

# OPERATION & PARTS MANUAL



***Mikasa* SERIES**  
**MODEL MVH-200GH**  
**REVERSIBLE PLATE COMPACTOR**  
**(HONDA GASOLINE ENGINE)**

Revision #2 (09/22/06)

**THIS MANUAL MUST ACCOMPANY  
THE EQUIPMENT AT ALL TIMES.**

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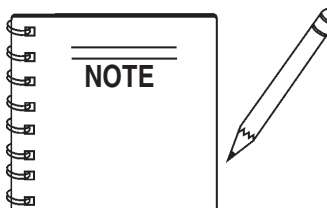
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***Specification and part number are subject to change without notice.***

# MVH-200GH — SPECIFICATIONS

**Table 1. MVH-200GH REVERSIBLE PLATE COMPACTOR SPECIFICATIONS**

|                       |                                |
|-----------------------|--------------------------------|
| Centrifugal Force     | 7,056 lbs. (3,200 kg)          |
| Vibration Frequency   | 5,200 vpm                      |
| Maximum Forward Speed | 75 ft/min (23 m/min)           |
| Plate Size (L x W)    | 27.6 x 20 in (70 x 51 cm)      |
| Operating Weight      | 423 lbs. (192 kg)              |
| Maximum Area Capacity | 7,515 sq. ft/hr (698 sq. m/hr) |
| HP Rating             | 8 BHP (5.9 kW)                 |

**Table 2. ENGINE SPECIFICATIONS**

| Engine                   | Model                | HONDA GX240K1SMX2                                                           |
|--------------------------|----------------------|-----------------------------------------------------------------------------|
|                          | Type                 | Air-cooled 4 stroke, Single Cylinder, OHV, Horizontal Shaft Gasoline Engine |
|                          | Bore X Stroke        | 2.90 in. X 2.30 in.<br>(73 mm x 58 mm.)                                     |
|                          | Displacement         | 14.81 cc                                                                    |
|                          | Max Output           | 8.0 H.P./3600 R.P.M.                                                        |
|                          | Fuel Tank Capacity   | 1.59 gallons (6 liters)                                                     |
|                          | Fuel                 | Unleaded Automobile Gasoline                                                |
|                          | Lube Oil Capacity    | 2.33 pints                                                                  |
|                          | Speed Control Method | Centrifugal Fly-weight Type                                                 |
|                          | Starting Method      | Recoil Start                                                                |
| Dimension<br>(L x W x H) |                      | 14.0 x 16.9 X 16.1 in.<br>(355 X 430 X 410 mm.)                             |
| Dry Net Weight           |                      | 55.1 lbs (25 Kg.)                                                           |

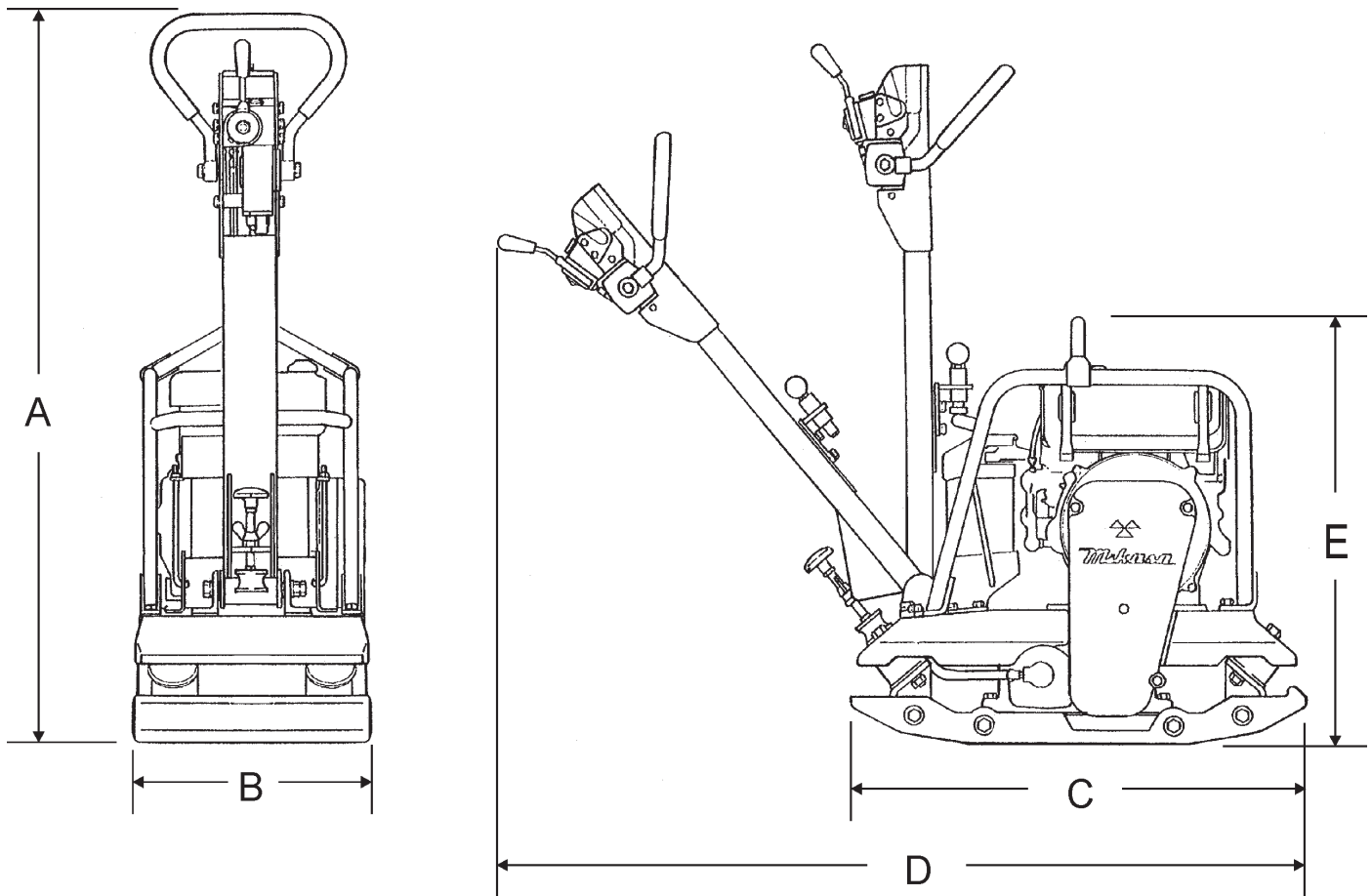


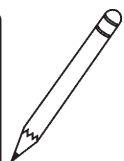
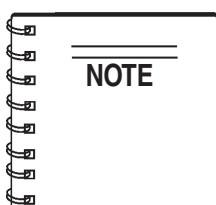
Figure 1. MVH-200GH Reversible Plate Compactor Dimensions

| TABLE 3. DIMENSIONS |                     |
|---------------------|---------------------|
| REFERENCE LETTER    | DIMENSIONS IN. (MM) |
| A                   | 49 in. (1245 mm.)   |
| B                   | 21 in. (533 mm.)    |
| C                   | 26.5 in. (673 mm.)  |
| D                   | 48 in. (1219 mm.)   |
| E                   | 31 in. (787 mm.)    |

# MVH-200GH — SAFETY MESSAGE ALERT SYMBOLS

## FOR YOUR SAFETY AND THE SAFETY OF OTHERS!

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.



This Owner's Manual has been developed to provide complete instructions for the safe and efficient operation of the Multiquip Model MVH-200GH Reversible Plate Compactor.

Refer to the engine manufacturer's instructions for data relative to its safe operation.

**Before using this reversible plate compactor, ensure that the operating individual has read and understands all instructions in this manual.**

## SAFETY MESSAGE ALERT SYMBOLS

The three (3) 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 three words: **DANGER**, **WARNING**, or **CAUTION**.

### **DANGER**

You **WILL** be **KILLED** or **SERIOUSLY** injured if you **DO NOT** follow directions.

### **WARNING**

You **CAN** be **KILLED** or **SERIOUSLY** injured if you **DO NOT** follow directions.

### **CAUTION**

You **CAN** be **INJURED** if you **DO NOT** follow directions.

Potential hazards associated with the operation of an **MVH-200GH Reversible Plate Compactor** will be referenced with Hazard Symbols which appear throughout this manual, and will be referenced in conjunction with Safety Message Alert Symbols.

## HAZARD SYMBOLS

### **WARNING - Lethal Exhaust Gasses**

Engine exhaust gases contain poisonous carbon monoxide. This gas is colorless and odorless, and can cause death if inhaled. **NEVER** operate this equipment in a confined area or enclosed structure that does not provide ample free flow air.



### **WARNING - Explosive Fuel**

**Gasoline** is extremely flammable, and its vapors can cause an explosion if ignited. **DO NOT** start the engine near spilled fuel or combustible fluids.



**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 approved containers, in well-ventilated areas and away from sparks and flames.

### **WARNING - Burn Hazards**

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



### **CAUTION - Respiratory Hazard**

**ALWAYS** wear approved **respiratory** protection when required.



## MVH-200GH — SAFETY MESSAGE ALERT SYMBOLS



### CAUTION - Rotating Parts

**NEVER** operate equipment with covers, or guards removed. Keep fingers, hands, hair and clothing away from all moving parts to prevent injury.

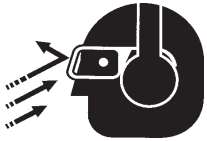


### CAUTION - Accidental Starting

**ALWAYS** place the power source, circuit breakers or **ON/OFF** switch in the **OFF** position, when the generator is not in use, unless connected to transfer switch.



### CAUTION - Sight and Hearing Hazards

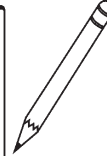
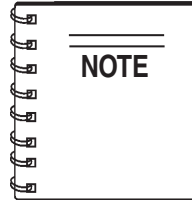


**ALWAYS** wear approved eye and hearing protection.



### CAUTION - Equipment Damage Messages

Other important messages are provided throughout this manual to help prevent damage to your light tower, other property, or the surrounding environment.



This reversible plate compactor, other property, or the surrounding environment could be damaged if you do not follow instructions.

# MVH-200GH — RULES FOR SAFE OPERATION



## WARNING - Read This Manual

Failure to follow instructions in this manual may lead to **Serious Injury** or even **Death**. This equipment is to be operated by trained and qualified personnel only! This equipment is for industrial use only.

The following safety guidelines should always be used when operating the Mikasa MVH-200GH Reversible Plate Compactor:

### Safety:

- **DO NOT** operate or service this equipment before reading this entire manual.

- This equipment should not be operated by persons under 18 years of age.

- **NEVER** operate this equipment without proper protective clothing, shatterproof glasses, steel-toed boots and other protective devices required by the job.



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



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



- **NEVER** use accessories or attachments, which are not recommended by Multiquip for this equipment. Damage to the equipment and/or injury to user may result.

- Manufacturer does not assume responsibility for any accident due to equipment modifications. Unauthorized equipment modification will void all warranties.

- Whenever necessary, replace nameplate, operation and safety decals when they become difficult read.

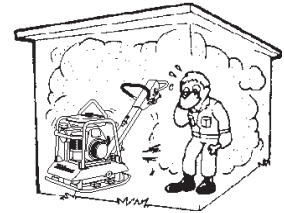
- **ALWAYS** check all the bolts on the light tower for tightness.

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



- **High Temperatures** – Allow the engine to cool before adding fuel or performing service and maintenance functions. Contact with *hot* components can cause serious burns.

- The engine of this reversible plate compactor requires an adequate free flow of cooling air. **NEVER** operate the reversible plate compactor in any enclosed or narrow area where free flow of the air is restricted. If the air flow is restricted it will cause serious damage to the reversible plate compactor or engine and may cause injury to people and property. Remember the vibration roller's engine gives off **DEADLY** gases.



- **ALWAYS** refuel in a well-ventilated area, away from sparks and open flames.

- **ALWAYS** use extreme caution when working with **flammable** liquids. When refueling, **stop the engine** and allow it to cool. **DO NOT smoke** around or near the machine. Fire or explosion could result from fuel vapors, or if fuel is spilled on a hot engine.



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

- Topping-off to filler port is dangerous, as it tends to spill fuel.

- **ALWAYS** store the reversible plate compactor in a clean, dry location out of the reach of children.

- **NEVER** run engine without air cleaner. Severe engine damage may occur.

- **NEVER** leave the reversible plate compactor unattended, turn off engine.

- **CAUTION** must always be observed while servicing this reversible plate compactor. Rotating parts can cause injury if contacted.

- **DO NOT** leave reversible plate compactor with engine running.

- **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.

# MVH-200GH — RULES FOR SAFE OPERATION

## Loading and Unloading (Crane):

- Before lifting, make sure that machine parts (hook and vibration insulator) are not damaged and screws are not loosened or lost.
- Always make sure crane or lifting device has been properly secured to the hook of guard frame on compactor.
- **NEVER** lift the machine while the engine is running.
- Use adequate lifting cable (wire or rope) of sufficient strength.
- Use one point suspension hook and lift straight upwards.
- **NEVER** allow any person or animal to stand underneath the machine while lifting.
- Try not to lift machine to unnecessary heights.

## TRANSPORTING

- **ALWAYS** shutdown engine before transporting.
- Tighten fuel tank cap securely and close fuel cock to prevent fuel from spilling.
- Drain fuel when transporting compactor over long distances or bad roads.
- **ALWAYS** tie down the compactor during transportation by securing the compactor's guard frame with rope.

## Maintenance Safety:

- **NEVER** lubricate components or attempt service on a running machine.
- **ALWAYS** allow the machine a proper amount of time to cool before servicing.
- Keep the machinery in proper running condition.
- Fix damage to the machine immediately and always replace broken parts.
- 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.

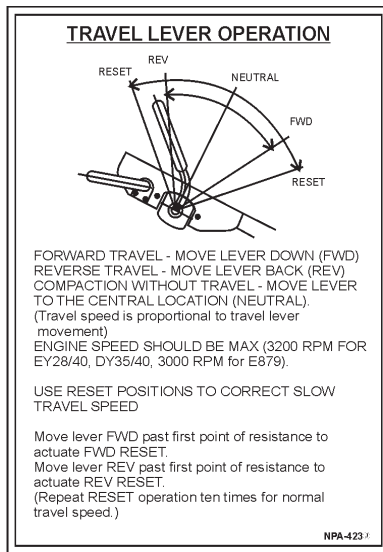
## Emergencies:

- **ALWAYS** know the location of the nearest **fire extinguisher**.
- **ALWAYS** know the location of the nearest **first aid kit**.
- In emergencies **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.



# MVH-200GH — OPERATION AND SAFETY DECALS

Figure 2 displays the operation and safety decals as they appear on the reversible plate compactor. Should any of these decals become damaged or unreadable, contact the Multiquip Parts Department for a replacement set.



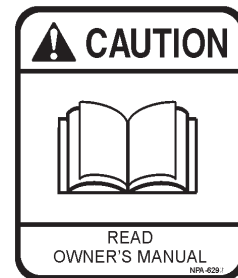
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P/N: TBD



P/N: 920206290



P/N: 920206880



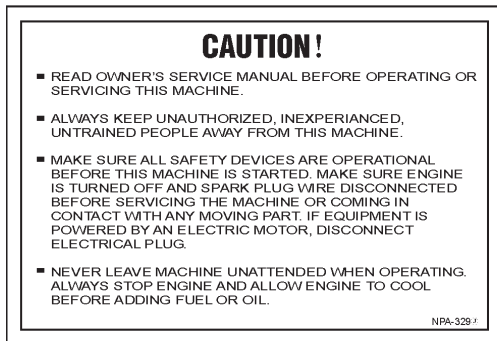
P/N: 920203260



CONTACT  
PARTS DEPT.



P/N: 920206280



P/N: 920203290



P/N: 920203560



P/N: 920202220



P/N: 920203330



P/N: 920204580

Figure 2. Operation and Safety Decals

### Plate Compactor

The Mikasa MVH-200GH is a walk behind, reversible plate compactor designed for the compaction of sand, clay and asphalt. This plate compactor is a powerful compacting tool capable of applying a tremendous force in consecutive high frequency vibrations to a soil surface. Its applications include soil compacting for road, embankments and reservoirs as well as backfilling for gas pipelines, water pipelines and cable installation work.

### Vibratory Plates

The vibratory plates of the MVH-200GH produce low amplitude high frequency vibrations, designed to compact granular soils.

The resulting vibrations cause forward motion. The engine and handle are vibration isolated from the vibrating plate. The heavier the plate, the more compaction force it generates.

### Reversible Vibratory Plates

Reversible vibratory plates have two eccentric weights that allow a smooth transition for forward and reverse travel, plus increased compaction force as the result of dual weights.

Due to their weight and force, reversible plates are ideal for semi-cohesive soils.

### Frequency/Speed

The compactor's vibrating plate maximum frequency is 5200 vpm (vibrations per minute). The forward and reverse travel speed of the compactor is approximately 75 ft./minute (23 meters/minute).

### Engine

The Mikasa MVH-200GH Plate Compactor is equipped with an air-cooled, 4-stroke, single-cylinder HONDA GX240K1SMX2 gasoline engine.

### Controls

Before starting the MVH-200GH Plate Compactor, identify and understand the function of the controls and components as indicated in Figure 3.

## MVH-200GH — PLATE COMPACTOR COMPONENTS

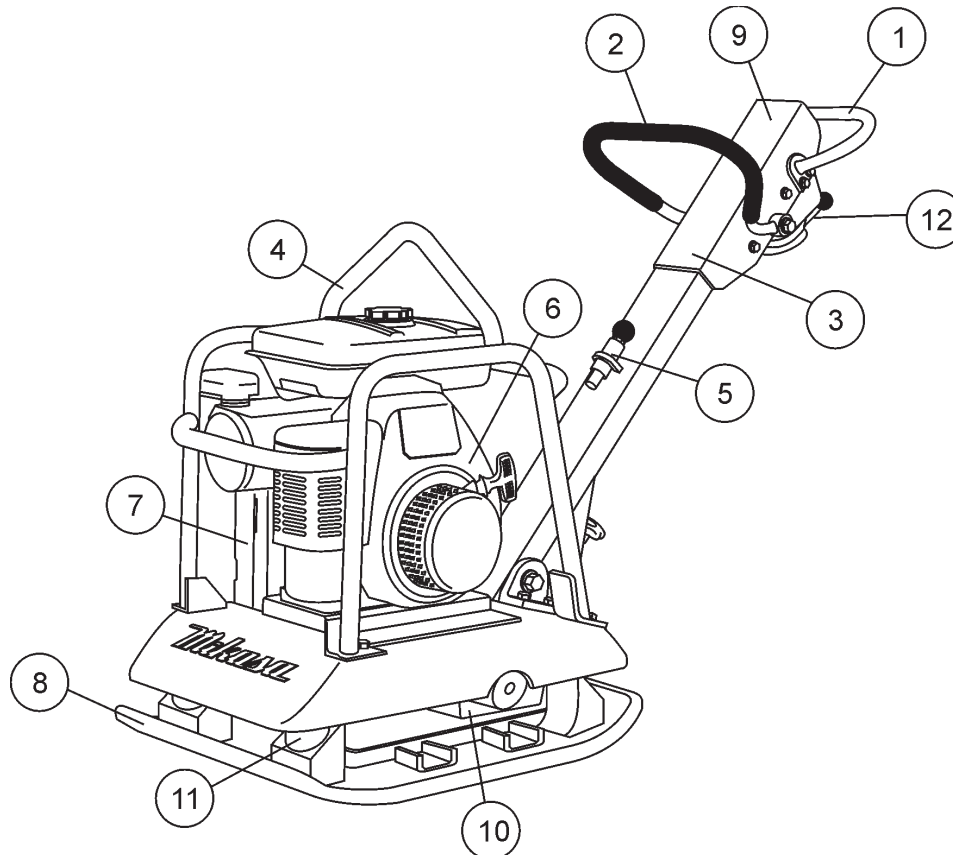
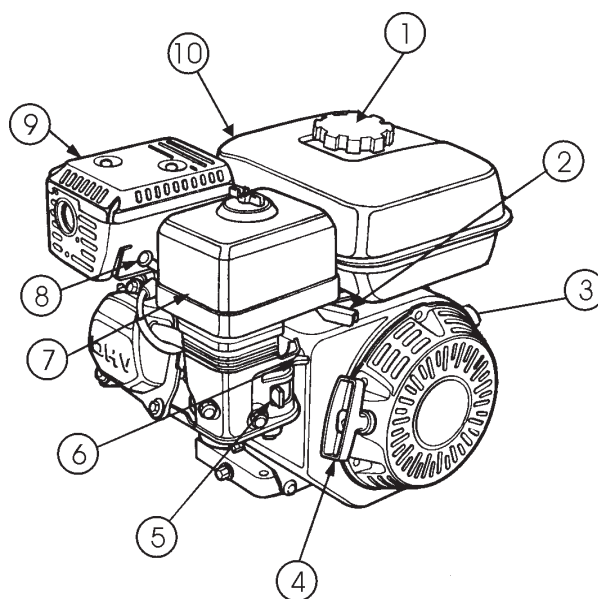


Figure 3. MVH-200GH Components

Figure 3 illustrates the location of the major components for the MVH-200GH Reversible Plate Compactor. The function of each component is described below:

1. **Hand Grip** – When operating the compactor use this hand grip to maneuver the compactor.
2. **Forward & Reverse Lever** – **Push** the lever forward, the compactor will move in a forward direction, **pull** the lever backwards, the compactor will move in backwards direction. Placing the lever in the middle (midway) will cause the compactor not to move (neutral).
3. **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.
4. **Guard Hook** - Used to lift the machine with crane or other lifting device.
5. **Stopper** - Locks the handle in place in the upward position for stowing.
6. **Engine** – This plate compactor uses a **HONDA GX240K1SMX2** engine. Refer to the owner's manual for engine information and related topics.
7. **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 exist that your hand may get caught between the V-belt and clutch, thus causing serious injury and bodily harm.
8. **Base Plate** – Designed to compact sand, clay, and asphalt.
9. **Oil Tank** – Fill with proper grade of engine oil.
10. **Vibration Case** – Encloses the eccentric, gears and counter weights.
11. **Shock Absorber** – Protects plate compactor from damage by absorbing vibration during operation.
12. **Throttle Lever** – Controls the speed of the plate compactor. Place straight vertically to start, push fully counterclockwise for full throttle and fully clockwise to stop plate compactor.



**Figure 4. Engine Controls and Components**

The engine shown above is a **HONDA GX240K1SMX2** engine (Figure 4). The engine must be checked for proper lubrication and filled with fuel prior to operation. Refer to the manufacturers engine manual for instructions & details of operation and servicing.

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

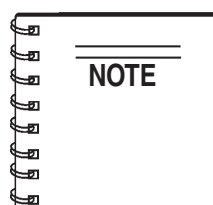
## CAUTION - Fueling The Engine

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



2. **Throttle Lever** – Used to adjust engine RPM speed (lever advanced forward **SLOW**, lever back toward operator **FAST**).
3. **Engine ON/OFF Switch** – ON position permits engine starting, OFF position stops engine operations.
4. **Recoil Starter (pull rope)** – Manual-starting method. Pull the starter grip until resistance is felt, then pull briskly and smoothly.
5. **Fuel Valve Lever** – **OPEN** to let fuel flow, **CLOSE** to stop the flow of fuel.

6. **Choke Lever** – Used in the starting of a cold engine, or in cold weather conditions. The choke enriches the fuel mixture.
7. **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.



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.

8. **Spark Plug** – Provides spark to the ignition system. Set spark plug gap to 0.6 - 0.7 mm (0.028 - 0.031 inch) Clean spark plug once a week.
9. **Muffler** – Used to reduce noise and emissions.

## CAUTION - Burn Hazard

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



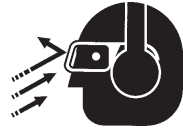
10. **Fuel Tank** – Holds unleaded gasoline. For additional information refer to engine owner's manual.

## CAUTION - General Safety Precautions

**NEVER** operate the compactor in a confined area or enclosed area structure that does not provide ample **free flow of air**.



**ALWAYS** wear approved eye and hearing protection before operating the compactor.



### Before Starting:

1. Read safety instructions at the beginning of manual.
2. Remove dirt and dust, particularly in 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 filler dipstick from the engine oil filler hole (Figure 5) and wipe clean.

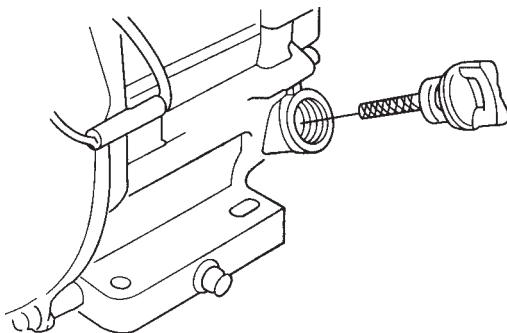


Figure 5. Engine Oil Dipstick (Removal)

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 6), fill to the edge of the oil filler hole with the recommended oil type (Table 4). Maximum oil capacity is 1.16 quarts (1.1 liters).

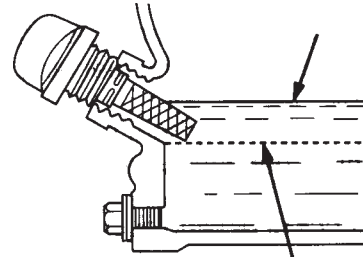


Figure 6. Engine Oil Dipstick (Oil Level)

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    |

## WARNING - Explosive Fuel

**Gasoline** is extremely flammable, and its vapors can cause an explosion if ignited. **DO NOT** start the engine near spilled fuel or combustible fluids. **DO NOT** smoke while refueling. **DO NOT** attempt to refuel the pump if the engine is **hot!** or **running**.



### Fuel Check:

1. Remove the gasoline cap located on top of fuel tank.
2. Visually inspect to see if the fuel level is low. If fuel is low, replenish with unleaded fuel.
3. When refueling, be sure to use a strainer for filtration. **DO NOT** top-off fuel. Wipe up any spilled fuel **immediately!**

# MVH-200GH — START-UP PROCEDURES

This section is intended to assist the operator with the **initial start-up** 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 (Honda engine):

1. Place the engine **fuel valve lever** (Figure 7) to the "ON" position.

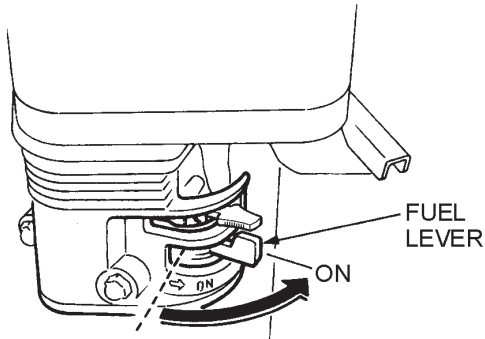


Figure 7. Engine Fuel Valve Lever (ON Position)

2. Move the throttle lever to the **START** position by opening it to about 20 degrees (Figure 8).

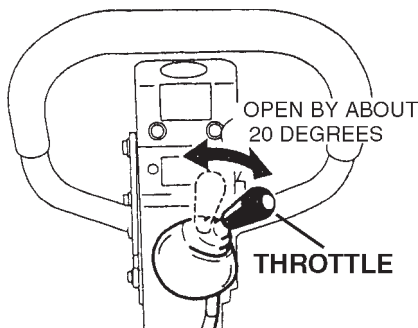


Figure 8. Throttle Lever (Start Position)

3. Place the **choke lever** (Figure 9) in the "OPEN" position if starting a **cold** engine.

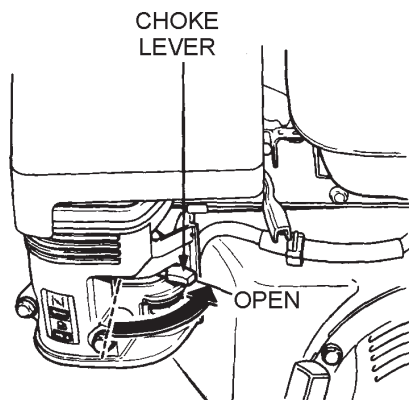


Figure 9. Engine Choke Lever (Open)

4. Place the **choke lever** (Figure 10) in the "CLOSED" position if starting a **warm engine** or the **temperature is warm**.

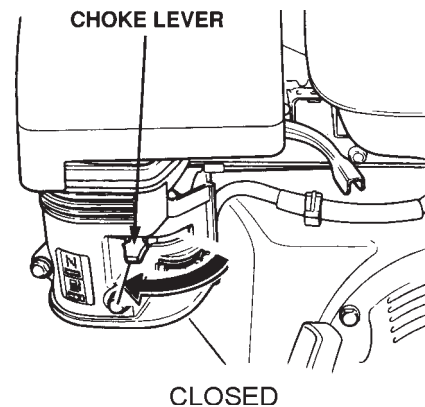


Figure 10. Engine Choke Lever (Closed)

5. Place the **engine ON/OFF switch** (Figure 11) in the "ON" position.

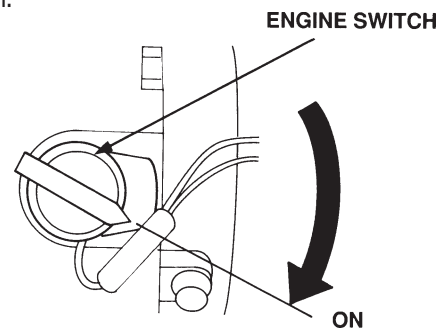


Figure 11. Engine ON/OFF Switch (ON Position)

6. Grasp the starter grip (Figure 12) and slowly pull it out. The resistance becomes the hardest at a certain position, corresponding to the compression point. Pull the starter grip briskly and smoothly for starting.

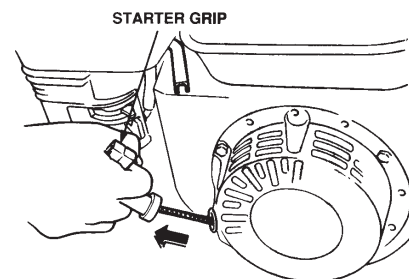


Figure 12. Starter Grip

## MVH-200GH — START-UP/SHUT-DOWN PROCEDURES

7. If the engine has started, slowly return the choke lever (Figure 13) to the **CLOSED** position. If the engine has not started repeat steps 1 through 6.

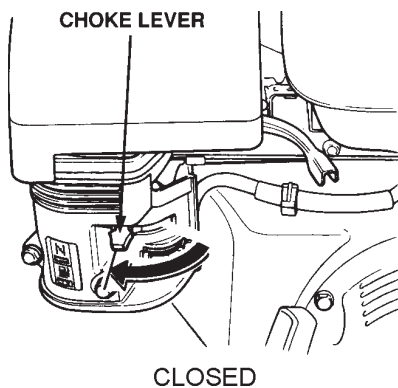


Figure 13. Choke Lever (Closed)

8. Before the compactor is placed into operation, run the engine for several minutes. Check for fuel leaks, and noises that would be associated with a loose component.

### Shut-Down Procedure:

1. Return the throttle lever to the **START** position. Allow the machine to cool down for 2 to 3 minutes.
2. Turn the **throttle lever** to the **STOP** position (Figure 16) to stop the engine. In a motor start, return the key switch to the **STOP** position (Figure 14) as soon as the engine stops.

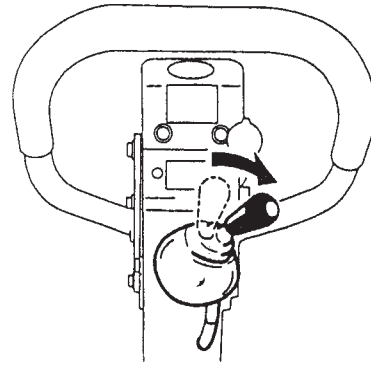


Figure 14. Throttle Lever (Stop)

3. Turn the **engine ON/OFF** switch to the **OFF** position (Figure 15).

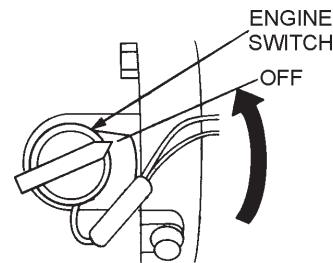


Figure 15. Engine ON/OFF Switch (OFF)

4. Place the **fuel shut-off lever** (Figure 16) in the **OFF** position.

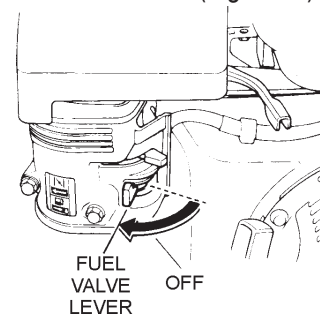


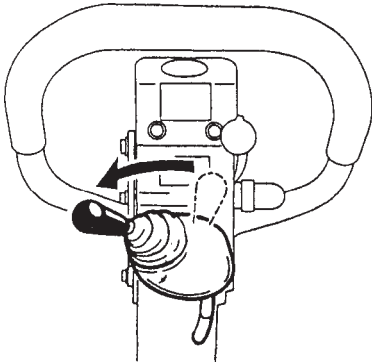
Figure 16. Fuel Valve Lever (OFF)

### Emergency Shutdown Procedure:

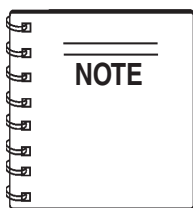
1. Move the throttle lever quickly to the **STOP** position (Figure 14).
2. Place the engine **ON/OFF** switch in the **OFF** position (Figure 15).

## Traveling:

1. Grasp the compactor's hand grip and move the throttle lever (Figure 17) quickly to the **fast** position. The compactor will not operate correctly until the engine speed is high enough to engage the centrifugal clutch (approximately 2300 RPMs)

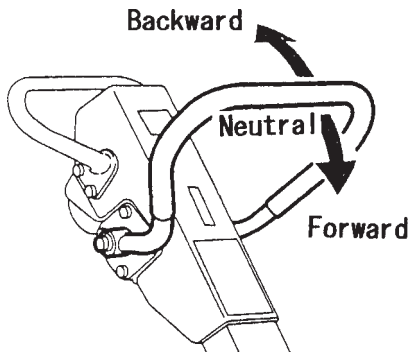


**Figure 17. Throttle Lever (Fast)**



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

2. To make the compactor travel forwards, push the travel lever forward (Figure 18). To make the compactor travel backward, pull the travel lever back (Figure 18).

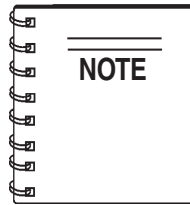


**Figure 18. Travel Lever**

5. 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.
6. If travel lever is placed in the neutral position, the machine will vibrate in place.

## To Turn The Compactor:

1. Move the **travel lever** to the **NEUTRAL** position.
2. Hold the hand grip firmly and turn the compactor in the desired direction. **DO NOT** swing compactor while gripping the travel lever.



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

## Adjusting Handle Height:

The height of the handle is adjustable for your comfort .

1. Loosen the butterfly screw (Figure 19).
2. Turn the grip clockwise to raise the handle or counterclockwise to lower the handle.
3. When the handle is raised to the desired height, tighten the butterfly screw.

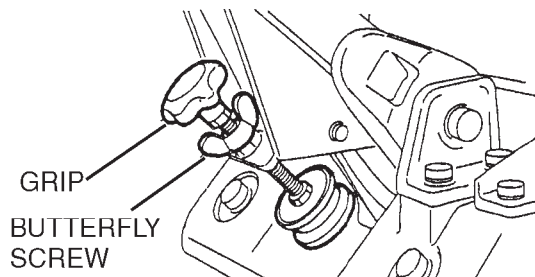


Figure 19. Handle Adjustment

## Stowing the Handle:

1. Push up the handle (Figure 20).
2. Pull the stopper grip upward into the hole of the guard frame to lock the handle.

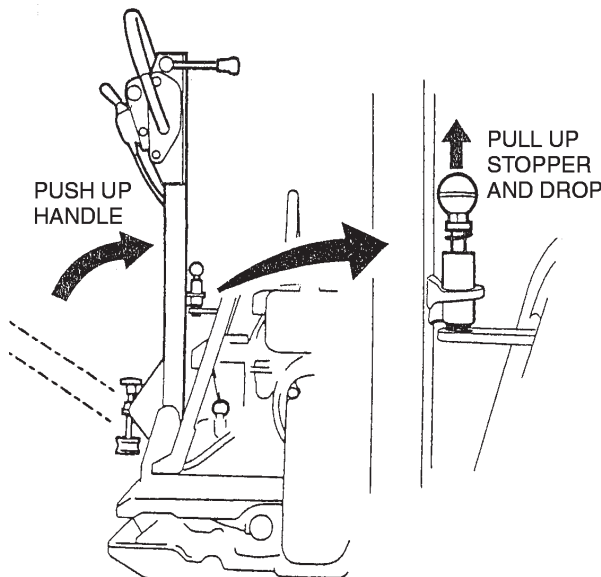


Figure 20 . Stowing the Handle

## Lifting:

1. Use a crane or lift to load and unload the machine. A skilled crane operator is required to perform the job.
2. When lifting the machine, check for any damaged or loose bolts, lifting hooks, and shock mounts.
3. Check any damaged or loose bolts in the guard frame to avoid machine sliding off.
4. Make sure that the machine is shut off before machine is lifted.
5. Use reliable cable for lifting.
6. Always lift the machine vertically and keep the machine away from workers and animals.
7. Do not lift the machine higher than the required height.

## Transporting:

1. Always make sure that the machine is shut off while being transported.
2. Check that the fuel cap is properly closed and tightened.
3. When traveling long distances or on rugged terrain, drain the fuel of the machine before transporting.
4. Tie down the machine securely on the transportation so that it will not move or topple over.



## CAUTION - General Maintenance Safety

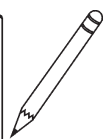
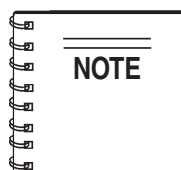
Inspection and other services should ***always*** be carried out on hard and level ground with the engine shutdown.

### Inspection and Maintenance Service Tables.

To make sure your plate compactor is always in good working condition before using, carry out the maintenance inspection in accordance with Tables 5 through 7.

**TABLE 5. MVH-200GH MACHINE INSPECTION**

| ITEM                                | HOURS OF OPERATION                            | REMARKS     |
|-------------------------------------|-----------------------------------------------|-------------|
| Loose or Missing Screws             | Every 8 hours (every day)                     |             |
| Damaged Parts                       | Every 8 hours (every day)                     |             |
| Function of Controlling System Part | Every 8 hours (every day)                     |             |
| Hydraulic System Leak               | Every 100 hours                               |             |
| Vibrator Oil Check                  | Every 100 hours                               | See page 23 |
| Vibrator Oil Replacement            | Every 300 hours                               | See page 23 |
| Hydraulic Oil Check                 | Every 100 hours                               | See page 23 |
| Hydraulic Oil Replacement           | First after 200 hours, then every 1,000 hours | See page 24 |
| V-belt (clutch) Check               | Every 200 hours                               | See page 23 |
| Battery Check                       | Every 100 hours                               | See page 25 |



These inspection intervals are for operation under normal conditions. Adjust your inspection intervals based on the number hours plate compactor is in use, and particular working conditions. Fuel piping and connections should be replaced every 2 years.

**TABLE 6. MVH-200GH ENGINE CHECK**

| ITEM                                                    | HOURS OF OPERATION                                                  |
|---------------------------------------------------------|---------------------------------------------------------------------|
| Spark Plug Check                                        | Every 40 hours (every week)                                         |
| Oil or Fuel Leak                                        | Every 8 hours (every day)                                           |
| Tightness of Fastening Threads                          | Every 8 hours (every day)                                           |
| Engine Oil Check and Replenishment                      | Every 8 hours (every day)<br>(Replenish to specified maximum level) |
| Engine Oil Replacement                                  | After first 25 hours then every 50 to 100 hours                     |
| Air Filter Cleaning                                     | Every 100 hours                                                     |
| See separate engine manual for details on engine check. |                                                                     |

### Daily Service

- Check for leakage of fuel or oil.
- Check for loose screws including tightness. See Table 6 below (tightening torque), for retightening:

**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 |
| 6-8T     | 100 | 250     | 500       | 800   | 1,300 | 2,000 | 2,700 | 3,800 |
| 11T      | 150 | 400     | 800       | 1,200 | 2,000 | 2,900 | 4,200 | 5,600 |
| *        | 100 | 300~350 | 650 ~ 700 |       |       |       |       |       |

\* (In case counter-part is of aluminum)  
(Threads in use with this machine are all right handed)  
Material and quality of material is marked on each bolt, and screw.

- Remove soil and clean the bottom of compaction plate.
- Check hydraulic pump, piping and hose for any leakage. A loosened hydraulic hose can be a cause for leakage. Check hydraulic hose connections with wrench applied for tightness.
- Check engine oil.

## Spark Plug:

1. Remove and clean the spark plug (Figure 21).
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.

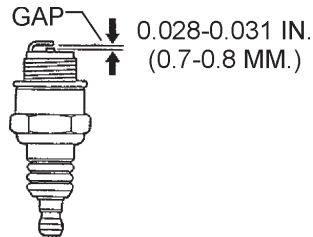


Figure 21. Spark Plug Gap

## Engine Oil Replacement:

1. Replace engine oil, first in 25 hours of operation and every 50 to 100 hours afterwards.
2. Drain the engine oil when the oil is **warm** as shown in Figure 22.
3. Remove the oil drain bolt and sealing washer and allow the oil to drain into a suitable container.
4. Replace engine oil with recommended type oil as listed in Table 3. Engine oil capacity is 1.16 quarts (1.1 liters). **DO NOT** overfill.
5. Install drain bolt with sealing washer and tighten securely.

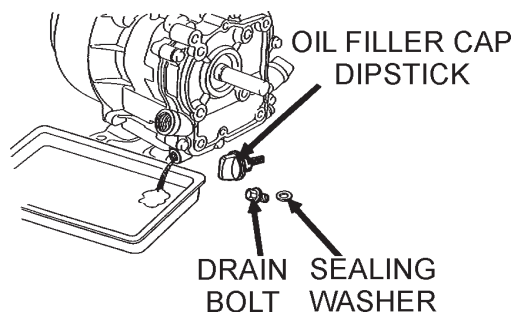


Figure 22. Engine Oil (Draining)

## Air Filter:

1. Remove the air cleaner cover and foam filter element as shown in Figure 23.
2. Tap the paper filter element (Figure 23) several times on a hard surface to remove dirt, or blow compressed air [not exceeding 30 psi (207 kPa, 2.1 kgf/cm<sup>2</sup>)] through the filter element from the air cleaner case side.

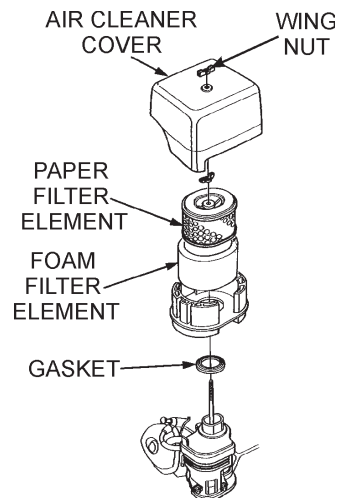


## CAUTION - Cleaning the Engine Air Filter

**NEVER** brush off dirt. Brushing will force dirt into the fibers and cause poor performance in your air filter. Replace the paper filter element if it is excessively dirty.

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.

Figure 23. Engine Air Filter



## Hydraulic Oil

1. Check hydraulic oil in every 100 hours of operation. With handle bar positioned vertically (storage position), remove oil level check plug (Figure 23) from the top of hydraulic pump and check for proper oil level.
2. Replace hydraulic oil after first 200 hours and in every 1,000 hours of operation.

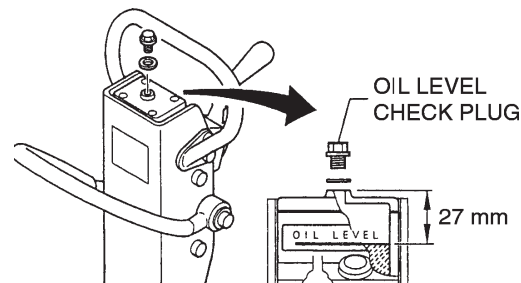


Figure 23. Oil Level Check Plug

## Checking and Replacing the V-Belt and Clutch:

After 200 hours of operation, remove the belt cover to check the V-belt tension (Figure 24).

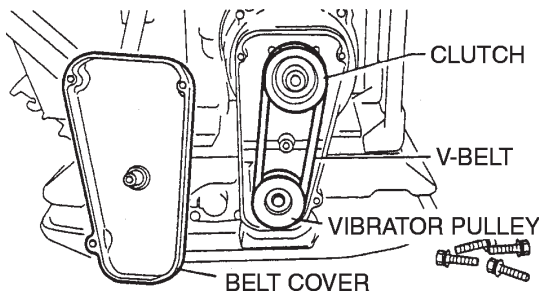


Figure 24. V-Belt Check



### CAUTION - Checking and Replacing the V-Belt

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



## Checking the V-belt

1. 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.

## Replacing the V-belt

1. Remove the belt cover.
2. Engage an offset wrench (19 mm) or the like to vibrator pulley (lower) fastening bolt.
3. 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.
4. Check the clutch and replace as necessary, following the procedures listed in **Checking the Clutch**.
5. Engage V-belt to lower vibrator pulley and push the V-belt to the left side of the upper clutch and the rotate offset wrench clockwise so that the V-belt moves onto the pulley.

## Checking the Clutch

1. With belt cover removed, visually check outer drum of the clutch for seizure and "V" groove for wear or damage.
2. Clean the "V" groove as necessary.
3. Check the clutch lining and shoe for signs of wear. If the shoe is worn, replace the clutch to prevent deficient power transmission and slippage.

## Replacing the Clutch

1. Remove V-belt.
2. Remove bolt at engine power output by giving a shock to an engaged wrench (e.g. tapping with hammer) and rotate the bolt counterclockwise.
3. Remove clutch with a pulley extractor.
4. To install a new clutch, reverse steps 1-3.

## Vibrator Oil Level Check



### CAUTION - Checking and Replacing the V-Belt

Always clean the area around the vibrator oil level check hole before removing oil check plug. This will prevent dirt and debris from entering the system.

1. In every 100 hours of operation, with the machine positioned horizontally, remove vibrator oil level check plug (Figure 26) off vibrator (19 mm wrench) and see if oil is up to filler port. Be sure to clean area around check hole to prevent dirt and dust from entering.
2. In every 300 hours of operation, replace oil (capacity 1,500 cc). For draining oil through level check hole, have the machine inclined with a sleeper or the like placed under the compaction plate on opposite side.

\* Use engine oil 10W-30 for this lubrication.

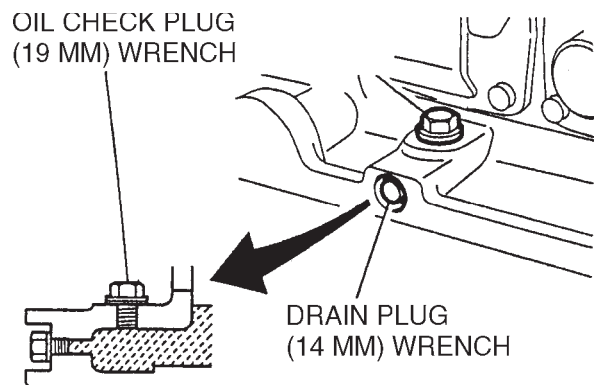


Figure 26. Vibrator Oil Maintenance

## CAUTION - Filling the Hydraulic Oil Reservoir

Make sure hydraulic oil is at a normal safe operating level. **DO NOT** over fill. Over filling (excessive oil) will cause excess oil to blow out of breather plug.

### Replacing Hydraulic Oil

1. Remove the hydraulic hoses (left and right) which enters the cylinder of the vibrator from the hydraulic pump (Figure 28) and move the travel lever back and forth to drain the hydraulic oil from the pump.

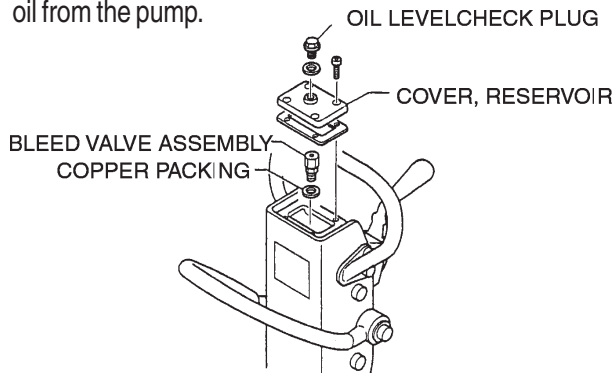


Figure 28. Hydraulic Oil Maintenance

2. After draining, reinstall the hydraulic hoses and lock the travel lever to the sub-handle at reverse side (at **MAXIMUM** position) using a rope and with the reservoir cover at the top of the and pump removed.
3. Remove the bleed valve assembly within the pump using a 17 mm box wrench.

## CAUTION - Removing the Bleed Valve

When removing the bleed valve, **NEVER** loosen the M8 nut on its end. A copper packing is used underneath the bleed valve, therefore care should be taken not to drop it into the pump. Make sure to remove it together with the bleed valve. **DO NOT** allow dust or trash to enter the hand pump.

3. Remove bleed plug at the cylinder of the vibrator (right belt cover side, forward travel circuit) (Figure 29). After a while, oil will flow out of the bleed plug. When aeration disappears, reinstall the plug, tightening it securely.

### 4. Filling the forward travel circuit with oil.

- a. With the rope removed from the travel lever, move the lever slowly up and down while adding oil into the hand pump. Use Shell Tellus Oil #46 or equivalent.

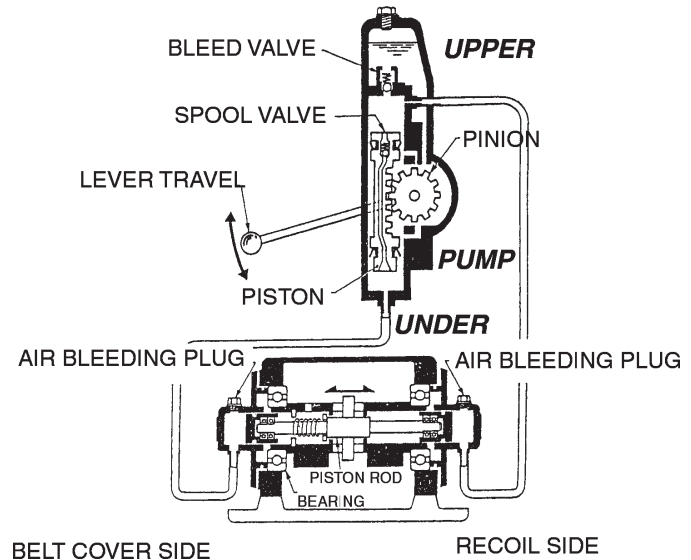


Figure 29. Hydraulic System

- b. Moving it about 10 times causes the forward resistance to increase. When the resistance has considerably increased, with the travel lever remaining on the reverse side, install the bleed valve assembly loosely inside the pump to prevent oil splash.
- c. Push the travel lever forward all the way. The valve inside the spool will activate to push out the aerated oil reverse circuit.
- d. With the bleed valve assembly removed, repeat step c, two to three times.

## 5. Filling the reverse travel circuit with oil.

- With the travel lever pushed forward (hydraulic circuit is connected with reverse travel circuit), add oil into pump and remove bleed plug of vibrator cylinder (opposite of belt cover side). In a few seconds, oil will come out of bleed plug.
  - When aeration disappears, reinstall the plug tightly.
  - Move the travel lever slowly until aeration in the hand pump disappears (about 10 to 15 times).
- When the aeration in the pump disappears, with the travel lever pushed forward, reinstall the valve. Be careful not to drop the packing into pump. The bleeding valve tightening torque is 450 to 500 kg-gm.
  - After installing the bleed valve, moving the travel lever all the way to reverse causes excess oil to be discharged into pump. If valve fails to activate, aeration still remains in the circuit. With the bleed valve removed, operate travel lever again to bleed. If valve is activated, move the travel lever forward to activate the valve inside spool before moving it to reverse to activate the bleed valve. Repeat 3 to 4 times.
  - After making sure that the hydraulic oil in the pump is at the specified level, reinstall the reservoir cover. Coat both sides of packing with liquid packing (such as Threebond #1215).



### CAUTION - Overfilling the Hydraulic Oil Reservoir

Make sure that hand pump is filled with hydraulic oil to the specified level. Excessive oil may hinder bleed valve function, resulting in poor reverse performance.

- After adding oil and reinstalling the reservoir cover, operate the travel lever to make sure of the following:
  - spool valve*: when pushed forward, resistance is felt in two-stage motion.

## Battery Maintenance



### CAUTION - Battery Maintenance Safety

Wear **safety glasses** or **face mask**, **protective clothes**, and **rubber gloves** when working with battery.



- Check the battery terminals periodically to ensure that they are in good condition.
- Use wire brush or sand paper to clean the battery terminals.
- Check battery for cracks or any other damage. If white pattern appears inside the battery or paste has accumulated at the bottom, replace the battery.
- If the machine will not be in operation for a long period of time, store in cool dry place and check the battery charge level every month to maintain the performance of the battery.

## Battery Cable Connection

- Take off the battery cover by removing the M6 nuts (Figure 30).
- When removing cable, disconnect the ground side (normally negative) first (Figure 30).
- When installing cable connect the ground side (normally negative) last.

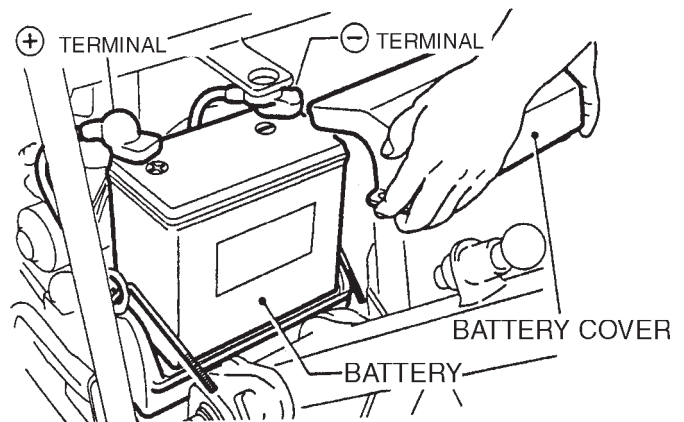


Figure 30. Battery Maintenance

## MVH-200GH — ENGINE TROUBLESHOOTING

Practically all breakdowns can be prevented by proper handling and maintenance inspections, but in the event of a breakdown, please take remedial action following the diagnosis based on the Engine Troubleshooting Table (Table 8) information shown below and on the following page. If the problem cannot be remedied, please leave the unit as it is and consult Multiquip's business office or service plant.

| TABLE 8. ENGINE TROUBLESHOOTING                                                     |                                                         |                                                                  |
|-------------------------------------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------------------|
| SYMPTOM                                                                             | POSSIBLE CAUSE                                          | 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.                                               |
| 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, and replace with correct type of fuel.        |
|                                                                                     | Water or dust in fuel system?                           | Flush fuel system.                                               |
|                                                                                     | Air cleaner dirty?                                      | Clean or replace air cleaner.                                    |
| Difficult to start, "fuel is available, spark is present and compression is low"    | Suction/exhaust valve stuck or protruded?               | Re-seat valves.                                                  |
|                                                                                     | Piston ring and/or cylinder worn?                       | Replace piston rings and or piston.                              |
|                                                                                     | Cylinder head and/or spark plug not tightened properly? | Torque cylinder head bolts and spark plug.                       |
|                                                                                     | Head gasket and/or spark plug gasket damaged?           | Replace head and spark plug gaskets.                             |
| No fuel present at carburetor.                                                      | Fuel not available 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 clogged?                                    | Replace fuel filter.                                             |
|                                                                                     | Fuel tank cap breather hole clogged?                    | Clean or replace fuel tank cap.                                  |
|                                                                                     | Air in fuel line?                                       | Bleed fuel line.                                                 |

**TABLE 8. ENGINE TROUBLESHOOTING (CONTINUED)**

| SYMPTOM                                                     | POSSIBLE CAUSE                               | SOLUTION                                                  |
|-------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------|
| "Weak in power" compression is proper and does not misfire. | Air cleaner not clean?                       | Clean or replace air cleaner                              |
|                                                             | Improper level in carburetor?                | Check float adjustment, re-build carburetor.              |
|                                                             | Defective Spark plug?                        | Clean or replace spark plug.                              |
|                                                             | Defective Spark plug?                        |                                                           |
| "Weak in power" compression is proper but misfires.         | Water in fuel system?                        | Flush fuel system, and replace with correct type of fuel. |
|                                                             | Dirty spark plug?                            | Clean or replace spark plug.                              |
|                                                             | Ignition coil defective?                     | Replace ignition coil.                                    |
| Engine overheats.                                           | Spark plug heat value improper?              | Replace with correct type of spark plug.                  |
|                                                             | Correct type of fuel?                        | Replace with correct type of fuel                         |
|                                                             | Cooling fins dirty?                          | Clean cooling fins.                                       |
| Rotational speed fluctuates.                                | Governor adjusted correctly?                 | Adjust governor.                                          |
|                                                             | Governor spring defective?                   | Replace governor spring.                                  |
|                                                             | Fuel flow restricted?                        | Check entire fuel system for leaks or clogs.              |
| Recoil starter malfunction.                                 | Recoil mechanism clogged with dust and dirt? | Clean recoil assembly with soap and water.                |
|                                                             | Spiral spring loose?                         | Replace spiral spring.                                    |

## MVH-200GH — PLATE COMPACTOR TROUBLESHOOTING

Practically all breakdowns can be prevented by proper handling and maintenance inspections, but in the event of a breakdown, please take remedial action following the diagnosis based on the Compactor Troubleshooting Table (Table 9) information shown below. If the problem cannot be remedied, please leave the unit as it is and consult Multiquip's business office or service plant.

| TABLE 9. PLATE COMPACTOR TROUBLESHOOTING                        |                                                              |                                                              |
|-----------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|
| SYMPTOM                                                         | POSSIBLE CAUSE                                               | 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.                  |
| Travels forward or reverse, but impossible to switch direction. | Directional components defective?                            | Check all directional components                             |
|                                                                 | Reversing lever adjustment?                                  | Adjust or repair reversing lever.                            |
|                                                                 | Hydraulic oil hose broken?                                   | Repair or replace hydraulic oil hose.                        |
|                                                                 | Aeration in hydraulic oil for reversing system?              | Bleed hydraulic oil system.                                  |
|                                                                 | Check valve in hand pump clogged with dust?                  | Clean or replace hand pump check valve.                      |
|                                                                 | Piston or bearing in cylinder (vibrator assy.) is defective? | If worn, replace cylinder piston or bearing.                 |
| Does not travel either forward or reverse.                      | V-belt slips?                                                | Replace V-belt.                                              |
|                                                                 | Clutch slips?                                                | Check clutch springs and shoes.                              |
|                                                                 | Vibrator locked?                                             | Check vibrator housing (eccentric, gears and counterweights) |
|                                                                 | Piston or bearing in cylinder defective?                     | If worn, replace cylinder piston or bearing.                 |
| Travel lever operating resistance great.                        | Air in hydraulic line?                                       | Bleed hydraulic oil system.                                  |
|                                                                 | Piston or bearing in cylinder defective?                     | If worn, replace cylinder piston or bearing.                 |

## EXPLANATION OF CODE IN REMARKS COLUMN

How to read the marks and remarks used in this parts book.

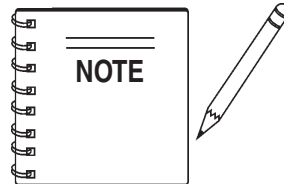
### Items Found In the “Remarks” Column

**Serial Numbers**-Where indicated, this indicates a serial number range (inclusive) where a particular part is used.

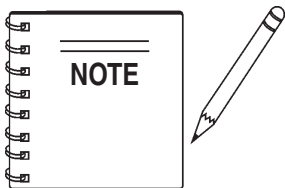
**Model Number**-Where indicated, this shows that the corresponding part is utilized only with this specific model number or model number variant.

### Items Found In the “Items Number” Column

All parts with same symbol in the number column, \*, #, +, %, or >, belong to the same assembly or kit.



If more than one of the same reference number is listed, the last one listed indicates newest (or latest) part available.

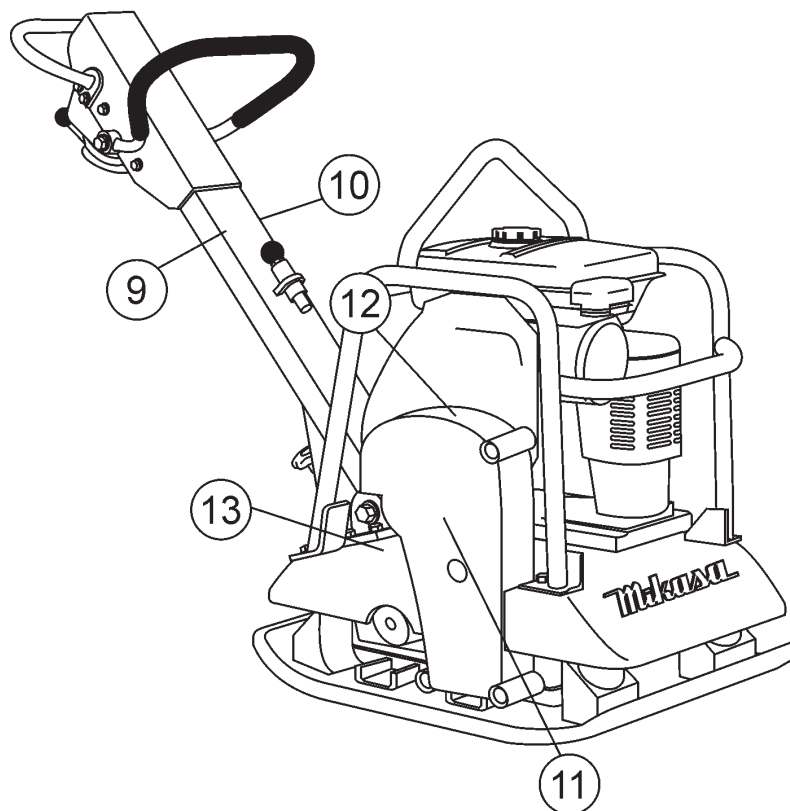
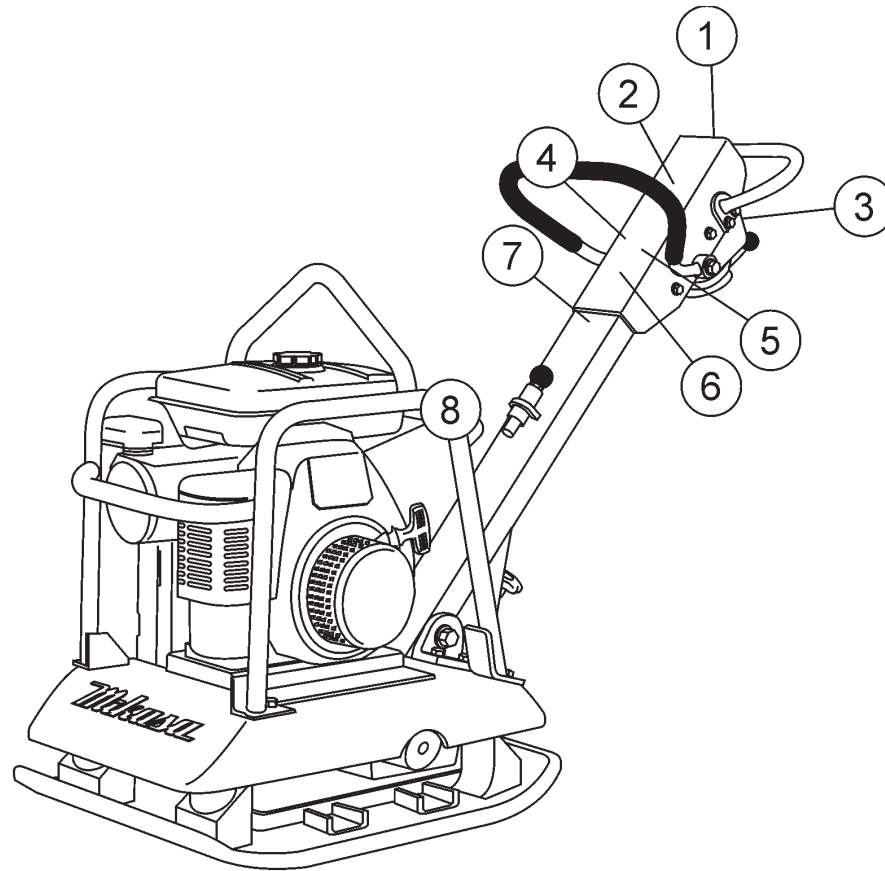


The contents of this parts catalog are subject to change without notice.

**MQ MIKASA MVH-200GH**  
***1 to 3 Units***  
**W/HONDA GX240K1SMX2**

| <u>Qty.</u> | <u>P/N</u>       | <u>Description</u>   |
|-------------|------------------|----------------------|
| 2 .....     | 070200322 .....  | V-BELTS              |
| 2 .....     | 956100016 .....  | THROTTLE WIRE        |
| 3 .....     | 17210ZE2515 ..   | ELEMENT, A/C         |
| 3 .....     | 9807956846 ..... | SPARK PLUG           |
| 1 .....     | 17620ZH7023 ..   | CAP, FUEL TANK       |
| 1 .....     | 28462ZE2W11 .    | ROPE, RECOIL STARTER |

BODY ASSY.

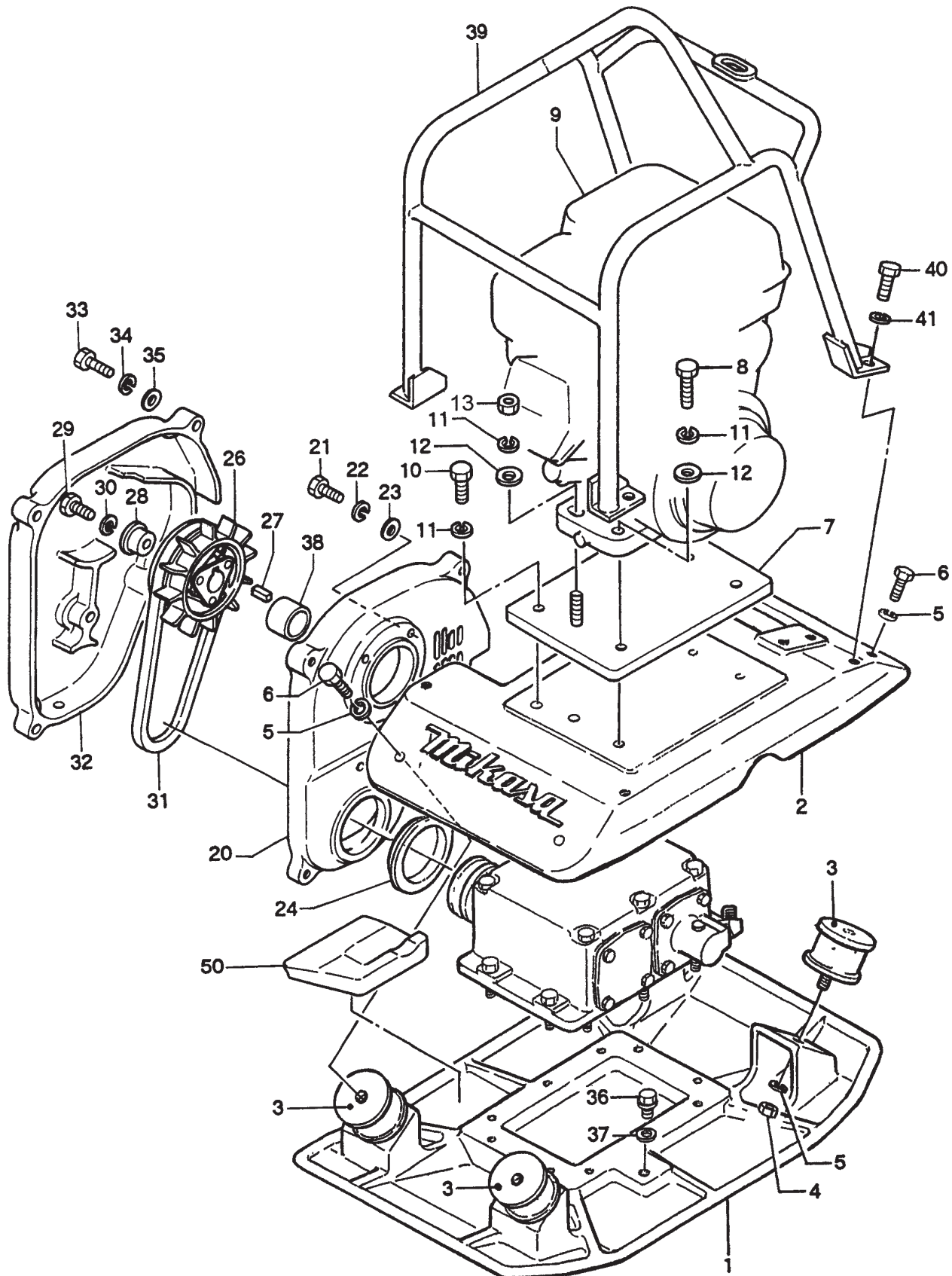


## MVH-200GH — DECALS PLACEMENT

BODY ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>           | <u>QTY.</u> | <u>REMARKS</u>                 |
|------------|-----------------|----------------------------|-------------|--------------------------------|
| 1          | 920203260       | DECAL, OIL TANK            | 1           |                                |
| 2          | 920204230       | DECAL, TRAVEL LEVER OP.    | 1           |                                |
| 3          | 920203330       | DECAL, EAR PROTECTION      | 1           |                                |
| 4          | 920202220       | DECAL, FORWARD/REVERSE     | 1           |                                |
| 5          | 920204580       | DECAL, FULL THROTTLE       | 1           |                                |
| 6          | 920204040       | DECAL, LIFTING CAUTION     | 1           |                                |
| 7          | 920203290       | DECAL, CAUTION OPERATION   | 1           |                                |
| 8          | 920203560       | DECAL, ENGINE MAX SPEED    | 1           |                                |
| 9          | 920206280       | DECAL, PINCH POINT DANGER  | 1           |                                |
| 10         | 920206290       | DECAL, READ MANUAL CAUTION | 1           |                                |
| 11         | TBD             | DECAL, MULTQUIP CARSON     | 1           |                                |
| 12         | 920206880       | DECAL, V-BELT              | 1           |                                |
| 13         |                 | PLATE, SERIAL NO. ....     | 1           | ..... CONTACT PARTS DEPARTMENT |

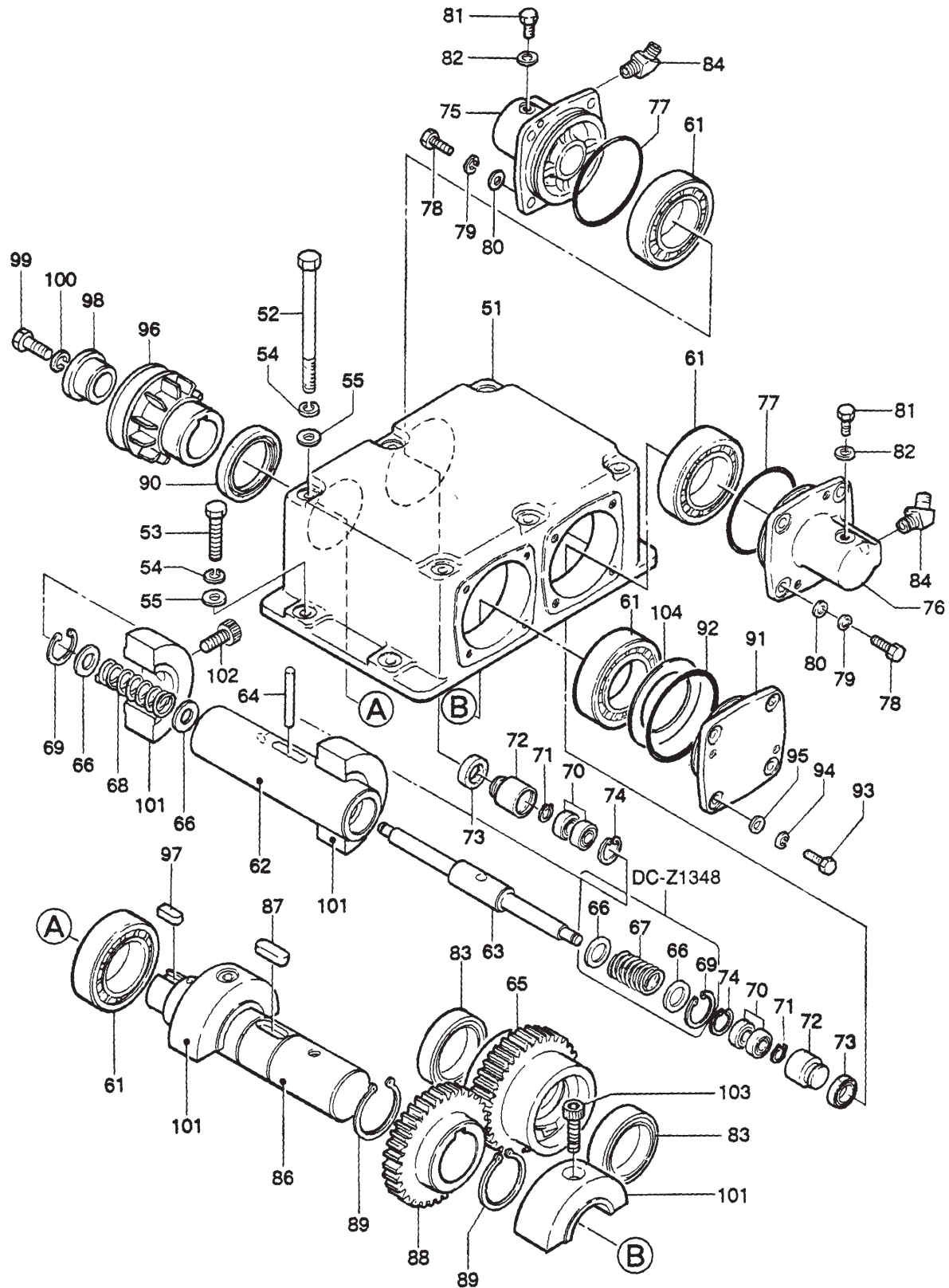
## BODY ASSY.



**BODY ASSY.**

| <b><u>NO</u></b> | <b><u>PART NO</u></b> | <b><u>PART NAME</u></b>  | <b><u>QTY.</u></b> | <b><u>REMARKS</u></b>                         |
|------------------|-----------------------|--------------------------|--------------------|-----------------------------------------------|
| 1                | 455109250             | VIBRATING PLATE          | 1                  |                                               |
| 2                | 455109260             | BASE                     | 1                  |                                               |
| 3                | 939010050             | SHOCK ABSORBER 75        | 4                  |                                               |
| 4                | 020312100             | NUT M12                  | 4                  |                                               |
| 5                | 030212300             | SW M12                   | 8                  |                                               |
| 6                | 001221240             | BOLT 12 X 40 T           | 4                  |                                               |
| 7                | 455325080             | ENGINE BASE              | 1                  |                                               |
| 8                | 001221050             | BOLT 10 X 50 T           | 2                  |                                               |
| 9                | 912224001             | ENGINE ASSY. GX240K1SMX2 | 1                  |                                               |
| 10               | 001221030             | BOLT 10 X 30 T           | 2                  |                                               |
| 11               | 030210250             | SW M10                   | 6                  |                                               |
| 12               | 031110160             | PW M10                   | 4                  |                                               |
| 13               | 020310080             | NUT M10                  | 2                  |                                               |
| 20               | 455113760             | BELT COVER, IN           | 1                  |                                               |
| 21               | 001220830             | BOLT 8 X 30 T            | 4                  |                                               |
| 22               | 030208200             | SW M8                    | 4                  |                                               |
| 23               | 031108160             | PW M8                    | 4                  |                                               |
| 24               | 455434940             | COVER SEAL               | 1                  |                                               |
| 26               | 456343340             | CLUTCH ASSY. W/FAN ..... | 1                  | REPLACES 455330980, 455330981,<br>& 456335600 |
| 27               | 951400110             | KEY7X7X35                | 1                  |                                               |
| 28               | 455445510             | WASHER                   | 1                  |                                               |
| 29               | 001220835             | BOLT 8X35 T              | 1                  |                                               |
| 30               | 030208200             | SW M8                    | 1                  |                                               |
| 31               | 070200322             | V-BELT B-32 BLUE/RPF5320 | 1                  |                                               |
| 32               | 455113750             | BELT COVER, OUT          | 1                  |                                               |
| 33               | 001220853             | BOLT 8X65 T              | 5                  |                                               |
| 33               | 001220852             | BOLT 8X60 T              | 5                  |                                               |
| 34               | 030208200             | SW M8                    | 5                  |                                               |
| 35               | 031108160             | PW M8                    | 5                  |                                               |
| 36               | 953405270             | PLUG 1/4X14 13L          | 1                  |                                               |
| 37               | 953405260             | PACKING 1/4, CU          | 1                  |                                               |
| 38               | 455445520             | CLUTCH SPACER            | 1                  |                                               |
| 39               | 455111230             | GUARD HOOK               | 1                  |                                               |
| 39               | 455112260             | GUARD FRAME              | 1                  |                                               |
| 40               | 001221230             | BOLT 12X30 T             | 4                  |                                               |
| 41               | 030212300             | SW M12                   | 4                  |                                               |
| 50               | 455212190             | COVER GUARD              | 1                  |                                               |

## VIBRATION ASSY.

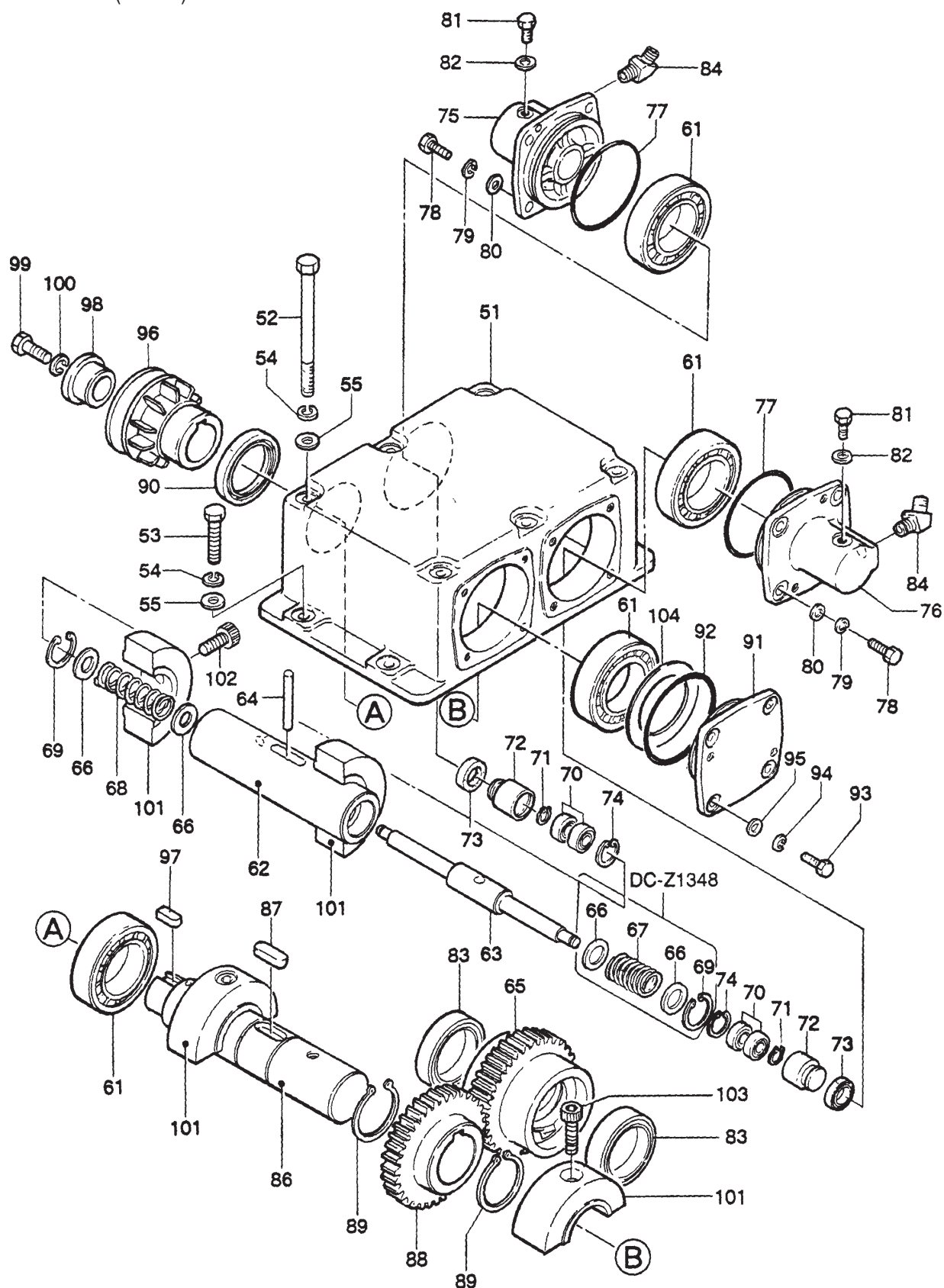


## VIBRATION ASSY.

| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u>                | <u>QTY.</u> | <u>REMARKS</u>  |
|-----------|----------------|---------------------------------|-------------|-----------------|
| 51        | 455109310      | VIBRATING CASE                  | 1           |                 |
| 52        | 001221268      | BOLT 12X140 T                   | 6           |                 |
| 53        | 001221240      | BOLT 12X40 T                    | 4           |                 |
| 54        | 030212300      | SW M12                          | 10          |                 |
| 55        | 031112230      | PW M12                          | 10          |                 |
| 61        | 047920050      | ROLLER BEARING NJ210MC4         | 4           |                 |
| 62        | 455324830      | ROTARY SHAFT, DRIVEN            | 1           |                 |
| 63        | 455324840      | PISTON ROD                      | 1           |                 |
| 64        | 025510063      | KNOCK PIN 10X63                 | 1           |                 |
| 65        | 455324850      | GEAR, DRIVEN                    | 1           |                 |
| 66        | 455435020      | COLLAR 17X30X3                  | 4           |                 |
| 66        | 455435020      | COLLAR 17X30X3 .....            | 2           | S/N Z1349~      |
| 67        | 455435030      | SPRING 28.2D-41L .....          | 1           | UP TO S/N Z1348 |
| 68        | 455435040      | SPRING 27.3D-79L                | 1           |                 |
| 69        | 080100300      | STOP RING R-30                  | 2           |                 |
| 69        | 080100300      | STOP RING R-30 .....            | 1           | S/N Z1349~      |
| 70        | 041006000      | BEARING 6000Z                   | 4           |                 |
| 71        | 080200100      | STOP RING S-10                  | 2           |                 |
| 72        | 455435051      | PISTON, 22.4D                   | 2           |                 |
| 73        | 455010010      | PACKING UPH-20308 .....         | 2           | UP TO S/N W1012 |
| 73        | 455010070      | PACKING USH-22.4 X 30 X 5 ..... | 2           | S/N W1012~      |
| 74        | 080100260      | STOP RING R-26                  | 2           |                 |
| 75        | 455324860      | CYLINDER, R                     | 1           |                 |
| 76        | 455326060      | CYLINDER, L                     | 1           |                 |
| 77        | 050100850      | O-RING G-85                     | 2           |                 |
| 73        | 455010010      | PACKING UPH-20308               | 2           |                 |
| 73        | 455010070      | PACKING USH-22.4 X 30 X 5       | 2           |                 |
| 74        | 080100260      | STOP RING R-26                  | 2           |                 |
| 75        | 455324860      | CYLINDER, R                     | 1           |                 |
| 76        | 455326060      | CYLINDER, L                     | 1           |                 |
| 77        | 050100850      | O-RING G-85                     | 2           |                 |
| 78        | 001220825      | BOLT 8 X 25 T                   | 8           |                 |
| 79        | 030208200      | SW M8                           | 8           |                 |
| 80        | 031108160      | PW M8                           | 8           |                 |
| 81        | 001200810      | BOLT 8 X 10                     | 2           |                 |
| 82        | 953404600      | COPPER PACKING 8 X 16 X 2       | 2           |                 |
| 83        | 040006910      | BEARING 6910                    | 2           |                 |
| 84        | 455010020      | ELBOW 45' 15-0404               | 2           |                 |
| 95        | 031108160      | PW M8                           | 4           |                 |

# MVH-200GH — VIBRATION ASSY. (CONT.)

## VIBRATION ASSY. (CONT.)



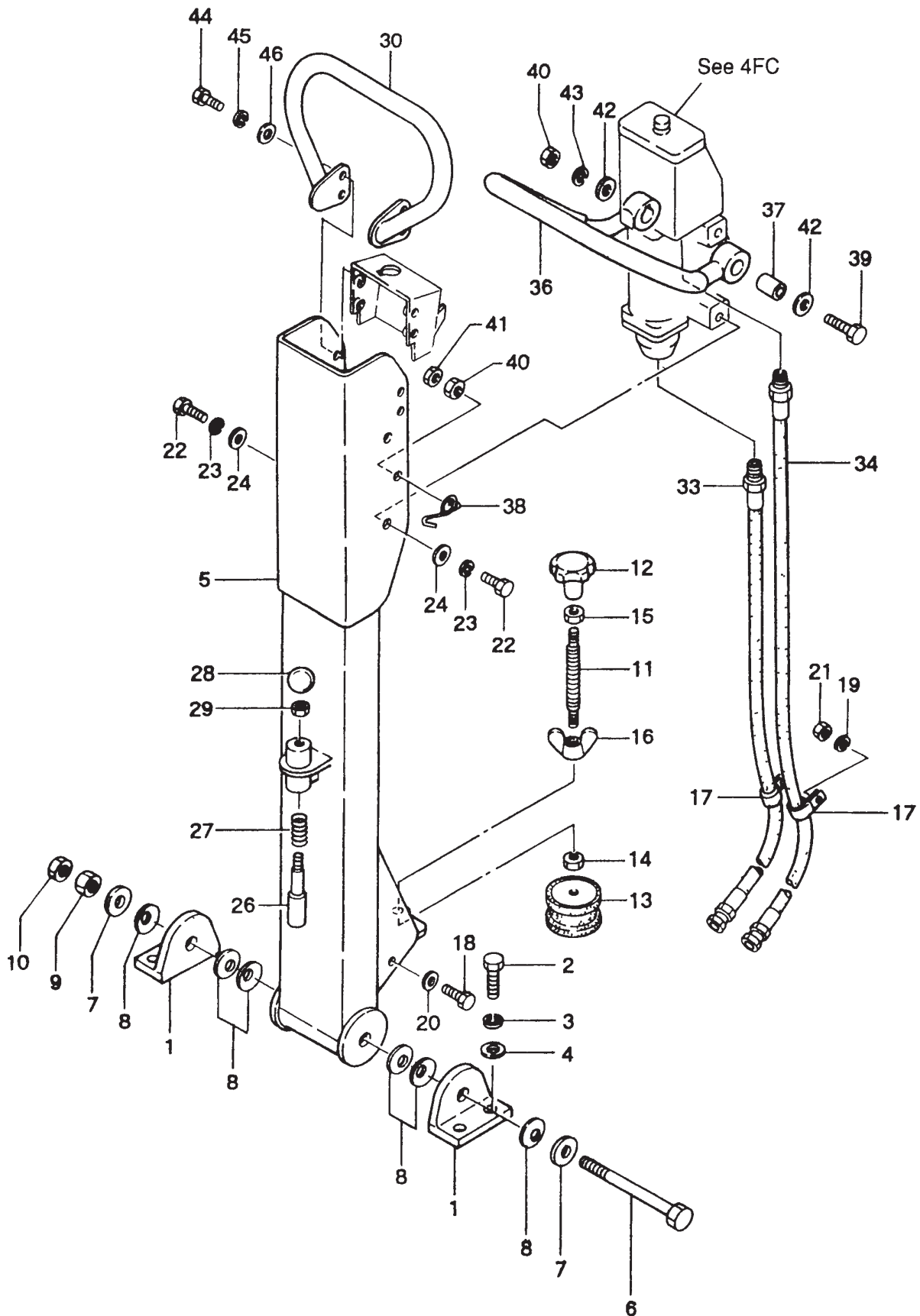
# MVH-200GH — VIBRATION ASSY. (CONT.)

## VIBRATION ASSY. (CONT.)

| <b>NO</b> | <b>PART NO</b> | <b>PART NAME</b>           | <b>QTY.</b> | <b>REMARKS</b> |
|-----------|----------------|----------------------------|-------------|----------------|
| 86        | 455324870      | ROTARY SHAFT, DRIVE .....  | 1 .....     | UP TO S/N 1540 |
| 86        | 455331070      | ROTARY SHAFT, DRIVE .....  | 1 .....     | S/N A1541~     |
| 87        | 951404500      | KEY 15 X 10 X 40 RR .....  | 1 .....     | UP TO S/N 1540 |
| 87        | 951405370      | KEY 15 X 10 X 39 RR .....  | 1 .....     | S/N A1541~     |
| 88        | 455324880      | GEAR, DRIVE                | 1           |                |
| 89        | 080200500      | STOP RING S-50             | 2           |                |
| 90        | 060105030      | OIL SEAL SB-50729          | 1           |                |
| 91        | 455324890      | BEARING COVER              | 1           |                |
| 92        | 050100850      | O-RING G-85                | 1           |                |
| 93        | 001220825      | BOLT 8 X 25 T              | 4           |                |
| 94        | 030208200      | SW M8                      | 4           |                |
| 96        | 455324900      | PULLEY, B1-85D .....       | 1 .....     | UP TO S/N 1975 |
| 96        | 455335560      | PULLEY, B1 W/FAN .....     | 1 .....     | S/N D1976~     |
| 97        | 951403090      | KEY 12 X 8 X 26            | 1           |                |
| 98        | 455435060      | WASHER, PULLEY .....       | 1 .....     | UP TO S/N 1975 |
| 98        | 455448970      | WASHER, PULLEY .....       | 1 .....     | S/N D1976~     |
| 99        | 001221230      | BOLT 12 X 30 T             | 1           |                |
| 100       | 030212300      | SW M12                     | 1           |                |
| 101       | 455324910      | ECCENTRIC ROTOR            | 4           |                |
| 102       | 001521225      | SOCKET HEAD BOLT 12 X 25 T | 2           |                |
| 103       | 001521240      | SOCKET HEAD BOLT 12 X 40 T | 2           |                |
| 104       | 952405480      | SHIM 70 X 90 X 0.5         | 0           |                |

# MVH-200GH — CONTROL ( A-TYPE ) ASSY.

## CONTROL ( A-TYPE ) ASSY.



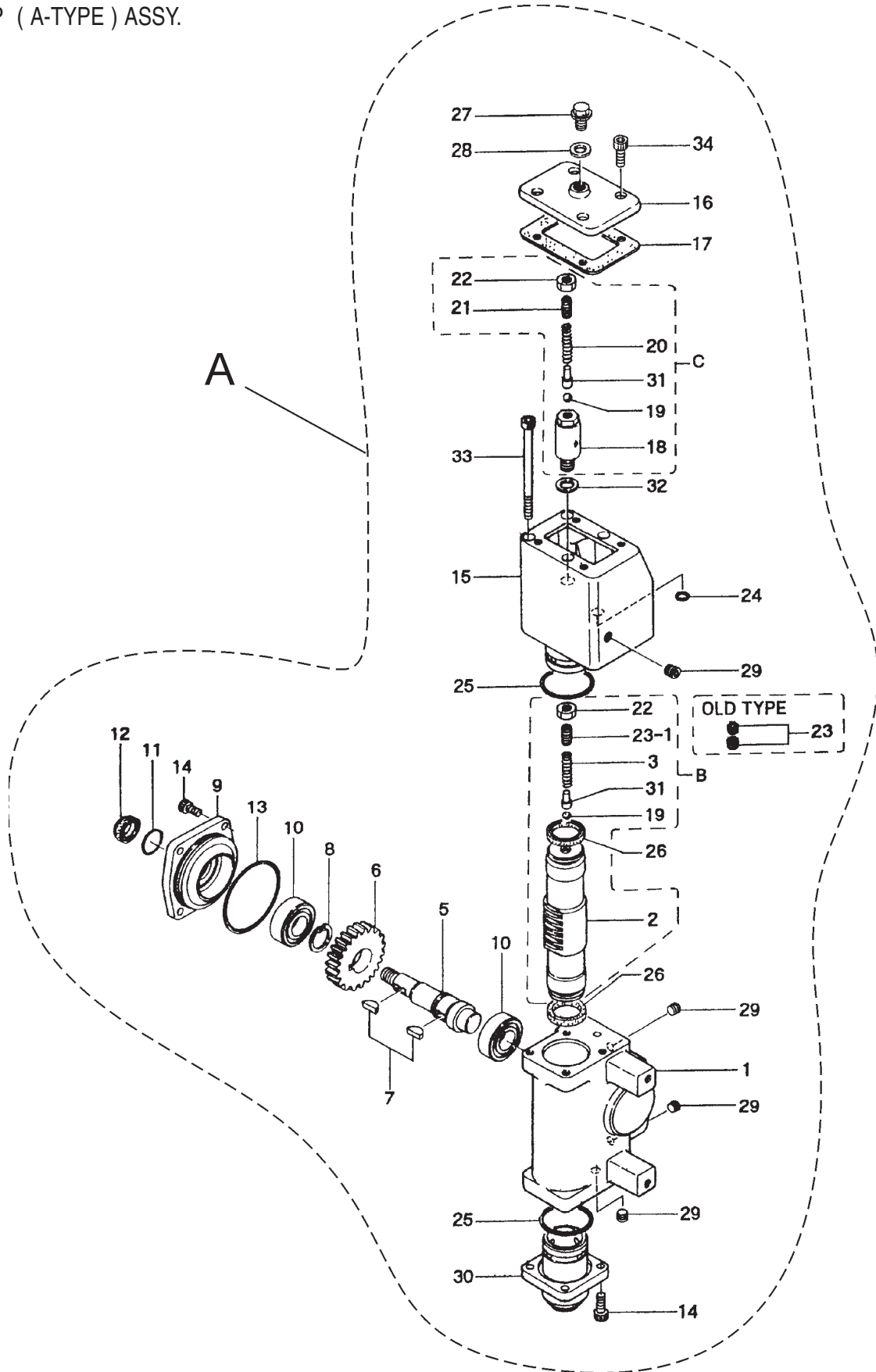
# MVH-200GH — CONTROL ( A-TYPE ) ASSY.

## CONTROL ( A-TYPE ) ASSY.

| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u>          | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|---------------------------|-------------|----------------|
| 1         | 456329060      | HANDLE BRACKET            | 2           |                |
| 2         | 001221235      | BOLT 12X35 T              | 4           |                |
| 3         | 030212300      | SW M12                    | 4           |                |
| 4         | 031112230      | PW M12                    | 4           |                |
| 5         | 456111340      | HANDLE                    | 1           |                |
| 6         | 001221676      | BOLT 16X180 T             | 1           |                |
| 7         | 031116260      | PW M16                    | 2           |                |
| 8         | 032116280      | CONICAL SPRING WASHER M16 | 6           |                |
| 9         | 020316130      | NUT M16                   | 1           |                |
| 10        | 023041600      | NUT M16, H=10             | 1           |                |
| 11        | 455434950      | SPINDLE                   | 1           |                |
| 12        | 455010030      | KNOB                      | 1           |                |
| 13        | 939010060      | SHOCK ABSORBER 60         | 1           |                |
| 14        | 020410060      | NUT M10, H=6              | 1           |                |
| 15        | 020412070      | NUT M12, H=7              | 1           |                |
| 16        | 022411635      | WING NUT M16              | 1           |                |
| 17        | 954404230      | CLAMP SA120-18            | 2           |                |
| 18        | 001220620      | BOLT 6X20 T               | 2           |                |
| 19        | 030206150      | SW M6                     | 2           |                |
| 20        | 031106100      | PW M6                     | 2           |                |
| 21        | 020306050      | NUT M6                    | 2           |                |
| 22        | 001220820      | BOLT 8X20 T               | 4           |                |
| 23        | 030208200      | SW M8                     | 4           |                |
| 24        | 031108160      | PW M8                     | 4           |                |
| 26        | 501402870      | HANDLE STOPPER/MDR        | 1           |                |
| 27        | 501402880      | SPRING/HANDLE, 1.4X18 X44 | 1           |                |
| 28        | 959403460      | BALL GRIP 32D-M10         | 1           |                |
| 29        | 020410060      | NUT M10, H=6              | 1           |                |
| 30        | 456211280      | HANDLE GRIP               | 1           |                |
| 33        | 455010040      | OIL HOSE 950L             | 1           |                |
| 34        | 455329500      | OIL HOSE 1180L            | 1           |                |
| 36        | 456111180      | LEVER, TRAVEL             | 1           |                |
| 37        | 456442320      | COLLAR 12X15. 6X32L       | 1           |                |
| 38        | 456442150      | RETURN SPRING, LEVER      | 1           |                |
| 39        | 001221252      | BOLT 12X60 T              | 1           |                |
| 40        | 020312100      | NUT M12                   | 2           |                |
| 41        | 020412070      | NUT M12, H=7              | 1           |                |
| 42        | 031112230      | PW M12                    | 2           |                |
| 43        | 030212300      | PW M12                    | 1           |                |
| 44        | 001220830      | BOLT 8X30 T               | 4           |                |
| 45        | 030208200      | SW M8                     | 4           |                |
| 46        | 031108160      | PW M8                     | 4           |                |

# MVH-200GH — PUMP ( A-TYPE ) ASSY.

PUMP ( A-TYPE ) ASSY.



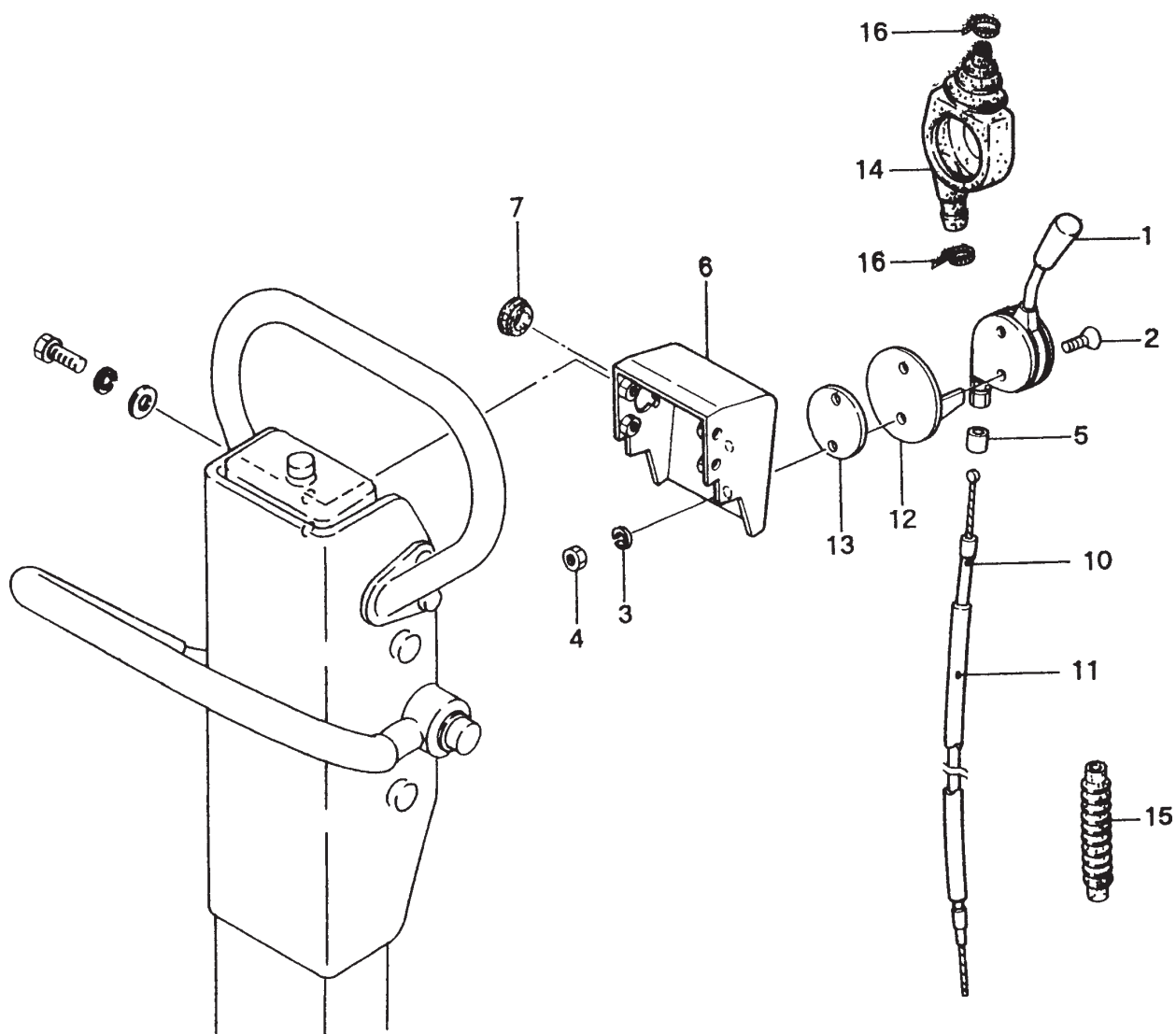
# MVH-200GH — PUMP ( A-TYPE ) ASSY.

## PUMP ( A-TYPE ) ASSY.

| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u>         | <u>QTY.</u> | <u>REMARKS</u>      |
|-----------|----------------|--------------------------|-------------|---------------------|
| A         | 456910020      | PUMP ASSY.               | 1           | INCLUDES ITEMS W/*  |
| B*        | 456910030      | SPOOL ASSY. ....         | 1           | INCLUDES ITEMS W/\$ |
| C*        | 456910040      | BLD VALVE ASSY. ....     | 1           | INCLUDES ITEMS W/ # |
| 1*        | 456111150      | BODY                     | 1           |                     |
| 2\$*      | 456328870      | SPOOL                    | 1           |                     |
| 3\$*      | 456442310      | SPRING 1.0-5.1-35L       | 1           |                     |
| 5*        | 456329000      | SHAFT                    | 1           |                     |
| 6*        | 456441750      | PINION                   | 1           |                     |
| 7*        | 455437130      | WOODRUFF KEY             | 2           |                     |
| 8*        | 080200240      | STOP RING S-24           | 1           |                     |
| 9*        | 455326790      | COVER, PINION            | 1           |                     |
| 10*       | 040006004      | BEARING 6004             | 2           |                     |
| 11*       | 050200200      | O-RING 9-20              | 1           |                     |
| 12*       | 455010120      | DUST SEAL SER-20         | 1           |                     |
| 13*       | 050100650      | O-RING G-65              | 1           |                     |
| 14*       | 001520615      | SOCKET HEAD BOLT 6X15 T  | 8           |                     |
| 15*       | 456211220      | RESERVE TANK             | 1           |                     |
| 16*       | 456441520      | COVER, RESERVE TANK      | 1           |                     |
| 17*       | 456441490      | PACKING, RESERVE TANK    | 1           |                     |
| 18#*      | 456441590      | BLD VALVE                | 1           |                     |
| 19*#\$    | 456441530      | STEEL BALL 6.35D         | 2           |                     |
| 20#*      | 456441550      | SPRING 0.9-5.1-35L       | 1           |                     |
| 21#*      | 096208016      | SOCKET HEAD SCREW 8X16 T | 1           |                     |
| 22*#\$    | 020408050      | NUT M8, H=5              | 1           |                     |
| 22*#\$    | 020408050      | NUT M8, H=5              | 2           |                     |
| 23*       | 456441650      | SET SCREW PT 1/8         | 2           |                     |
| 23-1*\$   | 456443080      | SET BOLT, SPOOL          | 1           |                     |
| 24*       | 050200090      | O-RING P-9               | 1           |                     |
| 25*       | 050100450      | O-RING G-45              | 2           |                     |
| 26*       | 456010020      | PACKING SKY-25           | 2           |                     |
| 27*       | 953405270      | PLUG 1/4X14 13L          | 1           |                     |
| 28*       | 953400160      | PACKING 1/4              | 1           |                     |
| 29*       | 506010160      | SOCKET HEAD PLUG 1/8     | 4           |                     |
| 30*       | 456328850      | CYLINDER COVER, F        | 1           |                     |
| 31*#\$    | 456441740      | BALL SEAT                | 2           |                     |
| 32*       | 953405260      | PACKING 1/4, CU          | 1           |                     |
| 33*       | 001520660      | SOCKET HEAD BOLT 6X100 T | 4           |                     |
| 34*       | 001520615      | SOCKET HEAD BOLT 6X15 T  | 4           |                     |

## MVH-200GH — THROTTLE LEVER ( A-TYPE ) ASSY.

THROTTLE ( A-TYPE ) ASSY.



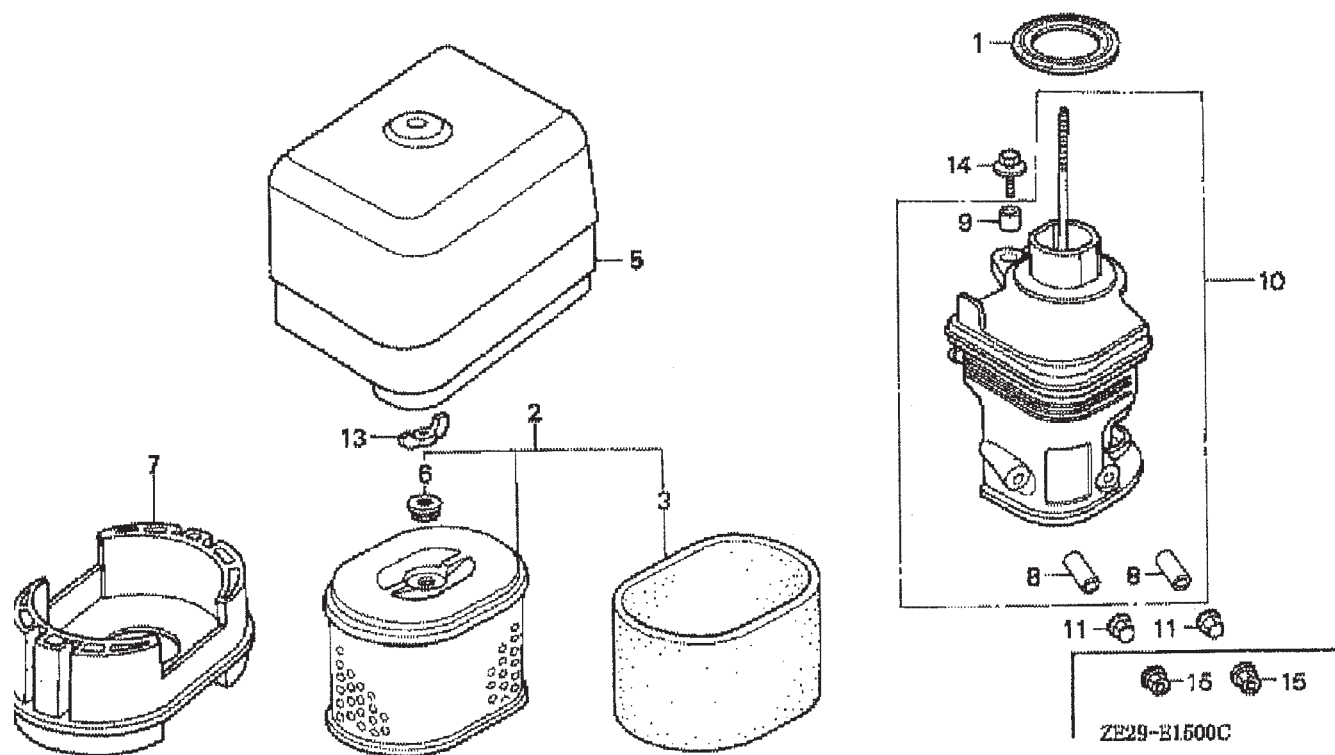
# MVH-200GH — THROTTLE LEVER ( A-TYPE ) ASSY.

## THROTTLE ( A-TYPE ) ASSY.

| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u>              | <u>QTY.</u> | <u>REMARKS</u>                    |
|-----------|----------------|-------------------------------|-------------|-----------------------------------|
| 1         | 956200030      | THROTTLE LEVER ASSY. AL103F   | 1           |                                   |
| 2         | 092008016      | SCREW 8 X 16                  | 2           |                                   |
| 2         | 092008025      | SCREW 8 X 25                  | 2           |                                   |
| 3         | 030208200      | WASHER, LOCK 8MM              | 2           |                                   |
| 4         | 020108060      | NUT M8 .....                  | 2           | REPLACES 020308060                |
| 5         | 455435000      | SPACER 7 X 9.5 X15            | 1           |                                   |
| 6         | 456331120      | LEVER BRACKET, T .....        | 1           | REPLACES 456329370                |
| 7         | 959404390      | GROMMET MG-22D                | 1           |                                   |
| 10        | 956100016      | THROTTLE WIRE 1600-1840 ..... | 1           | REPLACES 956103100<br>& 956100011 |
| 11        | 959021621      | TUBE 8-13-1300L               | 1           |                                   |
| 12        | 456443060      | LEVER STOPPER 462COS          | 1           |                                   |
| 13        | 456443070      | LEVER SPACE 515D04            | 1           |                                   |
| 14        | 456330100      | LEVER COVER                   | 1           |                                   |
| 15        | 959405280      | BOOT                          | 1           |                                   |
| 16        | 506010070      | CLAMP TC-150                  | 2           |                                   |
| 20        | 952010030      | WAVE WASHER W-20 .....        | 3           | S/N C1834~                        |
| 21        | 455334250      | WIRE GUIDE, AL103F .....      | 1           | S/N C1834~                        |

# HONDA GX240K1SMX2 — AIR CLEANER ASSY.

AIR CLEANER ASSY.



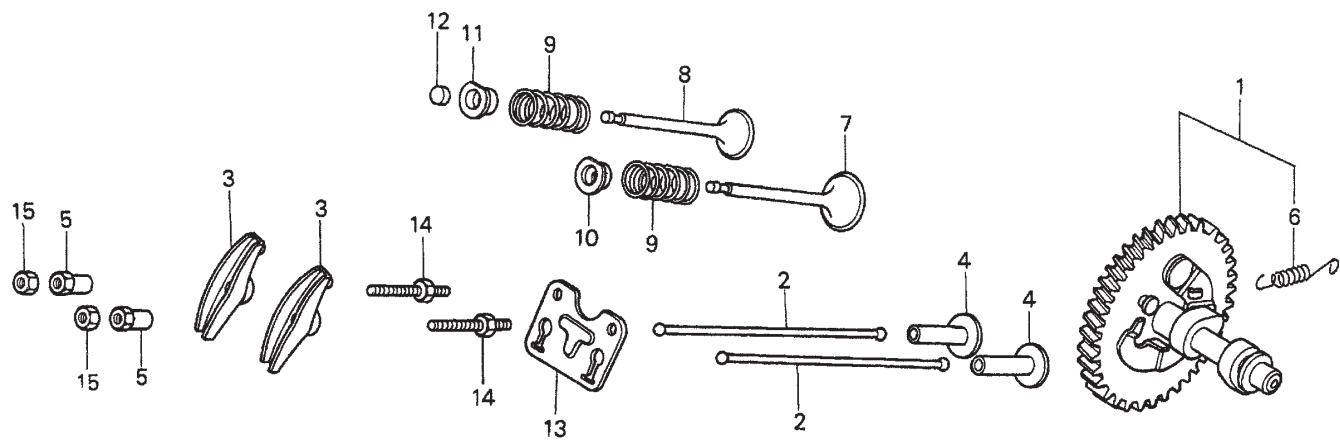
# HONDA GX240K1SMX2 — AIR CLEANER ASSY.

## AIR CLEANER ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>                | <u>QTY.</u> | <u>REMARKS</u>      |
|------------|-----------------|---------------------------------|-------------|---------------------|
| 1          | 16271ZE2000     | GASKET, ELBOW                   | 1           |                     |
| 2          | 17210ZE2505     | ELEMENT, DUAL AIR CLEANER ..... | 1           | INCLUDES ITEMS W/*  |
| 3*         | 17218ZE2505     | FILTER, OUTER                   | 1           |                     |
| 5          | 17231ZH9820     | COVER, AIR CLEANER              | 1           |                     |
| 6*         | 1723891000      | GROMMET, AIR CLEANER            | 1           |                     |
| 7          | 17235ZE2820     | NOSE, MUFFLER                   | 1           |                     |
| 8\$        | 17238ZE2310     | COLLAR, AIR CLEANER             | 2           |                     |
| 9\$        | 17239ZE1000     | COLLAR B, AIR CLEANER           | 1           |                     |
| 10         | 17410ZE2020     | ELBOW, AIR CLEANER .....        | 1           | INCLUDES ITEMS W/\$ |
| 13         | 90325044000     | WINGNUT, TOOL BOX SETTING       | 1           |                     |
| 14         | 90009ZE2003     | BOLT- WASHER 6X22               | 1           |                     |
| 15         | 9405006000      | NUT, FLANGE 6MM                 | 2           |                     |

# HONDA GX240K1SMX2 — CAMSHAFT ASSY.

CAMSHAFT ASSY.

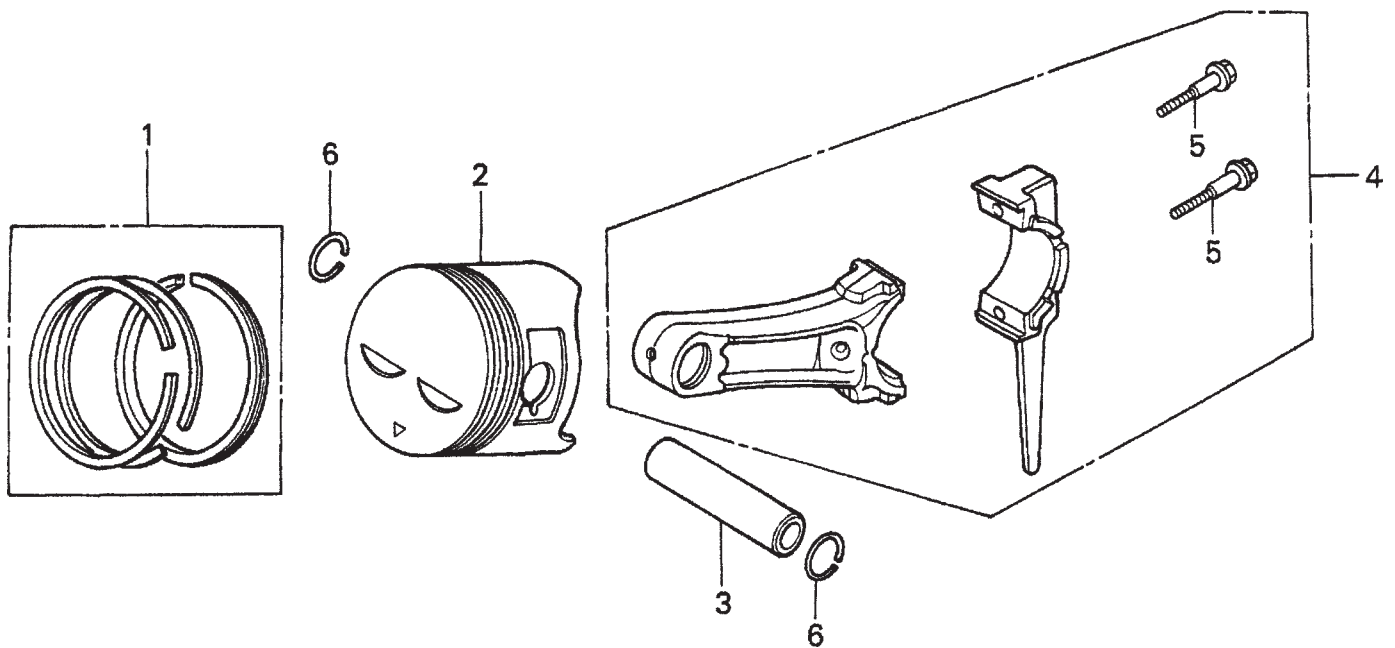


# HONDA GX240K1SMX2 — CAMSHAFT ASSY.

## CAMSHAFT ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>               | <u>QTY.</u> | <u>REMARKS</u>              |
|------------|-----------------|--------------------------------|-------------|-----------------------------|
| 1          | 14100ZE2W01     | CAMSHAFT ASSEMBLY .....        | 1 .....     | USE FROM ENGINE SN 3620689~ |
| 1          | 14100ZE2306     | CAMSHAFT ASSEMBLY .....        | 1 .....     | USE UP TO ENGINE SN 3620688 |
| 2          | 14410ZE2013     | ROD, PUSH                      | 2           |                             |
| 3          | 14431ZE2010     | ARM, VALVE ROCKER              | 2           |                             |
| 4          | 14441ZE2000     | LIFTER, VALVE                  | 2           |                             |
| 5          | 14451ZE1013     | PIVOT, ROCKER ARM              | 2           |                             |
| 6          | 14568ZE1000     | SPRING, WEIGHT RETURN          | 1           |                             |
| 7          | 14711ZE2000     | VALVE, INTAKE                  | 1           |                             |
| 8          | 14721ZE2000     | VALVE, EXHAUST                 | 1           |                             |
| 9          | 14751ZE2003     | SPRING, VALVE                  | 2           |                             |
| 10         | 14771ZE2000     | RETAINER, INTAKE VALVE SPRING  | 1           |                             |
| 11         | 14773ZE2000     | RETAINER, EXHAUST VALVE SPRING | 1           |                             |
| 12         | 14781ZE2000     | ROTATOR, VALVE                 | 1           |                             |
| 13         | 14791ZE2010     | PLATE, PUSH ROD GUIDE          | 1           |                             |
| 14         | 90012ZE0010     | BOLT, PIVOT 8MM                | 2           |                             |
| 15         | 90206ZE1000     | NUT, PIVOT ADJ.                | 2           |                             |

## HONDA GX240K1SMX2 — PISTON ASSY.



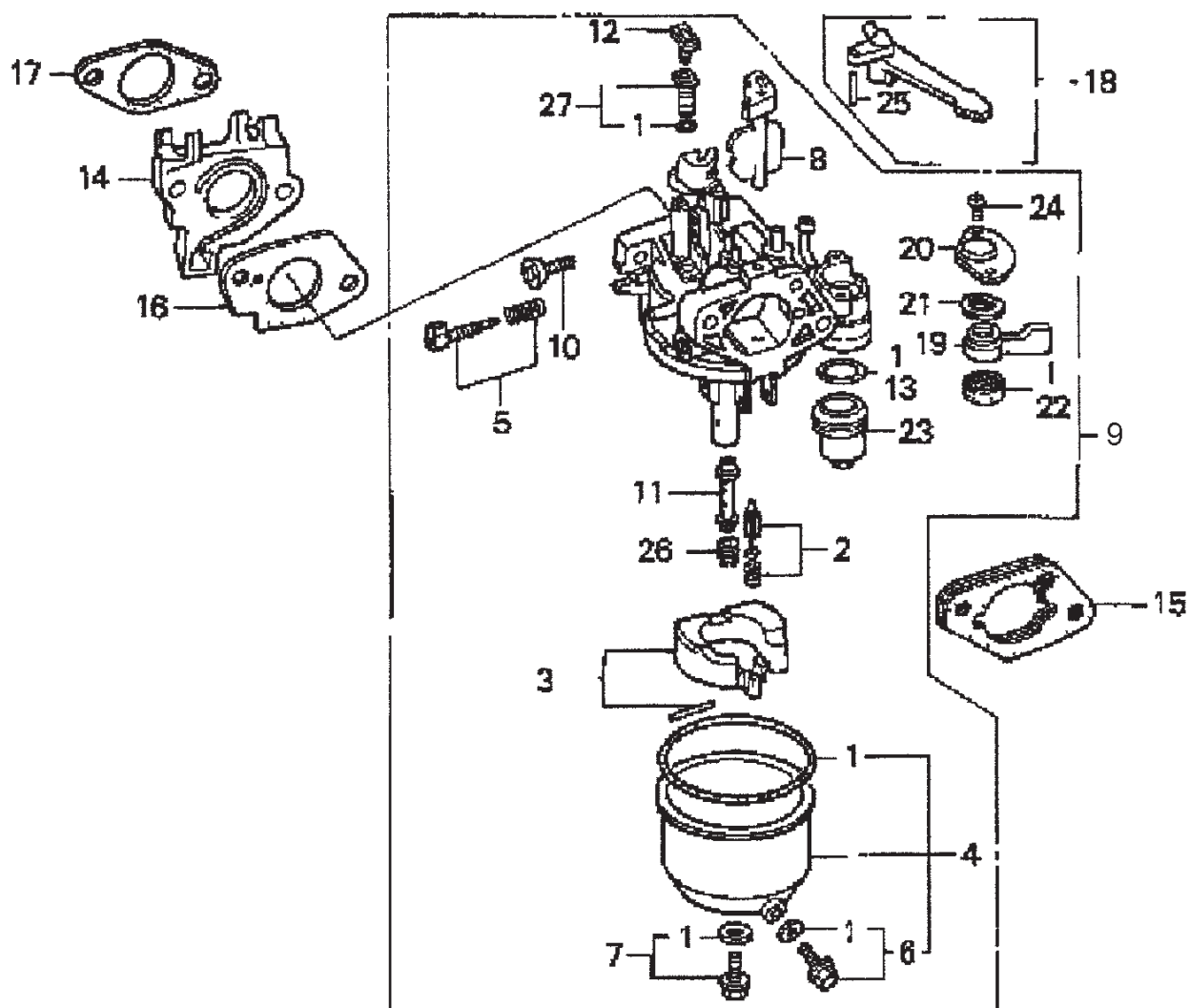
# HONDA GX240K1SMX2 — PISTON ASSY.

## PISTON ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>                      | <u>QTY.</u> | <u>REMARKS</u>     |
|------------|-----------------|---------------------------------------|-------------|--------------------|
| 1          | 13010ZE2013     | RING SET, PISTON - STANDARD           | 1           |                    |
| 1          | 13011ZE2013     | RING SET, PISTON - OS 0.25 (OPT.)     | 1           |                    |
| 1          | 13012ZE2013     | RING SET, PISTON - OS 0.50 (OPT.)     | 1           |                    |
| 1          | 13013ZE2013     | RING SET, PISTON - 0.75 (OPTIONAL)    | 1           |                    |
| 2          | 13101ZE2W00     | PISTON - STANDARD                     | 1           |                    |
| 2          | 13102ZE2W00     | PISTON - OS 0.25 (OPTIONAL)           | 1           |                    |
| 2          | 13103ZE2W00     | PISTON - OS 0.50 (OPTIONAL)           | 1           |                    |
| 2          | 13104ZE2W00     | PISTON - 0.75 (OPTIONAL)              | 1           |                    |
| 3          | 13111ZE2000     | PIN, PISTON                           | 1           |                    |
| 4          | 13200ZE2000     | ROD ASSY., CONNECTING (STD) .....     | 1           | INCLUDES ITEMS W/* |
| 4          | 13200ZE2305     | ROD ASSY., CONNECTING (US 0.25) ..... | 1           | INCLUDES ITEMS W/* |
| 5*         | 90001ZE8000     | BOLT, CONNECTING ROD                  | 2           |                    |
| 6          | 90551ZE1000     | CLIP, PISTON PIN 18MM                 | 2           |                    |

## HONDA GX240K1SMX2 — CARBURETOR ASSY.

CARBURETOR ASSY.



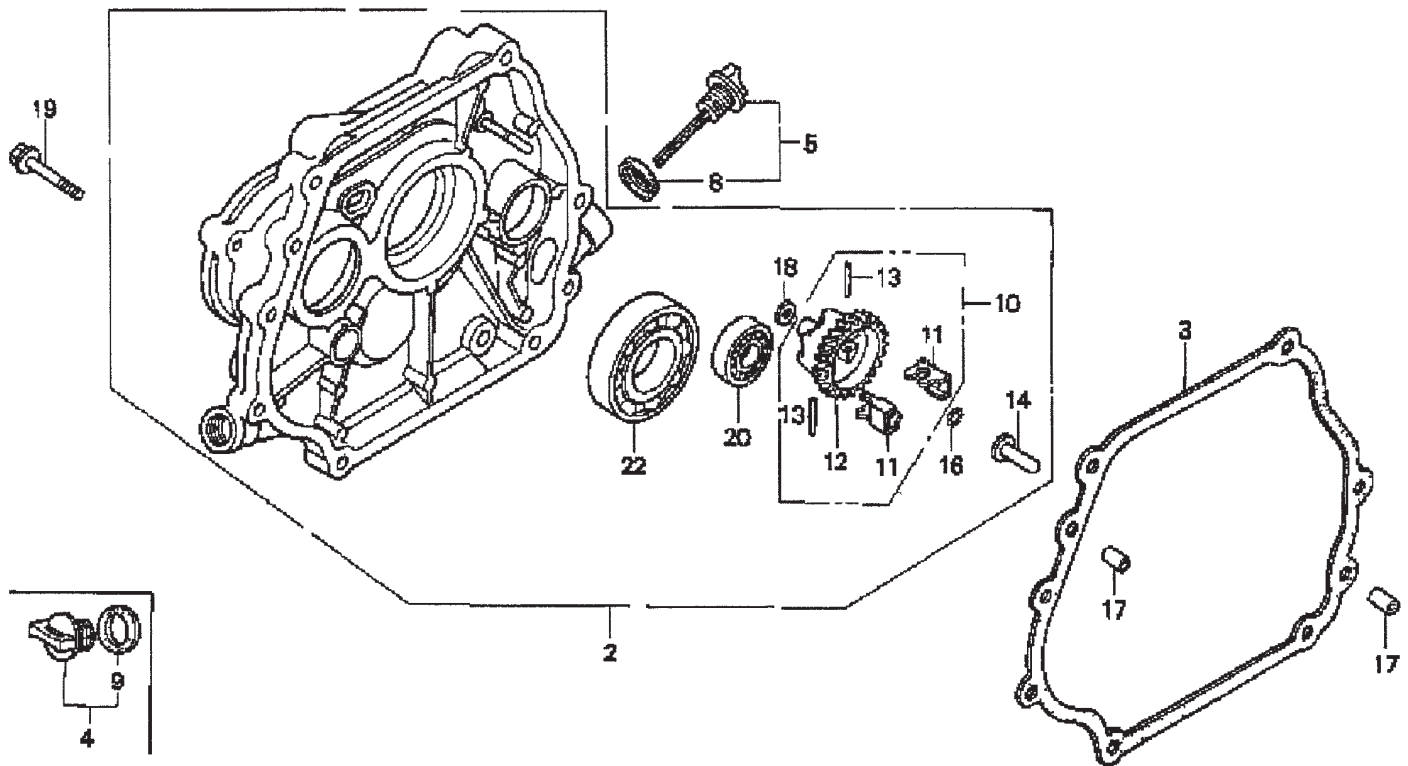
# HONDA GX240K1SMX2 — CARBURETOR ASSY.

## CARBURETOR ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>              | <u>QTY.</u> | <u>REMARKS</u>              |
|------------|-----------------|-------------------------------|-------------|-----------------------------|
| 1*         | 16010ZE2812     | GASKET SET                    | 1           |                             |
| 2          | 16011ZA0931     | VALVE SET, FLOAT              | 1           |                             |
| 3*         | 16013ZA0931     | FLOAT SET                     | 1           |                             |
| 4*         | 16015ZE2005     | CHAMBER SET, FLOAT .....      | 1           | USE UP TO ENGINE SN BE70B A |
| 4*         | 16015ZE8005     | CHAMBER SET, FLOAT .....      | 1           | USE UP TO ENGINE SN BE70B A |
| 5          | 16016ZH7W01     | SCREW SET                     | 1           |                             |
| 6*         | 16024ZE1811     | SCREW SET, DRAIN              | 1           |                             |
| 7*         | 16028ZE0005     | SCREW SET B                   | 1           |                             |
| 8*         | 16044ZE2005     | CHOKE SET                     | 1           |                             |
| 9          | 16100ZE2W71     | CARBURETOR ASSEMBLY (BE70B B) | 1           | INCLUDES ITEMS W/*          |
| 10*        | 16124ZE0005     | SCREW, THROTTLE <b>STOP</b>   | 1           |                             |
| 11*        | 16166ZE2W70     | NOZZLE, MAIN                  | 1           |                             |
| 12*        | 16172ZE3W10     | COLLAR, SET                   | 1           |                             |
| 13*        | 16173001004     | GASKET, FUEL STRAINER CUP     | 1           |                             |
| 14         | 16211ZE2000     | INSULATOR, CARBURETOR         | 1           |                             |
| 15         | 16220ZA0702     | SPACER, CARBURETOR            | 1           |                             |
| 16         | 16221ZA0800     | GASKET, CARBURETOR            | 1           |                             |
| 17         | 16223ZA0800     | GASKET, INSULATOR             | 1           |                             |
| 18         | 16610ZE1000     | LEVER, CHOKE (STANDARD)       | 1           |                             |
| 19*        | 16953ZE1406     | LEVER, VALVE .....            | 1           | USE UP TO ENGINE SN BE70B A |
| 19         | 16953ZE1812     | LEVER, VALVE .....            | 1           | USE FROM ENGINE SN BE70B B  |
| 20         | 16954ZE1811     | PLATE, LEVER SETTING .....    | 1           | USE UP TO ENGINE SN BE70B A |
| 20         | 16954ZE1812     | PLATE, LEVER SETTING .....    | 1           | USE FROM ENGINE SN BE70B B  |
| 21*        | 16956ZE1811     | SPRING, VALVE LEVER           | 1           |                             |
| 22*        | 16957ZE1812     | GASKET, VALVE                 | 1           |                             |
| 23*        | 16967ZE0811     | CUP, FUEL STRAINER            | 1           |                             |
| 24*        | 93500030060H    | SCREW, PAN 3X6 .....          | 2           | USE FROM ENGINE SN BE70B B  |
| 24*        | 93500030080G    | SCREW, PAN 3X8 .....          | 2           | USE UP TO ENGINE SN BE70B A |
| 25         | 9430520122      | PIN, SPRING 2X12              | 1           |                             |
| 26         | 99101ZH80820    | JET, MAIN #82 (OPTIONAL)      | 1           |                             |
| 26         | 99101ZH80850    | JET, MAIN #85 (OPTIONAL)      | 1           |                             |
| 26*        | 99101ZH80880    | JET, MAIN #88                 | 1           |                             |
| 27*        | 99204ZE20400    | JET SET, PILOT #40 .....      | 1           | USE UP TO ENGINE SN BE70B A |
| 27*        | 99204ZE20400    | JET SET, PILOT #40 .....      | 1           | USE FROM ENGINE SN BE70B B  |

## HONDA GX240K1SMX2 — CRANKCASE COVER ASSY.

CRANKCASE COVER ASSY.



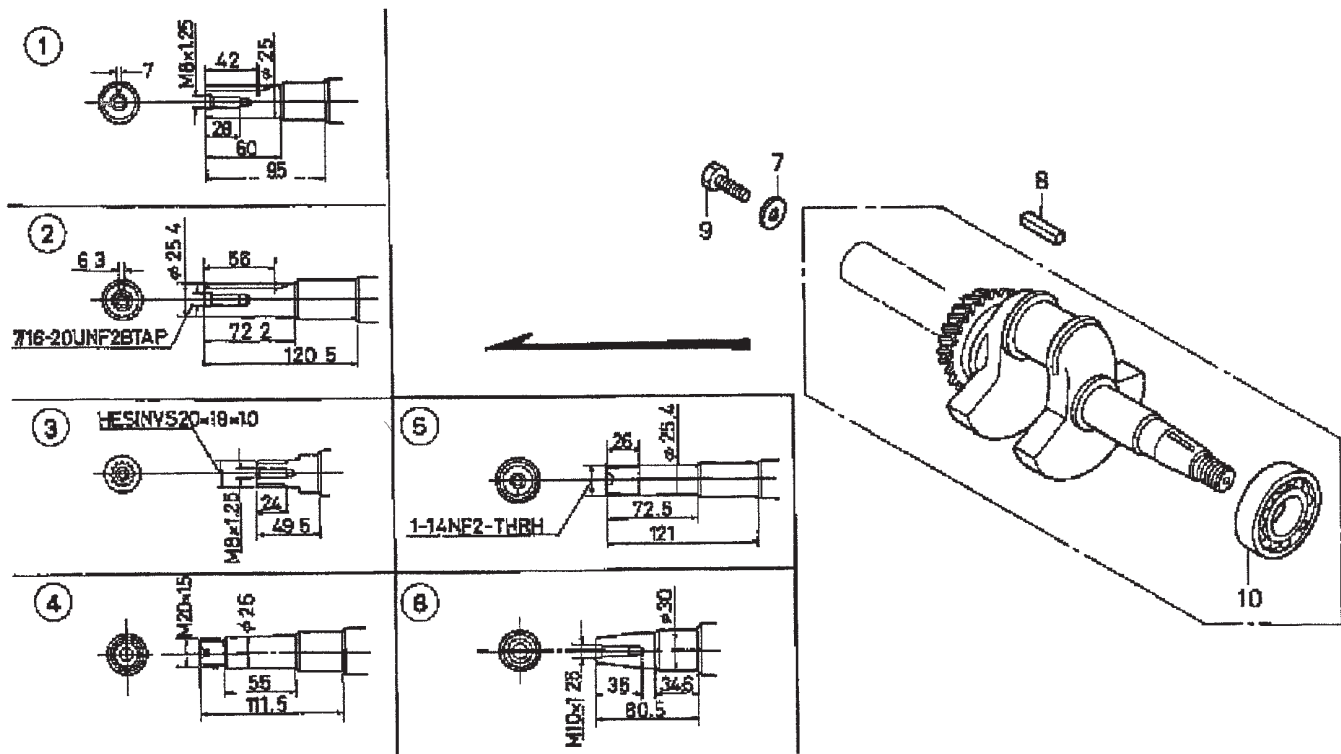
## HONDA GX240K1SMX2 — CRANKCASE COVER ASSY.

### CRANKCASE COVER ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>                   | <u>QTY.</u> | <u>REMARKS</u>     |
|------------|-----------------|------------------------------------|-------------|--------------------|
| 2          | 11300ZE2000     | COVER ASSY., CRANKCASE S- TYPE ... | 1           | INCLUDES ITEMS W/* |
| 3          | 11381ZE2800     | GASKET, CASE COVER                 | 1           |                    |
| 4          | 15600ZG4003     | CAP ASSEMBLY, OIL FILLER .....     | 1           | INCLUDES ITEMS W/+ |
| 5          | 15600735003     | CAP ASSEMBLY, OIL FILLER .....     | 1           | INCLUDES ITEMS W/# |
| 8#         | 15625ZE1003     | GASKET, OIL FILLER CAP             | 1           |                    |
| 9+         | 15625ZE1003     | GASKET, OIL FILLER CAP             | 1           |                    |
| 10*        | 16510ZE2000     | GOVERNOR ASSEMBLY, STANDARD .....  | 1           | INCLUDES ITEMS W/% |
| 11*%       | 16511ZE2000     | WEIGHT, GOVERNOR                   | 2           |                    |
| 12*%       | 16512ZE2000     | HOLDER, GOVERNOR WEIGHT            | 1           |                    |
| 13*%       | 16513ZE2000     | PIN, GOVERNOR WEIGHT               | 2           |                    |
| 14*        | 16531ZE2000     | SLIDER, GOVERNOR                   | 1           |                    |
| 16*        | 90602ZE1000     | CLIP, GOVERNOR HOLDER              | 1           |                    |
| 17         | 90701HC4000     | PIN, DOWEL 8X12                    | 2           |                    |
| 18*        | 9410106800      | WASHER, PLAIN 6MM                  | 1           |                    |
| 19         | 957010803500    | BOLT, FLANGE 8X35                  | 7           |                    |
| 22*        | 961006206000    | BEARING, RADIAL BALL, 6206         | 1           |                    |

# HONDA GX240K1SMX2 — CRANKSHAFT ASSY.

## CRANKSHAFT ASSY.



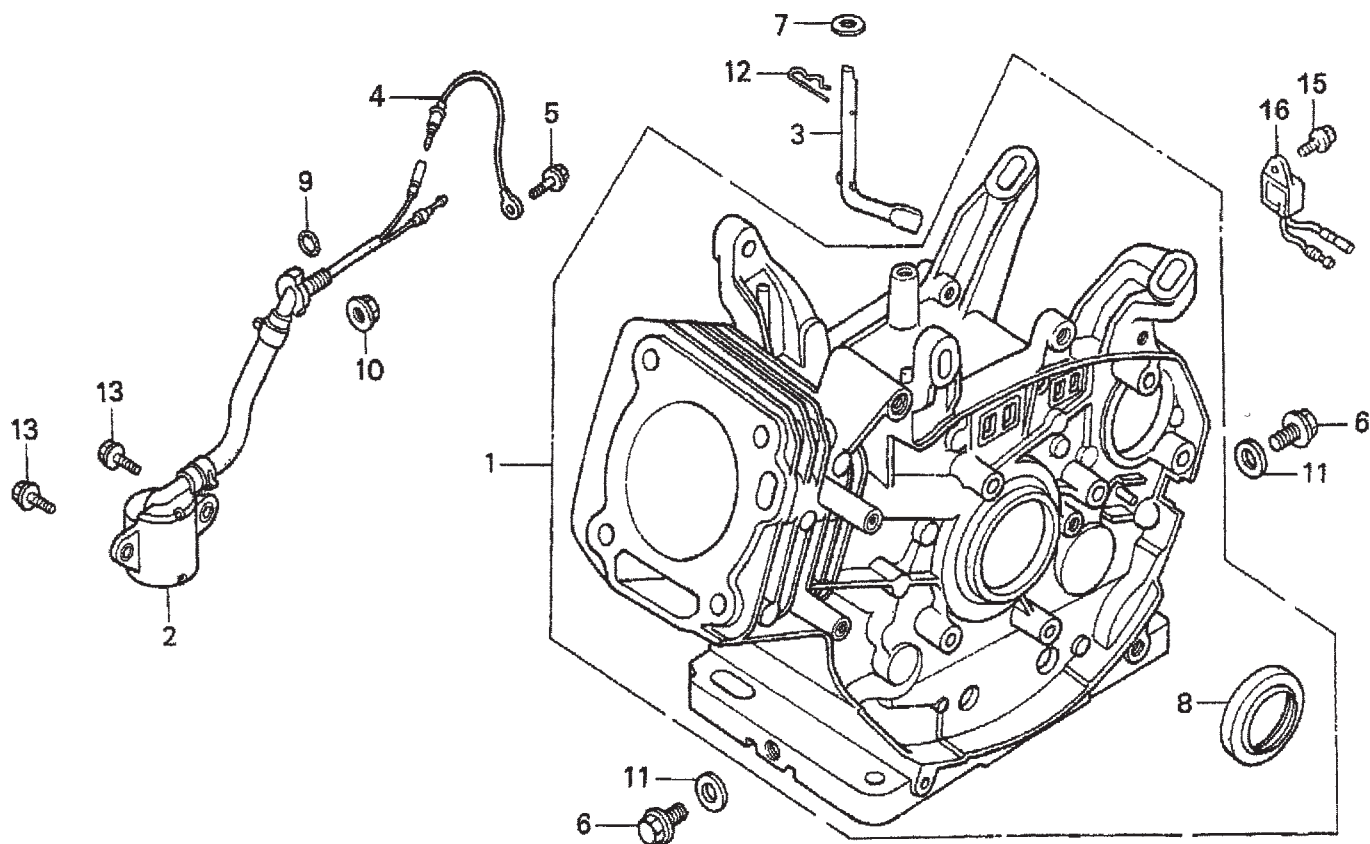
## HONDA GX240K1SMX2 — CRANKSHAFT ASSY.

CRANKSHAFT ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>          | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|---------------------------|-------------|----------------|
|            | 13310ZE2010     | CRANKSHAFT, S TYPE        | 1           |                |
| 7          | 90534706010     | WASHER, LOCK 8MM          | 1           |                |
| 8          | 90741889810     | KEY 7X7X33                | 1           |                |
| 8          | 90741889810     | KEY 7X7X33 (OPTIONAL)     | 1           |                |
| 9          | 92101080250A    | BOLT, HEX. 8X25           | 1           |                |
| 10         | 961006206000    | BEARING, RADIAL BALL 6206 | 1           |                |

## HONDA GX240K1SMX2 — CYLINDER BARREL ASSY.

CYLINDER BARREL ASSY.



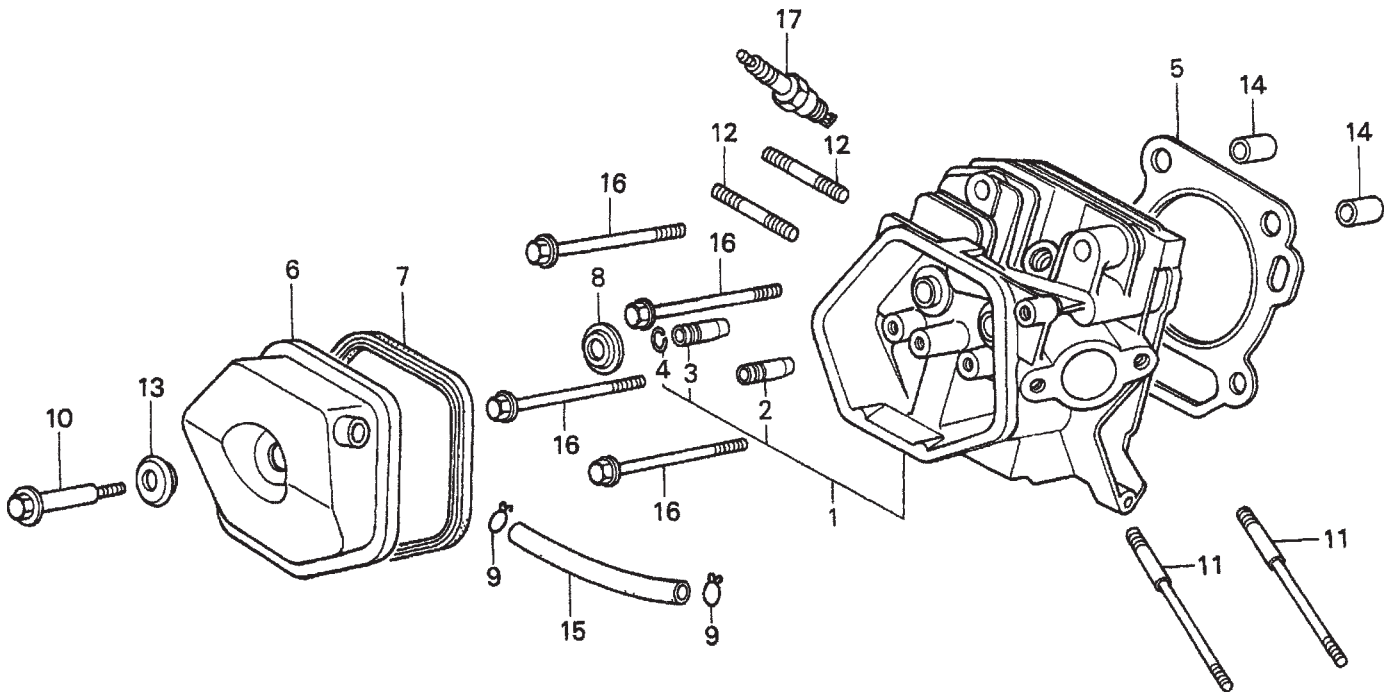
## HONDA GX240K1SMX2 — CYLINDER BARREL ASSY.

### CYLINDER BARREL ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>                 | <u>QTY.</u> | <u>REMARKS</u>              |
|------------|-----------------|----------------------------------|-------------|-----------------------------|
| 1          | 12000ZE2814     | CYLINDER ASSEMBLY .....          | 1 .....     | INCLUDES ITEMS W/*          |
| 2          | 15510ZE2043     | SWITCH ASSEMBLY, OIL LEVEL ..... | 1 .....     | USE UP TO ENGINE SN 3566259 |
| 3          | 16541ZE2010     | SHAFT, GOVERNOR ARM              | 1           |                             |
| 4          | 32197ZE2003     | SUB- HARNESS .....               | 1 .....     | USE UP TO ENGINE SN 3566259 |
| 5          | 90013883000     | BOLT, FLANGE 6X12 (CT200) .....  | 1 .....     | USE UP TO ENGINE SN 3566259 |
| 6          | 90131896650     | BOLT, DRAIN PLUG                 | 2           |                             |
| 7          | 90446KE1000     | WASHER 8.2X17X0.8                | 1           |                             |
| 8*         | 91201890003     | OIL SEAL 30X46X8                 | 1           |                             |
| 9          | 91353671003     | O- RING 13.5X1.5 (ARAI)          | 1           |                             |
| 10         | 9405010000      | NUT, FLANGE 10MM                 | 1           |                             |
| 11         | 9410912000      | WASHER, DRAIN PLUG 12MM          | 2           |                             |
| 12         | 9425110000      | PIN, LOCK 10MM                   | 1           |                             |
| 13         | 957010601200    | BOLT, FLANGE 6X12                | 2           |                             |
| 15         | 90013883000     | BOLT, FLANGE 6X12 (CT200)        | 1           |                             |
| 16         | 34150ZH7003     | ALERT UNIT, OIL .....            | 1 .....     | USE FROM ENGINE SN 3684579  |

## HONDA GX240K1SMX2 — CYLINDER HEAD ASSY.

CYLINDER HEAD ASSY.



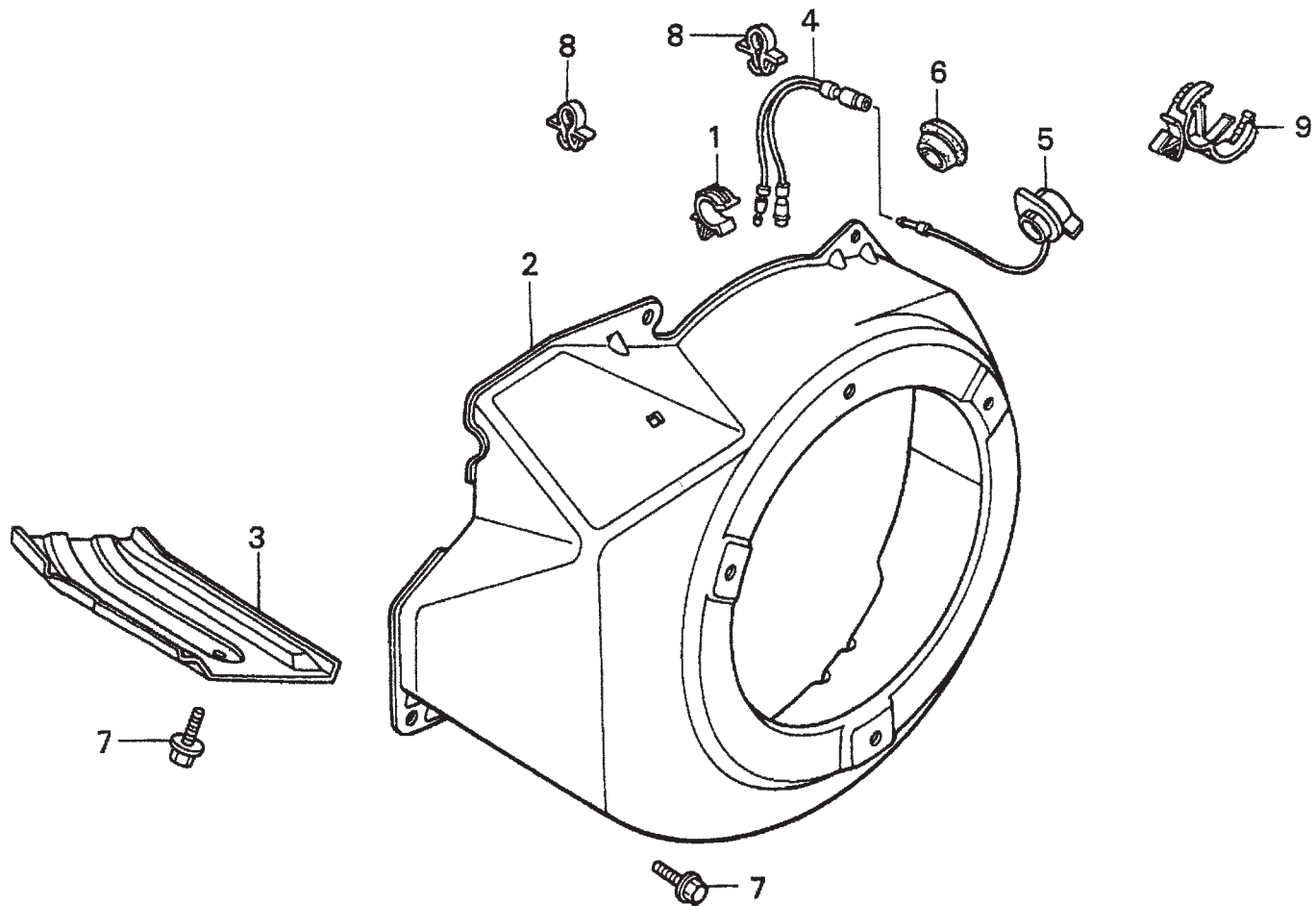
# HONDA GX240K1SMX2 — CYLINDER HEAD ASSY.

## CYLINDER HEAD ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>                        | <u>QTY.</u> | <u>REMARKS</u>              |
|------------|-----------------|-----------------------------------------|-------------|-----------------------------|
| 1          | 12200ZH9000     | CYLINDER HEAD .....                     | 1 .....     | INCLUDES ITEMS W/*          |
| 2          | 12204ZE2306     | GUIDE, VALVE OS (OPTIONAL)              | 1           |                             |
| 3          | 12205ZE2305     | GUIDE, EX.VALVE OS (OPTIONAL)           | 1           |                             |
| 4          | 12216ZE2300     | CLIP, VALVE GUIDE                       | 1           |                             |
| 5          | 12251ZE2800     | GASKET, CYLINDER HEAD                   | 1           |                             |
| 6          | 12310ZE2020     | COVER, HEAD                             | 1           |                             |
| 7          | 12391ZE2020     | GASKET, CYLINDER HEAD COVER             | 1           |                             |
| 8          | 14775ZE2010     | SEAT, VALVE SPRING                      | 1           |                             |
| 10         | 90014ZE2000     | BOLT, HEAD COVER                        | 1           |                             |
| 11         | 90042ZE2000     | BOLT, STUD 8X123                        | 2           |                             |
| 12         | 90047ZE2000     | BOLT, STUD 8X47 .....                   | 2 .....     | USE UP TO ENGINE SN 3844352 |
| 12         | 92900080320E    | BOLT 2, STUD 8X32 .....                 | 2 .....     | USE FROM ENGINE SN 3844353  |
| 13         | 90441ZE2010     | WASHER, HEAD COVER                      | 1           |                             |
| 14         | 9430112200      | PIN A, DOWEL 12X20                      | 2           |                             |
| 15         | 950051100130M   | BULK HOSE, VACUUM (11X1000)<br>(11X105) | 1           |                             |
| 16         | 957011008000    | BOLT, FLANGE 10X80                      | 4           |                             |
| 16         | 957251008000    | BOLT, FLANGE 10X80                      | 4           |                             |
| 17         | 9807955846      | SPARK PLUG BPR5ES (NGK) , OPT.          | 1           |                             |
| 17         | 9807955855      | SPARK PLUG W16EPR-U (DENSO), OPT.       | 1           |                             |
| 17         | 9807956846      | SPARK PLUG BPR63S (NGK)                 | 1           |                             |
| 17         | 9807956855      | SPARK PLUG W20EPR- U (DENSO)            | 1           |                             |

## HONDA GX240K1SMX2 — FAN COVER ASSY.

FAN COVER ASSY.



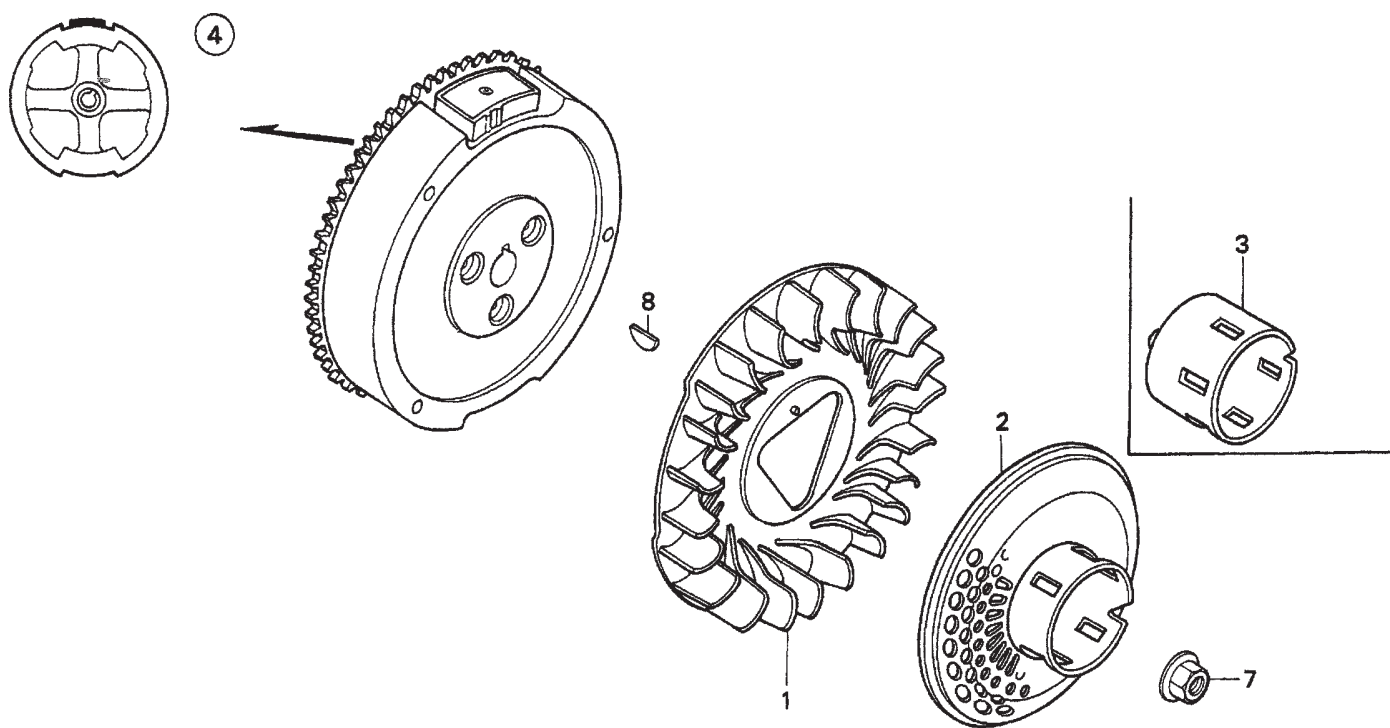
# HONDA GX240K1SMX2 — FAN COVER ASSY.

FAN COVER ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>                   | <u>QTY.</u> | <u>REMARKS</u>              |
|------------|-----------------|------------------------------------|-------------|-----------------------------|
| 1          | 16731ZE2003     | CLIP, TUBE                         | 1           |                             |
| 2          | 19610ZE2010ZA   | COVER, FAN *R8* (BRIGHT RED)       | 1           |                             |
| 2          | 19610ZE2010ZC   | COVER, FAN *NH1* (BLACK)           | 1           |                             |
| 3          | 19631ZE2D00     | SHROUD                             | 1           |                             |
| 3          | 19631ZH9000     | SHROUD .....                       | 1           | USE UP TO ENGINE SN 3531192 |
| 4          | 32197ZH8003     | SUB- HARNESS .....                 | 1           | USE UP TO ENGINE SN 3566259 |
| 5          | 36100ZE1015     | SWITCH ASSEMBLY, ENGINE STOP ..... | 1           | USE UP TO ENGINE SN 3566259 |
| 5          | 36100ZH7003     | SWITCH ASSEMBLY, ENGINE STOP ..... | 1           | USE FROM ENGINE SN 3566260  |
| 7          | 90013883000     | BOLT, FLANGE 6X12 (CT200)          | 6           |                             |
| 9          | 90684ZA0601     | CLIP, WIRE HARNESS                 | 1           |                             |

# HONDA GX240K1SMX2 — FLYWHEEL ASSY.

FLYWHEEL ASSY.



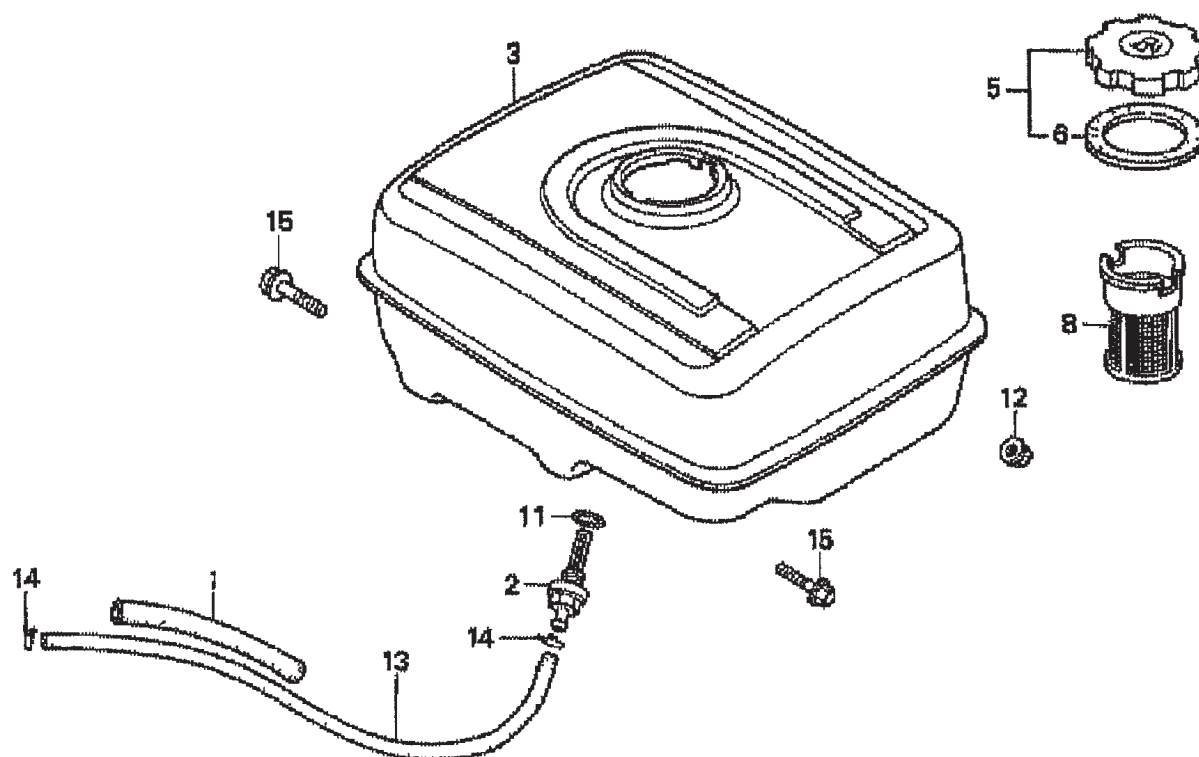
## HONDA GX240K1SMX2 — FLYWHEEL ASSY.

FLYWHEEL ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>            | <u>QTY.</u> | <u>REMARKS</u>                    |
|------------|-----------------|-----------------------------|-------------|-----------------------------------|
| 2          | 19511ZE2000     | FAN, COOLING                | 1           |                                   |
| 3          | 28451ZE2W01     | PULLEY, STARTER             | 1           |                                   |
| 4          | 31100ZE2010     | FLYWHEEL                    | 1           |                                   |
| 7          | 90201ZE3V00     | NUT, SPECIAL 16MM (1) ..... | 1           | ..... USE FROM ENGINE SN 3467139  |
| 7          | 90201ZE3790     | NUT, SPECIAL 16MM .....     | 1           | ..... USE UP TO ENGINE SN 3467138 |
| 8          | 90741ZE2000     | KEY, SPECIAL WOODRUFF 25X18 | 1           |                                   |

## HONDA GX240K1SMX2 — FUEL TANK ASSY.

FUEL TANK ASSY.



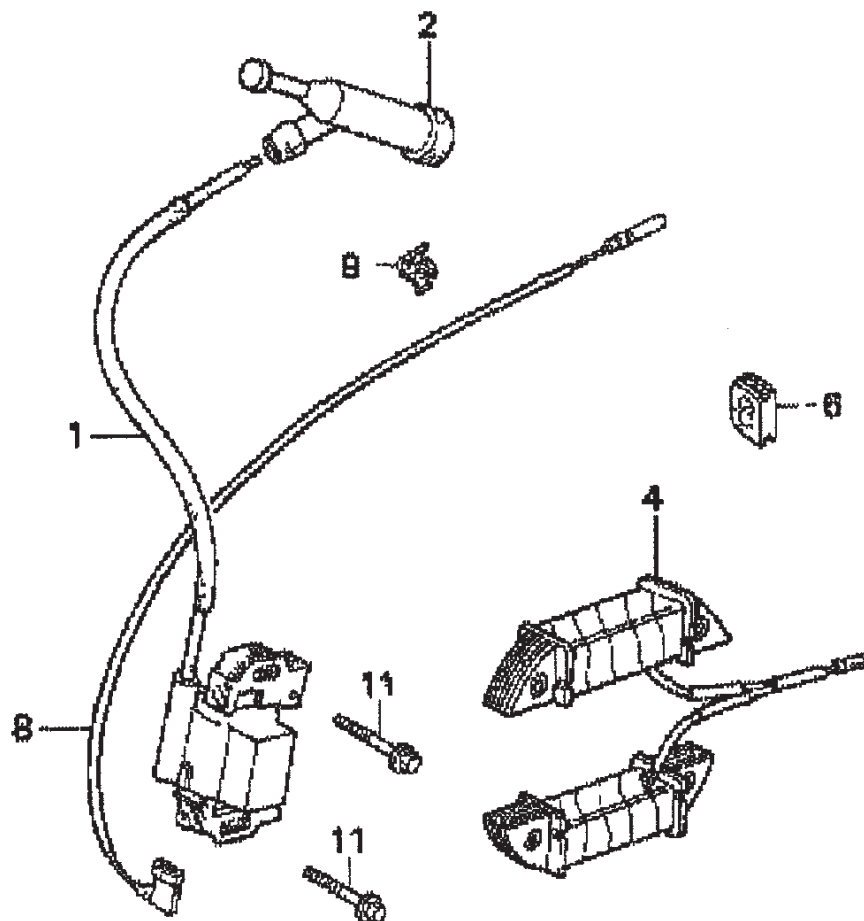
## HONDA GX240K1SMX2 — FUEL TANK ASSY.

### FUEL TANK ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>                     | <u>QTY.</u> | <u>REMARKS</u>     |
|------------|-----------------|--------------------------------------|-------------|--------------------|
| 1          | 16854ZH8000     | RUBBER, SUPPORTER 107MM              | 1           |                    |
| 2          | 16955ZE1000     | JOINT, FUEL TANK                     | 1           |                    |
| 3          | 17510ZE2010ZA   | TANK, FUEL *NH31* (MCKINLEY WHITE)   | 1           |                    |
| 3          | 17510ZE2010ZD   | TANK, FUEL *NH1* (BLACK)             | 1           |                    |
| 5          | 17620ZH7023     | CAP, FUEL FILLER .....               | 1           | INCLUDES ITEMS W/* |
| 6*         | 17631ZH7003     | GASKET, FUEL FILLER CAP              | 1           |                    |
| 8          | 17672ZE2W01     | FILTER, FUEL                         | 1           |                    |
| 11         | 91353671003     | O- RING 13.5X1.5 (ARAI)              | 1           |                    |
| 12         | 9405008000      | NUT, FLANGE 8MM                      | 2           |                    |
| 13         | 950014500360M   | BULK HOSE, FUEL (4.5X3000) (4.5X222) | 1           |                    |
| 14         | 9500202080      | CLIP, TUBE B8                        | 2           |                    |
| 15         | 957010802500    | BOLT, FLANGE 8X25                    | 2           |                    |

## HONDA GX240K1SMX2 — IGNITION COIL ASSY.

IGNITION COIL ASSY.



## HONDA GX240K1SMX2 — IGNITION COIL ASSY.

### IGNITION COIL ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>            | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|-----------------------------|-------------|----------------|
| 1          | 30500ZE2023     | COIL ASSEMBLY, IGNITION     | 1           |                |
| 2          | 30700ZE1013     | CAP ASSY., NOISE SUPPRESSOR | 1           |                |
| 6          | 31512ZE2000     | GROMMET, WIRE               | 1           |                |
| 8          | 36101ZE1010     | WIRE, STOP SWITCH 370MM     | 1           |                |
| 11         | 90015883000     | BOLT, FLANGE 6X28           | 2           |                |

GASKET KIT ASSY.

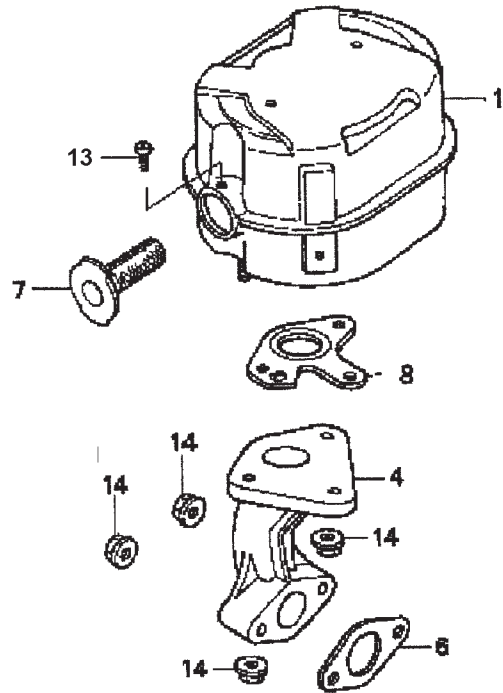
**NO ART WORK**

## HONDA GX240K1SMX2 — GASKET KIT ASSY.

GASKET KIT ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>                  | <u>QTY.</u> | <u>REMARKS</u>              |
|------------|-----------------|-----------------------------------|-------------|-----------------------------|
|            | 06111ZE2408     | GASKET KIT .....                  | 1 .....     | USE UP TO ENGINE SN 4045100 |
| 1          | 11381ZE2801     | GASKET, CASE COVER .....          | 1 .....     | USE UP TO ENGINE SN 4045100 |
| 2          | 12251ZE2800     | GASKET, CYLINDER HEAD .....       | 1 .....     | USE UP TO ENGINE SN 4045100 |
| 3          | 12391ZE2020     | GASKET, CYLINDER HEAD COVER ..... | 1 .....     | USE UP TO ENGINE SN 4045100 |
| 4          | 16221ZA0800     | GASKET, CARBURETOR.....           | 1 .....     | USE UP TO ENGINE SN 4045100 |
| 5          | 16223ZA0800     | GASKET, INSULATOR .....           | 1 .....     | USE UP TO ENGINE SN 4045100 |
| 6          | 18333ZE3800     | GASKET, EXHAUST PIPE .....        | 1 .....     | USE UP TO ENGINE SN 4045100 |

## HONDA GX240K1SMX2 — MUFFLER ASSY.



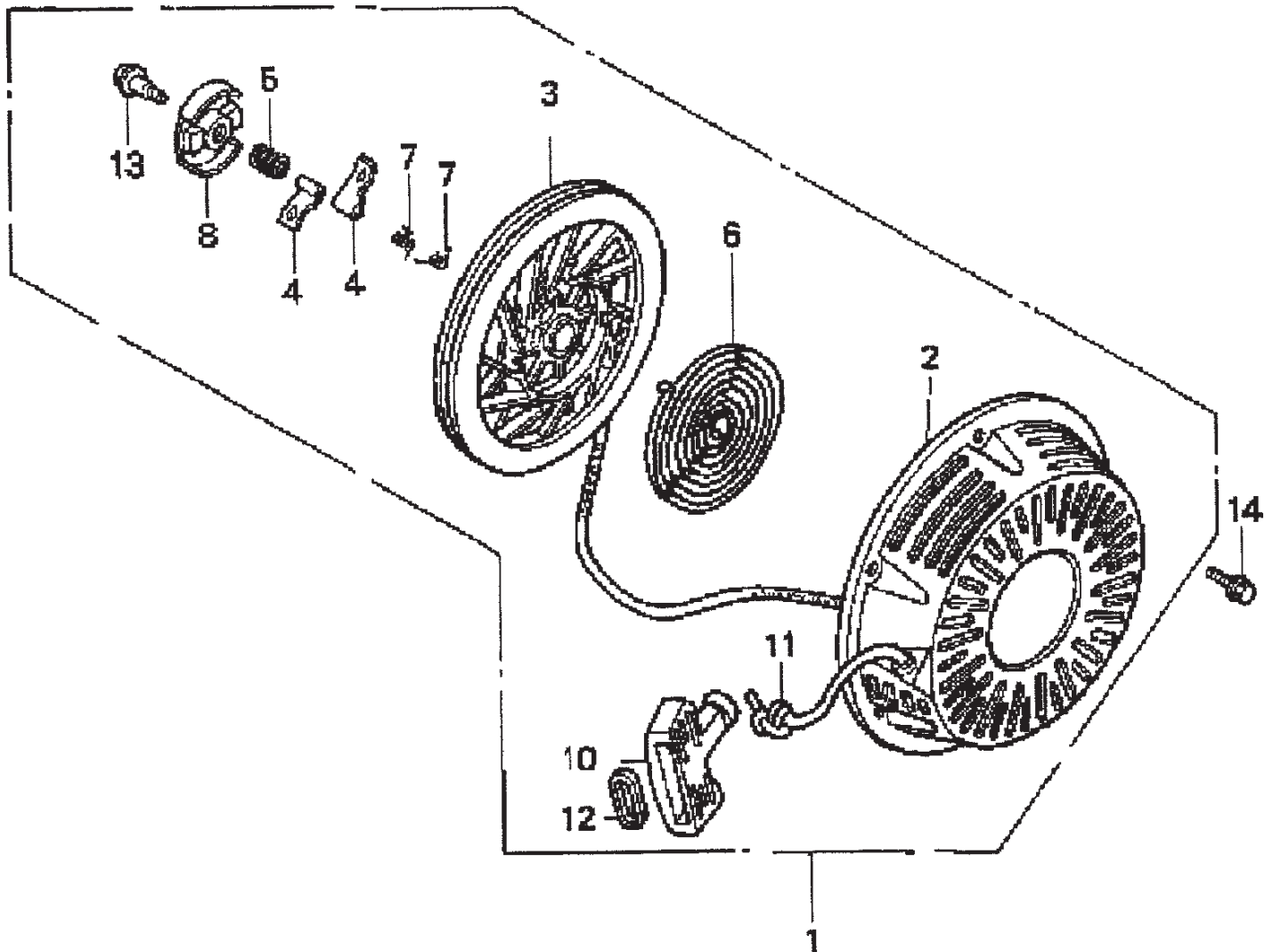
## HONDA GX240K1SMX2 — MUFFLER ASSY.

### MUFFLER ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>           | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|----------------------------|-------------|----------------|
| 1          | 18310ZE2W00     | MUFFLER                    | 1           |                |
| 2          | 18320ZE2W01     | PROTECTOR, MUFFLER         | 1           |                |
| 4          | 18330ZE2W00     | PIPE, EXHAUST              | 1           |                |
| 6          | 18333ZE3800     | GASKET, EXHAUST PIPE       | 1           |                |
| 7          | 18355ZE2010     | ARRESTER, SPARK            | 1           |                |
| 8          | 18381ZE2W10     | GASKET, MUFFLER (ARRESTER) | 1           |                |
| 11         | 90050ZE1000     | SCREW, TAPPING 5X8         | 6           |                |
| 13         | 90050ZE1000     | SCREW, TAPPING 5X8         | 1           |                |
| 14         | 9405008000      | NUT, FLANGE 8MM            | 5           |                |

## HONDA GX240K1SMX2 — RECOIL STARTER ASSY.

RECOIL STARTER ASSY.



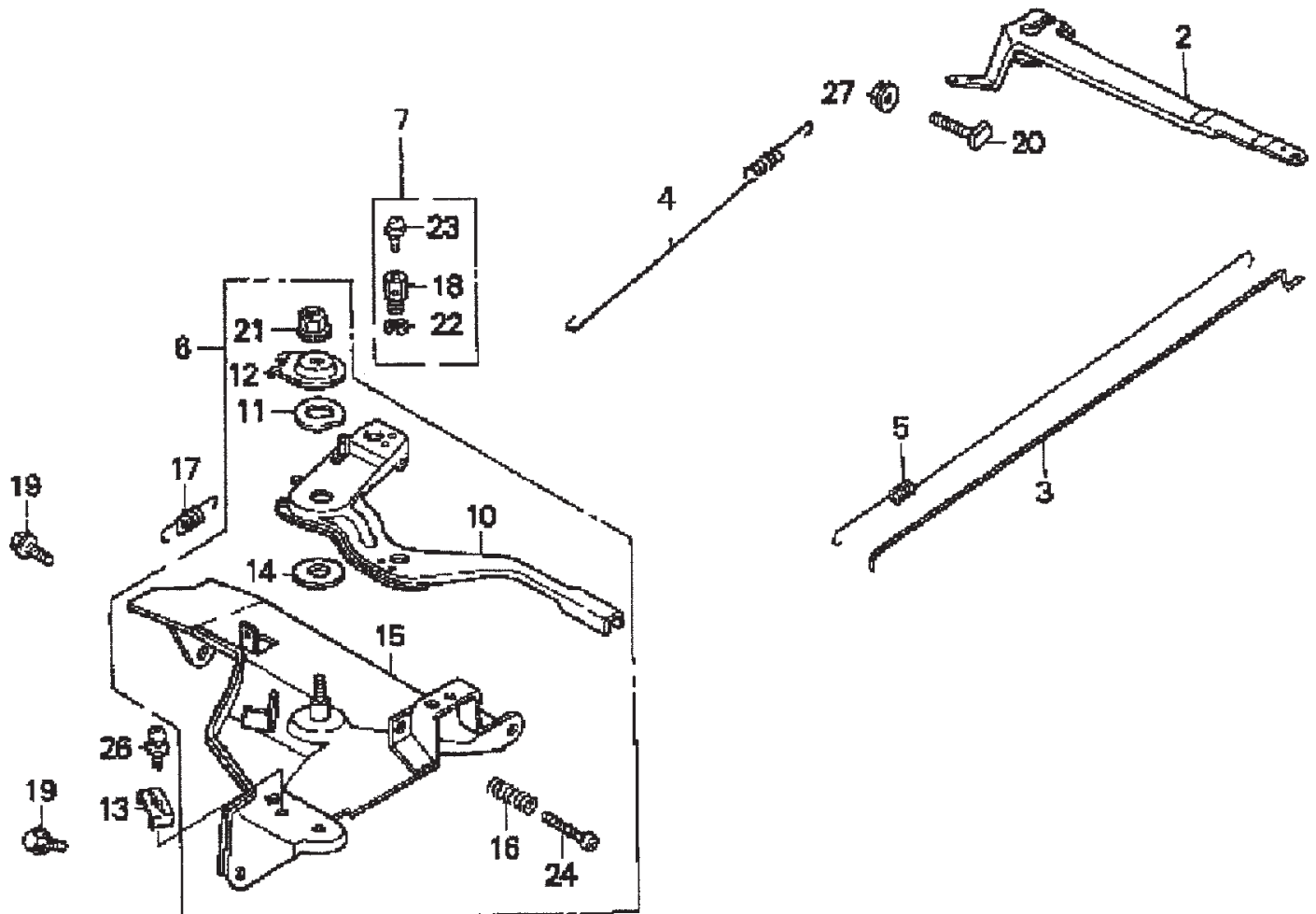
# HONDA GX240K1SMX2 — RECOIL STARTER ASSY.

## RECOIL STARTER ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>                         | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|------------------------------------------|-------------|----------------|
| 1          | 28400ZE2W01ZA   | STARTER ASSY., RECOIL<br>*R8* BRIGHT RED | 1           |                |
| 1          | 28400ZE2W01ZB   | STARTER ASSY., RECOIL<br>*NH1* BLACK     | 1           |                |
| 2          | 28410ZE2W01ZA   | CASE, RECOIL STARTER<br>*R8* BRIGHT RED  | 1           |                |
| 2          | 28410ZE2W01ZB   | CASE, RECOIL STARTER<br>*NH1* BLACK      | 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         | 28461ZE2W02     | GRIP, STARTER                            | 1           |                |
| 11         | 28462ZE2W11     | ROPE, RECOIL STARTER                     | 1           |                |
| 12         | 28469ZE2W01     | GRIP, REINFORCEMENT                      | 1           |                |
| 13         | 90004ZE2W01     | SCREW, CENTER                            | 1           |                |
| 14         | 90008ZE2003     | BOLT, FLANGE 6X10                        | 3           |                |

## HONDA GX240K1SMX2 — CONTROL ASSY.

CONTROL ASSY.



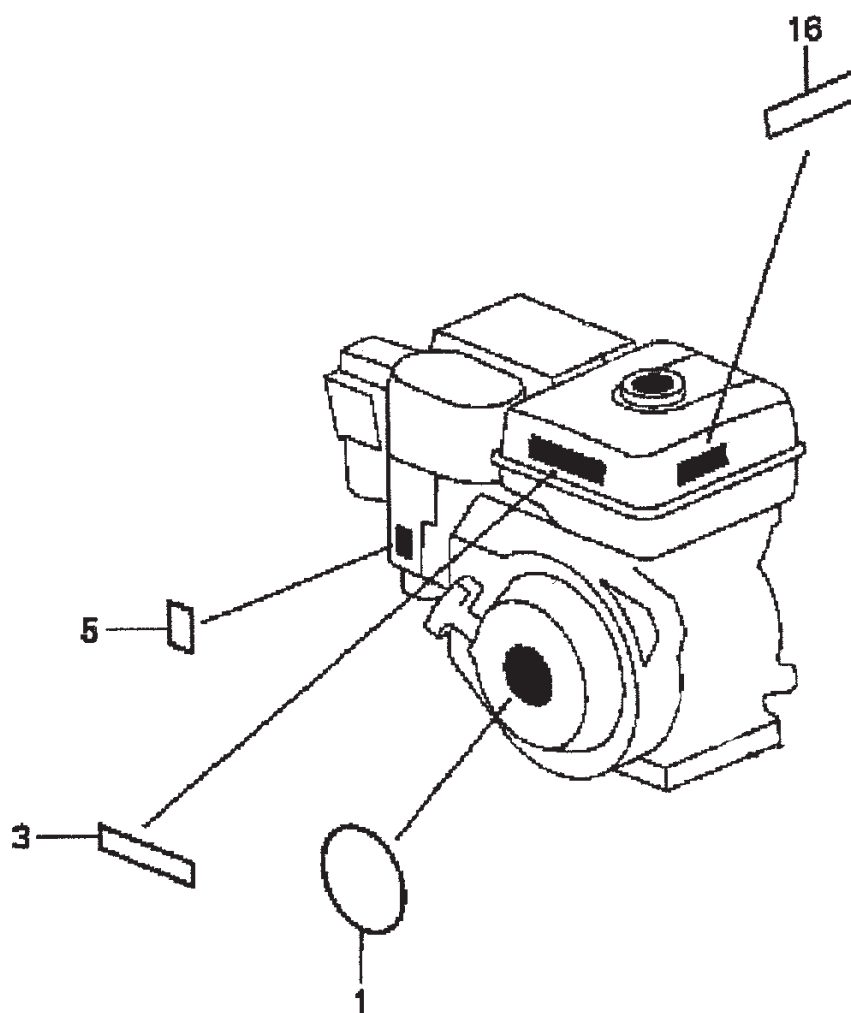
# HONDA GX240K1SMX2 — CONTROL ASSY.

## CONTROL ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>          | <u>QTY.</u> | <u>REMARKS</u>     |
|------------|-----------------|---------------------------|-------------|--------------------|
| 2          | 16551ZE2000     | ARM, GOVERNOR             | 1           |                    |
| 3          | 16555ZE2000     | ROD, GOVERNOR             | 1           |                    |
| 4          | 16561ZE2000     | SPRING, GOVERNOR          | 1           |                    |
| 5          | 16562ZE2000     | SPRING, THROTTLE RETURN   | 1           |                    |
| 7          | 16570ZE2W10     | CONTROL ASSEMBLY .....    | 1           | INCLUDES ITEMS W/* |
| 10*        | 16571ZE2W10     | LEVER, CONTROL            | 1           |                    |
| 11*        | 16574ZE1000     | SPRING, LEVER             | 1           |                    |
| 12*        | 16575ZE2W00     | WASHER, CONTROL LEVER     | 1           |                    |
| 13*        | 16576891000     | HOLDER, CABLE             | 1           |                    |
| 14*        | 16578ZE1000     | SPACER, CONTROL LEVER     | 1           |                    |
| 15*        | 16581ZE2W00     | BASE, CONTROL             | 1           |                    |
| 16*        | 16584883300     | SPRING, CONTROL ADJUSTING | 1           |                    |
| 17*        | 16592883310     | SPRING, CABLE RETURN      | 1           |                    |
| 18*        | 16594883010     | HOLDER, WIRE              | 1           |                    |
| 19         | 90013883000     | BOLT, FLANGE 6X12 (CT200) | 2           |                    |
| 20         | 90015ZE5010     | BOLT, GOVERNOR ARM        | 1           |                    |
| 21*        | 90114SA0000     | NUT, SELF- LOCK 6MM       | 1           |                    |
| 22*        | 90605230000     | CIRCLIP 5MM               | 1           |                    |
| 23*        | 93500040060H    | SCREW, PAN 4X6            | 1           |                    |
| 24*        | 93500050280A    | SCREW, PAN 5X28           | 1           |                    |
| 26*        | 93500050160A    | SCREW, PAN 5X16           | 1           |                    |
| 27         | 9405006000      | NUT, FLANGE 6MM           | 1           |                    |

## HONDA GX240K1SMX2 — LABELS ASSY.

LABELS ASSY.



## HONDA GX240K1SMX2 — LABELS ASSY.

### LABELS ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>       | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|------------------------|-------------|----------------|
| 1          | 87521ZE2W01     | EMBLEM (INTERNAL)      | 1           |                |
| 3          | 87522ZH9000     | LABEL, CAUTION         | 1           |                |
| 5          | 87528ZE2810     | MARK, CHOKE (EXTERNAL) | 1           |                |
| 16         | 87532ZH8810     | MARK, OIL ALERT (E)    | 1           |                |