OPERATION MANUAL

MULTIQUIP®

Mikasa

MODEL MVC80VTH/VTHW
ONE-WAY PLATE COMPACTOR
(HONDA GX160UH2XSCM GASOLINE ENGINE)

Revision #0 (04/09/26)

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www.multiquip.com

THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.


WARNING
CANCER &
REPRODUCTIVE HARM
www.P65Warnings.ca.gov
P/N 38707

MVC80VTH/VTHW
Plate Compactor

DISCLAIMER:

Product features, descriptions, and specifications are based on published information at the time of publication and are subject to change at any time without notice. Multiquip Inc. and its affiliates reserve the right to change specifications, features, design, and descriptions of products at any time without notice.

Do not operate or service the equipment before reading the entire manual. Safety precautions should be followed at all times when operating this equipment. Failure to read and understand the safety messages and operating instructions could result in injury to yourself and others.

SAFETY MESSAGES

The four safety messages shown below will inform you about potential hazards that could injure you or others. The safety messages specifically address the level of exposure to the operator and are preceded by one of four words: **DANGER, WARNING, CAUTION** or **NOTICE.**

SAFETY SYMBOLS

DANGER

Indicates a hazardous situation which, if not avoided, **WILL** result in **DEATH** or **SERIOUS INJURY.**

WARNING

Indicates a hazardous situation which, if not avoided, **COULD** result in **DEATH** or **SERIOUS INJURY.**

CAUTION

Indicates a hazardous situation which, if not avoided, **COULD** result in **MINOR** or **MODERATE INJURY.**

NOTICE

Addresses practices not related to personal injury.

Potential hazards associated with the operation of this equipment will be referenced with hazard symbols which may appear throughout this manual in conjunction with safety messages.

Symbol	Safety Hazard
	Lethal exhaust gas hazards
	Explosive fuel hazards
	Burn hazards
	Respiratory hazards
	Accidental starting hazards
	Eye and hearing hazards
	Rotating parts hazards

GENERAL SAFETY

⚠ CAUTION

- **NEVER** operate this equipment without proper protective clothing, shatterproof glasses, respiratory protection, hearing protection, steel-toed boots and other protective devices required by the job or city and state regulations.

- **NEVER** operate this equipment when not feeling well due to fatigue, illness or when under medication.

- **NEVER** operate this equipment under the influence of drugs or alcohol.

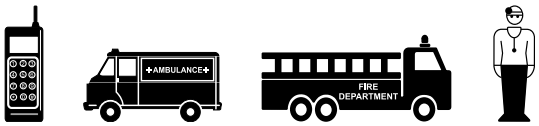
- **ALWAYS** check the equipment for loosened threads or bolts before starting.
- **DO NOT** use the equipment for any purpose other than its intended purposes or applications.
- **ALWAYS** clear the work area of any debris, tools, etc. that would constitute a hazard while the equipment is in operation.

NOTICE

- This equipment should only be operated by trained and qualified personnel 18 years of age and older.
- Whenever necessary, replace nameplate, operation and safety decals when they become difficult read.
- Manufacturer does not assume responsibility for any accident due to equipment modifications. Unauthorized equipment modification will void all warranties.
- **NEVER** use accessories or attachments that are not recommended by Multiquip for this equipment. Damage to the equipment and/or injury to user may result.
- **ALWAYS** know the location of the nearest **fire extinguisher.**

- **ALWAYS** know the location of the nearest **first aid kit.**

- **ALWAYS** know the location of the nearest phone or **keep a phone on the job site.** Also, know the phone numbers of the nearest **ambulance, doctor** and **fire department.** This information will be invaluable in the case of an emergency.



COMPACTOR SAFETY

⚠ DANGER

- **NEVER** operate the equipment in an explosive atmosphere or near combustible materials. An explosion or fire could result causing severe **bodily harm or even death.**

⚠ WARNING

- **NEVER** disconnect any **emergency or safety devices.** These devices are intended for operator safety. Disconnection of these devices can cause severe injury, bodily harm or even death. Disconnection of any of these devices will void all warranties.

⚠ CAUTION

- **NEVER** lubricate components or attempt service on a running machine.

NOTICE

- **ALWAYS** keep the machine in proper running condition.
- Fix damage to machine and replace any broken parts immediately.
- **ALWAYS** store equipment properly when it is not being used. Equipment should be stored in a clean, dry location out of the reach of children and unauthorized personnel.

ENGINE SAFETY

⚠ DANGER

- The engine fuel exhaust gases contain poisonous carbon monoxide. This gas is colorless and odorless, and can cause death if inhaled.
- The engine of this equipment requires an adequate free flow of cooling air. **NEVER** operate this equipment in any enclosed or narrow area where free flow of the air is restricted. If the air flow is restricted it will cause injury to people and property and serious damage to the equipment or engine.

⚠ WARNING

- **DO NOT** place hands or fingers inside engine compartment when engine is running.
- **NEVER** operate the engine with heat shields or guards removed.
- Keep fingers, hands hair and clothing away from all moving parts to prevent injury.

- **DO NOT** remove the radiator cap while the engine is hot. High pressure boiling water will gush out of the radiator and severely scald any persons in the general area of the compactor.
- **DO NOT** remove the coolant drain plug while the engine is hot. Hot coolant will gush out of the coolant tank and severely scald any persons in the general area of the compactor.

- **DO NOT** remove the engine oil drain plug while the engine is hot. Hot oil will gush out of the oil tank and severely scald any persons in the general area of the compactor.

⚠ CAUTION

- **NEVER** touch the hot exhaust manifold, muffler or cylinder. Allow these parts to cool before servicing equipment.

NOTICE

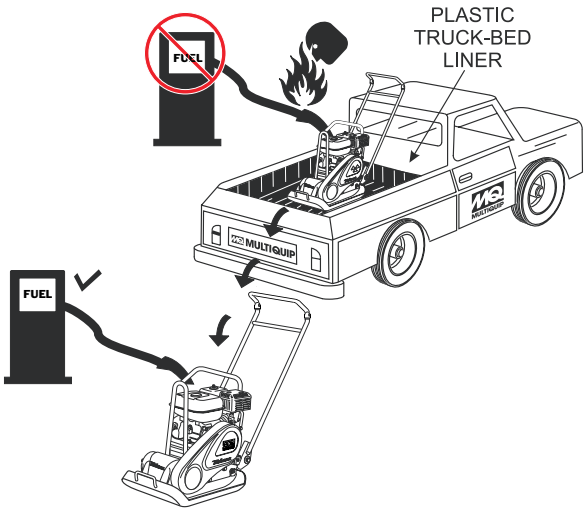
- **NEVER** run engine without an air filter or with a dirty air filter. Severe engine damage may occur. Service air filter frequently to prevent engine malfunction.
- **NEVER** tamper with the factory settings of the engine or engine governor. Damage to the engine or equipment can result if operating in speed ranges above the maximum allowable.

- **NEVER** tip the engine to extreme angles during lifting as it may cause oil to gravitate into the cylinder head, making the engine start difficult.

FUEL SAFETY

⚠ DANGER

- DO NOT add fuel to equipment if it is placed inside truck bed with plastic liner. Possibility exists of explosion or fire due to static electricity.



- **DO NOT** start the engine near spilled fuel or combustible fluids. Diesel fuel is extremely flammable and its vapors can cause an explosion if ignited.
- **ALWAYS** refuel in a well-ventilated area, away from sparks and open flames.
- **ALWAYS** use extreme caution when working with **flammable** liquids.
- **DO NOT** fill the fuel tank while the engine is running or hot.
- **DO NOT** overfill tank, since spilled fuel could ignite if it comes into contact with hot engine parts or sparks from the ignition system.
- Store fuel in appropriate containers, in well-ventilated areas and away from sparks and flames.
- **NEVER** use fuel as a cleaning agent.
- **DO NOT** smoke around or near the equipment. Fire or explosion could result from fuel vapors or if fuel is spilled on a hot engine.

TRANSPORTING SAFETY

⚠ CAUTION

- NEVER allow any person or animal to stand underneath the equipment while lifting.

NOTICE

- Before lifting, make sure that the equipment parts (hook and vibration insulator) are not damaged and screws are not loose or missing.
- Always make sure crane or lifitng device has been properly secured to the lifting bail (hook) of the equipment.
- **ALWAYS** shutdown engine before transporting.
- **NEVER** lift the equipment while the engine is running.
- Tighten fuel tank cap securely and close fuel cock to prevent fuel from spilling.
- Use adequate lifting cable (wire or rope) of sufficient strength.
- Use one point suspension hook and lift straight upwards.
- **DO NOT** lift machine to unnecessary heights.
- **ALWAYS** tie down equipment during transport by securing the equipment with rope.

ENVIRONMENTAL SAFETY

NOTICE

- Dispose of hazardous waste properly. Examples of potentially hazardous waste are used motor oil, fuel and fuel filters.

- **DO NOT** use food or plastic containers to dispose of hazardous waste.
- **DO NOT** pour waste, oil or fuel directly onto the ground, down a drain or into any water source.

Table 1. MVCV80TH/VTHW Specifications	
Centrifugal Force	3,153 lbf (14.0 kN / 1,430 kgf)
Vibration Frequency	5,800 vpm (97 Hz)
Max Traveling Speed	89 ft./min. (27 m/min.)
Max. Area of Compaction	7,847 ft^2/hr. (729 m^2/hr.)
Plate Size (L × W)	20.5 in. × 17.7 in. (520 mm × 450 mm)
Operating Weight	170 lb. (77 kg)
Operating Weight (with water tank)	183 lb. (83 kg)
Water Tank Capacity	8.9 quarts (8.5 liters)
Vibrator System	Single-Shaft Vibrator
Vibrator Oil Grade	API CD or later SAE10W-30
Vibrator Oil Capacity	0.32 quarts (0.3 liters)
Handle Type	Vibration Absorbing System (VAS) Handle

Table 2. Engine Specifications	
Manufacturer	Honda
Model	GX160UH2XSCM
Engine Type	Air-cooled, 4-stroke Gasoline
Maximum Output	4.8 hp (3.6 kW) / 3,600 rpm
Operating Engine Speed	3,600 rpm
PTO Shaft	Metric
Starter	Recoil
Fuel Tank Capacity	0.82 gal. (3.1 liters)
Engine Oil Grade	API SE or later SAE10W-30
Engine Oil Capacity	0.67 quarts (0.63 liters)

Table 3. Noise and Vibration Emissions		
Model	MVC80VTH	MVC80VTHW
Measured Sound Power Level in dB(A)	101	
Guaranteed Sound Power Level in dB(A)	105	
Hand-Arm Vibration in m/s^2	2.7	

NOTES:

1. *Products are tested for sound pressure level in accordance with European Directives 2000/14/EC and 2005/88/EC, relating to Noise Emission in the Environment by equipment for use outdoors.*
2. *Products are tested for hand/arm vibration (HAV) level in accordance with European Directives 2002/44/EC and EN500-4 and ISO 5349-1:2001, ISO 5349-2:2001.*

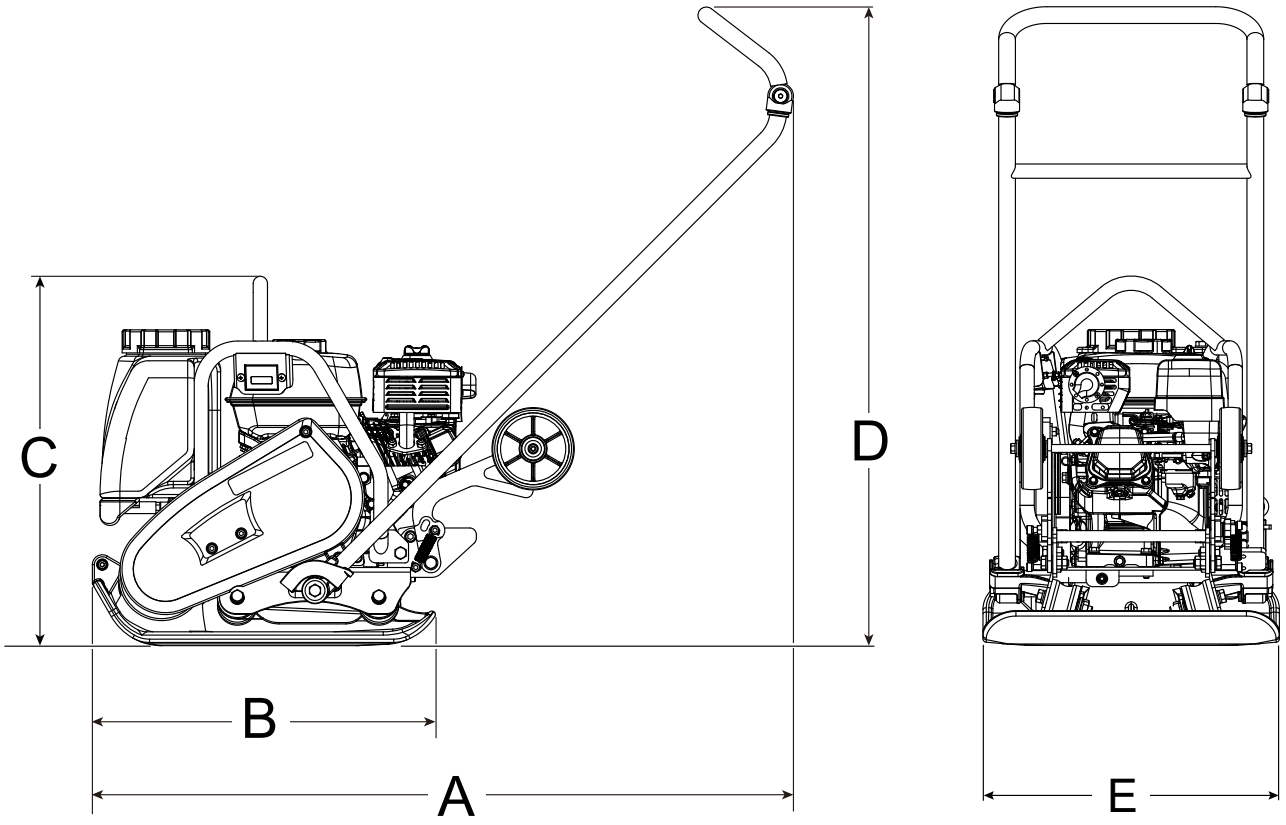


Figure 1. MVC80VTH-VTHW Dimensions

Table 4. Dimensions		
Reference	**Description**	**Measurement**
A	Length of Plate (including deployed handle)	39.4 in. (1,000 mm)
B	Length of Plate	20.5 in. (520 mm)
C	Height	21.3 in. (540 mm)
D	Height (including handle)	39.6 in. (1,005 mm)
E	Width of Plate	17.7 in. (450 mm)

DEFINITION OF PLATE COMPACTOR

The Mikasa MVC80VTH/VTHW is a walk-behind, one-way plate compactor designed for the compaction of sand, mixed soils, and asphalt. This plate compactor is a powerful compacting tool capable of applying a tremendous force in consecutive high-frequency vibrations to a soil surface. Its applications include soil compacting for road, embankments and reservoirs, as well as backfilling for gas pipelines, water pipelines and cable installation work.

The upper part is made up of power source, handle, belt cover, water tank for sprinkling and guard hook which are fixed by engine base. The engine base is fixed on vibrating plate by shock absorbing rubber.

The lower part is made up of vibrating plate and vibrator unit that has an eccentric rotary shaft built in. The power source is transmitted from the centrifugal clutch on engine output shaft to the eccentric rotary shaft through V-belt.

POWER TRANSMISSION

The power unit is the 4-cycle, single-cylinder, air-cooled gasoline engine. The engine output shaft is equipped with the centrifugal clutch pulley. The centrifugal clutch pulley is engaged when increasing the engine speed. Then the engine speed is transferred to the vibrator through the V-belt. The engine speed is converted to the specified speed to rotate the eccentric shaft of the vibrator by the ratio of the clutch pulley to the vibrator pulley.

VIBRATORY PLATES

The vibrator generates the vibration by rotating the eccentric shaft.The vibration generated by the vibrator is transferred to the vibrating plate. The vibration of vibrating plate carries the machine forward, and the vibration with the weight of the machine compacts the ground.

FREQUENCY/SPEED

The compactor's vibrating plate has a frequency of 5,880 vpm (vibrations per minute).

WATER TANK

The water tank provides lubrication to the base plate when compacting asphalt and may be used for dust control in dry work environments.

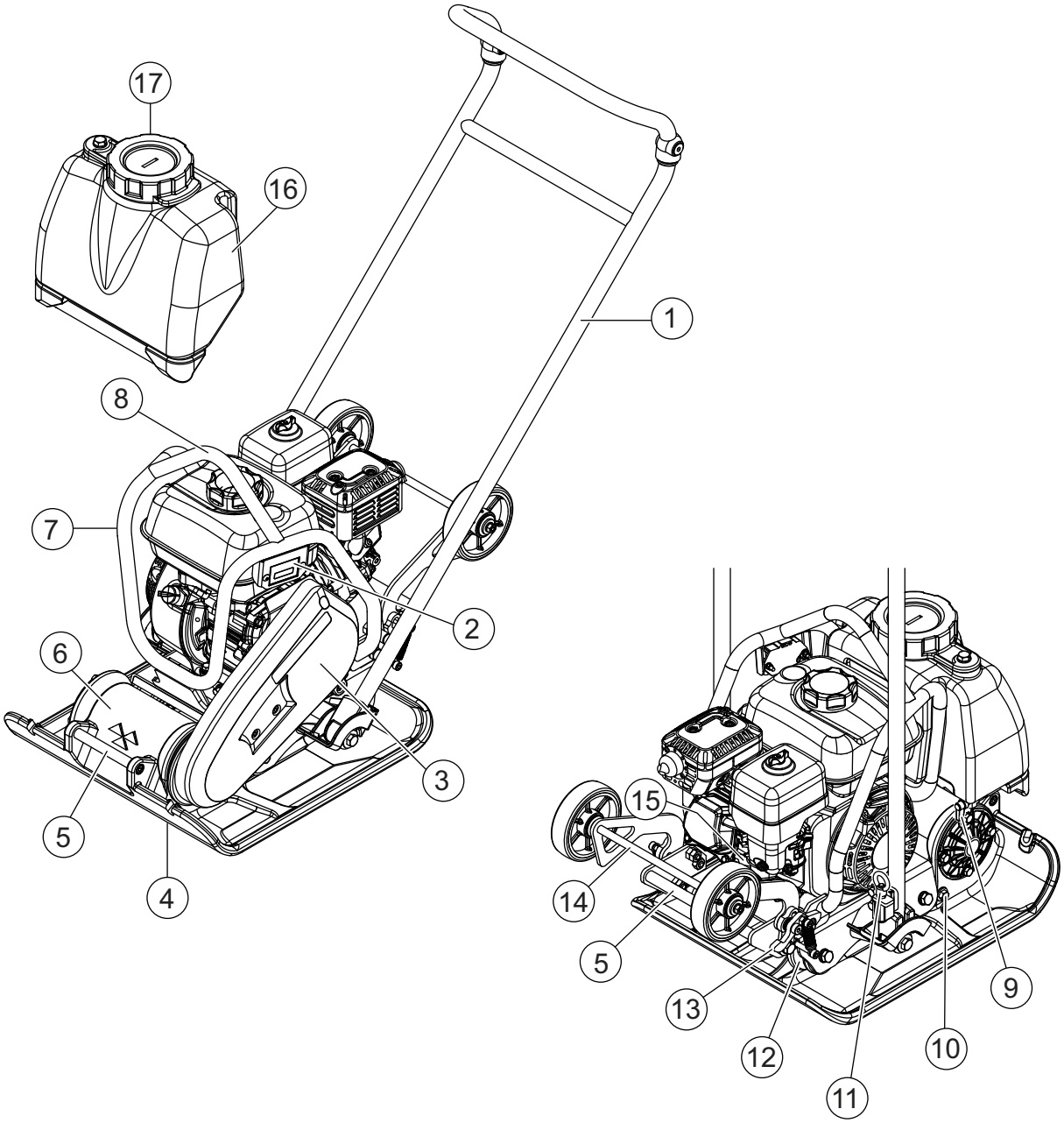


Figure 2. MVC80VTH/VTHW Controls and Components

Figure 2 shows the location of the basic controls and components of the MVC80VTH/THW Plate Compactor. The function of each control is described below:

1. **Vibration Absorbing System Handle** — Designed to absorb or dampen the vibration during compaction.
2. **Hour Meter and Tachometer** — Indicates the number of hours that the machine has been in operation and engine speed.
3. **Belt Cover** — Remove this cover to gain access to the V-belt. **NEVER** run the compactor without the V-belt cover. If the V-belt cover is not installed, the possibility exists that your hand may get caught between the V-belt and clutch, causing serious injury and bodily harm.
4. **Vibrating Plate** — A flat, open plate made of durable cast-iron construction used in the compacting of soil.
5. **Compactor Lifting Bar** — Used to lift compactor and move to a different location.
6. **Vibrator** — Starts the compacting action.
7. **Guard Frame** — Protects unit from being hit by other objects.
8. **Lifting Hook** — When lifting of the compactor is required either by forklift, crane, etc., tie rope or chain around this lifting point.
9. **Water Shut OFF Valve (MVC80VTHW only)** — Turn this valve downward to let water flow from the water tank to the water tube.
10. **Drain Plug (Vibrator)** — Use to drain vibrator oil from the machine.
11. **VAS Lock Pin** — Pull upwards on pin and turn to the left to release Vibration Absorbing System (VAS) handle.
12. **Shock Absorber** — Helps to control the impact and rebound movement of the compactor and smoothens out bumps and vibrations.
13. **Wheel Cart Lock Lever** — Locks the wheel cart in place.
14. **Retractable Wheel Cart Lifting Bar** — Used to lift the retractable wheel cart back into stow position using foot. Wheel cart can manually be raised or lowered.
15. **V-Belt Tension Adjuster** — Adjusts the tension of the V-belt to prevent slack.
16. **Water Tank (MVC80VTHW only)** — Used when application requires water sprinkling. Tank capacity is 9.0 quarts (8.5 liters).
17. **Water Tank Cap (MVC80VTHW only)** — Remove this cap to add water for the sprinkler system. *Do not fill with diesel fuel or gasoline as this creates both a safety and environmental hazard!*

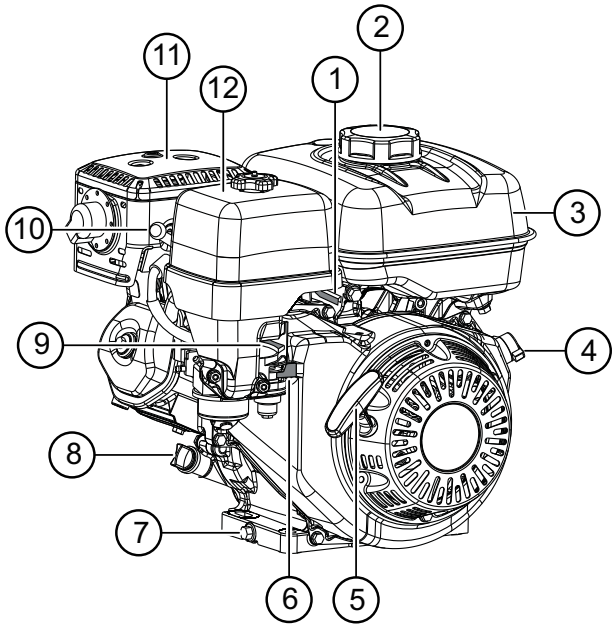


Figure 3. Engine Controls and Components

INITIAL SERVICING

The engine (Figure 3) must be checked for proper lubrication and filled with fuel prior to operation. Refer to the manufacturer's engine manual for instructions and details of operation and servicing.

1. **Throttle Lever —** Use to adjust engine RPM speed (lever advanced forward ***SLOW***, lever back toward operator ***FAST***).
2. **Fuel Filler Cap —** Remove this cap to add unleaded gasoline to the fuel tank. Make sure cap is tightened securely. **DO NOT** overfill.
3. **Fuel Tank —** Holds unleaded gasoline. For additional information refer to engine owner's manual.
4. **Engine ON/OFF Switch —** ON position permits engine starting, OFF position stops engine operations.
5. **Recoil Starter (pull rope) —** Manual starting method. Pull the starter grip until resistance is felt, then pull briskly and smoothly.
6. **Fuel Valve Lever — OPEN** to let fuel flow, **CLOSE** to stop the flow of fuel.
7. **Oil Drain Plug —** Remove this plug to remove oil from the engine's crankcase.
8. **Dipstick/Oil Filler Cap —** Remove this cap to determine if the engine oil is low. Add oil through this filler port as recommended in Table 1.
9. **Choke Lever —** Used in the starting of a cold engine, or in cold weather conditions. The choke enriches the fuel mixture.
10. **Spark Plug —** Provides spark to the ignition system. Set spark plug gap to 0.6 – 0.7 mm (0.028 – 0.031 inch). Clean spark plug once a week.
11. **Muffler —** Reduces noise and emissions.
12. **Air Filter —** Prevents dirt and other debris from entering the fuel system. Remove wing nut on top of air filter canister to gain access to filter element.

BEFORE STARTING

⚠ CAUTION

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

NOTICE

This inspection interval is for operation under normal conditions. Adjust your inspection interval based on the number of hours the plate compactor has been in use, and the type of working conditions it is being used in.

To make sure your plate compactor is always in good working condition, carry out the maintenance inspection in accordance with Table 7 daily, before starting operation.

1. Read safety instructions at the beginning of manual.
2. Clean the machine, removing dirt and dust, particularly the engine cooling air inlet, carburetor and air cleaner.
3. Check the air filter for dirt and dust. If air filter is dirty, replace air filter with a new one as required.
4. Check the carburetor for external dirt and dust. Clean with dry compressed air.
5. Check fastening nuts and bolts for tightness. Loosened screws or bolts due to vibration could lead to unexpected accident.
6. Replace any missing or damaged safety and operation decals.

ENGINE OIL CHECK

1. To check the engine oil level, place the compactor on secure, level ground with the engine stopped.
2. Remove the filler dipstick from the engine oil filler hole (Figure 4) and wipe clean.

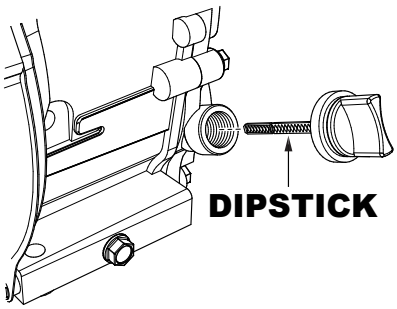


Figure 4. Engine Oil Dipstick (Removal)

3. Insert and remove the dipstick without screwing it into the filler neck. Check the oil level shown on the dipstick.
4. If the oil level is low (Figure 5), fill to the edge of the oil filler hole with the recommended oil type (Table 5). Maximum oil capacity is 0.67 quarts (0.63 liters).

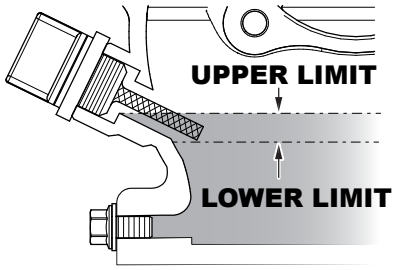


Figure 5. Engine Oil DipStick (Oil Level)

Table 5. Oil Type

Season	Temperature	Oil Type
Summer	25°C or Higher	SAE 10W-30
Spring/Fall	25°C–10°C	SAE 10W-30/20
Winter	0°C or Lower	SAE 10W-10

VIBRATOR OIL CHECK

1. Check the vibrator oil level by removing the drain plug (Figure 6).

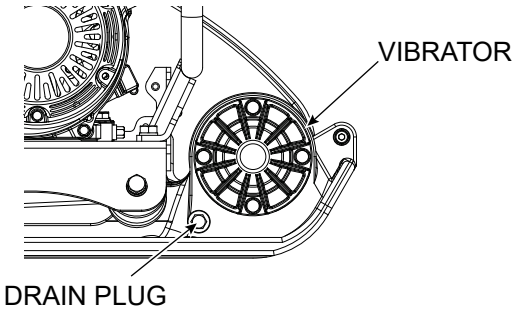


Figure 6. Vibrator Oil Check

2. Make sure the oil level is set at level of drain plug hole. Use the following engine oil: Oil grade APICD or above SAE10W-30. Oil capacity is 0.32 quarts (0.3 liters).

V-BELT CHECK

1. Visually check the V-belt condition. If there are cracks, wear, or any other damage to the V-belt, replace the V-belt with a new one as required (Figure 7).

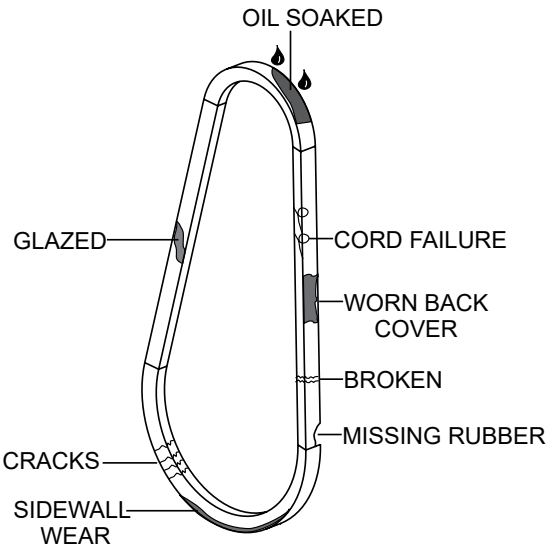


Figure 7. V-Belt Check

2. Check the V-belt tension. The V-belt tension is proper if the V-belt bends 10 to 15 mm when depressed with finger at midway between the clutch and vibrator pulley. (Figure 8).

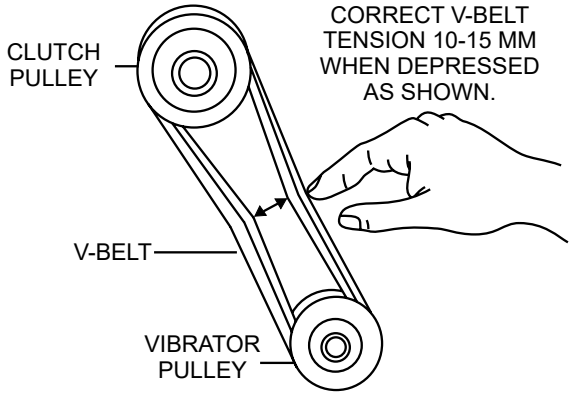


Figure 8. V-Belt Tension

3. If the V-belt tension is not proper, adjust the V-belt tension. Loosen the four bolts securing the engine and turn the nut for the V-belt tensioner until the V-belt tension is correct. Retighten the bolts and recheck the tension and alignment (Figure 9).

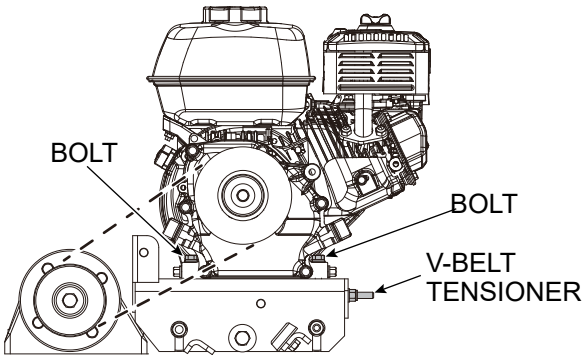


Figure 9. Adjusting V-Belt Tension

RETRACTABLE WHEEL CART CHECK

1. Make sure that the VAS handle is securely placed in the operating position before deploying the wheel cart.
2. If the VAS handle is not in the operating position, unlock the VAS handle by pulling upwards on the locking pin (Figure 10), turn left to release, then place handle in the operating position.

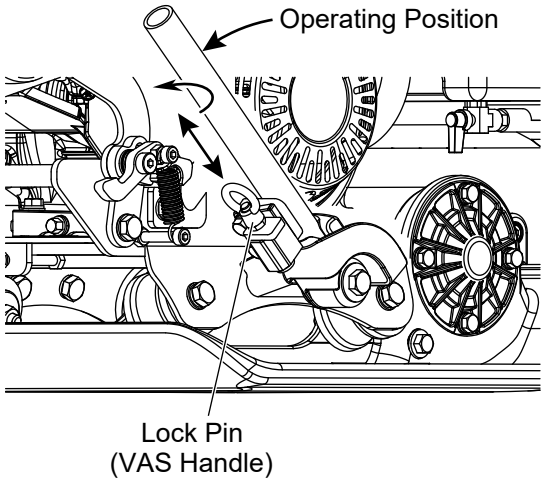


Figure 10. VAS Handle Locking Pin

3. To deploy the retractable wheel cart, step on the locking lever (Figure 11**A**) to release the cart, then rotate the cart downward (Figure 11**B**) until it makes contacts with the ground.

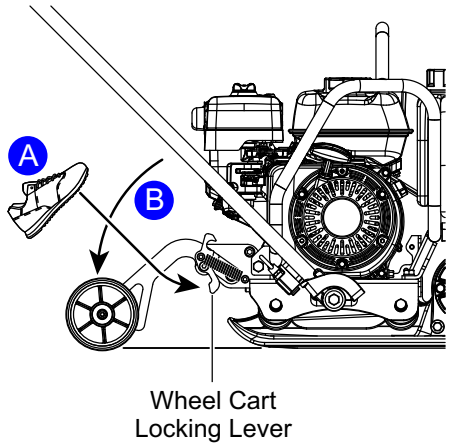


Figure 11. Locking Lever

4. When the VAS handle is lifted (Figure 12**A**), the wheel cart automatically attaches to the vibrating plate (Figure 12**B**).

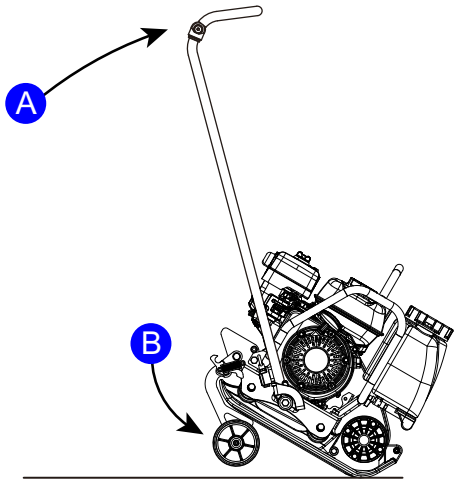


Figure 12. Lifting VAS Handle

5. Pull back on the VAS handle (Figure 13**A**) to lift the vibrating plate off the ground. Then make sure that the cart moves smoothly by moving the compactor forward and backward (Figure 13**B**).

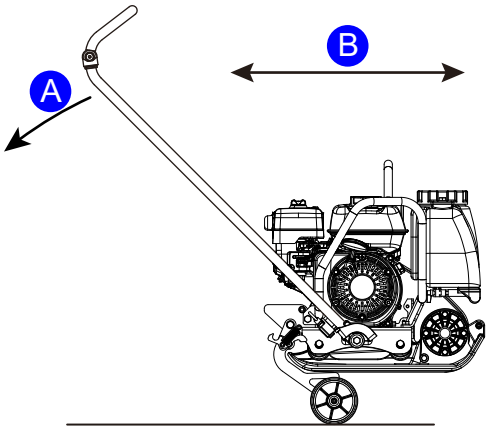


Figure 13. Wheel Cart Movement

6. To return the wheel cart back to the stow position, place foot (Figure 14) underneath wheel cart lift bar and make sure it securely locks back into the stow position.

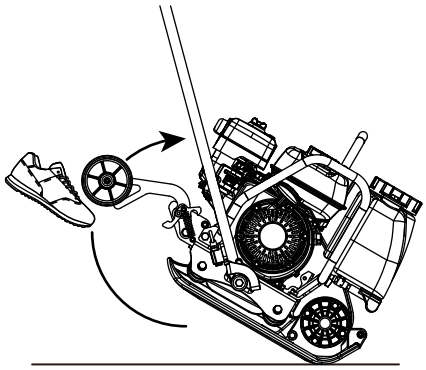


Figure 14. Wheel Cart Stow Position

⚠ CAUTION

DO NOT get oil and gasoline on the wheel cart. Oil and gasoline can cause the rubber to swell and deteriorate. If contaminated with oil or gasoline, immediately clean the wheel cart.

FUEL CHECK

DANGER

Adding fuel to the tank should be done only when the engine is stopped and has had an opportunity to cool down. In the event of a fuel spill, **DO NOT** attempt to start the engine until the fuel residue has been completely wiped up and the area surrounding the engine is dry.

1. Visually check fuel level. If fuel level is low, refuel with unleaded fuel (Figure 15).

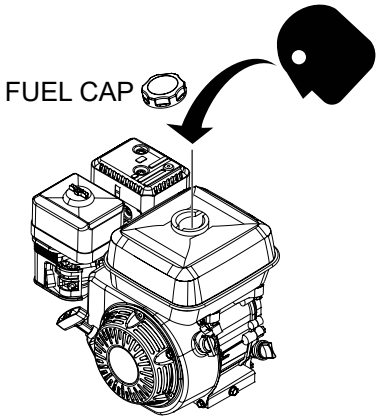


Figure 15. Fuel Check

2. When refueling, be sure to use a strainer for filtration.

WATER TANK CHECK

1. Check the water tank for leaks after filling up with water (Figure 16).

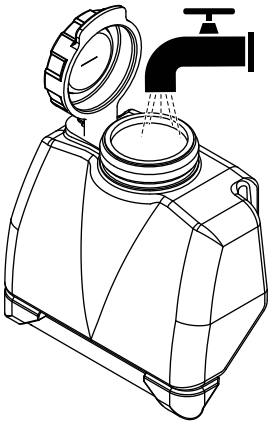


Figure 16. Fill and Leak Check

2. Check the water tank **ON**/**OFF** valve (Figure 17).

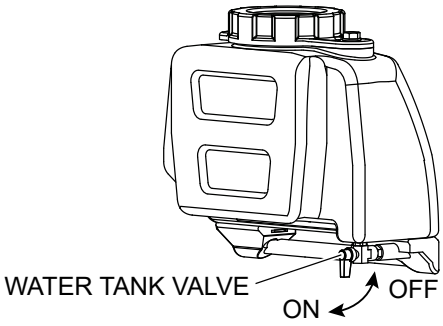


Figure 17. Water Tank ON/OFF Valve

⚠ CAUTION

This section is intended to assist the operator with the initial startup of the compactor. It is extremely important that this section be read carefully before attempting to use the compactor in the field.

START-UP

1. Make sure the VAS handle is in the operation position.
2. Place the engine fuel valve lever (Figure 18) in the **ON** position.

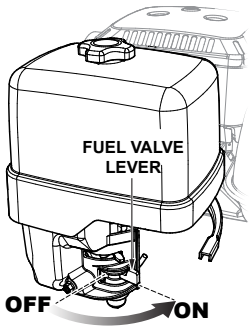


Figure 18. Engine Fuel Valve Lever (ON Position)

3. Move the throttle lever (Figure 19) to idle position.

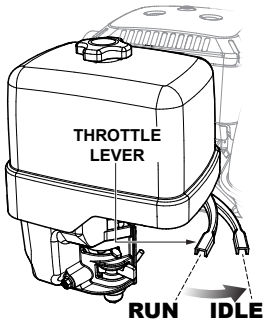


Figure 19. Throttle Lever (Idle Position)

4. Place the choke lever (Figure 20) in the **CLOSED** position if starting a cold engine.

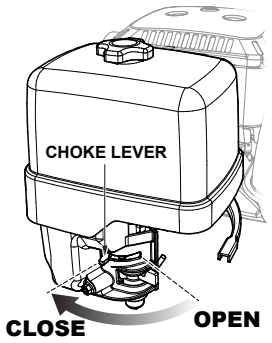


Figure 20. Engine Choke Lever (Closed)

5. Place the choke lever (Figure 21) in the **OPEN** position if starting a warm engine or the temperature is warm.

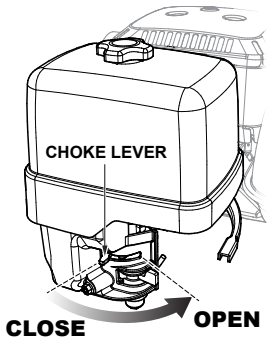


Figure 21. Choke Lever (Open)

6. Place the engine **ON/OFF** switch (Figure 22) in the **ON** position.

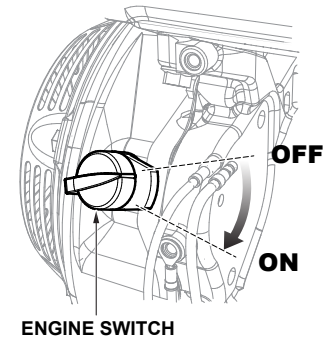


Figure 22. Engine ON/OFF Switch (ON Position)

7. Grasp the starter grip (Figure 23) and slowly pull it out. The resistance becomes the hardest at a certain position, corresponding to the compression point. Pull the starter grip briskly and smoothly for starting.

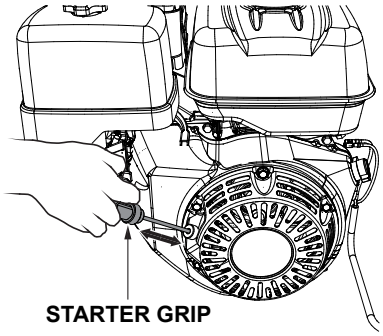


Figure 23. Starter Grip

NOTICE

- Do not pull the starter grip all the length of the rope.
- Be careful to not pull it too hard as it might break or come off.
- Return it gently to prevent damage to the recoil starter.

8. If the engine has started and the choke lever was moved to the **CLOSED** position to start the engine, gradually move the choke lever to the **OPEN** position (Figure 24) as the engine warms up. If the engine has not started, repeat steps 1 through 7.

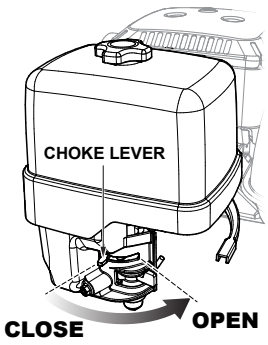


Figure 24. Choke Lever (OPEN)

NOTICE

When starting a cold engine, if the throttle lever is moved from the idle position about 1/3 of the way to the operation position, the centrifugal clutch may slip as soon as the engine has started.

This may cause a failure of the centrifugal clutch and abnormal vibration of the machine, which is very dangerous.

As soon as the engine has started, return the throttle lever to the idle position.

OPERATION

⚠ CAUTION

During operation, pay sufficient attention to dangerous objects and obstacles in the direction of your work and surrounding area. During operation, never touch the moving parts and high-temperature parts of the machine.

⚠ CAUTION

Always move the throttle lever quickly, without hesitation. Increasing the engine speed slowly causes the clutch to slip.

1. After the engine has been started, move the throttle lever quickly to the **RUN** position. The machine will start vibrating (Figure 25).

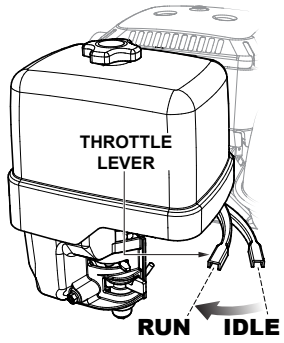


Figure 25. Throttle Lever (Operation)

2. To suspend the work, return the throttle lever to the idle position quickly.

⚠ CAUTION

- **DO NOT** use this machine on ground that is harder than the machine can handle, or for driving pilings or tamping rock beds.
- Furthermore, use of the machine on sloping ground, such as the side of an embankment, may make the machine unstable and can cause an accident. It can also result in premature machine wear due to uneven loads on the machine.
- Only use the machine for compacting earth and sand, soil, and asphalt.
- **DO NOT** use the machine for other types of jobs.

NOTICE

When machine is used on ground that contains clay or high water percentage, the ground surface tends to stick to the vibrating plate, and the machine may slow down or not compact.

Check the bottom of the vibrating plate to see if there is any clay adhered to it.

Let the ground dry to the appropriate ground condition before using this machine to get good compaction performance.

STOPPING

⚠ CAUTION

Never stop the engine suddenly while working at high speed.

1. Move the throttle lever (Figure 26) to the idle position. Cool down the engine for 3 to 5 minutes at idle speed before stopping.

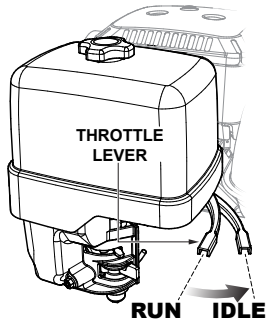


Figure 26. Throttle Lever (IDLE)

2. Turn the engine switch to the **OFF** position (Figure 27).

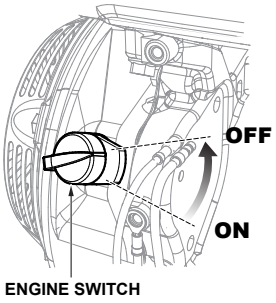


Figure 27. Engine Switch (OFF)

3. Place the fuel shut-off lever (Figure 28) in the **OFF** position

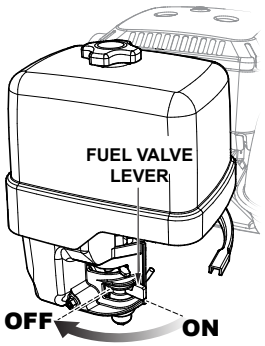


Figure 28. Engine Fuel Valve Lever (OFF Position)

WATER TANK (MVC80VTHW ONLY)

1. If your application requires sprinkling work, open the water tank valve (Figure 29).

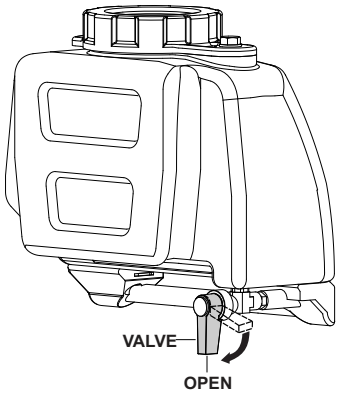


Figure 29. Water Tank Valve (Open)

2. When stopping sprinkling work, close the water tank valve (Figure 30).

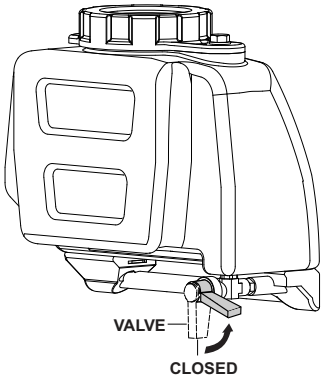


Figure 30. Water Tank Valve (Close)

TRANSPORTATION

1. Stop the engine before transporting the machine.
2. Always drain the fuel before transportation.
3. Do not move the machine until the engine and main body have cooled down enough.
4. Tie down the machine securely to prevent the machine from moving or falling.
5. Make sure there is no breakage of guard frame and shock absorbers nor loose or missing bolts.
6. Use an intact lifting cable (wire or rope) without any deformation with sufficient strength.
7. Slowly lift upward without applying any impact. Never let people or animals go under the lifted machine.
8. For safety reasons, do not lift to a height that is higher than necessary.
9. Use a crane or lift for loading and unloading the machine.
10. Designate a person to guide the loading and unloading, and always work under the instruction of that person.
11. When lifting, always use the lifting hook. Never lift by using the handle as the lifting hook (Figure 31).

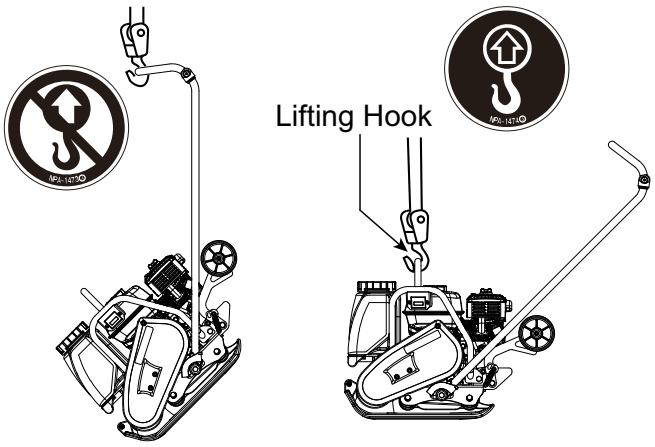


Figure 31. Lifting the Plate Compactor

STORAGE

- Wash off dirt and soil with water. While washing, be careful not to splash water on the electric components such as the battery, the engine muffler, and air cleaner.
- Store the machine on hard and level ground. Then, tie down the machine securely to prevent moving.
- Store the machine in a dry and clean place out of direct sunlight.
- Cover the machine to keep out dust. Do not leave the machine outdoors.
- When not used for a long period of time, drain the fuel from the fuel tank and the carburetor.
- When the machine is used after a long storage period, check the engine oil condition and fill with fresh gasoline.

NOTICE

Do not get oil and gasoline on the rubber parts such as the shock absorbers. Oil and gasoline cause the rubber to swell and deteriorate. If contaminated with oil or gasoline, immediately clean them.

ENGINE/COMPACTOR MAINTENANCE

Perform engine/compactor maintenance procedures as referenced by Table 6 and Table 7 below.

NOTICE

Refer to manufacturer engine manual for specific servicing instructions.

Table 6. Engine Maintenance Schedule

DESCRIPTION (3)	OPERATION	BEFORE	FIRST MONTH OR 10 HRS.	EVERY 3 MONTHS OR 25 HRS.	EVERY 6 MONTHS OR 50 HRS.	EVERY YEAR OR 100 HRS.	EVERY 2 YEARS OR 200 HRS.
Engine Oil	CHECK	X					
	CHANGE		X		X	X	X
Air Cleaner	CHECK	X	X				
	CHANGE			X (1)			
All Nuts & Bolts	RETIGHTEN IF NECESSARY	X					
Spark Plug	CHANGE				X		
	REPLACE						X
Cooling Fins	CHECK				X		
Spark Arrester	CLEAN					X	
Fuel Tank	CLEAN					X	
Fuel Strainer	CHECK				X	X	
Idle Speed	CHECK-ADJUST					X (2)	
Valve Clearance	CHECK-ADJUST			X		X	X (2)
Fuel lines	CHECK	Every 2 years, replace if necessary (2)					

(1) Service more frequently when used in **DUSTY** areas.

(2) These items should be serviced by your service dealer, unless you have the proper tools and are mechanically proficient. Refer to the HONDA Shop Manual for service procedures.

(3) For commercial use, log hours of operation to determine proper maintenance intervals.

Table 7. Compactor Maintenance Schedule

Item	Type of Inspection	Interval
Vibrator Oil	Leak, Level, Dirt	Daily
V-Belt	Tension, Crack, Wear	Daily
V-Belt	Tension, Crack, Wear, Failure	Every 200 hrs.
Lifting Hook	Break, Crack, Looseness	Daily
Lifting Grip	Break, Crack	Daily
Shock Absorber	Crack, Damage, Wear	Daily
Nuts and Bolts	Looseness, Coming off	DailyTable 8
Vibrator Oil	Change	Every 10 hrs.
Clutch	Wear, Failure	Every 200 hrs.

Table 8. Tightening Torque (kg cm)

Material	Diameter							
	6mm	8mm	10mm	12mm	14mm	16mm	18mm	20mm
4T	70	150	300	500	750	1,100	1,400	2,000
6-8T	100	250	500	800	1,300	2,000	2,700	3,800
11T	150	400	800	1,200	2,000	2,900	4,200	5,600
*	100	300-350	650-700					

* (for aluminum counterpart)
(Threads in use with this machine are all right-handed)
Material and quality of material is marked on each bolt and screw.

MAINTENANCE

Use Table 6 and Table 7 as a general maintenance guideline when servicing your engine/compactor. For more detail engine maintenance information, refer to the engine owner's manual supplied with your engine.

Daily

Thoroughly remove dirt and oil from the engine and control area. Clean or replace the air cleaner elements as necessary. Check and retighten all fasteners as necessary.

Wiring

Inspect the entire generator for bad or worn electrical wiring or connections. If any wiring or connections are exposed (insulation missing) replace wiring immediately.

Piping and Hose Connection

Inspect all piping, oil hose, and fuel hose connections for wear and tightness. Tighten all hose clamps and check fuel or leaks. If any hose (fuel or oil) lines are defective replace them immediately.

Fuel Strainer

1. Thoroughly clean the area around the fuel cap.
2. Remove the fuel cap from the fuel tank.
3. Next, remove, inspect and clean the fuel strainer (Figure 32) with solvent.

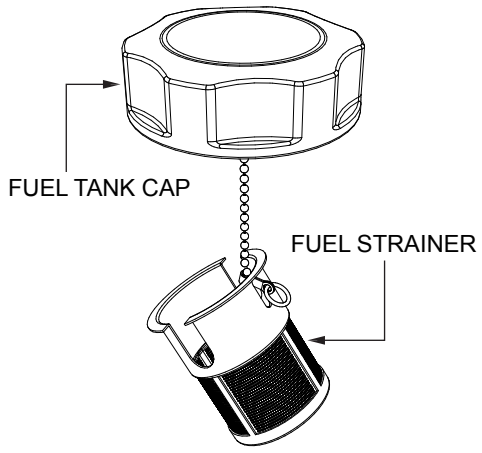


Figure 32. Fuel Strainer

Spark Plug

1. Remove and clean the spark plug (Figure 33), then adjust the spark gap to 0.024 ~0.028 inch (0.6~0.7 mm). This unit has electronic ignition, which requires no adjustments.

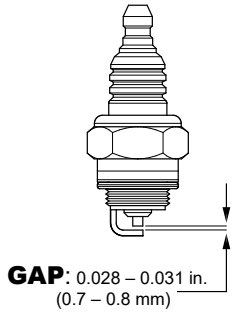


Figure 33. Spark Plug Gap

ENGINE OIL CHANGE

Change the engine oil after first 20 hours of operation, then every 100 hours afterwards.

2. Drain the engine oil when the oil is warm as shown in Figure 34.
3. Remove the oil drain bolt and sealing washer and allow the oil to drain into a suitable container.
4. Replace engine oil with recommended type oil as listed in Table 5. For engine oil capacity, see Table 2 (engine specifications). **DO NOT** overfill.
5. Install drain bolt with sealing washer and tighten securely.

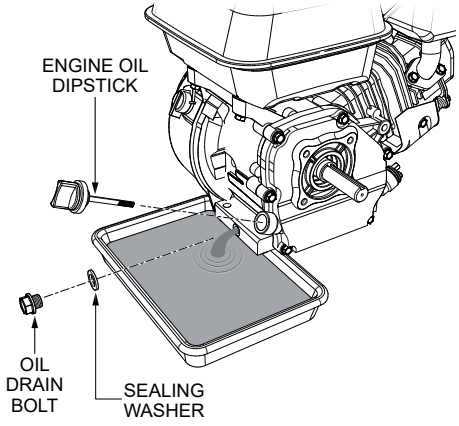


Figure 34. Draining Engine Oil

ENGINE AIR CLEANER

DANGER

DO NOT use gasoline as a cleaning solvent, the possibility exists of fire or explosion which can cause damage to the equipment and severe bodily harm or even **DEATH**!

NOTICE

Operating the engine without an air filter, with a damaged air filter, or a filter in need of replacement will allow dirt to enter the engine, causing rapid engine wear.

1. When the air cleaner element becomes dirty, the engine will not start smoothly, and will not get sufficient output. It will affect the machine operation and shorten engine life.
2. Check air cleaner daily and clean element as needed. Refer to engine manual.
3. Remove the air cleaner cover.
4. Next, remove the foam and paper filter elements as shown in Figure 35.
5. Tap the paper filter element several times on a hard surface to remove dirt, or blow compressed air [not exceeding 30 psi (207 kPa, 2.1 kgf/cm^2)] through the filter element from the air cleaner case side. ***NEVER*** brush off dirt. Brushing will force dirt into the fibers. Replace the paper filter element if it is excessively dirty.

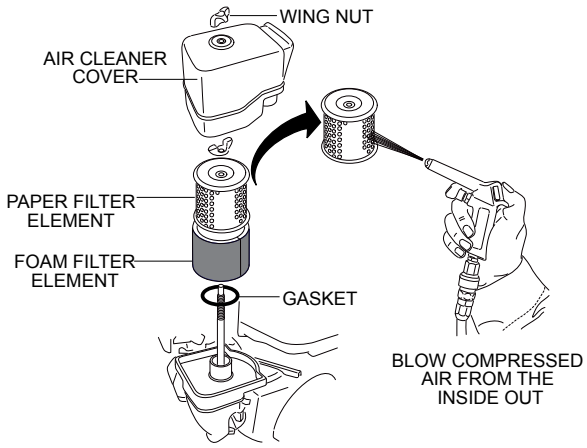


Figure 35. Air Cleaner Components

6. Clean foam element (Figure 36) in warm, soapy water or non-flammable solvent. Rinse and dry thoroughly.
7. Next, dip the element in clean engine oil and completely squeeze out the excess oil from the element before installing.

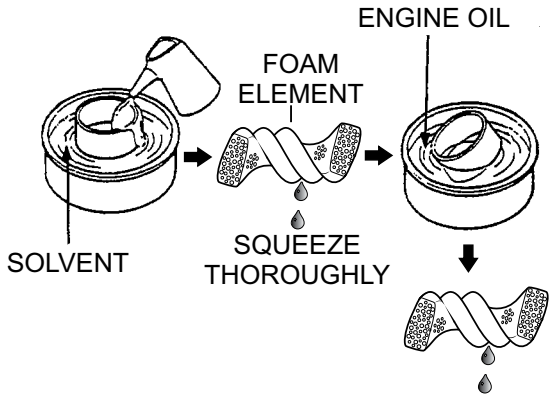


Figure 36. Cleaning Foam Element

SPARK ARRESTER CLEANING

WARNING

Engine components can generate extreme heat. To prevent burns, **DO NOT** touch these areas while the engine is running or immediately after operating. **NEVER** operate the engine with the muffler removed.

Clean the spark arrester every 6 months or 100 hours.

1. Allow muffler to cool before removing spark arrestor.
2. Remove the 4 mm screw (3) from the exhaust deflector, then remove the deflector. See Figure 37.
3. Remove the 5 mm screw (4) from the muffler protector, then remove the muffler protector.
4. Remove the 4 mm screw from the spark arrester, then remove the spark arrester.

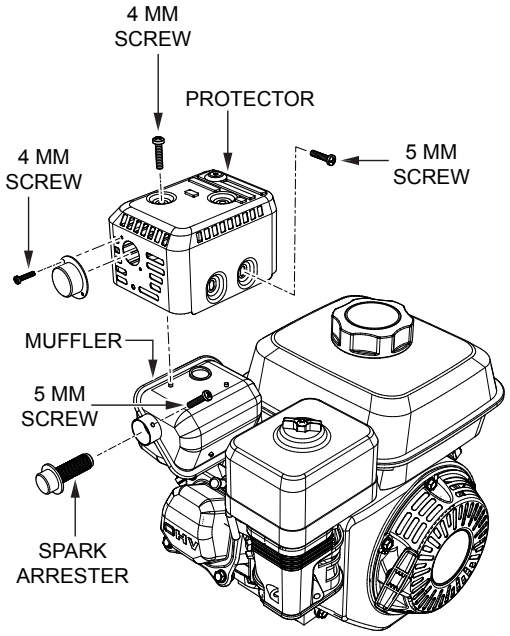


Figure 37. Spark Arrester Removal

5. Carefully remove carbon deposits from the spark arrester screen (Figure 38) with a wire brush.

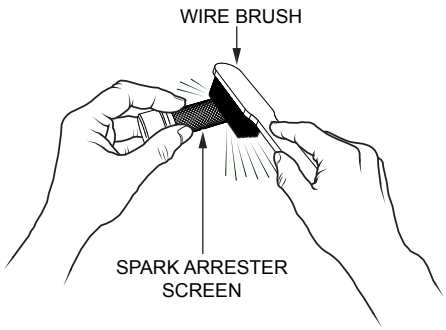


Figure 38. Cleaning The Spark Arrester

6. If the spark arrester is damaged and has breaks or holes, replace with a new one.
7. Reinstall the spark arrester and muffler protector in reverse order of disassembly.

VIBRATOR OIL CHANGE

1. At every 100 hours of operation, check that the vibrator oil level is acceptable, by removing the drain plug.
2. At every 300 hours of operation, change the vibrator oil. When draining the oil from the port of the drain plug, tilt the machine with a sleeper or the like placed under the rubber rolls or use the oil changer.

NOTICE

Do not overfill. After draining the vibrator oil, some oil still remains in vibrator case. So make sure that the oil level is correct after filling oil.

V-BELT CHECK AND CHANGE

1. Every month or every 200 hours of operation,visually check the V-belt condition. If there are cracks, wear, or any other damage, replace the V-belt with a new one.
2. Check the V-belt tension. The V-belt tension is proper if the V-belt bends 10 to 15 mm when depressed with finger at midway between the clutch and vibrator pulleys. See Inspection section.
3. If the V-belt tension is not proper, adjust the V-belt tension. Loosen the four bolts securing the engine and turn the nut for the V-belt tension adjuster until the V-belt tension is correct. Retighten the bolts and recheck the tension and alignment. See Inspection section.

CLUTCH CHECK AND CHANGE

1. Check the clutch while checking the V-belt.
2. Visually check for burning of the clutch shoes, wearing of the clutch linings and condition of the V-groove pulley.
3. If the clutch linings are worn, the clutch slips and transmission will not perform properly. Replace the clutch with a new one as required.

Troubleshooting (Plate Compactor)		
Symptom	**Possible Problem**	**Solution**
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 vibrator?	Drain excess oil and fill to proper level.
	Malfunction in vibrator housing?	Check eccentric gears and counter weights.
	Shock absorber failure?	Replace shock absorber.
	Insufficient engine output?	Check engine, compression etc.
No vibration.	No fuel?	Add fuel.
	Broken or loose V-belt?	Replace or fix.
	Broken or slipping clutch?	Replace.
	Broken vibrator?	Replace.

Troubleshooting (Engine)		
Symptom	**Possible Problem**	**Solution**
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?	Clean or replace 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.
	Spark plug is red?	Check transistor ignition unit.
	Spark plug is bluish white?	If insufficient compression, repair or replace engine. If injected air leaking, correct leak. If carburetor jets clogged, clean carburetor.
	No spark present at tip of spark plug?	Check transistor ignition unit is broken, and replace defective unit. Check if voltage cord is cracked or broken and replace. Check if spark plug is fouled. Replace if fouled.
	No oil?	Add oil as required.
	Oil pressure alarm lamp blinks upon starting? (if applicable)	Check automatic shutdown circuit, "oil sensor". (if applicable)
Difficult to start, fuel is available, and spark is present at the 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, replace with correct type of fuel.
	Water or dust in fuel system?	Flush fuel system.
	Air cleaner dirty?	Clean or replace air cleaner.
	Choke open?	Close choke.
Difficult to start, fuel is available, spark is present and compression is low.	Suction/exhaust valve stuck or protruded?	Reseat 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.
No fuel present at carburetor.	No fuel in fuel tank?	Fill with correct type of fuel.
	Fuel cock does not open properly?	Apply lubricant to loosen fuel cock lever, replace if necessary.
	Fuel filter/lines clogged?	Replace fuel filter.
	Fuel tank cap breather hole clogged?	Clean or replace fuel tank cap.
	Air in fuel line?	Bleed fuel line.
Will not start, no power with key "ON". (if applicable)	ON/OFF device not in ON position?	Place ON/OFF device in ON posotion.

Troubleshooting (Engine) - continued		
Symptom	**Possible Problem**	**Solution**
Weak in power, compression is proper and does not misfire.	Air cleaner dirty?	Clean or replace air cleaner.
	Improper level in carburetor?	Check float adjustment, rebuild carburetor.
	Defective spark plug?	Clean or replace spark plug.
	Improper spark plug?	Set to proper gap.
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 incorrect?	Replace with correct type of spark plug.
	Wrong type of fuel?	Replace with correct type of fuel.
	Cooling fins dirty?	Clean cooling fins.
	Intake air restricted?	Clear intake of dirt and debris. Replace air cleaner elements as necessary.
	Oil level too low or too high?	Adjust oil to proper level.
Rotational speed fluctuates.	Governor adjusted incorrectly?	Adjust governor.
	Governor spring defective?	Replace governor spring.
	Fuel flow restricted?	Check entire fuel system for leaks or clogs.
Recoil starter malfunctions. (if applicable)	Recoil mechanism clogged with dust and dirt?	Clean recoil assembly with soap and water.
	Spiral spring loose?	Replace spiral spring.
Burns too much fuel.	Over-accumulation of exhaust products?	Check and clean valves. Check muffler and replace if necessary.
	Wrong spark plug?	Replace spark plug with manufacturer's suggested type.
Exhaust color is continuously "white".	Lubricating oil is wrong viscosity?	Replace lubricating oil with correct viscosity.
	Worn rings?	Replace rings.
Exhaust color is continuously "black".	Air cleaner clogged?	Clean or replace air cleaner.
	Choke valve set to incorrect position?	Adjust choke valve to correct position.
	Carburetor defective, seal on carburetor broken?	Replace carburetor or seal.
	Poor carburetor adjustment, engine runs too rich?	Adjust carburetor.

OPERATION MANUAL

HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL NUMBER ON-HAND WHEN CALLING

UNITED STATES

Multiquip Inc.

(310) 537- 3700
6141 Katella Avenue Suite 200
Cypress, CA 90630
E-MAIL: mq@multiquip.com
WEBSITE: www.multiquip.com

CANADA

Multiquip

(450) 625-2244
4110 Industriel Boul.
Laval, Quebec, Canada H7L 6V3
E-MAIL: infocanada@multiquip.com

UNITED KINGDOM

Multiquip (UK) Limited Head Office

0161 339 2223
Unit 2, Northpoint Industrial Estate, Globe Lane,
Dukinfield, Cheshire SK16 4UJ
E-MAIL: sales@multiquip.co.uk

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