

OPERATION AND PARTS MANUAL



Mikasa SERIES
MODEL MRH800GS
Vibratory Roller
(HONDA GX390K1SM32 GASOLINE ENGINE)

Revision #5 (05/27/08)

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THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.



CALIFORNIA — Proposition 65 Warning

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

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MIKASA MRH800GS-VIBRATION ROLLER

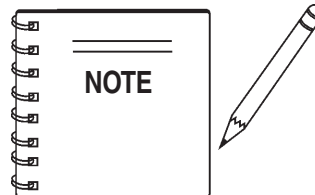
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Specification and part number are subject to change without notice.

PARTS ORDERING PROCEDURES

Ordering parts has never been easier! Choose from three easy options:

Effective:
January 1st, 2006



Order via Internet (Dealers Only):

Order parts on-line using Multiquip's SmartEquip website!

- View Parts Diagrams
- Order Parts
- Print Specification Information



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

To obtain an MQ Account, contact your District Sales Manager for more information.

Goto www.multiquip.com and click on **Order Parts** to log in and save!

Use the **internet** and qualify for a **5% Discount** on *Standard orders* for all orders which include complete part numbers.*

Note: Discounts Are Subject To Change



Order via Fax (Dealers Only):

All customers are welcome to order parts via Fax.

Domestic (US) Customers dial:
1-800-6-PARTS-7 (800-672-7877)

Fax your order in and qualify for a **2% Discount** on *Standard orders* for all orders which include complete part numbers.*

Note: Discounts Are Subject To Change



Order via Phone: Domestic (US) Dealers Call:
1-800-427-1244

Non-Dealer Customers:

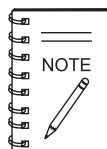
Contact your local Multiquip Dealer for parts or call 800-427-1244 for help in locating a dealer near you.



International Customers should contact their local Multiquip Representatives for Parts Ordering information.

When ordering parts, please supply:

- | | |
|-------------------------------------------------------------------------------|----------------------------------------------------------------|
| <input type="checkbox"/> Dealer Account Number | <input type="checkbox"/> Specify Preferred Method of Shipment: |
| <input type="checkbox"/> Dealer Name and Address | ✓ UPS/Fed Ex ✓ DHL |
| <input type="checkbox"/> Shipping Address (if different than billing address) | ■ Priority One ✓ Truck |
| <input type="checkbox"/> Return Fax Number | ■ Ground |
| <input type="checkbox"/> Applicable Model Number | ■ Next Day |
| <input type="checkbox"/> Quantity, Part Number and Description of Each Part | ■ Second/Third Day |



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

WE ACCEPT ALL MAJOR CREDIT CARDS!



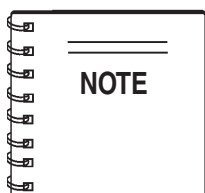
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MRH800GS — SAFETY MESSAGE ALERT SYMBOLS

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 MRH800GS Vibration Roller. Refer to the engine manufacturer's instructions for data relative to its safe operation.

Before using this vibration roller, 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 this vibration roller operation will be referenced with Hazard Symbols which appear throughout this manual, and will be referenced in conjunction with Safety Message Alert Symbols.

HAZARD SYMBOLS



Lethal Exhaust Gases



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.



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. **NEVER** use fuel as a cleaning agent.



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.



Rotating Parts



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

MRH800GS — SAFETY MESSAGE ALERT SYMBOLS

Accidental Starting



OFF

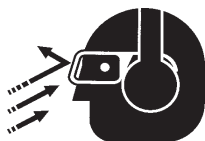
ALWAYS place the engine ON/OFF switch in the **OFF** position, when the vibration roller is not in use.

Respiratory Hazard



ALWAYS wear approved respiratory protection.

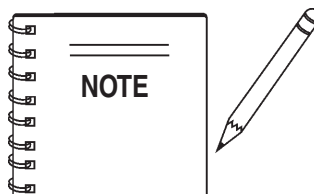
Sight and Hearing hazard



ALWAYS wear approved eye and hearing protection.

Equipment Damage Messages

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



This vibration roller, other property, or the surrounding environment could be damaged if you do not follow instructions.

MRH800GS — RULES FOR SAFE OPERATION

CAUTION:



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 MRH800GS Vibration Roller:

GENERAL 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. **ALWAYS** wear slip resistant safety shoes or boots.



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

- **NEVER** operate this equipment 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.

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

- **ALWAYS** wear proper respiratory (mask), hearing and eye protection equipment when operating the vibration roller.



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

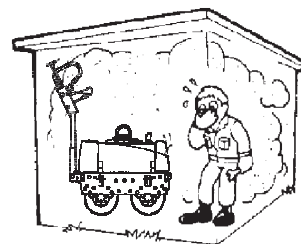


- **High Temperatures** – Allow the engine to cool before adding fuel or performing service and maintenance functions. Contact with *hot* components can cause serious burns.

- The engine of this vibration roller requires an adequate free flow of cooling air.

NEVER operate the vibration roller in any enclosed or narrow area where free flow of the air is restricted. If the air flow is restricted it will cause

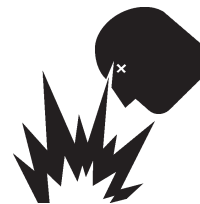
serious damage to the vibration roller or engine and may cause injury to people and property. Remember the vibration roller's engine gives off **DEADLY** gases.



- **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 vibration roller 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 vibration roller 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 vibration roller unattended, turn off engine.

- **CAUTION** must always be observed while servicing this vibration roller. Rotating parts can cause injury if contacted.

- **DO NOT** leave vibration roller with engine running. Use chock blocks if parking vibration roller on a grade.

MRH800GS — RULES FOR SAFE OPERATION

- **ALWAYS** use extreme care when operating near obstructions, on slippery surfaces, grades and side slopes.
- When reversing, particularly on the edges and banks of ditches, as well as in front of obstacles, the operator must stay in a standing position at a safe distance from the machine.
- When operating near any house/building or pipelines, always check the effect of machine vibration. Stop the work if necessary.
- Unauthorized equipment modifications will void all warranties.
- Refer to the *Engine Owner's Manual* for engine technical questions or information.
- **DO NOT** operate the vibration roller with the front or rear cover open.
- Replace any worn or damaged vibration roller components immediately.
- **ALWAYS** turn the engine **OFF** before performing maintenance.
- **ALWAYS** make sure vibration roller is correctly secured to the trailer. Check all supports attaching the vibration roller to the trailer and make sure they are tight.
- **ALWAYS** keep the machine away from workers and obstacles. Also keep the immediate area free of bystanders.
- **ALWAYS** check the machine for loosened threads or bolts before starting.
- **ALWAYS** read, understand, and follow procedures in Operator's Manual before attempting to operate equipment.
- **ALWAYS** be sure the operator is familiar with proper safety precautions and operations techniques before using vibration roller.
- A copy of this manual shall accompany the vibration roller at all times.
- **DO NOT** use worn out hoses or couplings; inspect daily.
- **High Temperatures** – Always stop engine and allow the engine to cool before adding fuel, oil or performing service and maintenance functions. Contact with *hot* components can cause serious burns.
- **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.

Emergencies

- **ALWAYS** know the location of the nearest **fire extinguisher** and **first aid kit**. Know the location of the nearest telephone. Also know the phone numbers of the nearest **ambulance, doctor** and **fire department**. This information will be invaluable in case of an emergency.

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.

Lifting

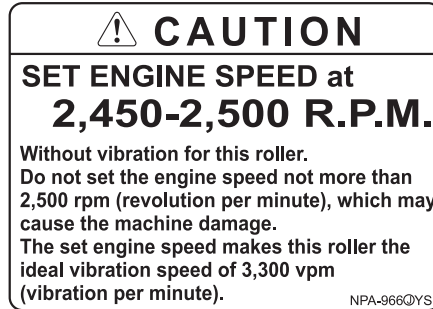
- The vibration roller has an operating weight of approximately 1530 lbs. (694 kg). Use lifting equipment capable of lifting this weight.
- Make sure the engine is off before lifting the machine.
- Use reliable cable in lifting the machine.
- Lift upright with sufficient bearing capacity to prevent machine from tilting or slipping.
- When lifting, keep the machine away from workers and animals.

MRH800GS — OPERATION AND SAFETY DECALS

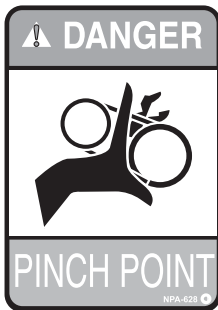
Figure 1 displays the operation and safety decals as they appear on the vibration roller. Should any of these decals become damaged or unreadable, contact the Multiquip Parts Department for a replacement set.



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P/N: 920209660



P/N: 920206280



P/N: 920102490



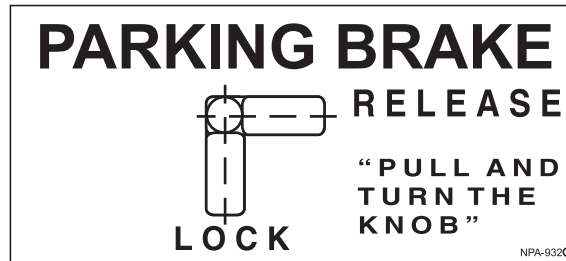
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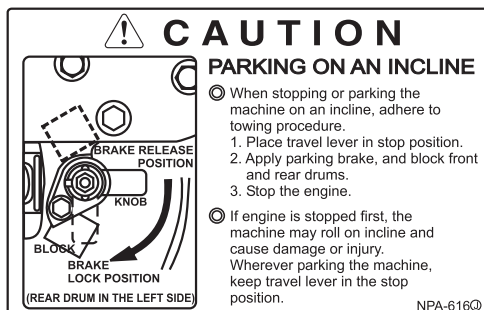
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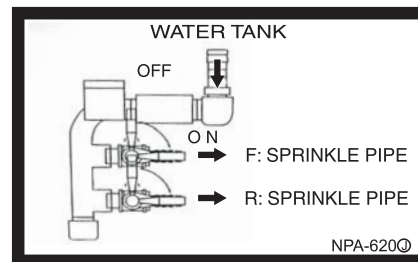
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Figure 1. Operation and Safety Decals

MRH800GS — OPERATION AND SAFETY DECALS



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Mikasa

P/N: 920101510

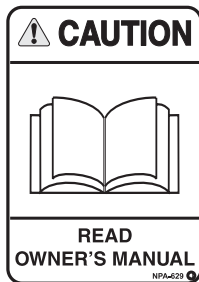
MRH800GS

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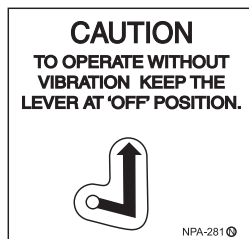


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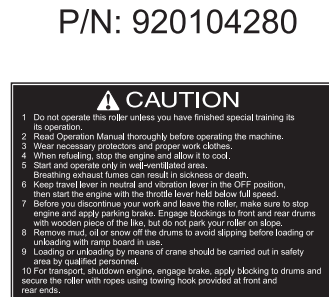
IN COLD SEASON FOR HOUSING, DRAIN FROM WATER TANK AND HOSES TO PREVENT FREEZING



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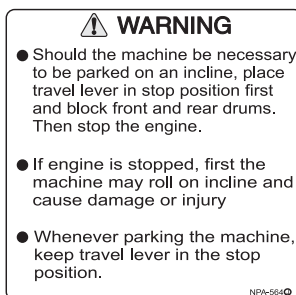
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P/N: NPA-564



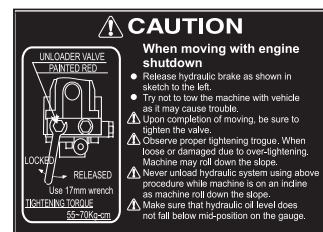
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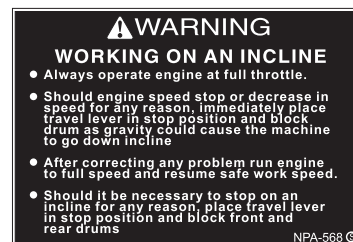
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Figure 1. Operation and Safety Decals (Continued)

TABLE 1. ROLLER SPECIFICATIONS

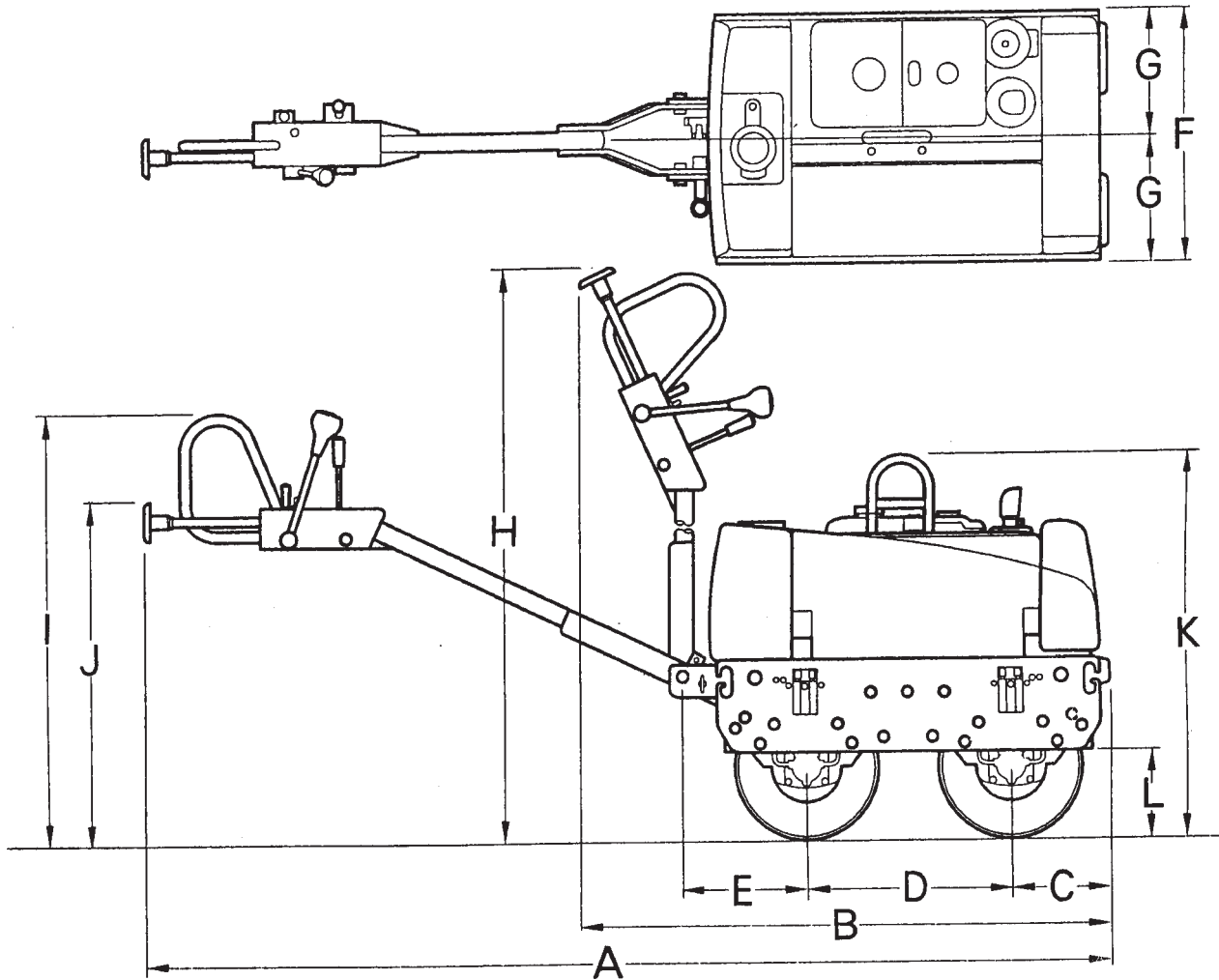
| | |
|-------------------------------|---------------------------------------------|
| Dimensions | 105 x 27.2 x 41.7 in (2670 x 692 x 1060 mm) |
| Drum Diameter | 16 in. (406 mm) |
| Drum Width | 25.6 in. (650 mm) |
| Curb Clearance | 9.6 in. (243 mm) |
| Side Overhang | .83 in.(21 mm) |
| Operating Weight (with water) | 1530 lbs. (694 kg) |
| Vibration Frequency | 3,300 vpm |
| Centrifugal Force | 23.5/2,400 kn/kgf |
| Drive System | Hydraulic Motor |
| Vibration System | Frame |
| Vibration Method | Belt Drive |
| Vibrator Shaft | Twin |
| Gradeability | 20 degrees |
| Working Speed | 0 - 3 mph (0 - 4.8 kph) |
| Fuel Tank Capacity | 1.88 gallons (7.1 liters) |
| Lubricating Oil | 6.6 gallons (25 liters) |
| Water Tank Capacity | 10.57 gallons (40 liters) |
| Engine Model | Honda GX390SM32 |
| Starting System | Electric/Recoil Start |

MRH800GS — ENGINE SPECIFICATIONS

TABLE 2. ENGINE SPECIFICATIONS

| | | |
|----------------------------------|-------------------------------------------------|--------------------------------------------------------------------------------|
| Engine | Model | HONDA GX390SK1M32 |
| | Type | Air-cooled 4 stroke, Single Cylinder, OHV, Horizontal Shaft Gasoline Engine |
| | Bore X Stroke | 2.90 in. X 2.30 in. (73 mm x 58 mm.) |
| | Displacement | 23.70 cu-in (389 cm ³) |
| | Max Output | 13.0 H.P./3600 R.P.M. |
| | Fuel Tank Capacity | 1.72 gallons (6.5 liters) |
| | Fuel | Unleaded Automobile Gasoline |
| | Lube Oil Capacity | 1.16 quarts (1.1 liters) |
| | Oil Alert System | Yes |
| | Speed Control Method | Centrifugal Fly-weight Type |
| | Starting Method | Electric/Recoil Start |
| Dimension (L x W x H) | 15.0 x 17.7 X 17.4 in. (380 X 450 X 443 mm.) | |
| Dry Net Weight | 68.4 lbs (31 Kg.) | |

MRH800GS — VIBRATION ROLLER DIMENSIONS



| TABLE 3. DIMENSIONS | | | |
|---------------------|---|----------|----------|
| LENGTH | A | 105 in. | 2670 mm. |
| | B | 57 in. | 1445 mm. |
| | C | 10 in. | 255 mm. |
| | D | 22.8 in. | 580 mm. |
| | E | 13.8 in. | 350 mm. |
| WIDTH | F | 27.2 in. | 692 mm. |
| | G | 13.6 in. | 346 mm. |
| HEIGHT | H | 78.3 in. | 1990 mm. |
| | I | 46.5 in. | 1180 mm. |
| | J | 37.4 in. | 950 mm. |
| | K | 41.7 in. | 1060 mm. |
| | L | 9.6 in. | 245 mm. |

Figure 2. MRH800GS Vibration Roller Dimensions

The Mikasa Model MRH800GS is a powerful compacting tool capable of applying a tremendous force in consecutive impacts to a soil surface. Its applications include soil compacting for backfilling for gas pipelines, water pipelines and cable installation work.

The impact force of the MRH800GS levels and uniformly compacts voids between soil particles to increase dry density.

Features include:

- Hydraulic transmission to allow speed change without gear shifting.
- Deadman device which when pressed or hit will cause the travel lever to return to neutral position bringing the machine to a stop.
- A horn to warn of machine's approach.
- Low engine oil level shut down
- Non-corrosive water tank for the sprinkler system with a capacity of more than 10 gallons.
- Lifting hook to transport machine.
- Front bumper and working light.
- Narrow profile with less than one inch wall clearance. Narrower width allows access to tighter areas. No exposed hydraulic hoses.
- Oil bath lubricated bearings and external vibration for less servicing and more dependability.
- Front and rear drum scrapers.
- Drum sprinkler system controls located near the operator.
- Easy access to hydraulic components and hydraulic filter.

MRH800GS — VIBRATION ROLLER COMPONENTS

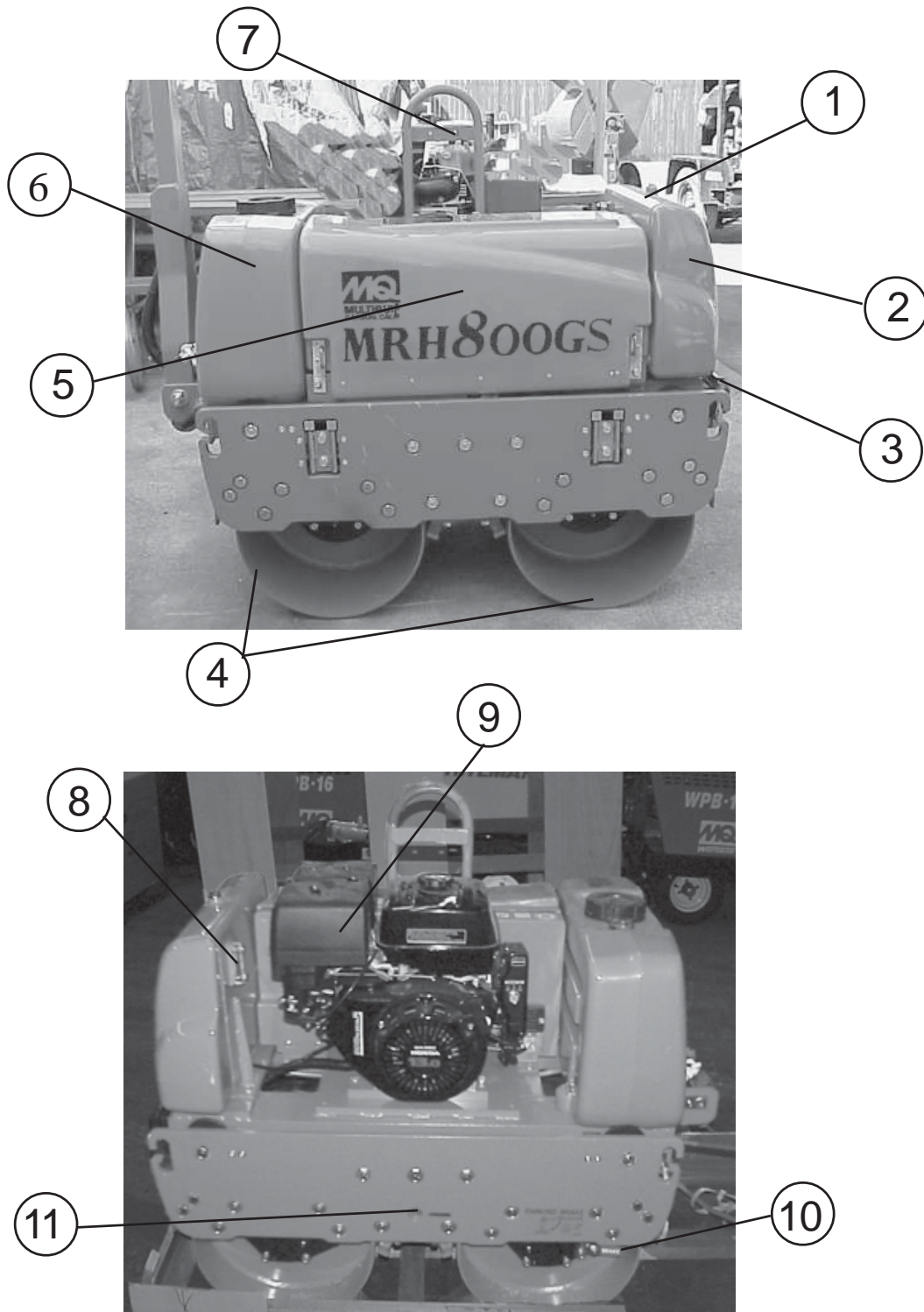


Figure 3. MRH800GS Vibration Roller Components

MRH800GS — VIBRATION ROLLER COMPONENTS

Figure 3 illustrates the location of the major components for the MRH800GS Vibration Roller. The function of each component is described below:

1. **Fuel Tank/Cap** – Fill with diesel fuel. Fuel tank holds approximately 2 gallons (7.5 liters). **DO NOT** top off fuel. Wipe up any spilled fuel immediately.
2. **Hydraulic Oil Tank** - Fill with proper grade of hydraulic oil. Check fluid level using the hydraulic oil gauge.
3. **Front Headlights** – Activate using switch on control handle. Use to illuminate ground during nighttime or low light operating conditions.
4. **Vibration Rollers** – 25-inch wide steel drums that provide compaction force in the compaction and patching of asphalt type surfaces.
6. **Center Cover** – When opened and supported by strut, provides access to *oil pump and filter, battery, V-belt, and clutch box*.
6. **Water Tank**– Holds 10.57 gallons (40 liters) for the sprinkler system.
7. **Lifting Hook** – Used to lift the machine with crane or other lifting device.
8. **Hydraulic Oil Gauge** – Indicates the hydraulic oil level.
9. **Engine** – This machine uses the Honda GX390K1SM32 gasoline engine. Refer to page 20 for more information.
10. **Parking Brake** – Makes sure machine will not accidentally move when parked or not in use.
11. **Vibrator Oil Level Plug** – Remove to check vibrator oil level.

MRH800GS — HANDLE BAR/LEVER COMPONENTS

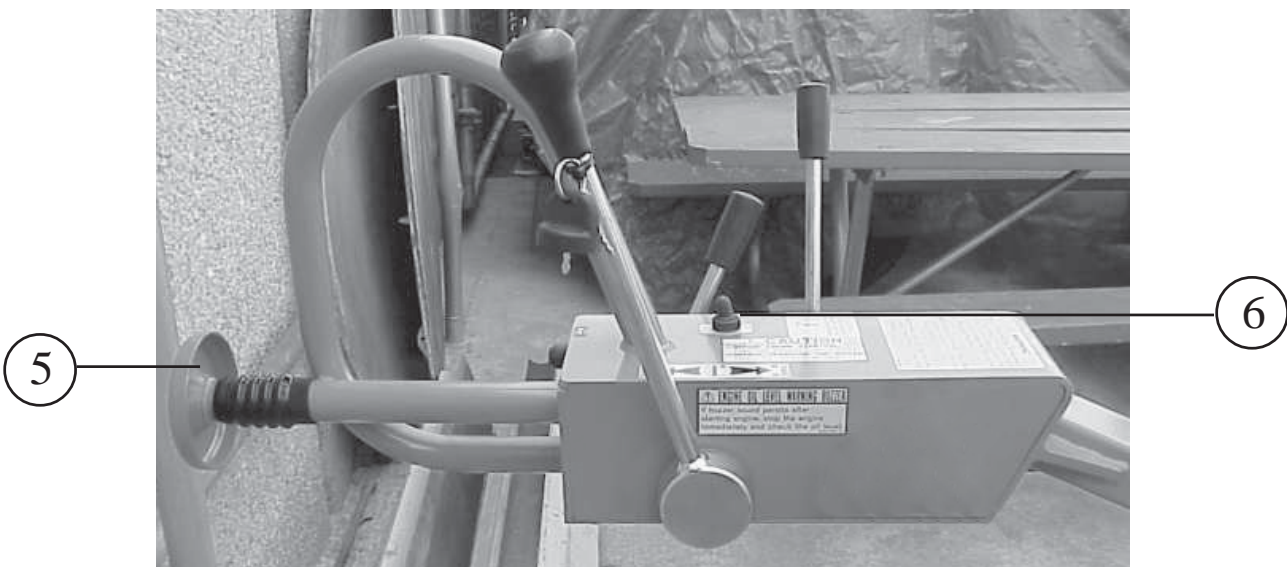
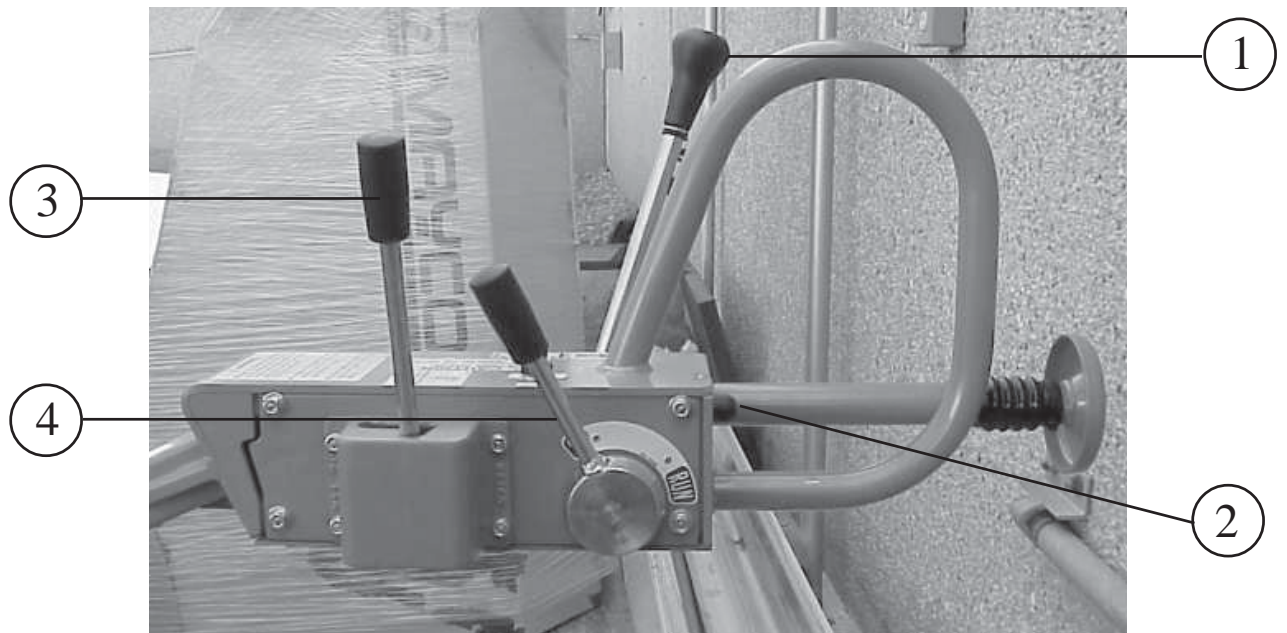


Figure 4. MRH800GS Lever Components

HANDLE BAR/LEVER COMPONENTS

Figure 4 illustrates the location of the major lever components on the handle bar of the machine. Each component is described below:

1. **Travel Lever** – Controls the direction of travel of the machine (forward and reverse).
4. **Horn Button** – When pressed, gives a warning sound of the machine approaching.
3. **Vibration Lever** – Turns vibration on and off.
4. **Throttle Lever** – Controls the start up of the machine.
5. **Dead-Man Device** – When pressed or hit while traveling in reverse, causes the travel lever to return to neutral position to stop the machine.
6. **Light ON/OFF Switch** - Turns headlight on and off.

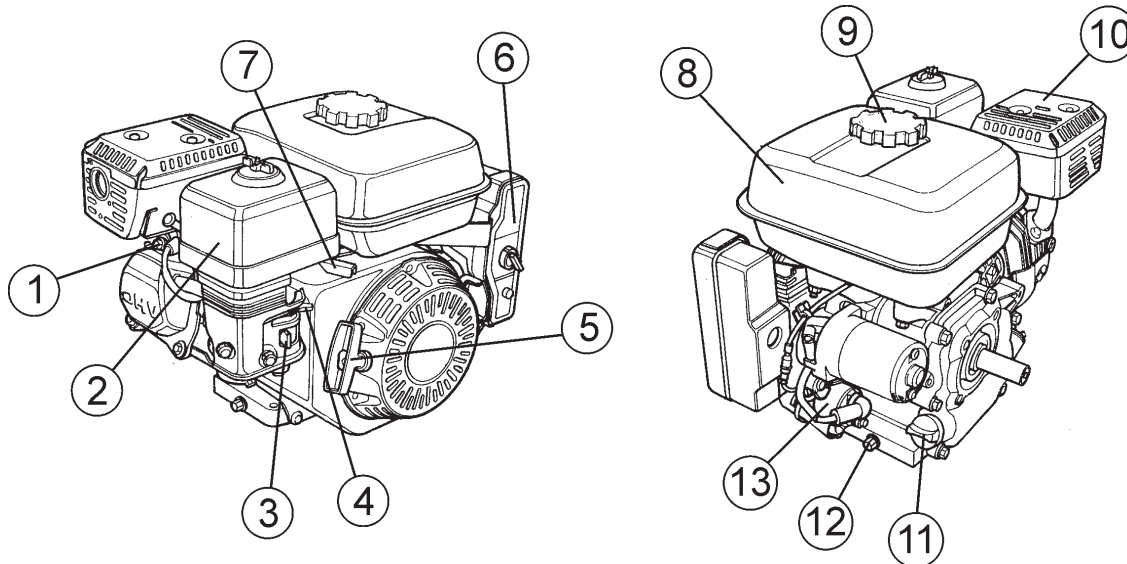
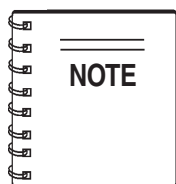


Figure 5. Engine Controls and Components

INITIAL SERVICING

The engine (Figure 5) must be checked for proper lubrication and filled with fuel prior to operation. Refer to the manufacturer's engine manual for instructions & details of operation and servicing.

1. **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.
2. **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.
3. **Fuel Valve Lever** – **OPEN** to let fuel flow, **CLOSE** to stop the flow of fuel.



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.

4. **Choke Lever** – Used in the starting of a cold engine, or in cold weather conditions. The choke enriches the fuel mixture.
5. **Recoil Starter (pull rope)** – Manual-starting method. Pull the starter grip until resistance is felt, then pull briskly and smoothly.
6. **Engine ON/OFF Switch** – **ON** position permits engine starting, **OFF** position stops engine operations.
7. **Throttle Lever** – Used to adjust engine RPM speed (lever advanced forward **SLOW**, lever back toward operator **FAST**).
8. **Fuel Tank** – Holds unleaded gasoline. For additional information refer to engine owner's manual.

9. **Fuel Filler Cap** – Remove this cap to add unleaded gasoline to the fuel tank. Make sure cap is tightened securely. **DO NOT** over fill.
10. **Muffler** – Used to reduce noise and emissions.
11. **Engine Oil Filler Cap/Dipstick** – Remove to check amount



DANGER

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

and condition of oil in crankcase. Refill or replace with



WARNING

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

recommended type oil as listed in table 2. .

12. **Oil Drain Plug** – Remove to drain crankcase oil.
13. **Engine Starter** – Starts engine when ignition key is rotated to the **"ON"** position.

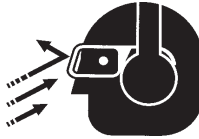
DANGER



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.
6. Understand the geographical features and regulations of the job site.



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 6) and wipe clean.

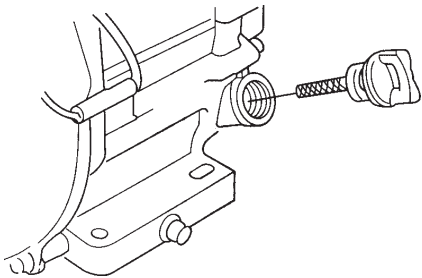


Figure 6. Engine Oil Level

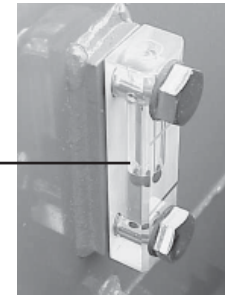
TABLA 4. TIPO DE ACEITE

| Estación | Temperatura | Tipo de aceite |
|-----------------|-----------------|----------------|
| Verano | 25°C ó más alta | SAE 10W-30 |
| Primavera/Otoño | 25°C~10°C | SAE 10W-30/20 |
| Invierno | 0°C ó más baja | SAE 10W-10 |

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, fill to the edge of the oil filler hole with the recommended oil type (Table 3). Maximum oil capacity is 1.16 quarts (1.1 liters).

Checking The Hydraulic System

1. Check the oil tank level gauge (Figure 7). Oil level should be at the middle indication of the gauge or higher. Fill as required
2. Check the surroundings of the oil tank, hydraulic pump and motor for oil leakage.



Level should be middle of gauge or higher

Figure 7. Hydraulic System Oil Level Gauge

DANGER



Always keep hands and fingers away from pinch points. Do not allow anyone to reach in on dangerous sections of the machine to avoid any accidents.

Checking The V-Belt

1. Remove the 2 bolts, one on each side of the center cover, with a #13 socket wrench. Open the center cover of the machine and support it with the strut by inserting its end to the hole in the base (Figure 8).
2. Check V-belt for proper tension. Insufficient tension causes weak vibration.

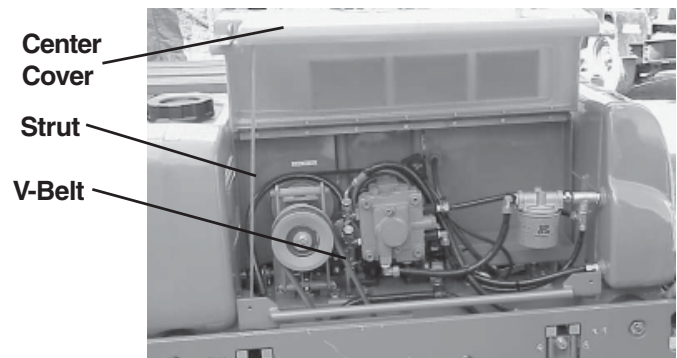


Figure 8. Checking V-Belt Tension

Checking The Vibrator Oil Level

1. Check vibrator casing for any oil leakage.
2. If any leakage is noticed, remove the level plug on the side of the plate (Figure 9).
3. Check the oil level.

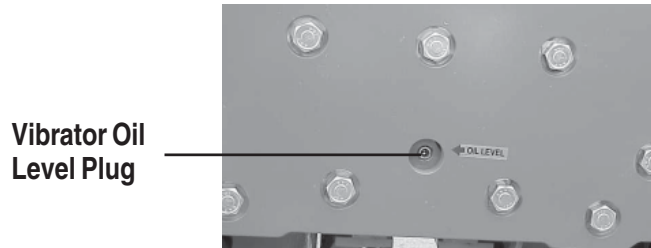


Figure 9. Checking Vibrator Oil Level

Fuel Check

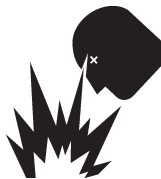
1. Remove the fuel cap located on top of the engine fuel tank.
2. Visually inspect to see if the fuel level is low. If fuel is low, replenish with unleaded gasoline using a strainer for filtration. **DO NOT** top-off fuel. Wipe up any spilled fuel *immediately!*

DANGER



Motor fuels are highly flammable and can be dangerous if mishandled. **DO NOT** smoke while refueling.

DO NOT attempt to refuel the pump if the engine is *hot!* or *running.*



Checking Water Tank

1. Check the water tank to see if filled. Add water if necessary. The water tank has a capacity of approximately 10 gallons (40 liters) (Figure 10).



Figure 10. Checking Water Tank

CAUTION :



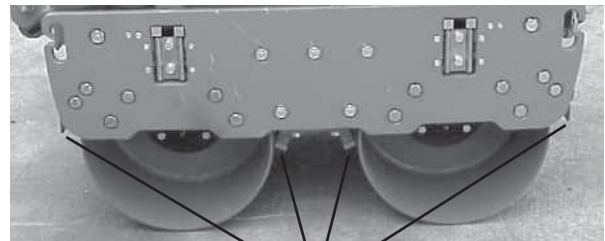
Be careful not to confuse the water tank with the oil tank.

Checking Levers and Horn

1. Check travel, vibration, and throttle levers to make sure they are functioning properly (Figure 4).
2. With travel lever placed in reverse, push the deadman device and verify that the travel lever returns to neutral position. The travel lever stays in neutral position once the deadman device is released.
3. Press the horn and verify that it functions properly.

Checking Scrapers

1. Check scrapers and make sure that they are not clogged with mud, bent or damaged (Figure 11).
2. Adjust clearance between drums and scrapers as necessary.



Scrapers

Figure 11. Checking Scrapers

Checking Bolts, Nuts and Screws

1. Check bolts, nuts, and screws on various parts of the machine, including the engine, for proper tightness.

Positioning the Handle Bar

1. Release the handle bar release pin (Figure 12) and position the handle bar to the lowered position before starting operation.
2. When machine is not in use, release the handle bar release pin and position the handle bar to the upright position.



Handle Bar Release Pin

Figure 12. Positioning the Handle Bar

STARTING THE ENGINE

The engine can be started by motor (electric) or manually (recoil). Refer to Figures 3 and 4 for the location of controls and components.

CAUTION :



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

CAUTION :



When the engine is running, **NEVER** turn the starter key to the **START** position

Electric Start

1. On the control handle:
 - A. Move the *throttle lever* to the **RUN** position.
 - B. Move the *travel lever* to the **NEUTRAL** position.
 - C. Move the *vibration lever* to the **OFF** position.
2. Place the engine *fuel valve lever* (Figure 13) to the "**ON**" position.

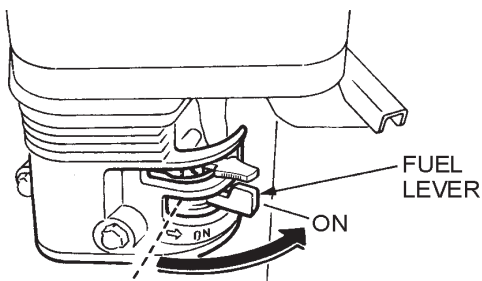


Figure 13. Engine Fuel Valve Lever (ON Position)

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

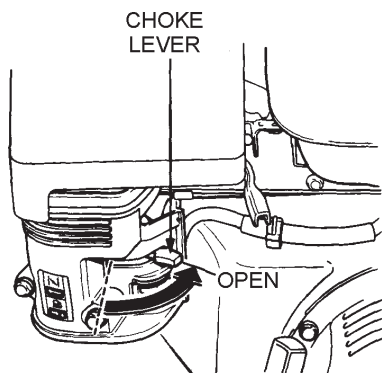


Figure 14. Engine Choke Lever (Open)

4. Place the *choke lever* (Figure 15) in the "**CLOSED**" position if starting a **warm engine** or the **temperature is warm**.

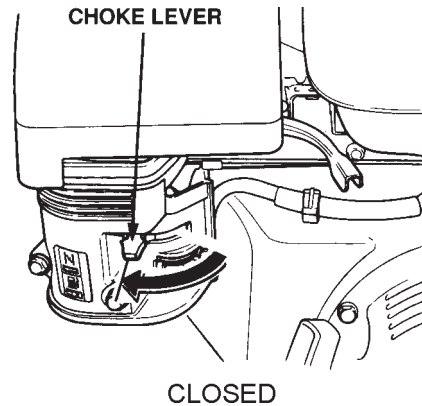


Figure 15. Engine Choke Lever (Closed)

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

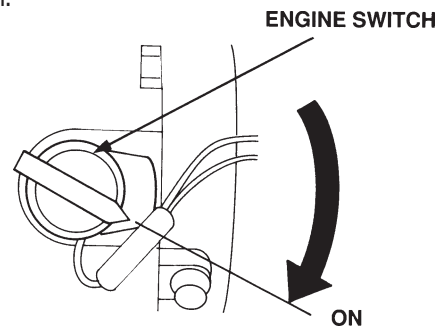


Figure 16. Engine ON/OFF Switch (ON Position)

7. If the engine has started, slowly return the choke lever (Figure 17) to the **CLOSED** position. If the engine has not started repeat steps 1 through 6.

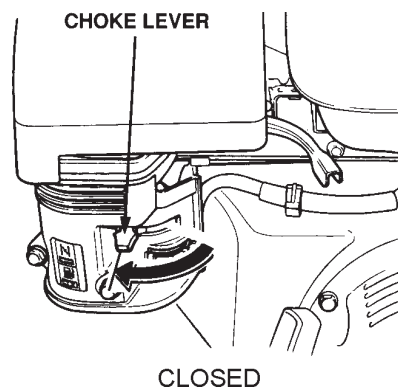


Figure 17. Choke Lever (Closed)

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

Recoil Start

1. On the control handle:
 - A. Move the *throttle lever* to the **RUN** position.
 - B. Move the *travel lever* to the **NEUTRAL** position.
 - C. Move the *vibration lever* to the **OFF** position.
2. Place the engine *fuel valve lever* (Figure 18) to the "**ON**" position.

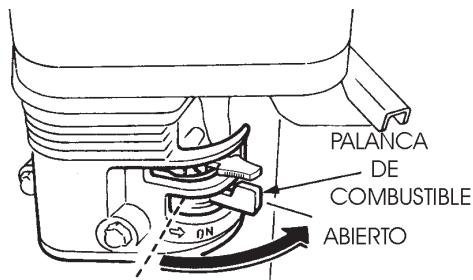


Figure 18. Engine Fuel Valve Lever (ON Position)

3. Place the *choke lever* (Figure 19) in the "**OPEN**" position if starting a **cold** engine.

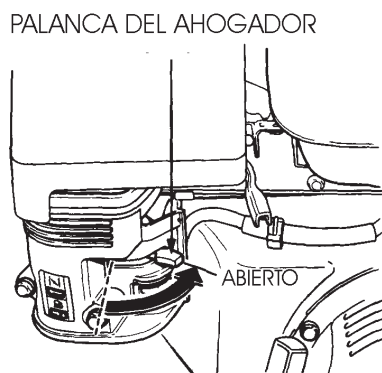


Figure 19. Engine Choke Lever (Open)

4. Place the *choke lever* (Figure 20) in the "**CLOSED**" position if starting a **warm engine** or the **temperature is warm**.

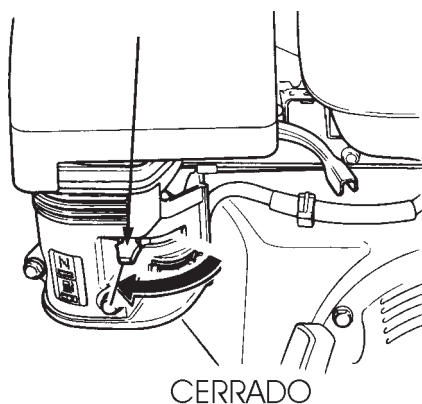


Figure 20. Engine Choke Lever (Closed)

6. Grasp the starter grip (Figure 21) 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.

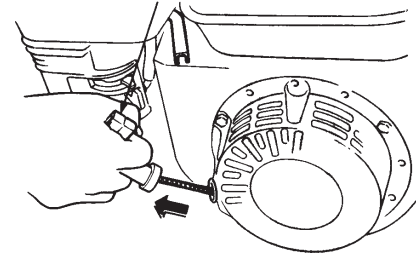


Figure 12. Starter Grip

7. If the engine has started, slowly return the choke lever (Figure 22) to the **CLOSED** position. If the engine has not started repeat steps 1 through 6.

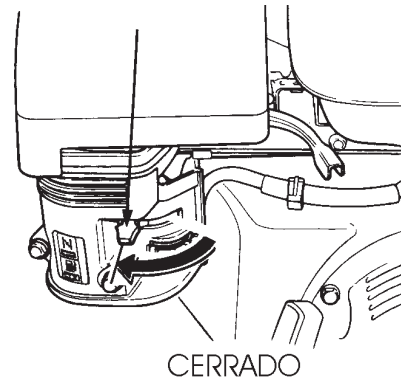


Figure 22. Choke Lever (Closed)

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

TRAVELING

1. Before starting to travel, make sure to release parking brake located on the left side of the rear roller. If the parking brake lever is tight, moving the roller back and forth will make it easier (Figure 23).



Parking Brake (Released Position)

Figure 23. Parking Brake

2. With the throttle lever in the **RUN** position, increase the engine rotation.
3. Push the travel lever forward slightly. This will cause the roller to travel forward at slow speed.
4. To increase the travel speed, push the travel lever further.
5. Travel speed can be varied between 0 and 3 km/h (both forward and reverse).
6. Push the travel lever backward to go in the reverse direction.

CAUTION :



DO NOT reduce speed during work. When shifting travel lever from forward to reverse, be sure to stop the lever at the **NEUTRAL** position first before moving the lever to the opposite direction. **DO NOT** shift the lever from forward to reverse (or reverse to forward) in one motion.

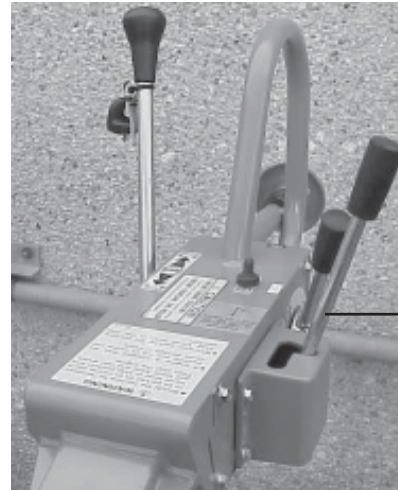
CAUTION :



After test travel, shut down engine and check for any problems including oil leakage. If any trouble is found, correct the problem before attempting to operate the roller again.

VIBRATING

1. Shift the vibration lever away from its off position. The vibration lever will automatically spring forward and the roller will start vibrating (Figure 24).



Off Position of Vibration Lever

Figure 24. Vibration Lever

CAUTION :



Using vibration with clutch slipping causes the clutch to burn. Also, vibration should not be used over completely compacted area, paved road surface, or with stationary roller.

WATERING

1. For watering work, turn the water cocks clockwise, at the rear of the machine, to start sprinkling. (Figure 25).

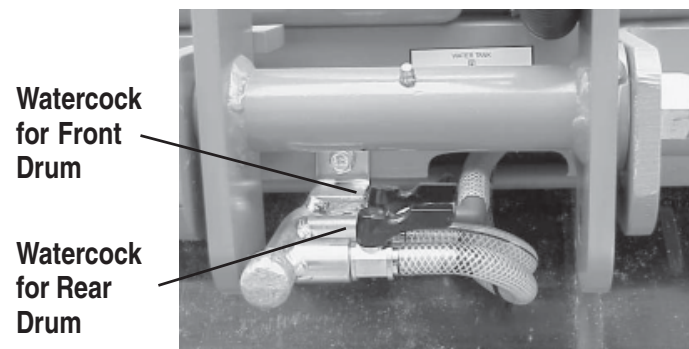


Figure 25. Water Cocks

SAFETY FEATURES

1. A horn is provided to warn of approach.
2. The dead man device prevents accidental traveling in reverse. It automatically makes the travel lever return to neutral position by stopping the machine when an object comes in contact with the dead man device.

STOPPING

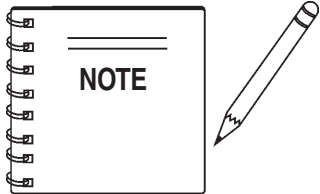
1. With travel lever in the neutral position, and the vibration lever in the off position, return the throttle lever to the **START** position. Allow the machine to cool down for 3 to 5 minutes.
2. Push the throttle lever forward to stop the engine. In a motor start, return the key switch to the **STOP** position as soon as the engine stops.

CAUTION :



Neglecting to return the key switch to the **STOP** position will cause the battery to discharge making start up impossible the next time.

3. After the engine stops, close the fuel cock.
4. Lock the parking brake by pulling the brake lever and rotating it 90 degrees clockwise.



Parking brake system should always be kept clean to avoid mud deposits.

UNLOADING

1. If you need to move the roller by pushing it manually once engine is stopped, loosen bolt of bypass valve on oil pump by one rotation counterclockwise. This will cause the hydraulic break to disengage and allow the roller to be moved more easily (Figure 26).
2. After moving, tighten the bolt again. Tightening torque is 55 to 70 kgf-cm.

Bypass
Valve
Bolt

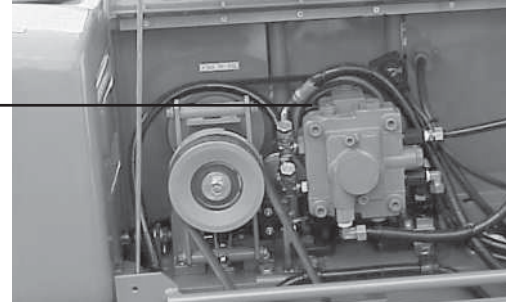


Figure 26 Location of Bypass Valve Bolt

CAUTION :



NEVER tow roller with any type of vehicle. Doing so will damage the hydraulic system.
NEVER perform unloading procedure on a slope. This may cause roller to roll down if parking brake or blocking is deficient.

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:



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 roller is always in good working condition before using, carry out the maintenance inspection in accordance with Tables 5 through 7.

TABLE 5. MRH-800GS 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 |

CAUTION:



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

TABLE 6. MRH-800GS 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) (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 7 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 27).
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.

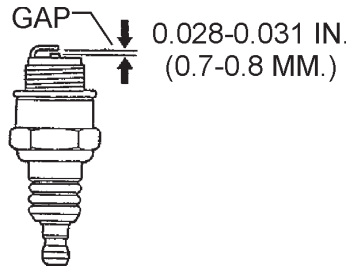


Figure 27. Spark Plug Gap

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 28.
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.

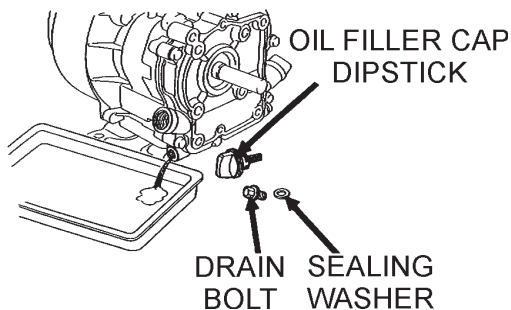


Figure 28. Engine Oil (Draining)

Air Filter

1. Remove the air cleaner cover and foam filter element as shown in Figure 23.
2. Tap the paper filter element (Figure 29) several times on a hard surface to remove dirt, or blow compressed air [not exceeding 30 psi (207 kPa, 2.1 kgf/cm²)] through the filter element from the air cleaner case side. **NEVER** brush off dirt. Brushing will force dirt into the fibers. Replace the paper filter element if it is excessively dirty.
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.

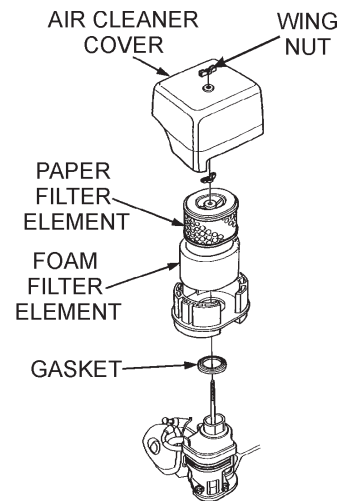


Figure 29. Engine Air Filter

ROLLER INSPECTION AND ADJUSTMENT

1. Refer to Table 7 for oil and grease requirements.
2. Check oil tank level daily.
3. Check the machine for oil leak and proper function of lever, cables, and links daily.

MACHINE MAINTENANCE

1. At the end of each day's operation, wash down dust and dirt off the machine. Clean area around drums and scrapers making sure all mud is removed.
2. Drain water tank completely.
3. Cover the machine to prevent dust and store in dry place away from sun exposure.

LONG TERM STORAGE

1. Conduct thorough lubrication and oil change.
2. Disconnect battery terminals and dismount battery from machine. Store battery.
3. If there a possibility that ambient temperature will drop below freezing point, add antifreeze agent to coolant.
4. Cover the inlet and outlet of air cleaner and muffler securely.
5. Store machine indoors. **DO NOT** leave outdoors.
6. Refer to Table 7 for lubrication necessary for the machine.

BATTERY MAINTENANCE

DANGER :



Lead-acid battery contains sulfuric acid, which may damage eyes or skin on contact.



FOR YOUR SAFETY:

- Always wear a face shield to avoid acid getting into the eyes. If acid gets in contact with eyes, flush immediately with clean water and get medical advice.
- Wear rubber gloves and protective clothes to keep acid off skin. If acid gets in contact with skin, wash off immediately with clean water.
- Use a flashlight to check battery electrolyte level. Always check the engine is stopped.
- **DO NOT** charge battery or jump-start engine when the battery is frozen. Warm the battery to 15 degrees F or battery may explode.
- Replace the battery with the same or similar capacity battery or battery may explode.

- Do not close the exhaust outlet of battery. The gas pressure building up in the battery may cause explosion.
 - Before using a battery charger, read and understand the charger instruction manual thoroughly.
 - Charge the battery in a non-spark, well-ventilated area. Avoid fire from cigarette sparks or matches.
1. If a battery has not been used for some time, reduce the charge level initially to protect each plate inside the battery.
 2. Check the battery terminals periodically to ensure that they are in good condition.
 3. Use wire brush or sand paper to clean the battery terminals.
 4. 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.
 5. Measure the specific gravity of electrolyte:
completely charged: 1.270 - 1.290
needs charging: 1.260 or lower
 6. If the machine will not be in operation for a long period of time, charge the battery sufficiently, tighten all caps, correctly, store in cool dry place and check the battery charge level every month to maintain the performance of the battery.

BATTERY CABLE CONNECTION

1. When removing cable, disconnect the ground side (normally negative) first (Figure 30).

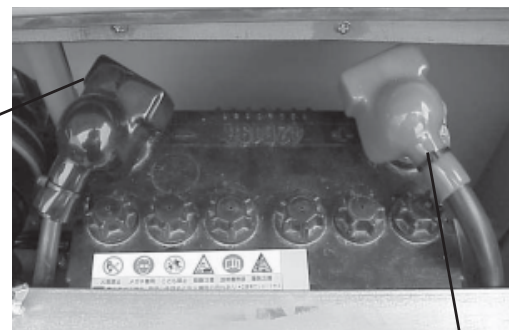


Figure 30. Battery Connection

2. When installing cable connect the ground side (normally negative) last.

FORWARD AND REVERSE TRAVEL ADJUSTMENT

1. If neutral position for forward and reverse travel has been displaced, conduct the neutral adjustment.
2. If roller travels forward with the ball of ball plunger remaining in V slot of the guide, loosen M8 bolt and slide the slide plate slightly toward the engine. If the roller travels backward, slide the plate towards side plate (Figure 31).

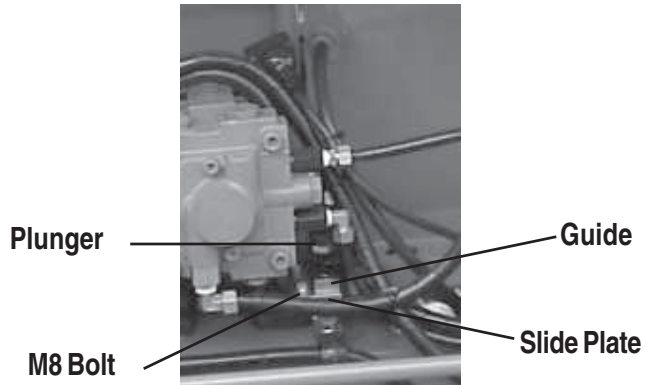


Figure 31. Adjustment of Neutral Position

3. With M8 bolt tightened, start engine and check the neutral for forward and reverse. If still displaced, repeat the procedure.
4. If neutral position of forward/reverse lever has been displaced, use the turn buckle located on the oil pump side of forward/reverse cable.

VIBRATION CLUTCH ADJUSTMENT

1. Move vibration lever to the **OFF** position.
2. Loosen the front and rear nuts at the end of vibration clutch cable (Figure 32).
3. Turn in the nut on the front side again and at the position that release fork starts to move, turn in the nut by one or two threads. Lock it a this position together with the rear nut.

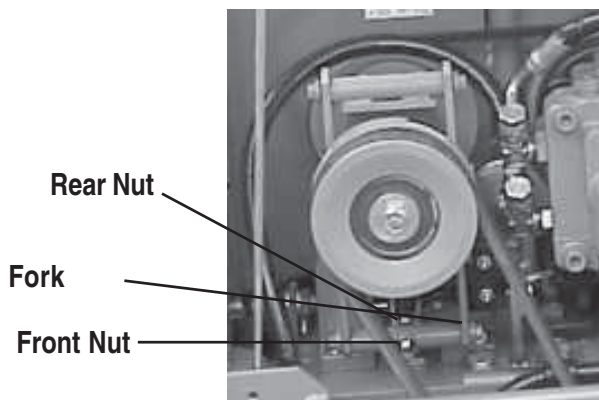


Figure 32. Vibration Clutch Adjustment

CAUTION:



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 (Figure 33). Always use safety gloves.

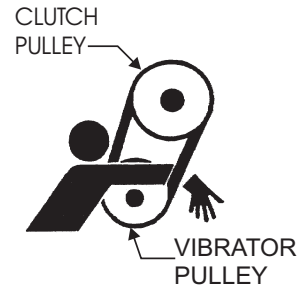


Figure 33. V-Belt Hazard

CAUTION :



Excessive turning of front nut may cause the sliding engagement of clutch to take place or no vibration takes place even when vibration lever is engaged.

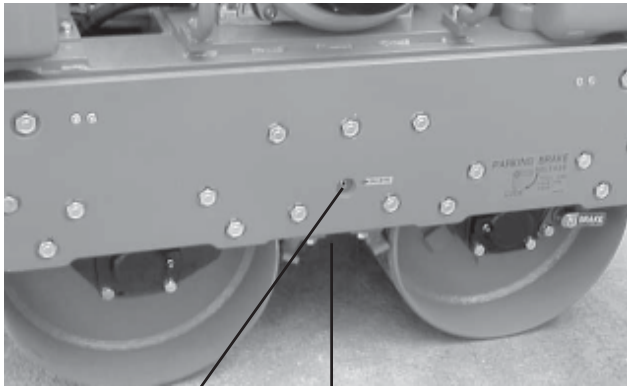
On the other hand, insufficient turn may cause sliding engagement of clutch even when the vibration lever is placed in the **OFF** position or for vibration to remain engaged.

HYDRAULIC SYSTEM INSPECTION AND SERVICE

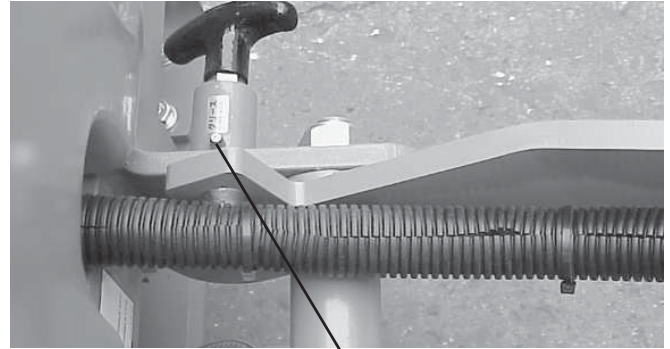
1. Check motor and pump for any damage.
2. Check hoses and pipes for proper tightness and make sure there are no leaks.
3. Check nylon tubes for hydraulic oil intake and drain. Retighten brass nut if loose and if a leak is detected. If leak continues after retightening, replace nylon tube, nut and sleeve.
4. Check oil tank for proper oil level using the hydraulic system oil level gauge (See Figure 7). Make sure hydraulic oil has not whitened or emulsified. Whitish color means aeration in pump. Retighten pipe and correct level of oil. Emulsification means water in the hydraulic oil. Replace the oil.

TABLE 8. MRH-800GS LUBRICATION CHART

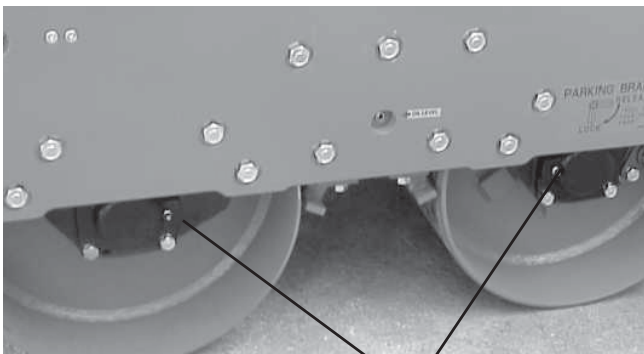
| ITEM | MAINTENANCE NEEDED | FREQUENCY | TYPE | LOCATION |
|-----------------------------------------------|--------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Vibrator Oil | Replace Oil | Every 300 Hours of Operation | SAE10W30 (1.5 liters) | see Figure 22 |
| Engine Oil | Replace Oil | Initially - After 10 to 20 Hours of Operation Thereafter - Every 50 to 100 Hours of Operation | SAE#30 or SAE10W30 (Spring - Summer) | see Figure 6 |
| | | | SAE#20 or SAE10W30 (Fall - Winter) | |
| | | | SAE10W30 (Extremely Cold Region) | |
| Hydraulic Oil | Replace Oil | Every 1000 to 1500 Hours of Operation | Viscosity: ISO VG32 equivalent - for cold region ISO VG46 or 56 equivalent - for warm region Shipped from factory with Shell Tellus 46 (25 liters) | see Figure 7 |
| Travel Lever, Vibration Lever, Throttle Lever | Add Lubrication Oil to Sliding Parts | Every 50 Hours of Operation | Lubrication Oil | see Figure 4 |
| Dead Man's Device | Lubricate Grease Fitting | Every 50 Hours of Operation | Grease | see Figure 4 |
| Handle Bar Release Pin | Lubricate Grease Fitting | Every 50 Hours of Operation | Grease | see Figure 37 |
| Bearing Cover | Lubricate Grease Fitting | Every 50 Hours of Operation | Grease | see Figures 35,36 |
| Clutch Box | Lubricate Grease Fitting | Every 50 Hours of Operation | Grease | see Figure 38 |
| Travel Lever | Lubricate Sliding Parts | Every 50 Hours of Operation | Grease | see Figure 4 |
| Oil Filter | Replace Oil Filter | Initially - After 25 Hours of Operation Thereafter - Every 500 Hours of Operation | Mikasa Genuine 10 micron Filter Paper | see Figure 39 |



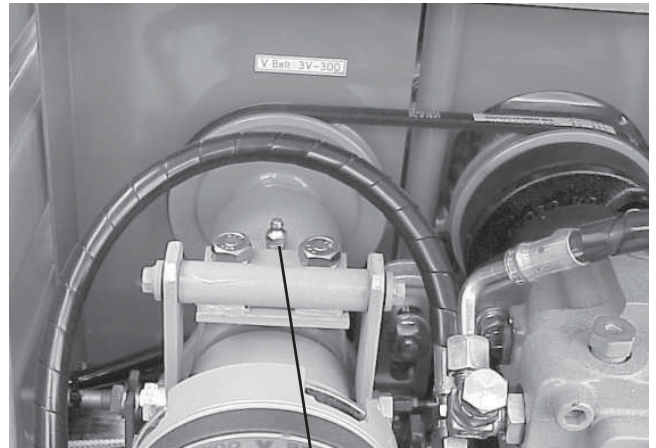
Vibrator Oil Level Plug
Vibrator Oil Drain Plug
Figure 34. Vibrator Oil Maintenance



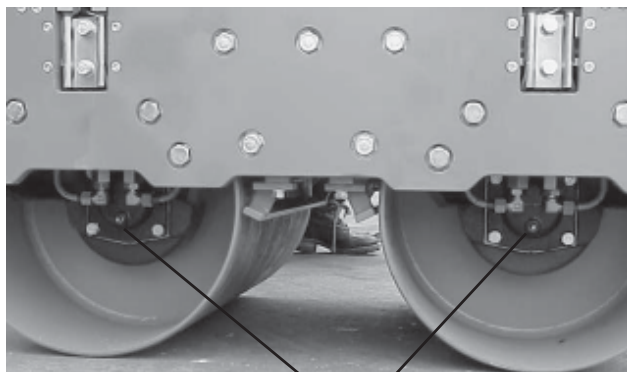
Handle Bar Release Pin Grease Fitting
Figure 37. Handle Bar Maintenance



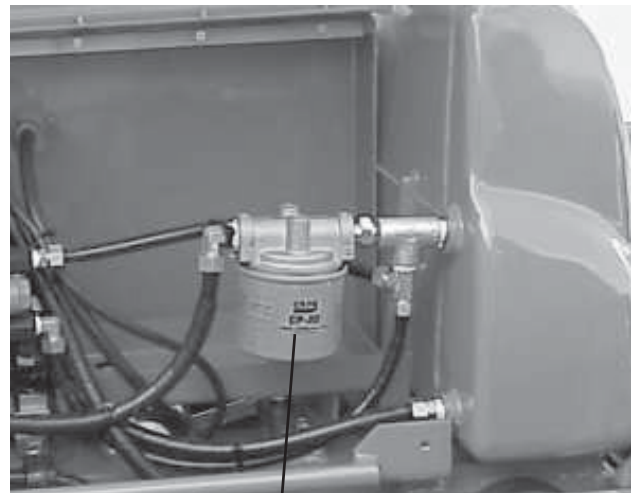
Left Side Bearing Cover Grease Fitting
Figure 36. Bearing Cover Maintenance



Clutch Box Grease Fitting
Figure 38. Clutch Box Maintenance



Right Side Bearing Cover Grease Fitting
Figure 36. Bearing Cover Maintenance



Hydraulic Oil Filter
Figure 39. Hydraulic Oil Filter Location

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MRH800GS — ROLLER TROUBLESHOOTING

TABLE 9. TROUBLESHOOTING

| SYMPTOM | POSSIBLE PROBLEM | SOLUTION |
|-----------------------------------------------|---------------------------------------------|------------------------------------------------------------------------|
| Unit does not travel. | Parking brake still engaged? | Release parking brake lever. |
| Unit does not travel or travel is not smooth. | Defective centrifugal clutch? | Repair or replace clutch. |
| | Damaged rubber coupling and flange? | Replace rubber coupling and flange. |
| | Defective travel cable and link? | Repair or replace travel cable and link. |
| | Damaged scraper or too much mud in scraper? | Replace or repair scraper. |
| | Damaged or clogged oil filter? | Replace filter. |
| | Damaged or leaking hydraulic pipe? | Repair or replace parts. |
| | Low oil level or contaminated oil? | Replenish or replace oil. |
| | Damaged or leaking hydraulic pump? | Repair or replace hydraulic pump. |
| | Damaged or leaking hydraulic motor? | Repair or replace hydraulic motor. |
| | Damaged drum gear and bearing? | Repair parts. |
| | Bad drum rotation? | Repair or replace drum. |
| Unit does not vibrate or has weak vibration. | Defective centrifugal clutch? | Repair or replace clutch. |
| | Damaged or slipping V-belt? | Replace V-belt or adjust tension. |
| | Damaged vibration cable and linkage? | Replace or repair vibration cable and linkage. |
| | Damaged vibration clutch? | Adjust or replace clutch. |
| | Defective clutch vibrator pulley V-belt? | Replace V-belt. |
| | Vibrator does not turn smoothly with hand? | Check and repair vibrator. Check if oil level is not excessively high. |

TABLE 10. 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 10. 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. |

EXPLANATION OF CODE IN REMARKS COLUMN

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

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

Sample Parts List:

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

NO. Column

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

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



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

PART NO. Column

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

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

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

QTY. Column

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

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

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

REMARKS Column

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

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

Indicated by:

"INCLUDES ITEMS W/(unique symbol)"

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

Indicated by:

"S/N XXXXX AND BELOW"

"S/N XXXX AND ABOVE"

"S/N XXXX TO S/N XXX"

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

Indicated by:

"XXXXX ONLY"

"NOT USED ON XXXX"

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

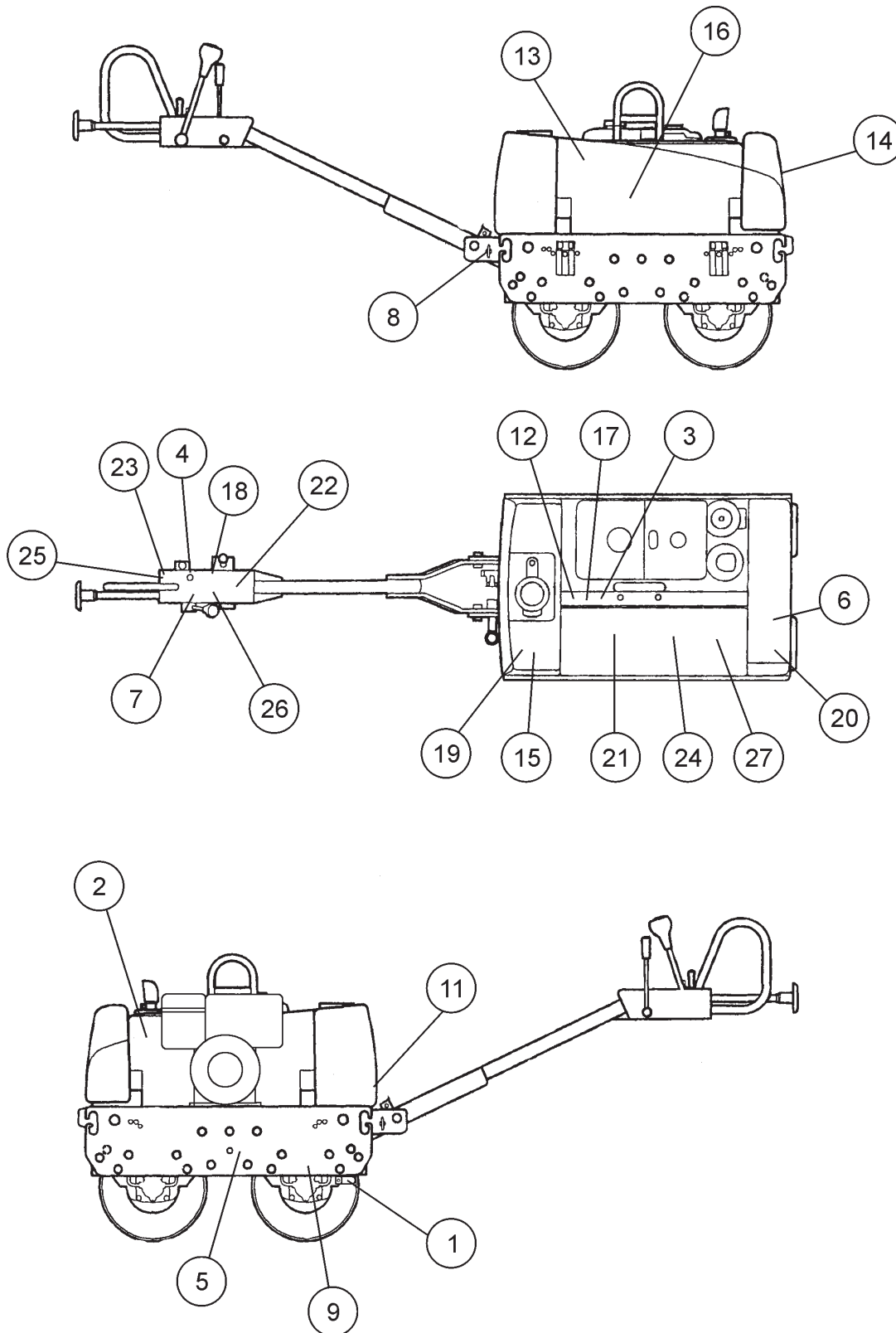
"Not Sold Separately" - Indicates that an item cannot be purchased as a separate item and is either part of an assembly/kit that can be purchased, or is not available for sale through Multiquip.

**MRH-800DS VIBRATION ROLLER 1 TO 3
UNITS WITH HONDA GX390K1SM32
ENGINE**

| Qty. | P/N | Description |
|-------------|-------------------|------------------------|
| 1 | 954401890 | FILTER, WATER TANK |
| 2 | 954001380 | FILTER, HYDRAULIC OIL |
| 2 | 070503000 | V-BELT, ENGINE |
| 1 | 956100024 | THROTTLE WIRE |
| 1 | 954300340 | CAP, WATER TANK |
| 1 | 955200030 | HEAD LAMP ASSY. |
| 2 | 070100381 | V-BELT, VIBRATOR ASSY. |
| 3 | 9807956846 | SPARK PLUG |
| 3 | 172107E3010 | ELEMENT, AIR CLEANER |
| 1 | 11428855041 | CAP ASSY., FUEL TANK |
| 1 | 341507H7003 | OIL ALERT UNIT |
| 2 | 35111880003 | KEY, STARTER |

MRH800GS VIBRATION ROLLER — DECAL PLACEMENT

DECAL PLACEMENT



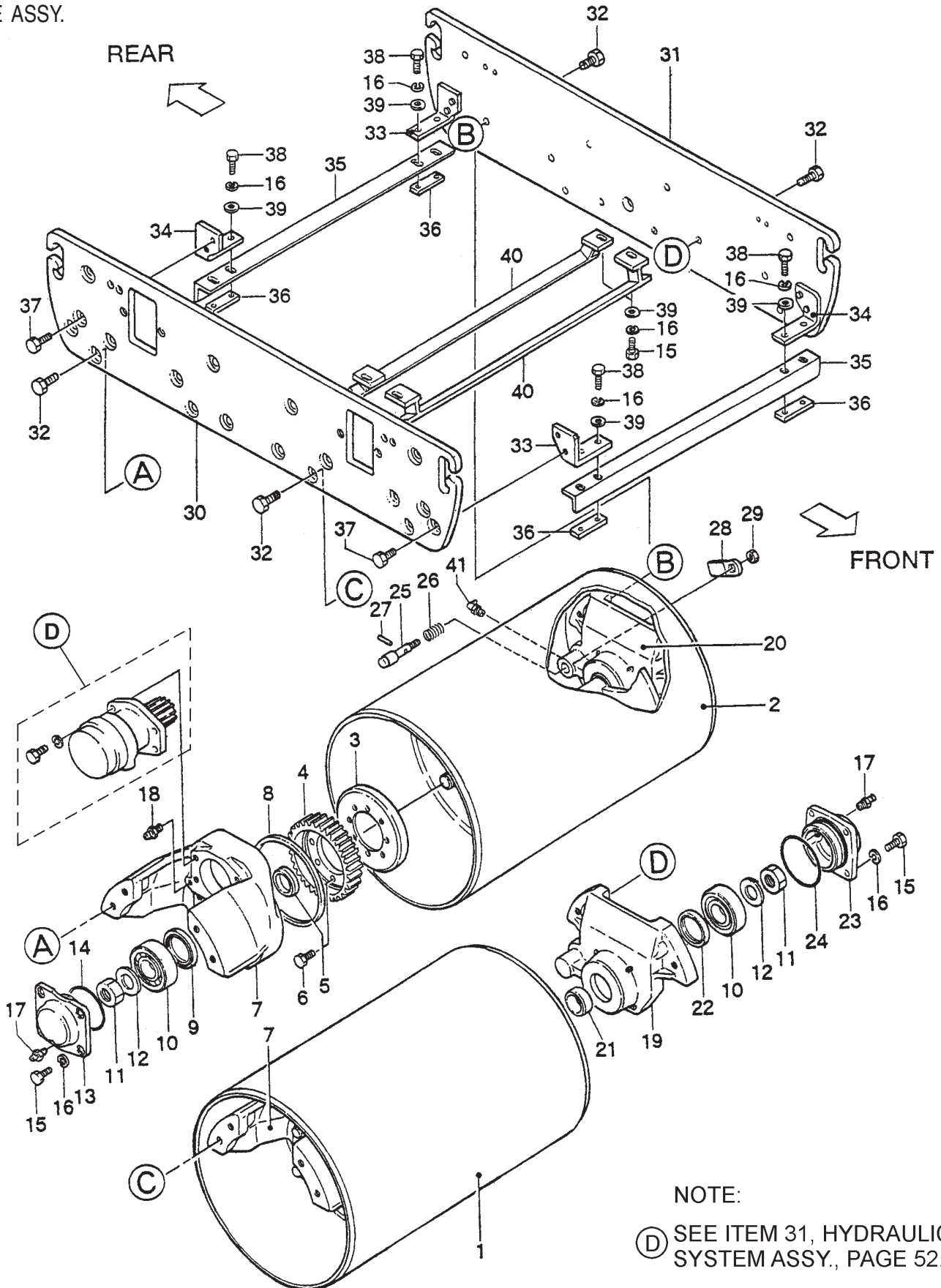
MRH800GS VIBRATION ROLLER — DECAL PLACEMENT

DECAL PLACEMENT

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|----------------------------------------|-------------|----------------|
| 1 | 920205690 | DECAL, BRAKE LEVER | 1 | NPA-569 |
| 2 | 920209660 | DECAL, CAUTION - ENGINE SPEED | 1 | NPA-966 |
| 3 | 920206280 | DECAL, DANGER - PINCH POINT | 1 | NPA-628 |
| 4 | 920102490 | DECAL, LIGHT SWITCH | 1 | NPA-249 |
| 5 | 920101480 | DECAL, CHECK OIL LEVEL | 1 | NP-148 |
| 6 | DCL210 | DECAL, MIKASA MOBILE DTE 25 | 1 | |
| 7 | 920108070 | DECAL, FORWARD/REVERSE LEVER | 1 | NPA-507 |
| 8 | 920100120 | DECAL, GREASE POINT | 1 | NPA-120 |
| 9 | 920208070 | DECAL, PARKING BREAK | 1 | NPA-907 |
| 10 | 920206160 | DECAL, CAUTION - INCLINE PARKING | 1 | NPA-616 |
| 11 | 920206200 | DECAL, WATER TANK SPRINKLE PIPE | 1 | NPA-620 |
| 12 | 920203330 | DECAL, HEARING PROTECTION | 1 | NPA-333 |
| 13 | 920201910 | DECAL, MULTIQUIP - CARSON | 1 | NPA-191 |
| 14 | 920101510 | DECAL, MIKASA | 1 | NP-151 |
| 15 | 920200320 | DECAL, WATER TANK | 1 | NP-32 |
| 16 | 920207610 | DECAL, MRH800GS | 1 | NPA-761 |
| 17 | 920206290 | DECAL, CAUTION - OWNERS MANUAL | 1 | NPA-629 |
| 18 | 920202810 | DECAL, CAUTION - VIBRATION LEVER | 1 | NPA-281 |
| 19 | 920104280 | DECAL, FREEZING PREVENTION | 1 | NPA-428 |
| 20 | 920200470 | DECAL, OIL TANK | 1 | NPA-47 |
| 21 | 920202870 | DECAL, CAUTION - INSTRUCTIONS PLATE .. | 1 | NPA-287 |
| 22 | 920205640 | DECAL, WARNING - INCLINE PARKING | 1 | NPA-564 |
| 23 | 920105170 | DECAL, THROTTLE | 1 | NPA-517 |
| 24 | 920202860 | DECAL, CAUTION - MOVING PLATE | 1 | NPA-286 |
| 25 | 920201450 | DECAL, HORN | 1 | NPA-145 |
| 26 | 920202920 | DECAL, CAUTION - STARTING ENGINE | 1 | NPA-292 |
| 27 | 920205680 | DECAL, WARNING - INCLINE PLATE | 1 | NPA-292 |

MRH800GS VIBRATION ROLLER — AXLE ASSY.

AXLE ASSY.



NOTE:

Ⓓ SEE ITEM 31, HYDRAULIC SYSTEM ASSY., PAGE 52.

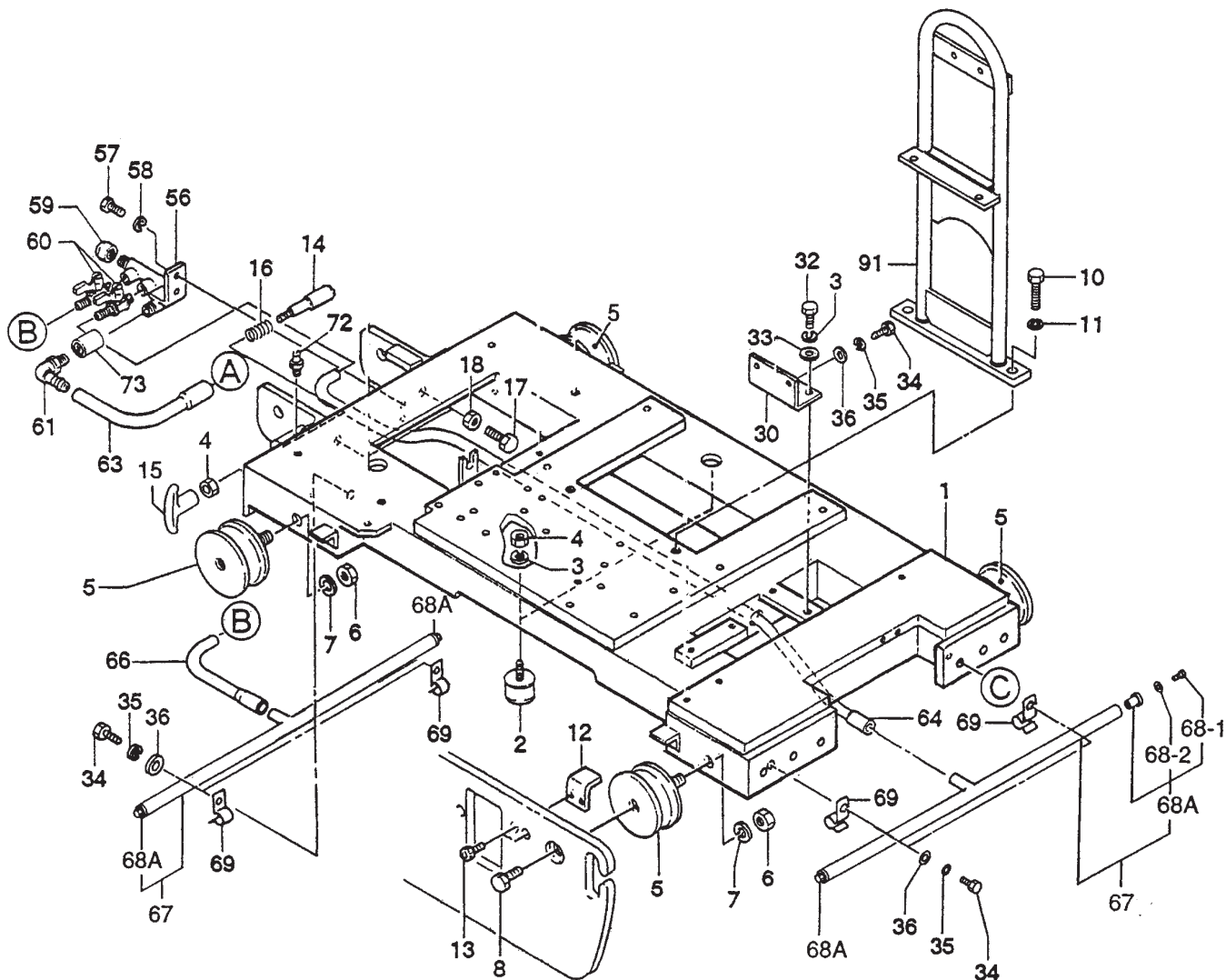
MRH800GS VIBRATION ROLLER — AXLE ASSY.

AXLE ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|------------------------|-------------|----------------|
| 1 | 515112960 | DRUM | 1 | |
| 2 | 515112970 | DRUM | 1 | |
| 3 | 515333990 | GEAR PLATE | 2 | |
| 4 | 515334000 | GEAR (39) | 2 | |
| 5 | 509429660 | COLLAR 405510 | 2 | |
| 6 | 001121630 | BOLT 16X30 T | 16 | |
| 7 | 515117050 | DRUM BRACKET (R) | 2 | |
| 8 | 506425980 | FELT (DRUM) 5X5X1200 | 1 | |
| 9 | 060605020 | OIL SEAL VC-55727 | 2 | |
| 10 | 042006308 | BEARING 6308DU | 4 | |
| 11 | 020130240 | NUT M30, P2.0 | 4 | |
| 12 | 031130450 | WASHER M30 | 4 | |
| 13 | 515334010 | BEARING COVER (R) | 2 | |
| 14 | 050100850 | O-RING G-85 | 2 | |
| 15 | 001221025 | BOLT 10X25 T | 20 | |
| 16 | 030210250 | WASHER M10 | 28 | |
| 17 | 505015060 | GREASE FITTING A-PT1/8 | 4 | |
| 18 | 351010050 | GREASE FITTING A-MT6X1 | 2 | |
| 19 | 515113000 | DRUM BRACKET (L) | 1 | |
| 20 | 515113010 | DRUM BRACKET (LB) | 1 | |
| 21 | 506425670 | COLLAR 405520 | 2 | |
| 22 | 060705010 | OIL SEAL TB4-55729 | 2 | |
| 23 | 515334040 | BEARING COVER (L) | 2 | |
| 24 | 050300950 | O-RING S-95 | 2 | |
| 25 | 515446960 | LOCK PUN, BRAKE | 1 | |
| 26 | 515446950 | SPRING, BRAKE | 1 | |
| 27 | 025405025 | SPRING PIN 5X25 | 1 | |
| 28 | 515446970 | KNOB, BRAKE | 1 | |
| 29 | 020410060 | NUT M10, H=6 | 1 | |
| 30 | 515117040 | SIDE PLATE (R) | 1 | |
| 31 | 515114350 | SIDE PLATE (L) | 1 | |
| 32 | 001221430 | BOLT 14X30 T | 16 | |
| 33 | 515341930 | BRACKET (A), SCRAPER | 2 | |
| 34 | 515341940 | VRACKET (B), SCRAPER | 2 | |
| 35 | 515334020 | SCRAPER (OUT) | 2 | |
| 36 | 515447510 | MOUNT NUT, SCRAPER | 4 | |
| 37 | 001121435 | BOLT 14X35 T | 8 | |
| 38 | 001221030 | BOLT 10X30 T | 8 | |
| 39 | 031110160 | WASHER M10 | 12 | |
| 40 | 515334030 | SCRAPER (IN) | 2 | |
| 41 | 959010330 | GREASE FITTING B-M6FX1 | 1 | |

MRH800GS VIBRATION ROLLER — BASE ASSY.

BASE ASSY.



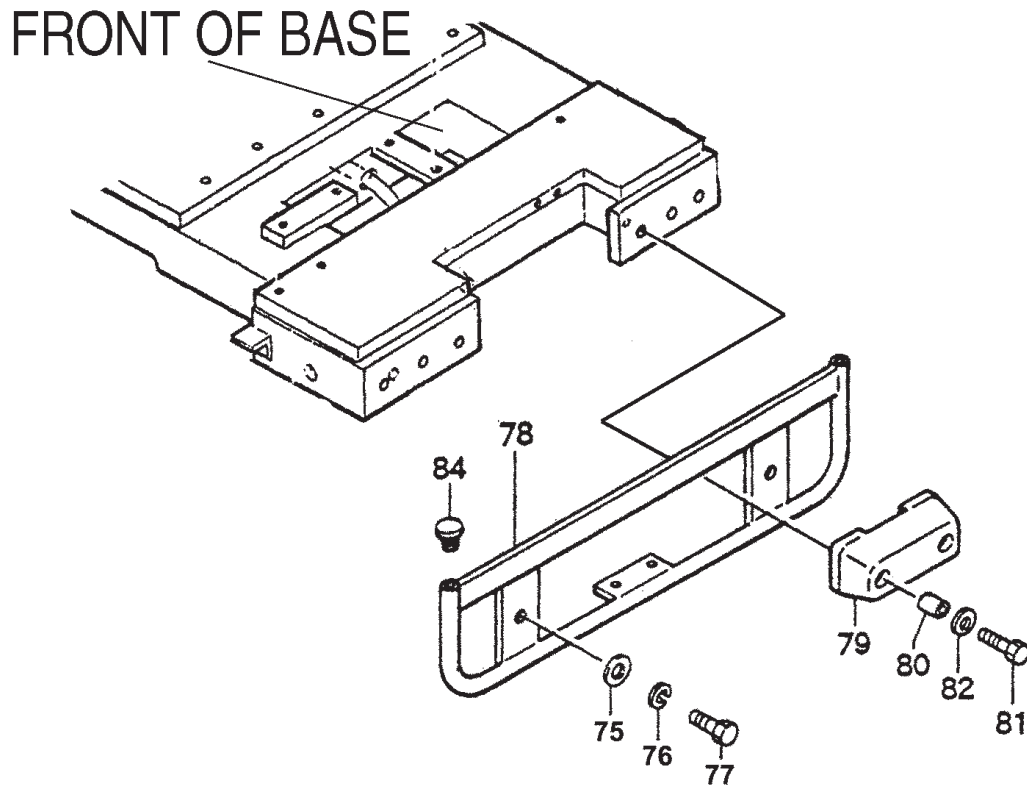
MRH800GS VIBRATION ROLLER — BASE ASSY.

BASE ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|------------------------------|-------------|--------------------|
| 1 | 515114460 | BASE (YANMAR-L100) | 1 | |
| 2 | 939010010 | SHOCK ABSORBER, STOPPER 45 | 2 | |
| 3 | 030210250 | WASHER, LOCK M10 | 9 | |
| 4 | 020310080 | NUT M10 | 3 | |
| 5 | 930710031 | SHOCK ABSORBER RV1-100 | 4 | |
| 6 | 020316130 | NUT M16 | 4 | |
| 7 | 030216400 | WASHER, LOCK M16 | 4 | |
| 8 | 001221625 | BOLT 16X25 T | 4 | |
| 10 | 001221440 | BOLT 14X40 T | 2 | |
| 11 | 030214350 | WASHER, LOCK M14 | 2 | |
| 12 | 515447010 | SAFETY GUARD | 4 | |
| 13 | 001520815 | SOCKET HEAD BOLT 8X13 T | 8 | |
| 14 | 501402870 | HANDLE STOPPER | 1 | |
| 15 | 959010413 | EYE NUT M10 | 1 | |
| 15 | 959010416 | T- KNOB (M10) | 1 | |
| 16 | 501402880 | SPRING / HANDLE (1. 4X18X44) | 1 | |
| 17 | 001221230 | BOLT 12X30 T | 2 | |
| 18 | 0039312000 | NUT M12 | 2 | REPLACES 020312100 |
| 30 | 5153344100 | STAY, COVER (F) | 1 | |
| 32 | 012210020 | BOLT 10X20 T | 5 | REPLACES 001221020 |
| 33 | 031110160 | WASHER, FLAT M10 | 7 | |
| 34 | 0105050616 | BOLT 6X15 T | 8 | REPLACES 001220615 |
| 35 | 030206150 | WASHER, LOCK M6 | 8 | |
| 36 | 952404470 | WASHER, FLAT M6 | 8 | REPLACES 031106100 |
| 56 | 515334050 | SUPPORT , WATER COCK | 1 | |
| 57 | 014208020 | BOLT 8X20 T | 2 | REPLACES 001220820 |
| 58 | 030208200 | SWM8 | 2 | |
| 59 | 509010010 | CAP 3/8 | 1 | |
| 60 | 954403240 | COCK PT1/4, BH-1211 (PL) | 2 | |
| 61 | 954405660 | ELBOW 3/8X12 | 1 | |
| 63 | 515446980 | WATER HOSE (T-V) 300L | 1 | |
| 64 | 515446990 | WATER HOSE (F) 1200L | 1 | |
| 66 | 515447470 | WATER HOSE (R) 260L | 1 | |
| 67 | 515910030 | SPRINKLING PIPE AY MRH | 2 | INCLUDES ITEMS W/* |
| 68 | 506425750 | CAP, SPRINKLING PIPE | 4 | |
| 68A* | 515910050 | CAP AY, W/BOLT, WASHER | 4 | INCLUDES ITEMS W/+ |
| 68-1+ | 001220620 | BOLT 6X20 T | 4 | |
| 68-2+ | 031106100 | WASHER, FLAT M6 | 4 | |
| 69 | 515449900 | CLAMP 00 | 4 | |
| 72 | 171010120 | GREASE FITTING A-M6F | 1 | |
| 73 | 954001590 | SOCKET PT3/8-3/8 | 1 | |
| 91 | 515213600 | HOOK (L100) | 1 | |
| 92 | 515113710 | GUARD (L100) | 1 | |
| 93 | 001221035 | BOLT 10X35T | 2 | |
| 94 | 001221020 | BOLT 10X20t | 2 | |
| 95 | 030210250 | WASHER, LOCK M10 | 4 | |
| 96 | 091004016 | WASHER, FLAT M10 | 4 | |

MRH800GS VIBRATION ROLLER — FRONT GUARD ASSY.

FRONT GUARD ASSY.



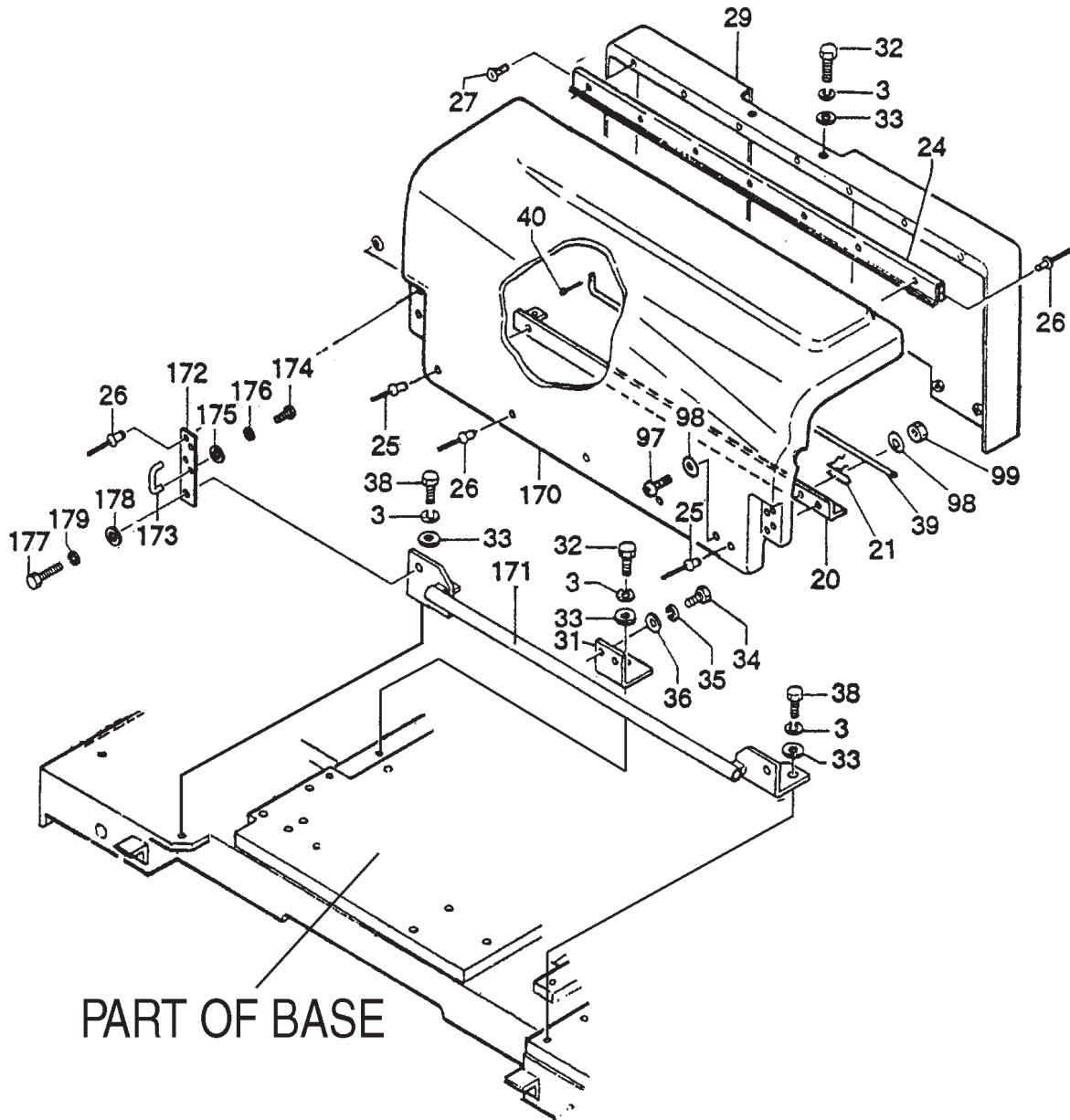
MRH800GS VIBRATION ROLLER — FRONT GUARD ASSY.

FRONT GUARD ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|------------------|-------------|----------------|
| 75 | 031110160 | FLAT WASHER, M10 | 2 | |
| 76 | 030210250 | LOCK WASHER, M10 | 2 | |
| 77 | 001221035 | BOLT 10x35 mm | 2 | |
| 78 | 515336200 | FRONT GUARD | 1 | |
| 79 | 515336210 | BUMPER | 2 | |
| 80 | 515449720 | SPACER, BUMPER | 4 | |
| 81 | 001221040 | BOLT 10X40 T | 4 | |
| 82 | 031110160 | WASHER, FLAT M10 | 4 | |
| 84 | 953405940 | PIPE INSERT PZ-7 | 2 | |

MRH800GS VIBRATION ROLLER — SIDE COVER ASSY.

SIDE COVER ASSY.



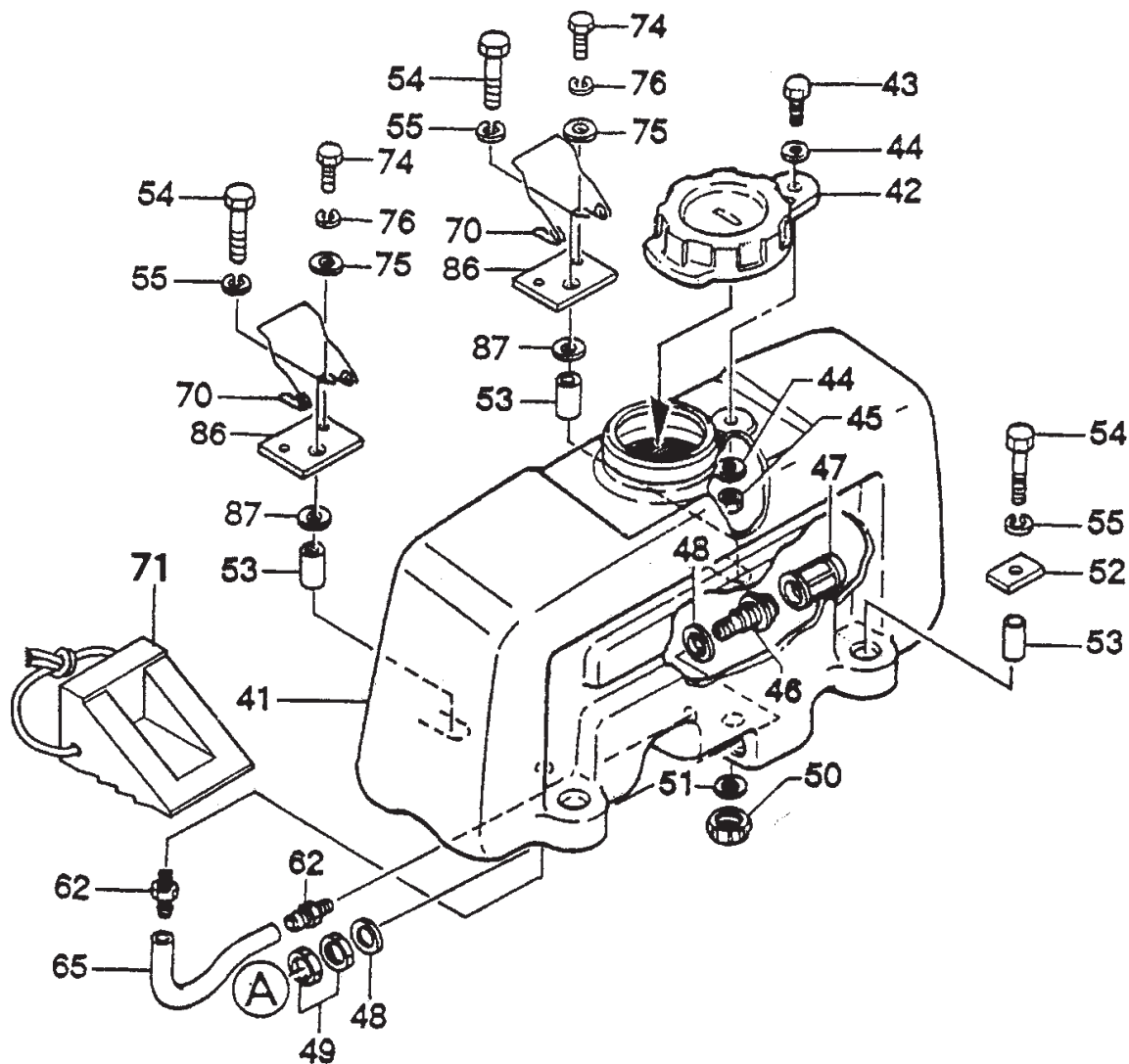
MRH800GS VIBRATION ROLLER — SIDE COVER ASSY.

SIDE COVER ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|-----------------------|-------------|--------------------|
| 3 | 030210250 | WASHER, LOCK M10 | 9 | |
| 20 | 515336250 | SUPPORT, COVER | 1 | |
| 21 | 515449890 | ROD HOLDER | 1 | |
| 24 | 515334600 | RUBBER HINGE | 1 | |
| 25 | 515010090 | RIVET | 2 | |
| 26 | 515010100 | RIVET | 14 | |
| 29 | 515113900 | COVER, (ENGINE) HONDA | 1 | |
| 31 | 515447030 | STAY, COVER (R) | 1 | |
| 32 | 012210020 | BOLT 10X20 T | 5 | REPLACES 001221020 |
| 33 | 031110160 | WASHER, FLAT M10 | 7 | |
| 34 | 0105050616 | BOLT 6X15 T | 8 | REPLACES 001220615 |
| 35 | 030206150 | WASHER, LOCK M6 | 8 | |
| 36 | 952404470 | WASHER, FLAT M6 | 8 | REPLACES 031106100 |
| 38 | 0105091025 | BOLT 10X25 T | 2 | REPLACES 001221025 |
| 39 | 515447380 | ROD, COVER | 1 | |
| 40 | 607010080 | COTTER PIN 6 | 1 | |
| 97 | 091004016 | SCREW 4X16 | 1 | |
| 98 | 031104080 | WASHER, FLAT M4 | 2 | |
| 99 | 020304030 | NUT M4 | 1 | |
| 170 | 515114870 | COVER (EXP) | 1 | |
| 171 | 515214240 | STAY, COVER (EXP) | 1 | |
| 172 | 515450780 | HANDLE BRACKET | 2 | |
| 173 | 515450790 | HANDLE (COVER) | 2 | |
| 174 | 091004015 | SCREW 4X15 | 4 | |
| 175 | 031104080 | WASHER, FLAT M4 | 4 | |
| 176 | 030204100 | WASHER, LOCK M4 | 4 | |
| 177 | 001220815 | BOLT 8X15 T | 2 | |
| 178 | 031108160 | WASHER, FLAT M8 | 2 | |
| 179 | 030208200 | WASHER, LOCK M8 | 2 | |

MRH800GS VIBRATION ROLLER — WATER TANK ASSY.

WATER TANK ASSY.



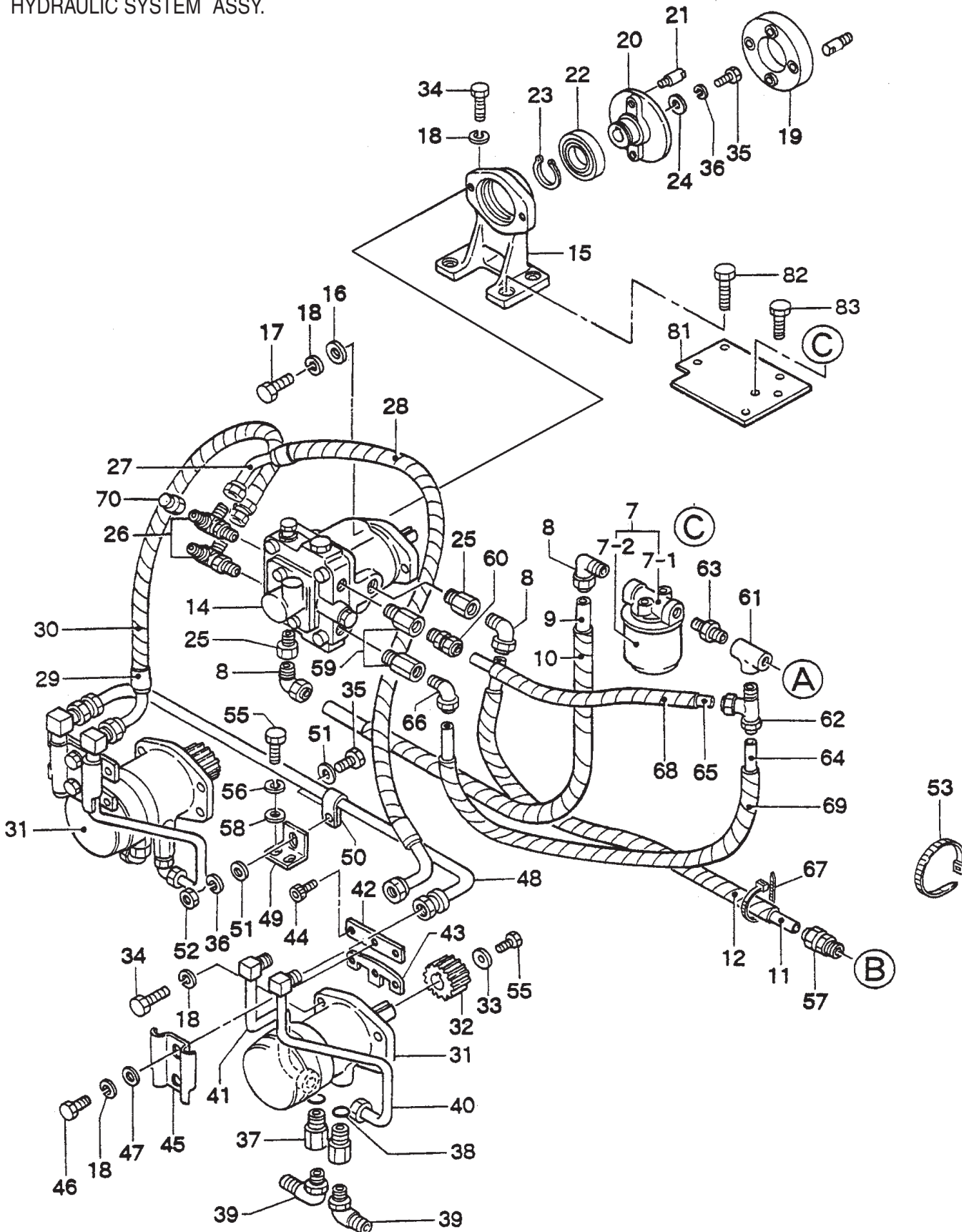
MRH800GS VIBRATION ROLLER — WATER TANK ASSY.

WATER TANK ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|------------------------|-------------|----------------|
| 41 | 515114200 | WATER TANK | 1 | |
| 42 | 954300340 | CAP, WATER TANK /MR | 1 | |
| 43 | 001241030 | BOLT 10X30 U | 1 | |
| 44 | 033910010 | WASHER 10.5X21X2 SUS | 2 | |
| 45 | 022910180 | NYLON NUT M10 (SUS) | 1 | |
| 46 | 954404910 | HOSE JOINT 17D | 1 | |
| 47 | 954401890 | FILTER, TANK /MR | 1 | |
| 48 | 953404900 | PACKING 26X36X3 | 2 | |
| 49 | 959404880 | NUT 3/4 | 2 | |
| 50 | 506403990 | CAP PS1 | 2 | |
| 51 | 953404000 | PACKING, CAP PS1 | 1 | |
| 52 | 506434680 | STOPPER, FRONT | 2 | |
| 53 | 506434690 | SPACER, WATER TANK 39L | 4 | |
| 54 | 001221253 | BOLT 12X65 T | 4 | |
| 55 | 030212300 | WASHER, LOCK M12 | 4 | |
| 62 | 954405680 | CONNECTOR 1/4x10 | 2 | |
| 65 | 515447000 | WATER LOSE (T) 280 | 1 | |
| 70 | 515449870 | HOLDER, STOPPER | 2 | |
| 71 | 515448290 | STOPPER | 2 | |
| 71 | 517338540 | STOPPER | 2 | G2441- |
| 74 | 001220610 | BOLT 6X10 T | 4 | |
| 75 | 031106100 | WASHER, FLAT M6 | 4 | |
| 76 | 030206150 | WASHER, LOCK M6 | 4 | |
| 86 | 515449880 | HOLDER (R) | 2 | |
| 87 | 952405950 | WASHER 13506 | 2 | |

MRH800GS VIBRATION ROLLER — HYDRAULIC SYSTEM ASSY.

HYDRAULIC SYSTEM ASSY.



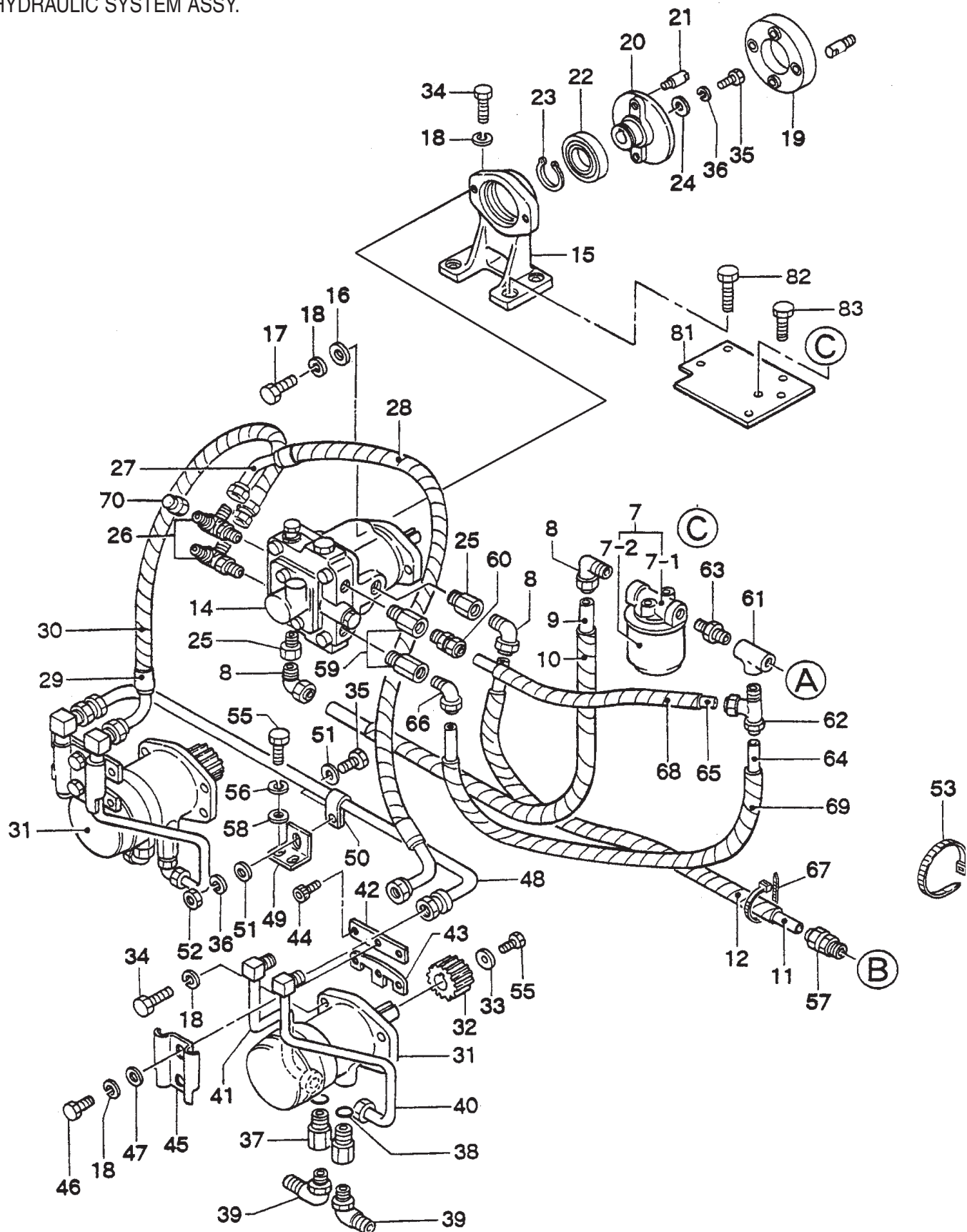
MRH800GS VIBRATION ROLLER — HYDRAULIC SYSTEM ASSY.

HYDRAULIC SYSTEM ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|---------------------------|-------------|--------------------|
| 7 | 954001350 | OIL FILTER CPO 3-80 | 1 | INCLUDES ITEMS W/* |
| 7-1* | 954001390 | FILTER HEAD | 1 | |
| 7-2* | 954001380 | OIL ELEMENT | 1 | |
| 8 | 954001530 | ELBOW LIN-1/2-PT3/8 | 3 | |
| 9 | 954001501 | TUBE 9.6-12.7 - 300 | 1 | |
| 10 | 959020011 | SPIRAL TUBE 11D-350L | 1 | |
| 11 | 954001511 | TUBE 9.6-12.7-360 | 1 | |
| 12 | 955404275 | SPIRAL TUBE 11D-400L | 1 | |
| 14 | 515010050 | OIL PUMP PV10-610 | 1 | |
| 14 | 515010110 | OIL PUMP PV10 -625 | 1 | |
| 15 | 515114390 | BRACKET (PV10) | 1 | |
| 16 | 952404110 | COLLAR 10225 | 2 | |
| 17 | 012210035 | BOLT 10X35 T | 2 | REPLACES 001221035 |
| 18 | 030210250 | WASHER, LOCK M10 | 22 | |
| 19 | 515334070 | COUPLING | 1 | |
| 20 | 515334080 | FLANGE (PV10) | 1 | |
| 21 | 515447020 | COUPLING PIN | 2 | |
| 22 | 046006009 | BEARING 6009DDU | 1 | |
| 23 | 080200450 | STOP RING S -45 | 1 | |
| 24 | 952400450 | WASHER 7X30X4.5 | 1 | |
| 25 | 954001460 | BUSHING CP-3/8 | 2 | |
| 26 | 954001710 | ELBOW PF3/8 - PF1/4X2 | 2 | |
| 27 | 954001370 | OIL HOSE ML90-ML90X560 | 1 | |
| 27 | 954001830 | OIL HOSE ML90-ML90X560 BS | 1 | |
| 28 | 959020013 | SPIRAL TUBE 11D-600L | 1 | |
| 29 | 516010080 | OIL HOSE ML90-1005X600 | 1 | |
| 29 | 954001840 | OIL HOSE ML90-1005X600 BS | 1 | |
| 30 | 955404270 | SPIRAL TUBE/11D-700L | 1 | |
| 31 | 515010040 | OIL MOTOR K2355(BLUE) | 2 | |
| 32 | 515446940 | PINION (12) | 2 | |
| 33 | 952400130 | WASHER 9304 | 2 | |
| 34 | 012210035 | BOLT 10X35 T | 14 | REPLACES 001221035 |
| 35 | 0105050616 | BOLT 6X15 T | 2 | REPLACES 001220615 |
| 36 | 030206150 | WASHER, LOCK M6 | 2 | |
| 37 | 515447130 | JOINT 1/2-3/8-31 | 4 | |
| 38 | 050210180 | O-RING P-18-1B | 4 | |
| 39 | 512010120 | JOINT, LLM-UE-10X3/8-B | 4 | |
| 40 | 515447110 | PIPE, OM-A-E | 2 | |
| 41 | 515447120 | PIPE, OM-B-E | 2 | |

MRH800GS VIBRATION ROLLER — HYDRAULIC SYSTEM ASSY.

HYDRAULIC SYSTEM ASSY.



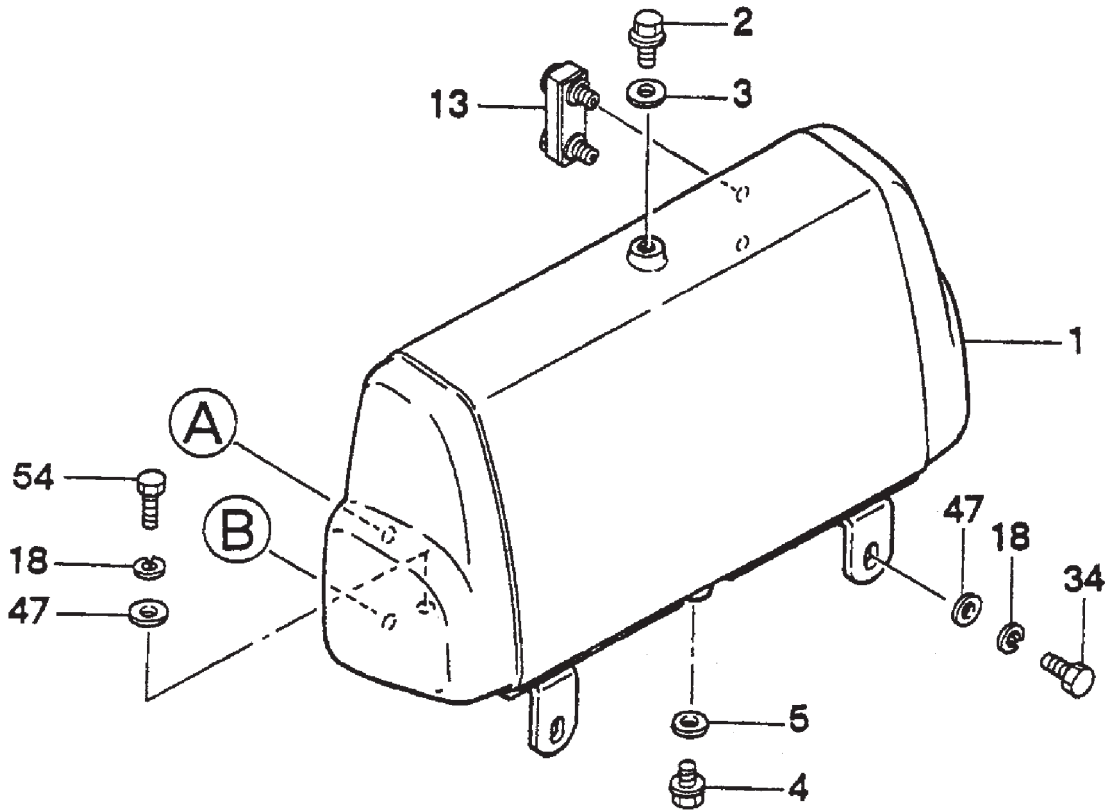
MRH800GS VIBRATION ROLLER — HYDRAULIC SYSTEM ASSY.

HYDRAULIC SYSTEM ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|-----------------------------|-------------|--------------------|
| 42 | 515447160 | HOLDER, UPPER | 2 | |
| 43 | 515447170 | HOLDER, LOWER | 2 | |
| 44 | 001520820 | SOCKET HEAD BOLT 8X20 T | 8 | |
| 45 | 515447140 | COVER, PIPE | 2 | |
| 46 | 012210020 | BOLT 10X20 T | 4 | REPLACES 001221020 |
| 47 | 031110160 | WASHER, FLAT M10 IN SYSTEM8 | | |
| 48 | 515447150 | PIPE, OM-B--OM-A | 1 | |
| 49 | 515447300 | STAY, PIPE | 1 | |
| 50 | 607010040 | CLAMP CLA-3200 (7D) | 1 | |
| 51 | 952404470 | WASHER, FLAT M6 | 2 | REPLACES 031106100 |
| 52 | 020106050 | NUT M6 | 1 | REPLACES 020306050 |
| 53 | 507010110 | CLAMP TC-200 | 5 | |
| 55 | 014208020 | BOLT 8X20 T | 4 | REPLACES 001220820 |
| 56 | 030208200 | WASHER, LOCK M8 | 2 | |
| 57 | 954001520 | ADAPTER CIN-1/2XPT3/8 | 1 | |
| 58 | 031108160 | WASHER, FLAT M8 | 2 | |
| 59 | 515335300 | CHECK VALVE 7/16 | 2 | |
| 60 | 954001090 | ADAPTER CIN-3/8-PT1/4 | 1 | |
| 61 | 954001010 | JOINT PT3/8 | 1 | |
| 62 | 954001620 | FITTING, TEE STIN3/8-PT3/8 | 1 | |
| 63 | 954001630 | NIPPLE PT3/8 | 1 | |
| 64 | 954001650 | TUBE 9.5D-7D-370 | 1 | |
| 65 | 954001640 | TUBE 9.5D-7D-290 | 1 | |
| 66 | 954001100 | ELBOW LIN-3/8-PT1/4 | 1 | |
| 67 | 454010020 | CLAMP TC-100 | 12 | |
| 68 | 959021817 | SPIRAL TUBE 6D-350L | 1 | |
| 69 | 959021818 | SPIRAL TUBE 6D-510L | 1 | |
| 70 | 954001040 | CAP PF1/4 | 2 | |
| 81 | 515335451 | SPACER (PV10) | 1 | |
| 82 | 0109051045 | BOLT 10X40 T | 4 | REPLACES 001221040 |
| 83 | 012010030 | BOLT 10X30 T | 2 | REPLACES 001221030 |
| 84 | 515447020 | COUPLING PIN | 2 | |

MRH800GS VIBRATION ROLLER — HYDRAULIC OIL TANK ASSY.

HYDRAULIC OIL TANK ASSY.



(A) NOTE:
(B) SEE PAGE 52 FOR
OIL TANK HOSE
CONNECTIONS

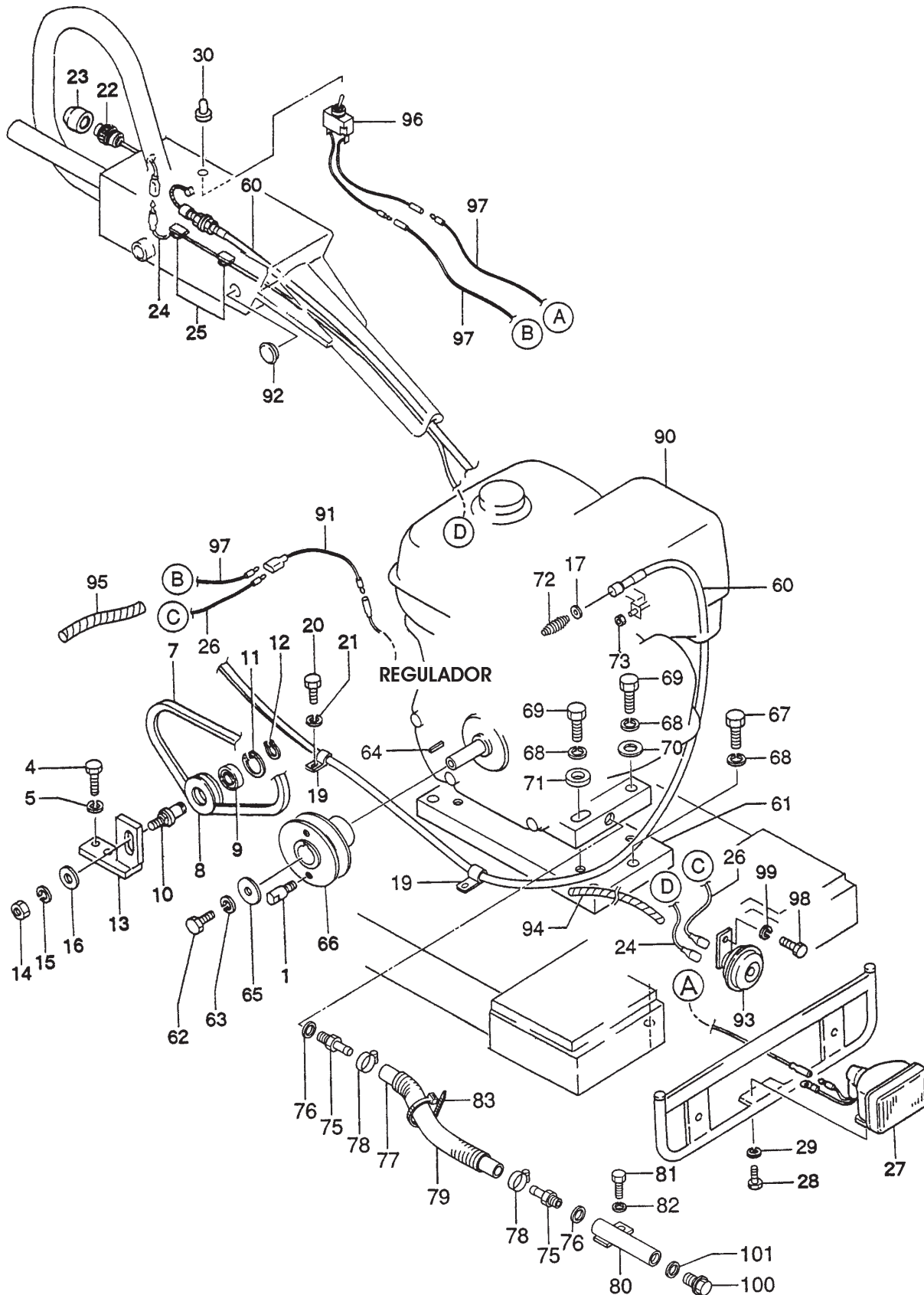
MRH800GS VIBRATION ROLLER — HYDRAULIC OIL TANK ASSY.

HYDRAULIC OIL TANK ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|----------------------------|-------------|---------------------------|
| 1 | 515114221 | OIL TANK, (GREEN) | 1 | |
| 1 | 515010140 | OIL TANK , (ORANGE) | 1 | |
| 2 | 953405840 | DRAIN PLUG M18 | 1 | REPLACES 953102781 |
| 3 | 953402930 | COPPER PACKING 19X30X1 | 1 | |
| 4 | 953400270 | PLUG 1/4X14 10L | 1 | |
| 5 | 953405260 | PACKING 1/4 (CU) | 1 | |
| 13 | 959010120 | LEVEL GAUGE/L =60 | 1 | |
| 18 | 030210250 | WASHER, LOCK M10 | 22 | |
| 34 | 012210035 | BOLT 10X35 T | 14 | REPLACE)S 001221035 |
| 47 | 031110160 | WASHER, FLAT M10 IN SYSTEM | 8 | |
| 54 | 0105091025 | BOLT 10X25 T | 2 | REPLACES 001221025 |

MRH800GS VIBRATION ROLLER — ENGINE ASSY.

ENGINE (HONDA GX390) ASSY.



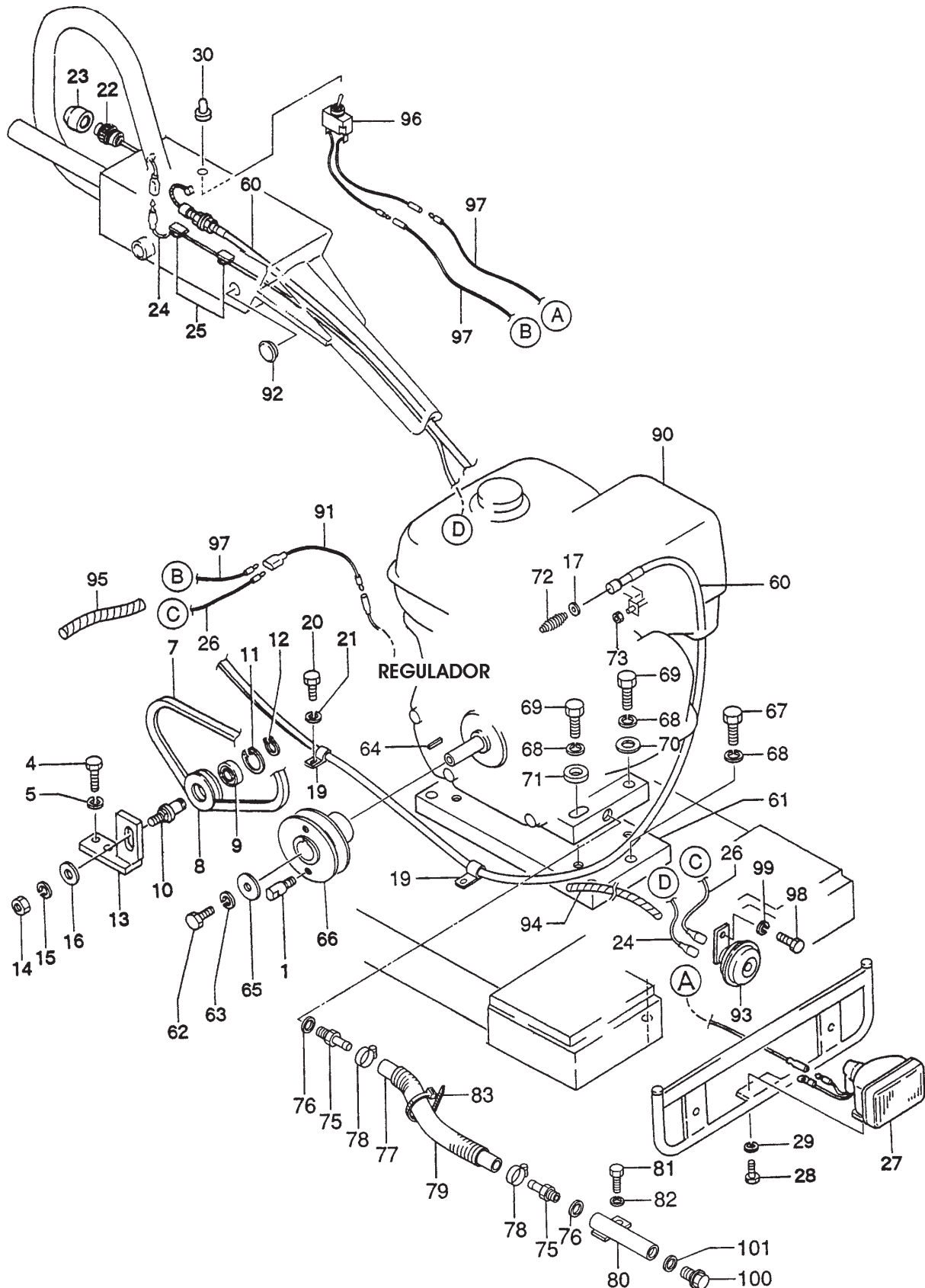
MRH800GS VIBRATION ROLLER — ENGINE ASSY.

ENGINE (HONDA GX390) ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|-------------------------------|-------------|--------------------|
| 1 | 515447020 | COUPLING PIN | 2 | |
| 4 | 012010030 | BOLT 10X30 T | 2 | REPLACES 001221030 |
| 5 | 030210250 | WASHER, LOCK M10 | 2 | |
| 7 | 070503000 | V-BELT 3V-300 | 1 | |
| 8 | 515447050 | TIGHTENER PULLEY | 1 | |
| 9 | 046006004 | BEARING 6004DDU | 1 | |
| 10 | 515447060 | SHAFT TIGHTENER | 1 | |
| 11 | 080100420 | STOP RING R-42 | 1 | |
| 12 | 080200200 | STOP RING S-20 | 1 | |
| 13 | 515334180 | HOLDER, TIGHTENER | 1 | |
| 14 | 020314110 | NUT M14 | 1 | |
| 15 | 030214350 | WASHER, LOCK M14 | 1 | |
| 16 | 031114260 | WASHER, FLAT M14 | 1 | |
| 17 | 031104080 | WASHER, FLAT M4 | 1 | |
| 19 | 607010040 | CLAMP CLA-3200 (7D) | 2 | |
| 20 | 011006010 | BOLT 6X10 T | 2 | REPLACES 001220610 |
| 21 | 030206150 | WASHER, LOCK M6 | 2 | |
| 22 | 955400800 | SWITCH, HORN BUTTON ASSY | 1 | |
| 23 | 955405980 | COVER, HORN BUTTON | 1 | |
| 24 | 515447320 | READ CORD, HORN(WASHER, LOCK) | 1 | |
| 25 | 955405710 | WIRE CLAMP | 2 | |
| 26 | 515449860 | HARNESS (L1200) | 1 | |
| 27 | 955200030 | HEAD LAMP AY 12V-25W | 1 | |
| 28 | 0105050616 | BOLT 6X15 T | 2 | REPLACES 001220615 |
| 29 | 030206150 | WASHER, LOCK M6 | 2 | |
| 30 | 304402600 | CAP | 1 | |
| 60 | 956100024 | THROTTLE WIRE 2608-2700 | 1 | |
| 61 | 515337100 | ENGINE SPACER (GX) | 1 | |
| 62 | 011208025 | BOLT 8X25 T | 1 | REPLACES 001220825 |
| 63 | 030208200 | WASHER, LOCK M8 | 1 | |
| 64 | 951400520 | KEY 7X7X33 | 1 | |
| 65 | 952400690 | WASHER 9X35X4.5 | 1 | |
| 66 | 515338220 | ENGINE PULLEY GX390 | 1 | |
| 67 | 0105051045 | BOLT 10X40 T | 4 | REPLACES 001221040 |
| 68 | 030210250 | WASHER, LOCK M10 | 8 | |
| 69 | 001421040 | BOLT 10X40 T (B=14) | 4 | |
| 70 | 031110160 | WASHER, FLAT M10 | 2 | |
| 71 | 952404110 | COLLAR 10225 | 2 | |
| 72 | 301010950 | RETURN SPRING | 1 | |
| 73 | 0030004000 | NUT M4 | 1 | REPLACES 020304030 |
| 75 | 953406230 | DRAIN JOINT | 2 | |
| 76 | 953406240 | DRAIN WASHER | 2 | |

MRH800GS VIBRATION ROLLER — ENGINE ASSY. (CONT.)

ENGINE (HONDA GX390) ASSY. (CONT.)



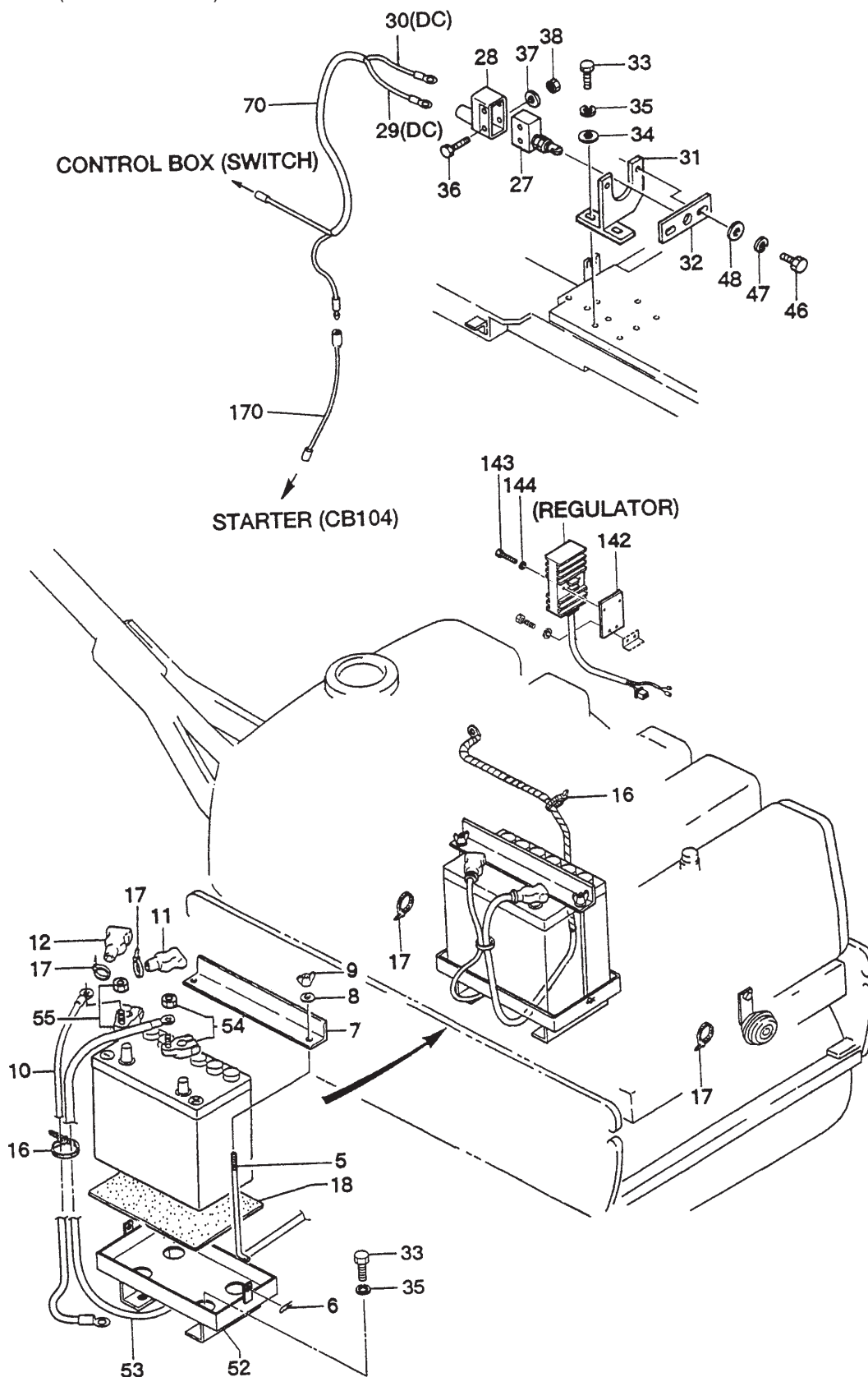
MRH800GS VIBRATION ROLLER — ENGINE ASSY. (CONT.)

ENGINE (HONDA GX390) ASSY. (CONT.)

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|------------------------|-------------|--------------------|
| 77 | 954001760 | OIL HOSE 9.5X19X380L | 1 | |
| 78 | 954406080 | CLIP, OIL HOSE (13-20) | 2 | |
| 79 | 959026002 | TUBE 20D-330L | 1 | |
| 80 | 515450940 | JOINT (M12-P1.5) 30L | 1 | |
| 80 | 515450941 | JOINT (M12-P1.5) 87L | 1 | |
| 81 | 014208020 | BOLT 8X20 T | 1 | REPLACES 001220820 |
| 82 | 030208200 | WASHER, LOCK M8 | 1 | |
| 83 | 506010070 | CLAMP TC-150 | 3 | |
| 90 | 912239006 | ENGINE GX390K1SM32 | 1 | |
| 91 | 515451010 | WIRE HARNESS | 1 | |
| 92 | 515010070 | GROMMET SG26A | 1 | |
| 93 | 955300420 | HORN AY (DC12V) | 1 | |
| 94 | 959021812 | SPIRAL TUBE 6D-800L | 1 | |
| 95 | 959021811 | SPIRAL TUBE 6D-400L | 1 | |
| 96 | 515449910 | SWITCH CP, S-1B W/CORD | 1 | |
| 97 | 515449920 | READ CORD (LAMP) | 2 | |
| 98 | 011006010 | BOLT 6X10 T | 1 | REPLACES 001220610 |
| 99 | 030206150 | WASHER, LOCK M6 | 1 | |
| 100 | 90131883000 | BOLT , DRAIN PLUG | 1 | |
| 101 | 9410912000 | WASHER DRAIN PLUG M12 | 1 | |

MRH800GS — ELECTRIC DEVICE

ELECTRIC DEVICE (HONDA GX390) ASSY.



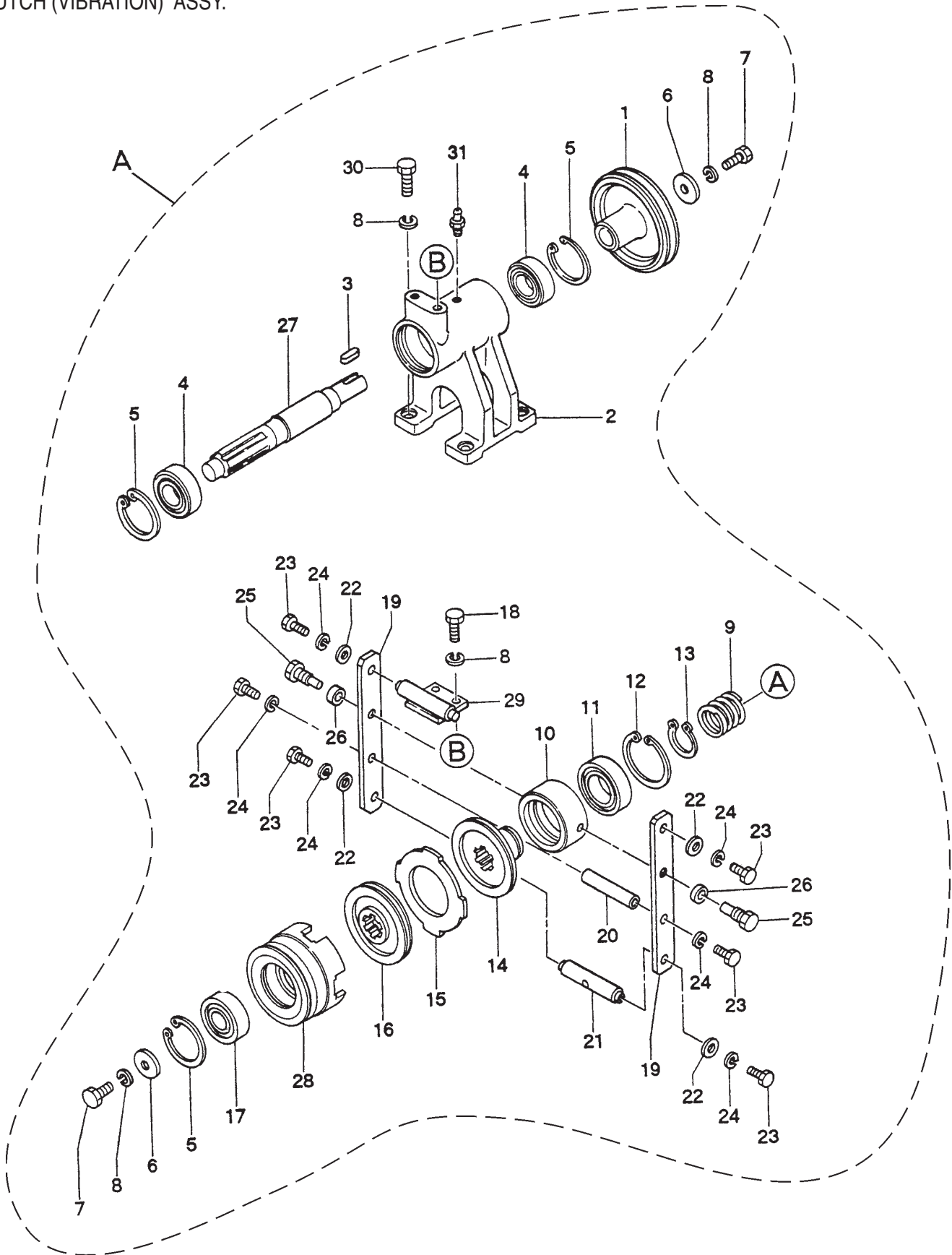
MRH800GS — ELECTRIC DEVICE

ELECTRIC DEVICE (HONDA GX390) ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|-----------------------------|-------------|--------------------|
| 5 | 515448210 | ROD, BATTERY | 2 | |
| 6 | 607010080 | COTTER PIN 6 | 2 | |
| 7 | 515447370 | HOLDER, BATTERY -6,7 | 1 | |
| 8 | 952404470 | WASHER, FLAT M6 | 2 | REPLACES 031106100 |
| 9 | 0037806000 | WING NUT M6 | 2 | REPLACES 022410616 |
| 10 | 515447360 | BATTERY CORD (-) | 1 | |
| 11 | 055300500 | TERMINAL COVER (+) | 1 | |
| 12 | 955300510 | TERMINAL COVER (-) | 1 | |
| 16 | 507010110 | CLAMP TC-200 | 3 | |
| 17 | 506010070 | CLAMP TC-150 | 10 | |
| 18 | 601303150 | RUBBER PLATE 160-226-1T | 1 | |
| 27 | 955405910 | MICRO-SWITCH ,700 | 1 | |
| 28 | 955405450 | COVER, MICROSWITCH /MRX | 1 | |
| 29 | 515449840 | READ CORD 550L (COM-ST) | 1 | |
| 30 | 515449850 | READ CORD 550L (N.C-ST) | 1 | |
| 31 | 515337110 | HOLDER, MICRO-SWITCH | 1 | |
| 32 | 515449230 | PLATE, MICRO-SWITCH | 1 | |
| 33 | 012210020 | BOLT 10X20 T | 6 | REPLACES 001221020 |
| 34 | 031110160 | WASHER, FLAT M10 | 2 | |
| 35 | 030210250 | WASHER, LOCK M10 | 6 | |
| 36 | 001200430 | BOLT 4X30 | 2 | |
| 37 | 031104080 | WASHER, FLAT M4 | 2 | |
| 38 | 022710405 | NYLON NUT M4 | 2 | |
| 46 | 0105050616 | BOLT 6X15 T | 2 | REPLACES 001220615 |
| 47 | 030206150 | WASHER, LOCK M6 | 2 | |
| 48 | 952404470 | WASHER, FLAT M6 | 2 | REPLACES 031106100 |
| 52 | 516337580 | BASE, BATTERY (55B24) | 1 | |
| 53 | 515450740 | BATTERY CORD (+) 1100L | 1 | |
| 54 | 955300480 | BATTERY TERMINAL (+) | 1 | |
| 55 | 955300490 | BATTERY TERMINAL (-) | 1 | |
| 70 | 515453230 | READ CORD (M-SWITCH) 550L-2 | 1 | |
| 142 | 515451000 | BRACKET, REGULATOR | 1 | |
| 143 | 011606025 | BOLT 6X25 T | 2 | REPLACES 001220625 |
| 144 | 030206150 | WASHER, LOCK M6 | 2 | |
| 170 | 515450930 | WIRE HARNESS 300L | 1 | |

MRH800GS VIBRATION ROLLER — CLUTCH (VIBRATION) ASSY.

CLUTCH (VIBRATION) ASSY.



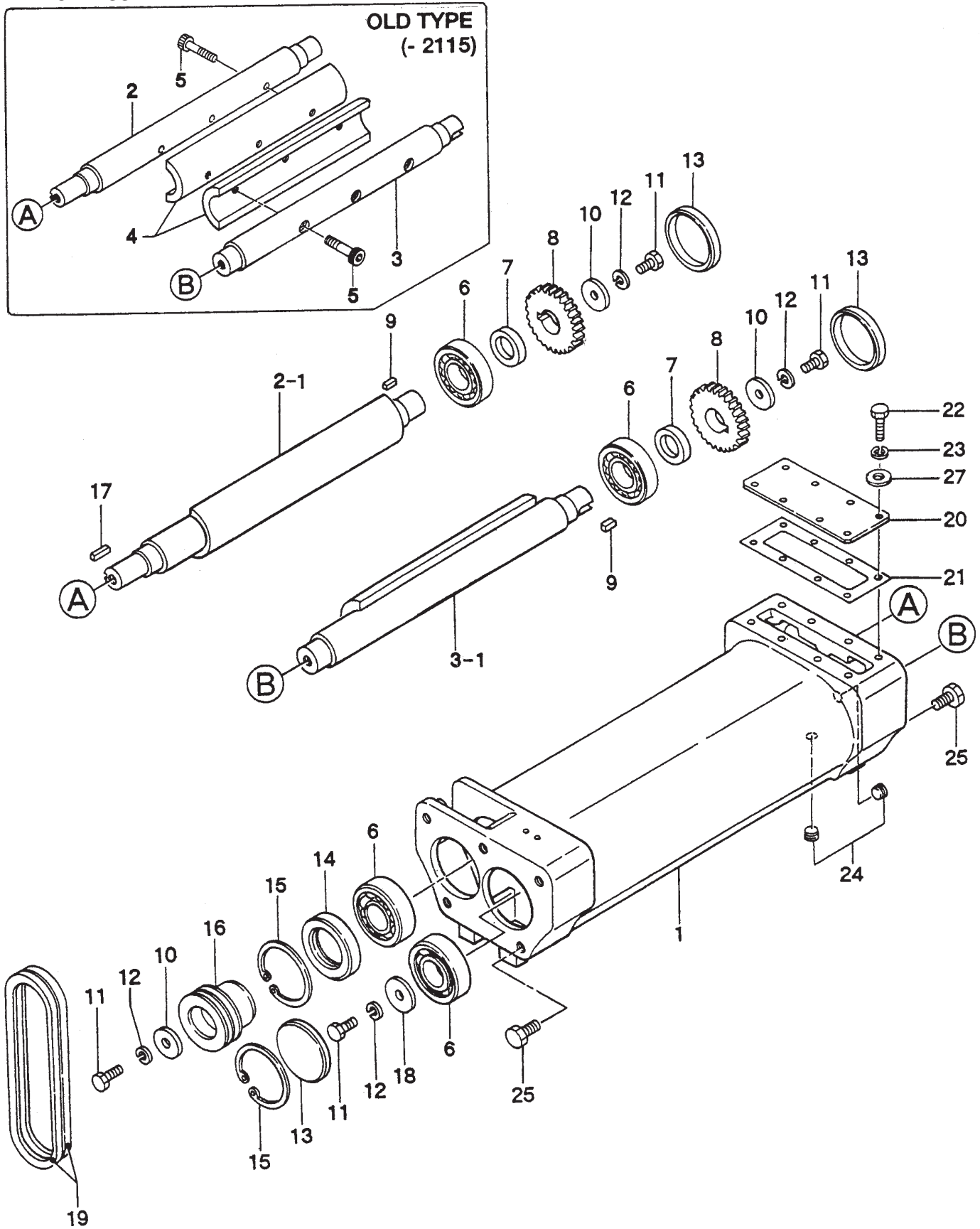
MRH800GS VIBRATION ROLLER — CLUTCH (VIBRATION) ASSY.

CLUTCH (VIBRATION) ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|------------------------------|-------------|--------------------|
| A | 515910010 | CLUTCH (VIB.) | 1 | INCLUDES ITEMS W/* |
| 1* | 515447070 | COUNTER PULLEY 130D-3V1 | 1 | |
| 2* | 515212980 | COUNTER BRACKET | 1 | |
| 3* | 951403020 | KEY 7X7X26 | 1 | |
| 4* | 043006206 | BEARING 6206V | 2 | |
| 5* | 080100620 | STOP RING R-62 | 3 | |
| 6* | 952402470 | WASHER 11366 | 2 | |
| 7* | 012010030 | BOLT 10X30 T | 2 | REPLACES 001221030 |
| 8* | 030210250 | WASHER M10 | 8 | |
| 9* | 509434770 | CLUTCH SPRING | 1 | |
| 10* | 509434780 | RELEASE COLLAR 62X78X40 | 1 | |
| 11* | 044006008 | BEARING 6008VV | 1 | |
| 12* | 080100680 | STOP RING R-68 | 1 | |
| 13* | 080200400 | STOP RING S-40 | 1 | |
| 14* | 515447080 | PRESSURE PLATE | 1 | |
| 15* | 515447090 | INSIDE PLATE | 1 | |
| 16* | 515447100 | DISC PLATE | 1 | |
| 17* | 044006305 | BEARING 6305VV | 1 | |
| 18* | 012210020 | BOLT 10X20 T | 2 | REPLACES 001221020 |
| 19* | 509324690 | RELEASE FORK | 2 | |
| 20* | 509434850 | STUD BAR 18D X80L | 1 | |
| 21* | 509434860 | LOCK, WIRE | 1 | |
| 22* | 952401690 | WASHER 7173 | 4 | |
| 23* | 010505506 | BOLT 6X15 T | 6 | REPLACES 001220615 |
| 24* | 030206150 | WASHER M6 | 6 | |
| 25* | 509434870 | FORK PIN | 2 | |
| 26* | 509434880 | COLLAR, FORK PIN 12.5X20X5 | 2 | |
| 27* | 515334200 | COUNTER SHAFT | 1 | |
| 28* | 515334210 | CLUTCH PULLEY 113D-A2 | 1 | |
| 29* | 409434840 | BRACKET, RELEASE FORK | 1 | |
| 30* | 012010030 | BOLT 10X30 T | 4 | REPLACES 001221030 |
| 31* | 505015060 | GREASE FITTING A-PT1/8 | 1 | REPLACES 301010100 |

MRH800GS VIBRATION ROLLER — VIBRATOR ASSY.

VIBRATOR ASSY.



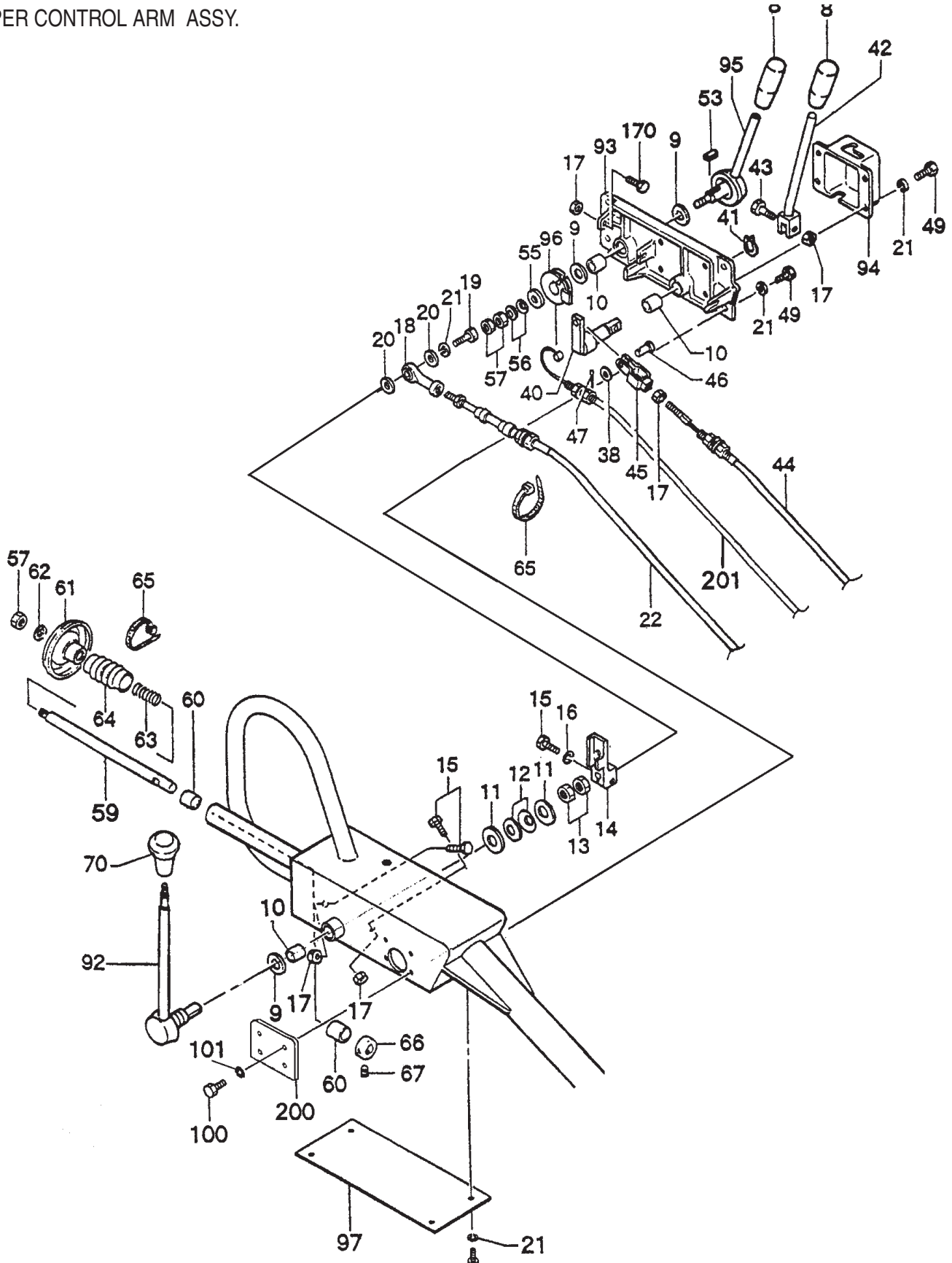
MRH800GS VIBRATION ROLLER — VIBRATOR ASSY.

VIBRATOR ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|--------------------------------|-------------|--------------------|
| 1 | 515113090 | VIBRATING CASE | 1 | |
| 2 | 515334110 | ROTARY SHAFT, DRIVE | 1 | - 215 #2 |
| 2-1 | 515334111 | ROTARY SHAFT, DRIVE 00 | 1 | F2116- *2 |
| 3 | 515334120 | ROTARY SHAFT, DRIVEN | 1 | - 2115 #2 |
| 3-1 | 515334121 | ROTARY SHAFT, DRIVEN | 1 | F2116-*2 |
| 4 | 515334130 | ECCENTRIC ROTATOR | 2 | - 2115 #2 |
| 5 | 001521252 | SOCKET HEAD BOLT 12X60 T | 6 | - 2115 #2 |
| 6 | 040406308 | BEARING 6308C4 | 4 | |
| 7 | 501011020 | GEAR SPACER | 2 | |
| 8 | 501011000 | GEAR 38 | 2 | |
| 9 | 951400080 | KEY 10X8X17 | 2 | REPLACES 951400081 |
| 10 | 952400900 | WASHER 13446 | 3 | |
| 11 | 012212030 | BOLT 12X30 T | 4 | REPLACES 001221230 |
| 12 | 030212300 | WASHER, LOCK M12 | 4 | |
| 13 | 953405570 | SEAL CAP SC- 90-10 | 3 | |
| 14 | 060206020 | OIL SEAL SC- 659013 | 1 | |
| 15 | 080100900 | STOP RING R-90 | 2 | |
| 16 | 515447040 | PULLEY 86D-A2 | 1 | |
| 17 | 951400090 | KEY 10X8X33 | 1 | |
| 18 | 952401590 | WASHER 13X50X6 | 1 | |
| 19 | 070100381 | V-BELT A- 38 RED | 2 | |
| 20 | 515334140 | COVER, GEAR | 1 | |
| 21 | 515334150 | PACKING, COVER | 1 | |
| 22 | 014208020 | BOLT 8X20 T | 8 | REPLACES 001220820 |
| 23 | 030208200 | WASHER, LOCK M8 | 8 | |
| 24 | 894230 | PLUG PT1/4 | 2 | REPLACES 505015380 |
| 25 | 001221430 | BOLT 14X30 T | 10 | |
| 25 | 001221425 | BOLT 14X25 T | 10 | F2116- |
| 27 | 031108160 | WASHER, FLAT M8 | 8 | |

MRH800GS VIBRATION ROLLER — UPPER CONTROL ARM ASSY.

UPPER CONTROL ARM ASSY.



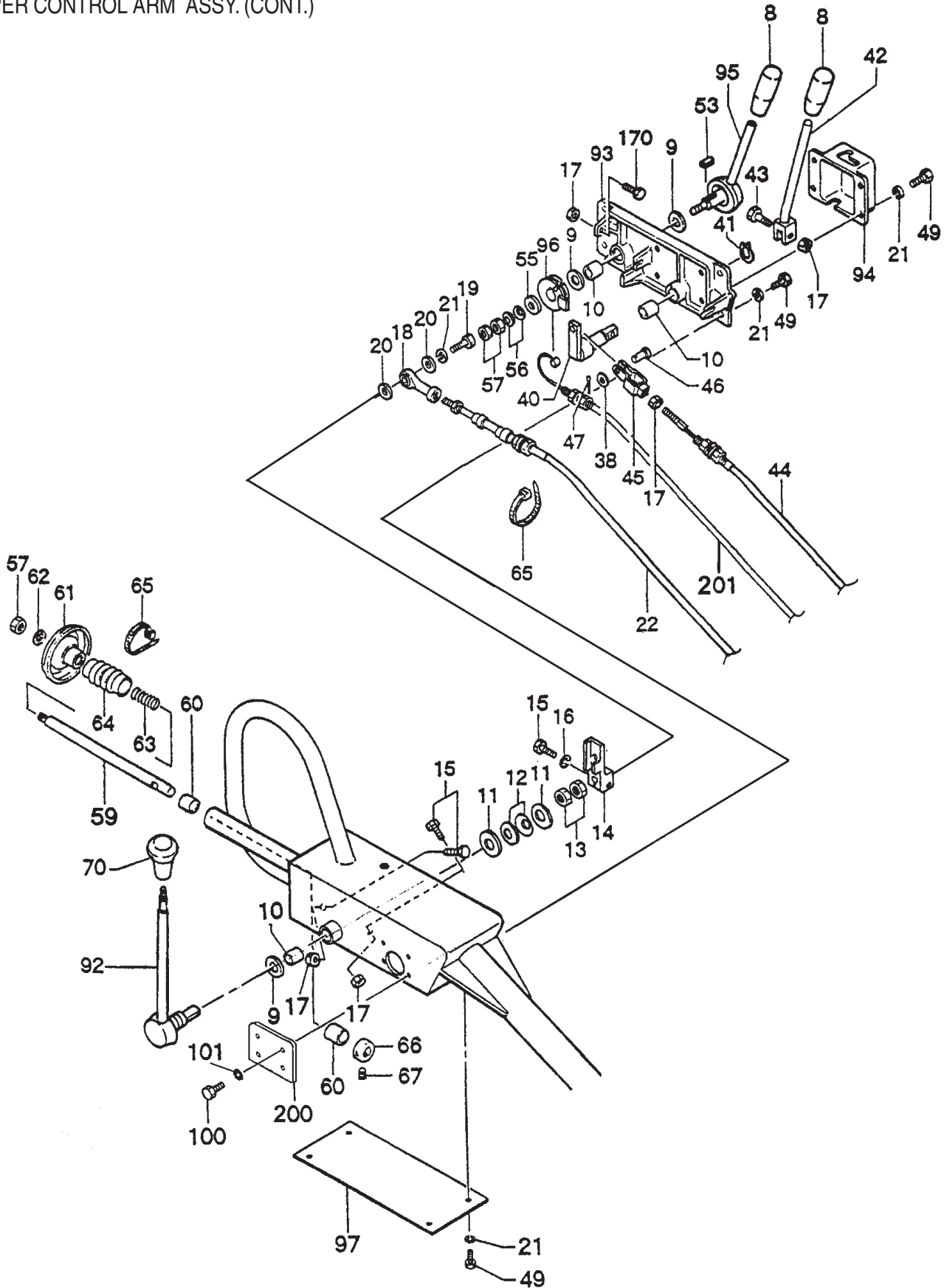
MRH800GS VIBRATION ROLLER — UPPER CONTROL ARM ASSY.

UPPER CONTROL ARM ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|---------------------------|-------------|--------------------|
| 8 | 959403840 | BAR GRIP, I.D. 12MM | 2 | |
| 9 | 953402930 | COPPER PACKING 19X30X1 | 3 | |
| 10 | 509010130 | BUSHING MB1825DU | 3 | |
| 11 | 952405700 | WASHER 19X49X0.6 | 2 | |
| 12 | 952403690 | CONICAL SPRING WASHER M18 | 2 | |
| 13 | 020418110 | NUT M18, H=11 | 2 | |
| 14 | 515447410 | LEVER JOINT, TRAVELLING | 1 | |
| 15 | 011208030 | BOLT 8X30 T | 3 | REPLACES 001220830 |
| 16 | 030208200 | WASHER, LOCK M8 | 3 | |
| 17 | 02108060 | NUT M8 | 5 | REPLACES 020308060 |
| 18 | 501011162 | ROD END PR6-209 | 2 | |
| 19 | 011206020 | BOLT 6X20 T | 1 | REPLACES 001220620 |
| 20 | 952404470 | WASHER 6.5X15X1.6 | 4 | |
| 21 | 030206150 | WASHER, LOCK M6 | 14 | |
| 22 | 515334230 | CABLE | 1 | |
| 40 | 509326970 | SHAFT, LEVER | 1 | |
| 41 | 080200180 | STOP RING S-18 | 1 | |
| 42 | 509436911 | LEVER, VIB. | 1 | |
| 43 | 011208035 | BOLT 8X35 T | 1 | REPLACES 001220835 |
| 44 | 515334240 | CABLE ASSY., VIBRATION | 1 | |
| 45 | 959404760 | CLEVIS 8D X44 | 1 | |
| 46 | 959404370 | PIN 8X22 | 1 | |
| 47 | 025910080 | SNAP PIN /SSP-8 | 1 | |
| 49 | 0105050616 | BOLT 6X15 T | 12 | REPLACES 001220615 |

MRH800GS VIBRATION ROLLER — UPPER CONTROL ARM ASSY. (CONT.)

UPPER CONTROL ARM ASSY. (CONT.)



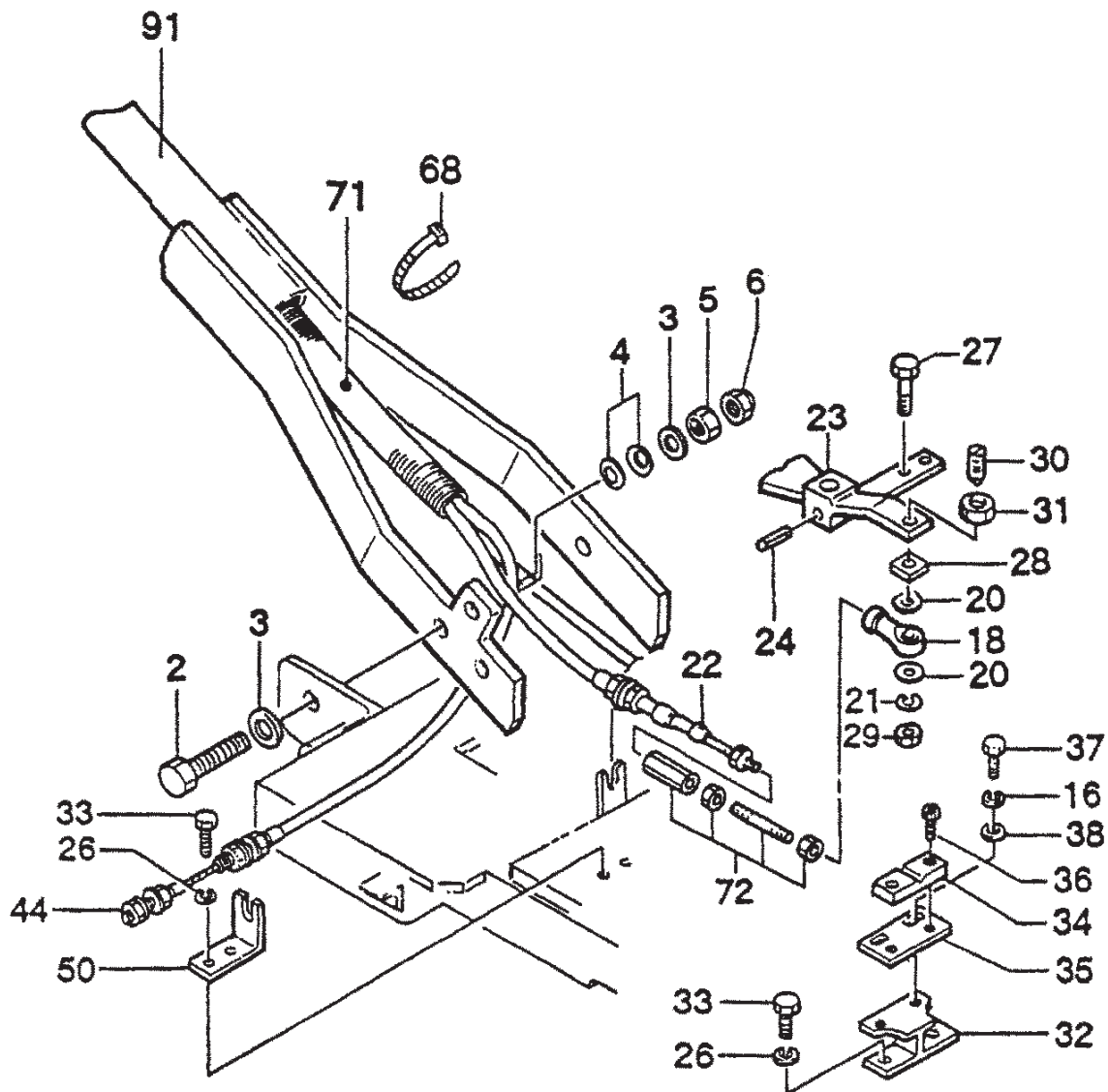
MRH800GS VIBRATION ROLLER — UPPER CONTROL ARM ASSY. (CONT.)

UPPER CONTROL ARM ASSY. (CONT.)

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|-------------------------------|-------------|-----------------------------|
| 53 | 951401431 | KEY 5X5X8 | 1 | |
| 55 | 952404790 | WASHER 13306 | 1 | |
| 56 | 032212250 | CONICAL SPRING WASHER M12 | 2 | |
| 57 | 0039312000 | NUT M12 | 3 | REPLACES 020312100 |
| 59 | 515334820 | ROD | 1 | |
| 60 | 509010140 | BUSHING MB1625DU | 2 | |
| 61 | 515447720 | DISC PLATE, DEAD-MAN | 1 | |
| 62 | 030212300 | WASHER, LOCK M12 | 1 | |
| 63 | 509436980 | SPRING, DEAD-MAN | 1 | |
| 64 | 509436990 | PROTECTOR, DEAD-MAN | 1 | |
| 65 | 507010110 | CLAMP TC-200 | 2 | |
| 66 | 509436960 | ROD STOPPER, DEAD-MAN | 1 | |
| 67 | 014206010 | SOCKET HEAD SCREW 6X6 T | 2 | REPLACES 099206006 |
| 70 | 959405920 | KNOB 44D-78L | 1 | |
| 92 | 515336490 | TRAVELLING LEVER 260L | 1 | |
| 93 | 515212950 | LEVER SUPPORT, VIB. E/G | 1 | |
| 94 | 515334460 | LEVER COVER, VIB. | 1 | |
| 95 | 515336500 | LEVER, E/G 133L | 1 | |
| 96 | 509326320 | GUIDE, WIRE (E/G) | 1 | |
| 97 | 509436950 | COVER, HANDLE BOX | 1 | |
| 100 | 011006010 | BOLT 6X10 T | 4 | REPLACES 001220610 |
| 101 | 030206150 | WASHER, LOCK M6 | 4 | |
| 170 | 011208030 | BOLT 8X30 T | 1 | REPLACES 001220830 FOR L100 |
| 200 | 517452260 | COVER (FOR CRANK START) MRH | 1 | |
| 201 | 956100024 | THROTTLE WIRE | 1 | |

MRH800GS VIBRATION ROLLER — LOWER CONTROL ARM ASSY.

LOWER CONTROL ARM ASSY.



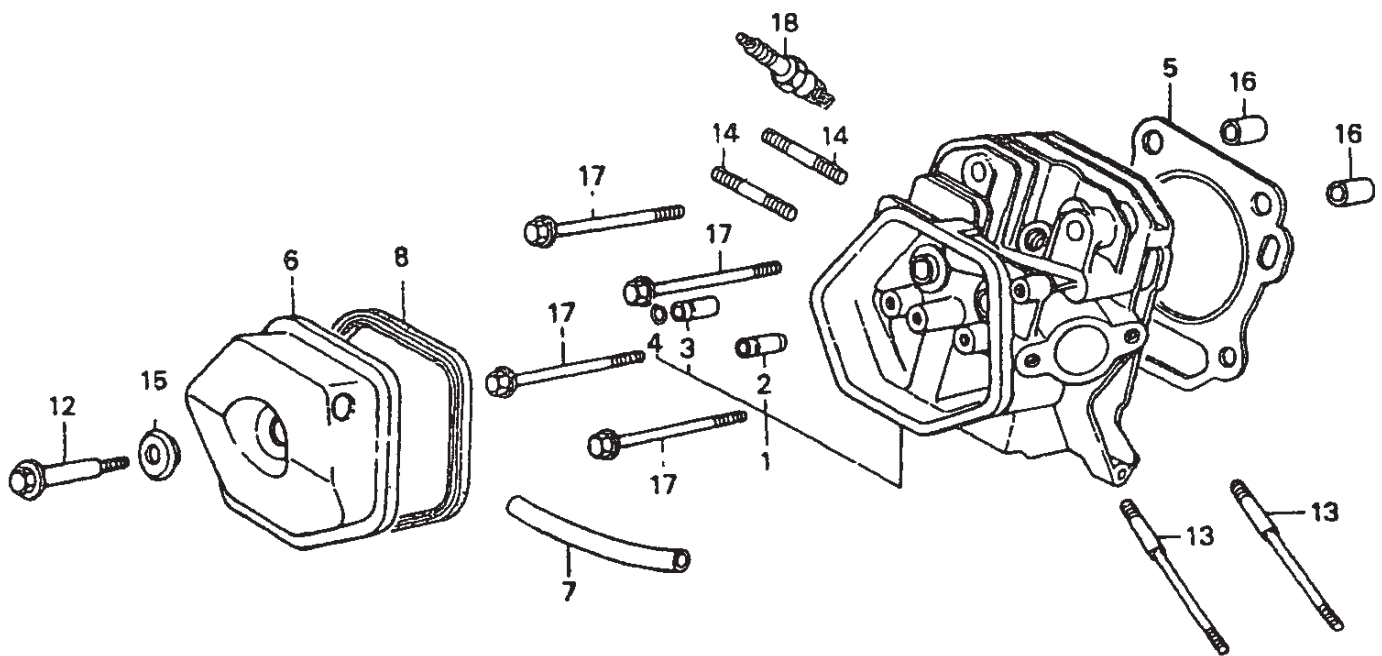
MRH800GS VIBRATION ROLLER — LOWER CONTROL ARM ASSY.

LOWER CONTROL ARM ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|-------------------------------|-------------|--------------------|
| 2 | 001222055 | BOLT 20X75 T | 2 | |
| 3 | 031120320 | WASHER, FLAT M20 | 1 | |
| 4 | 032220450 | CONICAL SPRING WASHER M20 | 4 | |
| 5 | 020320160 | NUT M20 | 2 | |
| 6 | 022522017 | LOCK NUT U-M20 | 2 | |
| 16 | 030208200 | WASHER, LOCK M8 | 3 | |
| 18 | 501011162 | ROD END PR6-209 | 2 | |
| 20 | 952404470 | WASHER 6.5X15X1.6 | 4 | |
| 21 | 030206150 | WASHER, LOCK M6 | 14 | |
| 22 | 515334230 | CABLE AY 33050E1700 | 1 | |
| 23 | 515335780 | LEVER (PV10), E- START | 1 | |
| 24 | 025406032 | SPRING PIN 6X32 | 1 | |
| 26 | 030210250 | WASHER, LOCK M10 | 4 | |
| 27 | 001220635 | BOLT 6X35 T | 1 | |
| 28 | 515450560 | SPACER (PV10) | 1 | |
| 29 | 022710607 | NYLON NUT M6 | 1 | |
| 30 | 505015150 | SPRING PLUNGER | 1 | |
| 31 | 020116130 | NUT M16, H=10 | 1 | REPLACES 020416100 |
| 32 | 509321160 | GUIDE HOLDER | 1 | |
| 33 | 012210020 | BOLT 10X20 T | 4 | REPLACES 00122120 |
| 34 | 515448170 | GUIDE | 1 | |
| 35 | 515448180 | SLIDE PLATE | 1 | |
| 36 | 014206015 | SOCKET HEAD BOLT 6X15 T | 2 | REPLACES 001520615 |
| 37 | 011008015 | BOLT 8X15 T | 2 | REPLACES 001220815 |
| 38 | 031108160 | WASHER, FLAT M8 | 3 | |
| 44 | 515334240 | CABLE AY (VIB.) | 1 | |
| 50 | 515447180 | CABLE SUPPORT, VIB. | 1 | |
| 68 | 506010070 | CLAMP TC-150 | 8 | |
| 71 | 959021911 | TUBE 25D-850L | 1 | |
| 72 | 501910010 | TURN BUCKLE ASS'Y. | 1 | |
| 91 | 515115910 | HANDLE | 1 | |

HONDA GX-390K1SM32 — CYLINDER HEAD ASSY.

CYLINDER HEAD ASSY.



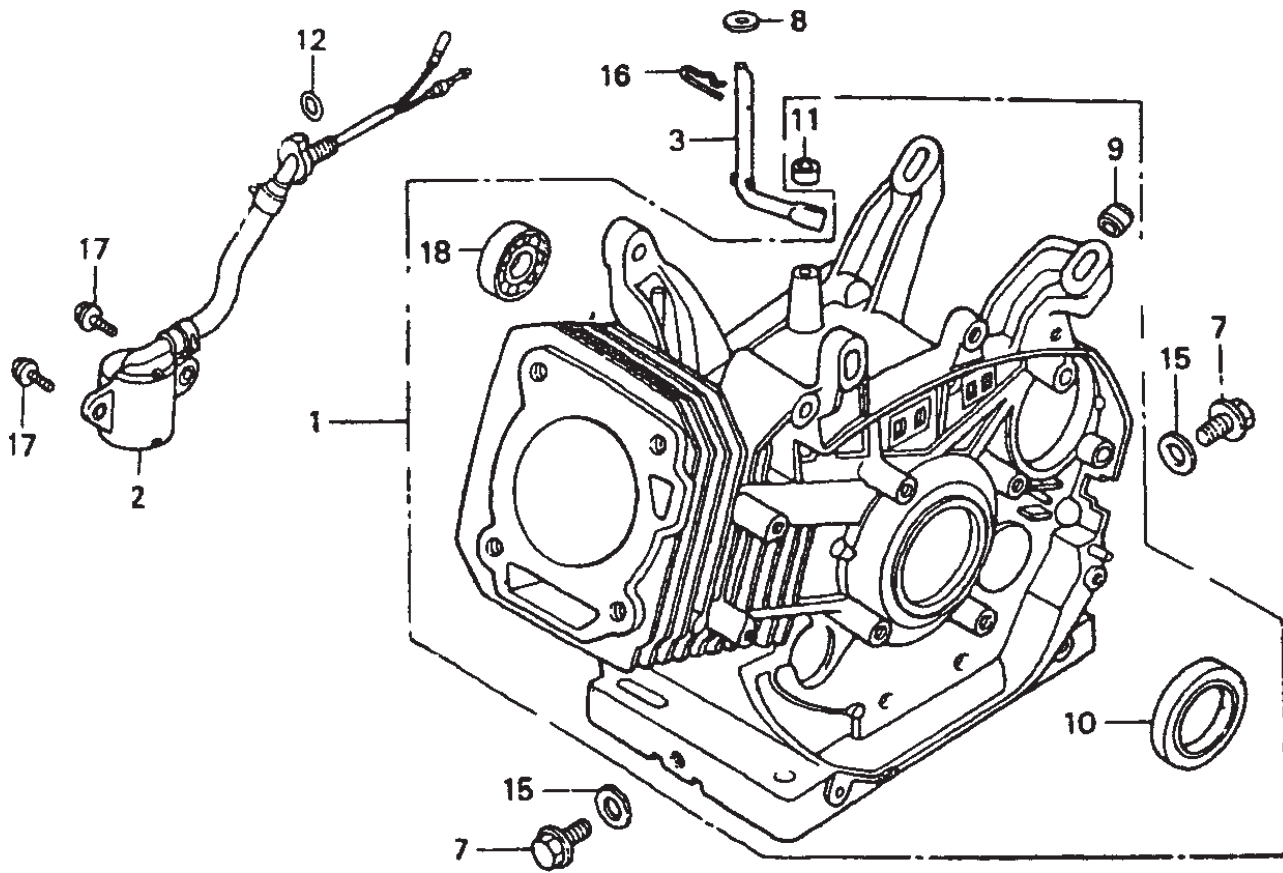
HONDA GX-390K1SM32 — CYLINDER HEAD ASSY.

CYLINDER HEAD ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|-----------------------------|-------------|--------------------|
| 1 | 12200ZF6W00 | HEAD COMP., CYLINDER | 1 | INCLUDES ITEMS W/* |
| 2* | 12204ZE2306 | GUIDE, IN. VALVE (OVERSIZE) | 1 | |
| 3* | 12205ZE2305 | GUIDE, EX. VALVE (OVERSIZE) | 1 | |
| 4* | 12216ZE2300 | CLIP, VALVE GUIDE | 1 | |
| 5 | 12251ZF6W00 | GASKET, CYLINDER HEAD | 1 | |
| 6 | 12310ZE2020 | COVER COMP., HEAD | 1 | |
| 7 | 950051110530 | TUBE, 11X105 | 1 | |
| 8 | 12391ZE2020 | PACKING, HEAD COVER | 1 | |
| 12 | 90014ZE2000 | BOLT, HEAD COVER | 1 | |
| 13 | 90042ZE8000 | BOLT, STUD 8X31.5 | 2 | |
| 14 | 92900080320E | BOLT, STUD 8X32 | 2 | |
| 15 | 90441ZE2010 | WASHER COMP., HEAD COVER | 1 | |
| 16 | 9430112200 | PIN, DOWEL 12X20 | 2 | |
| 17 | 957251008000 | BOLT, FLANGE 10X80 | 4 | |
| 18 | 9807956846 | SPARK PLUG, NKG | 1 | |

HONDA GX-390K1SM32 — CYLINDER BARREL ASSY.

CYLINDER BARREL ASSY.



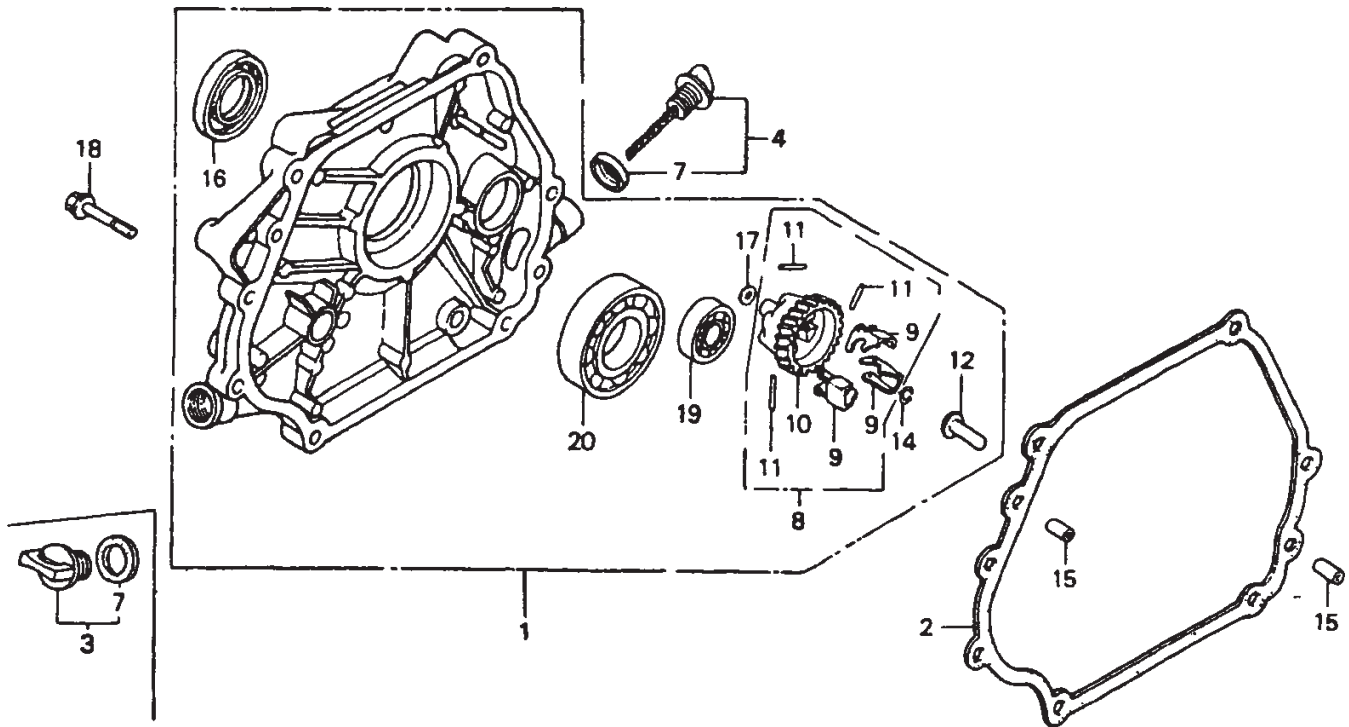
HONDA GX-390K1SM32 — CYLINDER BARREL ASSY.

CYLINDER BARREL ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|------------------------------|-------------|--------------------|
| 1 | 12000ZF6415 | BARREL ASSY., CYLINDER | 1 | INCLUDES ITEMS W/* |
| 2 | 15510ZE2043 | SWITCH ASSY, OIL LEVEL | 1 | |
| 3 | 16541ZE010 | SHAFT, GOVERNOR ARM | 1 | |
| 7 | 90131883000 | BOLT, DRAIN PLUG | 2 | |
| 8 | 90446KE1000 | WASHER, 8.2X17X0.8 | 1 | |
| 9* | 90801ZE2003 | PLUG, SEALING | 1 | |
| 10* | 91201ZE3004 | OIL SEAL 35X52X8 | 1 | |
| 11* | 91203952771 | OIL SEAL 8X14X5 | 1 | |
| 12 | 91353671004 | O-RING 14 MM | 1 | |
| 15 | 9410912000 | WASHER, DRAIN PLUG M12 | 2 | |
| 16 | 9425110000 | PIN, LOCK 10MM | 1 | |
| 17 | 957010601200 | FLANGE BOLT 6x12 | 2 | |
| 18* | 961006202000 | BEARING, RADIAL BALL 6202 | 1 | |

HONDA GX-390K1SM32 — CRANKCASE COVER ASSY.

CRANKCASE COVER ASSY.



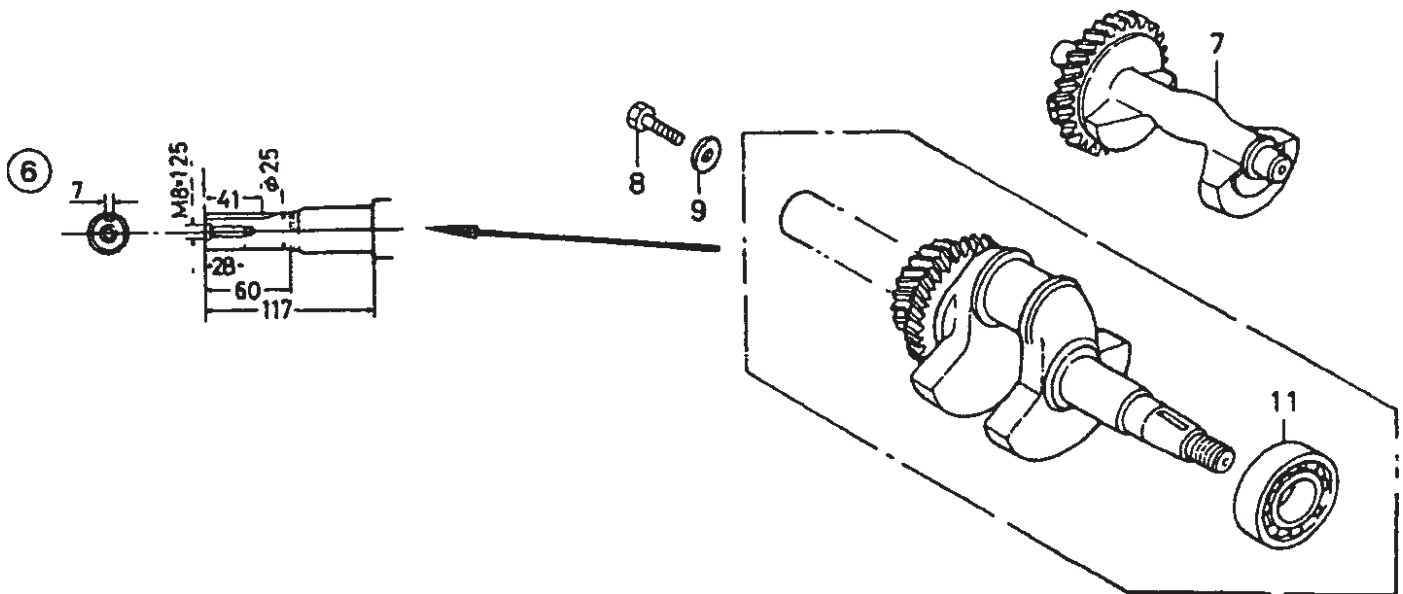
HONDA GX-390K1SM32 — CRANKCASE COVER ASSY.

CRANKCASE COVER ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|------------------------------|-------------|--------------------|
| 1 | 11300ZE3020 | COVER ASSY., CRANKCASE | 1 | INCLUDES ITEMS W/ |
| 2 | 11381ZE3800 | PACKING, CASE COVER | 1 | |
| 3 | 15600ZG4003 | OIL PLUG ASSY. | 1 | INCLUDES ITEMS W/# |
| 4 | 15600735003 | CAP ASSY., OIL FILLER | 1 | INCLUDES ITEMS W/+ |
| 7+ | 15625ZE1003 | PACKING, OIL FILLER CAP | 2 | |
| 8# | 16510ZE3000 | GOVERNOR ASSY..... | 1 | INCLUDES ITEMS W/* |
| 9*# | 16511ZE8000 | WEIGHT, GOVERNOR | 3 | |
| 10*# | 16512ZE3000 | HOLDER, GOVERNOR WGHT. | 1 | |
| 11*# | 16513ZE2000 | PIN, GOVERNOR WEIGHT | 3 | |
| 12# | 16531ZE2000 | SLIDER, GOVERNOR | 1 | |
| 14# | 90602ZE1000 | CLIP, GOVERNOR HOLDER | 1 | |
| 15 | 90701HC4000 | PIN, DOWEL 8X12 | 2 | |
| 16# | 91201ZE3004 | OIL SEAL 35X52X8 | 1 | |
| 17# | 9410106800 | PLAIN WASHER 6MM | 1 | |
| 18 | 957010804000 | BOLT, FLANGE 8X40 | 7 | |
| 19# | 961006202000 | BEARING, RADIAL BALL 6202 | 1 | |
| 20# | 961006207000 | BEARING, RADIAL | 1 | |

HONDA GX-390K1SM32 — CRANKSHAFT ASSY.

CRANKSHAFT ASSY.



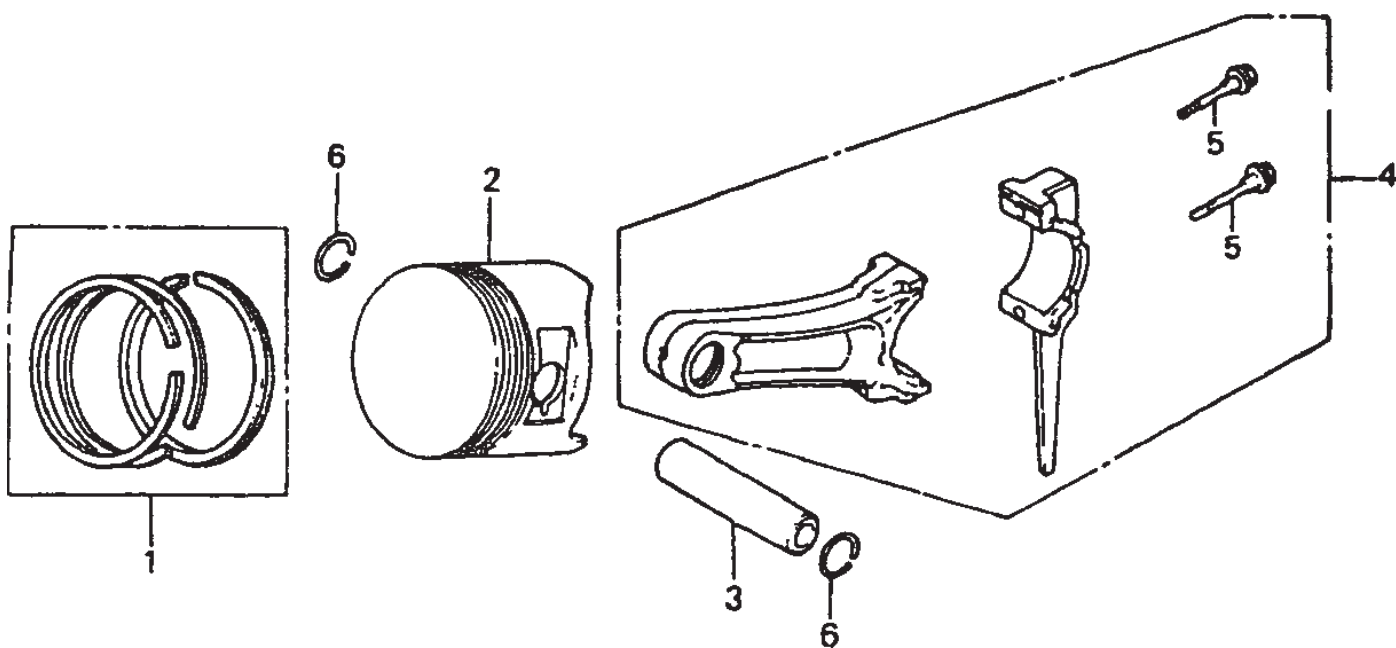
HONDA GX-390K1SM32 — CRANKSHAFT ASSY.

CRANKSHAFT ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|----------------------------|-------------|--------------------|
| 6 | 13310ZF6W70 | CRANKSHAFT COMP. | 1 | INCLUDES ITEMS W/* |
| 7 | 13351ZE3010 | WEIGHT, BALANCER | 1 | |
| 8 | 92101080250A | BOLT 8X25 | 1 | |
| 9 | 90534706010 | WASHER, LOCK 8MM | 1 | |
| 11* | 91001ZF6003 | BEARING, RADIAL BALL 6207S | 1 | |

HONDA GX-390K1SM32 — PISTON ASSY.

PISTON ASSY.



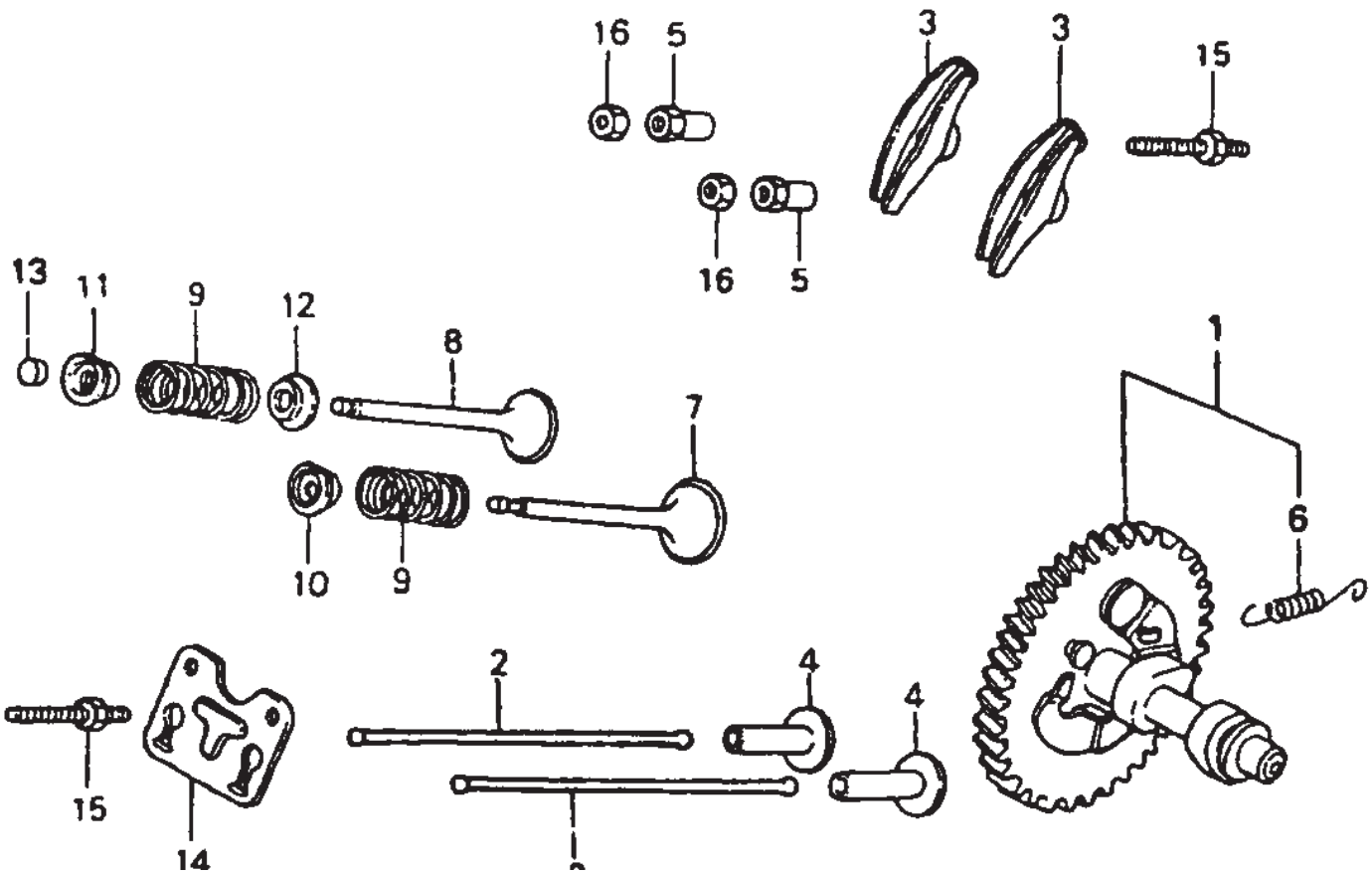
HONDA GX-390K1SM32 — PISTON ASSY.

PISTON ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|--------------------------------|-------------|--------------------|
| 1 | 13010ZF6003 | RING SET, PISTON (STD.) | 1 | |
| 1 | 13011ZF6003 | RING SET, PISTON (0.25) | 1 | |
| 1 | 13012ZF6003 | RING SET, PISTON (0.50) | 1 | |
| 1 | 13013ZF6003 | RING SET, PISTON (0.75) | 1 | |
| 2 | 13101ZF6W00 | PISTON (STD.) | 1 | |
| 2 | 13102ZF6W00 | PISTON (0.25) | 1 | |
| 2 | 13103ZF6W00 | PISTON (0.50) | 1 | |
| 2 | 13104ZF6W00 | PISTON (0.75) | 1 | |
| 3 | 13111ZF6W00 | PIN PISTON | 1 | |
| 4 | 13200ZE3010 | ROD ASSY., CONNECT. STD. | 1 | INCLUDES ITEMS W/* |
| 4 | 13200ZE3315 | ROD ASSY., CONNECT. 0.25 | 1 | INCLUDES ITEMS W/* |
| 5* | 90001ZE8000 | BOLT, CONNECTING ROD | 2 | |
| 6 | 90601ZE3000 | CLIP,PISTON PIN 20MM | 2 | |

HONDA GX-390K1SM32 — CAMSHAFT ASSY.

CAMSHAFT ASSY.



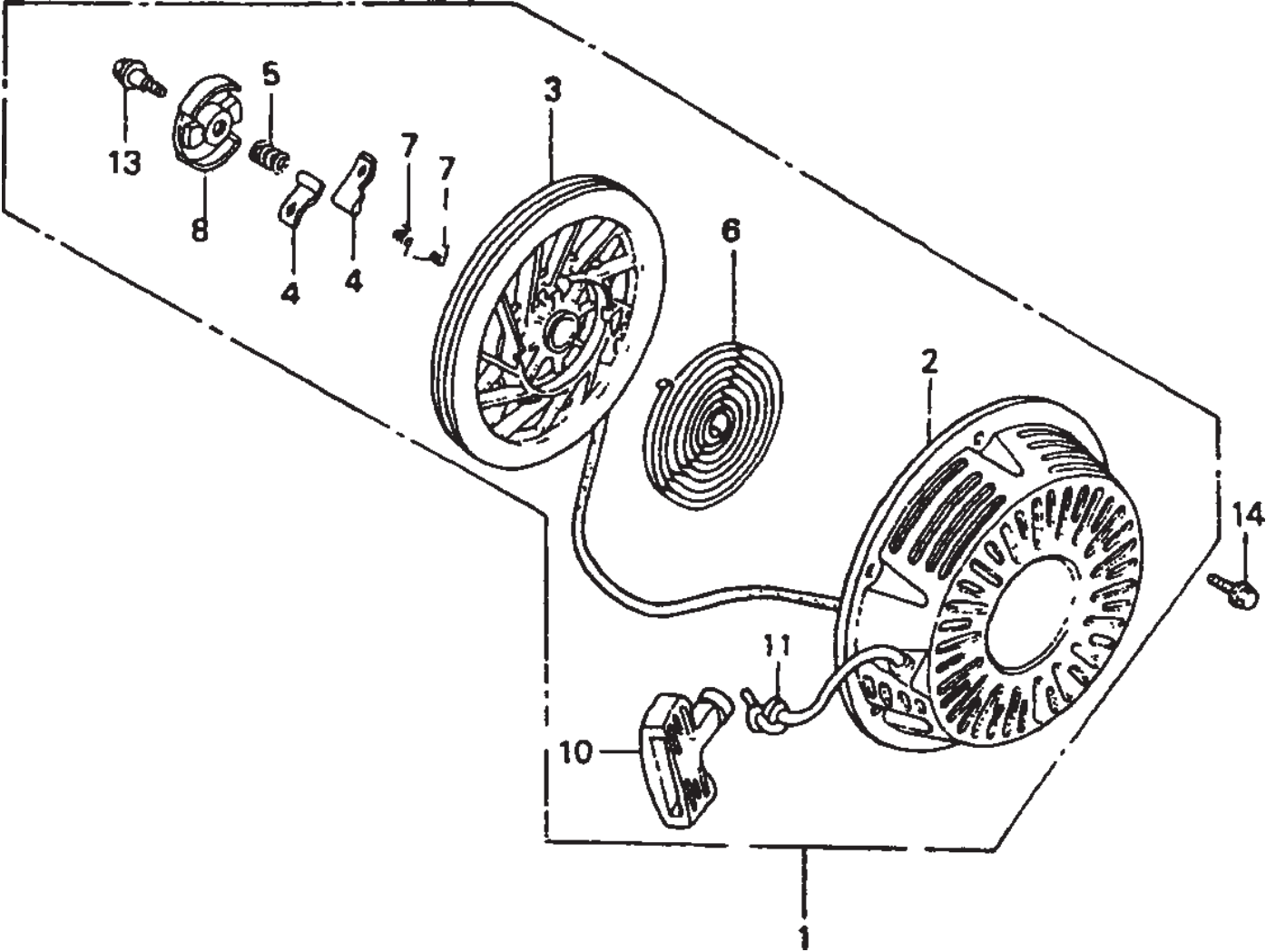
HONDA GX-390K1SM32 — CAMSHAFT ASSY.

CAMSHAFT ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|----------------------------|-------------|--------------------|
| 1 | 14100ZF6W01 | CAMSHAFT ASSY. | 1 | INCLUDES ITEMS W/* |
| 2 | 14410ZE3013 | 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 | 14711ZE3000 | VALVE, IN. | 1 | |
| 8 | 14721ZE3000 | VALVE, EX. | 1 | |
| 9 | 14751ZE2003 | SPRING, VALVE | 2 | |
| 10 | 14771ZE2000 | RETAINER, IN. VALVE SPRING | 1 | |
| 11 | 14773ZE2000 | RETAINER, EX. VALVE SPRING | 1 | |
| 12 | 14775ZE2010 | SEAT, VALVE SPRING | 1 | |
| 13 | 14781ZE2000 | ROTATOR, VALVE | 1 | |
| 14 | 14791ZE2010 | PLATE, PUSH ROD GUIDE | 1 | |
| 15 | 90012ZE0010 | PIBOT BOLT 8MM | 2 | |
| 16 | 90206ZE1000 | NUT, PIBOT ADJUSTING | 2 | |

HONDA GX-390K1SM32 — RECOIL STARTER ASSY.

RECOIL STARTER ASSY.



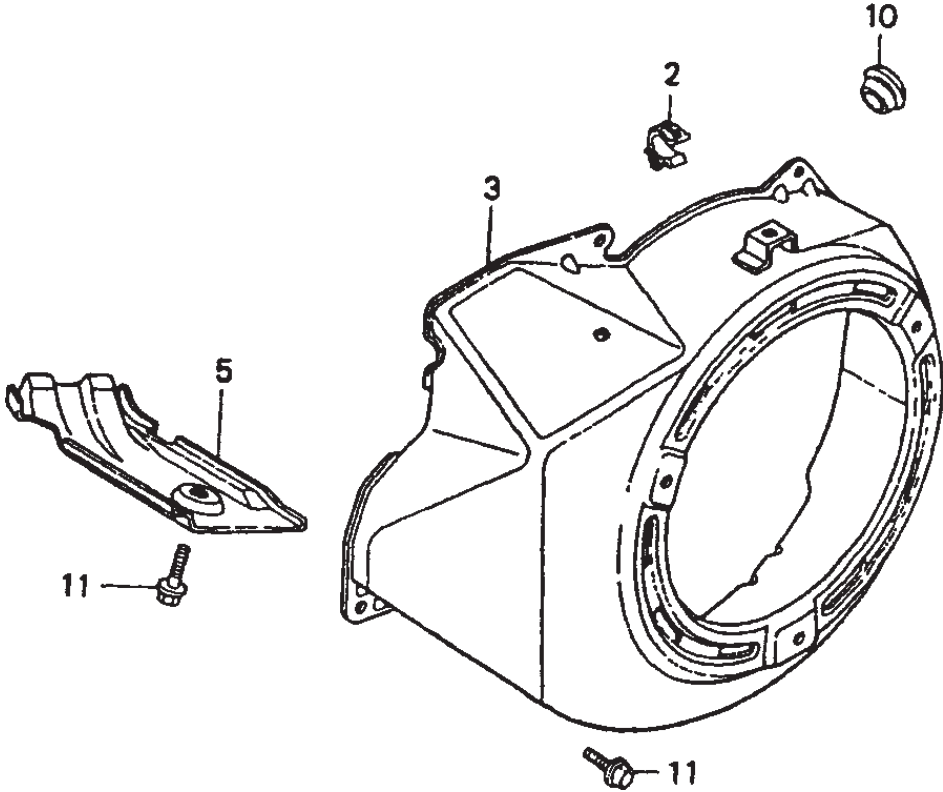
HONDA GX-390K1SM32 — RECOIL STARTER ASSY.

RECOIL STARTER ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|-----------------------------|-------------|--------------------|
| 1 | 28400ZE3W08ZA | STARTER ASSY., RECOIL | 1 | INCLUDES ITEMS W/* |
| 2* | 28410ZE3W08ZA | CASE COMP., RECOIL START. | 1 | |
| 3* | 28421ZE3W01 | PULLEY, RECOIL STARTER | 1 | |
| 4* | 28422ZE2W01 | RACHET, 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* | 28462ZE3W01 | ROPE, RECOIL STARTER | 1 | |
| 13* | 90004ZE2W01 | SCREW, CENTER | 1 | |
| 14 | 957010600800 | FLANGE BOLT 6X8 | 3 | |

HONDA GX-390K1SM32 — FAN COVER ASSY.

FAN COVER ASSY.



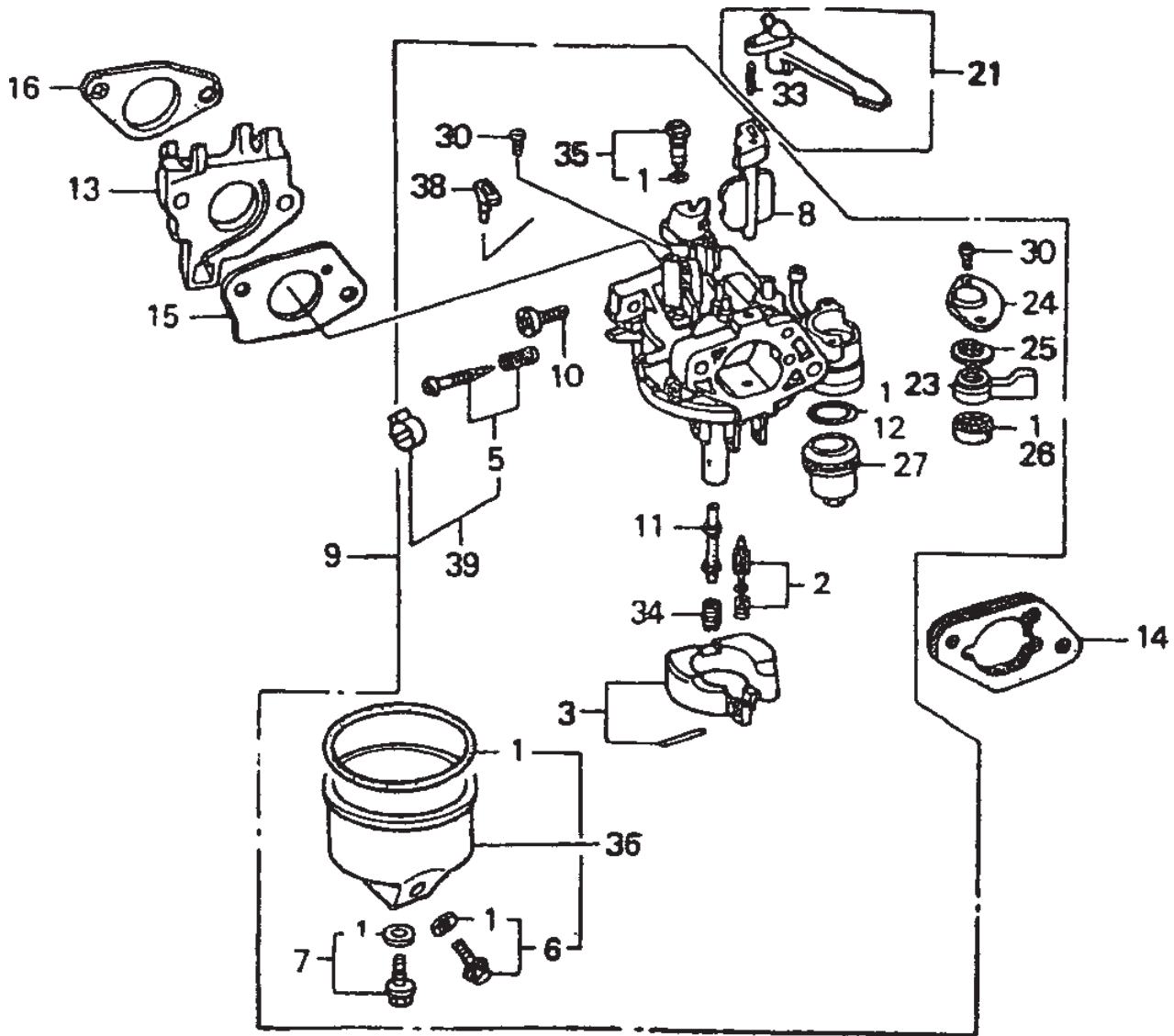
HONDA GX-390K1SM32 — FAN COVER ASSY.

FAN COVER ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|---------------------|-------------|----------------|
| 2 | 16731ZE2003 | CLIP, TUBE | 1 | |
| 3 | 19610ZE3010ZA | COVER COMP., FAN | 1 | |
| 5 | 19631ZE3W00 | SHROUD | 1 | |
| 10 | 81329567020 | GROMMET, DRAIN HOLE | 1 | |
| 11 | 90013883000 | FLANGE BOLT 6X12 | 6 | |

HONDA GX-390K1SM32 — CARBURETOR ASSY.

CARBURETOR ASSY.



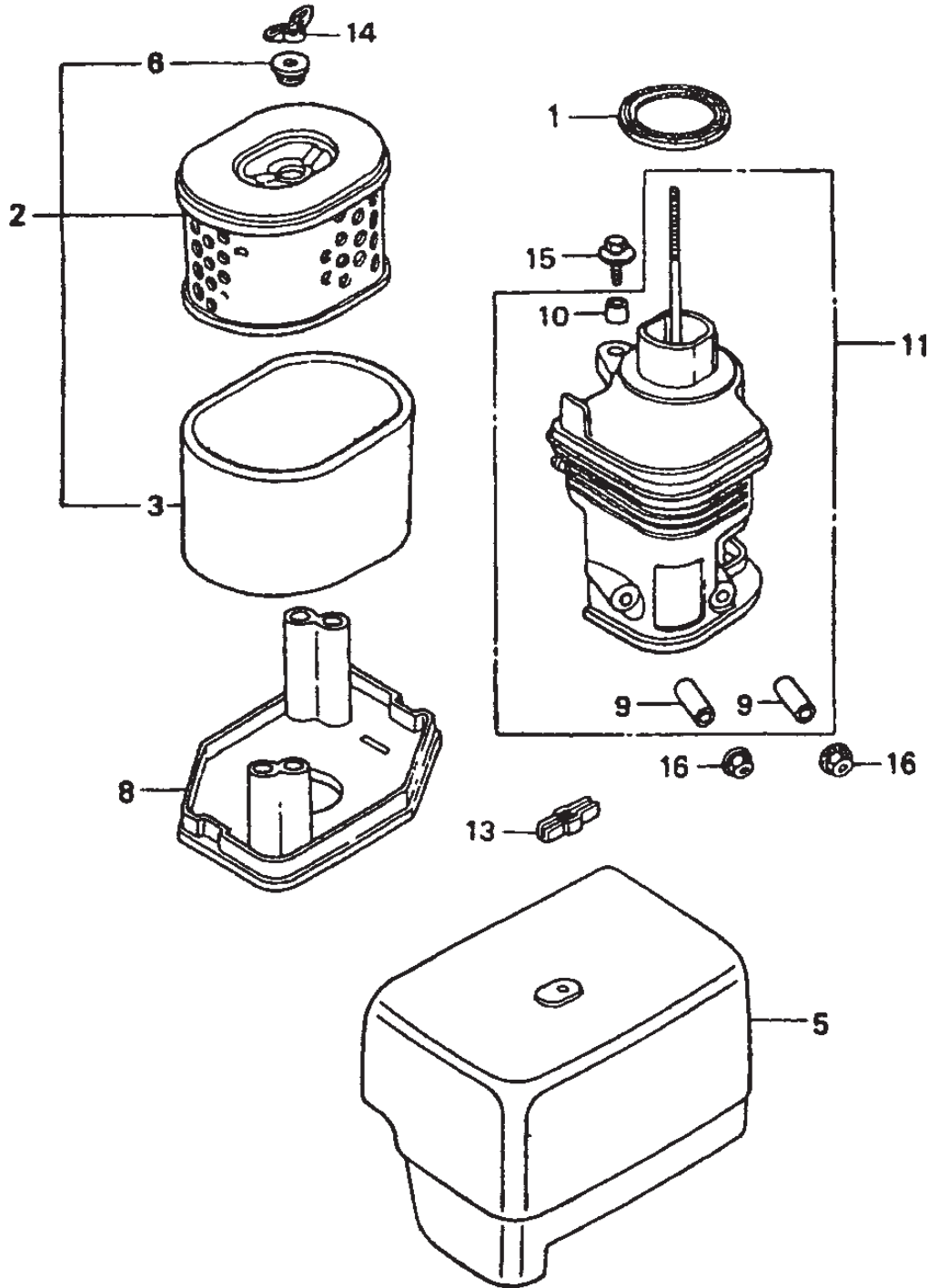
HONDA GX-390K1SM32 — CARBURETOR ASSY.

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 | |
| 5*■ | 16016ZE0005 | PILOT SCREW | 1 | |
| 6*\$ | 16024ZE1811 | DRAIN SCREW SET | 1 | |
| 7*\$ | 16028ZE0005 | SCREW SET | 1 | |
| 8* | 16044ZE3W20 | CHOKE SET | 1 | |
| 9 | 16100ZF6V01 | CARBURETOR ASSY. (BE85B B) | 1 | INCLUDES ITEMS W/* |
| 10* | 16124ZE0005 | SCREW, THROTTLE STOP | 1 | |
| 11* | 16166ZF6V00 | NOZZLE, MAIN | 1 | |
| 12* | 16173001004 | PACKING , CUP | 1 | |
| 13 | 16211ZF6000 | INSULATOR, CARBURETOR | 1 | |
| 14 | 16220ZA0702 | SPACER COMP., CARBURETOR | 1 | |
| 15 | 16221ZF6800 | PACKING, CARBURETOR | 1 | |
| 16 | 16223ZE3W00 | PACKING, INSULATOR | 1 | |
| 21 | 16610ZE1000 | CHOKE LEVER COMP. | 1 | INCLUDES ITEMS W/# |
| 23* | 16953ZE1812 | LEVER, COCK | 1 | |
| 24* | 16954ZE1812 | PLATE, LEVER SETTING | 1 | |
| 25* | 16956ZE1811 | SPRING, COCK LEVER | 1 | |
| 26* | 16957ZE1812 | PACKING, FUEL COCK | 1 | |
| 27* | 16967ZE0811 | CUP, FUEL STRAINER | 1 | |
| 30* | 93500030061H | SCREW 3X6 | 3 | |
| 33# | 9430520122 | SPRING PIN 2X12 | 1 | |
| 34* | 99101ZH80920 | JET, MAIN #92 | 1 | |
| 35* | 99204ZA00450 | PILOT JET SET, PILOT #45 *5-3-4 | 1 | |
| 36* | 16015ZE8005 | CHAMBER SET, FLOAT | 1 | INCLUDES ITEMS W/\$ |
| 38* | 16172ZE3W10 | COLLAR SET | 1 | |
| 39* | 16016ZH7W01 | SCREW SET | 1 | INCLUDES ITEMS W/■ |

HONDA GX-390K1SM32 — AIR CLEANER ASSY.

AIR CLEANER ASSY.



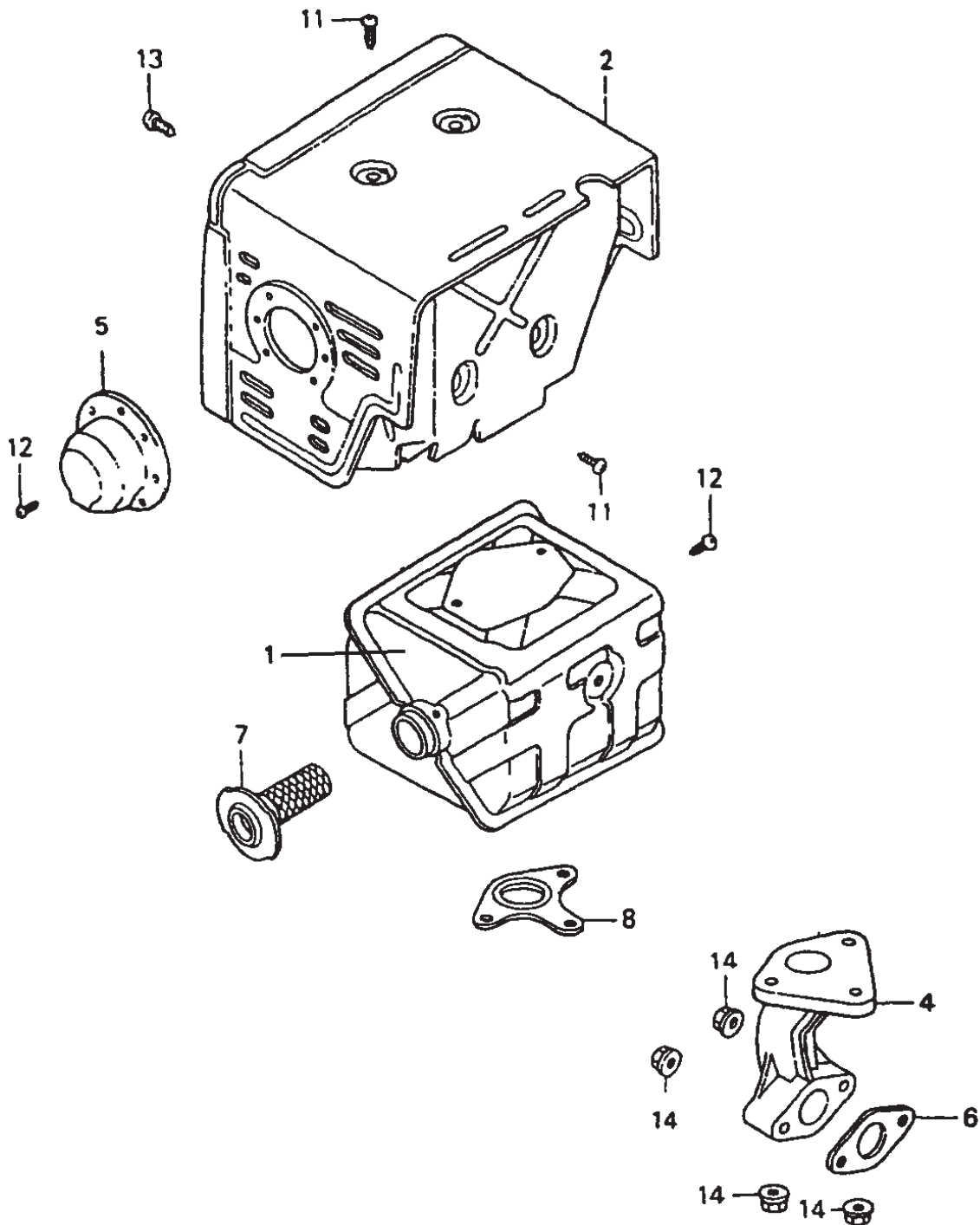
HONDA GX-390K1SM32 — AIR CLEANER ASSY.

AIR CLEANER ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|-----------------------------|-------------|--------------------|
| 1 | 16271ZE2000 | PACKING, ELBOW | 1 | |
| 2 | 17210ZE3010 | ELEMENT, AIR CLEANER | 1 | INCLUDES ITEMS W/% |
| 3% | 17218ZE3000 | FILTER, OUTER | 1 | |
| 5 | 17231ZE3W00 | COVER, AIR CLEANER | 1 | |
| 6% | 17232891000 | GROMET, AIR CLEANER | 1 | |
| 8 | 17235ZH9N00 | NOSE, SILENCER | 1 | |
| 9* | 17238ZE2310 | COLLAR, AIR CLEANER | 2 | |
| 10* | 17239ZE1000 | COLLAR (B), AIR CLEANER | 1 | |
| 11 | 17410ZH9N00 | ELBOW COMP., AIR CLEANER .. | 1 | INCLUDES ITEMS W/* |
| 13 | 90203ZA0800 | NUT,WING 6MM, BLACK | 1 | |
| 14 | 90325044000 | NUT | 2 | |
| 15 | 90009ZE2003 | BOLT-WASHER 6X22 | 1 | |
| 16 | 9405006000 | FLANGE NUT 6MM | 2 | |

HONDA GX-390K1SM32 — MUFFLER ASSY.

MUFFLER ASSY.



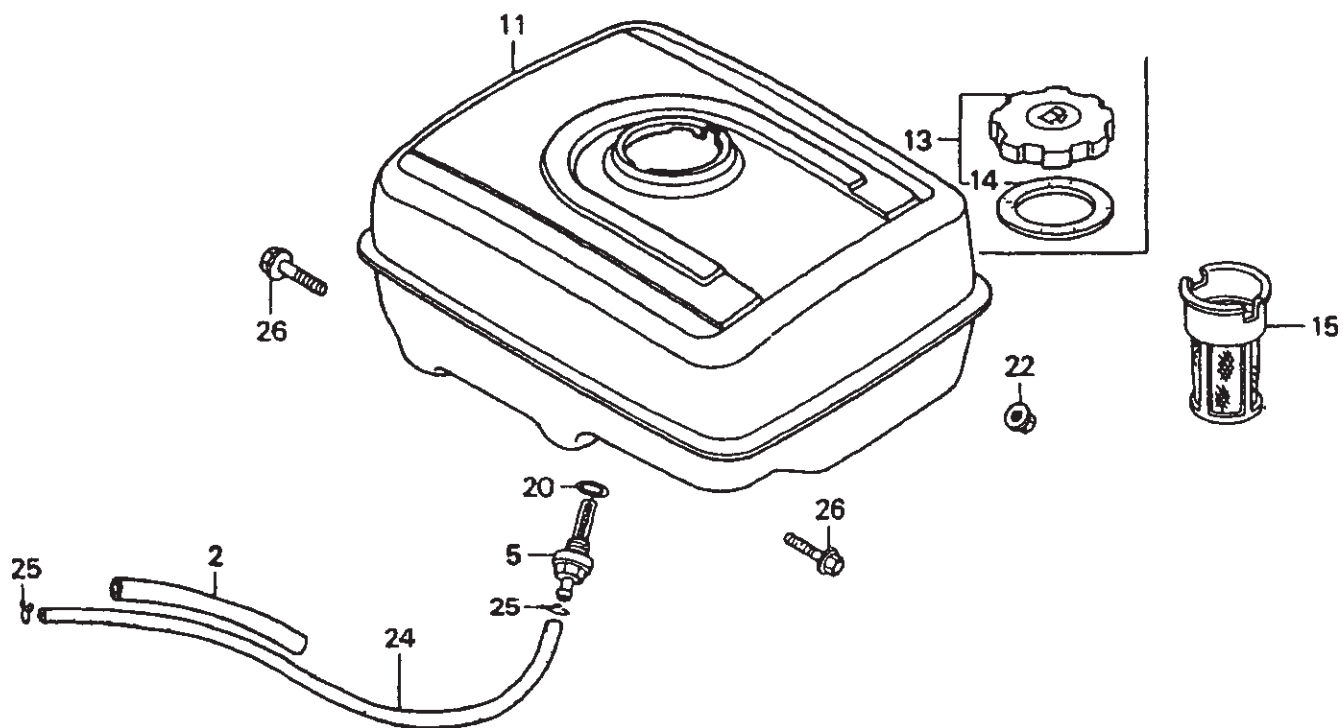
HONDA GX-390K1SM32 — MUFFLER ASSY.

MUFFLER ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|--------------------------|-------------|----------------|
| 1 | 18310ZE2W61 | MUFFLER COMP. (100DB) | 1 | |
| 2 | 18320ZE2W61 | PROTECTOR COMP., MUFFLER | 1 | |
| 4 | 18330ZE2W00 | PIPE, EXHAUST | 1 | |
| 5 | 18331ZE3810 | CAP, MUFFLER | 1 | |
| 6 | 18333ZF6W01 | GASKET, EX. PIPE | 1 | |
| 7 | 18355ZE2W00 | ARRESTER, SPARK | 1 | |
| 8 | 18381ZE2W10 | GASKET, MUFFLER ARRESTER | 1 | |
| 11 | 90050ZE1000 | TAPPING SCREW 5X8 | 4 | |
| 12 | 90055ZE1000 | TAPPING SCREW 4X6 | 3 | |
| 13 | 90006ZE2000 | TAPPING SCREW 6X10 | 1 | |
| 14 | 9405008000 | FLANGE NUT M8 | 5 | |

HONDA GX-390K1SM32 — FUEL TANK ASSY.

FUEL TANK ASSY.



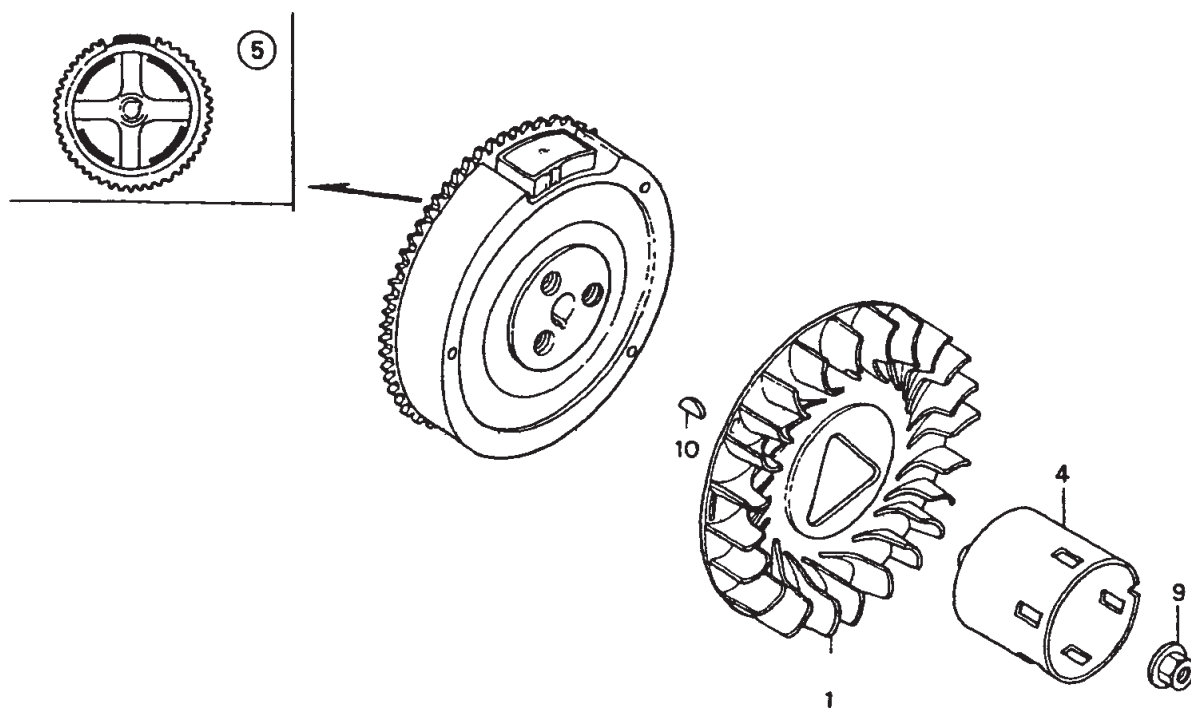
HONDA GX-390K1SM32 — FUEL TANK ASSY.

FUEL TANK ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|-------------------------|-------------|--------------------|
| 2 | 16854ZH8000 | RUBBER, SUPPORT (107MM) | 1 | |
| 5 | 16955ZE1000 | JOINT, FUEL TANK | 1 | |
| 11 | 17510ZE3010ZA | TANK COMP., FUEL | 1 | |
| 13 | 17620ZH7023 | FUEL TANK CAP CP | 1 | INCLUDES ITEMS W/* |
| 14* | 17631ZH7003 | PACKING | 1 | |
| 15 | 17672ZE2W01 | FUEL FILTER | 1 | |
| 20 | 91353671004 | O-RING 14MM | 1 | |
| 22 | 9405008000 | FLANGE NUT M8 | 2 | |
| 24 | 950014523540 | TUBE, FUEL 4.5X235 | 1 | |
| 25 | 9500202080 | CLIP, TUBE | 2 | |
| 26 | 957010802500 | FLANGE BOLT 8X25 | 2 | |

HONDA GX-390K1SM32 — FLYWHEEL ASSY.

FLYWHEEL ASSY.



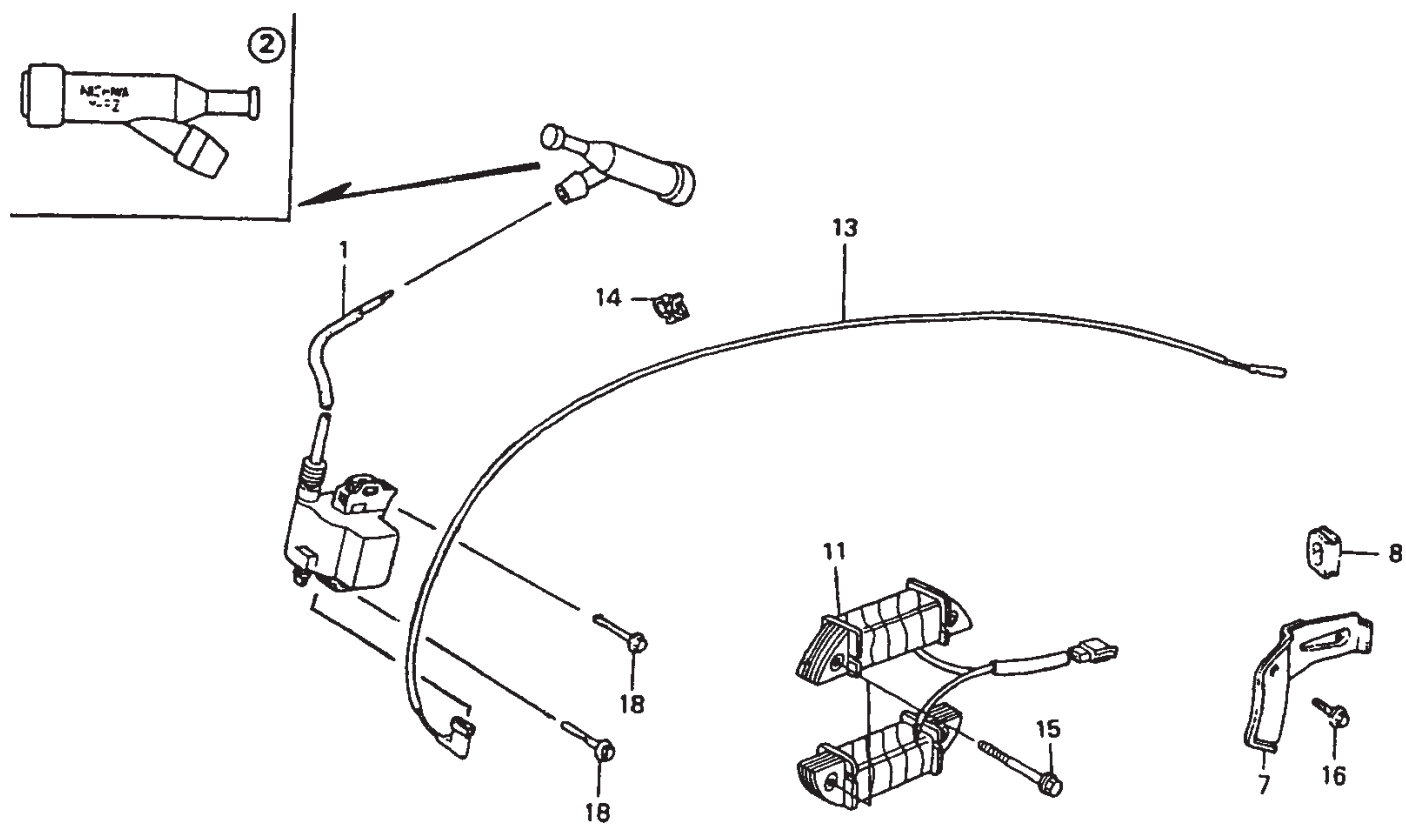
HONDA GX-390K1SM32 — FLYWHEEL ASSY.

FLYWHEEL ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|-----------------------------|-------------|----------------|
| 1 | 19511ZE3000 | FAN, COOLING | 1 | |
| 4 | 28451ZE3W01 | PULLEY, STARTER | 1 | |
| 5 | 31100ZE3W01 | FLYWHEEL COMP. | 1 | |
| 9 | 90201ZE3V00 | NUT, SPECIAL 16MM | 1 | |
| 10 | 90741ZE2000 | KEY, SPECIAL WOODRUFF 25X18 | 1 | |

HONDA GX-390K1SM32 — IGNITION COIL ASSY.

IGNITION COIL ASSY.



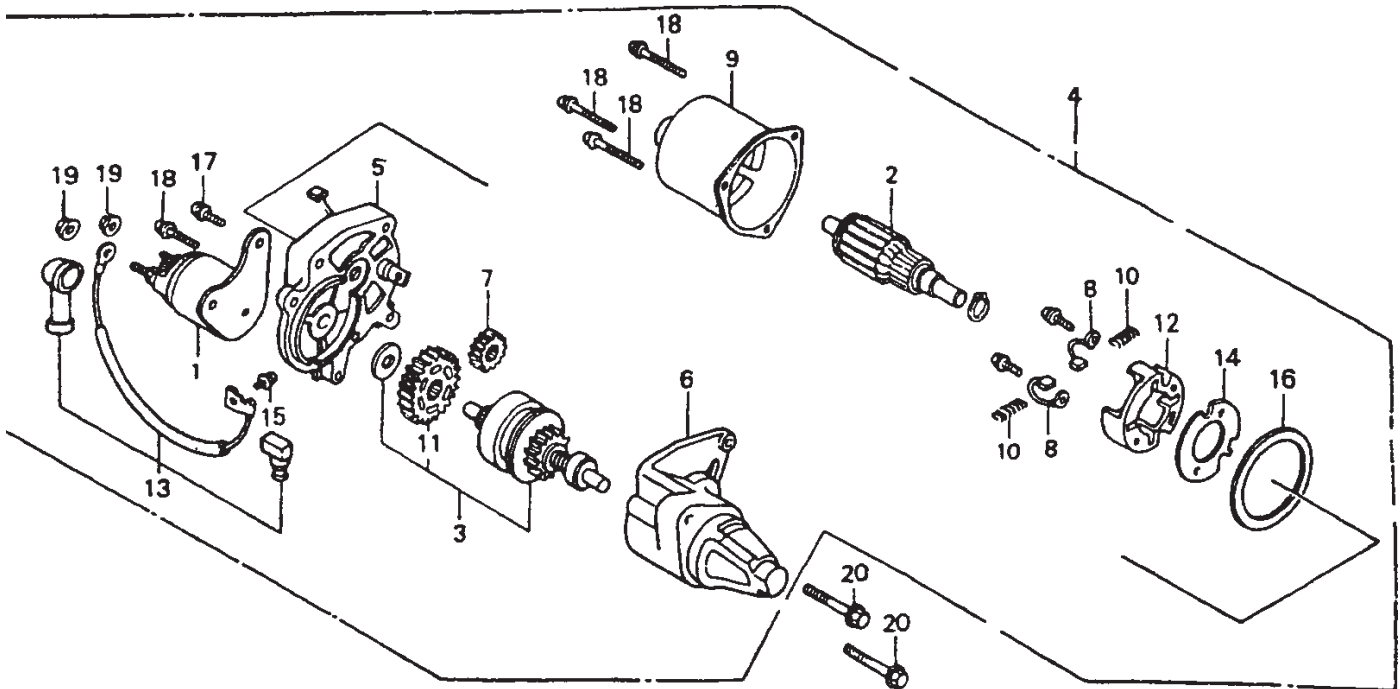
HONDA GX-390K1SM32 — IGNITION COIL ASSY.

IGNITION COIL ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|---------------------------|-------------|----------------|
| 1 | 30500ZF6W01 | COIL ASSY., IGNITION | 1 | |
| 2 | 30600ZE1013 | SPARK PLUG CAP | 1 | |
| 7 | 31511ZE3000 | CLAMPER, CORD | 1 | |
| 8 | 31512ZE2000 | GROMMET, CORD | 1 | |
| 11 | 31630ZE2861 | COIL ASSY., CHARGE (1A) | 1 | |
| 13 | 36101ZE2701 | CORD, STOP SWITCH (430MM) | 1 | |
| 14 | 36103ZE1000 | HOLDER, STOP SWITCH CORD | 1 | |
| 15 | 90012888000 | FLANGE BOLT | 4 | |
| 16 | 90013883000 | FLANGE BOLT 6X12 | 1 | |
| 18 | 90015883000 | FLANGE BOLT 6X28 | 2 | |

HONDA GX-390K1SM32 — STARTER MOTOR ASSY.

STARTER MOTOR ASSY.



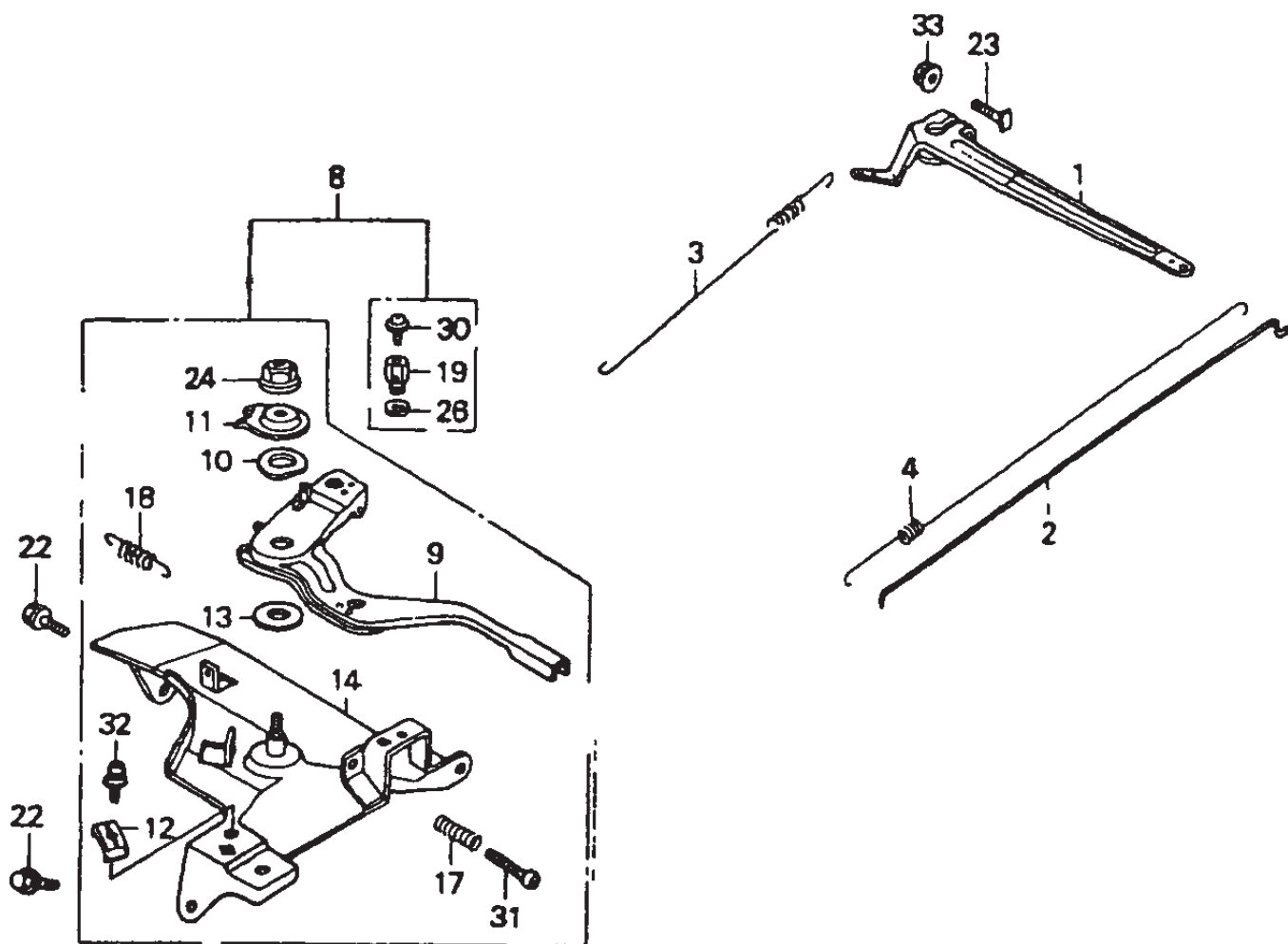
HONDA GX-390K1SM32 — STARTER MOTOR ASSY.

STARTER MOTOR ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|---------------------------|-------------|--------------------|
| 1* | 31204ZA0003 | CONTACTOR ASSY. | 1 | |
| 2* | 31206ZE3003 | ARMATURE COMP. | 1 | |
| 3* | 31207ZE3003 | CLUTCH COMP., OVERRUN. | 1 | |
| 4 | 31210ZE3013 | MOTOR UNIT, STARTER | 1 | INCLUDES ITEMS W/* |
| 5* | 31211ZE2003 | BRACKET, CENTER | 1 | |
| 6* | 31212ZE3003 | BRACKET, FR. | 1 | |
| 7* | 31213ZE2003 | GEAR, DRIVE PINION | 1 | |
| 8* | 31215ZE2003 | BRUSH | 2 | |
| 9* | 31218ZE3003 | YOKE COMP. | 1 | |
| 10* | 31219ZE2003 | SPRING, BRUSH RETURN | 4 | |
| 11* | 31222ZE3791 | GEAR, REDUCTION | 1 | |
| 12* | 31231ZE2003 | HOLDER, BRUSH | 1 | |
| 13* | 31232ZE3003 | HOLDER, BRUSH | 1 | |
| 14* | 31233ZE2003 | INSULATOR | 1 | |
| 15* | 90110ZE2003 | SCREW-WASHER 4X6 | 1 | |
| 16* | 91601ZE2003 | PACKING | 1 | |
| 17* | 90007ZE2003 | BOLT-WASHER 5X14 | 2 | |
| 18* | 938920503218 | SCREW-WASHER 5X32 | 4 | |
| 19* | 9407006080 | NUT-WASHER 6MM | 2 | |
| 20 | 957010803508 | FLANGE BOLT 8X35 | 2 | |

HONDA GX-390K1SM32 — CONTROL ASSY.

CONTROL ASSY.



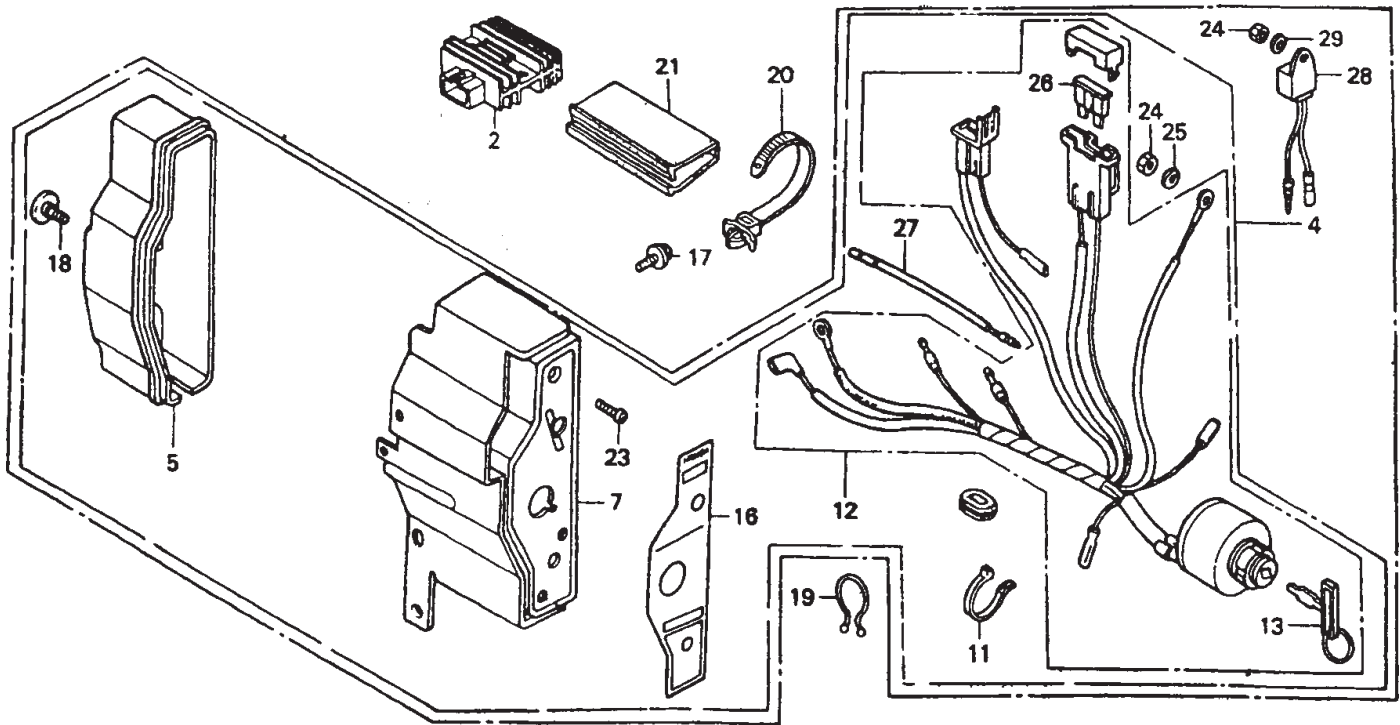
HONDA GX-390K1SM32 — CONTROL ASSY.

CONTROL ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|-------------------------|-------------|--------------------|
| 1 | 16551ZE3000 | ARM, GOVERNOR | 1 | |
| 2 | 16555ZE3000 | ROD, GOVERNOR | 1 | |
| 3 | 16561ZE3000 | SPRING, GOVERNOR | 1 | |
| 4 | 16562ZE3000 | SPRING, THROTTLE RETURN | 1 | |
| 8 | 16570ZE3W10 | CONTROL ASSY. (REMOTE) | 1 | INCLUDES ITEMS W/* |
| 9* | 16571ZE3W00 | LEVER, CONTROL | 1 | |
| 10* | 16574ZE1000 | LEVER SPRING | 1 | |
| 11* | 16575ZE2W00 | WASHER, CONTROL LEVER | 1 | |
| 12* | 16576891000 | HOLDER, CABLE | 1 | |
| 13* | 16578ZE1000 | SPACER, CONTROL LEVER | 1 | |
| 14* | 16581ZE3W00 | BASE COMP., CONTROL | 1 | |
| 17* | 16584883300 | ADJUSTING SPRING | 1 | |
| 18* | 16592883310 | SPRING, CABLE RETURN | 1 | |
| 19* | 16594883010 | WIRE HOLDER | 1 | |
| 22 | 90013883000 | FLANGE BOLT 6X12 | 2 | |
| 23 | 90015ZE5010 | BOLT, GOVERNOR ARM | 1 | |
| 24* | 90114SA0000 | LOCK NUT 6MM | 1 | |
| 26* | 90605230000 | CIR CLIP 5MM | 1 | |
| 30* | 93500040060H | SCREW 4X6 | 1 | |
| 31* | 93500050320A | PAN SCREW 5X32 | 1 | |
| 32* | 93500050160A | SCREW 5X16 | 1 | |
| 33 | 9405006000 | FLANGE NUT 6MM | 1 | |

HONDA GX-390K1SM32 — CONTROL BOX ASSY.

CONTROL BOX ASSY.



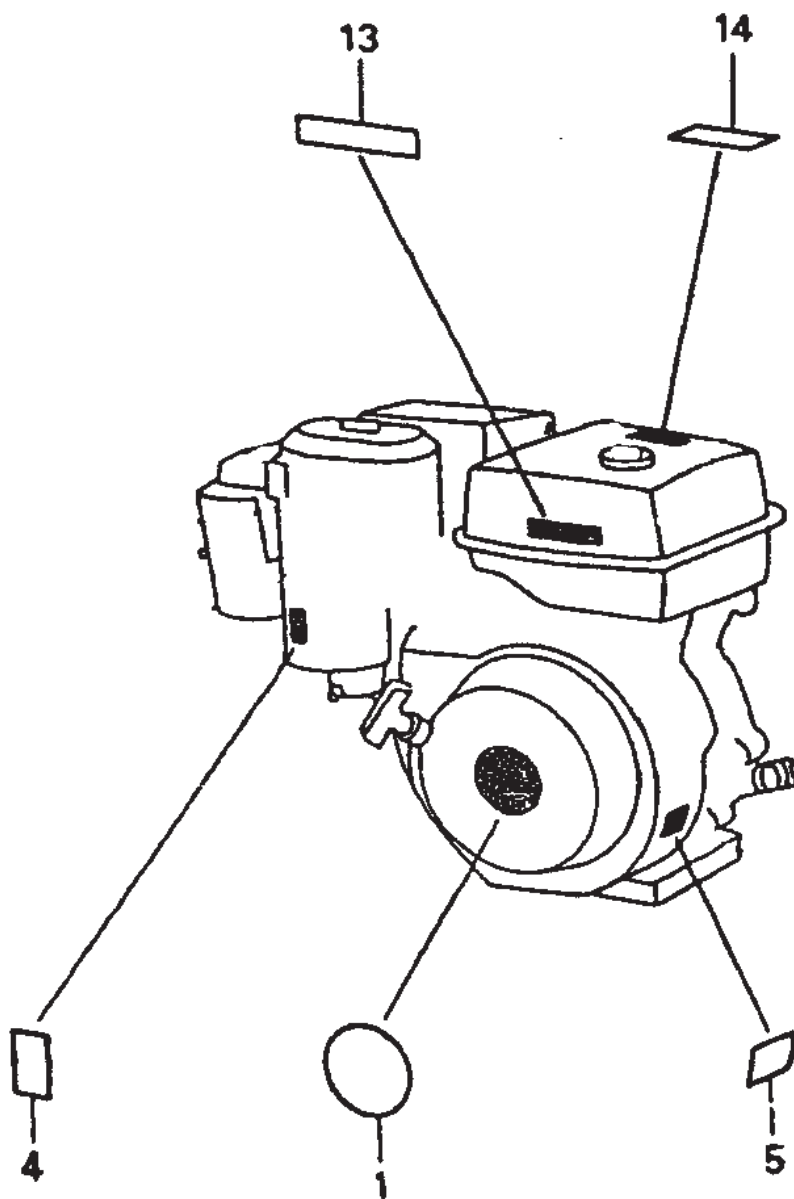
HONDA GX-390K1SM32 — CONTROL BOX ASSY.

CONTROL BOX ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|---------------------------------|-------------|--------------------|
| 2 | 31600ZE2861 | REGULATOR ASSY., RECT | 1 | |
| 4 | 31610ZE3W33ZA | BOX ASSY., CONTROL | 1 | INCLUDES ITEMS W/* |
| 5* | 31612ZE2003 | CASE, CONTROL | 1 | |
| 6 | 31614ZE2003 | BRACKET, CASE MOUNTING | 1 | |
| 7* | 31615ZE3003ZB | PANEL COMP., CONTROL | 1 | |
| 11* | 32902892003 | BAND | 1 | |
| 12* | 35100ZE2862 | SWITCH ASSY., COMBINATION | 1 | INCLUDES ITEMS W/% |
| 13*% | 35111880003 | KEY COMP. | 2 | |
| 17 | 90013883000 | FLANGE BOLT 6X12 | 2 | |
| 18* | 90380MA6010 | SCREW, SPECIAL 6X12 | 1 | |
| 19 | 90630751000 | CLIP, PURSE LOCK | 1 | |
| 20 | 90672SA0003 | STRAP, CABLE 118MM | 1 | |
| 21 | 91406ZE2003 | TUBE, FASTENER 30MM | 1 | |
| 23* | 93500040120H | PAN SCREW 4X12 | 1 | |
| 24* | 94001043900S | NUT, HEX. 4MM | 1 | |
| 25* | 9411104800 | WASHER, SPRING 4MM | 1 | |
| 26*% | 9820031500 | FUSE, BLADE (15A) | 1 | |
| 27* | 32197ZE1003 | SUB HARNESS | 1 | |
| 28 | 34150ZH7003 | ALERT UNIT, OIL | 1 | |
| 29 | 9410104800 | WASHER, PLAIN 4MM | 1 | |

HONDA GX-390K1SM32 — LABEL ASSY.

LABEL ASSY.



HONDA GX-390K1SM32 — LABEL ASSY.

LABEL ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|----------------------------|-------------|----------------|
| 1 | 87521ZF6W01 | EMBLEM | 1 | |
| 4 | 87528ZE2810 | MARK, CHOKE (ORANGE) | 1 | RECOIL-TYPE |
| 4 | 87528777000 | MARK, CHOKE | 1 | SELFSTARTER |
| 5 | 87530ZF6W00 | LABEL, SPECIFICATION | 1 | |
| 13 | 87520ZH8000 | LABEL, COMBINATION | 1 | |
| 14 | 87526ZH8000 | LABEL, COMBINATION | 1 | |

TERMS AND CONDITIONS OF SALE — PARTS

PAYMENT TERMS

Terms of payment for parts are net 30 days.

FREIGHT POLICY

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

MINIMUM ORDER

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

RETURNED GOODS POLICY

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

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

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

PRICING AND REBATES

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

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

SPECIAL EXPEDITING SERVICE

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

LIMITATIONS OF SELLER'S LIABILITY

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

LIMITATION OF WARRANTIES

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

Effective: February 22, 2006

OPERATION AND PARTS MANUAL

HERE'S HOW TO GET HELP

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

UNITED STATES

Multiquip Corporate Office

18910 Wilmington Ave. Tel. (800) 421-1244
Carson, CA 90746 Fax (800) 537-3927
Contact: mq@multiquip.com

Mayco Parts

800-306-2926 Fax: 800-672-7877
310-537-3700 Fax: 310-637-3284

Service Department

800-421-1244 Fax: 310-537-4259
310-537-3700

MQ Parts Department

800-427-1244 Fax: 800-672-7877
310-537-3700 Fax: 310-637-3284

Warranty Department

800-421-1244, Ext. 279 Fax: 310-537-1173
310-537-3700, Ext. 279

Technical Assistance

800-478-1244 Fax: 310-631-5032

MEXICO

MQ Cipsa

Carr. Fed. Mexico-Puebla KM 126.5 Tel: (52) 222-225-9900
Momoxpan, Cholula, Puebla 72760 Mexico Fax: (52) 222-285-0420
Contact: pmastretta@cipsa.com.mx

UNITED KINGDOM

Multiquip (UK) Limited Head Office

Hanover Mill, Fitzroy Street, Tel: 0161 339 2223
Ashton-under-Lyne, Fax: 0161 339 3226
Lancashire OL7 0TL
Contact: sales@multiquip.co.uk

CANADA

Multiquip

4110 Industriel Boul. Tel: (450) 625-2244
Laval, Quebec, Canada H7L 6V3 Fax: (450) 625-8664
Contact: jmartin@multiquip.com

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