

OPERATION AND PARTS MANUAL



Mikasa SERIES

**MODEL MVC82VH/VHW
ONE-WAY PLATE COMPACTOR
(HONDA GX160U1SM12, GX160U1SMX4,
GX160UT2QMXC, GX160UT2SMXC and
GX160UT2SCM GASOLINE ENGINES)**

Revision #3 (12/21/17)

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THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.



CALIFORNIA — Proposition 65 Warning

Engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

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NOTICE

Specifications and part numbers are subject to change without notice.

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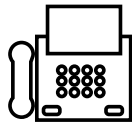
If you have an MQ Account, to obtain a Username and Password, E-mail us at: parts@multiquip.com.

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NOTICE

All orders are treated as *Standard Orders* and will ship the same day if received prior to 3PM PST.

WE ACCEPT ALL MAJOR CREDIT CARDS!



SAFETY INFORMATION

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

SAFETY INFORMATION

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.



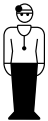
- **NEVER** operate this equipment under the influence of drugs or alcohol.



- **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.



SAFETY INFORMATION

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.

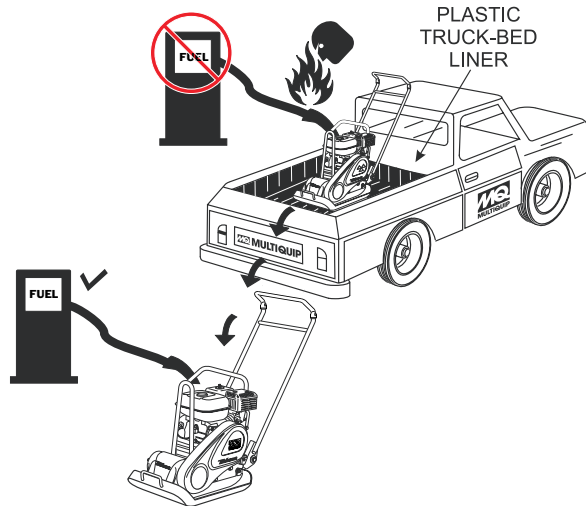



SAFETY INFORMATION

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.




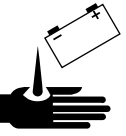
- **DO NOT** start the engine near spilled fuel or combustible fluids. Diesel fuel is extremely flammable and its vapors can cause an explosion if ignited.
- **ALWAYS** refuel in a well-ventilated area, away from sparks and open flames.
- **ALWAYS** use extreme caution when working with **flammable** 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. 

BATTERY SAFETY (ELECTRIC START ONLY)

DANGER

- **DO NOT** drop the battery. There is a possibility that the battery will explode.
- **DO NOT** expose the battery to open flames, sparks, cigarettes, etc. The battery contains combustible gases and liquids. If these gases and liquids come into contact with a flame or spark, an explosion could occur. 

WARNING

- **ALWAYS** wear safety glasses when handling the battery to avoid eye irritation. The battery contains acids that can cause injury to the eyes and skin. 
- Use well-insulated gloves when picking up the battery.
- **ALWAYS** keep the battery charged. If the battery is not charged, combustible gas will build up.
- **DO NOT** charge battery if frozen. Battery can explode. When frozen, warm the battery to at least 61°F (16°C).
- **ALWAYS** recharge the battery in a well-ventilated environment to avoid the risk of a dangerous concentration of combustible gases.
- If the battery liquid (dilute sulfuric acid) comes into contact with **clothing or skin**, rinse skin or clothing immediately with plenty of water. 
- If the battery liquid (dilute sulfuric acid) comes into contact with **eyes**, rinse eyes immediately with plenty of water and contact the nearest doctor or hospital to seek medical attention.

CAUTION

- **ALWAYS** disconnect the **NEGATIVE battery terminal** before performing service on the equipment.
- **ALWAYS** keep battery cables in good working condition. Repair or replace all worn cables.

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 lifting 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.

SPECIFICATIONS

Table 1. Compactor Specifications

Models	MVC82VH MVC82VHW
Handle	HAV (Center Handle)
Centrifugal Force	3080 lbf. (13.7 kN)
Number of Vibrations	5,600 vibrations/min (93 Hz)
Traveling Speed	72 ft./min (22 meters/min)
Plate Size (LxW)	22.4 x 17.7 in. (570 x 450 mm)
Length (Including Handle)	38.2 in. (970 mm)
Height (Including Handle)	22.4 in. (570 mm)
Operating Weight (VH)	175 lbs. (79 kg.)
Operating Weight (VHW)	181 lbs. (82 kg.)
Water Tank Capacity (VHW Model Only)	11.5 qt. (10.9 liters)
Max. Area Of Compaction	7,262 sq. ft./hr. (675 sq. m/hr)
Vibrator Oil Capacity	0.15 qt. (0.14 liters)

Table 2. Engine Specifications

Make	Honda				
Model	GX160U1SM12	GX160U1SMX4	GX160UT2QMXC	GX160UT2SMXC	GX160UT2SCM
Type	Air-cooled 4 stroke, Single Cylinder, OHV Horizontal Shaft Gasoline Engine				
Bore X Stroke	2.7 in. x 1.8 in. (68 mm x 45 mm)				
Displacement	163 cc (9.9 cu. in)				
Max Output	4.8 H.P./3600 R.P.M.				
Fuel Tank Capacity	Approx. 0.95 U.S. gallons (3.6 liters)				
Fuel	Unleaded Automobile Gasoline				
Lube Oil Capacity	0.63 qts (0.60 liters)				
Air Cleaner	Dual Filter Element		Cyclone Filter Element		
Speed Control Method	Centrifugal Fly-weight Type				
Starting Method	Recoil Start				
Dimension (L x W x H)	12.0 x 14.2 x 13.2 in. (304 x 362 x 335 mm)				
Dry Net Weight	23.1 lbs (10.48 Kg.)				

NOISE AND VIBRATION EMISSIONS

Table 3. Noise and Vibration Emissions

Measured Sound Power Level in dB(A)	101
Guaranteed Sound Power Level in dB(A)	105
Guaranteed Sound Pressure Level at Operator Station in dB(A)	90
Hand-Arm Vibration in m/s ²	3.5

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.*

DIMENSIONS

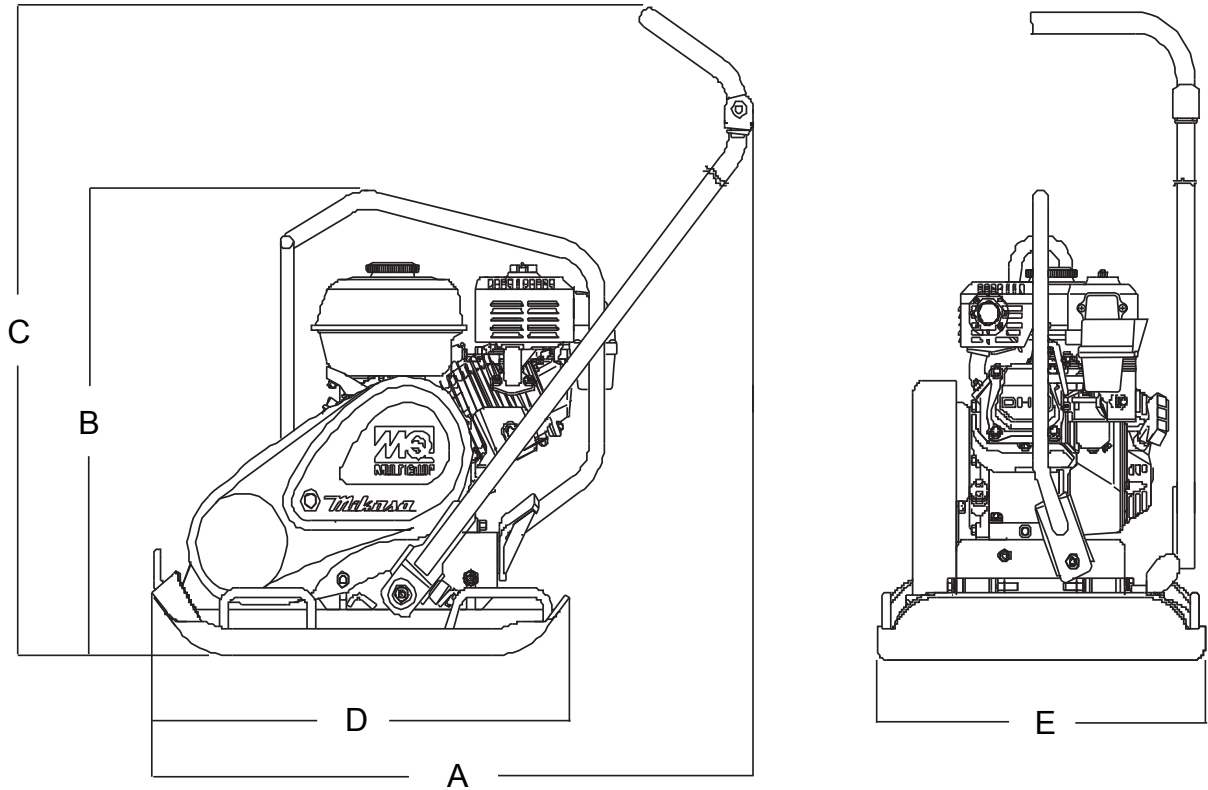


Table 4. Dimensions

Reference Letter	Description	Dimension
A	Length (including handle)	38.2 inches (970 mm)
B	Height (without handle)	22.4 inches (570 mm)
C	Height (including handle)	38 inches (965 mm)
D	Plate Length	22.4 inches (570 mm)
E	Plate Width	17.7 inches (450 mm)

GENERAL INFORMATION

DEFINITION OF PLATE COMPACTOR

The Mikasa MVC82VH/VHW 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 compacting for road, embankments and reservoirs as well as backfilling for gas pipelines, water pipelines and cable installation work.

VIBRATORY PLATES

The vibratory plates of the MVC82VH/VHW produce low amplitude high frequency vibrations, designed to compact granular soils and asphalt.

The resulting vibrations cause forward motion. The engine and handle are vibration-isolated from the vibrating plate.

FREQUENCY/SPEED

The compactor's vibrating plate has a frequency range of 5600 vpm (vibrations per minute). The travel speed of the compactor is approximately 72 feet/minute (22 meters/minute).

ENGINE

These plate compactors are equipped with a Honda GX160 series air cooled, 4-cycle gasoline engine. Reference Table 2 for complete specifications. The engine drives an eccentric weight at a high speed to develop a compaction force.

CONTROLS

Before starting the plate compactor, identify and understand the function of all the controls and components.

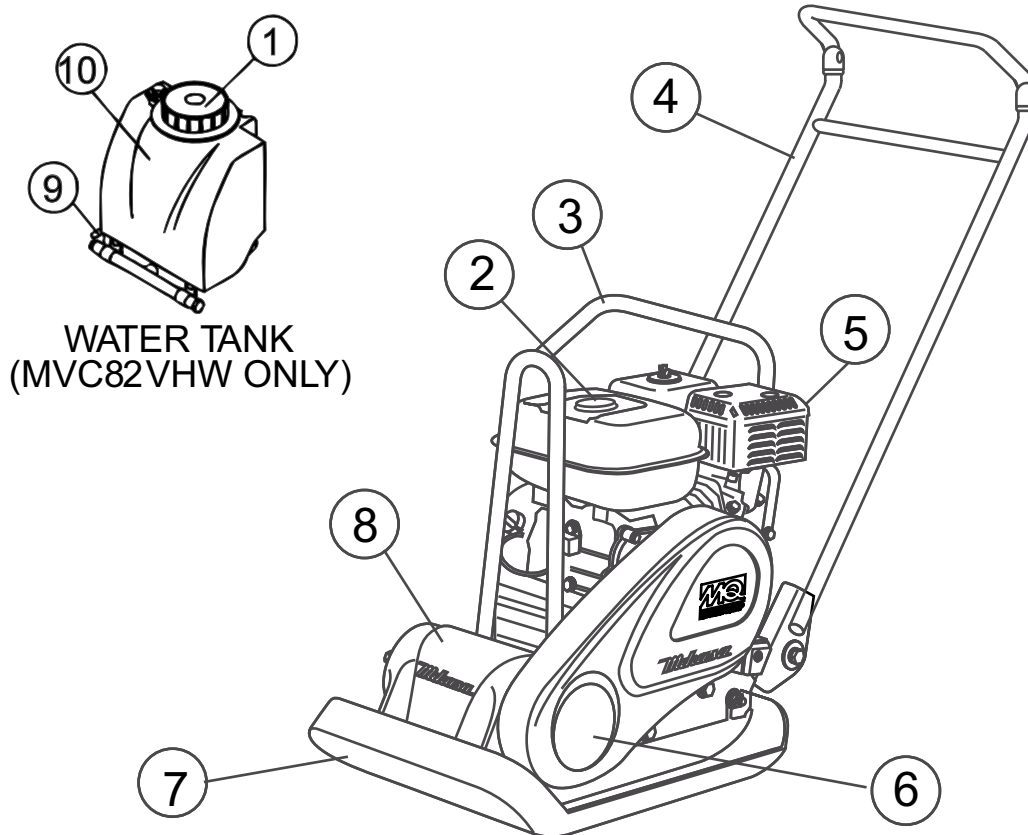


Figure 1. Plate Compactor Components

Figure 1 shows the location of the basic controls and components of the MVC82VH/VHW Plate Compactor. The function of each control is described below:

1. **Water Tank Cap (VHW Only)** — Remove this cap to add water to the water tank.
2. **Fuel Tank Cap** — Remove this cap to add unleaded gasoline to the fuel tank.
3. **Lifting Bale** — When lifting of the compactor is required either by forklift, crane, etc., tie rope or chain around this lifting point.
4. **Handle Bar** — When operating the compactor use this handle bar to maneuver the compactor.
5. **Gasoline Engine** — This plate compactor uses a HONDA 4.8 HP GX160 series, air-cooled 4 stroke gasoline engine. Refer to the owner's manual for engine information.
6. **Belt Cover** — Remove this cover to gain access to the V-belts. **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.
7. **Vibrating Plate** — A flat, open plate made of durable cast iron construction used in the compacting of soil.
8. **Vibration Case** — Encloses the eccentric, gears and counter weights.
9. **Water Shut-Off Valve (VHW only)** — Turn this valve downward to let water flow from the water tank to the water tube.
10. **Water Tank (VHW only)** — Holds 13.8 quarts of water (removable, no tools required).

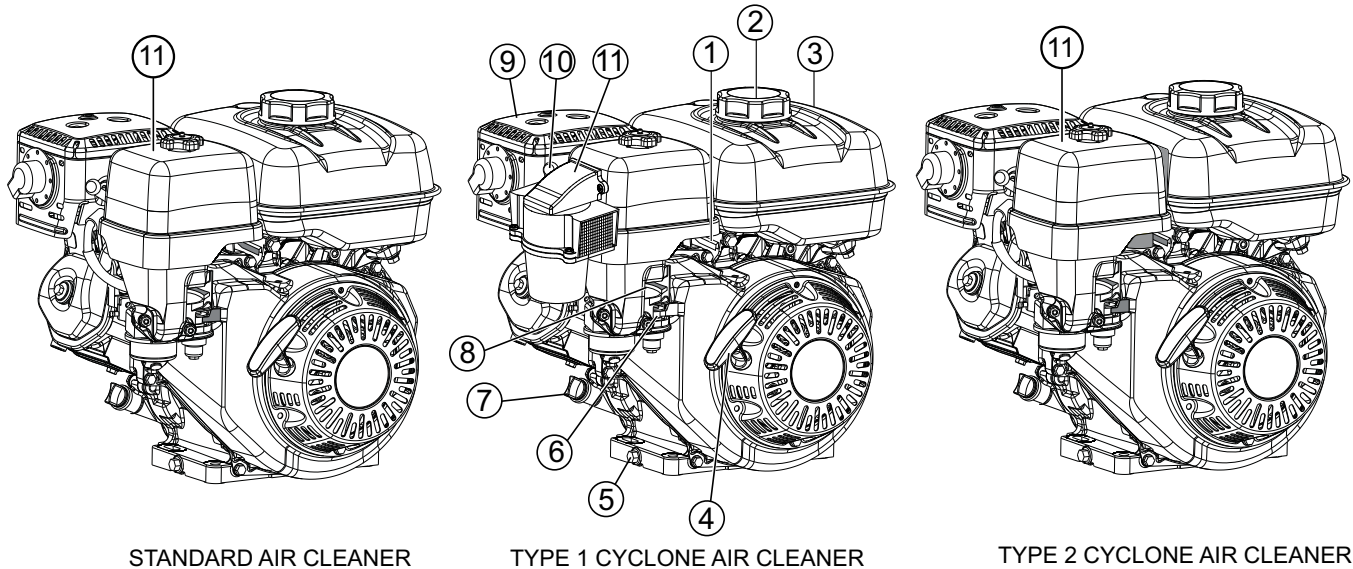


Figure 2. Engine Components

The engine (Figure 2) 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** – Used to adjust engine RPM speed. For normal operation this lever should always be placed in the **RUN** position.
2. **Fuel Cap** – Remove this cap to add unleaded gasoline to the fuel tank. Fill with unleaded gasoline.
3. **Fuel Tank** – Refer to Table 2 for fuel tank capacity. Make sure cap is tightened securely. **DO NOT** over fill. For additional information refer to Honda engine owner's manual.

4. **Recoil Starter (Pull Rope)** – Manual-starting method. Pull the starter grip until resistance is felt, then pull briskly and smoothly.
5. **Oil Drain Plug** – Remove this plug to remove oil from the engine's crankcase.
6. **Fuel Valve Lever** – **OPEN** to let fuel flow, **CLOSE** to stop the flow of fuel.
7. **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 5).
8. **Choke Lever** – Used in the starting of a cold engine, or in cold weather conditions. The choke enriches the fuel mixture.
9. **Muffler** – Used to reduce noise and emissions. **NEVER** touch when **hot!**
10. **Spark Plug** – Provides spark to the ignition system. Set spark plug gap according to engine manufacturer's instructions. Clean spark plug once a week.
11. **Air Cleaner** – Prevents dirt and other debris from entering the fuel system. Remove wing-nut on top of air filter cover to gain access to filter element. Reference the maintenance section in this manual for servicing.

! DANGER



Add fuel to the tank 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.

BEFORE STARTING

1. Read all safety instructions at the beginning of manual.
2. Clean the compactor, 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 carburetor for external dirt and dust. Clean with dry compressed air.
5. Check fastening nuts and bolts for tightness.

ENGINE OIL CHECK

1. To check the engine oil level, place the compactor on secure level ground with the engine stopped.
2. Remove the dipstick from the engine oil filler hole (Figure 3) and wipe clean.

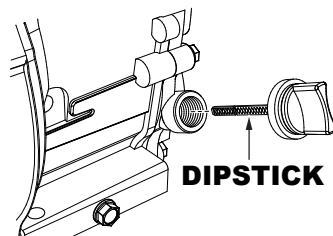


Figure 3. Engine Oil Dipstick Removal

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 4), fill to the edge of the oil filler hole with the recommended oil type as listed in Table 5. Refer to Table 2 for maximum engine oil capacity.

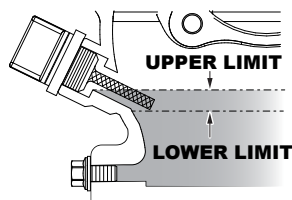


Figure 4. Engine Oil Dipstick (Oil Level)

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

WARNING



Adding fuel to the tank should be accomplished 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.

FUEL CHECK

1. Visually inspect (Figure 5) to see if fuel level is low. If fuel is low, replenish with unleaded fuel.

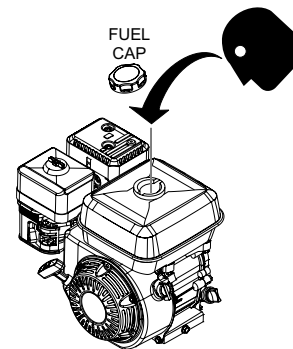


Figure 5. Fuel Check

2. When refueling, be sure to use a strainer for filtration. **DO NOT** top-off fuel. Wipe up any spilled fuel immediately.

Water Tank (Option)

If your unit is equipped with a water tank (Figure 6) and your application requires water, fill water tank.

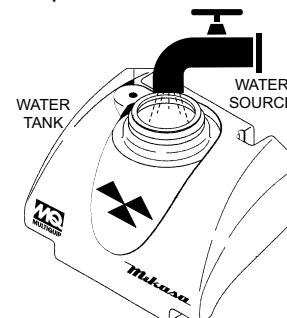


Figure 6. Water Tank Filling

V-BELT CHECK

CAUTION

NEVER attempt to check the V-belt with the engine running. Severe injury can occur if your hand (Figure 7) gets caught between the V-belt and the clutch. Always use safety gloves.

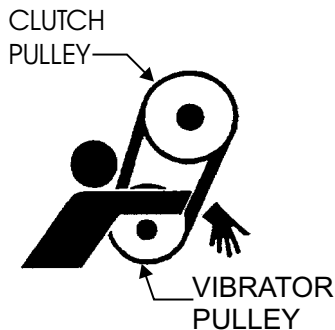


Figure 7. V-Belt Hazard

1. To check the V-belt tension, remove the three bolts that secure the belt cover to the frame as shown in Figure 8.

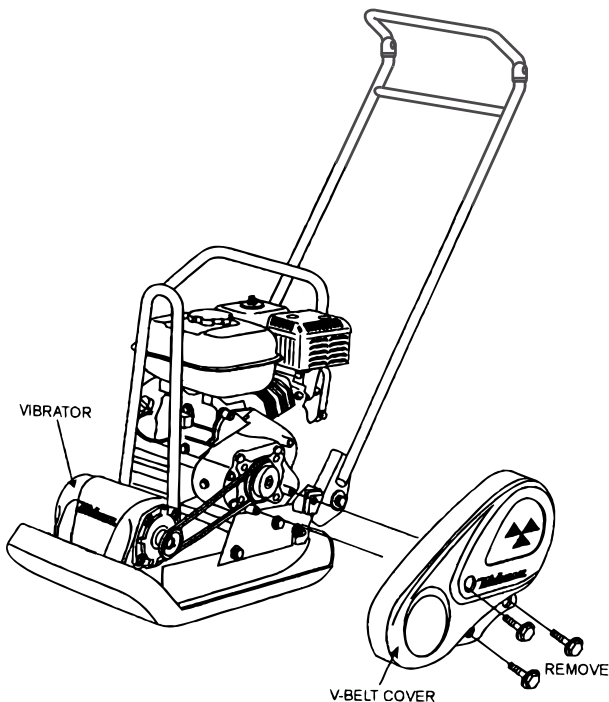


Figure 8. V-Belt Cover Removal

V-BELT INSPECTION

Visually examine the V-belt (Figure 9) and determine if it is full of tiny cracks, frayed, has pieces of rubber missing, is peeling or otherwise damaged.

Also, examine the belt and determine if it is **oil soaked** or **"glazed"** (hard shiny appearance on the sides of the belt). Either of these two conditions can cause the belt to run hot, which can weaken it and increase the danger of it breaking.

If the V-belt exhibits any of the referenced wear conditions replace the V-belt immediately

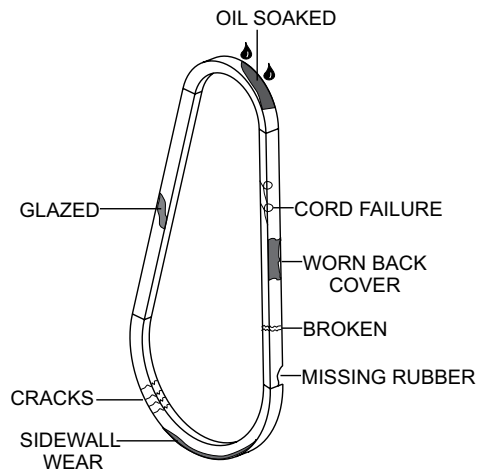


Figure 9. Drive Belt Inspection

V-BELT TENSION

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

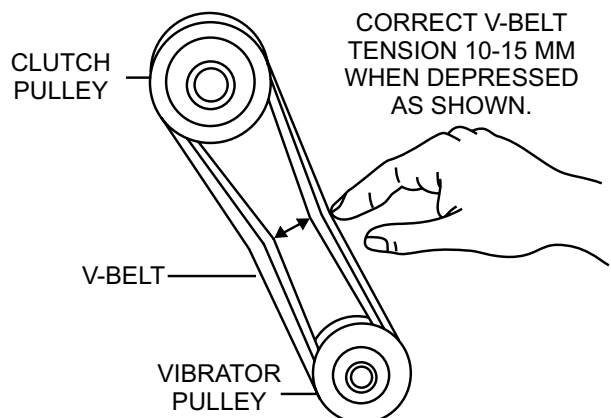


Figure 10. V-Belt Tension

2. A loose V-belt will decrease the power transmission output causing reduced compaction and premature wear of the belt.
3. If the V-belt becomes worn or loose, replace it.

VIBRATOR OIL CHECK

1. Place the plate compactor horizontally on a flat surface. Make sure the compactor is level when checking the oil in the vibrator assembly.
2. Check vibrator oil level by removing the oil plug (vibrator oil gauge) as shown in Figure 11. The oil level should be up to the oil plug. The vibrator holds 140 cc (approximately 0.3 pint). **IMPORTANT**, if oil is required, replace using only SAE10W-30 motor oil.

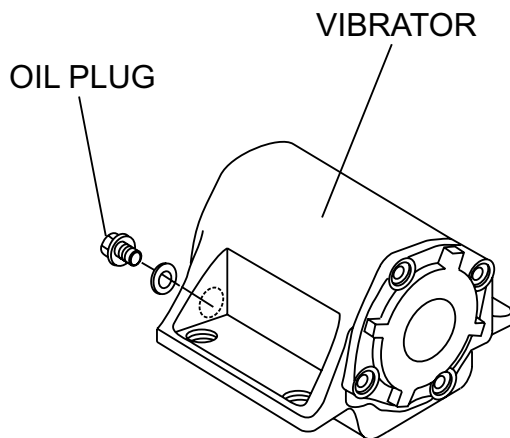


Figure 11. Vibrator Oil Plug

OPERATION

INITIAL START-UP

1. Place the fuel valve lever (Figure 12) in the **ON** position.

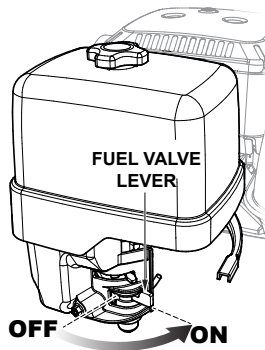


Figure 12. Fuel Valve Lever (ON)

2. Place the engine ON/OFF switch (Figure 13) in the **ON** position.

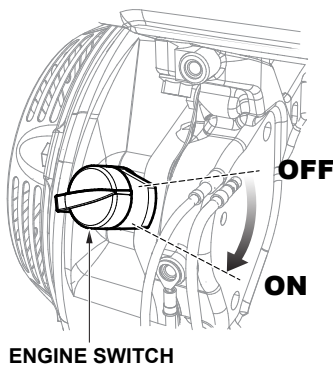


Figure 13. Engine ON/OFF Switch

3. Place the choke lever (Figure 14) in the **OPEN** position.

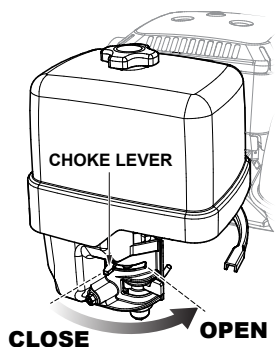


Figure 14. Choke Lever

NOTICE

The **CLOSED** position of the choke lever enriches the fuel mixture for starting a **COLD** engine. The **OPEN** position provides the correct fuel mixture for normal operation after starting, and for restarting a warm engine.

4. Place the throttle lever (Figure 15) in the **IDLE** position.

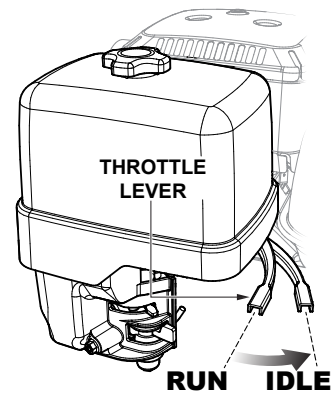


Figure 15. Throttle Lever (Idle Position)

5. Grasp the starter grip (Figure 16) and slowly pull it out. The resistance becomes the hardest at a certain position, corresponding the compression point. Rewind the rope a little from that point and pull out sharply.

NOTICE

DO NOT pull the starter rope all the way to the end.

DO NOT release the starter rope after pulling. Allow it to rewind as soon as possible.

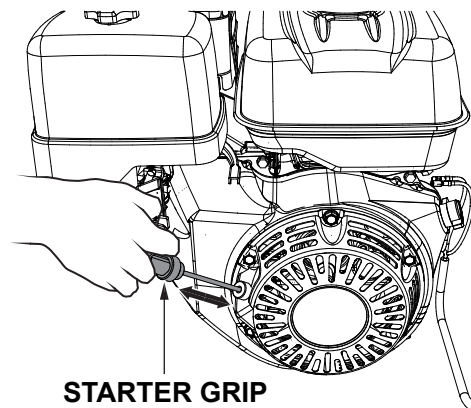


Figure 16. Starter Grip

6. If the choke lever was moved to the **CLOSED** position, slowly return the choke lever to the **OPEN** position.
7. If the engine has not started, repeat steps 1 through 5.
8. Before the compactor is put into operation, run the engine for 3-5 minutes.
9. Check for abnormal engine noises or fuel leaks.

OPERATION

CAUTION

Make sure to follow all safety rules referenced in the safety information section of this manual before operating compactor. Keep work area clear of debris and other objects that could cause damage to the compactor or bodily injury.

1. Once the engine has started, move the engine throttle lever quickly to the **RUN** position.

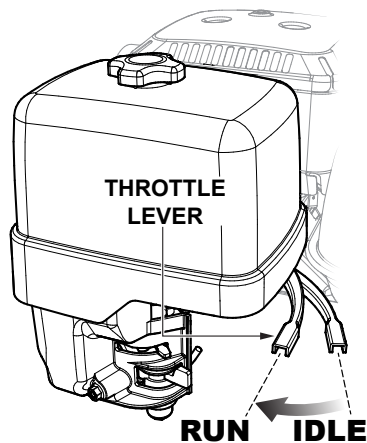


Figure 17. Throttle Lever (Run Position)

2. With the throttle lever in the **RUN** position, the engine speed should be around 2,300 RPM therefore engaging the centrifugal clutch.

NOTICE

ALWAYS move the throttle lever quickly without hesitation, because increasing the engine speed slowly causes the clutch to slip.

3. Firmly grasp the compactor's handle bar with both hands. The compactor will begin moving forward.
4. Slowly walk behind the compactor and be on the lookout for any large objects or foreign matter that might cause damage to the compactor or bodily injury.
5. Compactor traveling speed may drop on soils which contain clay. However, there may be cases where traveling speed drops because the compaction plate does not leave the ground surface easily due to the composition of the soil. To rectify this problem, do the following:
 - a. Check the bottom plate to see if clay or equivalent material has been lodged in the plate mechanism. If so, wash with water and remove.
 - b. Remember the compactor does not work as efficiently on clay or soils that have a high moisture content level. If the soil has a high moisture level, dry soil to appropriate moisture content level or carry out compaction twice.

STOPPING THE ENGINE

CAUTION

NEVER stop the engine suddenly while working at high speeds.

Normal Shutdown

1. Place the throttle lever (Figure 15) in the **IDLE** position, and listen for the engine speed to decrease.
2. Place the engine **ON/OFF** switch (Figure 10) in the **OFF** position.
3. Place the fuel valve lever (Figure 9) in the **OFF** position.

Emergency Shutdown

Move the throttle lever quickly to the **IDLE** position, and place the engine **ON/OFF** switch in the **OFF** position.

MAINTENANCE

NOTICE

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

NOTICE

Fuel piping and connections should be replaced every 2 years.

NOTICE

The inspection intervals listed in the maintenance tables 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 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				
Air Cleaner	Check	X					
	Change			X (1)			
All Nuts and Bolts	Retighten if necessary	X					
Spark Plugs	Check/Clean				X		
	Replace						X
Cooling Fins	Check				X		
Spark Arrester	Clean					X	
Fuel Tank	Clean					X	
Fuel Filter	Check					X	
Idle Speed	Check/ Adjust					X (2)	
Valve Clearance	Check/ Adjust						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.

MACHINE INSPECTION

Perform machine inspection as listed in Table 7.

Interval	Check	Solution
Daily Before Starting	Machine	Clean if necessary.
	Fuel Tank For Leaks	Repair fuel leaks.
	Fuel System for Leaks	Repair fuel leaks.
	Engine Oil	Add oil if necessary.
	Vibrator Oil	Add oil if necessary.
	Air Cleaner Element	Clean/Replace
	Guard Frame	Inspect/deformations
	Shock Absorber	Replace if damaged.
	Hydraulic pump	Check/Repair Leaks
	Hydraulic Pipe System	Check/Repair leaks, Inspect for wear
	Direction Control Lever	Check bolts/nuts, Inspect for wear
Duct Hose	Check for crack/damage	
Every 20 Hours	Engine Oil/Oil Filter	Replace only after first 20 hrs.
Every 100 Hours	Engine Oil	Change
	Engine Oil Filter	Wash
	Vibrator Oil	Check oil level. Check for leaks/dirt.
	Hydraulic Oil	Check oil level. Check for leaks.
Every 200 hours	V-Belt	Inspect, replace if damaged or worn.
	Clutch	Inspect, replace if not working properly.
	Engine Bolts	Replace bolts if deformed or elongated.
Every 300 hours	Vibrator Oil	Change
	Fuel Filter	Change
	Hydraulic Oil	Change
	Engine Oil Filter	Change
Every 2 years	Fuel Lines	Replace

TIGHTENING TORQUE

Reference Table 8 below (Tightening Torque), for retightening of nuts and bolts.

Material	6 mm	8 mm	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 (6mm) 300 ~ 350 (8mm) 650 ~ 700 (10mm)							
* In case counterpart 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.								

ENGINE OIL

1. Replace the engine oil in first 20 hours of operation and every 100 hours afterwards.
2. Drain the engine oil when the oil is warm after operation. Remove the oil filler cap then unscrew the engine oil drain plug located at the base of the engine. Drain the old oil into a pan (Figure 18).

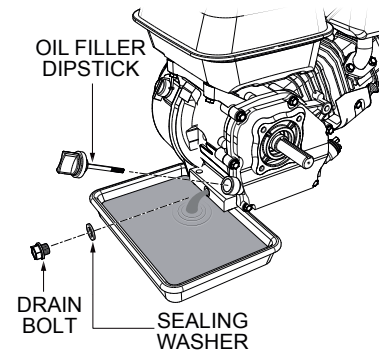


Figure 18. Engine Oil (Draining)

3. Replace engine oil with recommended type oil as listed in Table 5. For engine oil capacity, see Table 2 (engine specifications). **DO NOT** overfill.
4. Reinstall drain bolt with sealing washer and tighten securely.

STANDARD FILTER ELEMENT

NOTICE

Operating the engine with loose or damaged air cleaner components could allow unfiltered air into the engine causing premature wear and failure.

The Honda GX160U1SM12 and GX160U1SMX4 engines are equipped with a replaceable, high-density paper air cleaner element. See (Figure 19) for air cleaner components.

1. Remove the air cleaner cover and foam filter element.
2. 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/cm²) through the filter element from the inside out. **NEVER** brush off dirt. Brushing will force dirt into the fibers. Replace the paper filter element if it is excessively dirty.

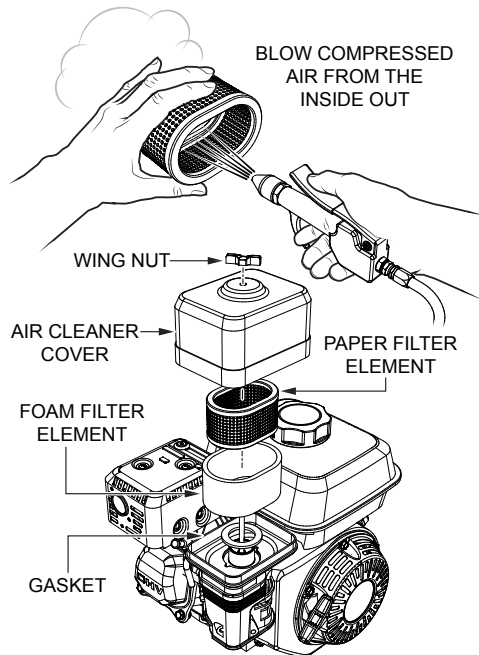


Figure 19. Engine Air Filter (Standard)

CYCLONE FILTER ELEMENT TYPE 1

! DANGER



DO NOT use gasoline or low flash point solvents for cleaning the air cleaner. The possibility exists of fire or explosion which can cause damage to the equipment and severe bodily harm or even **DEATH!**

! CAUTION



Wear protective equipment such as approved safety glasses or face shields and dust masks or respirators when cleaning air filters with compressed air.

The Honda GX160UT2QMXC and GX160UT2SMXC engines are equipped with a replaceable, high-density paper air cleaner element. See (Figure 20) for air cleaner components.

1. Remove the air cleaner cover and foam filter element.
2. 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/cm²) through the filter element from the inside out. **NEVER** brush off dirt. Brushing will force dirt into the fibers. Replace the paper filter element if it is excessively dirty.

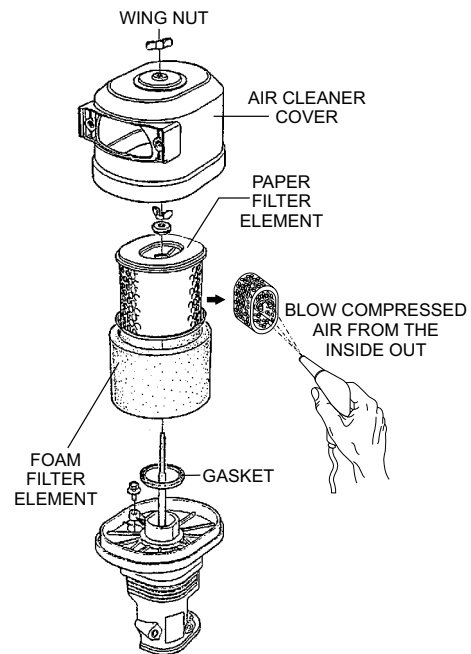


Figure 20. Engine Air Filter

DUST POT

NOTICE

When reinstalling cyclone housing, be sure that the air intake tab fits properly into the groove in the pre-cleaner cap. Also make sure air guide is properly aligned before inserting into pre-cleaner cap.

Always clean the dust pot. A clogged dust pot reduces cyclone effect with cleaner element wearing easily.

1. Remove the four pan head screws that secure the dust pot to pre air cleaner case cover (Figure 21).

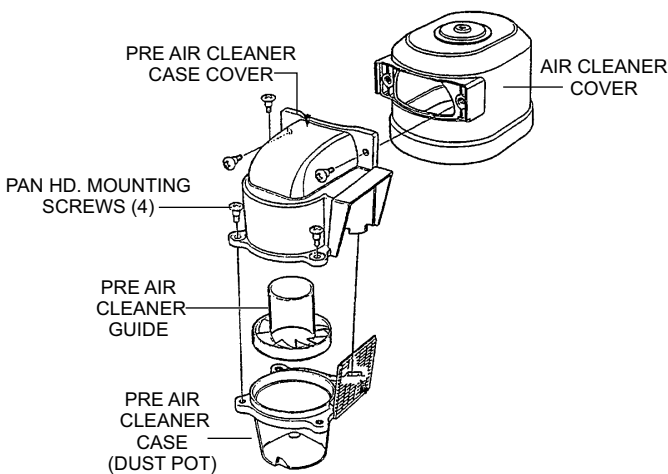


Figure 21. Removing Dust Pot

CYCLONE FILTER ELEMENT TYPE 2

The Honda GX160UT2SCM engines are equipped with a replaceable, high-density paper air cleaner element. See (Figure 22) for air cleaner components.

1. Follow steps 1 through 3 as outlined in the "Dual Filter Element" section.

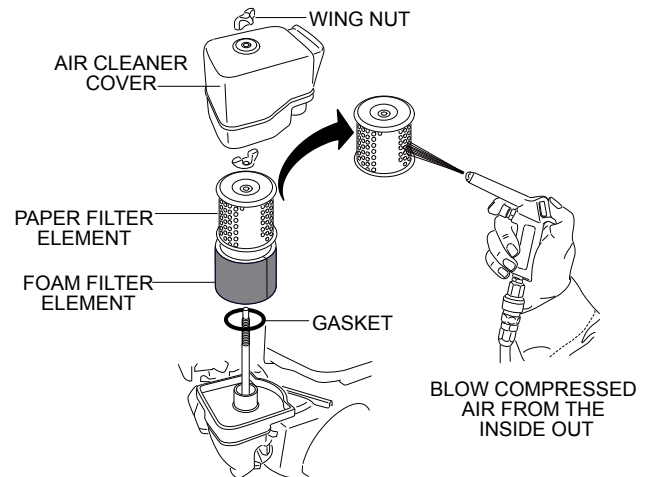


Figure 22. Engine Air Filter (Cyclone Type 2)

2. Blow compressed air through the air cleaner cover as shown in Figure 23. Clean inside of air filter cover with warm, soapy water or nonflammable solvent. Rinse and dry thoroughly.

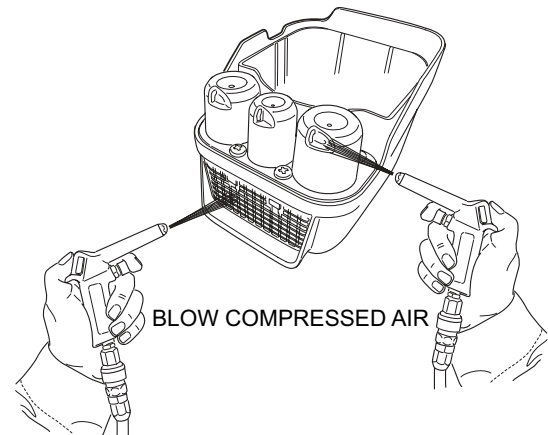


Figure 23. Engine Air Filter Cover

SPARK PLUG

1. Remove and clean the spark plug (Figure 16).

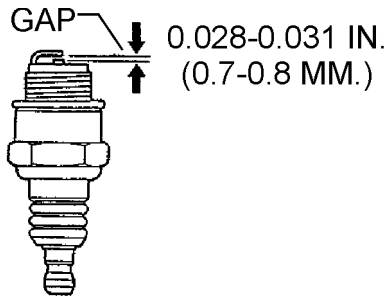


Figure 24. Spark Plug Gap

2. Adjust the spark gap to 0.028~0.031 inch (0.6~0.7 mm). This unit has electronic ignition which requires no adjustments.

CHANGING VIBRATOR OIL

1. When changing the vibrator oil, remove the drain plug.
2. Tip the compactor to drain the oil. Note that the oil will drain more easily while it is hot.
3. Remember to use only 10W-30 motor oil when replacing vibrator oil.

CHECKING/REPLACING THE V-BELT AND CLUTCH

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

CHECKING V-BELT

Visually examine the V-belt (Figure 25) and determine if it is full of tiny cracks, frayed, has pieces of rubber missing, is peeling or otherwise damaged.

Also, examine the belt and determine if it is **oil soaked** or **"glazed"** (hard shiny appearance on the sides of the belt). Either of these two conditions can cause the belt to run hot, which can weaken it and increase the danger of it breaking.

If the V-belt exhibits any of the above wear conditions replace the V-belt immediately.

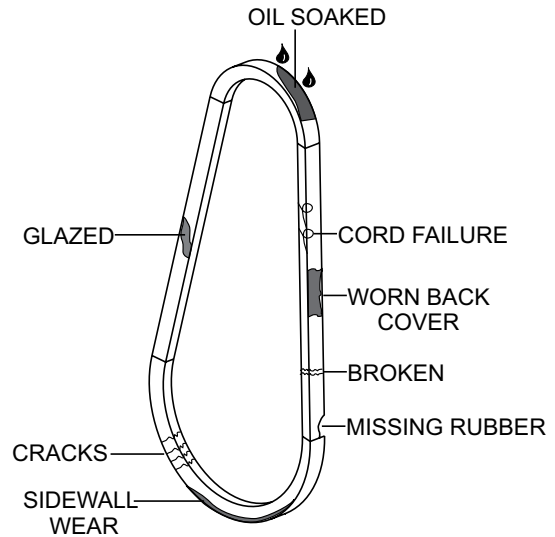


Figure 25. V-Belt Inspection

REPLACING THE V-BELT

Remove the upper and lower belt covers. Engage an offset wrench (13 mm) 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.

REINSTALLING 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 CLUTCH

Check the clutch simultaneously with V-belt checking. With belt removed, visually check outer drum of the clutch for seizure and "V" groove for wear or damage. Clean the "V" groove as necessary. Wear of lining or shoe should be checked regularly. If the shoe is worn, power transmission becomes deficient and slipping will result.

WARNING

NEVER attempt to check the V-belt with the engine running. Severe injury can occur if your hand (Figure 7) gets caught between the V-belt and the clutch. Always use safety gloves.

SPARK ARRESTER CLEANING

Clean the spark arrester every 6 months or 100 hours.

1. Remove the 4 mm screw (3) from the exhaust deflector, then remove the deflector. See (Figure 26).
2. Remove the 5 mm screw (4) from the muffler protector, then remove the muffler protector.
3. Remove the 4 mm screw from the spark arrester, then remove the spark arrester.

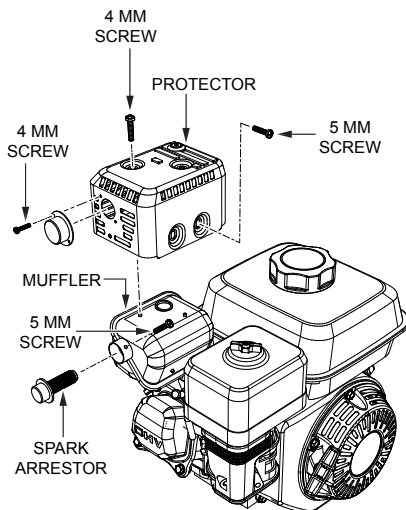


Figure 26. Spark Arrester Removal

4. Carefully remove carbon deposits from the spark arrester screen (Figure 27) with a wire brush.

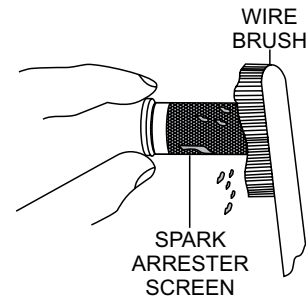


Figure 27. Cleaning The Spark Arrester

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

PLATE COMPACTOR STORAGE

For storage of the plate compactor for over 30 days, the following is required:

- Drain the fuel tank completely or add STA-BIL to the fuel.
- Run the engine until the fuel is completely consumed.
- Completely drain the oil from the engine crankcase and follow procedures described in the HONDA engine Owner's Manual for engine storage.
- Completely drain the compactor's hydraulic oil from the vibrating case.
- Clean entire plate compactor, especially the bottom plate removing all dirt and foreign matter.
- Cover plate compactor and engine with plastic covering or equivalent and store in a clean, dry place.

TROUBLESHOOTING (ENGINE)

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 cracked or broken and replace. Check if spark plug if fouled and replace.
	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.

TROUBLESHOOTING (ENGINE)

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	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.
Starter malfunctions.	Loose, damaged wiring?	Ensure tight, clean connections on battery and starter.
	Battery insufficiently charged?	Recharge or replace battery.
	Starter damaged or internally shorted?	Replace starter.
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.
Will not start, no power with key "ON". (if applicable)	ON/OFF device not activated ON?	Turn on ON/OFF device.
	Battery disconnected or discharged?	Check cable connections. Charge or replace battery
	Ignition switch/wiring defective?	Replace ignition switch. Check wiring.

TROUBLESHOOTING (COMPACTOR)

Troubleshooting (Plate Compactor)		
Symptom	Possible Problem	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 vibrator?	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.

EXPLANATION OF CODE IN REMARKS COLUMN

The following section explains the different symbols and remarks used in the Parts section of this manual. Use the help numbers found on the back page of the manual if there are any questions.

NOTICE

The contents and part numbers listed in the parts section are subject to change **without notice**. Multiquip does not guarantee the availability of the parts listed.

SAMPLE PARTS LIST

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	12345	BOLT	1	INCLUDES ITEMS W/%
2%		WASHER, 1/4 IN.		NOT SOLD SEPARATELY
2%	12347	WASHER, 3/8 IN. ...	1	MQ-45T ONLY
3	12348	HOSE	A/R	MAKE LOCALLY
4	12349	BEARING	1	S/N 2345B AND ABOVE

NO. Column

Unique Symbols — All items with same unique symbol (@, #, +, %, or >) in the number column belong to the same assembly or kit, which is indicated by a note in the “Remarks” column.

Duplicate Item Numbers — Duplicate numbers indicate multiple part numbers, which are in effect for the same general item, such as different size saw blade guards in use or a part that has been updated on newer versions of the same machine.

NOTICE

When ordering a part that has more than one item number listed, check the remarks column for help in determining the proper part to order.

PART NO. Column

Numbers Used — Part numbers can be indicated by a number, a blank entry, or TBD.

TBD (To Be Determined) is generally used to show a part that has not been assigned a formal part number at the time of publication.

A blank entry generally indicates that the item is not sold separately or is not sold by Multiquip. Other entries will be clarified in the “Remarks” Column.

QTY. Column

Numbers Used — Item quantity can be indicated by a number, a blank entry, or A/R.

A/R (As Required) is generally used for hoses or other parts that are sold in bulk and cut to length.

A blank entry generally indicates that the item is not sold separately. Other entries will be clarified in the “Remarks” Column.

REMARKS Column

Some of the most common notes found in the “Remarks” Column are listed below. Other additional notes needed to describe the item can also be shown.

Assembly/Kit — All items on the parts list with the same unique symbol will be included when this item is purchased.

Indicated by:

“INCLUDES ITEMS W/(unique symbol)”

Serial Number Break — Used to list an effective serial number range where a particular part is used.

Indicated by:

“S/N XXXXX AND BELOW”

“S/N XXXX AND ABOVE”

“S/N XXXX TO S/N XXX”

Specific Model Number Use — Indicates that the part is used only with the specific model number or model number variant listed. It can also be used to show a part is NOT used on a specific model or model number variant.

Indicated by:

“XXXXX ONLY”

“NOT USED ON XXXX”

“Make/Obtain Locally” — Indicates that the part can be purchased at any hardware shop or made out of available items. Examples include battery cables, shims, and certain washers and nuts.

“Not Sold Separately” — Indicates that an item cannot be purchased as a separate item and is either part of an assembly/kit that can be purchased, or is not available for sale through Multiquip.

SUGGESTED SPARE PARTS

MVC82VH/VHW PLATE COMPACTOR

1 to 3 units

Qty.	P/N	Description
3	.....070100312.....	V-BELT
4	.....939010254.....	SHOCK ABSORBER

NOTICE

Part numbers on this Suggested Spare Parts list may supersede/replace the part numbers shown in the following parts lists.

HONDA GX160U1SM12 ENGINE

1 to 3 units

Qty.	P/N	Description
3	.....9807956846.....	SPARK PLUG
1	.....28462ZH8003.....	ROPE, RECOIL STARTER
3	.....17210ZE1517.....	ELEMENT, AIR CLEANER
1	.....17620Z4H000.....	CAP, FUEL TANK
1	.....17672ZE2W01.....	FUEL FILTER, FUEL TANK

HONDA GX160U1SMX4 ENGINE

1 to 3 units

Qty.	P/N	Description
3	.....0650140480.....	SPARK PLUG
1	.....28462ZH8003.....	ROPE, RECOIL STARTER
3	.....17210ZE1517.....	ELEMENT, AIR CLEANER
1	.....17620Z4H020.....	CAP, FUEL TANK
1	.....17672Z4H000.....	FUEL FILTER, FUEL TANK

HONDA GX160UT2QMXC ENGINE

1 to 3 units

Qty.	P/N	Description
3	.....0650140480.....	SPARK PLUG
1	.....28462ZH8003.....	ROPE, RECOIL STARTER
3	.....17210ZE1517.....	ELEMENT, AIR CLEANER
1	.....17620Z4H900.....	CAP, FUEL TANK
1	.....17672Z4H000.....	FUEL FILTER, FUEL TANK

HONDA GX160UT2SMXC ENGINE

1 to 3 units

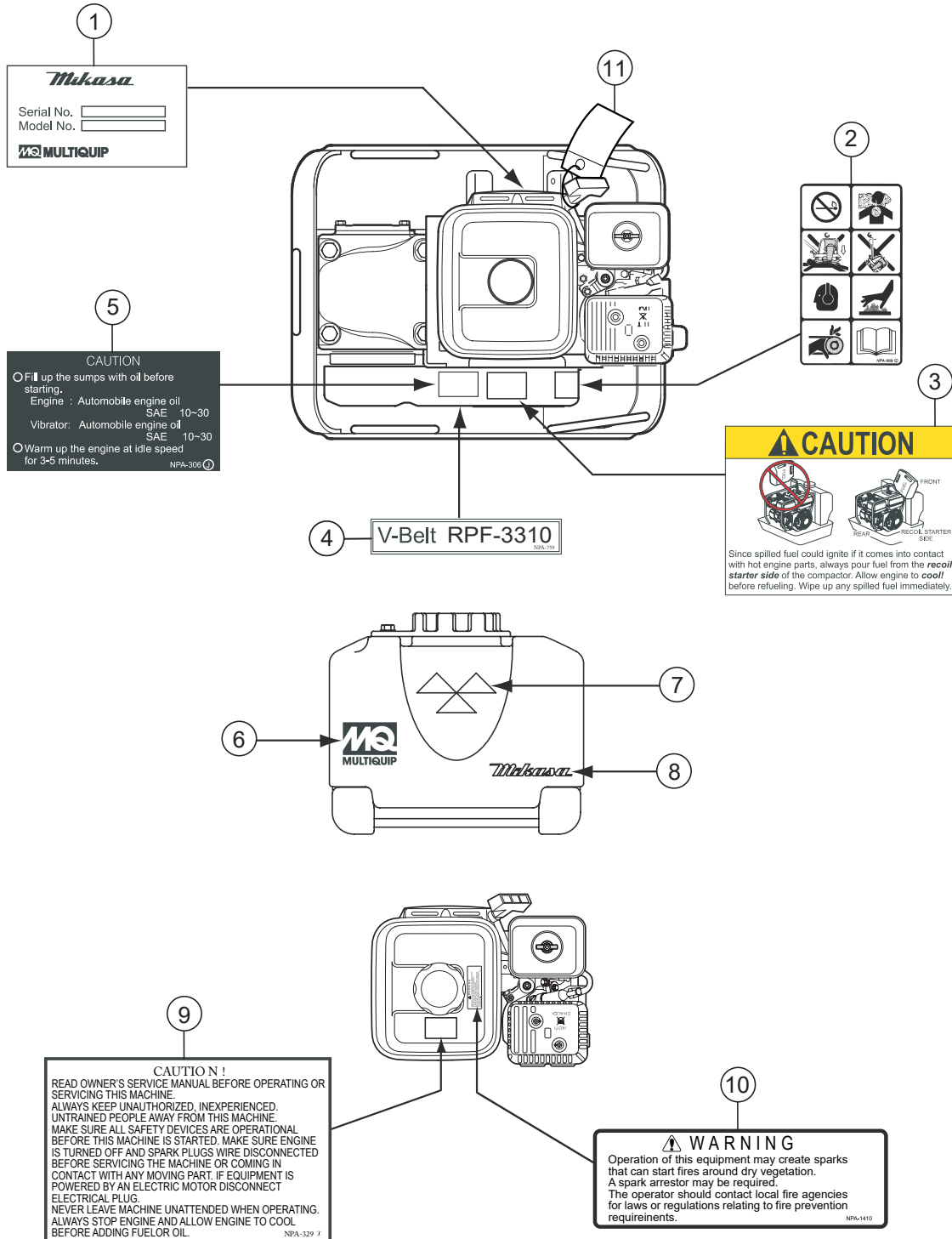
Qty.	P/N	Description
3	.....0650140480.....	SPARK PLUG
1	.....28462ZH8003.....	ROPE, RECOIL STARTER
3	.....17210ZE1517.....	ELEMENT, AIR CLEANER
1	.....17620Z4H900.....	CAP, FUEL TANK
1	.....17672Z4H000.....	FUEL FILTER, FUEL TANK

HONDA GX160UT2SCM ENGINE

1 to 3 units

Qty.	P/N	Description
3	.....0650140480.....	SPARK PLUG
1	.....28462ZH8003.....	ROPE, RECOIL STARTER
3	.....17210Z0V781.....	ELEMENT, AIR CLEANER
1	.....17620Z4H900.....	CAP, FUEL TANK
1	.....17672Z4H000.....	FUEL FILTER, FUEL TANK

NAMEPLATE AND DECALS



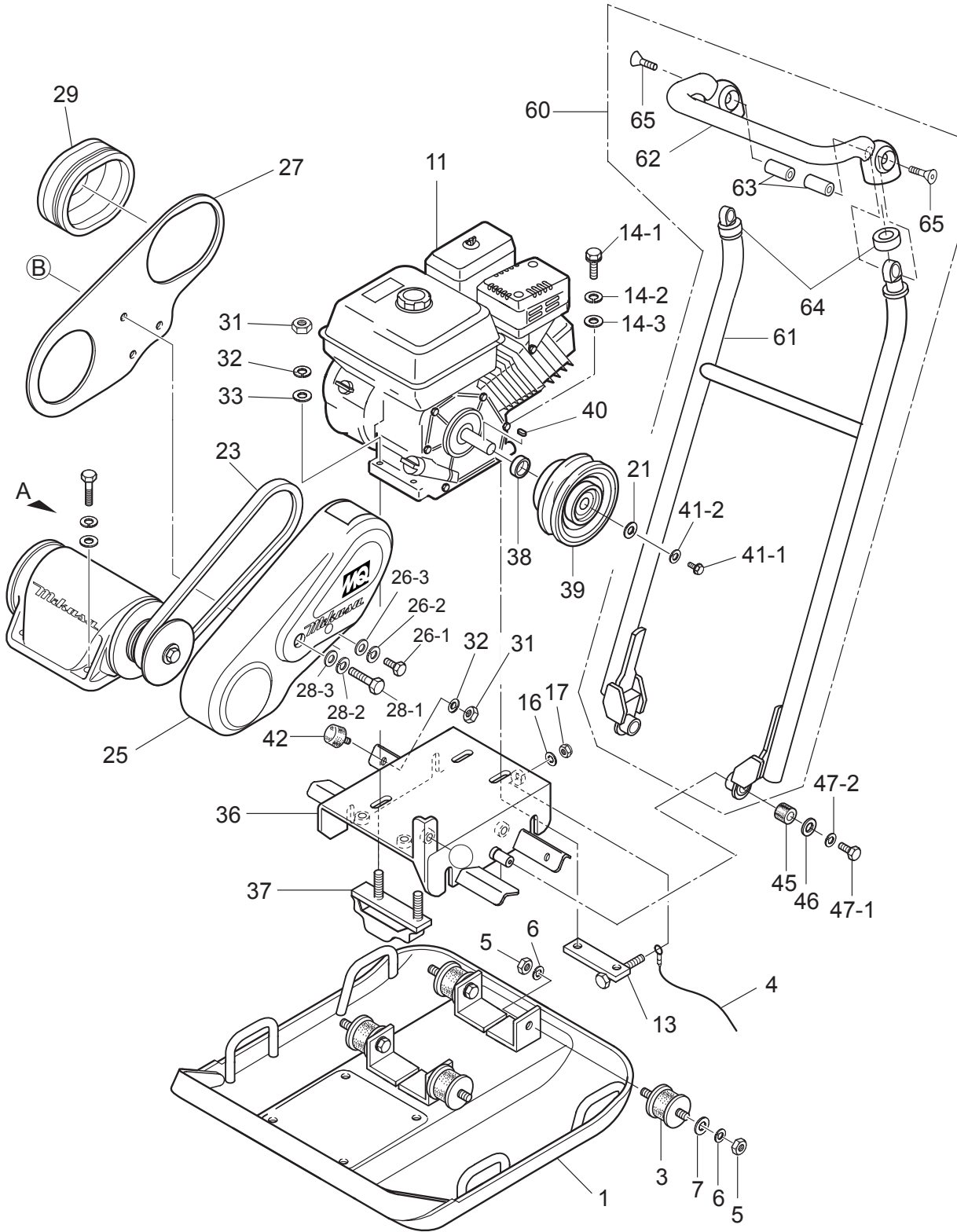
NAMEPLATE AND DECALS

NO.	PART NO.	PART NAME	QTY.	REMARKS
1		PLATE, SERIAL NO.....	1.....	CONTACT MQ PARTS DEPT.
2	920209890	DECAL, CAUTION (ICON).....	1.....	NPA-989
3	920212320	DECAL, FUEL CAUTION.....	1.....	NPA-1232
4	920207590	DECAL, V-BELT (RPF-3310)	1.....	NPA-759
5	920203060	DECAL, CAUTION.....	1.....	NPA-306
6	920201580	DECAL, MQ MARK 71X55	1	
7	920101410	DECAL, MIKASA MARK 120X60	1	
8	920105070	DECAL, MIKASA MARK 125MM	1	
9	920203290	DECAL, CAUTION.....	1.....	NPA-329
10	920214100	DECAL, ENGINE FIRE WARNING.....	1.....	NPA-1410
11	920200870	DECAL, WITHOUT ENGINE OIL.....	1.....	NPA-87

NOTICE

- ◆ GX160U1SM12
- ◇ GX160U1SMX4
- ▷ GX160UT2QMXC
- ♣ GX160UT2SMXC
- ♣ GX160UT2SCM

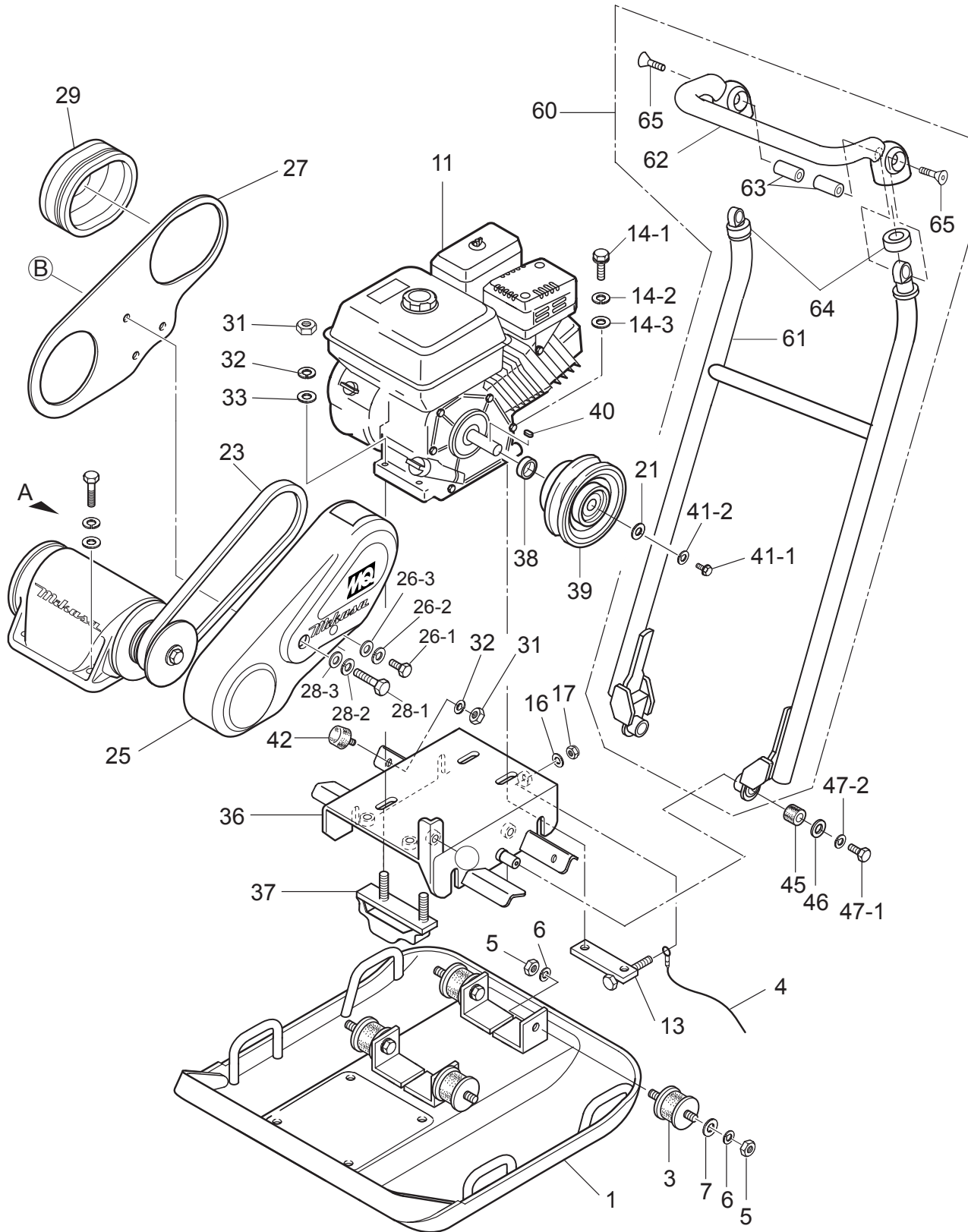
BODY ASSY.



BODY ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	419119550	VIB. PLATE 570X450	1	
3	939010254	SHOCK ABSORBER D45H41	4	
4	959404350	EARTH WIRE	1	
5	020310080	NUT M10	8	
6	030210250	WASHER, LOCK M10	8	
7	031110160	WASHER, FLAT M10	4	
11	912216004	ENGINE ASSY., GX160U1SM12.....	1.....	NO LONGER AVAILABLE
11	912216010	ENGINE ASSY., GX160U1SMX4	1	
11	912216021	ENGINE ASSY., GX160UT2QMXC	1	
11	912216022	ENGINE ASSY., GX160UT2SMXC	1	
11	912216023	ENGINE ASSY., GX160UT2SCM	1	
13	413436870	ENGINE NUT, REAR	1	
14-1	001220840	BOLT 8X40	2	
14-2	030208200	WASHER, LOCK M8	2	
14-3	0401450080	WASHER, FLAT M8.....	2.....	REPLACES 031108160
16	0401450080	WASHER, FLAT M8.....	1.....	REPLACES 031108160
17	022710809	NYLON NUT M8	1	
21	952400130	WASHER	1	
23	070100312	V-BELT RPF3310	1	
25	418216470	BELT COVER	1	
26-1	012210035	BOLT 10X35.....	1.....	REPLACES 001221035
26-2	030210250	WASHER, LOCK M10	1	
26-3	031110160	WASHER, FLAT M10	1	
27	418216480	BELT COVER (IN)	1	
28-1	001221053	BOLT 10X65	1	
28-2	030210250	WASHER, LOCK M10	1	
28-3	031110160	WASHER, FLAT M10	1	
29	418343420	COVER SEAL (E/G)	1	
31	020108060	NUT M8.....	4.....	REPLACES 020308060
32	030208200	WASHER, LOCK M8	4	
33	0401450080	WASHER, FLAT M8.....	2.....	REPLACES 031108160
36	419217800	BASE	1	
37	418457750	BOLT, ENGINE	1	
38	408421270	CLUTCH SPACER 20.2X25X9.4	1	
39	413332920	CLUTCH ASSY.	1	
40	0053005201	KEY	1	
41-1	014208020	BOLT 8X20.....	1.....	REPLACES 001220820
41-2	030208200	WASHER, LOCK M8	1	
42	939010290	RUBBER, HANDLE	2	

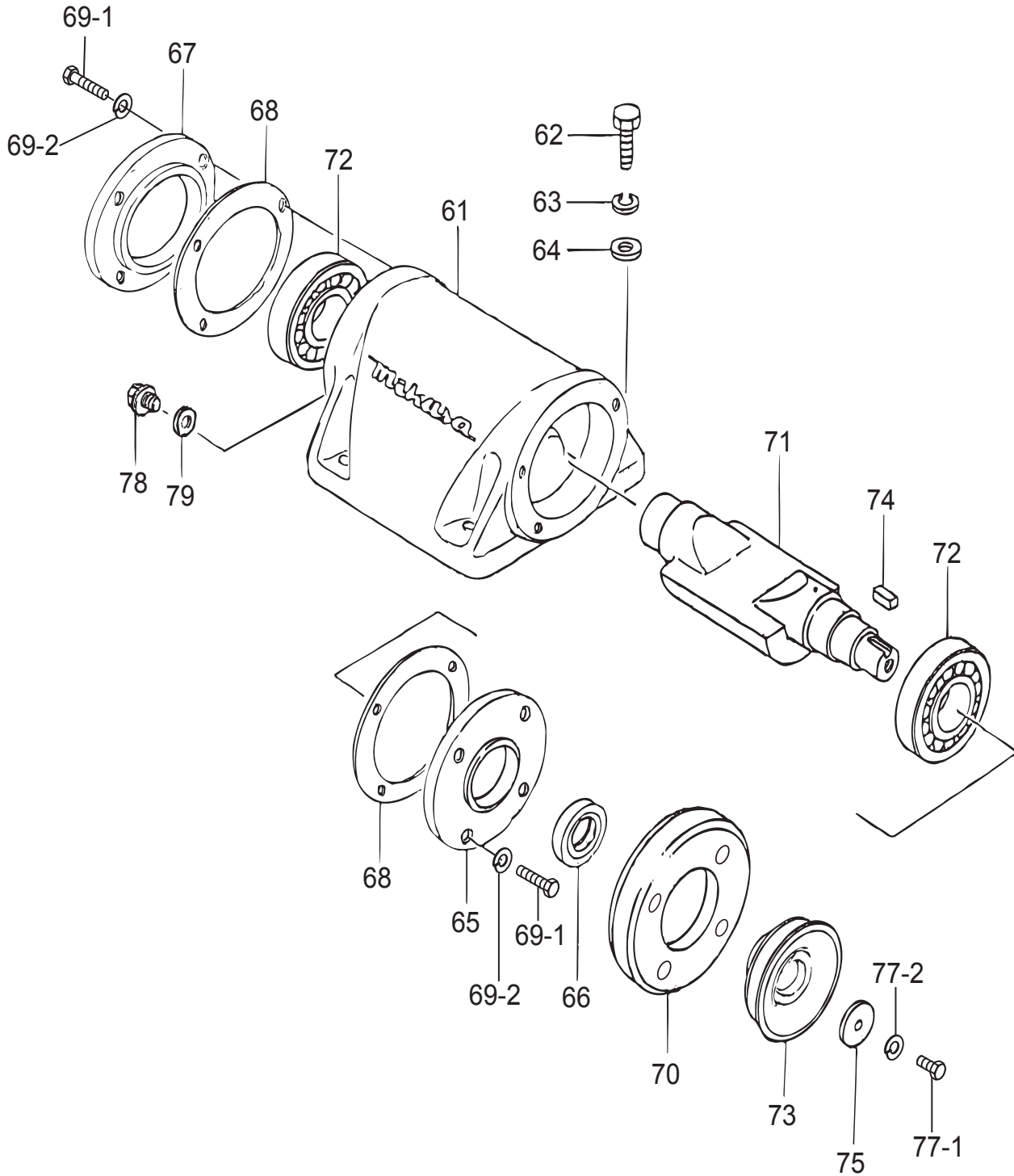
BODY ASSY. (CONT'D.)



BODY ASSY. (CONT'D.)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
45	404433430	RUBBER 20X32X28.5/52H	2	
46	952403450	WASHER 11X35X4.5	2	
47-1	012210020	BOLT 10X20	2.....	REPLACES 001221020
47-2	030210250	WASHER, LOCK M10	1	
60	419910010	VAS HANDLE ASSY.....	1.....	INCLUDES ITEMS W/#
61#	419219560	VAS HANDLE BODY	1	
62#	419217810	GRIP, VAS HANDLE	1	
63#	416459320	HANDLE NUT, VAS HANDLE	2	
64#	416459340	RUBBER, VAS HANDLE	2	
65#	009120407	SUNK HEAD BOLT 10X20	2	

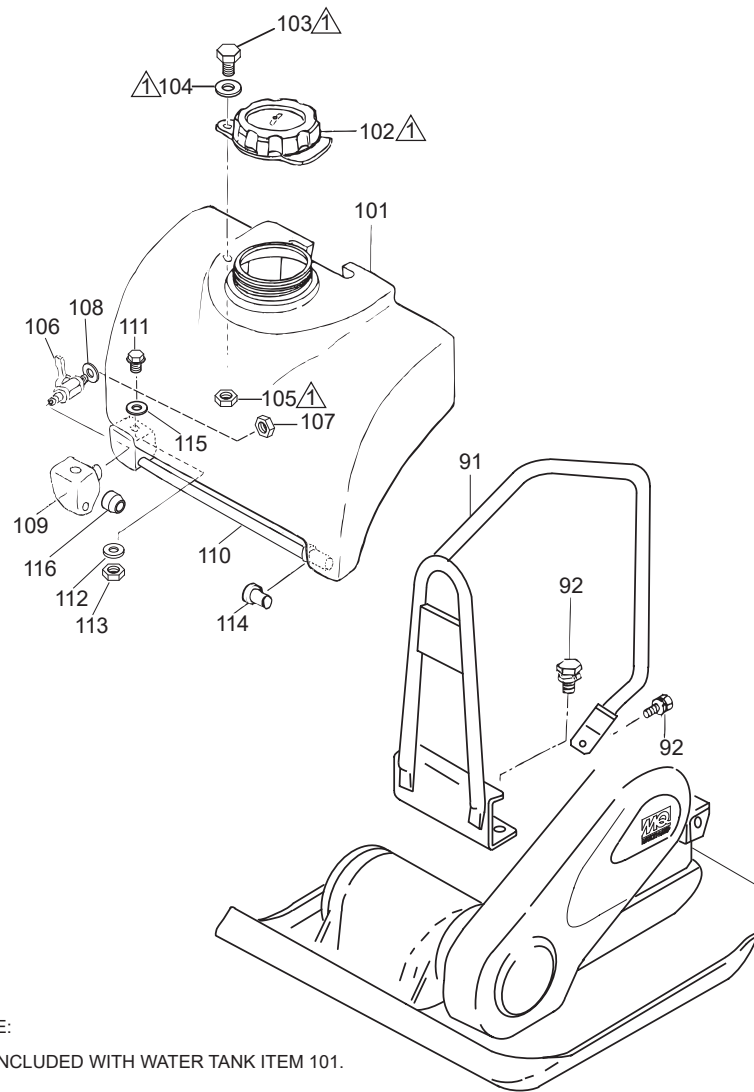
VIBRATOR ASSY.



VIBRATOR ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
61	418117730	VIBRATING CASE	1	
62	001221445	BOLT 14X45	4	
63	030214350	WASHER, LOCK M14	4	
64	031114260	WASHER, FLAT M14	4	
65	418456950	CASE COVER/PULLEY	1	
66	060403020	OIL SEAL	1	
67	418456960	CASE COVER/SHUT OFF	1	
68	418456970	PACKING	2	
69-1	014208020	BOLT 8X20.....	8	REPLACES 001220820
69-2	030208200	WASHER, LOCK M8	8	
70	418460130	COVER SEAL, VIBRATOR	1	
71	418343630	ECCENTRIC ROTOR SHAFT	1	
72	040306307	BEARING 6307C4	2	REPLACES 040406307
73	418456981	PULLEY/VIB.	1	
74	951401920	KEY 7X7X30	1	
75	952403450	WASHER 11X35X4.5	1	
77-1	012010030	BOLT 10X30.....	1	REPLACES 001221030
77-2	030210250	WASHER, LOCK M10	1	
78	953400270	PLUG 1/4X14 10L	1	
79	953405260	PACKING 1/4 (CU)	1	

WATER TANK ASSY. (MVC82VHW ONLY)

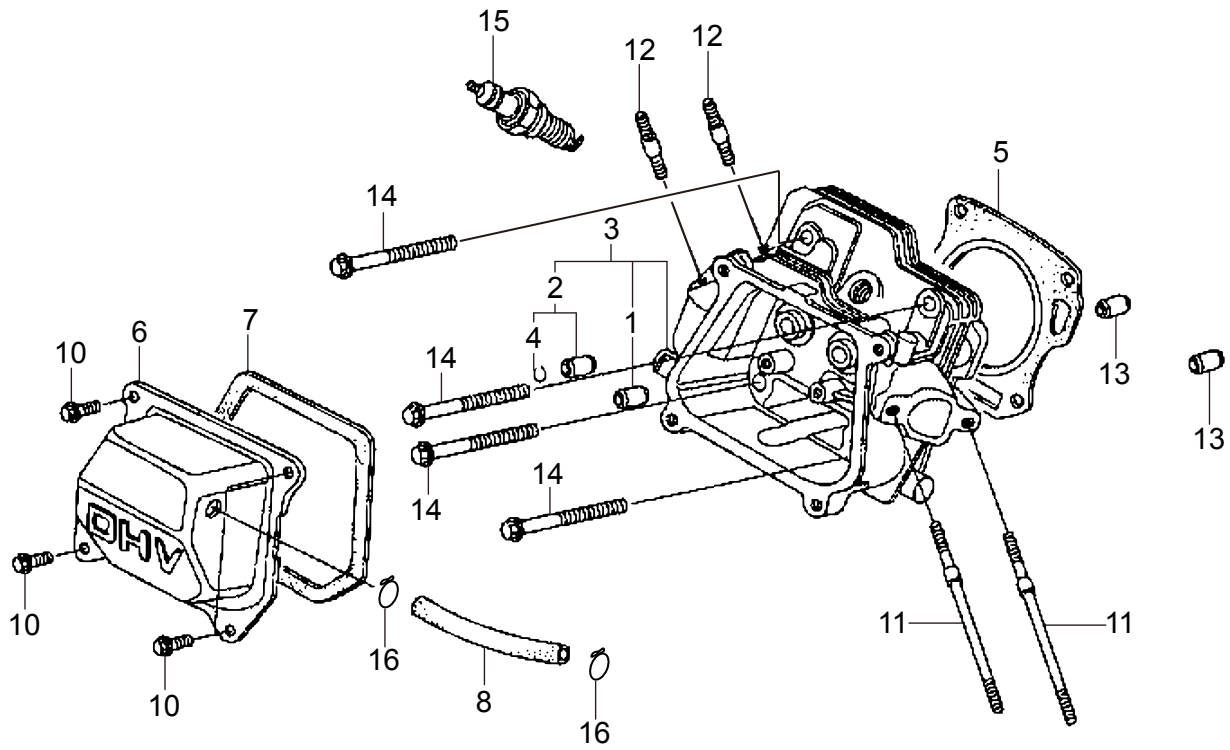


NOTE:
▲ INCLUDED WITH WATER TANK ITEM 101.

WATER TANK ASSY. (MVC82VHW ONLY)

NO.	PART NO.	PART NAME	QTY.	REMARKS
91	418118581	GUARD HOOK	1	
92	012210025	BOLT 10X25.....	3.....	REPLACES 002211025
101	418117740	WATER TANK W/CAP (ORANGE).....	1.....	INCLUDES ITEMS W/#
102#	954300342	CAP, WATER TANK	1	
103#	01241030	BOLT 10X30	1	
104#	033910010	WASHER 10.5X21X2	2	
105#	022910180	NYLON NUT M10	1	
106	954403241	COCK PT1/4, ALUMINUM	1	
107	959403790	NUT PS-1/4	1	
108	953408270	PACKING 11.5X19.5	1	
109	416338940	PIPE HOLDER	1	
110	418344110	SPRINKLING PIPE	1	
111	001740825	BOLT, FLANGE 8X25	1	
112	030208200	WASHER, FLAT M8.....	2.....	REPLACES 033910110
113	020108060	NUT M8	1.....	REPLACES 020308064
114	418457010	RUBBER CAP	1	
115	953407410	PACKING 8X19X2	1.....	REPLACES 416453780
116	418457890	RUBBER INSERT, SPRINKLER PIPE	2	

HONDA GX160 SERIES ENGINES — CYLINDER HEAD ASSY.



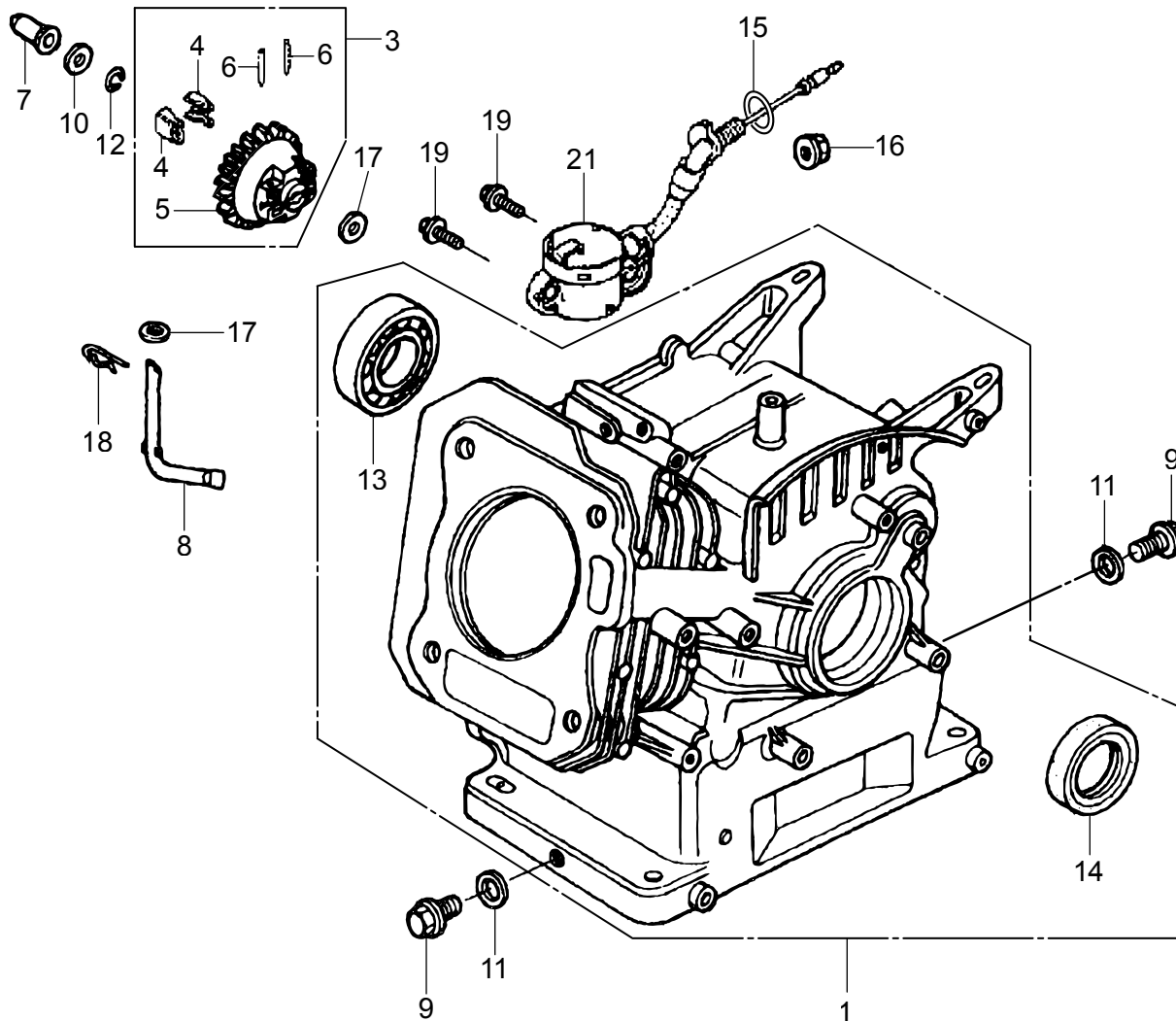
HONDA GX160 SERIES ENGINES — CYLINDER HEAD ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1%	12204ZE1306	GUIDE, INLET VALVE (O.S.)	1	
2%	12205ZE1315	GUIDE, EXHAUST VALVE (O. S.)	1	INCLUDES ITEMS W/\$
3♦	12210ZH8405	HEAD COMP., CYLINDER	1	INCLUDES ITEMS W/%
3◇	12210ZH8415	HEAD COMP., CYLINDER	1	INCLUDES ITEMS W/%
3♣♣♣	12210Z4M405	HEAD COMP., CYLINDER	1	INCLUDES ITEMS W/%
4\$	12216ZE5300	CLIP, VALVE GUIDE	1	
5♦◇	12251ZH7800	GASKET, CYLINDER HEAD	1	REPLACES 12251ZH1800
5♣♣♣	12251ZL0003	GASKET, CYLINDER HEAD	1	
6♦◇	12310ZE1020	COVER, CP HEAD	1	
6♣♣♣	12310Z4M840	COVER, CP HEAD	1	
7	12391ZE1000	GASKET, CYLINDER HEAD COVER	1	
8♦◇	15721ZH8000	TUBE, BREATHER	1	
8♣♣	15721ZH1840	TUBE, BREATHER	1	
8♣	15721ZE1840	TUBE, BREATHER	1	
10	90013883000	BOLT, FLANGE 6X12	4	
11	90043ZE1020	STUD, BOLT 6X112	2	
12	90047ZE1000	STUD, BOLT 8X32	2	
13	9430110160	KNOCK PIN 10X16	2	
14	957010806000	BOLT, FLANGE 8X60	4	
15♦	9807956846	SPARK PLUG, BPR6ES (NGK)	1	
15	0650140480	SPARK PLUG, EY45V	1	
16♣♣♣	9500280000	CLIP, TUBE	2	

NOTICE

- ♦ GX160U1SM12
- ◇ GX160U1SMX4
- ♣ GX160UT2QMXC
- ♣ GX160UT2SMXC
- ♣ GX160UT2SCM

HONDA GX160 SERIES ENGINES — CYLINDER BARREL ASSY.



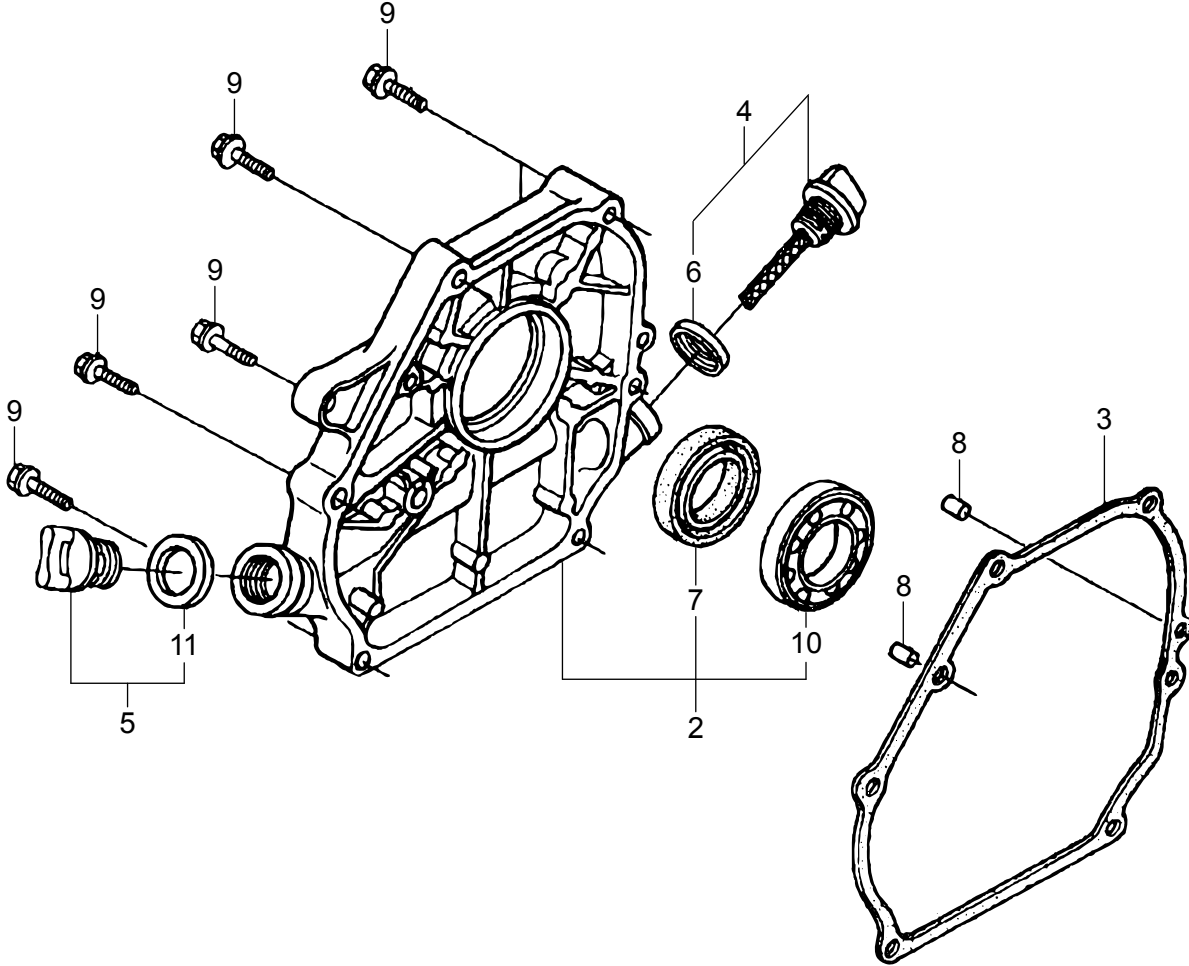
HONDA GX160 SERIES ENGINES — CYLINDER BARREL ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1♦♦	12000ZH8426	CYLINDER BARREL ASSY. (OIL ALERT).....	1	INCLUDES ITEMS W/\$
1♦♣♠	12000Z4M416	CYLINDER BARREL ASSY. (OIL ALERT).....	1	INCLUDES ITEMS W/\$
3♦♦	16510ZE1000	GOVERNOR ASSY.	1	
3♦♣♠	16510Z4M000	GOVERNOR ASSY.....	1	INCLUDES ITEMS W/%
4%♠	16511Z4M000	WEIGHT, GOVERNOR	2	
5%♠	16512Z4M000	HOLDER, GOVERNOR WEIGHT	1	
6%♠	16513ZE1000	PIN, GOVERNOR WEIGHT	2	
7♦♦	16531ZE1000	SLIDER, GOVERNOR	1	
7♦♣♠	16531Z4M000	SLIDER, GOVERNOR	1	
8♦♦	16541ZE1000	SHAFT, GOVERNOR ARM	1	
8♦♣♠	16541Z4M000	SHAFT, GOVERNOR ARM	1	
9	90131ZE1000	BOLT, DRAIN PLUG	2	
10♦♦	90451ZE1000	WASHER, THRUST 6MM	1	
11	90601ZE1000	WASHER, DRAIN PLUG	2	
12	90602ZE1000	CLIP, GOVERNOR HOLDER	1	
13\$	91001ZF1003	BALL BEARING 6205	1	
14\$	91201Z0T801	OIL SEAL 25X41X6	1	
15◇	91353671003	O-RING, 14 MM.....	1	REPLACES 91353671004
16	9405010000	FLANGE NUT M10	1	
17	58176	WASHER, FLAT 6MM.....	2	REPLACES 9410106800
18	9425108000	LOCK PIN 8MM	1	
19	957010601200	BOLT, FLANGE 6X12	2	
21♦	15510ZE1033	SWITCH ASSY., OIL LEVEL	1	
21♦♣♠	35480Z0T003	SWITCH ASSY., OIL LEVEL	1	

NOTICE

- ♦ GX160U1SM12
- ◇ GX160U1SMX4
- ♠ GX160UT2QMXC
- ♣ GX160UT2SMXC
- ♠ GX160UT2SCM

HONDA GX160 SERIES ENGINES — CRANKCASE COVER ASSY.



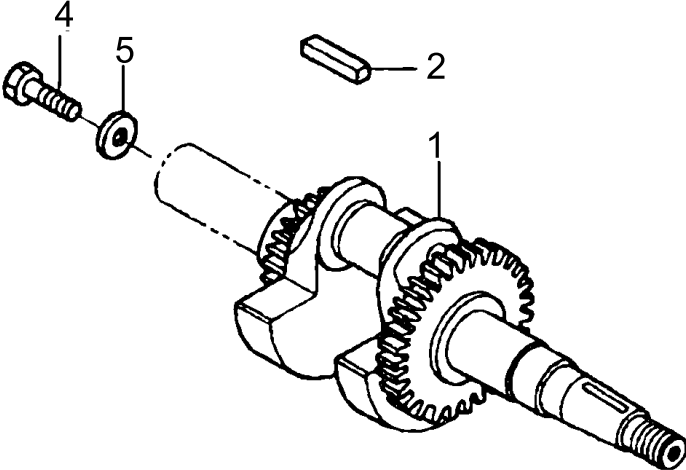
HONDA GX160 SERIES ENGINES — CRANKCASE COVER ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
2♦	11300ZE1632	COVER ASSY., CRANKCASE	1.....	INCLUDES ITEMS W/#
2◇	11300ZE1634	COVER ASSY., CRANKCASE	1.....	INCLUDES ITEMS W/#
2▷	11300Z4M640	COVER ASSY., CRANKCASE	1.....	INCLUDES ITEMS W/#
2♠♣	11300Z4M630	COVER ASSY., CRANKCASE	1.....	INCLUDES ITEMS W/#
3	11381ZH8801	GASKET, CRANKCASE.....	1	
4♦◇	15600ZE1003	CAP ASSY., OIL FILLER, (GRAY).....	1.....	INCLUDES ITEMS W/\$
4▷♠♣	15600Z0T810	CAP ASSY., OIL FILLER, (GRAY)	1.....	INCLUDES ITEMS W/&
5♦◇	15600ZG4003	CAP ASSY., OIL FILLER, (GRAY).....	1.....	INCLUDES ITEMS W/%
5▷♠♣	15600Z0T820	CAP ASSY., OIL FILLER.....	1.....	INCLUDES ITEMS W/❖
6\$♦◇	15625ZE1003	GASKET, OIL FILLER CAP	1	
6&▷♠	15625Z0T800	GASKET, OIL FILLER CAP	1	
7#	91201Z0T801	OIL SEAL 25X41X6	1	
8	9430108140	PIN A, DOWEL 8X14	2	
9	957010803200	BOLT, FLANGE 8X32	6	
10#	961006205000	BALL BEARING 6205	1	
11%♦◇	15625ZE1003	GASKET, OIL FILLER CAP	1	
11❖▷♠	15625Z0T800	GASKET, OIL FILLER CAP	1	

NOTICE

- ♦ GX160U1SM12
- ◇ GX160U1SMX4
- ▷ GX160UT2QMXC
- ♠ GX160UT2SMXC
- ♣ GX160UT2SCM

HONDA GX160 SERIES ENGINES — CRANKSHAFT ASSY.



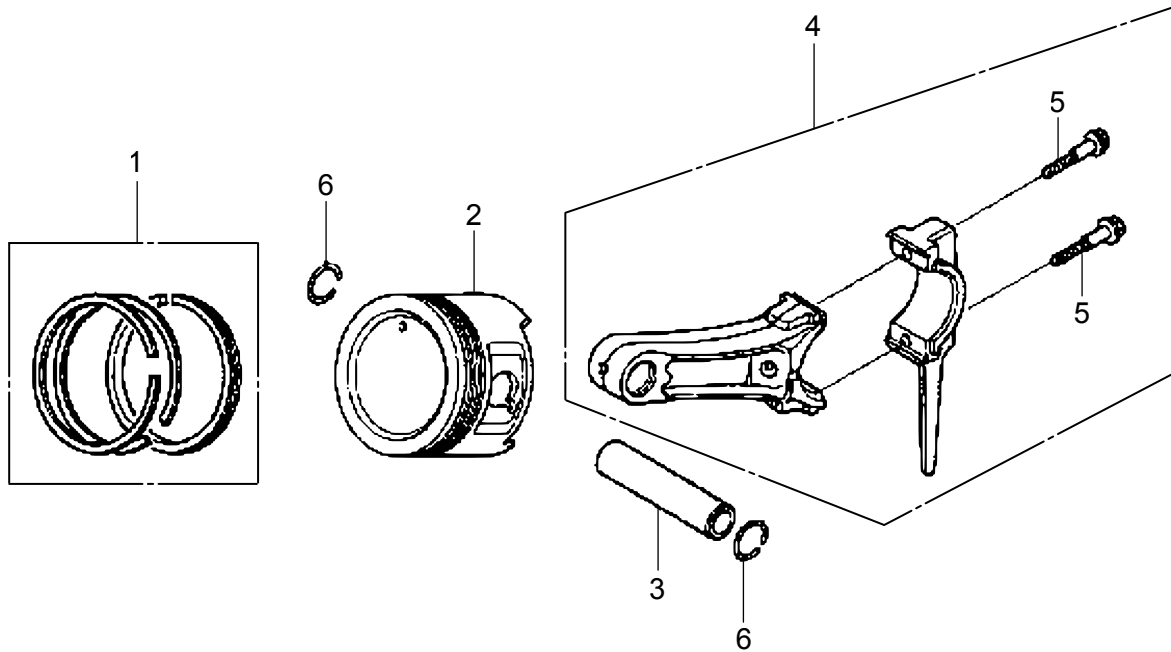
HONDA GX160 SERIES ENGINES — CRANKSHAFT ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1♦♦	13310ZE1000	CRANK SHAFT COMPLETE	1	
1▷	13310Z4M800	CRANK SHAFT COMPLETE	1	
1♣♣	13310Z4M880	CRANK SHAFT COMPLETE	1	
2	90741883810	KEY 5X5X33	1	
2▷	90745ZE1600	KEY 4.78X4.78X38	1	
4◇	92101080250A	BOLT 8X25	1	
5◇	90473842000	WASHER 8MM	1	

NOTICE

- ◆ GX160U1SM12
- ◇ GX160U1SMX4
- ▷ GX160UT2QMXC
- ♣ GX160UT2SMXC
- ♣ GX160UT2SCM

HONDA GX160 SERIES ENGINES — PISTON ASSY.



HONDA GX160 SERIES ENGINES — PISTON ASSY.

NO.	PART NO.	PART NAME(SMX4)	QTY.	REMARKS
1♦	13010ZL0003	RING SET, PISTON (STD)	1	
1◇	13010Z4K004	RING SET, PISTON (STD)	1	
1♠♣	13010Z4M801	RING SET, PISTON (STD)	1	
1♦	13011ZL0003	RING SET, PISTON (OS 0.25)	1	
1◇	13011Z4K004	RING SET, PISTON (OS 0.25)	1	
1♠♣	13011Z4M003	RING SET, PISTON (OS 0.25)	1	
1♦	13012ZL0003	RING SET, PISTON (OS 0.50)	1	
1◇	13012Z4K004	RING SET, PISTON (OS 0.50)	1	
1♠♣	13012Z4M003	RING SET, PISTON (OS 0.50)	1	
1♦	13013ZL0003	RING SET, PISTON (OS 0.75)	1	
1◇	13013Z4K004	RING SET, PISTON (OS 0.75)	1	
2♦	13101ZH8010	PISTON (STD)	1	
2◇	13101ZH8020	PISTON (STD)	1	
2♠♣	13101Z4M800	PISTON (STD)	1	
2♦	13102ZH8010	PISTON (OS 0.25)	1	
2◇	13102ZH8020	PISTON (OS 0.25)	1	
2♠♣	13102Z4M800	PISTON (OS 0.25)	1	
2♦	13103ZH8010	PISTON (OS 0.50)	1	
2◇	13103ZH8020	PISTON (OS 0.50)	1	
2♠♣	13103Z4M800	PISTON (OS 0.50)	1	
2♦	13104ZH8010	PISTON (0.75)	1	
2◇	13104ZH8020	PISTON (0.75)	1	
3◇	13111ZE1000	PIN, PISTON	1	
3♠♣	13111Z4M000	PIN, PISTON	1	
4♦	13111ZE1000	ROD ASSY., CONNECTING.....	1	INCLUDES ITEMS W/\$
4◇	13200ZE1020	ROD ASSY., CONNECTING.....	1	INCLUDES ITEMS W/\$
4♠♣	13200Z0T900	ROD ASSY., CONNECTING.....	2	INCLUDES ITEMS W/#
5\$♦◇	90001ZE1000	BOLT, CONNECTING ROD	2	
5#♠♣	90001Z4M000	BOLT, CONNECTING ROD	2	
6	90551ZE1000	CLIP, PISTON PIN 18MM	2	

NOTICE

- ♦ GX160U1SM12
- ◇ GX160U1SMX4
- ♠ GX160UT2QMXC
- ♣ GX160UT2SMXC
- ♣ GX160UT2SCM

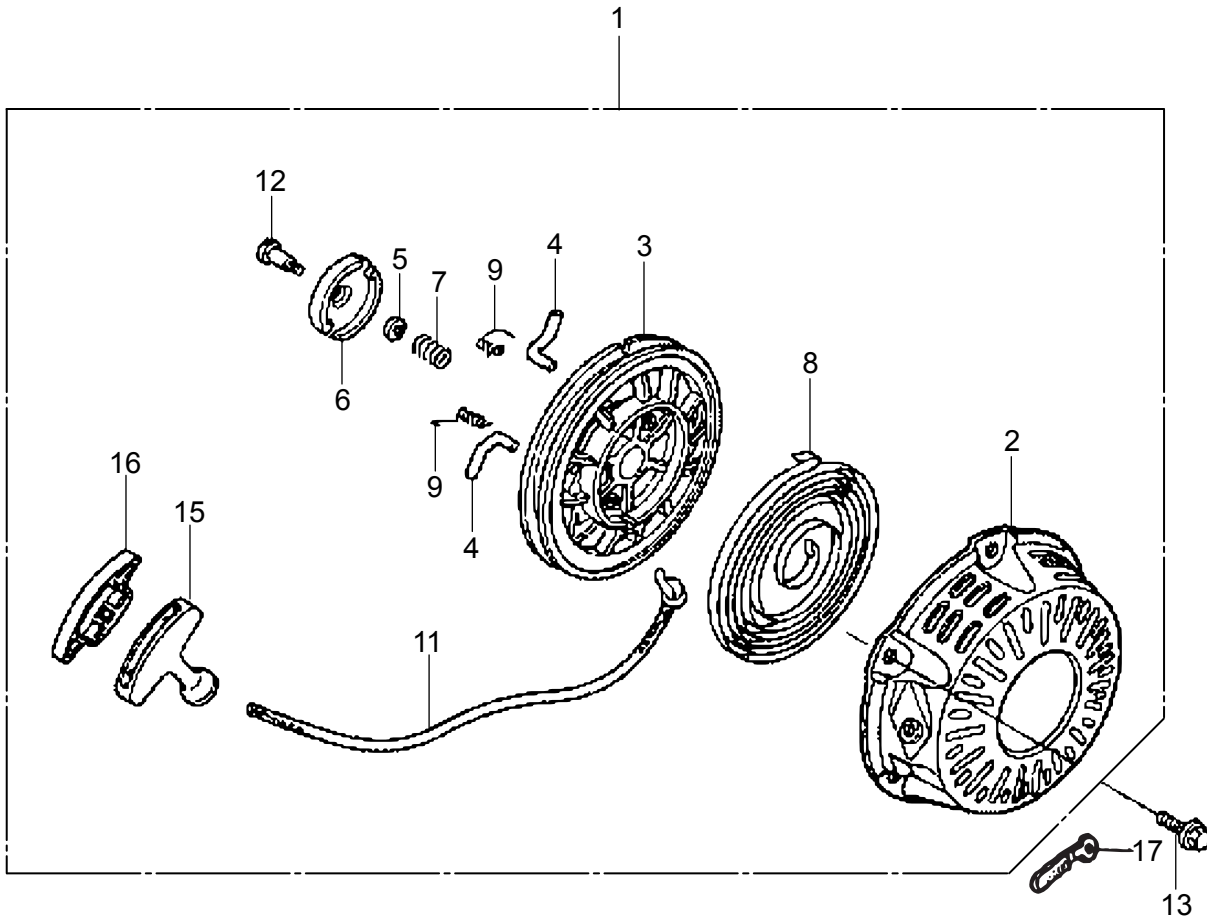
HONDA GX160 SERIES ENGINES — CAMSHAFT ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1♦♦	12209ZH8003	SEAL, VALVE STEM	1	
1♦♣	12209Z4M801	SEAL, VALVE STEM	1	
2♦♦	14100ZE1812	CAMSHAFT ASSY.....	1	INCLUDES ITEM W/\$
2♦♣	14100Z4M000	CAMSHAFT ASSY.....	1	INCLUDES ITEM W/\$
3♦♦	14410ZE1010	ROD, PUSH CP	2	
3♦♣	14410Z4M000	ROD, PUSH CP	2	
4	14431ZE1000	ARM, VALVE ROCKER	2	
5	14441ZE1010	LIFTER, VALVE	2	
6♦♦	14451ZE1013	PIVOT, ROCKER ARM	2	
6♦♣	14451Z4M000	PIVOT, ROCKER ARM	2	
7\$	14568ZE1000	SPRING, WEIGHT RETURN	1	
8♦♦	14711ZF1000	VALVE, INTAKE	1	
8♦♣	14711Z4M000	VALVE, INTAKE	1	
9♦♦	14721ZF0000	VALVE, EXHAUST	1	
9♦♣	14721Z4M000	VALVE, EXHAUST	1	
10	14751ZF1000	SPRING, VALVE	2	
11♦♦	14771ZE1000	RETAINER, INTAKE VALVE	1	
11♦♣	14771Z0T900	RETAINER, INTAKE/EXHAUST VALVE	2	
12♦♦	14773ZE1000	RETAINER, EXHAUST VALVE	1	
14♦♦	14791ZE1010	PLATE, PUSH ROD GUIDE	1	
14♦♣	14791Z4M000	PLATE, PUSH ROD GUIDE	1	
15	90012ZE0010	BOLT, PIVOT 8MM	2	
16	90206ZE1000	NUT, PIVOT ADJUSTING	2	
17♦♦	14781ZE1000	ROTATOR, VALVE	1	

NOTICE

- ♦ GX160U1SM12
- ◇ GX160U1SMX4
- ▷ GX160UT2QMXC
- ♣ GX160UT2SMXC
- ♣ GX160UT2SCM

HONDA GX160 SERIES ENGINES — RECOIL STARTER ASSY.



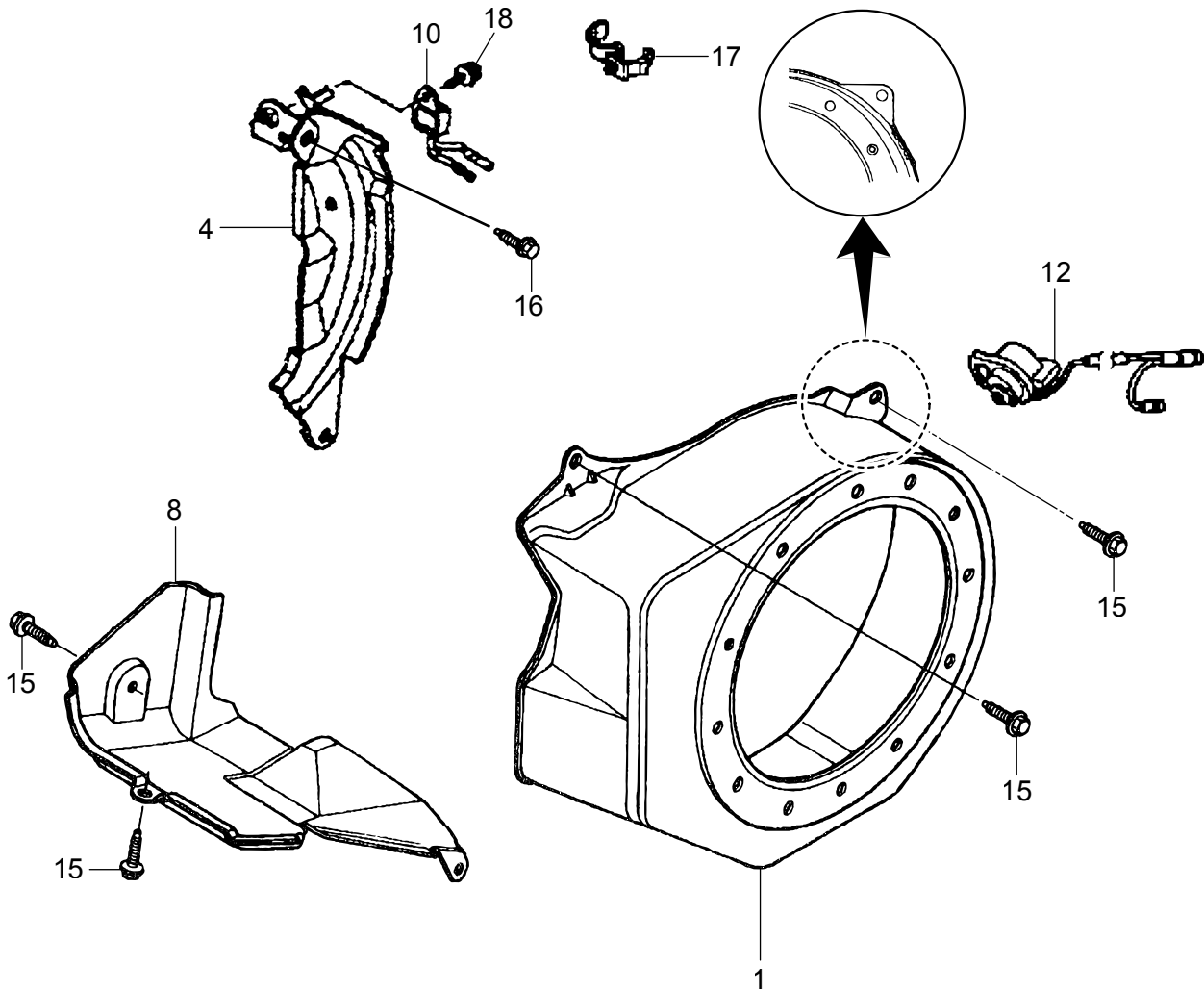
HONDA GX160 SERIES ENGINES — RECOIL STARTER ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1♦♦	28400ZH8023ZB	STARTER ASSY., RECOIL	1.....	INCLUDES ITEMS W/\$
1♠	28400Z4M305ZD	STARTER ASSY., RECOIL	1.....	INCLUDES ITEMS W/#
1♣	28400Z4M305ZD	STARTER ASSY., RECOIL	1.....	INCLUDES ITEMS W/%
2\$	28410ZH8003ZB	CASE CP, STARTER (BLACK)	1	
2#%	28410Z4M003ZD	CASE CP, STARTER (BLACK)	1	
3\$	28421ZH8801	REEL, RECOIL STARTER	1	
3#	28421Z0T003	REEL, RECOIL STARTER	1	
3%	28421Z1T702	REEL, RECOIL STARTER	1	
4\$#	28422ZH8801	RATCHET, STARTER	2	
4%	28422Z1T701	RATCHET, STARTER	2	
5\$#%	28431ZH8801	PLATE, FRICTION	1	
6\$#	28433ZH8801	RATCHET GUIDE	1	
6%	28433Z1T702	RATCHET GUIDE	1	
7\$#%	28441ZH8801	FRICTION SPRING	1	
8\$#%	28442ZH8003	SPRING, RECOIL STARTER	1	
9\$#	28443ZH8801	SPRING, RETURN	2	
9%	28443Z1T701	SPRING, RETURN	2	
11\$#	28462ZH8003	ROPE, RECOIL STARTER	1	
12\$#	90003ZH8801	SCREW SETTING	1	
13	90008ZE2003	BOLT, FLANGE 6X10	3	
13♣	957010600800	BOLT, FLANGE 6X8	3	
15\$	28461ZH8003	KNOB, RECOIL STARTER	1	
15#%	28461Z4M305	KNOB, RECOIL STARTER	1	
16\$#	28463Z4M003	KNOB, REINFORCEMENT	1	
17♦	90003ZH8801	CLIP, CORD	1	
17◇	32901MA1000	CLIP, CORD	1.....	OPTION

NOTICE

- ♦ GX160U1SM12
- ◇ GX160U1SMX4
- ♠ GX160UT2QMXC
- ♣ GX160UT2SMXC
- ♣ GX160UT2SCM

HONDA GX160 SERIES ENGINES — FAN COVER ASSY.



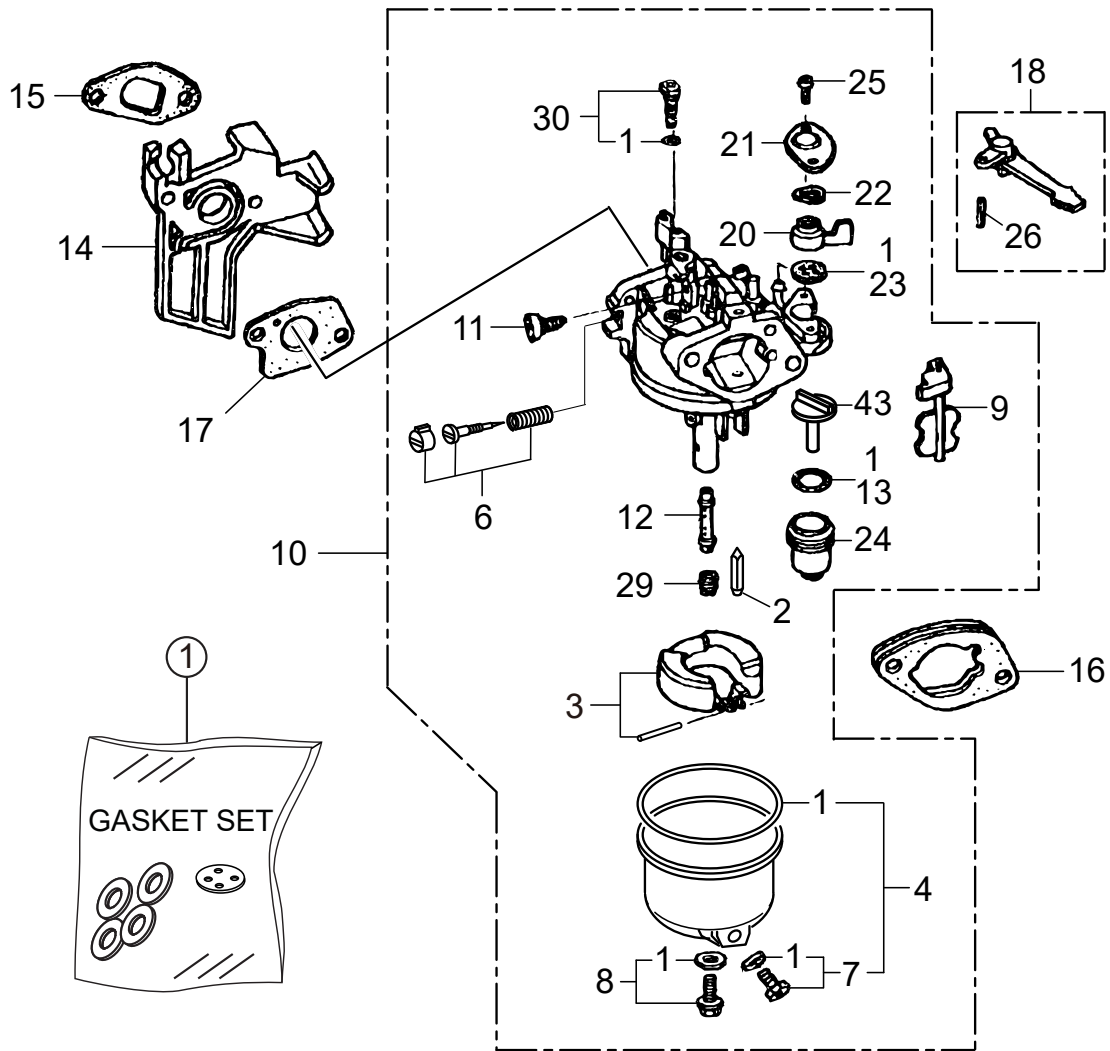
HONDA GX160 SERIES ENGINES — FAN COVER ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1♦	19610ZE1000ZC	COVER, FAN (BLACK)	1	
1◇	19610ZE1010ZC	COVER, FAN (BLACK)	1	
1D♣	19610Z4M000ZB	COVER, FAN (BLACK)	1	
4♦♦	19611ZH8810	PLATE CP, SIDE (OIL ALERT)	1	
4D♣	19611Z4M810	PLATE CP, SIDE (OIL ALERT)	1	
8♦♦	19630ZH8000	SHROUD, COMPLETE	1	
8D♣	19630Z4M000	SHROUD, COMPLETE	1	
10♦	34150ZH7003	ALERT UNIT, OIL	1	
10◇	34150ZH7013	ALERT UNIT, OIL	1	
10D♣	34150-ZH7023	ALERT UNIT, OIL	1	
12♦	36100ZF6P81	SWITCH ASSY., ENGINE STOP	1	
12◇	36100ZF6P82	SWITCH ASSY., ENGINE STOP	1	
12D	35120Z0T851	SWITCH ASSY., ENGINE STOP	1	
12♣	35120Z0T831	SWITCH ASSY., ENGINE STOP	1	
15	90013883000	BOLT, FLANGE 6X12	6	
16	90022888010	BOLT, FLANGE 6X20	1	
17	90601ZH7013	CLIP, HARNESS	1	
18	957010600800	BOLT, FLANGE 6X8	1	

NOTICE

- ♦ GX160U1SM12
- ◇ GX160U1SMX4
- D GX160UT2QMXC
- ♣ GX160UT2SMXC
- ♣ GX160UT2SCM

HONDA GX160 SERIES ENGINES — CARBURETOR ASSY.



NOTICE

Gasket set, item 1 included with items 4, 7, 8, 13, 23 and 30.

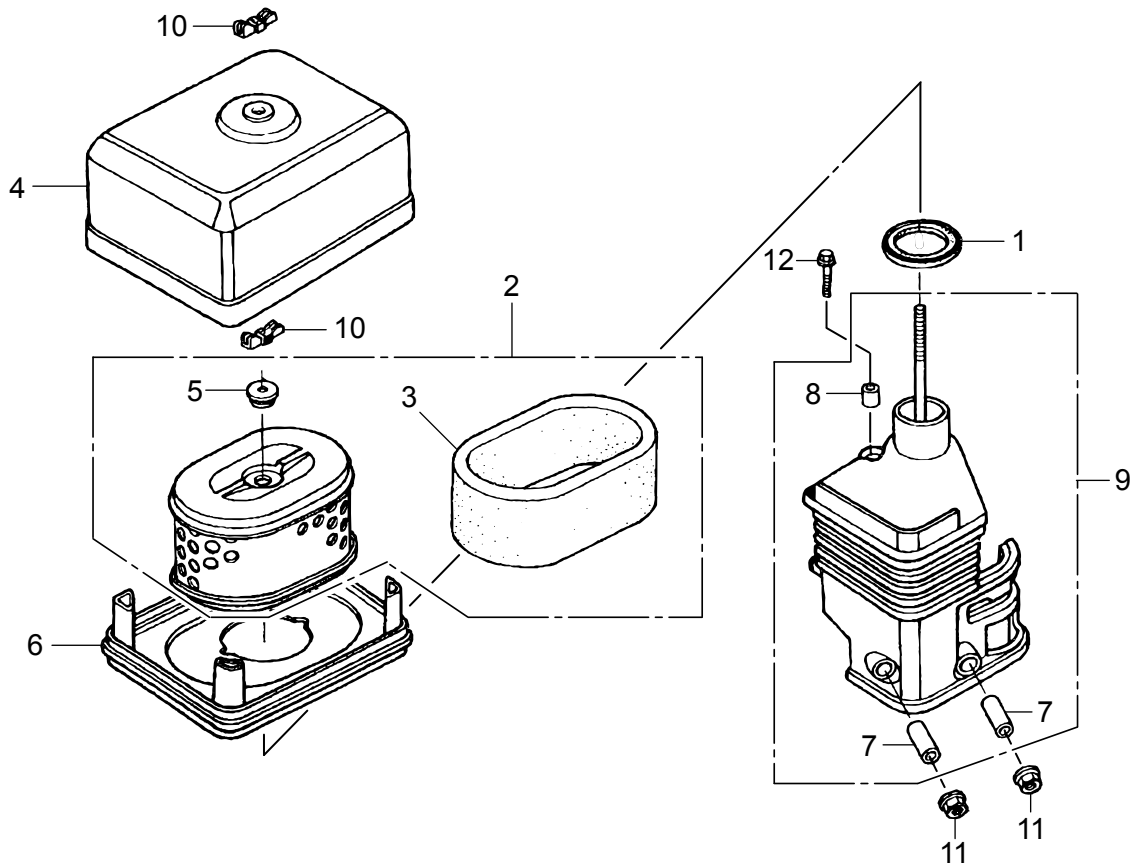
HONDA GX160 SERIES ENGINES — CARBURETOR ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1#S%❖	16010ZE1812	GASKET SET	1	
2#S%	16011ZE0005	FLOAT, VALVE SET	1	
3#	16013ZE0005	FLOAT SET	1	
3S%	16013Z0SB01	FLOAT SET	1	
4#	16015ZE0831	CHAMBER SET, FLOAT	1	INCLUDES ITEM W/❖, ▲
4S%	16015Z4M911	CHAMBER SET, FLOAT	1	INCLUDES ITEM W/❖, ▲
6#	16016ZH7W01	SCREW SET, PILOT	1	
7#▲	16024ZE1811	SCREW SET, DRAIN	1	INCLUDES ITEM W/❖
7S%▲	16024Z5T901	SCREW SET, DRAIN	1	INCLUDES ITEM W/❖
8#	16028ZK7591	SCREW SET B	1	INCLUDES ITEM W/❖
8S%	16028Z5T901	SCREW SET B	1	INCLUDES ITEM W/❖
9#	16044ZE0005	CHOKE SET	1	
9S%	16044Z4M911	CHOKE SET	1	
10◆◇	16100ZH8W51	CARBURETOR ASSY., (BE65B B)	1	INCLUDES ITEMS W/#
10D🍏	16100Z4MV22	CARBURETOR ASSY., (BE54E A)	1	INCLUDES ITEMS W/\$
10♣	16100Z4M781	CARBURETOR ASSY.	1	INCLUDES ITEMS W/%
11#S%	16124ZE0005	SCREW, THROTTLE STOP	1	
12#	16166ZH8W50	NOZZLE, MAIN	1	
12\$	16166Z4MV21	NOZZLE, MAIN	1	
12%	16166Z4M781	NOZZLE, MAIN	1	
13#S%	16955283000	O-RING, CUP	1	INCLUDES ITEMS W/❖
14◆◇	16211ZE1000	INSULATOR, CARBURETOR	1	
14D🍏♣	16211Z4M000	INSULATOR, CARBURETOR	1	
15	16212ZH8800	GASKET, INSULATOR	1	
16	16220ZE1020	SPACER COMP., CARBURETOR	1	
17	16221ZH8801	GASKET, CARBURETOR	1	
18	16610ZE1000	CHOKE LEVER, COMP.	1	INCLUDES ITEMS W/@
20#S%	16953ZE1812	LEVER, COCK	1	
21#S%	16954ZE1812	PLATE, LEVER SETTING	1	
22#S%	16956ZE1811	SPRING, COCK LEVER	1	
23#S%	16957ZE1812	GASKET, FUEL COCK	1	INCLUDES ITEM W/❖
24#S%	16967ZE0811	CUP, FUEL STRAINER	1	
25#S%	93500030060H	SCREW 3X6	2	REPLACES P/N 93500030061H
26@	9430520122	PIN, SPRING 2X12	1	
29#\$	99101ZH80700	MAIN JET #70	1	
29%	99101ZH80720	MAIN JET #72	1	
30#\$	99204ZE00350	PILOT JET SET #35	1	INCLUDES ITEM W/❖
30#\$	99204ZE00380	PILOT JET SET #38	1	INCLUDES ITEM W/❖
30%	99204ZE20400	PILOT JET SET #40	1	INCLUDES ITEM W/❖
43S%	16959Z5T901	FILTER, CUP	1	

NOTICE

- ◆ GX160U1SM12
- ◇ GX160U1SMX4
- ▷ GX160UT2QMXC
- 🍏 GX160UT2SMXC
- ♣ GX160UT2SCM

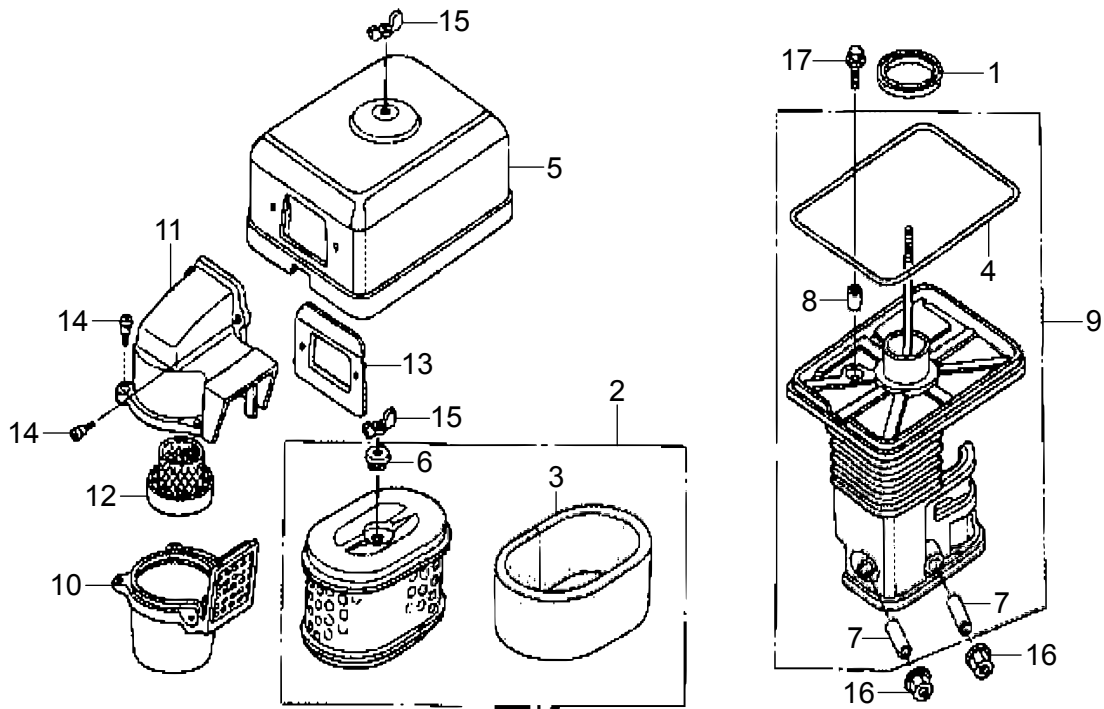
HONDA GX160U1SM12/SMX4 ENGINES — AIR CLEANER ASSY.



HONDA GX160U1SM12/SMX4 ENGINES — AIR CLEANER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	16271ZE1000	GASKET, ELBOW	1	
2	17210ZE1517	ELEMENT, AIR CLEANER	1.....	INCLUDES ITEMS W/#
3#	17218ZE1507	FILTER (OUTER)	1	
4	17230ZE1820	COVER, AIR CLEANER	1	
5#	17232891000	GROMMET, AIR CLEANER	1	
6	17235Z4M831	NOSE, SILENCER	1	
7%	17238ZE7010	COLLAR, AIR CLEANER	2	
8%	17239ZE1000	COLLAR (B), AIR CLEANER	1	
9	17410ZE1020	ELBOW CP, AIR CLEANER.....	1.....	INCLUDES ITEMS W/%
10	90325044000	NUT, TOOL BOX SETTING	2	
11	9405006000	FLANGE NUT 6MM	2	
12	957010602000	BOLT, FLANGE 6X20	1	

HONDA GX160UT2QMXC/SMXC ENG. — AIR CLEANER ASSY.



HONDA GX160UT2QMXC/SMXC ENG. — AIR CLEANER ASSY.

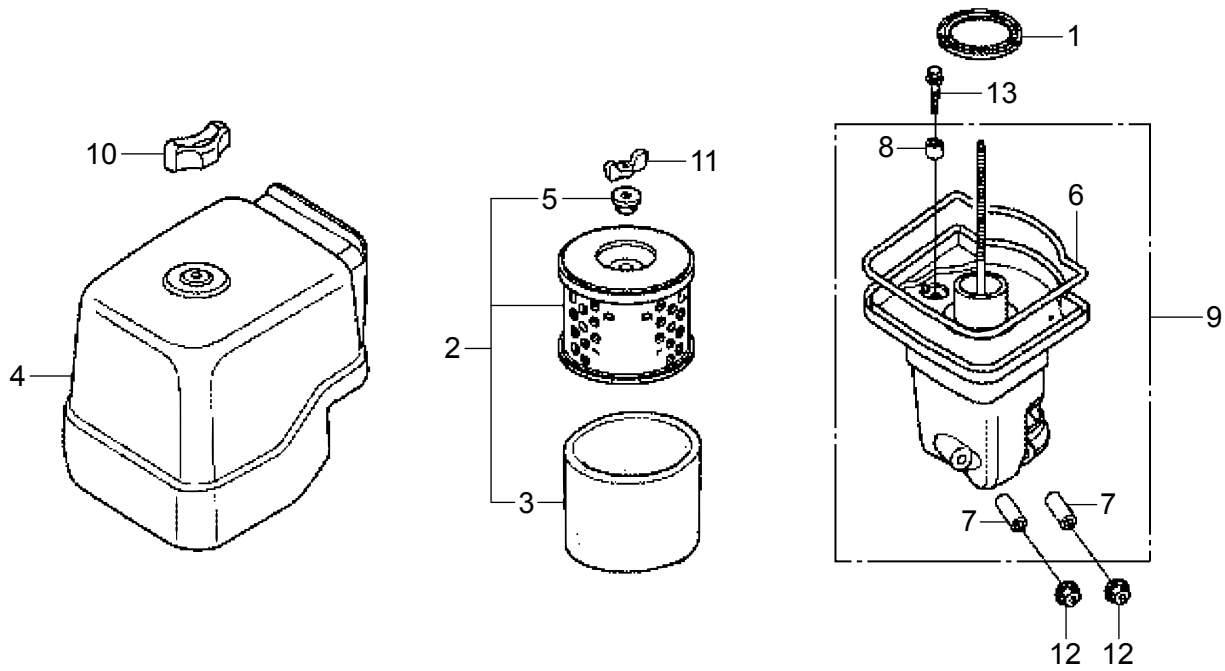
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	16271ZE1000	PACKING, ELBOW	1	
2	17210ZE1517	CLEANER ELEMENT	1	INCLUDES ITEMS W/#
3#	17218ZE1507	OUTER ELEMENT	1	
4%	17219733010	PACKING, CLEANER COVER	1	
5	17230ZE1841	COVER, AIR CLEANER	1	
6#	17232891000	GROMMET, AIR CLEANER	1	
7%	17238ZE7010	COLLAR, AIR CLEANER	2	
8%	17239733000	COLLAR (B), AIR CLEANER	1	
9D	17410ZE1840	ELBOW, COMP. AIR CLEANER	1	INCLUDES ITEMS W/%
9A	17410ZE1841	ELBOW, COMP. AIR CLEANER	1	INCLUDES ITEMS W/%
10	17470ZE1842	CASE, PRE-CLEANER	1	
11	17475ZE1841	CAP, PRE-CLEANER	1	
12	17476ZE1841	GUIDE, PRE-CLEANER	1	
13	17478ZE1841	PLATE, PRE-CLEANER	1	
14	90300GB0900	BOLT, MUD GUARD	5	
15	90325044000	NUT, TOOL BOX SETTING	2	
16	9405006000	FLANGE NUT 6MM	2	
17	957010602000	BOLT, FLANGE 6X20	1	

NOTICE

D GX160UT2QMXC

A GX160UT2SMXC

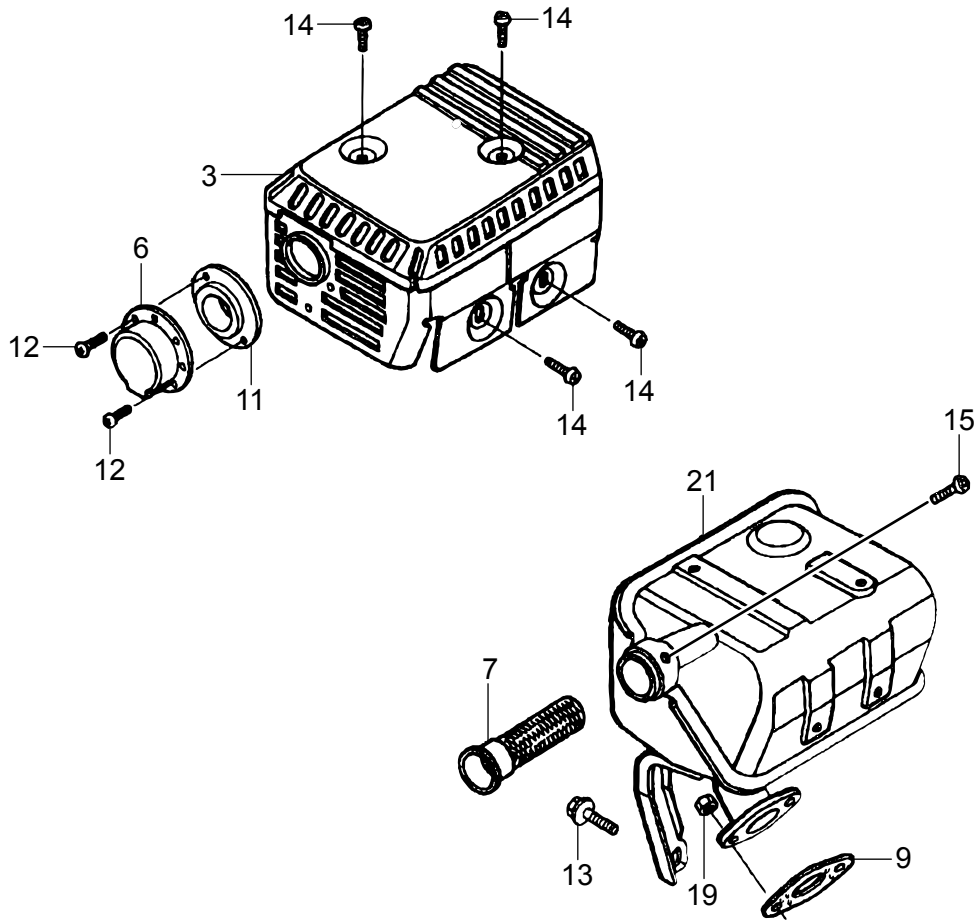
HONDA GX160UT2SCM ENG. — AIR CLEANER ASSY. (CYCLONE)



HONDA GX160UT2SCM ENG. — AIR CLEANER ASSY. (CYCLONE)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	16271ZE1000	PACKING, ELBOW	1	
2	17210Z0V781	ELEMENT, AIR CLEANER	1.....	INCLUDES ITEMS W/#
3#	17218Z0V780	FILTER, OUTER	1	
4	17230Z0V78	COVER ASSY., AIR CLEANER	1	
5#	17232891000	GROMMET, AIR CLEANER	1	
6%	17233Z0V780	SEAL, AIR CLEANER COVER	1	
7%	17238ZE7010	COLLAR, AIR CLEANER	2	
8%	17239ZE3840	COLLAR B, AIR CLEANER	1	
9	17410Z0V780	ELBOW COMPLETE, AIR CLEANER	1.....	INCLUDES ITEMS W/%
10	90300Z4M800	NUT, AIR CLEANER	1	
11	90325044000	NUT, TOOL BOX SETTING	1	
12	9405006000	FLANGE NUT 6MM	2	
13	957010602000	FLANGE BOLT 6X20	1	

HONDA GX160 SERIES ENGINES — MUFFLER ASSY.



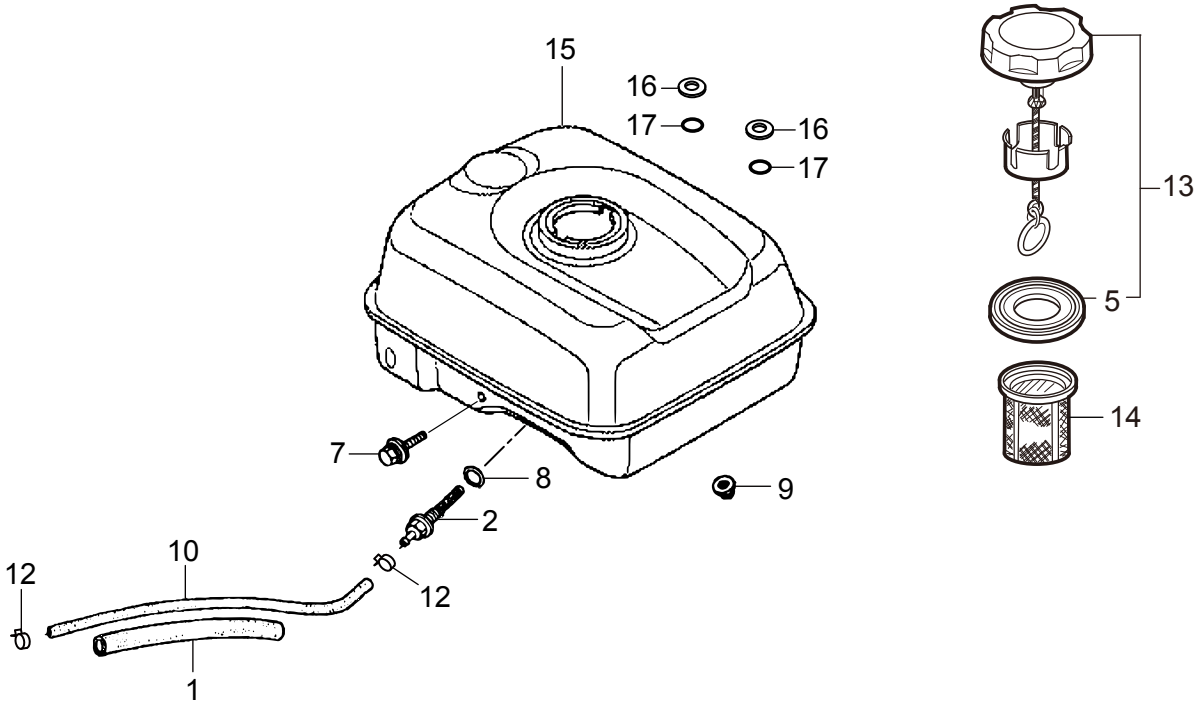
HONDA GX160 SERIES ENGINES — MUFFLER ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
3♦	18320ZF1H01	PROTECTOR, MUFFLER	1	
3◇	18320ZF1H02	PROTECTOR, MUFFLER	1	
3D	18320Z4M811	PROTECTOR, MUFFLER	1	
3♣♣	18320Z4M000	PROTECTOR, MUFFLER	1	
6	18340ZE1010	DEFLECTOR CP	1	
7	18355ZE1000	ARRESTER, SPARK	1	
9♦	18381ZH8800	GASKET, MUFFLER	1	
9◇	18381ZH8801	GASKET, MUFFLER	1	
9D♣♣	18381Z0T801	GASKET, MUFFLER	1	
11	18522ZE1000	GUIDE, MUFFLER	1	
12♦◇	90002ZG0003	SCREW, TAPPING 4X8	2	
12D♣♣	90002Z0T800	SCREW, TAPPING 4X8	2	
13	90016ZE1000	BOLT, FLANGE 6X13	1	
14	90050ZE1000	TAPPING SCREW 5X8	4	
15	90055ZE1000	TAPPING SCREW 4X6	4	
19	94001080000S	NUT, HEX 8MM	2	
21♦	18310ZH8810	MUFFLER COMPLETE	1	
21◇	18310ZH7V90	MUFFLER COMPLETE	1	
21D♣♣	18310Z4MV51	MUFFLER COMPLETE	1	

NOTICE

- ♦ GX160U1SM12
- ◇ GX160U1SMX4
- D GX160UT2QMXC
- ♣ GX160UT2SMXC
- ♣ GX160UT2SCM

HONDA GX160 SERIES ENGINES — FUEL TANK ASSY.



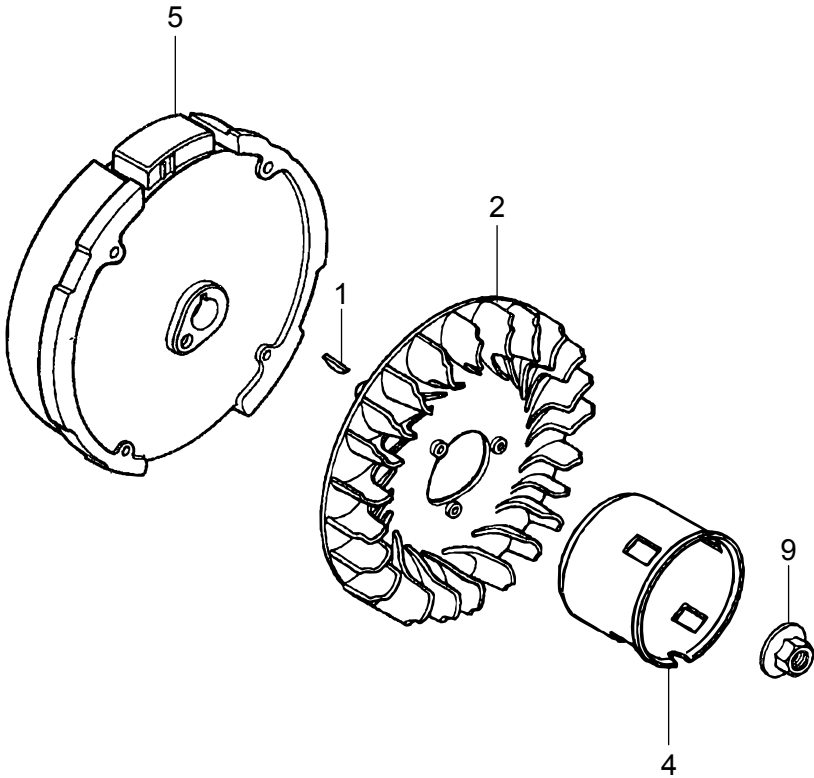
HONDA GX160 SERIES ENGINES — FUEL TANK ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	16854ZH8000	RUBBER, SUPPORT 107MM	1	
2♦♦	16955ZE1000	JOINT, FUEL TANK	1	
2♠♣	16955ZE1010	JOINT, FUEL TANK	1	
5%♦	17631Z0T812	GASKET, FUEL FILLER CAP	1	
5#♦	17631Z0T802	GASKET, FUEL FILLER CAP	1	
5\$♠♣	17631Z0T801	GASKET, FUEL FILLER CAP	1	
7	90004ZH7003	BOLT, FLANGE 6X29	1	
8	91353671003	O-RING 14MM.....	1	REPLACES P/N 91353671004
9	9405006000	FLANGE NUT 6MM	2	
10♦♦	950014500160M	TUBE, FUEL 4.5X1M	1	
10♠♣	91424Z4M003	TUBE, FUEL 4.5X145	1	
12♦	9500202080	CLAMP, TUBE (D8)	2	
12♦♠♣	950024080008	CLAMP, TUBE (D8)	2	
13♦	17620Z4H000	CAP COMP., FUEL FILLER	1	INCLUDES ITEM W/%
13♦	17620Z4H020	CAP COMP., FUEL FILLER	1	INCLUDES ITEM W/#
13♠♣	17620Z4H900	CAP COMP., FUEL FILLER	1	INCLUDES ITEM W/\$
14♦	17672ZE2W01	FILTER, FUEL	1	
14♦♠♣	17672Z4H000	FILTER, FUEL	1	
15♦	17510ZE1020ZF	TANK, FUEL (BLACK)	1	
15♦	17510ZE1030ZF	TANK, FUEL (BLACK)	1	
15♠♣	17510Z4M000ZB	TANK, FUEL (BLACK)	1	
16♦♦	90404680000	WASHER, 6.5X25X1.5	2	
16♠♣	90503898000	WASHER, 6.5X25X1.5	2	
17♦♦	91319ME5003	O-RING 5.5X1.4	2	
17♠♣	91302Z4M003	O-RING 5.5X1.5	2	

NOTICE

- ♦ GX160U1SM12
- ◇ GX160U1SMX4
- ♠ GX160UT2QMXC
- ♣ GX160UT2SMXC
- ♣ GX160UT2SCM

HONDA GX160 SERIES ENGINES — FLYWHEEL ASSY.



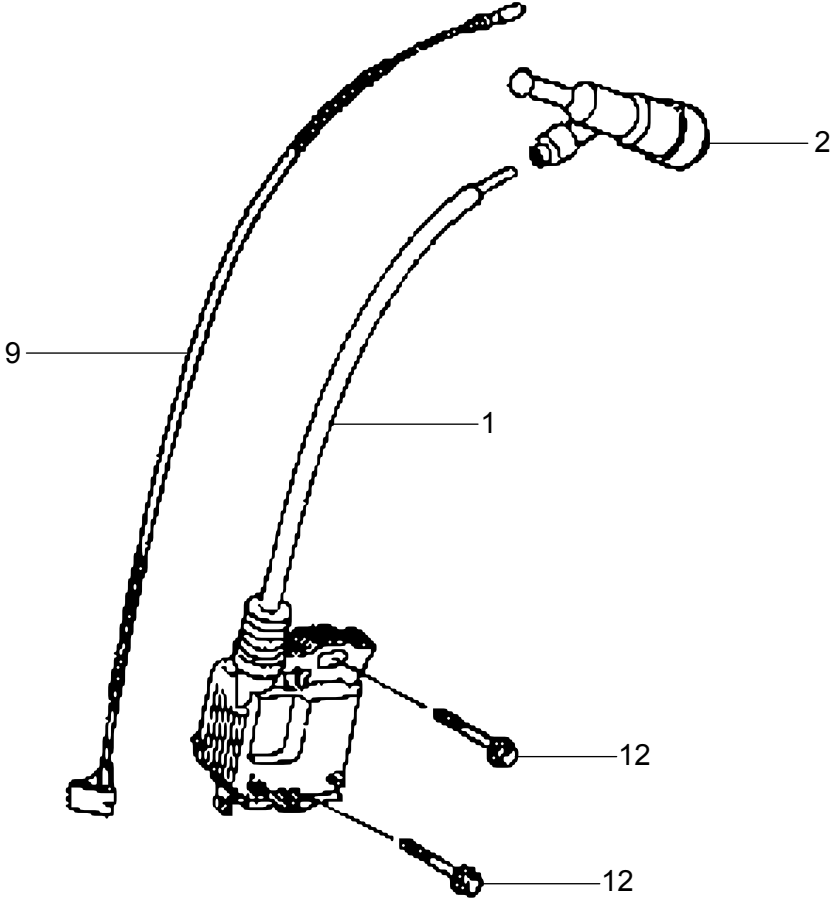
HONDA GX160 SERIES ENGINES — FLYWHEEL ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	13331357000	KEY, WOODRUFF 25X18	1	
2	19511ZE1000	FAN, COOLING	1	
4♦♦	28451ZH8001	PULLEY, STARTER	1	
4♠♠	28451ZH8801	PULLEY, STARTER	1	
4♣♣	28451Z4M003	PULLEY, STARTER	1	
5♦♦	31100ZE1010	FLYWHEEL	1	
5♠♣♠	31110Z4M000	FLYWHEEL	1	
9♦♦	90201878003	NUT, SPECIAL 14MM	1	
9♠♣♠	90201Z0T800	NUT, SPECIAL 14MM	1	

NOTICE

- ◆ GX160U1SM12
- ◇ GX160U1SMX4
- ♠ GX160UT2QMXC
- ♠ GX160UT2SMXC
- ♣ GX160UT2SCM

HONDA GX160 SERIES ENGINES — IGNITION COIL ASSY.



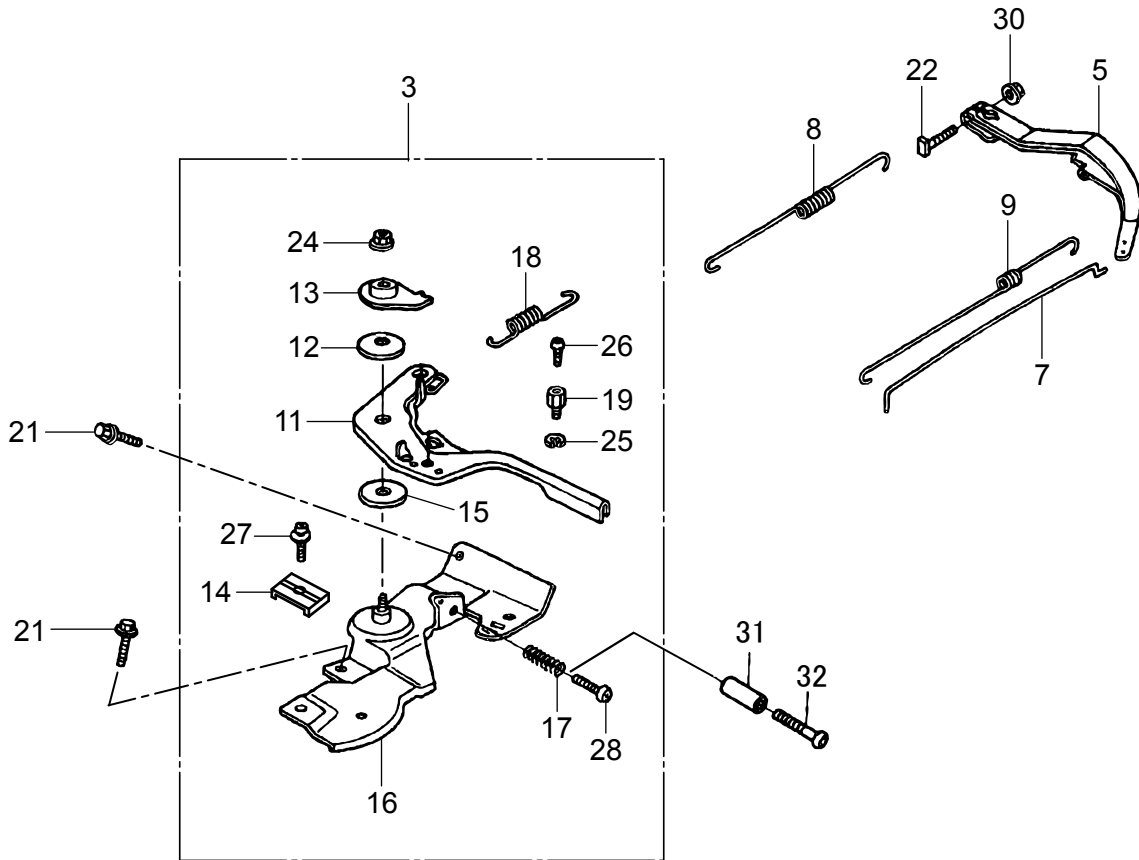
HONDA GX160 SERIES ENGINES — IGNITION COIL ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1♦♦	30500ZE1073	COIL ASSY., IGNITION	1.....	REPLACES 30500ZE1063
1▷	30500ZOT802	COIL ASSY., IGNITION	1	
1♣♣	30500ZOT003	COIL ASSY., IGNITION	1	
2♦♦	30700ZE1013	CAP ASSY.	1	
2▷♣♣	30700ZOT812	CAP ASSY.	1	
9♦♦▷	36101ZE1010	CORD, STOP SWITCH 370MM	1	
9♣♣	32195ZOT003	CORD, STOP SWITCH 370MM	1	
12	957010602500	BOLT, FLANGE 6X25.....	2.....	REPLACES 90121952000

NOTICE

- ◆ GX160U1SM12
- ◇ GX160U1SMX4
- ▷ GX160UT2QMXC
- ♣ GX160UT2SMXC
- ♣ GX160UT2SCM

HONDA GX160 SERIES ENGINES — CONTROL ASSY.



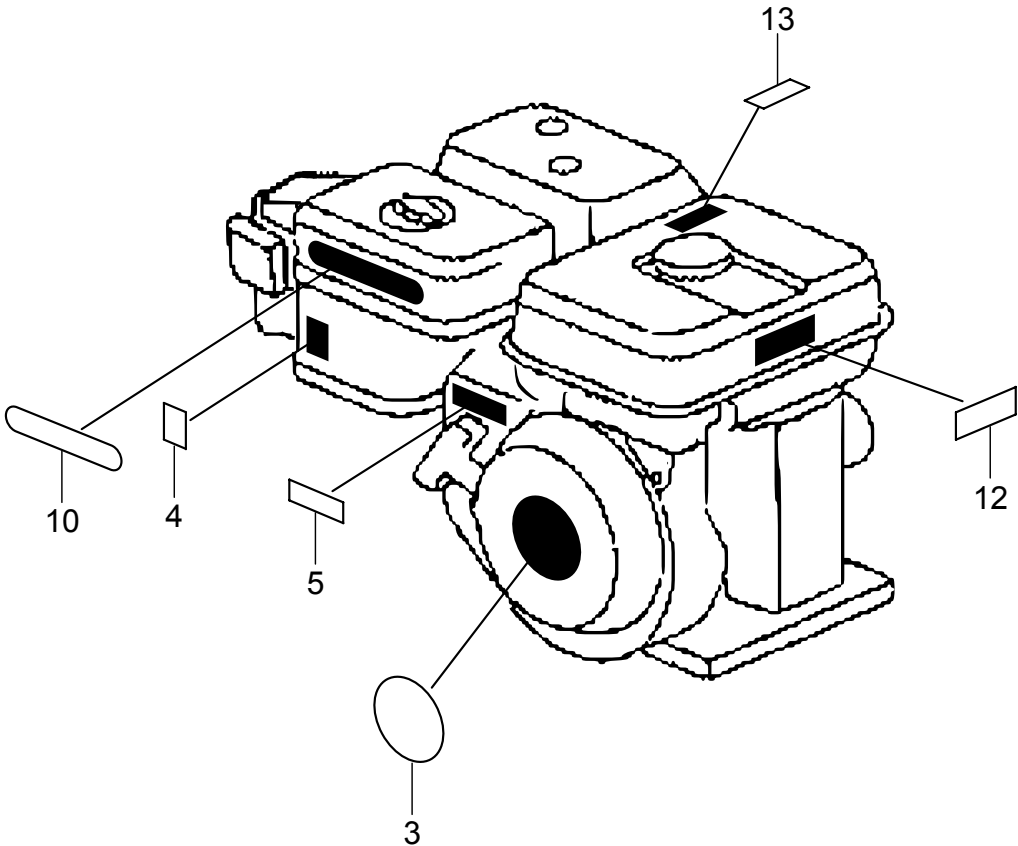
HONDA GX160 SERIES ENGINES — CONTROL ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
3♦♦	16500ZH8U43	CONTROL ASSY.....	1.....	INCLUDES ITEMS W/#
3D	16500Z4M306	CONTROL ASSY.....	1.....	INCLUDES ITEMS W/\$
3A	16500Z4M407	CONTROL ASSY.....	1.....	INCLUDES ITEMS W/%
3♣	16500Z0V780	CONTROL ASSY.....	1.....	INCLUDES ITEMS W/&
5♦♦	16551ZE0010	ARM, GOVERNOR	1	
5D♣	16551Z4M000	ARM, GOVERNOR	1	
7♦♦	16555ZE1000	ROD, GOVERNOR	1	
7D♣	16555Z4M000	ROD, GOVERNOR	1	
8♦♦	16561ZE1020	SPRING, GOVERNOR	1	
8D♣	16561Z4M010	SPRING, GOVERNOR	1	
9♦♦	16562ZE1020	SPRING, THROTTLE RETURN	1	
9D♣	16562Z4M000	SPRING, THROTTLE RETURN	1	
11#	16571ZH8020	LEVER, CONTROL	1	
11\$%&	16571Z4M000	LEVER, CONTROL	1	
12#\$%&	16574ZE1000	LEVER, SPRING	1	
13#\$%&	16575ZH8000	WASHER, CONTROL LEVER	1	
14#\$%&	16576891000	HOLDER, CABLE	1	
15#\$%&	16578ZE1000	SPACER, CONTROL LEVER	1	
16#	16580ZH8813	BASE CP, CONTROL	1	
16\$%	16580Z4M850	BASE CP, CONTROL	1	
16&	16580Z0V780	BASE CP, CONTROL	1	
17#\$%&	16584883300	SPRING, ADJUSTING	1	
18#\$%&	16592ZE1810	SPRING, CABLE, RETURN	1	
19#\$%&	16594883010	HOLDER, WIRE	1	
21	90013883000	BOLT, FLANGE 6X12	2	
22♦♦	90015ZE5010	BOLT, GOVERNOR ARM	1	
22D♣	90015Z5T000	BOLT, GOVERNOR ARM	1	
24#\$%	90114SA0000	LOCK NUT 6MM	1	
25#\$%&	90605230000	CIR CLIP	1	
26	0043504060	SCREW, PAN 4X6	2.....	REPLACES 93500040060H
27#\$%&	0202005T125	SCREW, PAN 5X16	1.....	REPLACES 93500050160A
28#\$%&	93500050250H	SCREW 5X25	1	
30	9405006000	FLANGE NUT 6MM	1	
31♦	16599ZG1M10	COLLAR, STOPPER	1.....	OPTION
32♦	90016ZG9N30	SCREW, RECESSED 5X25	1.....	OPTION

NOTICE

- ♦ GX160U1SM12
- ♦ GX160U1SMX4
- D GX160UT2QMXC
- A GX160UT2SMXC
- ♣ GX160UT2SCM

HONDA GX160 SERIES ENGINES — DECALS ASSY.



HONDA GX160 SERIES ENGINES — DECALS ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
3♦	87521ZH8030	EMBLEM (GX160)	1	
3◇	87521ZH8040	EMBLEM (GX160)	1	
3♣♣♣	87521Z4M000	EMBLEM (GX160)	1	
4♦♦	87528ZH7000	MARK, CHOKE	1	
4♣♣♣	87528Z4M000	MARK, CHOKE	1	
5	87532ZH7000	MARK, THROTTLE INDICATION	1	
10♣	87535ZE1841	MARK, AIR CLEANER	1	
12♦	87516ZH7000	MARK, OPERATOR CAUTION	1	
12◇	87516ZH7010	MARK, OPERATOR CAUTION	1	
12♣♣♣	87516Z4H010	MARK, OPERATOR CAUTION	1	
13◇	87539Z0J000	MARK, EX. CAUTION	1	
13♣♣♣	87539Z4M000	MARK, EX. CAUTION	1	

NOTICE

- ♦ GX160U1SM12
- ◇ GX160U1SMX4
- ♣ GX160UT2QMXC
- ♣ GX160UT2SMXC
- ♣ GX160UT2SCM

TERMS AND CONDITIONS OF SALE — PARTS

PAYMENT TERMS

Terms of payment for parts are net 30 days.

FREIGHT POLICY

All parts orders will be shipped collect or prepaid with the charges added to the invoice. All shipments are F.O.B. point of origin. Multiquip's responsibility ceases when a signed manifest has been obtained from the carrier, and any claim for shortage or damage must be settled between the consignee and the carrier.

MINIMUM ORDER

The minimum charge for orders from Multiquip is \$15.00 net. Customers will be asked for instructions regarding handling of orders not meeting this requirement.

RETURNED GOODS POLICY

Return shipments will be accepted and credit will be allowed, subject to the following provisions:

1. A Returned Material Authorization must be approved by Multiquip prior to shipment.
2. To obtain a Return Material Authorization, a list must be provided to Multiquip Parts Sales that defines item numbers, quantities, and descriptions of the items to be returned.
 - a. The parts numbers and descriptions must match the current parts price list.
 - b. The list must be typed or computer generated.
 - c. The list must state the reason(s) for the return.
 - d. The list must reference the sales order(s) or invoice(s) under which the items were originally purchased.
 - e. The list must include the name and phone number of the person requesting the RMA.
3. A copy of the Return Material Authorization must accompany the return shipment.
4. Freight is at the sender's expense. All parts must be returned freight prepaid to Multiquip's designated receiving point.

5. Parts must be in new and resalable condition, in the original Multiquip package (if any), and with Multiquip part numbers clearly marked.
6. The following items are not returnable:
 - a. Obsolete parts. (If an item is in the price book and shows as being replaced by another item, it is obsolete.)
 - b. Any parts with a limited shelf life (such as gaskets, seals, "O" rings, and other rubber parts) that were purchased more than six months prior to the return date.
 - c. Any line item with an extended dealer net price of less than \$5.00.
 - d. Special order items.
 - e. Electrical components.
 - f. Paint, chemicals, and lubricants.
 - g. Decals and paper products.
 - h. Items purchased in kits.
7. The sender will be notified of any material received that is not acceptable.
8. Such material will be held for five working days from notification, pending instructions. If a reply is not received within five days, the material will be returned to the sender at his expense.
9. Credit on returned parts will be issued at dealer net price at time of the original purchase, less a 15% restocking charge.
10. In cases where an item is accepted, for which the original purchase document can not be determined, the price will be based on the list price that was effective twelve months prior to the RMA date.
11. Credit issued will be applied to future purchases only.

PRICING AND REBATES

Prices are subject to change without prior notice. Price changes are effective on a specific date and all orders received on or after that date will be billed at the revised price. Rebates for price declines and added charges for price increases will not be made for stock on hand at the time of any price change.

Multiquip reserves the right to quote and sell direct to Government agencies, and to Original Equipment Manufacturer accounts who use our products as integral parts of their own products.

SPECIAL EXPEDITING SERVICE

A \$35.00 surcharge will be added to the invoice for special handling including bus shipments, insured parcel post or in cases where Multiquip must personally deliver the parts to the carrier.

LIMITATIONS OF SELLER'S LIABILITY

Multiquip shall not be liable hereunder for damages in excess of the purchase price of the item with respect to which damages are claimed, and in no event shall Multiquip be liable for loss of profit or good will or for any other special, consequential or incidental damages.

LIMITATION OF WARRANTIES

No warranties, express or implied, are made in connection with the sale of parts or trade accessories nor as to any engine not manufactured by Multiquip. Such warranties made in connection with the sale of new, complete units are made exclusively by a statement of warranty packaged with such units, and Multiquip neither assumes nor authorizes any person to assume for it any other obligation or liability whatever in connection with the sale of its products. Apart from such written statement of warranty, there are no warranties, express, implied or statutory, which extend beyond the description of the products on the face hereof.

Effective: February 22, 2006

OPERATION AND PARTS MANUAL

HERE'S HOW TO GET HELP

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

UNITED STATES

Multiquip Corporate Office

18910 Wilmington Ave.
Carson, CA 90746
Contact: mq@multiquip.com

Tel. (800) 421-1244
Fax (310) 537-3927

MQ Parts Department

800-427-1244
310-537-3700

Fax: 800-672-7877

Service Department

800-421-1244
310-537-3700

Warranty Department

800-421-1244
310-537-3700

Fax: 310-943-2249

Technical Assistance

800-478-1244

Fax: 310-943-2238

CANADA

Multiquip

4110 Industriel Boul.
Laval, Quebec, Canada H7L 6V3
Contact: infocanda@multiquip.com

Tel: (450) 625-2244
Tel: (877) 963-4411
Fax: (450) 625-8664

UNITED KINGDOM

Multiquip (UK) Limited Head Office

Unit 2, Northpoint Industrial Estate,
Globe Lane,
Dukinfield, Cheshire SK16 4UJ
Contact: sales@multiquip.co.uk

Tel: 0161 339 2223
Fax: 0161 339 3226

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This manual MUST accompany the equipment at all times. This manual is considered a permanent part of the equipment and should remain with the unit if resold.

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