OPERATION AND PARTS MANUAL



Mikasa SERIES MODEL MVH308GH REVERSIBLE PLATE COMPACTOR (HONDA GX270UT2SMXC GASOLINE ENGINE)

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(200000)	

THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.



MVH308GH Reversible Plate Compactor

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NOTICE

Specifications and part numbers are subject to change 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.

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
OFF	Accidental starting hazards
	Eye and hearing hazards
	Rotating parts hazards

GENERAL SAFETY

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.



AA



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.



+ FIRST AID

- 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

A 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.



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.

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.



A 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.

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.



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.



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.

- 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

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/DECOMMISSIONING

NOTICE

Decommissioning is a controlled process used to safely retire a piece of equipment that is no longer serviceable. If the equipment poses an unacceptable and unrepairable safety risk due to wear or damage or is no longer cost effective to maintain (beyond life-cycle reliability) and is to be decommissioned (demolition and dismantlement),be sure to follow rules below:

- DO NOT pour waste or oil directly onto the ground, down a drain or into any water source.
- Contact your country's Department of Public Works or recycling agency in your area and arrange for proper disposal of any electrical components, waste or oil associated with this equipment.



- When the life cycle of this equipment is over, remove battery and bring to appropriate facility for lead reclamation. Use safety precautions when handling batteries that contain sulfuric acid.
- When the life cycle of this equipment is over, it is recommended that the trowel frame and all other metal parts be sent to a recycling center.

Metal recycling involves the collection of metal from discarded products and its transformation into raw materials to use in manufacturing a new product.

Recyclers and manufacturers alike promote the process of recycling metal. Using a metal recycling center promotes energy cost savings.

EMISSIONS INFORMATION

NOTICE

The diesel engine used in this equipment has been designed to reduce harmful levels of carbon monoxide (CO), hydrocarbons (HC) and nitrogen oxides (NOx) contained in diesel exhaust emissions.

This engine has been certified to meet US EPA Evaporative emissions requirements in the installed configuration.

Attempting to modify or make adjustments to the engine emission system by unauthorized personnel without proper training could damage the equipment or create an unsafe condition.

Additionally, modifying the fuel system may adversely affect evaporative emissions, resulting in fines or other penalties.

Emission Control Label

The emission control label is an integral part of the emission system and is strictly controlled by regulations.

The label must remain with the engine for its entire life.

If a replacement emission label is needed, please contact your authorized Kohler Engine Distributor.

Table 1. MVH308GH Specifications				
Centrifugal Force	10,116 lbf (45 kN)			
Vibration Frequency	4,400 vpm (73 Hz)			
Maximum Traveling Speed	79 ft/min (24 m/min)			
Plate Size (W x L)	18 x 34 in (445 x 860 mm)			
Plate Size (W x L) with extension plates	24 x 34 in (600 x 860 mm)			
Max. Forward Speed	79 ft./min (24 m/min)			
Operating Weight	683 lbs. (310 kg.)			
Operating Weight with extension plates	717 lbs. (325 kg.)			

Table 2. Engine Specifications				
Engine Make	HONDA			
Engine Model	GX270UT2SMXC			
Engine Type	Air-cooled, 4 stroke Gasoline Engine			
Cylinder Bore X Stroke	3.03 in. x 2.28 in. (77 mm x 58 mm)			
Displacement	16.48 cu-in (270 cc)			
Maximum Ouput	8.5 BHP (6.3 kW) @ 3600 RPM			
Fuel Tank Capacity	Approx. 1.4 U.S. gallons (5.3 liters)			
Fuel Type	Unleaded 86 Octane or Higher			
Oil Capacity	1.16 qts (1.1 liters)			
Starting Method	Recoil Start			
Dry Net Weight Recoil/Electric	56.88 lbs (25.8 Kg.)			
Dimensions (L x W x H)	15 x 16.85 x 16.61 in (381 x 428 x 422 mm)			

DIMENSIONS





Figure 1. Dimensions

Table 3. Dimensions			
REF. DES	IN. (MM)		
A	17.52 (445)		
В	23.62 (600)		
С	34.65 (880)		
D	47.64 (1210)		
E	53.54 (1360)		
F	33.86 (860)		
G	60.63 (1540)		

DEFINITION OF PLATE COMPACTOR

The Mikasa MVH308GH is a reversible plate compactor designed for efficient compaction of sand, gravel and cohesive soils. 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 compactor 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 produces a vibration frequency of 4,400 VPM (vibrations per minute). The travel speed of the compactor is approximately 79 ft/minute (24 meters/minute).

ENGINE

This plate compactor is equipped with a Honda GX270UT2SMXC air cooled, 4-cycle gasoline engine. 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.

COMPONENTS



Figure 2. Plate Compactor Components

Figure 2 shows the location of the basic controls and components of the MVH308GH Plate Compactor. The function of each control is described below:

- 1. **Rubber Cover** Lift this rubber cover to gain access to the fuel tank.
- 2. **Hour/Tachometer** Displays the cumulative time that the machine has been in use. During operation it displays the rpm reading.
- 3. **Handle Bar Height Adjuster** Adjusts the handle bar to the desired height by loosening the wing nut and turning the grip clockwise to raise the handle bar and counterclockwise to lower the handle bar.
- 4. **Breather Plug** Allow pressure to escape to the air in the form of a gas from heat.
- 5. **Hydraulic Pump (Oil Reservoir)** Regulates hydraulic oil flow produced by the direction of the control lever.
- 6. **Hand Grip** When operating the compactor use this hand grip to maneuver the compactor.
- 7. **Cyclone Cleaner** Filters large dust particles to keep air cleaner from getting clogged easily.
- 8. Lifting Bale When lifting of the compactor is required either by forklift, crane etc., tie rope or chain around this lifting point.
- 9. Vibrating Plate A flat, open plate made of durable

cast iron construction used in the compacting of soil.

- 10. **Extension Plate** Provides additional area of vibration to the vibrating plate.
- 11. **Handle Bar** When operating the compactor, this handle is to be in the downward position. When the compactor is to be *stored*, move the handle bar to the upright position.
- 12. **Direction Control Lever** *Push* the lever forward to move compactor in a forward direction. *Pull* the lever backwards to move compactor in backwards direction. Placing the lever in the middle (midway) will cause the compactor not to move (neutral).
- Throttle Lever Controls speed of the plate compactor. Place straight vertically to start, push fully counterclockwise for full throttle and fully clockwise to stop plate compactor.
- 14. Vibrator Oil Drain Plug Used to drain vibrator oil from the machine.
- 15. Vibration Case Oil Filler Used to add oil to the vibration case.
- 16. **Engine**—This plate compactor uses a GX270UT2SMXC gasoline engine. Refer to the owner's manual for engine information.
- 17. Engine ON-OFF Switch Used to turn the engine on or off.



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.

 Fuel Filler Cap – Remove this cap to add unleaded gasoline to the fuel tank. Make sure cap is tightened securely. DO NOT over fill.

🚺 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.

- Throttle Lever Used to adjust engine RPM speed. For normal operation this lever should always be placed in the RUN position.
- Recoil Starter (Pull Rope) Manual-starting method. Pull the starter grip until resistance is felt, then pull briskly and smoothly.
- 4. Fuel Valve Lever **OPEN** to let fuel flow, **CLOSE** to stop the flow of fuel.
- 5. **Choke Lever** Used in the starting of a cold engine, or in cold weather conditions. The choke enriches the fuel mixture.

6. **Air Cleaner** – 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.

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.

- Spark Plug Provides spark to the ignition system. Set spark plug gap according to engine manufacturer's instructions. Clean spark plug once a week.
- 8. Muffler Used to reduce noise and emissions. NEVER touch when *hot!*
- 9. **Fuel Tank** Fill with unleaded gasoline. Reference Table 2 for fuel tank capacity. For additional information refer to Honda engine owner's manual.
- 10. **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 4).
- 11. **Oil Drain Plug** Remove this plug to remove oil from the engine's crankcase.
- 12. Engine ON/OFF Switch ON position permits engine starting, OFF position stops engine operation.

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 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 as listed in Table 4. Refer to Table 2 for maximum engine oil capacity.



Figure 5. Engine Oil Dipstick (Oil Level	Figure 5.	Engine	Oil Dipstick	(Oil Level)
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	Table 4. 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

A DANGER



EXPLOSIVE FUEL!

Motor fuels are highly flammable and can be dangerous if mishandled. **DO NOT** smoke while refueling. **DO NOT** attempt to refuel the compactor if the engine is hot! or running.

FUEL CHECK

1. Visually inspect (Figure 6) to see if fuel level is low. If fuel is low, replenish with unleaded fuel.



Figure 6. Fuel Check

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

V-BELT COVER REMOVAL

To inspect the V-belt, remove the three bolts that secure the belt cover to the frame as shown in Figure 7.



Figure 7. V-Belt Cover Removal

V-BELT INSPECTION

Visually examine the V-belt (Figure 8) 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 8. Drive Belt Inspection

V-BELT TENSION

The V-belt tension is proper if the V-belt bends 10 to 15 mm (Figure 9) when depressed with finger at midway between the clutch and vibrator pulleys.



Figure 9. V-Belt Tension

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 10. Clean the oil gauge and re-thread back in. Remove the oil gauge again and confirm oil level does not exceed the cross hash of the oil plug. **DO NOT OVERFILL!**
- 3. The vibrator holds approximately 20.3 oz. (600 cc). **IMPORTANT**, if oil is required, replace using only SAE 10W-30 motor oil.



Figure 10. Vibrator Oil Check

HANDLE BAR

The height of the handle bar can be adjusted for ease of use. Adjust the handle height as follows. Refer to Figure 11.

- 1. Loosen the wing nut.
- 2. Turn the grip clockwise to raise the handle or counterclockwise to lower the handle.
- 3. When the handle bar is raised to the desired height, tighten the wing nut.



Figure 11. Handle Height Adjustment



DO NOT attempt to operate the compactor until the Safety, General Information and Inspection sections of this manual have been *read and thoroughly understood.*

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.

STARTING THE ENGINE

1. Place the engine fuel valve lever (Figure 12) to the "**ON**" position.



Figure 12. Engine Fuel Valve Lever (ON Position)

2. Move the throttle lever (Figure 13) slightly higher from the *idle* position.



Figure 13. Throttle Lever (Higher Position)

3. Place the choke lever (Figure 14) in the "**CLOSED**" position if starting a cold engine.



Figure 14. Choke Lever (Closed)

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. When the engine is stopped, the hour tachometer always shows "cumulative time" (Figure 15).



Figure 15. Hour Tachometer (Cumulative Time)

5. Place the engine **ON/OFF** switch (Figure 16) in the "**ON**" position.



Figure 16. Engine ON/OFF Switch (ON Position)

6. Grasp the starter grip (Figure 17) 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.



Figure 17. Starter Grip

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.

- 7. When engine starts, release the starter grip and allow the rope to recoil.
- If the choke lever was moved to the "CLOSED" position to start the engine, gradually move it to the "OPEN" position (Figure 18) as the engine warms up. If the engine has not started, repeat steps 1 through 6.



Figure 18. Choke Lever (Open)

- 9. Before the compactor is placed in to operation, run the engine for several minutes. Check for fuel leaks, and noises that would associate with a lose component.
- 10. During operation, the hour tachometer displays "rotation number" (Figure 19).



Figure 19. Hour Tachometer (Rotation Number)

OPERATION



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

1. Once the engine has started, move the engine throttle lever quickly to the *operation* position (Figure 20).



Figure 20. Throttle Lever (Operation 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. Using the direction control lever, move the machine backward or forward (Figure 21). When the direction control lever is pushed forward, the machine moves forward. When pulled backward, the machine moves backward.



Figure 21. Direction Control Lever

4. When the direction control lever is the neutral position, the machine vibrates staying at the same location

NOTICE

NEVER stop the engine suddenly while working at high speeds.

- 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:
 - 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.
 - 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

Normal Shutdown

1. Move the throttle lever to the *idle* position (Figure 22) and run the engine for three minutes at low speed.



Figure 22. Throttle Lever (Idle)

2. Place the engine **ON/OFF** switch (Figure 23) in the **OFF** position.



Figure 23. Engine ON/OFF Switch (OFF Position)

3. Place the fuel shut-off lever (Figure 24) in the **OFF** position.



Figure 24. Fuel Valve Lever (OFF)

Emergency Shutdown

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

GENERAL MAINTENANCE

General maintenance practices are crucial to the performance and longevity of your compactor. This equipment requires routine cleaning, inspection and lubrication. Reference Table 5 and Table 6 for scheduled engine and compactor maintenance.

The following procedures, devoted to maintenance, can prevent serious compactor damage or malfunctioning.

NOTICE

Reference **HONDA** engine manual supplied with your compactor for more detailed engine maintenance and troubleshooting.



ALWAYS allow the engine to cool before servicing. **NEVER** attempt any maintenance work on a hot engine.

ALWAYS disconnect the spark plug wire from the spark plug and secure away from the engine before performing maintenance or adjustments on the machine.

A WARNING



Some maintenance operations may require the engine to be run. Ensure that the maintenance area is well ventilated. Gasoline engine exhaust contains poisonous carbon monoxide gas that can cause unconsciousness and may result in **DEATH**

General Cleanliness

Clean the compactor daily. Remove all dust and debris buildup (mud, clay etc.). If the compactor is steam-cleaned, ensure that lubrication is accomplished **AFTER** steam cleaning.

NOTICE

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

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. To make sure your plate compactor is always in good working condition before using, carry out the maintenance inspection in accordance with Table 5 and Table 6.

ENGINE MAINTENANCE

Perform engine maintenance as listed in Table 5.

Table 5. 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	Х					
Engine Oil	CHANGE		Х				
Air Cleaner	CHECK	Х					
All Cleaner	CHANGE			X (1)			
All Nuts and Bolts	Re-tighten If Necessary	Х					
Coorle Diug	CHECK-CLEAN				Х		
Spark Plug	REPLACE						Х
Cooling Fins	CHECK				Х		
Spark Arrester	CLEAN					Х	
Fuel Tank	CLEAN					Х	
Fuel Filter	CHECK					Х	
Idle Speed	CHECK-ADJUST					X (2)	
Valve Clearance	CHECK-ADJUST						X (2)
Fuel lines	Fuel linesCHECKEvery 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 6.

Table 6. Machine Inspection					
Interval	Check	Solution			
	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			
Daily Before Starting	Guard Frame	Inspect/deformations			
Daily Delore Starting	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.			
	Engine Oil	Change			
	Engine Oil Filter	Wash			
Every 100 Hours	Vibrator Oil	Check oil level. Check for leaks/dirt.			
	Hydraulic Oil	Check oil level. Check for leaks.			
	V-Belt	Inspect, replace if damaged or worn.			
Every 200 hours	Clutch	Inspect, replace if not working properly.			
	Engine Bolts	Replace bolts if deformed or elongated.			
	Vibrator Oil	Change			
Every 200 beurs	Fuel Filter	Change			
Every 300 hours	Hydraulic Oil	Change			
		onango			
	Engine Oil Filter	Change			

TIGHTENING TORQUE

Reference Table 7 below (Tightening Torque), for retightening of nuts and bolts.

Table 7. Tightening Torque (in. kg/cm Diameter)								
Material	6mm	8mm	10mm	12mm	14mm	16mm	18mm	20mm
4T	70 150 300 500 750 1,100 1,400 2,000							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						5,600	
*	* 100 (6mm) 300 ~ 350 (8mm) 650 ~ 700 (10mm)							
** In case counter-part is of aluminum								
Bolt threads used with this machine are all right handed								
Material and quality of material is marked on each bolt, and screw.								

ENGINE AIR CLEANER

🚹 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**!



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

This engine is equipped with a replaceable, high-density paper air cleaner element. See Figure 25 for air cleaner components.

- 1. Remove the air cleaner cover and foam filter element.
- 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.

MAINTENANCE



Figure 25. Engine Air Cleaner

3. Clean foam element in warm, soapy water or nonflammable solvent. Rinse and dry thoroughly. Dip the element in clean engine oil and completely squeeze out the excess oil from the element before installing.

NOTICE

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

CYCLONE CLEANER

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

1. Unlatch and remove dust pot (Figure 26).



Figure 26. Unlatching Dust Pot

- 2. Clean dust pot with water and neutral detergent.
- 3. Return dust pot to air cleaner and latch securely.



Figure 27. Latching Dust Pot

ENGINE OIL

NOTICE

Drain the engine oil when the oil is warm.

- 1. Remove the oil drain bolt (Figure 28). and sealing washer and allow the oil to drain into a suitable container.
- 2. Replace engine oil with recommended type oil as listed in Table 4. For engine oil capacity, see Table 2 (Engine Specifications). **DO NOT** overfill.
- 3. Reinstall drain bolt with sealing washer and tighten securely.



Figure 28. Draining Engine Oil

HYDRAULIC OIL

1. With the handle in vertical position, remove the plug cap from the hydraulic pump (Figure 29).



Figure 29. Removing Plug/Breather Cap

- 2. Remove the breather plug with a 24 mm wrench at the top of the hydraulic pump.
- 3. Remove the hydraulic hose connected to the cylinder on the vibrator side (Figure 30).



Figure 30. Removing Hydraulic Hose

- 4. Set the run lever to reverse.
- 5. Drain the hydraulic oil from the pump.
- 6. After the oil is drained, attach the hydraulic hose again to the cylinder on the vibrator side.

7. With the direction control lever at the forward-most position, secure the guard frame with a rope to immobilize (Figure 31).



Figure 31. Direction Control Lever (Forward Position)

- 8. Pour hydraulic oil (550 cc) to the hydraulic pump breather plug attachment hole (Figure 29).
- 9. Remove the air releasing plug of vibrator cylinder. Oil will then come out from the air releasing plug. After air bubbles stop coming out, reattach the plug. Tighten securely (Figure 30).
- Release the direction control lever and move the lever forward and reverse several times (until no air bubbles are seen). Keep the lever at the forward position for 10 seconds every time. (Because the check valve is opened at the maximum forward position and air bubble will come out from the oil tank of the hydraulic pump).
- 11. In case the air bleeding is insufficient, repeat steps 9 and 10.
- 12. Attach the hydraulic pump breather plug and put on the plug cap. After making sure the hydraulic oil in the pump is at OIL LEVEL, attach the breather plug.

DO NOT exceed OIL LEVEL of hydraulic oil. If the level is higher, oil will burst out from the breather plug.

SPARK PLUG

NOTICE

NEVER use a spark plug of incorrect heat range.

- 1. Remove and clean spark plug (Figure 32) with a wire brush if it is to be reused. Discard spark plug if the insulator is cracked or chipped.
- Using a feeler gauge adjust spark plug gap to 0.028 ~0.031 inch (0.7~0.8 mm).
- 3. Thread spark plug into cylinder hole by hand to prevent cross-threading, then tighten securely.



Figure 32. Spark Plug Gap

V-BELT

Visually examine the V-belt (Figure 33) 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 33. V-Belt Inspection

SPARK ARRESTER CLEANING

Clean the spark arrester every year or 100 hours.

- 1. Remove the 4 mm screw (3) from the exhaust deflector, then remove the deflector. See (Figure 34).
- 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 arrestor, then remove the spark arrester.



Figure 34. Spark Arrester Removal

4. Carefully remove carbon deposits from the spark arrester screen (Figure 35) with a wire brush.



Figure 35. 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.

STORAGE

- 1. Wash off dirt and soil from every part with water. While washing, be careful not to let the water splash on the electric components such as the engine muffler.
- 2. Cover the machine to prevent dust and dirt buildup.
- 3. Store the machine in a dry area away from direct sunlight.
- 4. Do not leave the machine outdoors. Keep it indoors.
- 5. When not used for a long period of time, drain the fuel from the fuel tank.
- 6. When the machine is used after a long storage period, check the level of engine oil before using.

TROUBLESHOOTING (COMPACTOR)

Troubleshooting (Compactor)				
Symptom	Possible Problem	Solution		
	Clutch slips?	Adjust or replace clutch.		
	V-belt slips?	Adjust or replace V-belt.		
	Excessive oil in vibrator?	Fill to correct level.		
Travel speed low and vibration weak.	Trouble in vibrator internals?	Check vibrator assembly for any worn or defective parts, replace any defective parts.		
	Aeration in hydraulic oil for for travel reversing system?	Purge air in hydraulic oil. (Bleed plug)		
	Engine speed incorrect?	Set engine speed to correct RPM.		
	Hydraulic pump problems?	Check hydraulic pump.		
	Direction Control Lever installation wrong?	Correct installation of IDirection Control Lever.		
	Broken or defective oil hose?	Replace oil hose.		
Travels forward or backward but unable to switch direction.	Aeration in hydraulic oil?	Purge air in hydraulic oil. (Bleed plug)		
	Excessive oil in reversing system?	Fill to correct level.		
	Hydraulic pump clogged with trash?	Clean valve inside hydraulic pump.		
	Cylinder piston bearing failure?	Check piston bearing in cylinder for leakage.		
	V-belt disengaged or slips?	Engage V-belt, adjust or replace.		
	Clutch slips?	Adjust clutch, replace if necessary.		
Does not travel in forward or reverse	Vibrator locks?	Check vibrator and correct problem.		
	Cylinder piston bearing failure?	Check piston bearing in cylinder for leakage at USH packing.		
Direction Control Lever operating	Piston inside hydraulic pump not moving smoothly?	Adjust or replace.		
resistance for reverse is high.	Vibrator cylinder piston does not move smoothly	Adjust or replace.		

TROUBLESHOOTING (ENGINE)

	Troubleshooting (Engine)	
Symptom	Possible Problem	Solution
	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.
	Fuel reaching carburetor?	Check fuel line.
	Water in fuel tank?	Flush or replace fuel tank.
	Fuel filter clogged?	Replace fuel filter.
Difficult to start fuel is sucilable, but as snowle at	Stuck carburetor?	Check float mechanism.
Difficult to start, fuel is available, but no spark at spark plug.	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)
	ON/OFF switch is shorted?	Check switch wiring, replace switch.
	Ignition coil defective?	Replace ignition coil.
Difficult to start, fuel is available, and spark is present at the spark plug.	Improper spark gap, points dirty?	Set correct spark gap and clean points.
procent at the opart plag.	Condenser insulation worn or short circuiting?	Replace condenser.
	Spark plug wire broken or short circuiting?	Replace defective spark plug wiring.
	Wrong fuel type?	Flush fuel system, replace with correct type of fuel.
Difficult to start, fuel is available, spark is present and compression is normal.	Water or dust in fuel system?	Flush fuel system.
present and compression is normal.	Air cleaner dirty?	Clean or replace air cleaner.
	Choke open?	Close choke.
	Suction/exhaust valve stuck or protruded?	Reseat valves.
Difficult to start fuel is sucilable spark is	Piston ring and/or cylinder worn?	Replace piston rings and/or piston.
Difficult to start, fuel is available, spark is present and compression is low.	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 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.
No fuel present at carburetor.	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	
	Air cleaner dirty?	Clean or replace air cleaner.	
Weak in power, compression is proper and	Improper level in carburetor?	Check float adjustment, rebuild carburetor.	
does not misfire.	Defective spark plug?	Clean or replace spark plug.	
	Improper spark plug?	Set to proper gap.	
Weak in power, compression is proper but	Water in fuel system?	Flush fuel system and replace with correct type of fuel.	
misfires.	Dirty spark plug?	Clean or replace spark plug.	
	Ignition coil defective?	Replace ignition coil.	
	Spark plug heat value incorrect?	Replace with correct type of spark plug.	
	Wrong type of fuel?	Replace with correct type of fuel.	
Engine overheats.	Cooling fins dirty?	Clean cooling fins.	
Lingine overheats.	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.	
	Governor adjusted incorrectly?	Adjust governor.	
Rotational speed fluctuates.	Governor spring defective?	Replace governor spring.	
	Fuel flow restricted?	Check entire fuel system for leaks or clogs.	
Descil starter malfunctions (if applicable)	Recoil mechanism clogged with dust and dirt?	Clean recoil assembly with soap and water.	
Recoil starter malfunctions. (if applicable)	Spiral spring loose?	Replace spiral spring.	
	Loose, damaged wiring?	Ensure tight, clean connections on battery and starter.	
Starter malfunctions.	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.	
Burns too much uer.	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.	
Exhaust color is continuously white .	Worn rings?	Replace rings.	
	Air cleaner clogged?	Clean or replace air cleaner.	
	Choke valve set to incorrect position?	Adjust choke valve to correct position.	
Exhaust color is continuously "black".	Carburetor defective, seal on carburetor broken?	Replace carburetor or seal.	
	Poor carburetor adjustment, engine runs too rich?	Adjust carburetor.	
	ON/OFF device not activated ON?	Turn on ON/OFF device.	
Will not start, no power with key "ON". (if applicable)	Battery disconnected or discharged?	Check cable connections. Charge or replace battery	
	Ignition switch/wiring defective?	Replace ignition switch. Check wiring.	

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

<u>NO.</u>	PART NO.	PART NAME	<u>QTY.</u>	REMARKS
1	12345	BOLT	1	INCLUDES ITEMS W/%
2%				NOT SOLD SEPARATELY
2%	12347	WASHER, 3/8 IN	l1	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.

MVH308GH PLATE COMPACTOR WITH HONDA GX270UT2SMXC GASOLINE ENGINE

1 to 5 units

Qty.	P/N	Description
3	.070200453	V-BELT
5	.0650140480	.SPARK PLUG
1	.28462ZE2W11	ROPE, RECOIL STARTER
5	.17210ZE3505	ELEMENT, AIR CLEANER
1	.17620Z4H900	. CAP, FUEL TANK
1	.17672Z4H000	FUEL FILTER, FUEL TANK
4	.939010260	SHOCK ABSORBER

NOTICE

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

DECAL AND NAMEPLATE ASSY.


DECAL AND NAMEPLATE ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	920204580	DECAL, FULL THROTTLE	1	
2	920203330	EAR PROTECTION LABEL	1	
3	920211060	DECAL, CAUTION (LEVER)	1	
4	920211090	DECAL, SHELL TELLUS OIL 32	1	
5	920201950	DECAL, OIL SAE 10W-30	1	
8	920214100	DECAL, E/G FIRE WARNING	1	
12	920217130	DECAL, MIKASA MARK (W) 200L	2	
13	920217110	DECAL, MIKASA MARK 35X70	2	
14	920201580	DECAL, MQ MARK 71X55	1	
15	920218390	DECAL, CAUTION	1	
15-1	920214730	DECAL, DO NOT LIFT	1	
15-2	920214740	DECAL, LIFTING POSITION	1	
16	920205860	DECAL, V-BELT HDPF-5450	1	
17	920218130	DECAL, E/G RPM 3600	1	
18	920217870	DECAL, MODEL MVH-308	1	
19	920217730	DECAL, MODEL MVH-308 R-OR	2	
20	920217740	DECAL, MODEL MVH-308 L-OR	1	
21		PLATE, SERIAL NO. 308GH/MQ	1	CONTACT MQ PARTS DEPT.

VIBRATING PLATE ASSY.



VIBRATING PLATE ASSY.

<u>NO.</u>	PART NO.	PART NAME	QTY.	REMARKS
1	467121090	VIBRATING PLATE	1	
2	465460670	OIL GAUGE	1	
3	953402930	COPPER PACKING	1	
4	953400270	PLUG 1/4X14	1	
5	953405260	PACKING 1/4	1	
6	939010260	SHOCK ABSORBER	4	
7	020316130	NUT M16	4	
8	030216400	WASHER, LOCK M16	4	
9	001221635	BOLT 16X35	4	
10	030216400	WASHER, LOCK M16	4	
11	001221830	BOLT 18X30	8	
12	58407	WASHER, LOCK M18	8	REPLACES 030218460
14	939010010	SHOCK ABSORBER, STOPPER	4	
15	020310080	NUT M10	4	
16	030210250	WASHER, LOCK M10	4	
18	467351780	COVER, VIBRATING PLATE BOLT 8X20	2	
19	014208020	BOLT 8X20	8	REPLACES 001220820
20	030208200	WASHER, LOCK M8	8	
22	467351790	COVER, VIBRATOR	1	
23	050103250	O-RING	1	
24	014208020	O-RING BOLT 8X20		REPLACES 001220820
25	030208200	WASHER, LOCK M8	18	
30	467219050	EXTENSION PLATE	2	
31	012218050	EXTENSION PLATE BOLT 18X50	8	REPLACES 001221850
32	58407	WASHER, LOCK M18	8	REPLACES 030218460



VIBRATOR ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	047920120		4	
2	457212410	ROTARY SHAFT, DRIVE KEY 15X10X39	1	REPLACES 456331060
3	951405370	KEY 15X10X39	1	
4	456327150	GEAR, DRIVE	1	
5	080200550	STOP RING	2	
6	464343700	ECCENTRIC ROTATOR	4	
7	009120301	SOCKET HEAD BOLT 16X40	2	
8	060105030	OIL SEAL	1	
11	456337670	ROTARY SHAFT, DRIVEN	1	
12	009120302	SOCKET HEAD BOLT 16X30	2	
13	456337380	PISTON ROD	1	
14	456010010	KNOCK PIN 10X70	1	
15	467351910	GEAR, DRIVEN	1	
16	040006911	BEARING	2	
17	953010030	SEAL CAP BEARING STOP RING	1	
20	042506000	BEARING	2	
21	0080000010	STOP RING	1	REPLACES 080200100
22	455435051	PISTON	1	
23	455010070	PACKING	1	
24	080100260	STOP RING	1	
27	467352540	BEARING COVER	1	
28	467219070	CYLINDER (R)	1	
29	954010020	CONNECTOR PT, PF1/4	1	
30	050101050	O-RING	2	
31	001720812	FLANGE BOLT 8X12	1	
32	953404600	COPPER PACKING 8X16X2	1	
33	959408880	CLIP	1	
34	0105091025	BOLT 10X25		REPLACES 001221025
35	030210250	WASHER, LOCK M10	8	
36	031110160	WASHER, FLAT M10	8	
40	467351940		1	
41	951404970	KEY 12X8X30 R	1	
42	464457370	WASHER	1	
43	012012030	BOLT 12X30]	REPLACES 001221230
44	030212300	WASHER, LOCK M12	1	
46	467351920	GUIDE, BELT COVER BOLT 8X20	1	
47	014208020			REPLACES 001220820
48	030208200	WASHER, LOCK M8	2	
49 51	0401450080	WASHER, FLAT M8	2 1	REPLACES USI 100160
51	467218890	BELT COVER, LOWER	•	
52	001520852	SOCKET HEAD BOLT 8X60	5	

BASE AND ENGINE ASSY.



BASE AND ENGINE ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	467121160	BACE	1	
2	912227007	ENGINE ASSY.	1	
3	0105051045	ENGINE ASSY. BOLT 10X45	4	REPLACES 001221045
4	030210250	WASHER, LOCK M10	4	
5	031110160	WASHER, FLAT M10	4	
7	467351850	BELT COVER, IN	1	
8	009110071	SOCKET HEAD BOLT 10X25	4	
11	467218860	DUST COVER	1	
12	092006010	FLAT HEAD SCREW 6X10	4	
14	952408810	SPACER	1	
15	456343340	CLUTCH ASSY.	1	
16	951400110	KEY 7X7X35	1	
17	952400690	WASHER	1	
18	011208030	WASHER BOLT 8X30	1	REPLACES 001220830
19	030208200	WASHER, LOCK M8	1	
22	070200453	V-BELT B-45	1	
24	954407310	UNION, DRAIN	1	
25	0091720000	HOSE CLAMP	2	
26	0211140020	GASKET	2	
27	0401140030	PLUG	1	
28	465459390	DRAIN HOSE	1	
29	464457380	DRAIN JOINT	1	
30	014208020	DRAIN HOSE DRAIN JOINT BOLT 8X20 T	1	REPLACES 001220820
31	030208200	WASHER, LOCK M8	1	
33	467121100	BELT COVER (OUT)	1	
34	467351800	DUST SPONGE (OUT)	1	
35	001521053	SOCKET HEAD BOLT 10X65	4	
37	467351810	FRONT BUMPER	1	
38	001521435	SOCKET HEAD BOLT 14X35	2	
39	030214350	WASHER, LOCK M14	2	
40	467121130	FRONT COVER	1	
41	001221445	BOLT 14X45	4	
42	030214350	WASHER, LOCK M14	4	
43	031114260	WASHER, FLAT M14	4	
45	467121140	CENTER COVER	1	
46	001521435	SOCKET HEAD BOLT 14X35	4	
47	031114260	WASHER, FLAT M14	4	
48	030214350	WASHER, LOCK M14	4	
49	020314110	NUT M14	4	
51	467466800	RUBBER COVER, UPPER	1	

BASE AND ENGINE ASSY. (CONTINUED)



BASE AND ENGINE ASSY. (CONTINUED)

<u>NO.</u>	PART NO.	PART NAME	<u>QTY.</u>	REMARKS
52	467466810	STOPPER, COVER	1	
53	009120424	SOCKET HEAD BOLT 6X25	2	
54	617465130	COLLAR	2	
55	030206150	WASHER, LOCK M6	2	
56	022710607	NYLON NUT M6	2	
61	90131ZE3790	DRAIN JOINT	1	
62	031112230	WASHER, DRAIN PLUG M12	1	REPLACES 9410912000
65	402010110	COIL SPRING	1	REPLACES 0830000010
66	58151	WASHER, FLAT M5	1	REPLACES 031105080
67	2067550101	CLAMP COMPL	1	
69	959407260	CLIP	1	
70	012210015	BOLT 10X15	1	REPLACES 001221015
71	030210250	WASHER, LOCK M10	1	

ELECTRICAL DEVICE ASSY.



ELECTRICAL DEVICE ASSY.

NO.	PART NO.	PART NAME	<u>QTY.</u>	REMARKS
18	467218910	REAR COVER	1	
19	001220610	BOLT 6X10	8	REPLACES 001220610
20	030206150	WASHER, LOCK M6	8	
21	009120413	SUNK HEAD BOLT 6X15	6	
22	030206150	WASHER, LOCK M6	6	
23	020306050	SUNK HEAD BOLT 6X15 WASHER, LOCK M6 NUT M6	6	REPLACES 020306050
25	467466950	RUBBER COVER, REAR	1	
26	009110062	SOCKET HEAD SCREW 6X20	3 3	
27	022710607	NYLON NUT M6	3	
75	515010070	GROMMET	1	
90	009110072	PAN HEAD SCREW 5X35	2	
91	952407930	COLLAR 6X10X13.5 WASHER, FLAT M5	2	
92	031105080	WASHER, FLAT M5	2	REPLACES 031105080
93	030205130	WASHER, LOCK M5	2	
94	022710506	NYLON NUT M5	2 1	
96	955010311	TACHO/HOUR METER	1	
100	955010307	CLIP BELT	1	
101	955010308	CURL CORD	1	
102	959026828	RUBBER TUBE	1	
103	955407970	WIRING FIXED BASE	3 3	
104	454010020	CLAMP	3	
105	2067550101	CLAMP COMPL	1	
106	955301010	STOP, SWITCH, ENGINE	1	INCLUDES ITEMS W/ \$
107\$	617465210	LEAD WIRE	1	
108\$	467466980	LEVER, THROTTLE	1	
109	030208200	LEVER, THROTTLE WASHER, LOCK M8 NUT M8	1	
110	020308060		1	REPLACES 020308060
111\$	959021812	SPIRAL TUBE	1	
112	515450380	WIRE HARNESS	1	
113	955407970	WIRING FIXED BASE	3 3	
114	454010020	CLAMP	3	



CONTROL ASSY.

NO. PART NO. PART NAME QTY. REMARKS 1 467351950 HANDLE BRACKET (R) 1 1 2 467351960 HANDLE BRACKET (L) 1 1 3 012212035 BOLT 12X35	
2 467351960 HANDLE BRACKET (L) 1 3 012212035 BOLT 12X35 4 1 4 030212300 WASHER, LOCK M12 4 4	
4 030212300 WASHER, LOCK M12 4	
4 030212300 WASHER, LOCK M12 4	ō
5 031112230 WASHER, FLAT M12 4 7 456336400 RUBBER COUPLING 2 8 456449940 SHOCK ABSORBER 2 9 025306016 SPBING PIN 6X16 2 BEPLACES 025406016	
7 456336400 RUBBER COUPLING 2 8 456449940 SHOCK ABSORBER 2 9 025306016 SPBING PIN 6X16 2 BEPLACES 025406016	
8 456449940 SHOCK ABSORBER 2 9 025306016 SPRING PIN 6X16 2 REPLACES 025406016	
9 025306016 SPRING PIN 6X16 2 REPLACES 025406016	
	3
10 456449930 RUBBER PLATE 2	
11 032124400 CONICAL WASHER, LOCK M24 2	
12 001221681 BOLT 16X250 1	
13 0401450160 WASHER, FLAT M16)
14 020316130 NUT M16 1	
15 020416100 NUT M16 1	
16 467121180 COLUMN, HANDLE BAR 1	
18 455434950 SPINDLE 1	
19 455010030 KNOB 1	
20 020412070 NUT M12 1	
21 022411635 WING NUT M16 1	
22 939010060 SHOCK ABSORBER 1	
22 939010060 SHOCK ABSORBER 1 23 020310080 NUT M10 1)
25 959408930 CLIP 15(M6) 1 26 011206020 BOLT 6X20)
27 030206150 WASHER, LOCK M6 1	
27 030206150 WASHER, LOCK M6 1 28 952404470 WASHER, FLAT M6 1 29 020106050 NUT M6 1)
29 020106050 NUT M6)
34 501402870 HANDLE STOPPER 1	
35 501402880 SPRING, HANDLE 1	
35 501402880 SPRING, HANDLE 1 36 959403460 BALL GRIP 1 37 020310080 NUT M10 1	
37 020310080 NUT M10)
38 456449980 BUBBER PACKING 1	
39 953405260 PACKING 1/4, COOPER 1	
40 031110160 WASHER, FLAT M10 1	
43 467351980 HANDLE COVER 1	
44 467467340 PACKING (L), HANDLE 1	
45 467467350 PACKING (R), HANDLE 1	
46 0105050616 BOLT 6X15	ō
47 030206150 WASHER, LOCK M6 6	
48 952404470 WASHER, FLAT M66)
49 464457930 RUBBER PIECE 1	
50 467219140 HYDRAULIC PUMP 1	

CONTROL ASSY. (CONTINUED)



CONTROL ASSY. (CONTINUED)

NO.	PART NO.	PART NAME	QTY.	REMARKS
51	954003110	OIL HOSE	1	
52	458451630	BREATHER CAP	1	
53	959021813	SPIRAL TUBE	1	
55	464216630	TRAVEL LEVER	1	
56	464457400	HANDLE BOSS	1	
57	012010030	BOLT 10X30		REPLACES 001221030
58	030210250	WASHER, LOCK M10	2	
59	467218900	HANDLE W/ RUBBER COVER GRIP	1	
60	030210250	WASHER, LOCK M10	2	
61	031110160	WASHER, FLAT M10	2	
62	020310080	NUT M10	2	
63	0105091025	BOLT 10X25	2	REPLACES 001221025
64	030210250	WASHER, LOCK M10	2	
67	467466960	LEVER, THROTTLE	1	
68	959403840	BAR GRIP, I.D. 12MM	1	
69	464457420	COVER, THROTTLE LEVER ARM, THROTTLE	1	
70	464457350	ARM, THROTTLE	1	INCLUDES ITEMS W/ *
71	014208020	SOCKET HEAD BOLT 8X20	1	REPLACES 001520820
72-2*	0401450160	WASHER, FLAT M16	1	REPLACES 031116260
73-2*	458450660	WASHER	2	
74-2*	033910080	CONICAL WASHER, LOCK	3	
75	464457440	STEEL BALL	1	
76	464010010	DRY BUSHING	1	
77	011606025	DRY BUSHING BOLT 6X25	2	REPLACES 001220625
78	020106050	NUT M6	2	REPLACES 020306050
80	464010020	ROD END M5	1	
81	001520520	SOCKET HEAD BOLT 5X20	1	
82	58151	WASHER, FLAT M5	1	REPLACES 031105080
83	020305040	NUT M5	1	
84	956100070	THROTTLE WIRE 67.9 IN. (1725 MM)	1	
85	454010020	CLAMP	1	

HONDA GX270UT2SMXC ENGINE — CYLINDER HEAD ASSY.



HONDA GX270UT2SMXC ENGINE — CYLINDER HEAD ASSY.

<u>NO.</u> 1	<u>PART NO.</u> 12200Z5K405	PART NAME HEAD CP, CYLINDER	<u>QTY.</u> 1	REMARKS INCLUDES ITEMS W/ #
2#	12204ZE2306	GUIDE, IN. VALVE (OVERSIZE)	1	
3#	12205ZE2305	GUIDE, EX. VALVE (OVERSIZE)	1	
4#	12216ZE2300	CLIP, VALVE GUIDE	1	
5	12251Z5K003	GASKET, CYLINDER HEAD	1	
6	12310ZE3791	COVER COMP., HEAD	1	
7	12391ZE2020	PACKING, HEAD COVER	1	
8	90014Z5T000	BOLT, HEAD COVER	1	
9	90042ZE2000	BOLT, STUD 8X123	2	
10	90441ZE2010	WASHER COMP., HEAD COVER	1	
11	92900080320E	BOLT, STUD 8X32	2	
12	9430112200	PIN, DOWEL 12X20	2	
13	12315ZE3840	TUBE, BREATHER	1	
14	957011008000	BOLT, FLANGE 10X80	4	
15	0650140480	SPARK PLUG EY45V	1	
16	17316611000	CLIP, BREATHER TUBE	1	

HONDA GX270UT2SMXC ENGINE — CYL. BARREL ASSY.



HONDA GX270UT2SMXC ENGINE — CYL. BARREL ASSY.

<u>NO.</u>	PART NO.	PART NAME	<u>QTY.</u>	REMARKS
1	12000Z5K406	BARREL, ASSY., CYLINDER	1	INCLUDES ITEM W/ #
3	16541ZE2010	SHAFT, GOVERNOR ARM	1	
6	90131896650	BOLT, DRAIN PLUG	2	
7	90446KE1000	WASHER 8.2X17X0.8	1	
8#	91201Z1D003	OIL SEAL 30X46X8	1	
9	91353671003	O-RING 14MM	1	REPLACES 91353671004
10	9405010000	FLANGE NUT M10	1	
11	9410912000	WASHER, DRAIN PLUG M12	2	REPLACES 9410912000
12	9425110000	PIN, LOCK 10MM	1	
13	957010601200	FLANGE BOLT 6X12	2	
16	354800ZF6003	SWITCH ASSY., OIL LEVEL	1	

HONDA GX270UT2SMXC ENGINE — CRANKCASE COVER ASSY.



HONDA GX270UT2SMXC ENGINE — CRANKCASE COVER ASSY.

<u>NO.</u>	PART NO.	PART NAME	<u>QTY.</u>	REMARKS
1	11300Z1D810	COVER ASSY., CRANKCASE	1	INCLUDES ITEMS W/ \$
2	11381Z5K000	PACKING, CASE COVER	1	
3	15600Z0T820	CAP ASSY., OIL FILLER	1	INCLUDES ITEM W/ #
4	15600Z1C000	CAP ASSY., OIL FILLER	1	INCLUDES ITEM W/ #
5#	15625Z0T800	PACKING, OIL FILLER CAP	2	
6\$	16510ZE2000	GOVERNOR ASSY.	1	INCLUDES ITEM W/ %
7\$%	16511ZE2000	WEIGHT, GOVERNOR	2	
8\$%	16512ZE2000	HOLDER, GOVERNOR WEIGHT	1	
9\$%	16513ZE2000	PIN, GOVERNOR WEIGHT	2	
10\$	16531Z0A000	SLIDER, GOVERNOR	1	
11\$	90602ZE1000	CLIP, GOVERNOR HOLDER	1	
12	90701HC4000	PIN, DOWEL 8X12	2	
13\$	91201Z1D003	OIL SEAL 30X46X8	1	
14\$	58176	FLAT WASHER 6MM	1	REPLACES 9410106800
15	957010803500	FLANGE BOLT 8X35	7	
16\$	961006206000	BALL BEARING 6206	1	



HONDA GX270UT2SMXC ENGINE — CRANKSHAFT ASSY.

<u>NO.</u>	PART NO.	PART NAME	QTY.	REMARKS
1	13310ZH9010	CRANKSHAFT COMP	1	INCLUDES ITEM W/ #
7	90741889810	KEY 7X7X33	1	REPLACES 90741805000
8#	91001ZH9003	BEARING, BALL	1	
11	90534706010	WASHER, LOCK 8MM	1	
12	92101080250A	BOLT 8X25	1	



HONDA GX270UT2SMXC ENGINE — PISTON ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	13010Z5K004	RING SET, PISTON (STD)	1	
1	13011Z5K004	RING SET, PISTON 0.25 OS	1	
1	13012Z5K004	RING SET, PISTON 0.50 OS	1	
1	13013Z5K004	RING SET, PISTON 0.75 OS	1	
2	13101Z5K000	PISTON (STD)	1	
2	13102Z5K000	PISTON (0.25 OS)	1	
2	13103Z5K000	PISTON (0.50 OS)	1	
2	13104Z5K000	PISTON (0.75 OS)	1	
3	13111Z5K000	PIN, PISTON	1	
4	13200Z1D000	ROD ASSY., CONNECTING (STD)	1	INCLUDES ITEM W/ #
4	13200Z1D305	ROD ASSY., CONNECTING/0. 25UN	1	INCLUDES ITEM W/ #
5#	90001ZE8000	BOLT, CONNECTING ROD	2	
6	90551ZE1000	CLIP, PISTON PIN 18MM	2	



HONDA GX270UT2SMXC ENGINE — CAMSHAFT ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	12209ZE8003	SEAL, VALVE STEM	1	
3	14410Z10000	ROD, PUSH	2	
4	14431ZE2010	ARM, VALVE ROCKER	2	
5	14441ZE2000	LIFTER, VALVE	2	
6	14451ZE1013	PIVOT, ROCKER ARM	2	
8	14711Z5K900	VALVE, IN.	1	
9	14721Z5K900	VALVE, EX	1	
10	14751Z1C000	SPRING, VALVE	2	
11	14771Z8S000	RETAINER, VALVE SPRING	2	
13	14775ZE2010	SEAT, VALVE SPRING	1	
15	14791Z10000	PLATE, PUSH ROD GUIDE	1	
16	90012ZE0010	BOLT, PIVOT, 8MM	2	
17	90206ZE1000	NUT, PIVOT ADJUSTING	2	
19	14100Z5K910	CAMSHAFT CP/STD/PRESS FIT	1	



HONDA GX270UT2SMXC ENGINE — RECOIL STARTER ASSY.

<u>NO.</u>	PART NO.	PART NAME	QTY.	REMARKS
1	28400Z5K305ZB	RECOIL STARTER ASSY.]	INCLUDES ITEMS W/ #
2#	28410ZE2W01ZB	CASE COMP., RECOIL STARTER	1	
3#	28421ZE2W01	PULLEY, RECOIL STARTER	1	
4#	28422ZE2W01	RATCHET, STARTER	2	
5#	28441ZE2W01	SPRING, FRICTION	1	
6#	28442ZE2W01	SPRING, STARTER RETURN	1	
7#	28443ZE2W01	SPRING, RATCHET	2	
8#	28444ZE2W01	RETAINER, SPRING	1	
10#	28462ZE2W11	ROPE, RECOIL STARTER	1	
11#	90004ZE2W01	SCREW, CENTER	1	
12	957010601000	FLANGE BOLT 6X10	3	
13#	28461Z5T305	GRIP, STARTER	1	
14#	28463Z5T013	GRIP, REINFORCEMENT	1	



HONDA GX270UT2SMXC ENGINE — FAN COVER ASSY.

<u>NO.</u>	PART NO.	PART NAME	QTY.	REMARKS
2	19610Z5K000ZA	COVER, COMP FAN	1	
3	19631Z5KD00	SHROUD	1	
5	81329567020	GROMMET, DRAIN HOLE	1	
6	90013883000	FLANGE BOLT 6X12	6	



HONDA GX270UT2SMXC ENGINE — CARBURETOR ASSY.

<u>NO.</u>	PART NO.	<u>PART NAME</u> GASKET SET	<u>QTY.</u>	REMARKS
1\$% 2\$	16010ZE2812 16011ZA0931	VALVE SET, FLOAT	1	
2ψ 3\$	16013Z1C003	FLOAT SET	1	
4\$	16015Z5T901	CHAMBER SET, FLOAT	1	INCLUDES ITEM W/ %
5\$	16016ZH7W01			
6\$	16024Z5T901	SCREW SET, PILOT SCREW SET, DRAIN		INCLUDES ITEM W/ %
7\$	16028Z5T901	SCREW SET	1	
8\$	16044ZE2005	CHOKE SET	1	
9	16100Z5K702	CABURETOR ASSY. (BE75N A)	1	INCLUDES ITEM W/ \$
10\$	16124ZE0005	SCREW, THROTTLE STOP	1	
11\$	16166Z5K701	NOZZLE MAIN	1	
13\$	16955283000	PACKING, CUP	1	REPLACES 16173001004
				INCLUDES ITEM W/ %
14	16211ZE2010	INSULATOR, CARBURETOR	1	
15	16220ZA0702	SPACER COMP., CARBURETOR	1	
16 17	16221Z5K000		1	
17	16212Z5K000 16610ZE1000	PACKING, INSULATOR CHOKE LEVER COMP.	1	
19\$	16953ZE1812	LEVER, COCK	I	INCLUDES ITEINI W/ #
20\$	16954ZE1812	PLATE, LEVER SETTING	1	
21\$	16956ZE1811		1	
22\$	16957ZE1812	PACKING, FUEL COCK		INCLUDES ITEM W/ %
23\$	16967ZE0811	CUP, FUEL STRAINER	1	
24\$	93500030060H	SCREW 3X6	2	
25#	9430520122	SPRING PIN 2X12	1	
26\$	99101ZH80920	JET, MAIN #92	1	
27\$	99204ZE20380	JET SET, PILOT, #38	1	INCLUDES ITEM W/ %
37\$	16959Z5T901	FILTER, CUP	1	



HONDA GX270UT2SMXC ENGINE — AIR CLEANER ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	16271ZE2010	PACKING, ELBOW	1	
2	17210ZE3505	AIR CLEANER ELEMENT	1	INCLUDES ITEMS W/ #
3#	17218ZE3505	FILTER, OUTER	1	
4\$	17219ZE3840	PACKING, AIR CLEANER COVER	1	
5	17230ZE3841	COVER CP, AIR CLEANER (CYCL)	1	
6#	17232891000	GROMMET, AIR CLEANER	1	
7\$	17238ZE2310	COLLAR, AIR CLEANER	2	
8\$	17239ZE3840	COLLAR B, AIR CLEANER	1	
9	17410ZE3841	ELBOW CP, AIR CLEANER	1	INCLUDES ITEMS W/ \$
10	17470ZE3842	CASE CP, PRE-AIR CLEANER	1	
11	17475ZE3841	CAP, PRE-AIR CLEANER	1	
12	17476ZE3841	GUIDE, PRE-AIR CLEANER	1	
13	90009Z1C000	BOLT, WASHER 6X22	1	
14	90142MB0000	SCREW, PAN 5X16.5	5	
15	90325044000	NUT, TOOL BOX SETTING	2	
16	9405006000	FLANGE NUT 6MM	2	


HONDA GX270UT2SMXC ENGINE — MUFFLER ASSY.

<u>NO.</u>	PART NO.	PART NAME	QTY.	REMARKS
1	18310Z5K010	MUFFLER COMP.	1	
2	18320Z5K000	PROTECTOR CP, MUFFLER	1	
3	18323ZE2W00	PROTECTOR, EXHAUST PIPE	1	
5	18331ZE3811	CAP, MUFFLER	1	
6	18331Z5T000	PIPE EXHAUST	1	
7	18333Z1C801	GASKET, EXHAUSTPIPE	1	
9	18350Z5T800	ARRESTER CP, SPARK	1	
10	18381ZE2W10	GASKET, MUFFLER (ARRESTER)	1	
12	90006ZE2000	TAPPING SCREW 6X10	1	
13	90013883000	FLANGE BOLT 6X12	1	
14	90050ZE1000	TAPPING SCREW 5X8	8	
15	90055ZE1000	TAPPING SCREW 4X6	3	
16	9405008000	FLANGE NUT M8	5	



HONDA GX270UT2SMXC ENGINE — FUEL TANK ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	16854ZH8000	RUBBER, SUPPORT (107MM)	1	
2	16955ZE1010	JOINT, FUEL TANK	1	
5#	17631Z0T801	PACKING, FUEL FILLER CAP	1	
7	91353671003	O-RING 14MM		REPLACES 91353671004
8	9405008000	FLANGE NUT M8	2	
9	91424Z5K003	TUBE, FUEL 4.5X210	1	
11	957010802500	FLANGE BOLT 8X25	2	
12	950024080008	CLAMP, TUBE (D8)	2	
21	17620Z4H900	FUEL TANK CAP CP.		INCLUDES ITEM W/ #
22	17672Z4H000	FILTER, FUEL	1	
27	17510Z5K000ZA	TANK, CP FUEL NH1	1	

HONDA GX270UT2SMXC ENGINE — FLYWHEEL ASSY.





HONDA GX270UT2SMXC ENGINE — FLYWHEEL ASSY.

<u>NO.</u>	PART NO.	PART NAME	QTY.	REMARKS
1	19511ZE2000	FAN, COOLING	1	
3	28451ZE2W01	PULLEY, STARTER	1	
4	31110Z5K000	FLYWHEEL, COMP.	1	
7	90201ZE3V00	NUT, SPECIAL 16MM	1	
8	90741ZE2000	KEY, SPECIAL WOODRUFF 25X18	1	



HONDA GX270UT2SMXC ENGINE — IGNITION COIL ASSY.

<u>NO.</u>	PART NO.	PART NAME	<u>QTY.</u>	REMARKS
2	30700Z1C811	CAP ASSY., NOISE SUPPRESOR	1	
4	31512ZE2000	GROMMET, CORD	1	
10	90015883000	FLANGE BOLT 6X28	2	
12	90684ZA0601	CLIP, HARNESS	1	
18	30500Z5K003	COIL ASSY., IGNITION	1	
19	32110Z5K000	HARNESS ASSY., E/G WIRE	1	



HONDA GX270UT2SMXC ENGINE — CONTROL ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	16551ZE2000	ARM, GOVERNOR	1	
2	16555ZE2000	ROD, GOVERNOR	1	
3	16561ZE2000	SPRING, GOVERNOR	1	
4	16562ZE2000	SPRING, THROTTLE RETURN	1	
8\$	16571ZE2W00	LEVER, CONTROL	1	
9\$	16574ZE1000	LEVER SPRING	1	
10\$	16575ZE2W00	WASHER, CONTROL LEVER	1	
12\$	16578ZE1000	SPACER, CONTROL LEVER	1	
13\$	16580Z5K000	BASE COMP., CONTROL	1	
14\$	16584883300	ADJUSTING SPRING	1	
15\$	16592883310	SPRING, CABLE RETURN	1	
17	90013883000	FLANGE BOLT 6X12	2	
18	90015Z5T000	BOLT, GOVERNOR ARM	1	
20\$	90114SA0000	LOCK NUT 6MM	1	
22\$	93500050280A	SCREW, PAN 5X28	1	
24	9405006000	FLANGE NUT 6MM	1	
27	16570Z5K308	CONTROL ASSY/REMOTE	1	INCLUDES ITEMS W/ \$
28\$	16576891000	HOLDER, CABLE	1	
29\$	16594883010	HOLDER, WIRE	1	
30\$	90605230000	CIR CLIP	1	
31\$	0043504060	SCREW 4X6	1	REPLACES 93500040060H
32\$	0202005T125	SCREW 5X16		



HONDA GX270UT2SMXC ENGINE — LABELS

<u>NO.</u>	PART NO.	PART NAME	QTY.	REMARKS
3	87521Z5K000	EMBLEM	1	
4	87528Z5T000	MARK, CHOKE (GRAY)	1	
5	87532ZH7000	MARK, THROTTLE INDICATION	1	
8	87535ZEl841	MARK, AIR CLEANER	1	
9	87516Z4H010	MARK, OP-CAUTION (ENGLISH)	1	
14	87539Z01000	MARK, EX. CAUTION (ENGLISH)	1	

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.
 - 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.
- 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.
 - 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.
- 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

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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		MQ Parts Department	
18910 Wilmington Ave. Carson, CA 90746 Contact: mq@multiquip.com	Tel. (800) 421-1244 Fax (310) 537-3927		Fax: 800-672-7877 Fax: 310-637-3284
Service Department		Warranty Department	
800-421-1244 310-537-3700	Fax: 310-537-4259	800-421-1244 310-537-3700	Fax: 310-943-2249
Technical Assistance			
800-478-1244	Fax: 310-943-2238		
CANADA		UNITED KINGDOM	
Multiquip		Multiquip (UK) Limited Hea	ad Office
4110 Industriel Boul. Laval, Quebec, Canada H7L 6' Contact: jmartin@multiquip.cor	()	Unit 2, Northpoint Industrial Es Globe Lane, Dukinfield, Cheshire SK16 4 Contact: sales@multiquip.co	Fax: 0161 339 3226 UJ

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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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