varnothing 10$	4
8	Special nut M10	2	40	Spring washer $\varnothing 10$	4
9	Upper handle	1	41	nut M10	4
10	Knob	1	42	Base plate	1
11	Nut M20	1	43	Water hose	1
12	Lock nut M10	2	44	Flange bolt M8*35	2
13	Flange bolt M10*35	2	45	Rubber hose	1
14	Under handle	1	46	Engine mounting plate	1
15	Wheel	2	47	Hexagonal bolt M8*40	2
16	Wheel support frame	1	48	Vibratory unit	1
17	Guard hook	1	49	Flat washer $\varnothing 16$	4
18	Flat cross bolt M8*25	2	50	Spring washer $\varnothing 16$	4
19	Shock absorber 35*15	2	51	Hexagonal bolt M16*40	4
20	Lock nut M8	2	52	Clamp plate for engine	2
21	Hexagonal bolt M8*40	3	53	Flat washer $\varnothing 8$	4
22	Spring washer $\varnothing 8$	3	54	Lock nut M8	4
23	Flat washer $\varnothing 8$	6	55	Engine	1
24	nut M8	3	56	Flat key 5*40	1
25	Clutch assembly	1	57	Hexagonal bolt M8*20	1
26	Taper flat washer $\varnothing 8*30$	1	58	M8*20 $\varnothing 8$	1
27	Hexagonal bolt M8*30	1	59	Lock nut M8	1
28	Spring washer $\varnothing 8$	1	60	Flange nut M8	2
29	Enlarge flat washer $\varnothing 8*30$	1	61	Copper tap	1
30	Belt cover	1	62	clamp	2
31	V-belt B-838	1	63	Throttle line assembly	1
32	Inside belt cover	1			

## PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

**Record Product's Serial Number Here:** \_\_\_\_\_

**Note:** If product has no serial number, record month and year of purchase instead.

**Note:** Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.



**SAVE THESE INSTRUCTIONS.**