

# OPERATION AND PARTS MANUAL



*Mikasa* **SERIES**  
**MODEL MVH306DS2/  
MVH306DSCPAS**

**REVERSIBLE PLATE COMPACTOR  
(YANMAR L70V6GJ1R1AAS5 DIESEL ENGINE)**

Revision #7 (02/04/14)



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

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|  |
|--|
|  <b>WARNING</b>  |
| <b>CALIFORNIA — Proposition 65 Warning</b>   |
| Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.                                  |

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### NOTICE

Specifications and part numbers are subject to change without notice.

# SAFETY INFORMATION

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



## SAFETY MESSAGES

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

## SAFETY SYMBOLS

**! DANGER**

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

**! WARNING**

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

**! CAUTION**

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

**NOTICE**

Addresses practices not related to personal injury.

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

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

# SAFETY INFORMATION

## GENERAL SAFETY

### CAUTION

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



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



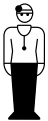
- **NEVER** operate this equipment under the influence of drugs or alcohol.



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

### NOTICE

- This equipment should only be operated by trained and qualified personnel 18 years of age and older.
- Whenever necessary, replace nameplate, operation and safety decals when they become difficult read.
- Manufacturer does not assume responsibility for any accident due to equipment modifications. Unauthorized equipment modification will void all warranties.
- **NEVER** use accessories or attachments that are not recommended by Multiquip for this equipment. Damage to the equipment and/or injury to user may result.
- **ALWAYS** know the location of the nearest **fire extinguisher**.
- **ALWAYS** know the location of the nearest **first aid kit**.
- **ALWAYS** know the location of the nearest phone or **keep a phone on the job site**. Also, know the phone numbers of the nearest **ambulance, doctor and fire department**. This information will be invaluable in the case of an emergency.



# SAFETY INFORMATION

## COMPACTOR SAFETY

### DANGER

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



### WARNING

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

### CAUTION

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

### NOTICE

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

## ENGINE SAFETY

### DANGER

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



### WARNING

- **DO NOT** place hands or fingers inside engine compartment when engine is running.
- **NEVER** operate the engine with heat shields or guards removed.
- Keep fingers, hands hair and clothing away from all moving parts to prevent injury.
- **DO NOT** remove the radiator cap while the engine is hot. High pressure boiling water will gush out of the radiator and severely scald any persons in the general area of the compactor.
- **DO NOT** remove the coolant drain plug while the engine is hot. Hot coolant will gush out of the coolant tank and severely scald any persons in the general area of the compactor.
- **DO NOT** remove the engine oil drain plug while the engine is hot. Hot oil will gush out of the oil tank and severely scald any persons in the general area of the compactor.



### CAUTION

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



### NOTICE

- **NEVER** run engine without an air filter or with a dirty air filter. Severe engine damage may occur. Service air filter frequently to prevent engine malfunction.
- **NEVER** tamper with the factory settings of the engine or engine governor. Damage to the engine or equipment can result if operating in speed ranges above the maximum allowable.
- **NEVER** tip the engine to extreme angles during lifting as it may cause oil to gravitate into the cylinder head, making the engine start difficult.

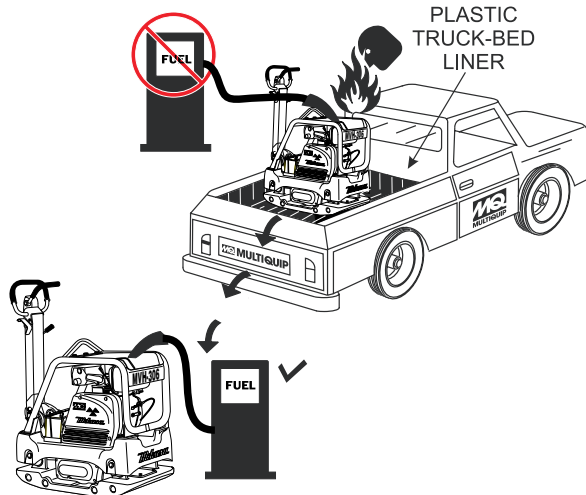


# SAFETY INFORMATION

## FUEL SAFETY

### DANGER

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



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



## BATTERY SAFETY (ELECTRIC START ONLY)

### DANGER

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



### WARNING

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



### CAUTION

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



# SAFETY INFORMATION

## TRANSPORTING SAFETY

### CAUTION

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

### NOTICE

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

## ENVIRONMENTAL SAFETY/DECOMMISSIONING

### NOTICE

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

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



- When the life cycle of this equipment is over, remove battery and bring to appropriate facility for lead reclamation. Use safety precautions when handling batteries that contain sulfuric acid.

- When the life cycle of this equipment is over, it is recommended that the trowel frame and all other metal parts be sent to a recycling center.

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

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

## EMISSIONS INFORMATION

### NOTICE

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

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

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

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

### Emission Control Label

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

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

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

## SPECIFICATIONS

| <b>Table 1. MVH306DS2/DSCPAS Reversible Plate Compactor Specifications</b> |                                  |
|--|----------------------------------|
| <b>Centrifugal Force</b>   | 10,116 lbs. (4,588 kg)           |
| <b>Vibration Frequency</b>   | 3,600 vpm (60 Hz)                |
| <b>Traveling Speed</b>   | 0 to 75 ft/min (0 to 23 m/min)   |
| <b>Plate Size (L x W)</b>  | 18 x 34 in (45.72 x 86.36 cm)    |
| <b>External Plate Size (L x W)</b>   | 24 x 34 in (60.96 x 86.36 cm)    |
| <b>Max. Area of Compaction (no extensions)</b>                             | 6,750 sq. ft. (2,057 sq. meters) |
| <b>Overall Length</b>  | 62 in (1,575 mm)                 |
| <b>Overall Width</b>   | 18.0 in (457 mm)                 |
| <b>Overall Height (with handle)</b>  | 55 in (1,397 mm)                 |
| <b>Overall Height (without handle)</b>                                     | 34 in (864 mm)                   |
| <b>Operating Weight</b>  | 725 lbs. (329 kg.)               |
| <b>Operating Weight (extension plates)</b>                                 | 824 lbs. (374 kg.)               |
| <b>Lubricating Oil in Vibration Case</b>                                   | 20.28 fl. oz. (600 cc)           |

| <b>Table 2. Engine Specifications</b> |   |
|---------------------------------------|---|
| <b>Engine Make</b>                    | YANMAR  |
| <b>Engine Model</b>                   | L70V6GJ1R1AAS5                                |
| <b>Engine Type</b>                    | Air-cooled 4-cycle Diesel Engine              |
| <b>Cylinder Bore X Stroke</b>         | 3.07 x 2.51 in (78 x 64 mm)                   |
| <b>Displacement</b>                   | 10.34 fl oz (306 cm <sup>3</sup> )            |
| <b>Maximum Output</b>                 | 6.5 HP @3,600 RPM                             |
| <b>Fuel Tank Capacity</b>             | 3.5 quarts (3.31 liters)                      |
| <b>Oil Capacity</b>                   | 1.16 quarts (1.10 liters)                     |
| <b>Starting Method D/DS</b>           | Recoil/Electric                               |
| <b>Dry Net Weight Recoil/Electric</b> | 72.75 lbs. (33 kg)/83.77 lbs. (38 kg)         |
| <b>Dimensions (L x W x H)</b>         | 15.11 x 16.57 x 17.71 in (384 x 421 x 450 mm) |

## DIMENSIONS

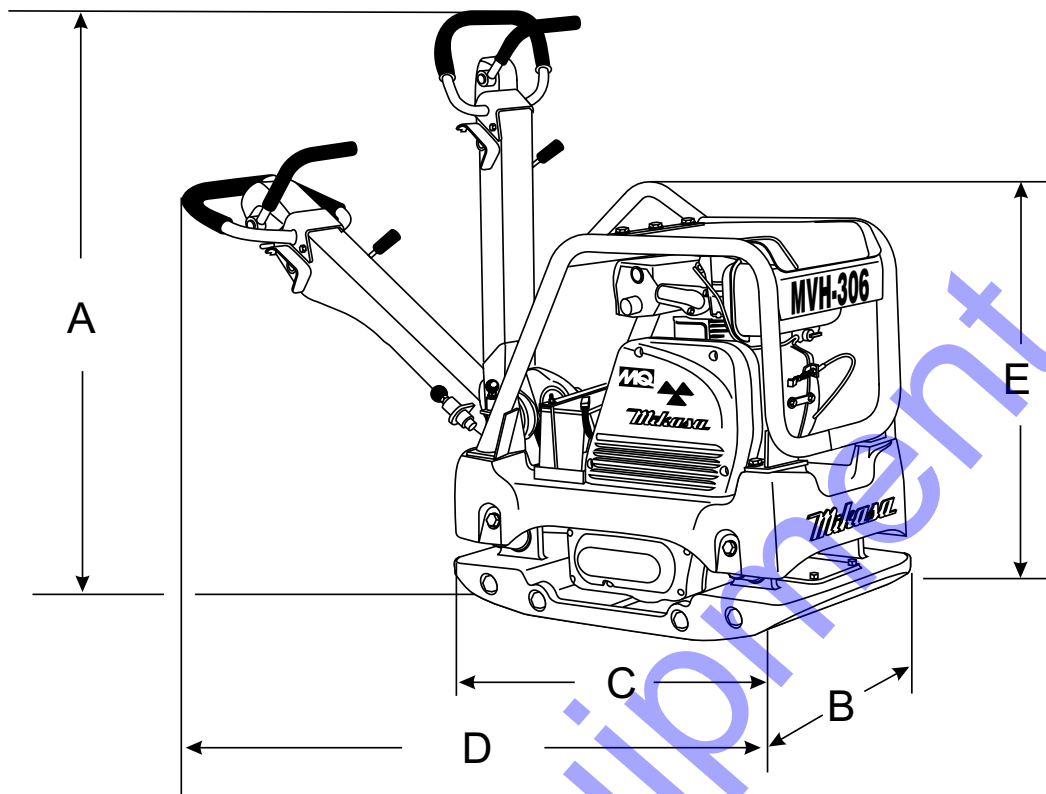


Figure 1. MVH306DS2/DSCPAS Reversible Plate Compactor Dimensions

Table 3. Dimensions

| Table 3. Dimensions |                    |
|---------------------|--------------------|
| A                   | 55 in. (1,387 mm.) |
| B                   | 18 in. (445 mm.)   |
| C                   | 34 in. (860 mm.)   |
| D                   | 62 in. (1570 mm.)  |
| E                   | 34 in. (856 mm.)   |

## GENERAL INFORMATION

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### Plate Compactor

The Mikasa MVH306DS2/DSCPAS is a walk behind, reversible plate compactor designed for the compaction of sand, clay and asphalt. This plate compactor is a powerful compacting tool capable of applying a tremendous force in consecutive high frequency vibrations to a soil surface. Its applications include soil compacting for road, embankments and reservoirs as well as backfilling for gas pipelines, water pipelines and cable installation work.

### Vibratory Plates

The vibratory plates of this plate compactor produce low amplitude high frequency vibrations, designed to compact granular soils.

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

### Reversible Vibratory Plates

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

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

### Frequency/Speed

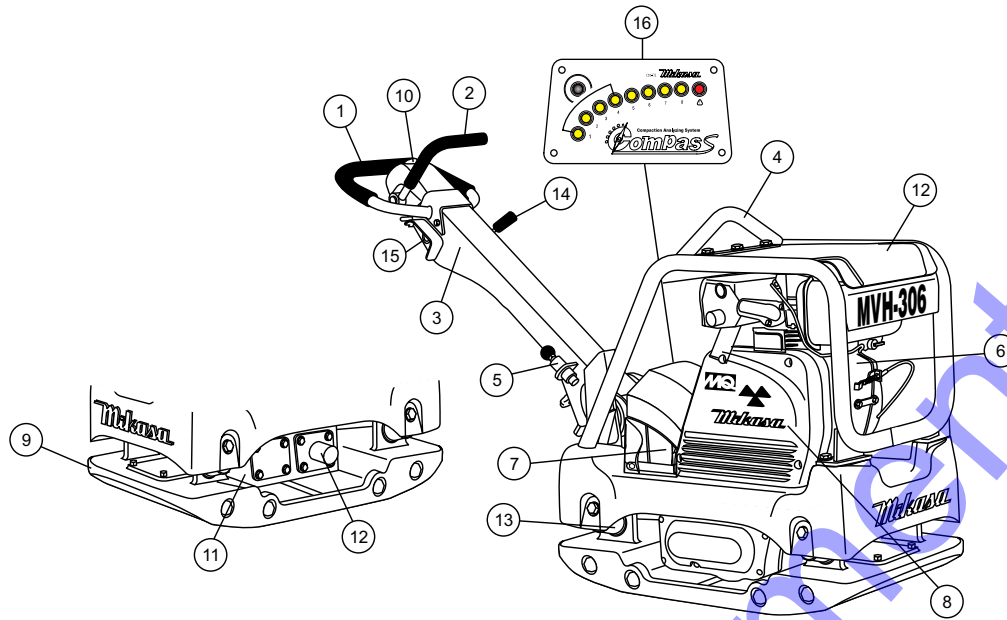
The compactor's vibrating plate maximum frequency is 4400 vpm (vibrations per minute). The forward and reverse travel speed of the compactor is approximately 75 ft./minute (23 meters/minute).

### Engine

This plate compactor is equipped with a YANMAR L70V6GJ1R1AAS5 diesel engine.

### Controls

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



**Figure 2. MVH306DS2/DSCPAS Reversible Plate Compactor Components**

Figure 2 illustrates the location of the major components for the MVH306DS2/DS2CPAS Reversible Plate Compactor. The function of each component is described below:

1. **Hand Grip** – When operating the compactor use this hand grip to maneuver the compactor.
2. **Forward & Reverse Lever** – Push the lever forward, the compactor will move in a forward direction, pull the lever backwards, the compactor will move in backwards direction. Placing the lever in the middle (midway) will cause the compactor not to move (neutral).
3. **Handle Bar** – When operating the compactor, this handle is to be in the downward position. When the compactor is to be stored, move the handle bar to the upright position.
4. **Guard Hook** - Used to lift the machine with crane or other lifting device.
5. **Stopper** - Locks the handle in place in the upward position for stowing.
6. **Engine** – This plate compactor uses a YANMAR L-70V6 diesel engine. Refer to the owner's manual for engine information and related topics.
7. **Battery (Option)** - This unit uses a 12-volt battery. See maintenance of this manual for proper care of battery.
8. **Belt Cover** – Remove this cover to gain access to the V-belts. **NEVER** run the compactor without the V-belt cover. If the V-belt cover is not installed, the possibility exist that your hand may get caught between the V-belt and clutch, thus causing serious injury and bodily harm.
9. **Base Plate** – Designed to compact sand, clay, and asphalt.
10. **Oil Reservoir** – Fill with Shell Tellus Oil 46 or equivalent grade hydraulic oil.
11. **Vibration Case** – Encloses the eccentric, gears and counter weights.
12. **Hydraulic Cylinder** – Activated by moving the travel lever. The cylinder controls the direction of movement by the plate compactor.
13. **Shock Absorber** – Protects plate compactor from damage by absorbing vibration during operation.
14. **Throttle Lever** – Controls speed of the plate compactor. Place straight vertically to start, push fully counterclockwise for full throttle and fully clockwise to stop plate compactor.
15. **Ignition Switch (Option)** – Provided for electric start models only.
16. **COMPAS** – Compaction Analysing System, monitors soil stiffness. Available only on the MVH306DSCPAS.

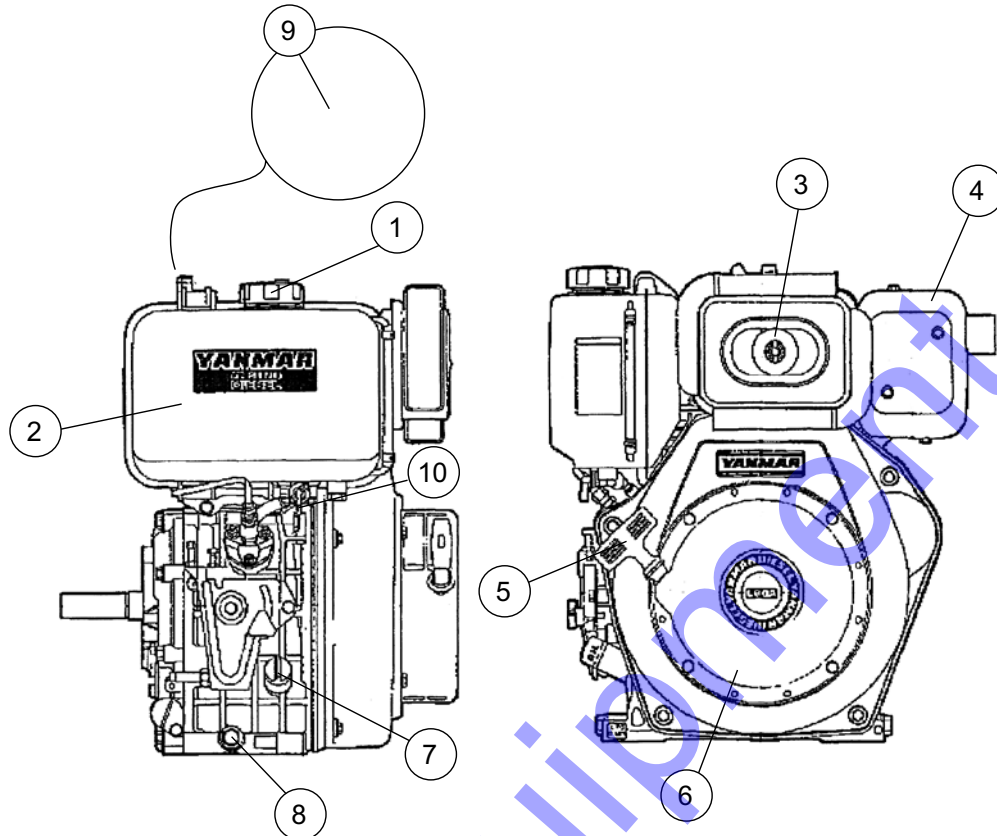


Figure 3. Yanmar L70V6 Engine Components

## ENGINE COMPONENTS

Figure 3 illustrates the location of the major components for the Yanmar L70V6 diesel engine. The function of each component is described below

1. **Fuel Filler Cap** – Remove this cap to add unleaded gasoline to the fuel tank. Make sure cap is tighten securely. **DO NOT** over fill.
2. **Fuel Tank** – Capacity is 3.5 quarts (3.31 liters) of diesel fuel.
3. **Air Cleaner** – Prevents dirt and other debris from entering the fuel system. Remove wing-nut on top of air filter cannister to gain access to filter element.
4. **Muffler** – Used to reduce noise and emissions.
5. **Recoil Starting Handle (pull rope)** – Type of engine starting method. Alternate type would be electric start (ignition key).
6. **Recoil Starter** – Manual-starting method. Pull the starter grip until resistance is felt, then pull briskly and smoothly.
7. **Oil Filler Cap / Dipstick** – Remove this cap to add oil to the engine crankcase. Read dipstick to determine if oil level is low. **DO NOT** over fill.
8. **Oil Drain Plug** – Unscrew plug to drain oil from engine crankcase. Dispose of oil in a safe manner.
9. **Decompression Lever** – Press down before starting engine. To prevent damage to engine, **DO NOT** use for any other purpose.
10. **Fuel Cock** – Controls the flow of diesel fuel to the carburetor. Must be in the ON position when starting and running the engine.

# INSPECTION

## Before Starting

1. Read safety instructions at the beginning of manual.
2. Familiarize yourself with the operating and control elements of the machine and the working environment. This includes obstacles in the working area, bearing capacity of the ground and the necessary safety provisions.
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 fastening nuts and bolts for tightness. Loose threads may cause damage to the machine when vibrating.
5. Understand the geographical features and regulations of the job site.
6. Clean the compactor, removing dirt and dust. Particularly, the bottom of the plate, engine cooling air inlet.

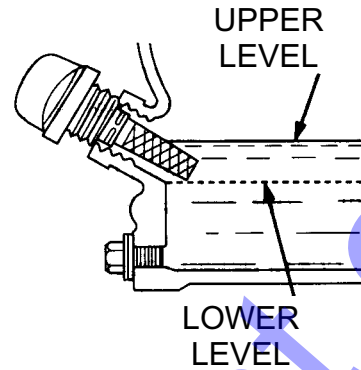


Figure 5. Engine Oil Level

## Checking Engine Oil Level

1. To check the engine oil level, place the compactor on secure level ground with the engine stopped.
2. Remove the dipstick from the engine oil filler hole (Figure 4) and wipe it clean.
3. Insert and remove the dipstick without screwing it into the filler neck. Check the oil level shown on the dipstick.

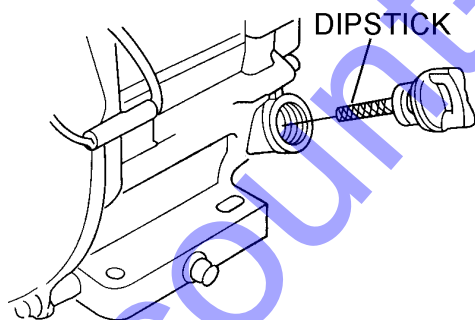


Figure 4. Engine Oil Dipstick Removal

4. If the oil level is low (Figure 5), fill to the edge of the oil filler hole with the recommended oil type (Table 4). Maximum oil capacity is 1.16 quarts (1.10 liters).

Table 4. Oil Type

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

## Checking the Hydraulic Oil Level

1. To check the engine oil level, place the compactor on secure level ground with the engine stopped.
2. Remove the hydraulic oil breather cap located at the top of the hydraulic oil tank (Figure 6).
3. Using a 24 mm wrench, remove the hydraulic oil filler plug.
4. Visually inspect to determine if hydraulic oil level is low. If oil level is low add Shell Tellus 46 hydraulic oil or equivalent through the hand pump oil filler port.

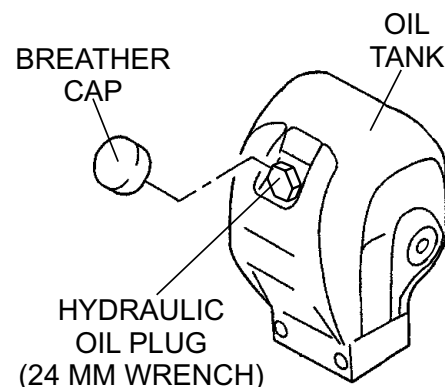


Figure 6. Hydraulic Oil Filler Plug Removal

## CAUTION

**DO NOT** overfill hydraulic oil tank. This could cause oil leaks and sluggish operation. Clean cap and surrounding area before opening to prevent dirt from entering oil tank.

- When adding hydraulic oil, only fill to the specified oil level as marked on the front of the hydraulic oil tank (Figure 7). **DO NOT** overfill.

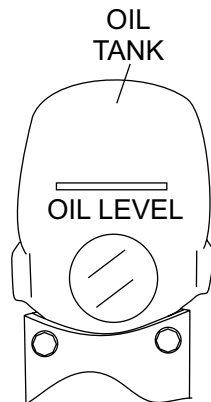


Figure 7. Oil Tank (Front View)

## Checking the Air Cleaner

- To check the engine oil level, place the compactor on secure level ground with the engine stopped.
- Loosen the wing nut (Figure 8), remove the air cleaner cover.

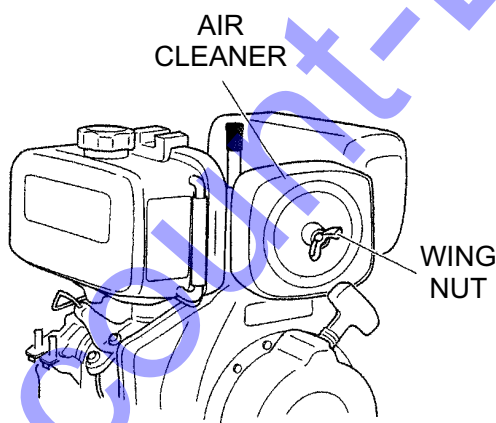


Figure 8. Checking the Air Cleaner

- Remove the air cleaner element (Figure 9) and inspect it for signs of wear or dirt. If air cleaner element is dirty, clean or replace element.

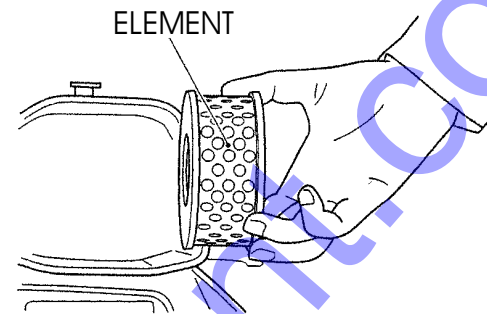


Figure 9. Air Cleaner Element

## DANGER



### EXPLOSIVE FUEL!

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

## Checking The Fuel

- Remove the fuel cap located on top of fuel tank.
- Visually inspect to see if fuel level is low. If fuel is low, replenish with diesel fuel (Figure 10).
- When refueling, be sure to use a strainer for filtration. **DO NOT** top-off fuel. Wipe up any spilled fuel.

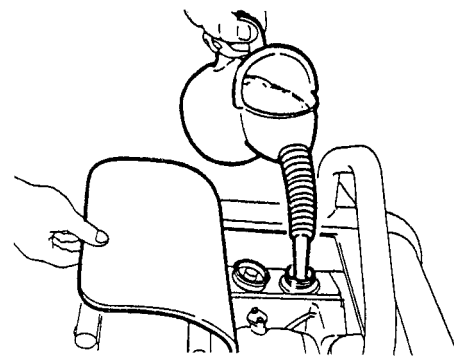


Figure 10. Refueling



# OPERATION

## CAUTION



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

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

Refer to Figure 3 for the location of controls and components.

### Releasing the Handle

1. Pull the handle release pin, (Figure 11) then push down on the hand grip to release the handle.

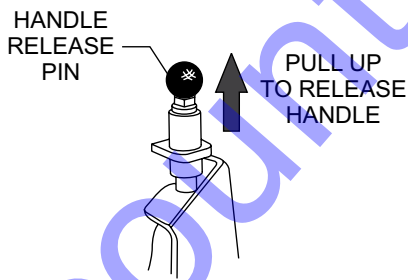
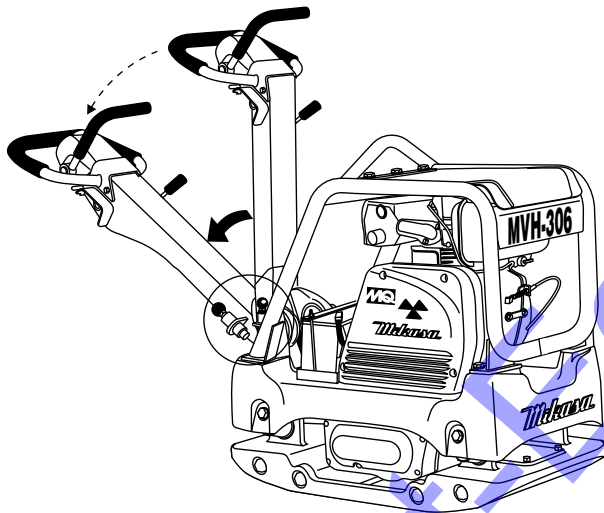


Figure 11. Handle Release Pin

### Adjusting Handle Height

The height of the handle is adjustable for your comfort .

1. Loosen the butterfly screw (Figure 12).
2. Turn the grip clockwise to raise the handle or counterclockwise to lower the handle.

3. When the handle is raised to the desired height, tighten the butterfly screw.

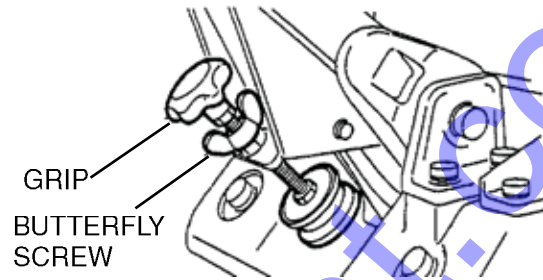


Figure 12. Handle Adjustment

### STARTING THE ENGINE

#### Electric Start (Option)

1. Place the fuel cock (Figure 13) in the open position.

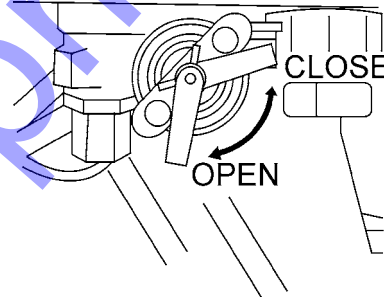


Figure 13. Fuel Cock Open Position)

2. Place the throttle lever (Figure 14) in the START position (center). Place the travel lever in the neutral position (center)

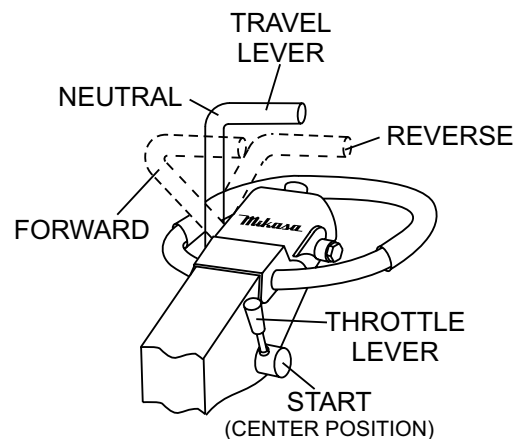


Figure 14. Travel/Throttle Lever (Start Position)

## NOTICE

When starting a unit with an electric start capability, a decompressor is not normally required. However, when ambient temperature or battery charger level is low, use of a decompressor will help make the start-up easier.

3. Insert the ignition key into the ignition switch and turn it to the **RUN** position (Figure 15). The buzzer should sound at this time.
4. Turn the ignition key further to the right to the **START** position to start the engine. Buzzer stops sounding and the engine starts.
5. If the engine fails to start, **DO NOT** continue to rotate the ignition key for more than 5 seconds. Return the key to the **RUN** position and wait 10 seconds before starting again.

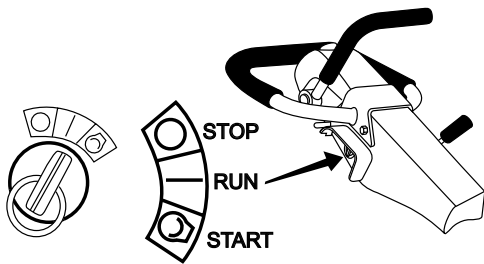


Figure 15. Starter Switch (Option)

## CAUTION

While the engine is running, never try to turn the ignition key to the **START** position.

6. After starting the engine, continue to warm up the engine for about 3 to 10 seconds especially in cold weather.
7. If the buzzer does not stop sounding after the engine has started, shutdown engine immediately and check engine oil level. The buzzer functions as an engine oil level alarm warning device.

## Recoil Start

1. Place the fuel cock in the **OPEN** position (Figure 13).
2. Move the throttle lever to the **START** position (Figure 14).
3. Grasp the starter grip (Figure 16) 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.

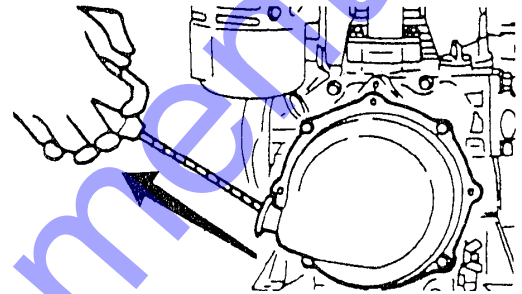


Figure 16. Engine Start Handle

4. Push down decompression lever (Figure 17) and release.

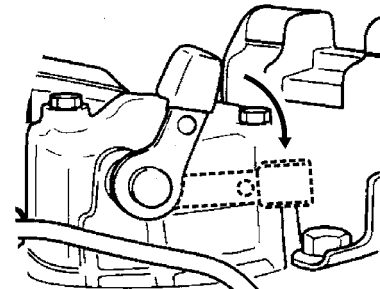


Figure 17. Decompression Lever

5. If the engine does not start, repeat steps 1 thru 4.

# OPERATION

## TRAVELING

### CAUTION

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

1. Grasp the compactor's hand grip, and move the engine throttle lever (Figure 18) quickly to the fast position.
2. With the throttle lever in the fast position, the engine speed should be around 3,600 RPM, therefore engaging the centrifugal clutch.

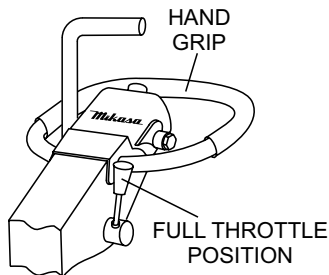


Figure 18. Throttle Lever (Fast)

### NOTICE

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

3. To make the compactor move in the forward direction push the travel lever (Figure 19) forward.

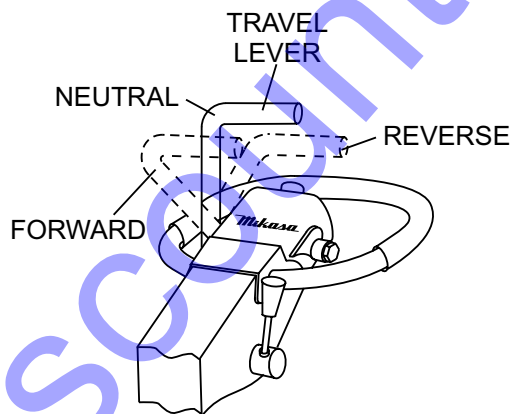


Figure 19. Travel Lever

4. To make the compactor move in the reverse direction pull the travel lever (Figure 19) backwards.
5. Firmly grasp the compactor's hand grip, the compactor will begin moving in the desired position when the direction lever has been placed in the desired position.
6. Slowly walk behind the compactor and be on the lookout for any large objects or foreign matter that might cause damage to the compactor or bodily injury.
7. If travel lever is placed in the neutral position, the machine will vibrate in place.
8. To move the compactor laterally, hold the hand grip firmly and swing compactor. **DO NOT** swing compactor while gripping the travel lever.

## Normal Shutdown

1. Return the throttle lever to the **START** position (Figure 14). Allow the machine to cool down for 2 to 3 minutes.
2. Place the travel lever in the **NEUTRAL** position (Figure 20).
3. Place the throttle lever in the **STOP** position (Figure 20) to stop the engine.

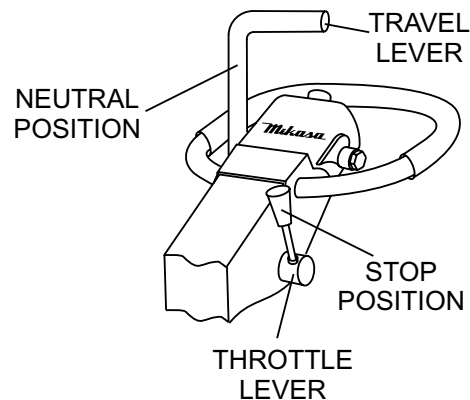
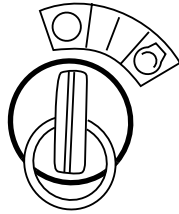


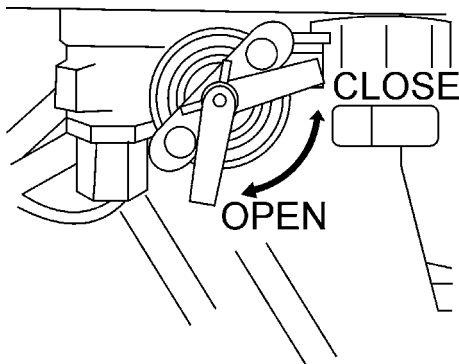
Figure 20. Throttle Lever (Stop)

4. If using an electric start unit, return the key switch to the **STOP** position (Figure 21) as soon as the engine stops.



**Figure 21. Starter Switch (STOP)**

5. Place the fuel cock (Figure 22) in the closed position.



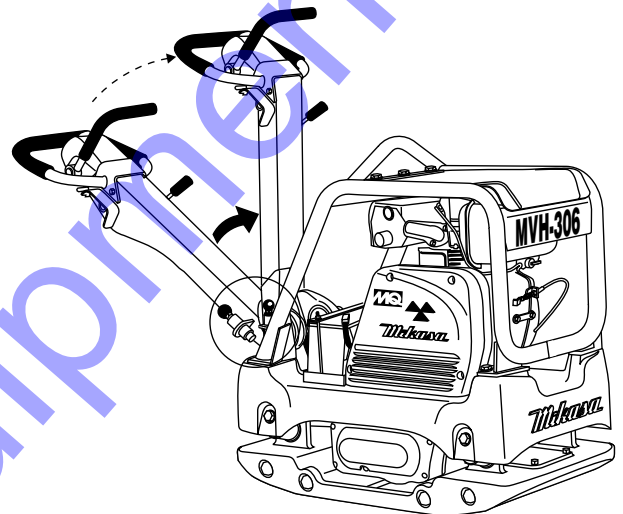
**Figure 22. Fuel Cock (Closed Position)**

### Emergency Shutdown

1. For a recoil start type engine, move the throttle lever quickly to the **STOP** position.
2. For an electric start type engine, place the engine ignition switch in the **OFF** position.

### STOWING THE HANDLE

1. Push up the handle upward (Figure 23) until the handle locks in place.



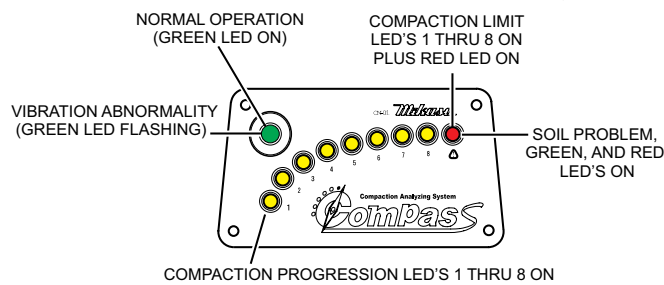
**Figure 23. Stowing The Handle**

## COMPACTION SENSOR (MVH306 DSCPAS Only)

Compaction Analyzing System (COMPAS) is a system that uses an acceleration sensor to show real-time soil stiffness via LED's (light-emitting diode) turning on with each pass of the compactor.

This COMPAS improves compaction work efficiency because it can prevent an already properly compacted area from being compacted more than necessary and identify an area where more compaction is needed.

COMPAS also has a function to detect abnormalities such as vibration trouble (insufficient vibration frequency), ground trouble (soft soil) and other functional issues (Figure 24).



**Figure 24. Compaction Sensor (COMPAS)**

### NOTICE

COMPAS can only show progression of the soil stiffness and is not meant to measure absolute soil density. When using COMPAS always calculate appropriate soil density by conducting proper testing such as plate load test and dynamic load test to best compliment the LED lighting progression with the actual measurement value.

## Normal Compaction (Compaction Progression)

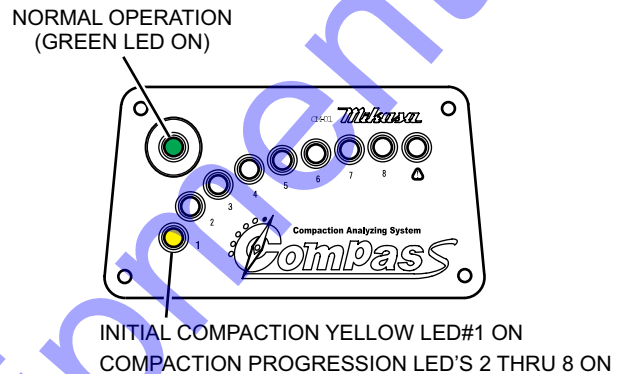
### NOTICE

Not all yellow status LEDs will turn on. The progression of the yellow status LEDs depends on the type of soil being compacted. If compacting gravel (stiff soil) **potentially** all status LEDs will turn ON.

If compacting sand (soft soil), fewer status LED's will turn ON. Remember **DO NOT** over compact.

When the plate compactor is in idle mode the **green** LED will begin flashing and the **red** LED will turn on. As the engine RPM's are increased and compaction begins, the **green** LED will stop flashing and turn on (solid). The **red** LED will turn off and the #1 **yellow** LED will turn on. As compaction progresses the number of yellow LEDs, 2 thru 8 will turn on (Figure 25).

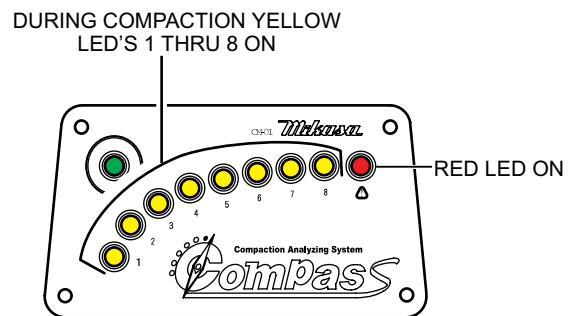
The number of yellow status LEDs that will turn on is soil dependent.



**Figure 25. Compaction Progression**

## Normal Compaction (Compaction Limit)

The compaction limit (Figure 26) is achieved when all the yellow LED's 1 thru 8 including the red LED are all on, depending on type of soil being compacted . At this point the machine cannot compact any further. If the compaction results are not satisfactory then check and make sure the soil type, moisture content, lift and number of passes are proper for this machine.



**Figure 26. Compaction Limit**

## System Diagnostics to Detect Operational Abnormalities

### Detection of ground trouble and soft ground

1. For a case of unstable ground or soft ground (soil containing high clay content) for which the use of this machine is not suitable, only the green and red LEDs will be on (Figure 27), with no yellow LED's on.

If this occurs it would be challenging to achieve the desired compaction results. Check to make sure the ground conditions are prepared to specification before proceeding with the compaction process.

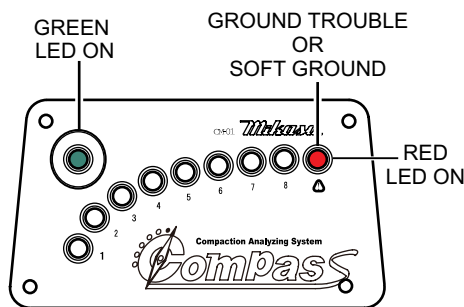


Figure 27. Ground Trouble or Soft Ground

### Detection of Vibration Abnormality

2. When appropriate vibration frequency cannot be achieved during operation due to improper engine RPMs (Figure 28) the green LED will flash. When this occurs check the engine RPMs and the V-belt tension as it could be loose.

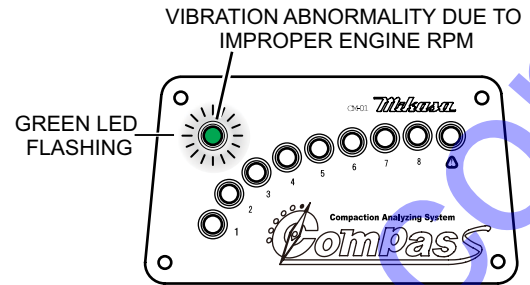


Figure 28. Vibration Abnormality  
Improper Engine RPM's

### Function to Detect Electric System Abnormality

#### Sensor wire disconnection (between acceleration sensor and sensor panel)

3. If red and green LEDs are flashing alternately as shown in Figure 29 then please check the sensor wire because there is a possibility that it is disconnected.

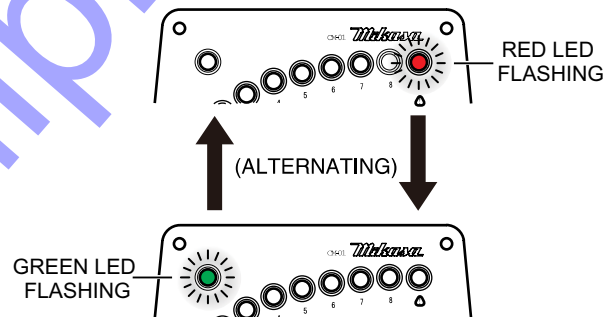


Figure 29. Sensor Wire Disconnection

#### Power cable disconnection (between battery and sensor panel)

4. If there are no LEDs on or flashing even when the key switch is turned on then please check the power cable because there is a possibility it is disconnected.

## 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 plate compactor is always in good working condition before using, carry out the maintenance inspection in accordance with Table 5 thru Table 7.

**Table 5. MVH-306DS2/DSCPAS Machine Inspection**

| Item                                | Hours of Operation                            |
|-------------------------------------|---|
| 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            | Every 100 hours                               |
| Vibrator Oil Replacement            | Every 300 hours                               |
| Hydraulic Oil Check Every           | Every 100 hours                               |
| Hydraulic Oil Replacement           | First after 200 hours, then every 1,000 hours |
| V-belt (clutch) Check               | Every 200 hours                               |
| Battery Check                       | Every 100 hours                               |

## CAUTION

These inspection intervals are for operation under normal conditions. Adjust your inspection intervals based on the number hours plate compactor is in use, and particular working conditions.

## NOTICE

Fuel piping and connections should be replaced every 2 years.

**Table 6. MVH-306DS2/DSCPAS Engine Check**

| Item  | Hours of Operation   |
|---|--|
| 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.

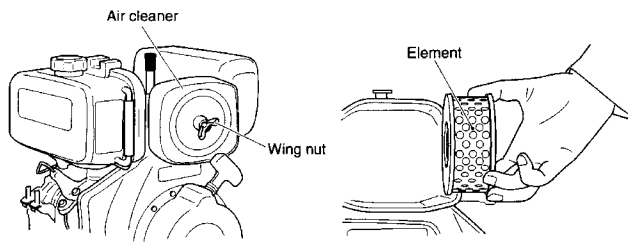
- Remove soil and clean the bottom of compaction plate.
- Check hand pump, piping and hose for any leakage. A loosened hydraulic hose can be a cause for leakage. Check hydraulic hose connections with wrench applied for tightness.
- Check engine oil.

## Engine Oil Replacement:

1. Replace engine oil, in first 25 hours of operation and every 50 to 100 hours afterwards.
2. Oil may be drained more easily when it is warm after operation (For more details, see separate engine Owner's Manual).

## Air Filter (Every 6 Months or 400 Hours)

1. The air filter element (Figure 30) should be cleaned because a clogged air cleaner can cause poor engine starting, lack of power and shorten engine life substantially.

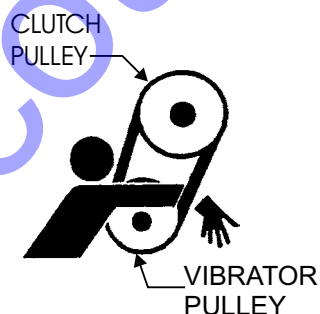


**Figure 30. Engine Air Filter and Element**

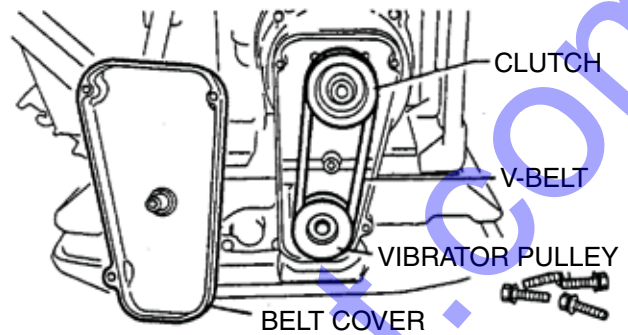
2. To clean or replace air filter loosen the wing nut on the air filter housing (Figure 30) remove the cover and take out air filter cartridge. If only cleaning of the air filter is desired blow through the air filter cartridge from the inside, moving a jet of dry compressed air up and down until all dust is removed.

### **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 31). Always use safety gloves.



**Figure 31. V-Belt Hazard**



**Figure 32. V-Belt Check**

## Replacing the V-belt

- Remove the belt cover (Figure 32). Engage an offset wrench 3/4" (19 mm) or the like to vibrator pulley (lower) fastening bolt. Engage wastecloth or the like at midway of V-belt on the left side and while pulling it back strongly, rotate the offset wrench clockwise so that the V-belt will come off.

## Reinstalling the V-belt

- Engage V-belt to lower vibrator pulley and push the V-belt to left side of upper clutch and, in the same manner as in removal, rotate offset wrench clockwise so that the V-belt goes back on.

## Checking Clutch

- Check the clutch simultaneously with V-belt checking. With belt cover removed, check outer drum of the clutch for seizure and "V" groove for wear or damage with your eyes. Clean the "V" groove as necessary. If the shoe is worn, power transmission becomes deficient and slipping will result.

## Replacing Clutch

- Remove V-belt. Remove bolt at engine power output by giving a light tap with a hammer to an engaged wrench and rotate bolt counterclockwise. Remove clutch with a pulley extractor. To reinstall, reverse the procedure.

### **CAUTION**

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



## Vibrator Oil Level Check

### NOTICE

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

1. In every 100 hours of operation, with the machine positioned horizontally, use a 3/4" (19 mm) wrench and remove vibrator oil level check plug (Figure 33). Visually inspect and see if vibrator oil level is up to filler port. Be sure to clean area around check hole to prevent dirt and dust from entering.

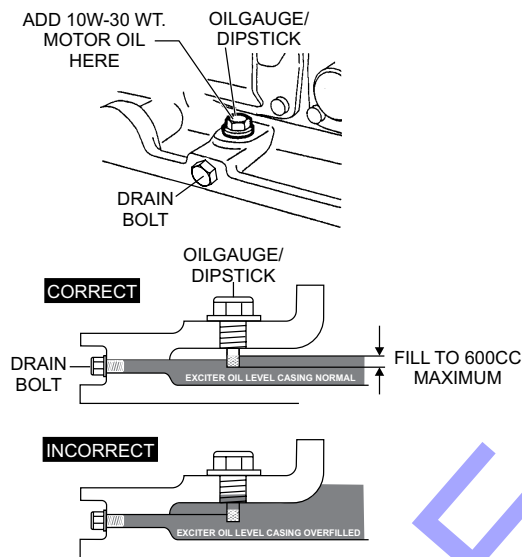


Figure 33. Vibrator Oil Drain and Check Plugs

## Draining Vibrator Oil

1. Replace vibrator oil after first 200 hours and in every 1,000 hours of operation. Oil capacity is 600 cc.
2. Position handle bar vertically (storage position).
3. Using a 14 mm wrench remove the vibrator oil drain plug (Figure 33) from the vibrating plate assembly.

### NOTICE

For draining oil through level check hole, have the machine inclined with a sleeper or the like placed under the compaction plate on opposite side.

4. After hydraulic oil has been completely drained from machine, fill with 10W-30 motor oil to the appropriate safe operating level (Figure 33).
5. Reinstall drain plug into vibrating plate assembly. Apply seal tape or Loctite #575 to thread portion of drain plug.

## Draining Hydraulic Oil

1. Disconnect the hydraulic hose (Figure 34) connected to the hydraulic oil cylinder.
2. Push the travel lever back and forth to drain the hydraulic oil from the hand pump (hydraulic oil reservoir).

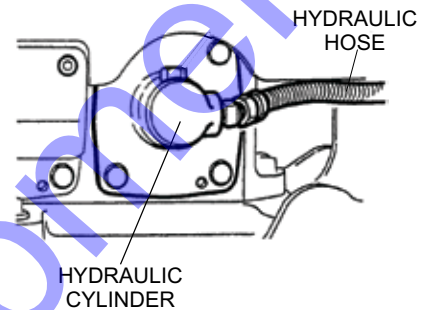


Figure 34. Hydraulic Oil Cylinder/Hose

3. After draining hydraulic oil, reconnect hydraulic oil hose to cylinder.
4. Place handle in upright position. Pull travel lever all the way back (reverse), and using a rope, secure travel lever to hand grip.

## Adding Hydraulic Oil

1. Remove the breather cap and oil plug (Figure 35) from the hydraulic oil tank using a 24mm hex socket.

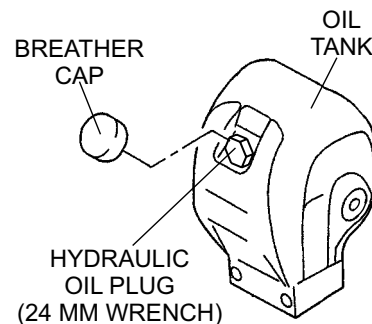
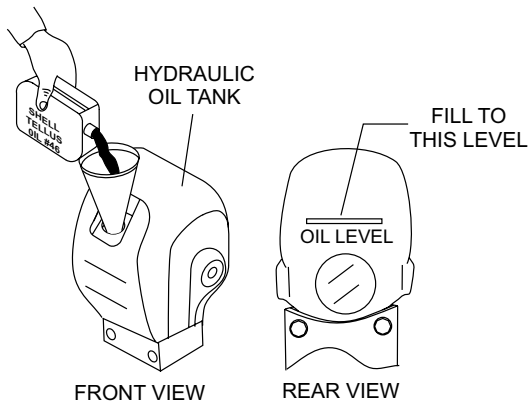


Figure 35. Hydraulic Oil Tank

- Using a funnel, add Shell Tellus Oil #32 or equivalent to the hydraulic oil tank through the oil filler port (Figure 36). Oil tank capacity is 18.7 fl. oz (550 cc).



**Figure 36. Adding Hydraulic Oil**

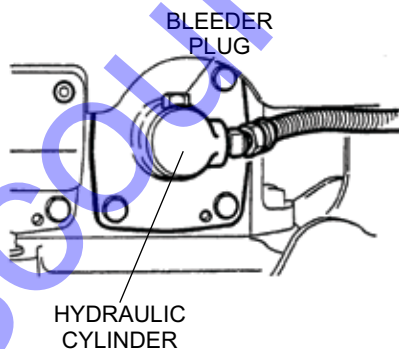
### CAUTION

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

- Loosen bleeder plug located at top of hydraulic cylinder on side of vibrator (Figure 37). Air remaining in the circuit will be forced out of the bleeder plug. Once all air has been purged from the hydraulic system, tighten bleeder plug securely
- Reinsert oil plug into hydraulic oil tank and tighten securely. Reinstall breather cap.

### NOTICE

The bleeder plug should only be loosened, but not removed.



**Figure 37. Bleeder Plug**

### CAUTION

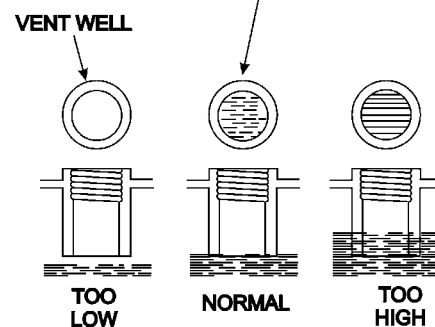
**ALWAYS** wear safety glasses or face mask, protective clothes, and rubber gloves when working with battery.

### BATTERY MAINTENANCE (Option)

Mishandling of the battery shortens the service life of the battery and adds to maintenance cost. When handling the battery do the following:


- The battery electrolyte contains sulfuric acid, be careful not to let the battery electrolyte come in contact with your body or clothing.
- Always check the battery terminals periodically to ensure that they are in good condition.
- Always wear eye protection and rubber gloves, since the battery contains sulfuric acid which burns skin and eats through clothing. In case of contact, flush thoroughly with water and contact a doctor immediately.
- Use wire brush or sand paper to clean the battery terminals.
- Always check battery for cracks or any other damage. If white pattern appears inside the battery or paste has accumulated at the bottom, replace the battery.
- If the compactor will not be in operation for a long period of time, store in cool dry place and check the battery charge level every month to maintain the performance of the battery.
- Check the battery regularly and make sure that each electrolyte level is to the bottom of the vent well (Figure 38). If necessary add only distilled water in a well-ventilated area.

### BATTERY ELECTROLYTE LEVEL



**Figure 38. Battery Electrolyte Levels**

## BATTERY CHARGING

- **DO NOT** charge battery with the battery cables connected to the compactor. The diodes will be damaged by the high voltage.
- Batteries generate hydrogen gas which can be highly explosive. **DO NOT** smoke or allow flames or sparks near the battery, especially during charging of the battery. 
- Charge the battery in a open air environment (plenty of ventilation).
- Before charging, remove the cap from each cell of the battery.
- Connect the positive (+) lead of the charger to the positive (+) terminal of the battery and the negative (-) lead of the charger to the negative (-) terminal of the battery. **DO NOT** reverse the polarity when charging. Reverse polarity will damage the charger rectifier or the battery.
- Battery fluid will be lost through continuous charging and discharging.
- Discontinue charging if the electrolyte temperature exceeds 117° F (45° C).

### NOTICE

During summer much more battery fluid is lost than in winter. Before starting, check battery electrolyte levels and replenish with distilled water to the upper mark on the battery.

## BATTERY CABLE CONNECTION (Option)

1. Take off the battery cover by removing the M6 nuts that secure the battery holder to the cover.
2. When removing battery cables, disconnect the ground side (normally negative) first (Figure 39).
3. When installing battery cable connect the ground side (normally negative) last.

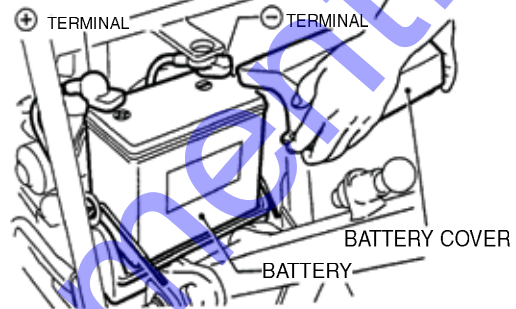
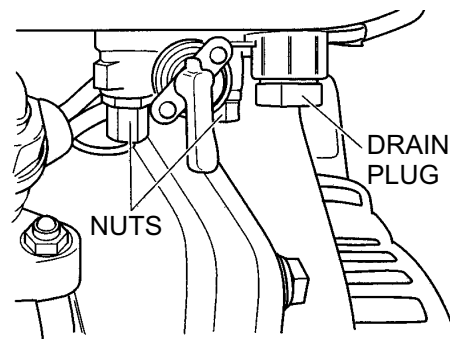


Figure 39. Removing Battery Cover

## CHECKING FUEL FILTER

1. Clean the fuel filter every 3 months or 200 hours.
2. Replace fuel filter every 6 months or 400 hours.
3. To clean the fuel filter, loosen the nuts (Figure 40) of the fuel cock and pull out the filter from the F.O. tank filler port. Wash the filter thoroughly with diesel fuel oil.
4. Reinstall fuel filter and connect all associated hardware

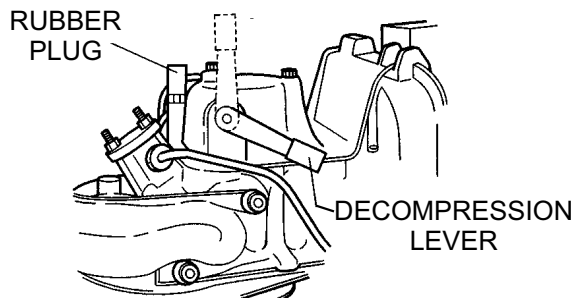


**Figure 40. Fuel Filter**

## LONG TERM STORAGE

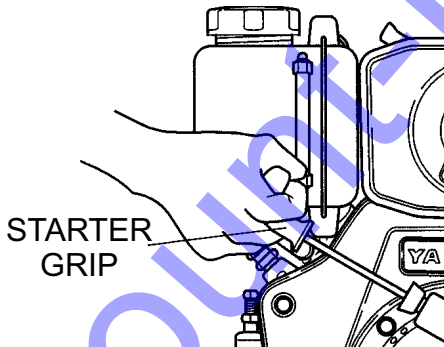
When storing your compactor for long periods do the following:

1. Run the engine at idle speed for 3-5 minutes.
2. Stop the engine. Drain the engine crankcase oil while the engine is still warm. Fill Engine crankcase with fresh oil.
3. Remove the rubber plug (Figure 41) on the rocker arm cover and add about 2 cc of lube oil. Reinstall rubber plug.



**Figure 41. Decompression Lever**

4. For recoil type compactors, push the decompression down (non-decompression position) and hold it while you pull the recoil starter grip (Figure 42) rope 2 or 3 times. **DO NOT** start the engine.



**Figure 42. Recoil Starter Grip**

5. For electric start type compactors, turn the engine for 2 or 3 seconds with the decompression lever set in the non-decompression position, and the starter key at the **START** position. **DO NOT** start the engine.
6. Pull the decompression lever up. Pull the recoil starter grip slowly. **STOP** when it feels tight. This closes the intake and exhaust valves (compression position) , and helps prevents ruts from forming.
7. Wipe any oil or dirt that may have accumulated on the compactor.
8. Store compactor in a cool dry place out of the reach of children or unauthorized personnel

# EXPLANATION OF CODE IN REMARKS COLUMN

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

## NOTICE

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

## SAMPLE PARTS LIST

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

## NO. Column

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

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

## NOTICE

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

## PART NO. Column

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

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

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

## QTY. Column

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

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

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

## REMARKS Column

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

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

Indicated by:

“INCLUDES ITEMS W/(unique symbol)”

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

Indicated by:

“S/N XXXXX AND BELOW”

“S/N XXXX AND ABOVE”

“S/N XXXX TO S/N XXX”

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

Indicated by:

“XXXXX ONLY”

“NOT USED ON XXXX”

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

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

## SUGGESTED SPARE PARTS

MVH306DS2/DSCPAS W/YANMAR L70V6 DIESEL ENGINE

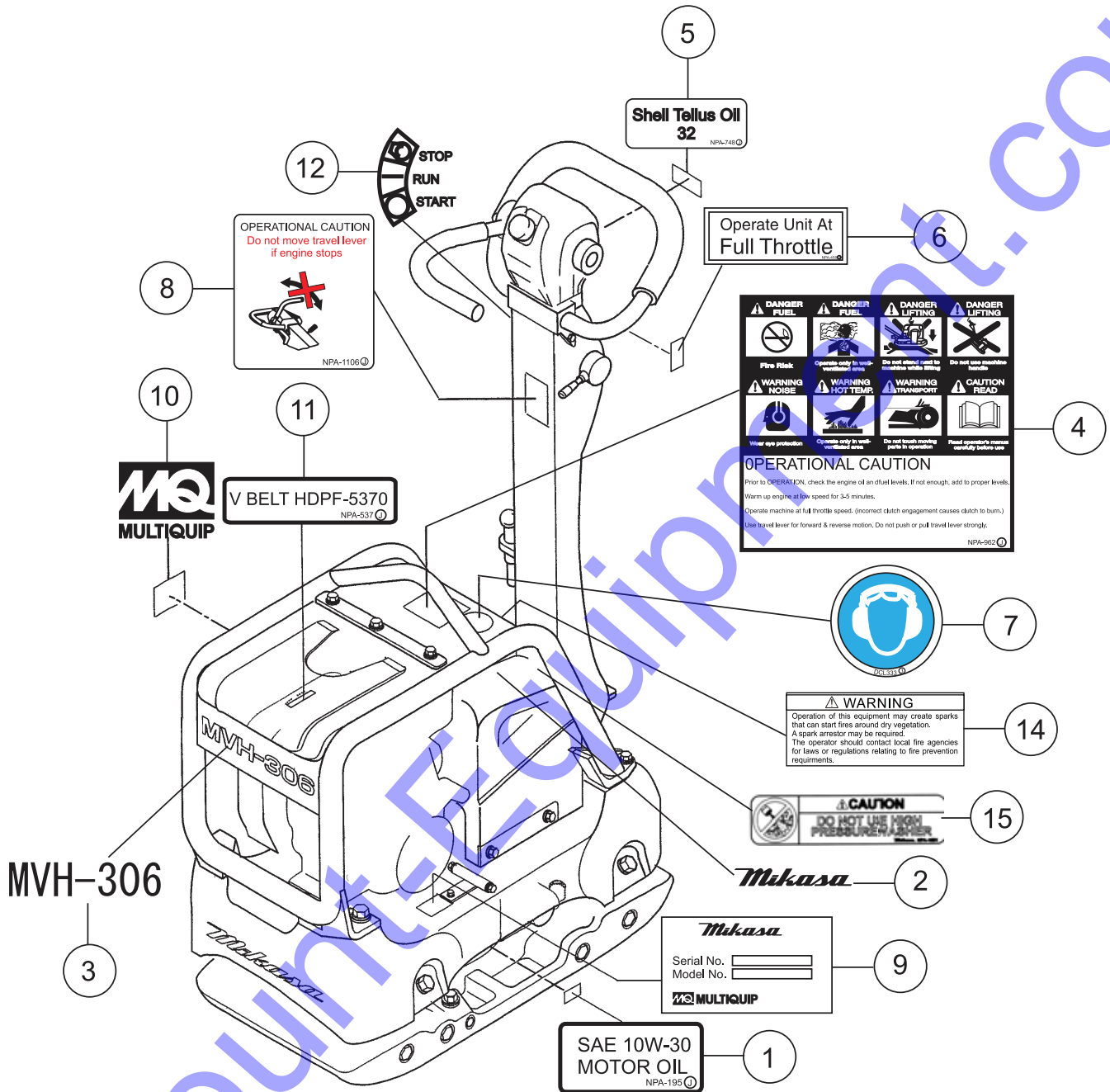
1 to 3 Units

| Qty.   | P/N              | Description             |
|--------|------------------|-------------------------|
| 1..... | 956100054.....   | THROTTLE WIRE           |
| 2..... | 070200373.....   | V-BELT                  |
| 3..... | 11425012580..... | ELEMENT W/ PRE-FILTER   |
| 1..... | 16081076630..... | STARTER ROPE            |
| 2..... | 11425055121..... | FUEL FILTER W/GASKET    |
| 1..... | 11428855010..... | CAP, FUEL TANK W/GASKET |
| 1..... | 11425035110..... | LUBE OIL STRAINER       |
| 1..... | 11425055100..... | FUEL STRAINER           |
| 1..... | 955300680.....   | IGNITION SWITCH W/ KEY  |
| 3..... | 955000010.....   | KEY, IGNITION SWITCH    |

### NOTICE

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

# NAMEPLATES AND DECALS

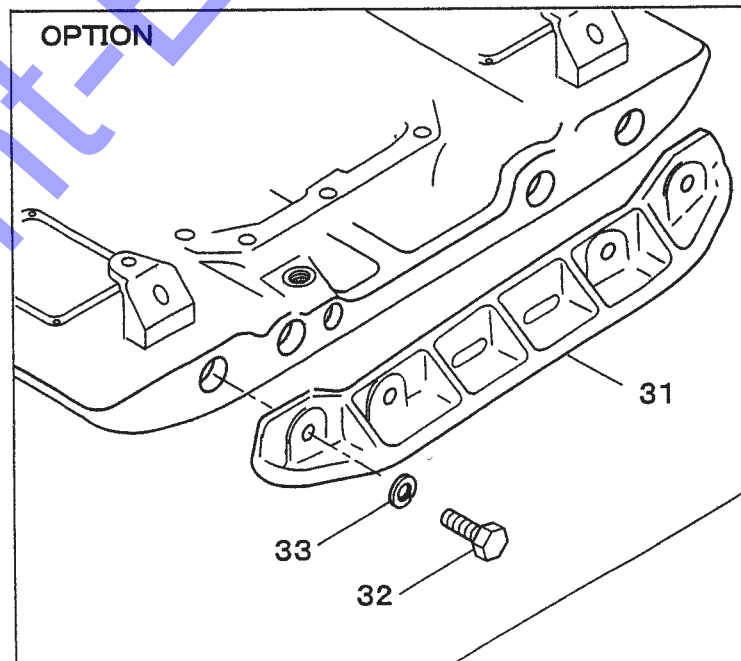
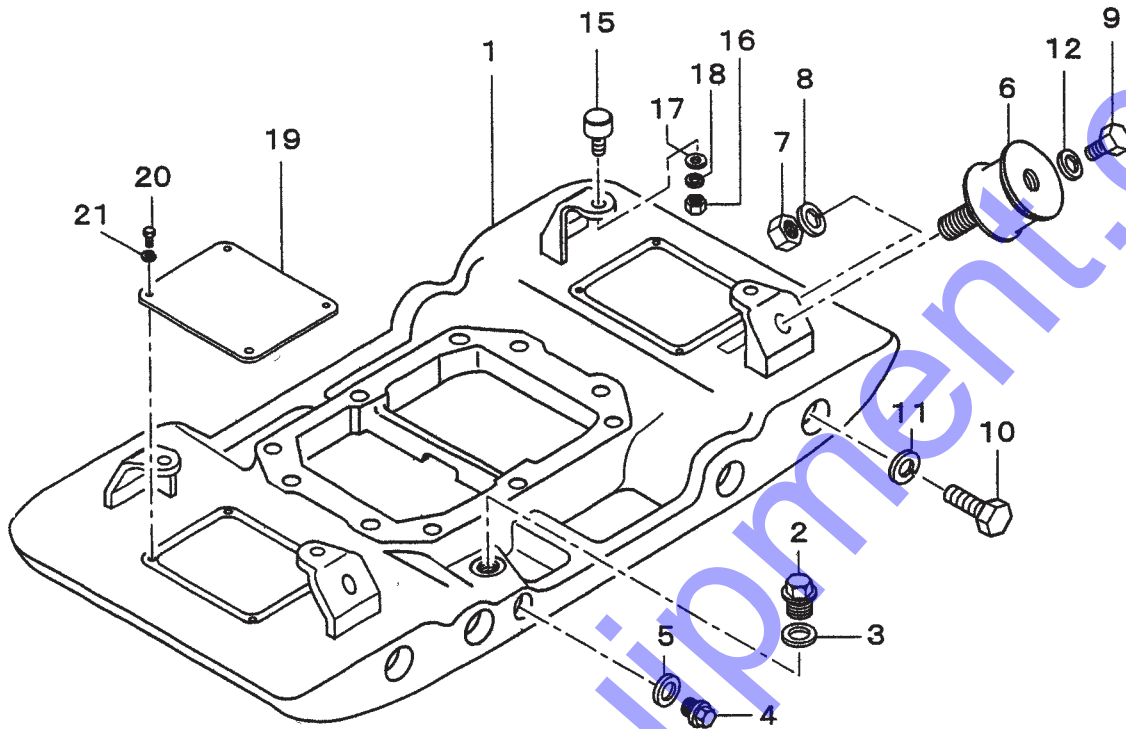


## NAMEPLATES AND DECALS

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>              | <u>QTY.</u> | <u>REMARKS</u>          |
|------------|-----------------|-------------------------------|-------------|-------------------------|
| 1          | 920201950       | DECAL: OIL SAE 10W-30         | 1           |                         |
| 2          | 920105070       | DECAL: MIKASA LOGO .....      | 1           | ELECT. START MODEL ONLY |
| 3          | 920110370       | DECAL: MODEL LOGO MVH-306     | 1           |                         |
| 4          | 920209620       | DECAL: CAUTION                | 1           |                         |
| 5          | 920211090       | DECAL: SHELL TELLUS OIL 32    | 1           |                         |
| 6          | 920204580       | DECAL: FULL THROTTLE          | 1           |                         |
| 7          | 920203330       | DECAL: EAR PROTECTION         | 1           |                         |
| 8          | 920211060       | DECAL: CAUTION (TRAVEL LEVER) | 1           |                         |
| 9          | 920213920       | DECAL: SERIAL NO. ....        | 1           | CONTACT MQ PARTS DEPT.  |
| 9          | 920216620       | DECAL: SERIAL NO. (PAS) ..... | 1           | CONTACT MQ PARTS DEPT.  |
| 10         | 920201580       | DECAL: MQ LOGO                | 1           |                         |
| 11         | 920211010       | DECAL: V-BELT HDPF-5370       | 1           |                         |
| 12         | 920106760       | DECAL: STOP-RUN-START         | 1           |                         |
| 14         | 920214100       | DECAL: E/G FIRE WARNING       | 1           |                         |
| 15         | 920216610       | DECAL: CAUTION (FOR WASHING)  | 1           |                         |



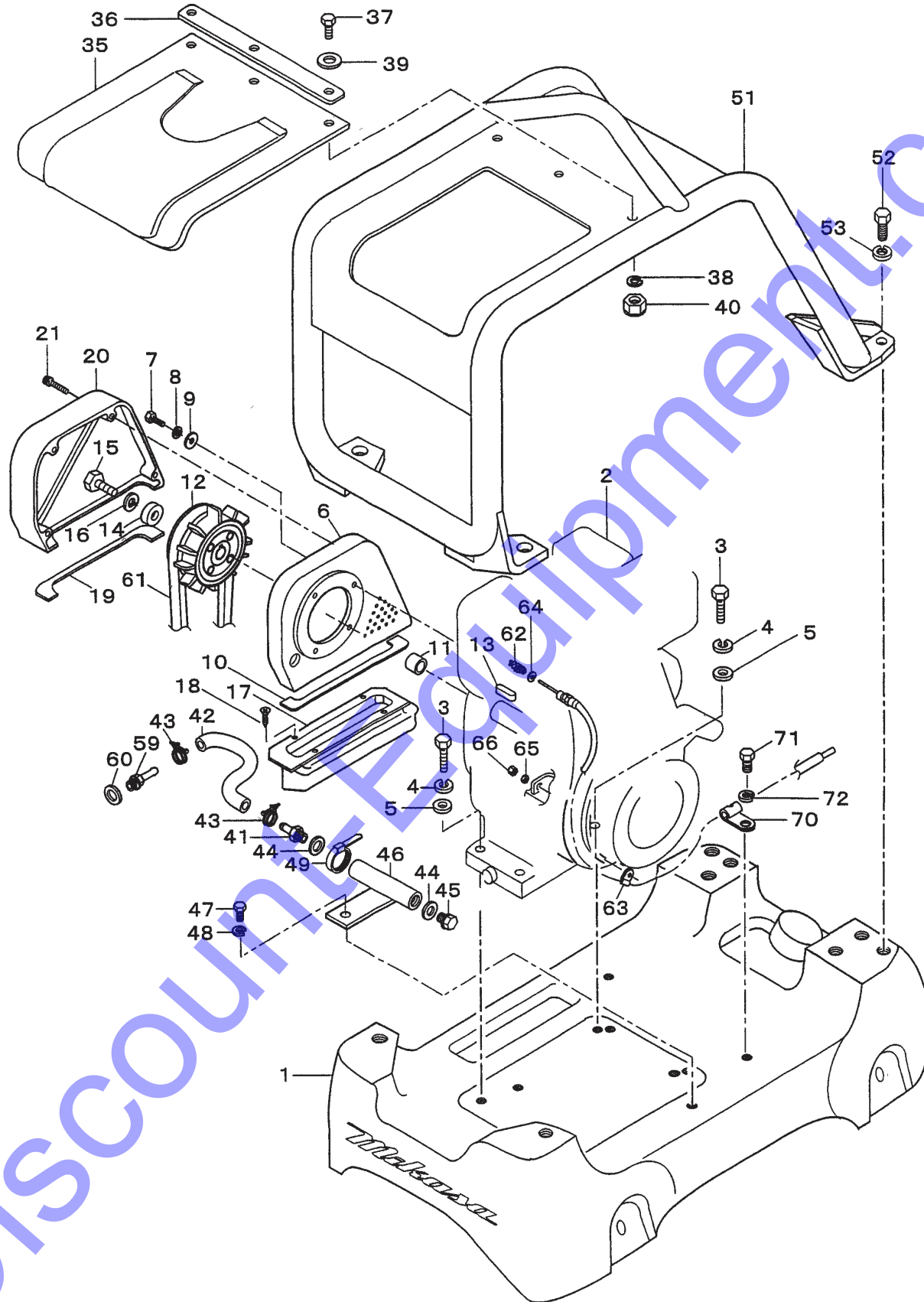
# VIBRATING PLATE ASSY.



## VIBRATING PLATE ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>           | <u>QTY.</u> | <u>REMARKS</u>         |
|------------|-----------------|----------------------------|-------------|------------------------|
| 1          | 464117840       | VIBRATING PLATE            | 1           |                        |
| 2          | 464460660       | DRAIN PLUG                 | 1           |                        |
| 3          | 953402930       | COPPER PACKING 19X30X1     | 1           |                        |
| 4          | 953400270       | PLUG 1/4X14 10L            | 1           |                        |
| 5          | 953405260       | PACKING 1/4 (CU)           | 1           |                        |
| 6          | 939010260       | SHOCK ABSORBER 110X60H     | 4           |                        |
| 7          | 020316130       | NUT M16                    | 4           |                        |
| 8          | 030216400       | WASHER, LOCK M16           | 4           |                        |
| 9          | 001221635       | BOLT 16X35 T               | 4           |                        |
| 10         | 001221830       | BOLT 18X30 T               | 8           |                        |
| 11         | 58407           | WASHER, LOCK M18 .....     | 8.....      | REPLACES P/N 030218460 |
| 12         | 030216400       | WASHER, LOCK M16           | 4           |                        |
| 15         | 939010010       | SHOCK ABSORBER, STOPPER 45 | 4           |                        |
| 16         | 020310080       | NUT M10                    | 4           |                        |
| 17         | 031110160       | WASHER, FLAT M10           | 4           |                        |
| 18         | 030210250       | WASHER, LOCK M10           | 4           |                        |
| 19         | 464343730       | COVER, VIBRATING PLATE     | 2           |                        |
| 20         | 011008015       | BOLT 8X15 T .....          | 8.....      | REPLACES P/N 001220815 |
| 21         | 030208200       | WASHER, LOCK M8            | 8           |                        |
| 31         | 52993           | EXTENSION PLATE .....      | 2.....      | REPLACES P/N 456210690 |
| 32         | 012218050       | BOLT 18X50 T .....         | 8.....      | REPLACES P/N 001221850 |
| 33         | 58407           | WASHER, LOCK M18 .....     | 8.....      | REPLACES P/N 030218460 |

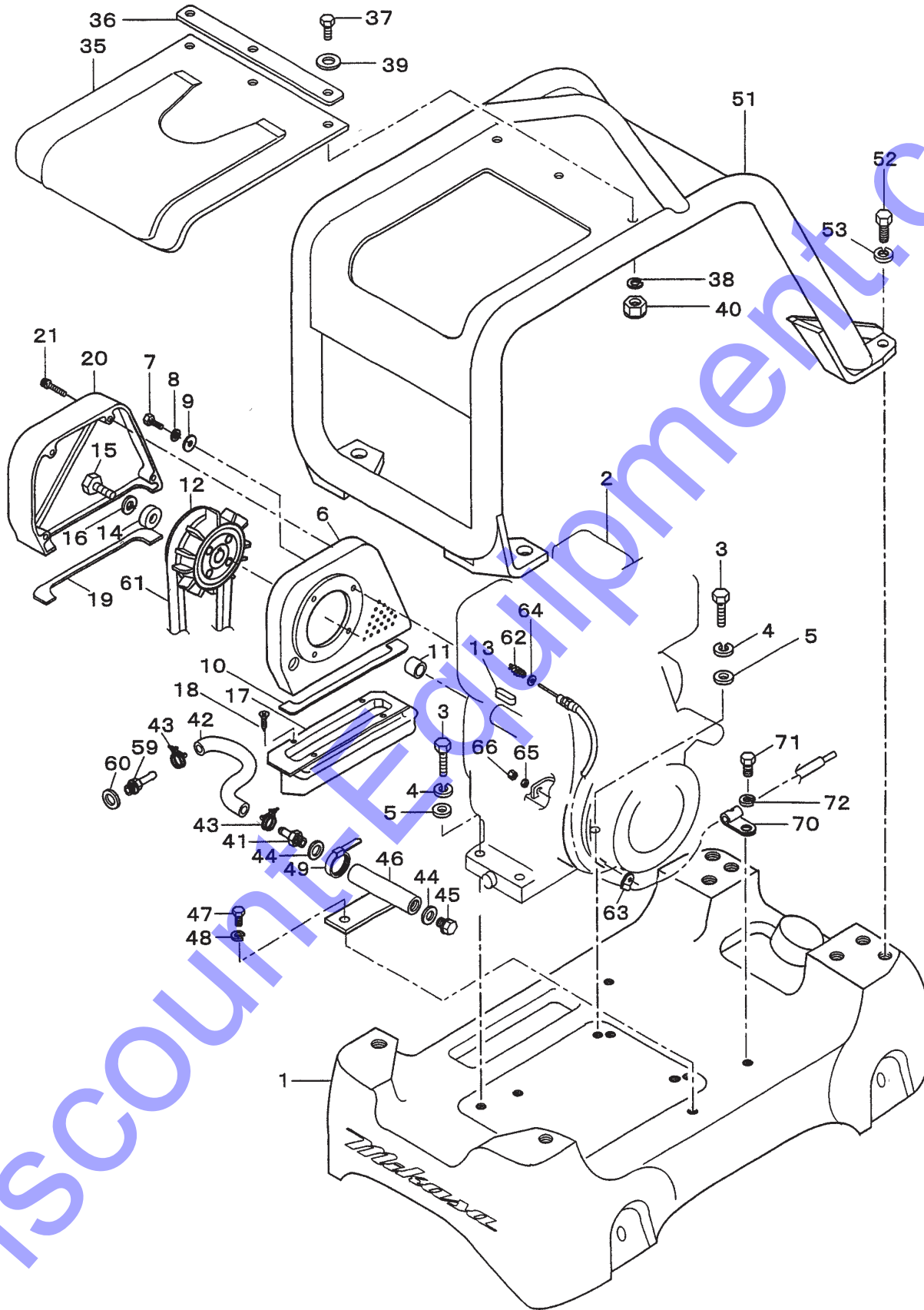
# BASE AND ENGINE ASSY.



## BASE AND ENGINE ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>            | <u>QTY.</u> | <u>REMARKS</u>           |
|------------|-----------------|-----------------------------|-------------|--------------------------|
| 1          | 464117850       | BASE                        | 1           |                          |
| 2          | 914410026       | ENGINE ASSY. L70V6 (YANMAR) | 1           |                          |
| 3          | 012210040       | BOLT 10X40 T .....          | 4           | REPLACES P/N 001221040   |
| 4          | 030210250       | WASHER, LOCK M10            | 4           |                          |
| 5          | 031110160       | WASHER, FLAT M10            | 4           |                          |
| 6          | 464216560       | BELT COVER (IN)             | 1           |                          |
| 7          | 011208025       | BOLT 8X25 T .....           | 4           | REPLACES P/N 001220825   |
| 8          | 030208200       | WASHER, LOCK M8             | 4           |                          |
| 9          | 0401450080      | WASHER, FLAT M8 .....       | 4           | REPLACES P/N 031108160   |
| 10         | 464343670       | DUST-PROOF SPONGE (IN)      | 1           |                          |
| 11         | 464457360       | SPACER/MVH-306              | 1           |                          |
| 12         | 456343340       | CLUTCH ASSY./CHM03/W.FAN    | 1           |                          |
| 13         | 951406790       | KEY 7X7X36 RR .....         | 1           | REPLACES P/N 22512070360 |
| 14         | 952400690       | WASHER 9X35X4.5             | 1           |                          |
| 15         | 011208030       | BOLT 8X30 T .....           | 1           | REPLACES P/N 001220830   |
| 16         | 030208200       | WASHER, LOCK M8             | 1           |                          |
| 17         | 464216640       | DUST-PROOF COVER            | 1           |                          |
| 18         | 092006010       | FLAT HEAD SCREW 6X10        | 3           |                          |
| 19         | 464343660       | DUST-PROOF SPONGE (OUT)     | 1           |                          |
| 20         | 464216590       | BELT COVER (OUT)            | 1           |                          |
| 21         | 001521050       | SOCKET HEAD BOLT 10X50 T    | 4           |                          |
| 35         | 464117920       | RUBBER COVER (GUARD FRAME)  | 1           |                          |
| 36         | 456449950       | PLATE, COVER                | 1           |                          |
| 37         | 011208030       | BOLT 8X30 T .....           | 3           | REPLACES P/N 001220830   |
| 38         | 030208200       | WASHER, LOCK M8             | 3           |                          |
| 39         | 0401450080      | WASHER, FLAT M8 .....       | 3           | REPLACES P/N 031108160   |
| 40         | 022710809       | NYLON NUT M8                | 3           |                          |

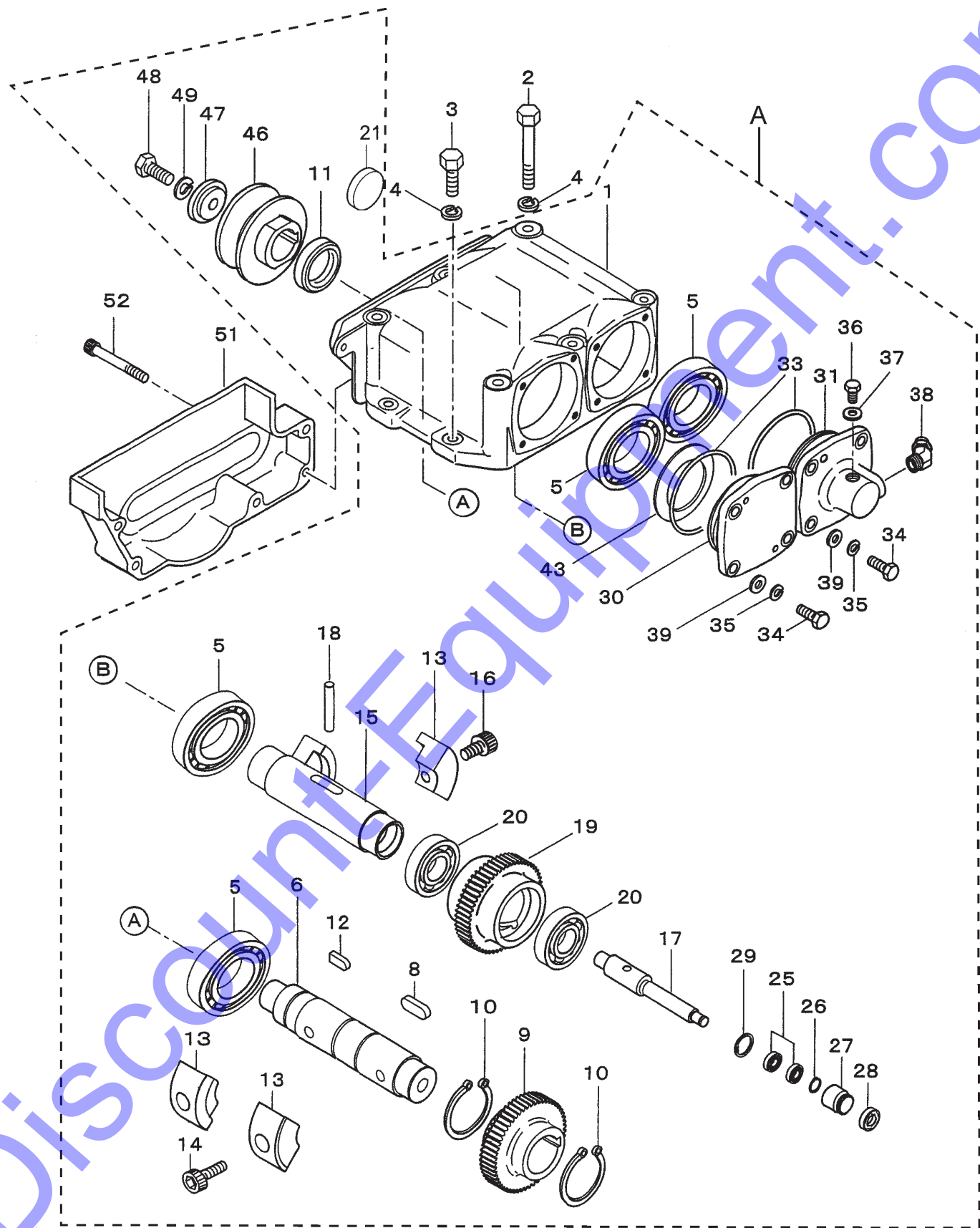
# BASE AND ENGINE ASSY. (CONTINUED)



## BASE AND ENGINE ASSY. (CONTINUED)

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>         | <u>QTY.</u> | <u>REMARKS</u>         |
|------------|-----------------|--------------------------|-------------|------------------------|
| 41         | 2556390111      | UNION TIP, DRAIN .....   | 1.....      | REPLACES P/N 459010060 |
| 42         | 2556380103      | DRAIN HOSE .....         | 1.....      | REPLACES P/N 459010070 |
| 43         | 0091720000      | HOSE BAND .....          | 2.....      | REPLACES P/N 459010090 |
| 44         | 0211140020      | GASKET (OIL DRAIN) ..... | 2.....      | REPLACES P/N 459010080 |
| 45         | R0401140030     | PLUG .....               | 1.....      | REPLACES P/N 459010100 |
| 46         | 464457380       | DRAIN JOINT              | 1           |                        |
| 47         | 014208020       | BOLT 8X20 T .....        | 1.....      | REPLACES P/N 001220820 |
| 48         | 030208200       | WASHER, LOCK M8          | 1           |                        |
| 49         | 454010020       | CLAMP TC-100             | 1           |                        |
| 51         | 464118780       | GUARD HOOK               | 1           |                        |
| 52         | 012214030       | BOLT 14X30 T .....       | 4.....      | REPLACES P/N 001221430 |
| 53         | 030214350       | WASHER, LOCK M14         | 4           |                        |
| 59         | 459455560       | UNION, OIL DRAIN         | 1           |                        |
| 60         | 459010110       | SEAL WASHER 16S          | 1           |                        |
| 61         | 070200373       | V-BELT                   | 1           |                        |
| 62         | 459000020       | RETURN SPRING            | 1           |                        |
| 63         | 2067550101      | CLAMP CP. ....           | 1.....      | REPLACES P/N 151010680 |
| 64         | 58151           | WASHER, FLAT M5 .....    | 1.....      | REPLACES P/N 031105080 |
| 65         | 020406040       | NUT M6, H=4.2            | 1           |                        |
| 66         | 959406800       | NUT M6 (SPECIAL-L10)     | 1           |                        |
| 70         | 959407260       | CLIP D6 (FOR M10)        | 1           |                        |
| 71         | 012210015       | BOLT 10X15 T .....       | 1.....      | REPLACES P/N 001221015 |
| 72         | 030210250       | WASHER, LOCK M10         | 1           |                        |

# VIBRATOR ASSY.



# VIBRATOR ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>         | <u>QTY.</u> | <u>REMARKS</u>         |
|------------|-----------------|--------------------------|-------------|------------------------|
| A          | 464910020       | VIBRATING ASSY.....      | 1.....      | INCLUDES ITEMS W/ #    |
| 1#         | 464117880       | VIBRATING CASE           | 1           |                        |
| 2          | 001221470       | BOLT 14X150 T            | 6           |                        |
| 3          | 001221450       | BOLT 14X50 T             | 4           |                        |
| 4          | 030214350       | WASHER, LOCK M14         | 10          |                        |
| 5#         | 047920120       | ROLLER BEARING NJ310EMC4 | 4           |                        |
| 6#         | 457212410       | ROTARY SHAFT, DRIVE      | 1           |                        |
| 8#         | 951405370       | KEY 15X10X39 RR          | 1           |                        |
| 9#         | 456327150       | GEAR, DRIVE              | 1           |                        |
| 10#        | 080200550       | STOP RING S-55           | 2           |                        |
| 11#        | 060105030       | OIL SEAL SB-50729        | 1           |                        |
| 12#        | 951404970       | KEY 12X8X30 R            | 1           |                        |
| 13#        | 464343700       | ECCENTRIC ROTATOR        | 4           |                        |
| 14#        | 009120301       | SOCKET HEAD BOLT 16X40 T | 2           |                        |
| 15#        | 456337670       | ROTARY SHAFT, DRIVEN     | 1           |                        |
| 16#        | 009120302       | SOCKET HEAD BOLT 16X30 T | 2           |                        |
| 17#        | 456337380       | PISTON ROD               | 1           |                        |
| 18#        | 456010010       | KNOCK PIN 10X70          | 1           |                        |
| 19#        | 464343720       | GEAR (DRIVEN)            | 1           |                        |
| 20#        | 040306911       | BEARING 6911             | 2           |                        |
| 21#        | 953010030       | SEAL CAP/SC72-8N         | 1           |                        |
| 25#        | 042506000       | BEARING 6000ZZSG         | 2           |                        |
| 26#        | 0080000010      | STOP RING S-10 .....     | 1.....      | REPLACES P/N 080200100 |
| 27#        | 455435051       | PISTON, 22.4D            | 1           |                        |
| 28#        | 455010070       | PACKING USH-22.4X30X5    | 1           |                        |
| 29#        | 080100260       | STOP RING R-26           | 1           |                        |
| 30#        | 456327130       | BEARING COVER            | 1           |                        |
| 31#        | 456210636       | CYLINDER (L)/(AC)        | 1           |                        |
| 33#        | 050101050       | O-RING G-105             | 2           |                        |
| 34#        | 0105091025      | BOLT 10X25 T .....       | 8.....      | REPLACES P/N 001221025 |
| 35#        | 030210250       | WASHER, LOCK M10         | 8           |                        |
| 36#        | 011008015       | BOLT 8X12 T .....        | 1.....      | REPLACES P/N 001220812 |
| 37#        | 953404600       | COPPER PACKING 8X16X2    | 1           |                        |
| 38#        | 455010020       | ELBOW 45 DEG. 15-0404    | 1           |                        |
| 39#        | 031110160       | WASHER, FLAT M10         | 8           |                        |
| 43#        | 952405470       | SHIM 90X110X0.5          | 2           |                        |
| 46#        | 464343710       | PULLEY                   | 1           |                        |
| 47#        | 464457370       | WASHER                   | 1           |                        |
| 48#        | 012012030       | BOLT 12X30 T .....       | 1.....      | REPLACES P/N 001221230 |
| 49#        | 030212300       | WASHER, LOCK M12         | 1           |                        |
| 51         | 464216600       | BELT COVER (LOWER)       | 1           |                        |
| 52         | 001520852       | SOCKET HEAD BOLT 8X60 T  | 5           |                        |

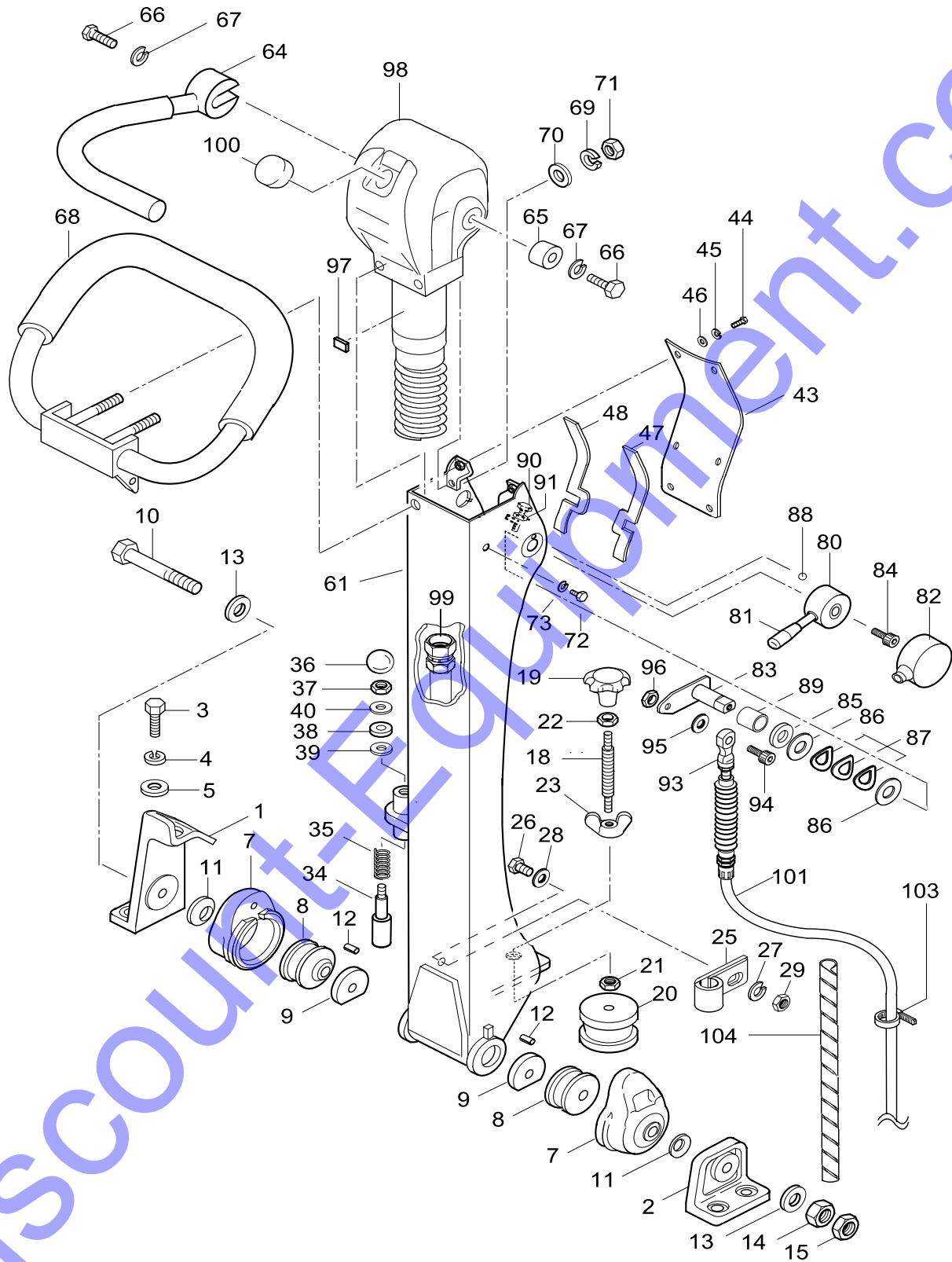




## CONTROL HANDLE ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>          | <u>QTY.</u> | <u>REMARKS</u>         |
|------------|-----------------|---------------------------|-------------|------------------------|
| 1          | 464343680       | HANDLE BRACKET            | 1           |                        |
| 2          | 456336420       | HANDLE BRACKET (R)        | 1           |                        |
| 3          | 012212035       | BOLT 12X35 T .....        | 4           | REPLACES P/N 001221235 |
| 4          | 030212300       | WASHER, LOCK M12          | 4           |                        |
| 5          | 031112230       | WASHER, FLAT M12          | 4           |                        |
| 7          | 456336400       | RUBBER COUPLING           | 2           |                        |
| 8          | 456449940       | SHOCK ABSORBER            | 2           |                        |
| 9          | 456449930       | RUBBER PLATE              | 2           |                        |
| 10         | 001221681       | BOLT 16X250 T             | 1           |                        |
| 11         | 032124400       | CONICAL SPRING WASHER M24 | 2           |                        |
| 12         | 025306016       | SPRING PIN 6X16 .....     | 2           | REPLACES P/N 025406016 |
| 13         | 0401450160      | WASHER, FLAT M16 .....    | 2           | REPLACES P/N 031116260 |
| 14         | 020316130       | NUT M16                   | 1           |                        |
| 15         | 020416100       | NUT M16, H=10             | 1           |                        |
| 18         | 455434950       | SPINDLE                   | 1           |                        |
| 19         | 455010030       | KNOB                      | 1           |                        |
| 20         | 939010060       | SHOCK ABSORBER            | 1           |                        |
| 21         | 020310080       | NUT M10, H=6 .....        | 1           | REPLACES P/N 020410060 |
| 22         | 020412070       | NUT M12, H=7              | 1           |                        |
| 23         | 022411635       | WING NUT M16              | 1           |                        |
| 25         | 954404230       | CLAMP SA120-18            | 1           |                        |
| 26         | 011206020       | BOLT 6X20 T .....         | 1           | REPLACES P/N 001220620 |
| 27         | 030206150       | WASHER, LOCK M6           | 1           |                        |
| 28         | 031106100       | WASHER, FLAT M6           | 1           |                        |
| 29         | 020106050       | NUT M6 .....              | 1           | REPLACES P/N 020306050 |
| 34         | 501402870       | HANDLE STOPPER            | 1           |                        |
| 35         | 501402880       | SPRING/HANDLE (1.4X18X44) | 1           |                        |
| 36         | 959403460       | BALL GRIP 32D-M10         | 1           |                        |
| 37         | 020310080       | NUT M10, H=6 .....        | 1           | REPLACES P/N 020410060 |
| 38         | 456449980       | RUBBER PACKING 9D-20D-5T  | 1           |                        |
| 39         | 953405260       | PACKING 1/4 (CU)          | 1           |                        |
| 40         | 031110160       | WASHER, FLAT M10          | 1           |                        |
| 43         | 464343690       | HANDLE COVER              | 1           |                        |
| 44         | 0105050616      | BOLT 6X15 T .....         | 6           | REPLACES P/N 001220615 |
| 45         | 030206150       | WASHER, LOCK M6           | 6           |                        |
| 46         | 031106100       | WASHER, FLAT M6           | 6           |                        |
| 47         | 464457710       | PACKING A, HANDLE COVER   | 1           |                        |
| 48         | 464457720       | PACKING B, HANDLE COVER   | 1           |                        |

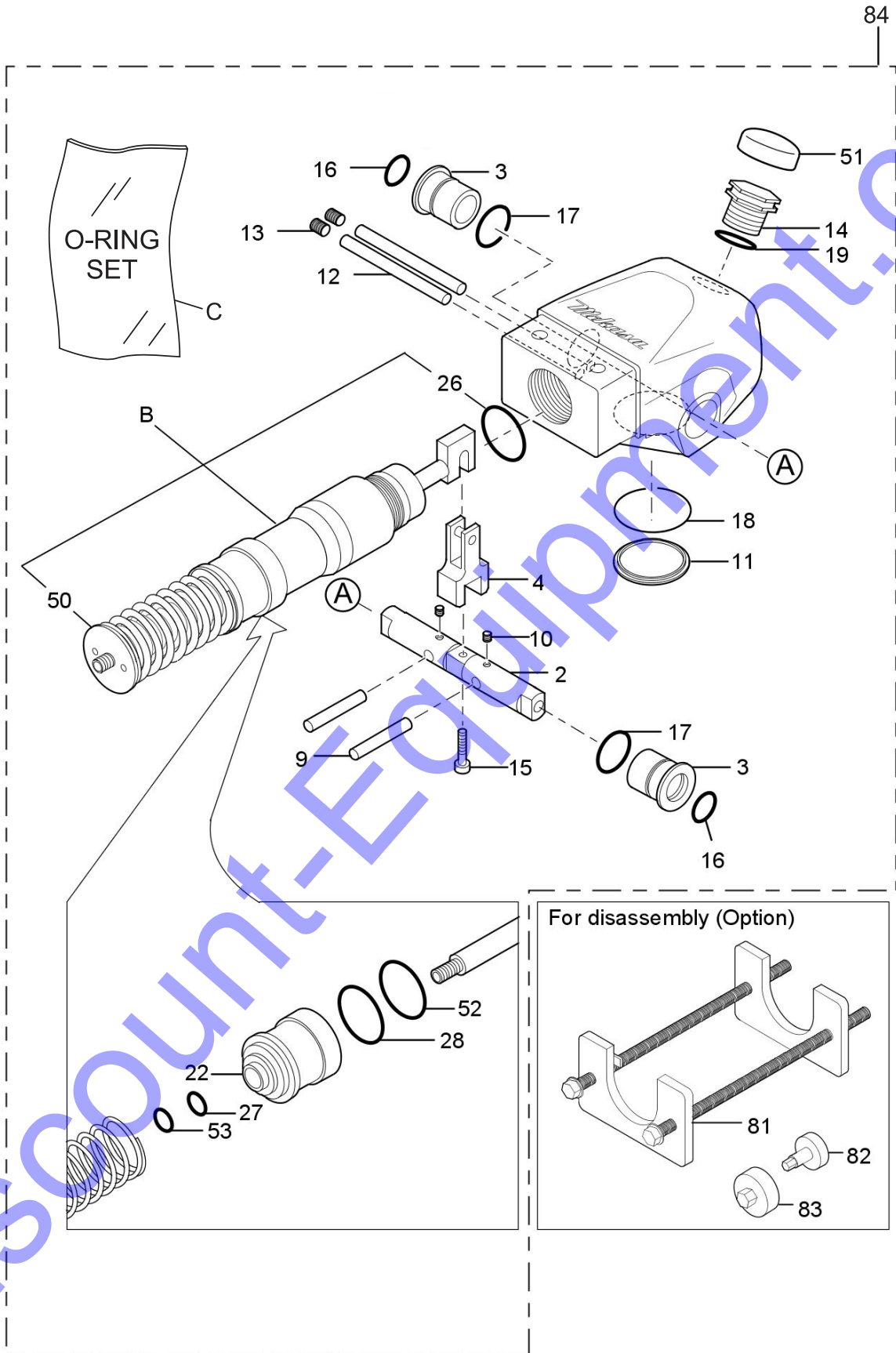
# CONTROL HANDLE ASSY. (CONTINUED)



## CONTROL HANDLE ASSY. (CONTINUED)

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>              | <u>QTY.</u> | <u>REMARKS</u>         |
|------------|-----------------|-------------------------------|-------------|------------------------|
| 61         | 464117890       | COLUMN, HANDLE                | 1           |                        |
| 64         | 464216630       | TRAVEL LEVER                  | 1           |                        |
| 65         | 464457400       | HANDLE BOSS                   | 1           |                        |
| 66         | 012010030       | BOLT 10X30 T .....            | 2           | REPLACES P/N 001221030 |
| 67         | 030210250       | WASHER, LOCK M10              | 2           |                        |
| 68         | 464216620       | HANDLE W/GRIP RUBBER          | 1           |                        |
| 69         | 030210250       | WASHER, LOCK M10              | 2           |                        |
| 70         | 031110160       | WASHER, FLAT M10              | 2           |                        |
| 71         | 020310080       | NUT M10                       | 2           |                        |
| 72         | 011208025       | BOLT 8X25 T .....             | 2           | REPLACES P/N 001220825 |
| 73         | 030208200       | WASHER, LOCK M8               | 2           |                        |
| 80         | 464457340       | THROTTLE LEVER                | 1           |                        |
| 81         | 959403840       | BAR GRIP I.D. 12 MM           | 1           |                        |
| 82         | 464457420       | COVER, THROTTLE               | 1           |                        |
| 83         | 464457350       | ARM, THROTTLE                 | 1           |                        |
| 84         | 014208020       | SOCKET HEAD BOLT 8X20 T ..... | 1           | REPLACES P/N 001520820 |
| 85         | 0401450160      | WASHER, FLAT M16 .....        | 1           | REPLACES P/N 031116260 |
| 86         | 458450660       | WASHER 16.4-35-0.6            | 2           |                        |
| 87         | 033910080       | CONICAL SW 16.3 X 31.5 X 1.2  | 3           |                        |
| 88         | 464457440       | STEEL BALL D6 (SUJ)           | 1           |                        |
| 89         | 464010010       | DRY BUSHING/ LBF-1620         | 1           |                        |
| 90         | 011606025       | BOLT 6X25 T .....             | 2           | REPLACES P/N 001220625 |
| 91         | 020106050       | NUT M6 .....                  | 2           | REPLACES P/N 020306050 |
| 93         | 464010020       | ROD END M5                    | 1           |                        |
| 94         | 001520520       | SOCKET HEAD BOLT 5X20 T       | 1           |                        |
| 95         | 58151           | WASHER, FLAT M5 .....         | 1           | REPLACES P/N 031105080 |
| 96         | 020305040       | NUT M5                        | 1           |                        |
| 99         | 954002270       | OIL HOSE W/SPRING 1/4 X 920   | 1           |                        |
| 101        | 956100054       | THROTTLE WIRE                 | 1           |                        |
| 103        | 454010020       | CLAMP TC-100                  | 1           |                        |
| 104        | 959021815       | SPIRAL TUBE 6D-330L           | 1           |                        |
| 104        | 959021810       | SPIRAL TUBE KEP6/ L=500 ..... | 1           | REPLACES P/N 959021810 |

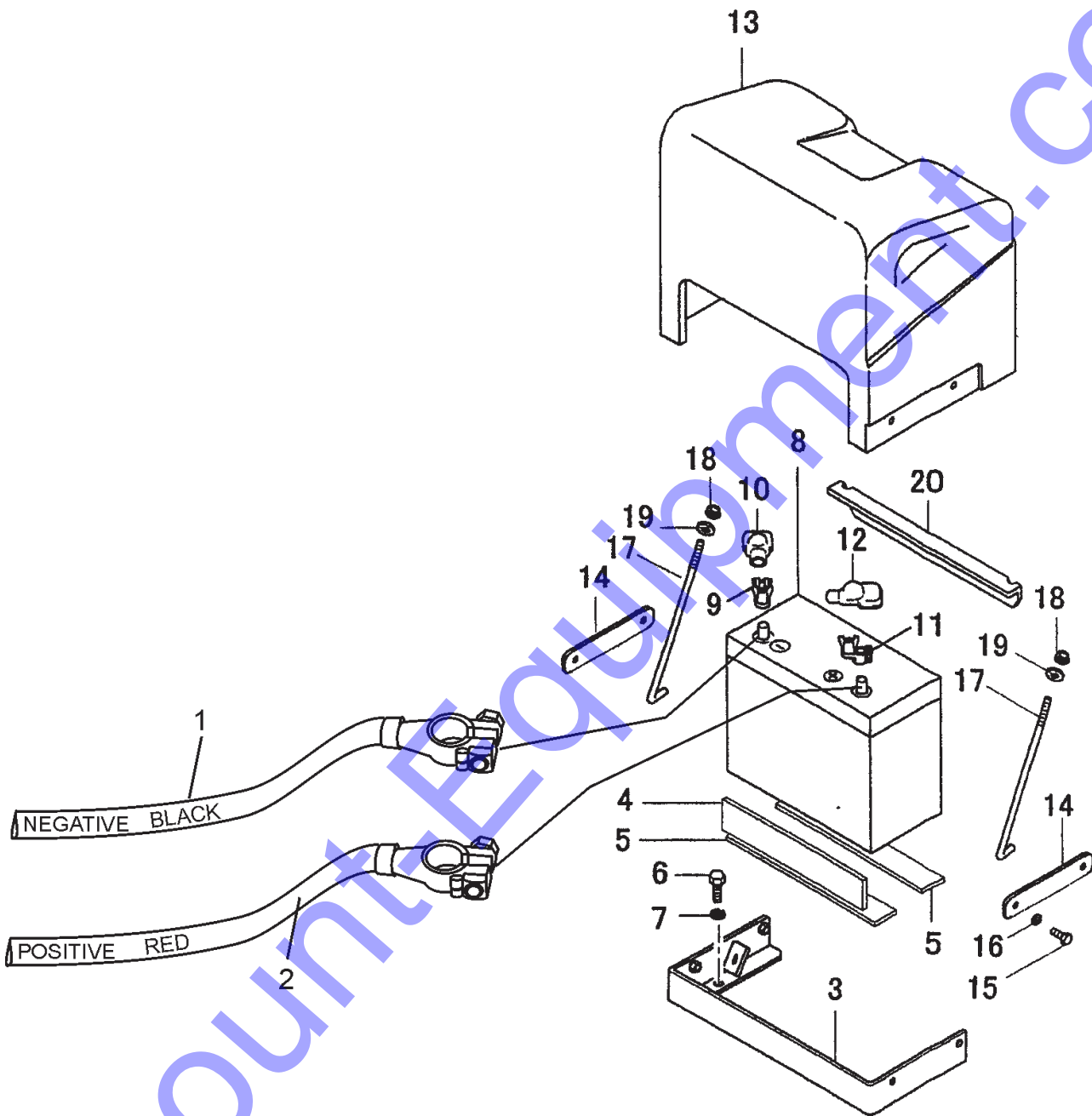
# HAND PUMP ASSY.



## HAND PUMP ASSY.

| <b>NO.</b> | <b>PART NO.</b> | <b>PART NAME</b>              | <b>QTY.</b> | <b>REMARKS</b>         |
|------------|-----------------|-------------------------------|-------------|------------------------|
| B%         | 464910040       | ACCUMULATOR                   | 1           |                        |
| C%         | 464910080       | O-RING DUST, SEAL, SET .....  | 1           | INCLUDES ITEMS W/#     |
| 2%         | 464010040       | CONTROL SHAFT                 | 1           |                        |
| 3%         | 464010050       | BUSH                          | 2           |                        |
| 4%         | 464010060       | CAM                           | 1           |                        |
| 9%         | 464010070       | STOPPER                       | 2           |                        |
| 10%        | 099205005       | SOCKET HEAD SCREW 5X5 T       | 2           |                        |
| 11%        | 464010080       | PLUG                          | 1           |                        |
| 12%        | 464010090       | PIN,STOPPER                   | 2           |                        |
| 13%        | 464010100       | PLUG                          | 2           |                        |
| 14%        | 458010080       | BREATHER                      | 1           |                        |
| 15%        | 014206020       | SOCKET HEAD BOLT 6X20 T ..... | 1           | REPLACES P/N 001520620 |
| 16#%       | 050200200       | O-RING P-20                   | 2           |                        |
| 17#%       | 050210220       | O-RING P-22 .....             | 2           | REPLACES P/N 050200220 |
| 18#%       | 050300380       | O-RING S-38                   | 1           |                        |
| 19#        | 050200180       | O-RING P-18                   | 1           |                        |
| 22%        | 464010111       | ACCUMULATOR CASE .....        | 1           | S/N N2419 AND ABOVE    |
| 26#%       | 050300400       | O-RING S-40                   | 1           |                        |
| 27#%       | 050200150       | O-RING P-15                   | 1           |                        |
| 28#%       | 050100400       | O-RING G-40                   | 1           |                        |
| 50%        | 464010120       | SPRING PLUG                   | 1           |                        |
| 51%        | 458451630       | BREATHER CAP                  | 1           |                        |
| 52#%       | 069904010       | DUST SEAL SER-40 .....        | 1           | S/N N2419 AND ABOVE    |
| 53#%       | 069901010       | DUST SEAL SER-15              | 1           | S/N N2419 AND ABOVE    |
| 81%        | 984010060       | SPRING COMPRESSION TOOL       | 1           |                        |
| 82%        | 984010040       | DISASSEMBLING TOOL A          | 1           |                        |
| 83%        | 984010050       | DISASSEMBLING TOOL B          | 1           |                        |
| 84         | 464216721       | HAND PUMP ASSY. ....          | 1           | INCLUDES ITEMS W/%     |

# BATTERY ASSY.

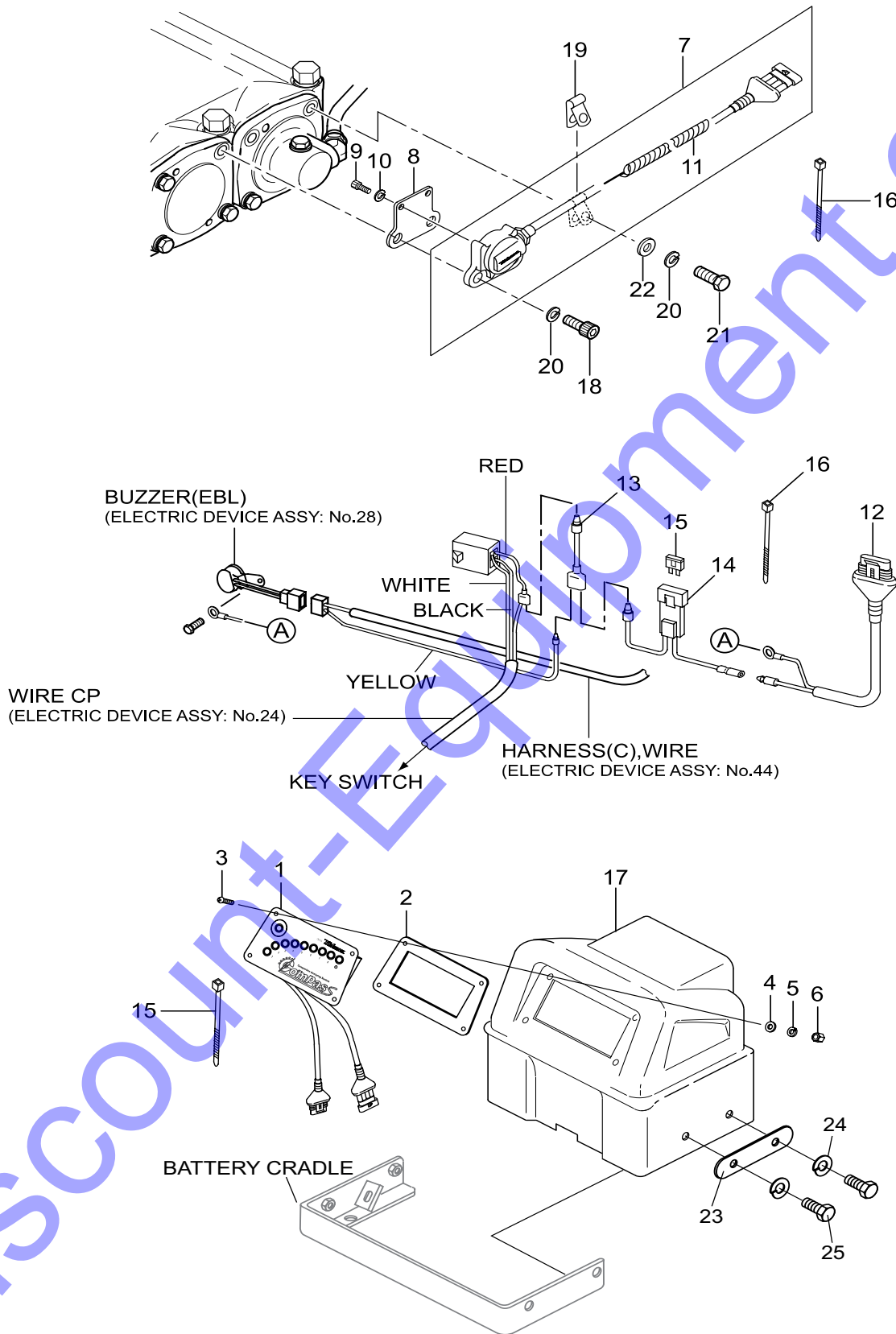


## BATTERY ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>               | <u>QTY.</u> | <u>REMARKS</u>         |
|------------|-----------------|--------------------------------|-------------|------------------------|
| 1          | 464457460       | BATTERY CORD (-) 400L          | 1           |                        |
| 2          | 464457470       | BATTERY CORD (+) 550L          | 1           |                        |
| 3          | 464216660       | CRADLE, BATTERY                | 1           |                        |
| 4          | 456447590       | RUBBER PLATE (E) 28X240X5      | 1           |                        |
| 5          | 456447600       | RUBBER PLATE 50X240X10         | 2           |                        |
| 6          | 012210020       | SOCKET HEAD BOLT 10X20 T ..... | 2           | REPLACES P/N 001221020 |
| 7          | 030210250       | WASHER, LOCK M10               | 2           |                        |
| 8          | 955010090       | BATTERY 55B24L                 | 1           |                        |
| 9          | 955300490       | BATTERY TERMINAL (-)           | 1           |                        |
| 10         | 955300470       | TERMINAL COVER (-)             | 1           |                        |
| 11         | 955300480       | BATTERY TERMINAL (+)           | 1           |                        |
| 12         | 955300460       | TERMINAL COVER (+)             | 1           |                        |
| 13         | 464021020       | COVER, BATTERY                 | 1           |                        |
| 14         | 464457410       | FIXED PLATE, BATTERY COVER     | 2           |                        |
| 15         | 011208025       | BOLT 8X25 T .....              | 4           | REPLACES P/N 001220825 |
| 16         | 030208200       | WASHER, LOCK M8                | 4           |                        |
| 17         | 464457390       | BATTERY BOLT                   | 2           |                        |
| 18         | 022710809       | NYLON NUT M8                   | 2           |                        |
| 19         | 0401450080      | WASHER, FLAT M8 .....          | 2           | REPLACES P/N 031108160 |
| 20         | 464343740       | HOLDER, BATTERY                | 1           |                        |



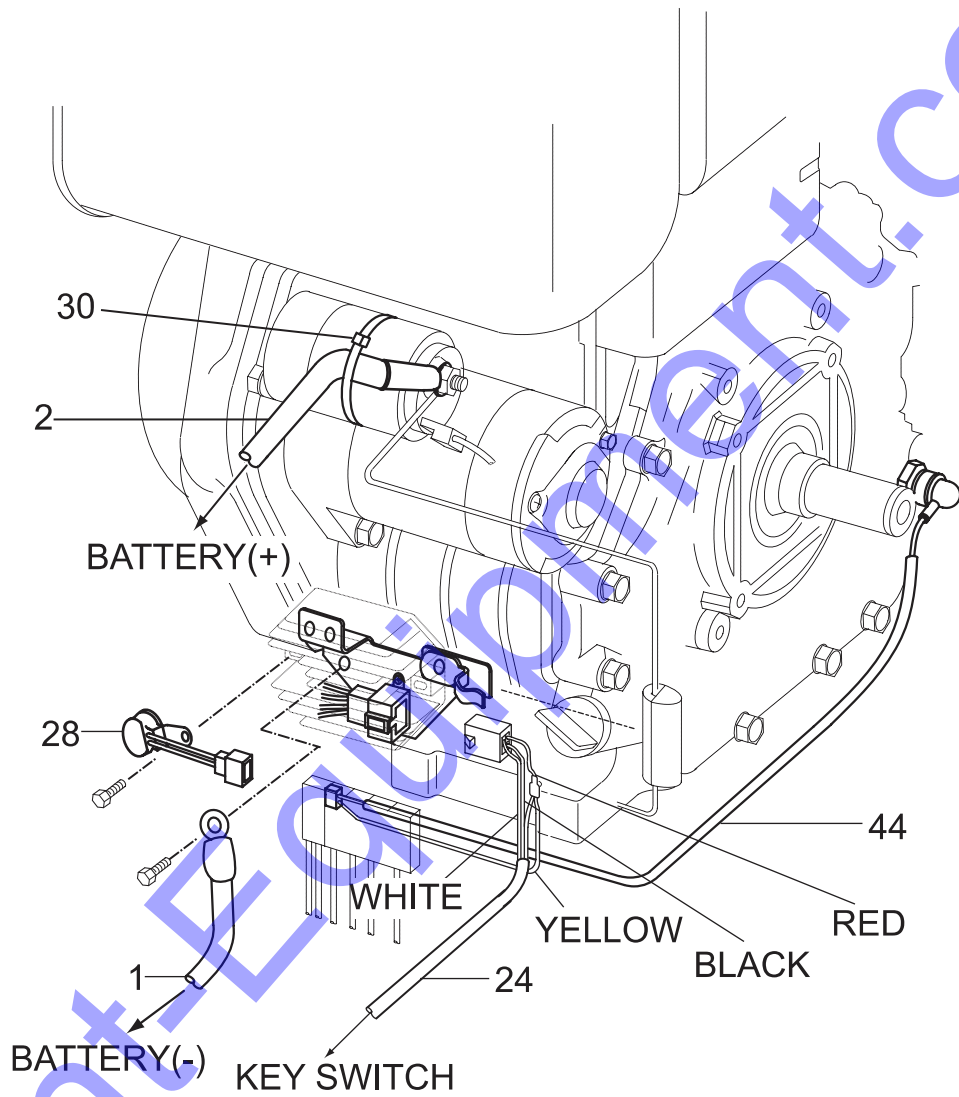
# COMPACTION ANALYZING SYSTEM ASSY. (MVH306DSCPAS)



## COMPACTION ANALYZING SYSTEM ASSY. (MVH306DSCPAS)

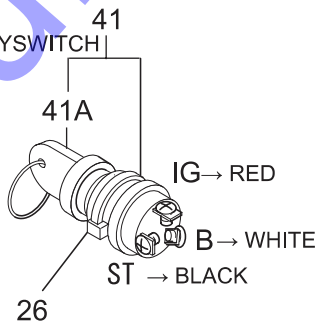
| NO. | PART NO.   | PART NAME                     | QTY.   | REMARKS                |
|-----|------------|-------------------------------|--------|------------------------|
| 1   | 465350490  | COMPACTION SENSOR PANEL       | 1      |                        |
| 2   | 464350510  | PACKING, SENSOR               | 1      |                        |
| 3   | 009110062  | SOCKET HEAD SCREW 6X20        | 4      |                        |
| 4   | 952404470  | WASHER, FLAT M6.....          | 4..... | REPLACES P/N 031106100 |
| 5   | 030206150  | WASHER, LOCK M6               | 4      |                        |
| 6   | 022710607  | NYLON NUT M6                  | 4      |                        |
| 7   | 464350500  | ACCELERATION SENSOR ASSY..... | 1..... | INCLUDES ITEMS W/ #    |
| 8   | 464464350  | SENSOR HOLDER COVER           | 1      |                        |
| 9   | H5HB051000 | SOCKET HEAD BOLT 5X10 T.....  | 2..... | REPLACES P/N 001520510 |
| 10  | 030205130  | WASHER, LOCK M5               | 2      |                        |
| 11# | 959021812  | SPIRAL TUBE 6D-800L           | 1      |                        |
| 12  | 464350390  | WIRE HARNESS, SENSOR          | 1      |                        |
| 13  | 515450380  | WIRE HARNESS                  | 1      |                        |
| 14  | 464464520  | FUSE HOLDER, SENSOR.....      | 1..... | INCLUDES ITEMS W/ %    |
| 15% | 464010140  | FUSE 2 AMP.....               | 1..... | MVH306DSCPAS           |
| 16  | 506010070  | CLAMP TC-150                  | 7      |                        |
| 17  | 464022020  | COVER, BATTERY.....           | 1..... | MVH306DSCPAS ONLY      |
| 18  | 001521030  | SOCKET HEAD BOLT 10X30 T      | 2      |                        |
| 19  | 959408330  | WIRE CLIP, SENSOR             | 1      |                        |
| 20  | 030210250  | WASHER, LOCK M10              | 3      |                        |
| 21  | 0105091025 | BOLT 10X25 T.....             | 1..... | REPLACES P/N 001221025 |
| 22  | 031110160  | WASHER, FLAT M10              | 1      |                        |
| 23  | 464457410  | FIXED PLATE, BATTERY COVER    | 2      |                        |
| 24  | 030208200  | WASHER, LOCK M8               | 4      |                        |
| 25  | 011208025  | BOLT 8X25 T.....              | 4..... | REPLACES P/N 001220825 |

# ELECTRIC DEVICE ASSY.



CONNECTION LIST

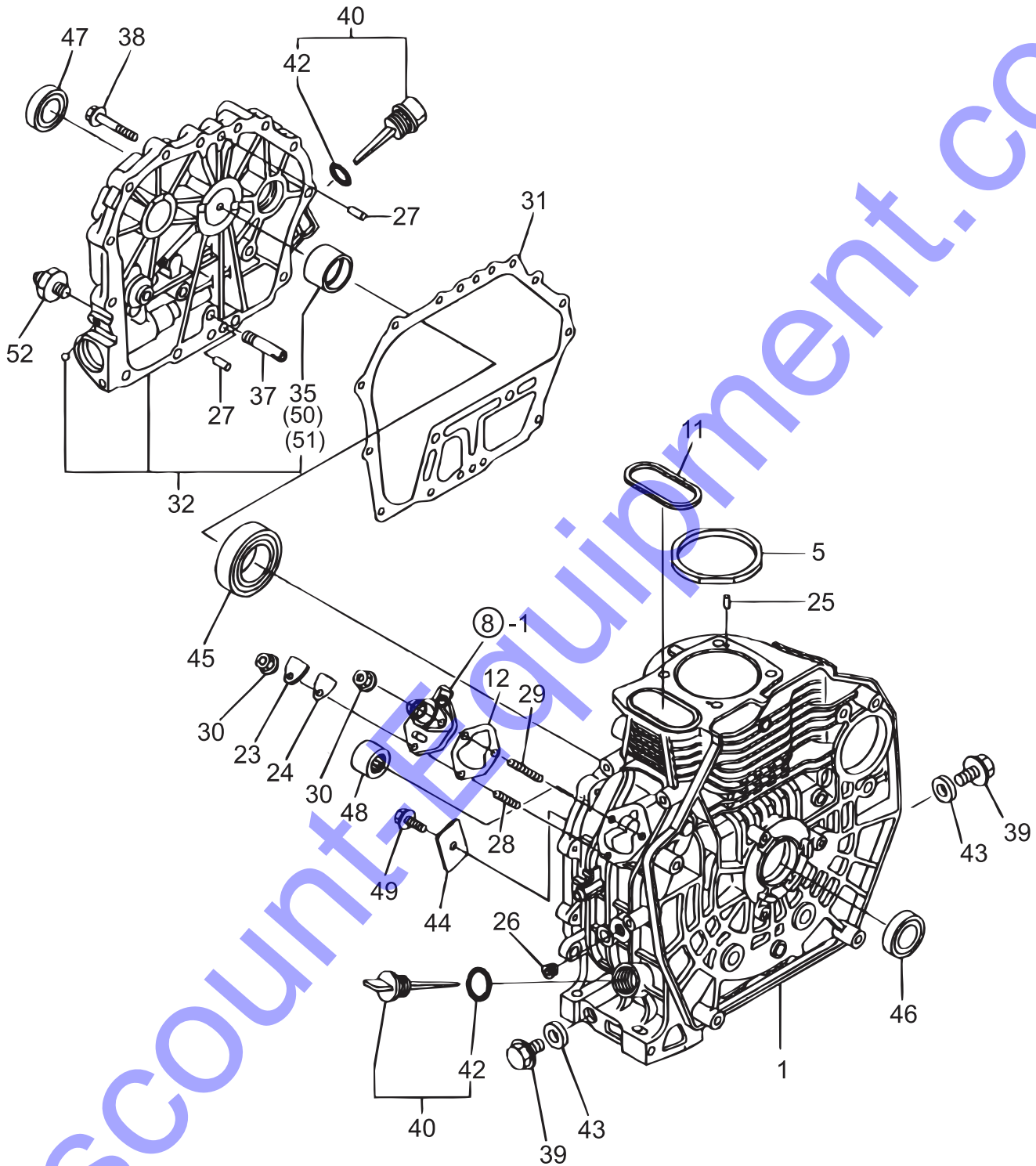
|     | B | IG | ST |
|-----|---|----|----|
| OFF |   |    |    |
| 1   | ● | ●  |    |
| 2   | ● | ●  | ●  |



## ELECTRIC DEVICE ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>          | <u>QTY.</u> | <u>REMARKS</u>      |
|------------|-----------------|---------------------------|-------------|---------------------|
| 1          | 464457460       | BATTERY CORD (-) 400L     | 1           |                     |
| 2          | 464457470       | BATTERY CORD (+) 550L     | 1           |                     |
| 24         | 464459260       | WIRE CP                   | 1           |                     |
| 26         | 454010020       | CLAMP TC-100              | 3           |                     |
| 28         | 955300400       | BUZZER (EBL)              | 1           |                     |
| 30         | 506010070       | CLAMP TC-150              | 1           |                     |
| 41         | 955300680       | IGNITION SWITCH ASSY..... | 1.....      | INCLUDES ITEMS W/ # |
| 41A#       | 955000010       | IGNITION KEY              | 1           |                     |
| 44         | 10519878570     | HARNESS (C), WIRE         | 1           |                     |

# YANMAR L70V6 — CYLINDER BLOCK ASSY.

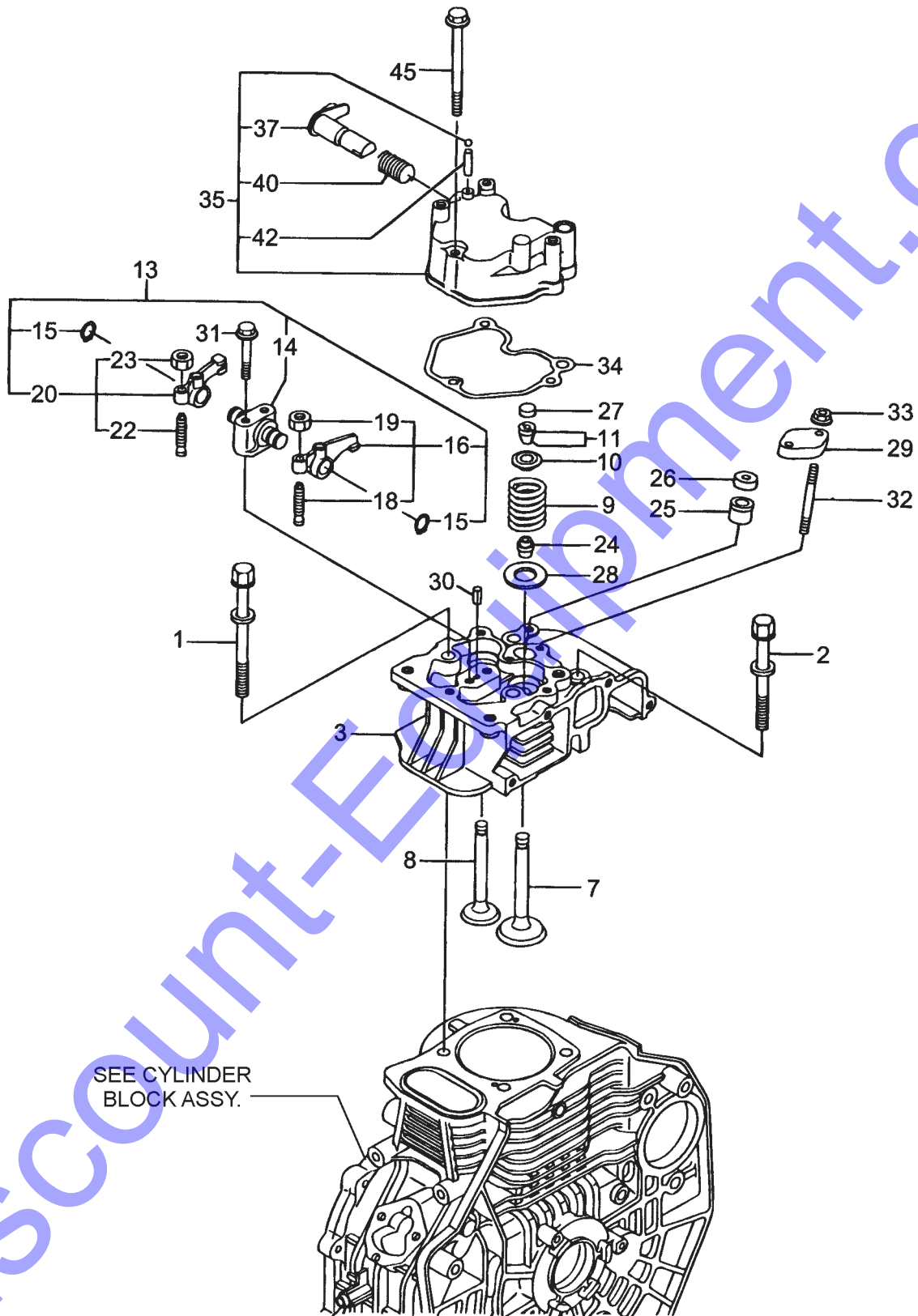


⑧-1 SEE FUEL INJECTION PUMP ASSY.

## YANMAR L70V6 — CYLINDER BLOCK ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>           | <u>QTY.</u> | <u>REMARKS</u>       |
|------------|-----------------|----------------------------|-------------|----------------------|
| 1          | 11421001010     | CYLINDER BLOCK ASSY.       | 1           |                      |
| 5          | 11439501330     | CYLINDER HEAD GASKET ASSY. | 1           |                      |
| 11         | 11435001380     | O-RING                     | 1           |                      |
| 12         | 11429901800     | SHIM SET                   | 1           |                      |
| 23         | 11429901830     | COVER (FO PUMP)            | 1           |                      |
| 24         | 11425001841     | GASKET                     | 1           |                      |
| 25         | 22312040080     | PIN 4X8 STRAIGHT           | 2           |                      |
| 26         | 23875020000     | PLUG PT 1/4 STEEL          | 1           |                      |
| 27         | 11429901600     | PIN, 8X12                  | 2           |                      |
| 28         | 26226060182     | STUD M6X18 PLATED          | 1           |                      |
| 29         | 26226060222     | STUD M6X22 PLATED          | 2           |                      |
| 30         | 26366060002     | NUT M6                     | 3           |                      |
| 31         | 11435001412     | CRANKCASE GASKET           | 1           |                      |
| 32         | 11421001460     | CRANKCASE COVER D .....    | 1           | INCLUDES ITEMS W/ \$ |
| 35\$       | 11435002100     | MAIN BEARING US=STD.       | 1           |                      |
| 37         | 11429935150     | L.O. INLET PIPE            | 1           |                      |
| 38         | 26106080352     | BOLT M 8X35 PLATED         | 15          |                      |
| 39         | 10542501690     | PLUG M16                   | 2           |                      |
| 40         | 11469901760     | OIL GAUGE CAP, W/LUB ..... | 2           | INCLUDES ITEMS W/ #  |
| 42#        | 24311000180     | O-RING                     | 2           |                      |
| 43         | 22190160002     | SEAL WASHER 16S            | 2           |                      |
| 44         | 11429902030     | RETAINER                   | 1           |                      |
| 45         | 11435002113     | BALL BEARING               | 1           |                      |
| 46         | 16011002220     | OIL SEAL                   | 1           |                      |
| 47         | 16011002220     | OIL SEAL                   | 1           |                      |
| 48         | 24162152116     | NEEDLE BEARING             | 1           |                      |
| 49         | 26106080122     | BOLT M8X12 PLATED          | 1           |                      |
| 50         | 11435002200     | MAIN BEARING US=0.25.....  | 1           | UNDERSIZED PART      |
| 51         | 11435002210     | MAIN BEARING US=0.50.....  | 1           | UNDERSIZED PART      |
| 52         | 12125239450     | OIL PRESSURE SENDER        | 1           |                      |

# YANMAR L70V6 — CYLINDER HEAD ASSY.

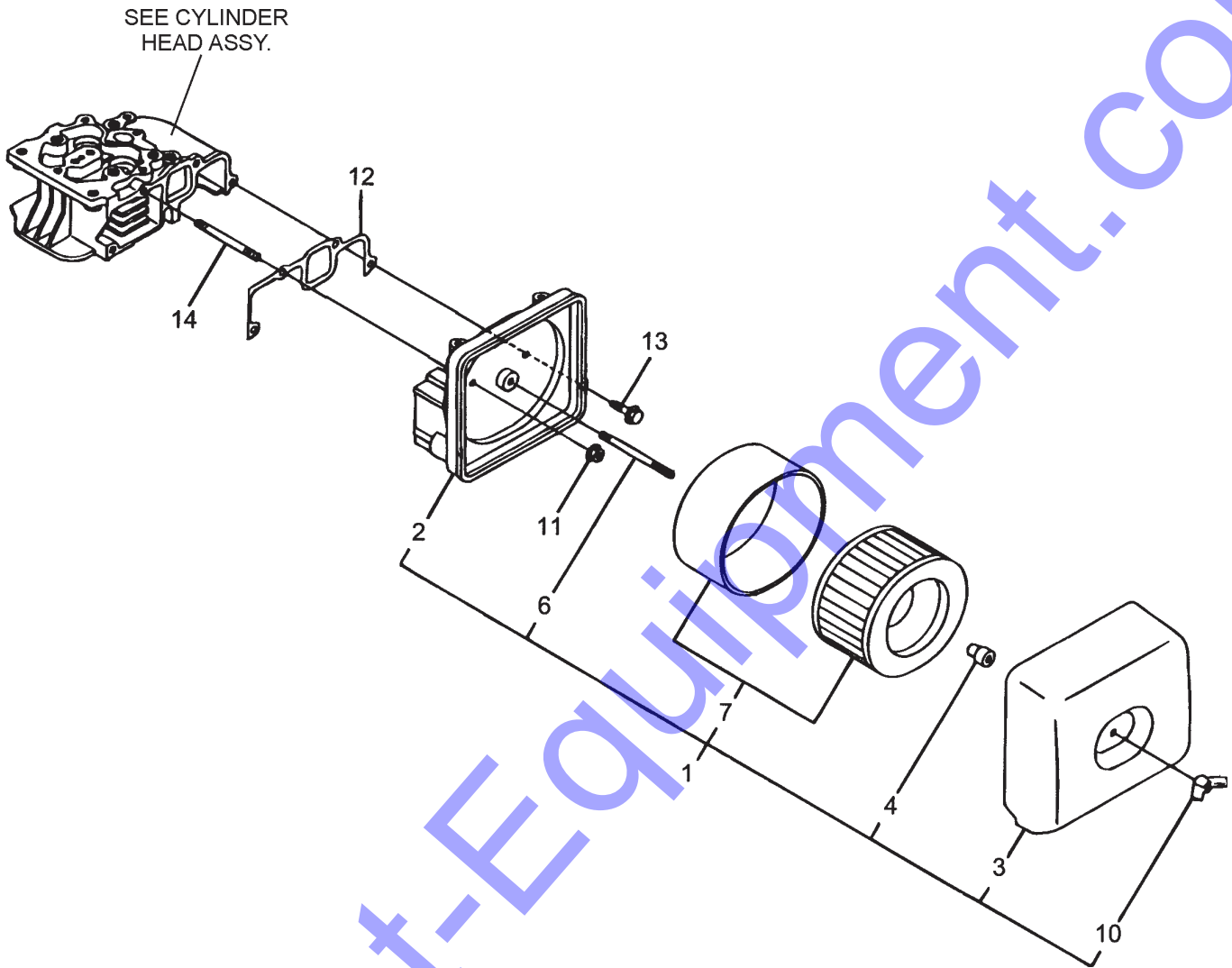


## YANMAR L70V6 — CYLINDER HEAD ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>           | <u>QTY.</u> | <u>REMARKS</u>       |
|------------|-----------------|----------------------------|-------------|----------------------|
| 1          | 11421001200     | CYLINDER HEAD A BOLT       | 2           |                      |
| 2          | 11421001210     | CYLINDER HEAD B BOLT       | 2           |                      |
| 3          | 11421011020     | CYLINDER HEAD ASSY.        | 1           |                      |
| 7          | 11421011100     | INTAKE VALVE               | 1           |                      |
| 8          | 11421011110     | EXHAUST VALVE              | 1           |                      |
| 9          | 11421011120     | VALVE SPRING               | 2           |                      |
| 10         | 11421011180     | SPRING RETAINER            | 2           |                      |
| 11         | 11421011930     | COTTER ASSY.               | 2           |                      |
| 13         | 11421011250     | SUPPORT ASSY. ROCKER ..... | 1           | INCLUDES ITEMS W/ #  |
| 14#        | 11421011260     | ROCKER ARM SUPPORT         | 1           |                      |
| 15#        | 11421011280     | C TYPE RETAINING PIN       | 2           |                      |
| 16#        | 11421011650     | INTAKE ARM ASSY. ....      | 1           | INCLUDES ITEMS W/ +  |
| 18#+       | 11429911240     | ADJUSTING SCREW            | 1           |                      |
| 19#+       | 26856060002     | LOCK NUT 6                 | 1           |                      |
| 20#        | 11421011660     | EXHAUST ARM ASSY. ....     | 1           | INCLUDES ITEMS W/ \$ |
| 22#\$      | 11429911240     | ADJUSTING SCREW            | 1           |                      |
| 23#\$      | 26856060002     | LOCK NUT 6                 | 1           |                      |
| 24         | 11435011340     | VALVE STEM SEAL            | 2           |                      |
| 25         | 11477111461     | NOZZLE GASKET              | 1           |                      |
| 26         | 11429511470     | NOZZLE SPACER              | 1           |                      |
| 27         | 10501011490     | VALVE CAP                  | 2           |                      |
| 28         | 11429911600     | VALVE SPRING WASHER        | 2           |                      |
| 29         | 11421011900     | NOZZLE RETAINER            | 1           |                      |
| 30         | 22351040008     | SPRING PIN 4X8             | 1           |                      |
| 31         | 26106060402     | BOLT M6X40 PLATED          | 2           |                      |
| 32         | 26226060552     | STUD M6X55                 | 2           |                      |
| 33         | 26366060002     | NUT M6                     | 2           |                      |
| 34         | 11421011310     | BONNET GASKET              | 1           |                      |
| 35         | 11421011950     | BONNET HEAD ASSY. ....     | 1           | INCLUDES ITEMS W/ %  |
| 37%        | 11421003590     | DECOMP SHAFT ASSY.         | 1           |                      |
| 40%        | 11429903640     | DECOMP SPRING              | 1           |                      |
| 42%        | 22312030160     | PARALLEL PIN 3X16          | 1           |                      |
| 45         | 26106060552     | BOLT M6X55 PLATED          | 1           |                      |



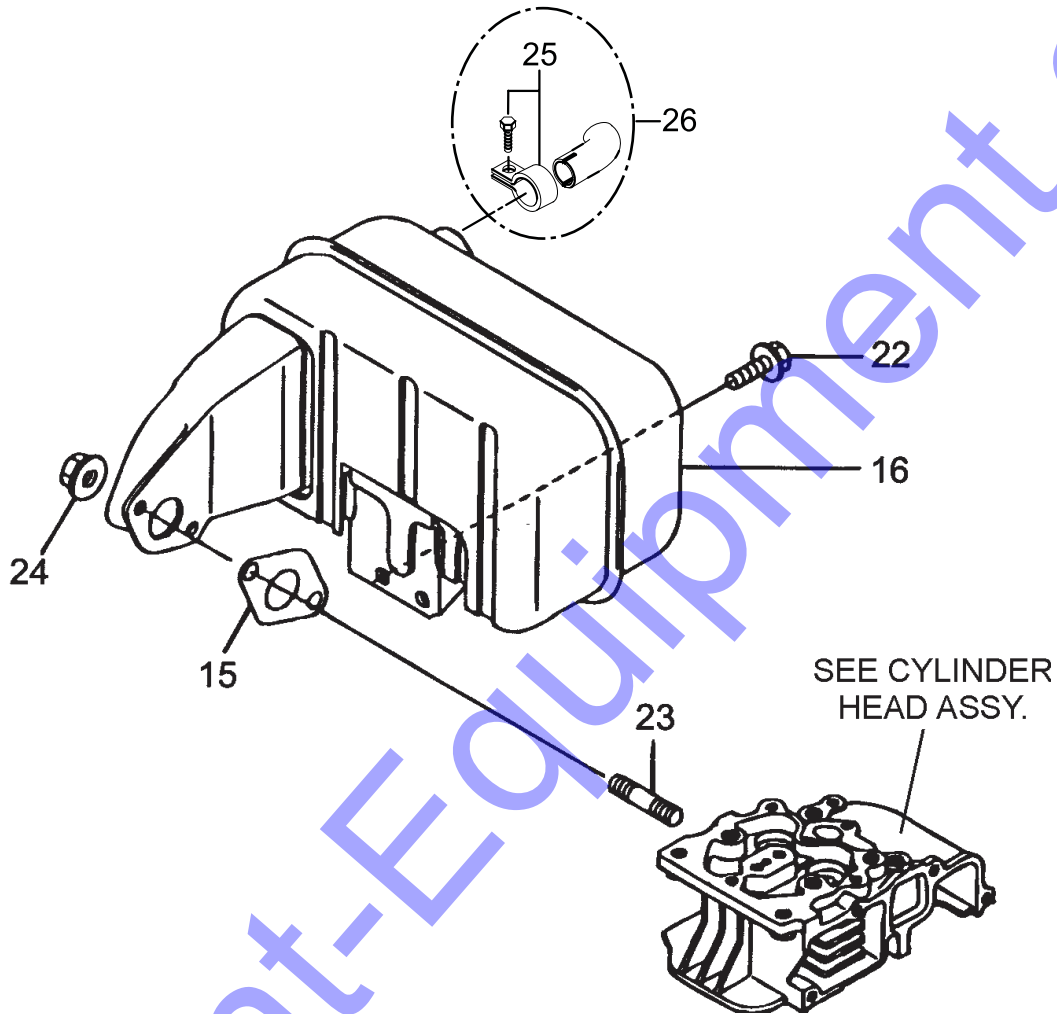
# YANMAR L70V6 — AIR CLEANER ASSY.



## YANMAR L70V6 — AIR CLEANER ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>      | <u>QTY.</u> | <u>REMARKS</u>     |
|------------|-----------------|-----------------------|-------------|--------------------|
| 1          | 11421012511     | AIR CLEANER ASSY..... | 1           | INCLUDES ITEMS W/# |
| 2#         | 11421012020     | AIR CLEANER BODY      | 1           |                    |
| 3#         | 11421012520     | AIR CLEANER COVER     | 1           |                    |
| 4#         | 11421012560     | WING NUT              | 1           |                    |
| 6#         | 11421012580     | STUD BOLT             | 1           |                    |
| 7#         | 11421012590     | ELEMENT ASSY.         | 1           |                    |
| 10#        | 11421012600     | KNOCKING KNOB         | 1           |                    |
| 11         | 11429912300     | U-NUT                 | 3           |                    |
| 12         | 11421012210     | AIR CLEANER GASKET    | 1           |                    |
| 13         | 26106060202     | BOLT M6X20 PLATED     | 1           |                    |
| 14         | 26226060302     | STUD M6X30            | 3           |                    |

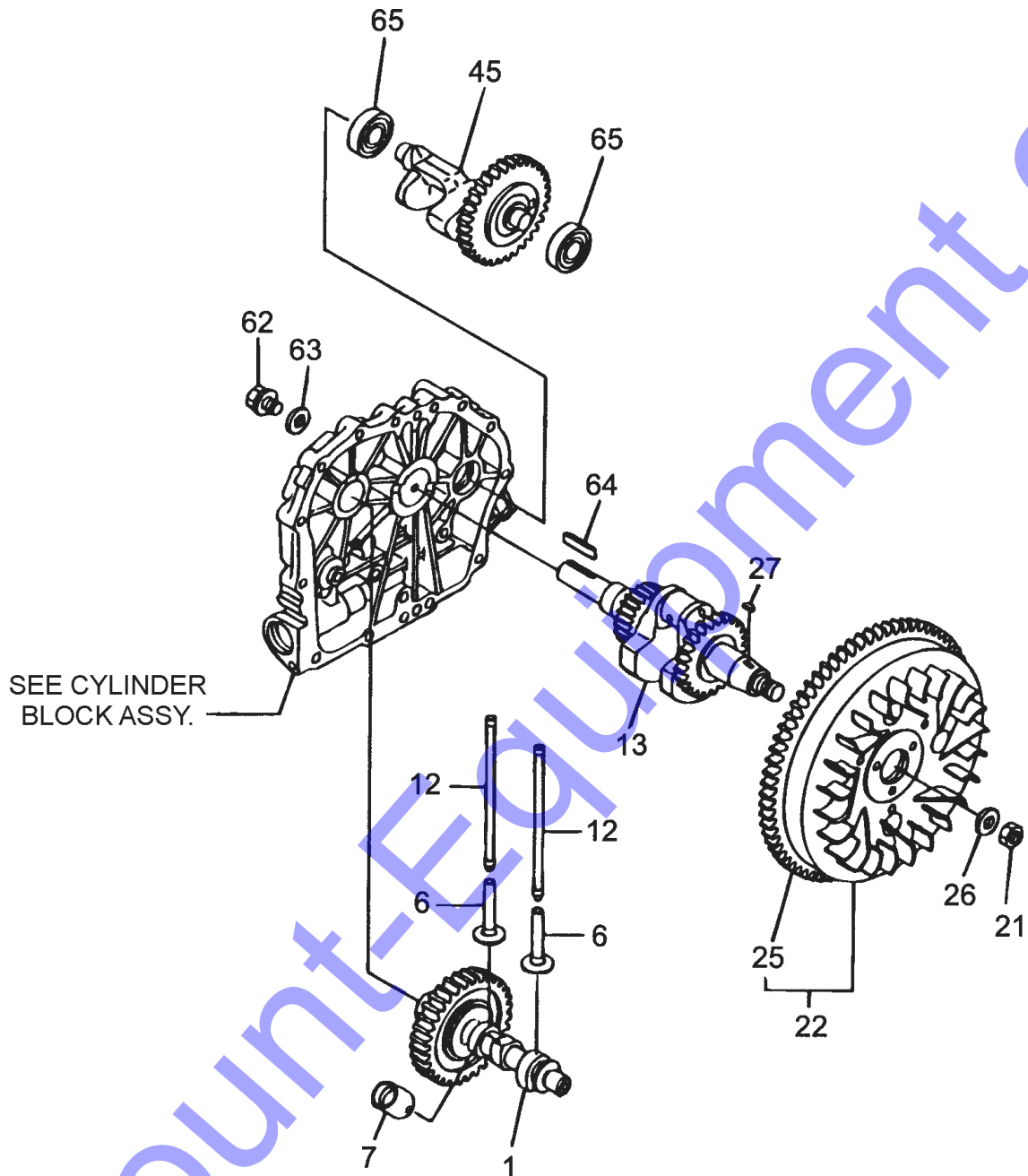
# YANMAR L70V6 — MUFFLER ASSY.



## YANMAR L70V6 — MUFFLER ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>  | <u>QTY.</u> | <u>REMARKS</u> |
|------------|-----------------|-------------------|-------------|----------------|
| 15         | 11429913200     | MUFFLER GASKET    | 1           |                |
| 16         | 11439913520     | MUFFLER ASSY.     | 1           |                |
| 22         | 26106060142     | BOLT M6X14 PLATED | 2           |                |
| 23         | 26216080182     | STUD M8X18 PLATED | 2           |                |
| 24         | 26366080002     | NUT M8            | 2           |                |
| 25         | 11424913600     | CLAMP             | 1           |                |
| 26         | 11425213910     | EXHAUST DEFECTOR  | 1           |                |

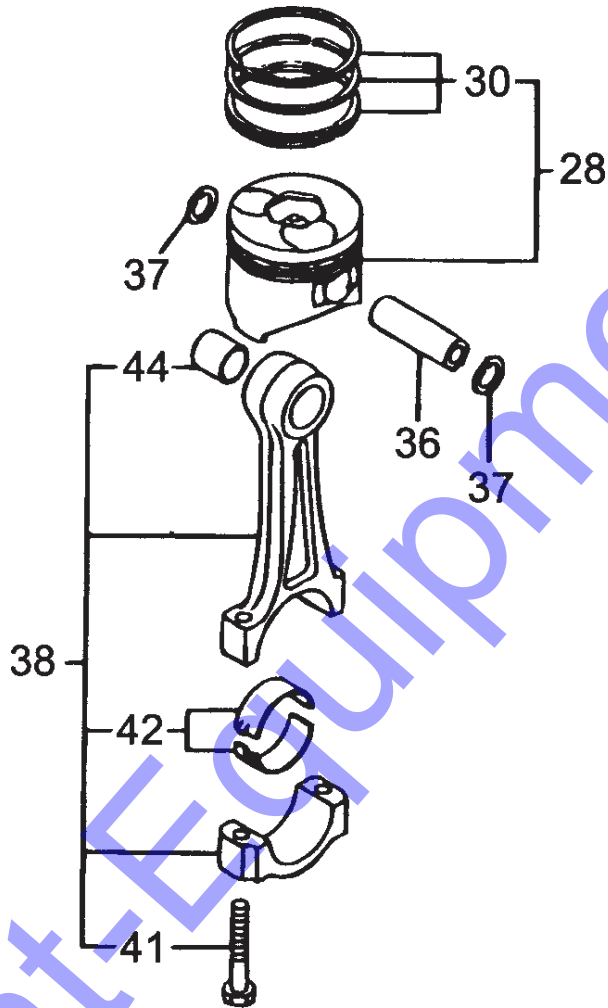
# YANMAR L70V6 — CRANKSHAFT AND CAMSHAFT ASSY.



## YANMAR L70V6 — CRANKSHAFT AND CAMSHAFT ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>        | <u>QTY.</u> | <u>REMARKS</u>     |
|------------|-----------------|-------------------------|-------------|--------------------|
| 1          | 71421014580     | CAMSHAFT ASSY.          | 1           |                    |
| 6          | 11421014200     | TAPPET                  | 2           |                    |
| 7          | 11421014300     | ROLLER TAPPET ASSY.     | 1           |                    |
| 12         | 11421014400     | PUSH ROD ASSY.          | 2           |                    |
| 13         | 71421021740     | CRANKSHAFT (D) ASSY.    | 1           |                    |
| 21         | 11429921220     | NUT                     | 1           |                    |
| 22         | 11439921590     | FLYWHEEL (DE) ASSY..... | 1.....      | INCLUDES ITEM W/ # |
| 25#        | 11436221600     | RING GEAR               | 1           |                    |
| 26         | 11429921550     | FLYWHEEL WASHER         | 1           |                    |
| 27         | 22512040120     | KEY 4X12                | 1           |                    |
| 45         | 71421028510     | BALANCER SHAFT ASSY.    | 1           |                    |
| 62         | 26106080202     | BOLT M 8X20 PLATED      | 1           |                    |
| 63         | 16031014550     | WASHER                  | 1           |                    |
| 64         | 22512070360     | KEY 7X36 RR             | 1           |                    |
| 65         | 24101062030     | BEARING                 | 2           |                    |

# YANMAR L70V6 — PISTON ASSY.

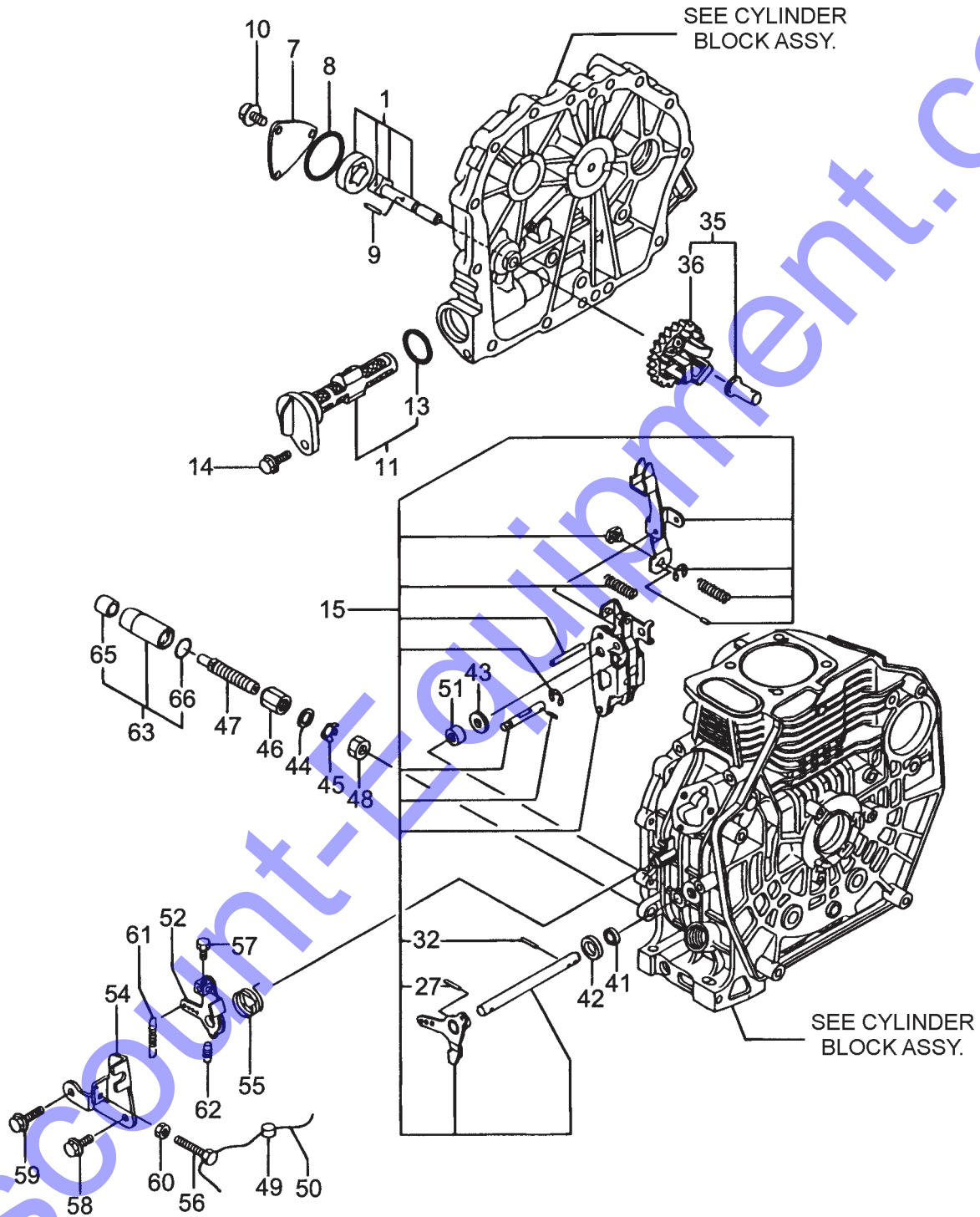


## YANMAR L70V6 — PISTON ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>                    | <u>QTY.</u> | <u>REMARKS</u>      |
|------------|-----------------|-------------------------------------|-------------|---------------------|
| 28         | 71421022720     | PISTON W/ RINGS STD.....            | 1.....      | INCLUDES ITEMS W/#  |
| 28         | 71421022620     | PISTON W/RINGS OS = 0.25 .....      | 1.....      | INCLUDES ITEMS W/\$ |
| 28         | 71421022580     | PISTON W/RINGS OS = 0.50 .....      | 1.....      | INCLUDES ITEMS W/%  |
| 30#        | 71487022502     | PISTON RINGS SET = STD.             | 1           |                     |
| 30\$       | 11487222140     | PISTON RING SET OS = 0.25           | 1           |                     |
| 30%        | 11487222150     | PISTON RING SET OS = 0.50           | 1           |                     |
| 36         | 11439922300     | PISTON PIN                          | 1           |                     |
| 37         | 22252000210     | CIRCLIP 21                          | 2           |                     |
| 38         | 71421023701     | CONNECTING ROD ASSY.....            | 1.....      | INCLUDES ITEMS W/@  |
| 41@        | 11820023200     | ROD BOLT                            | 2           |                     |
| 42@        | 11421023600     | CRANK PIN BEARING STD.              | 1           |                     |
| 42         | 11421023610     | CRANK BEARING PIN U.S. = 0.25 ..... | 1.....      | UNDERSIZED PART     |
| 42         | 11421023620     | CRANK BEARING PIN U.S. = 0.50 ..... | 1.....      | UNDERSIZED PART     |
| 44@        | 11438023910     | PISTON PIN BUSH                     | 1           |                     |



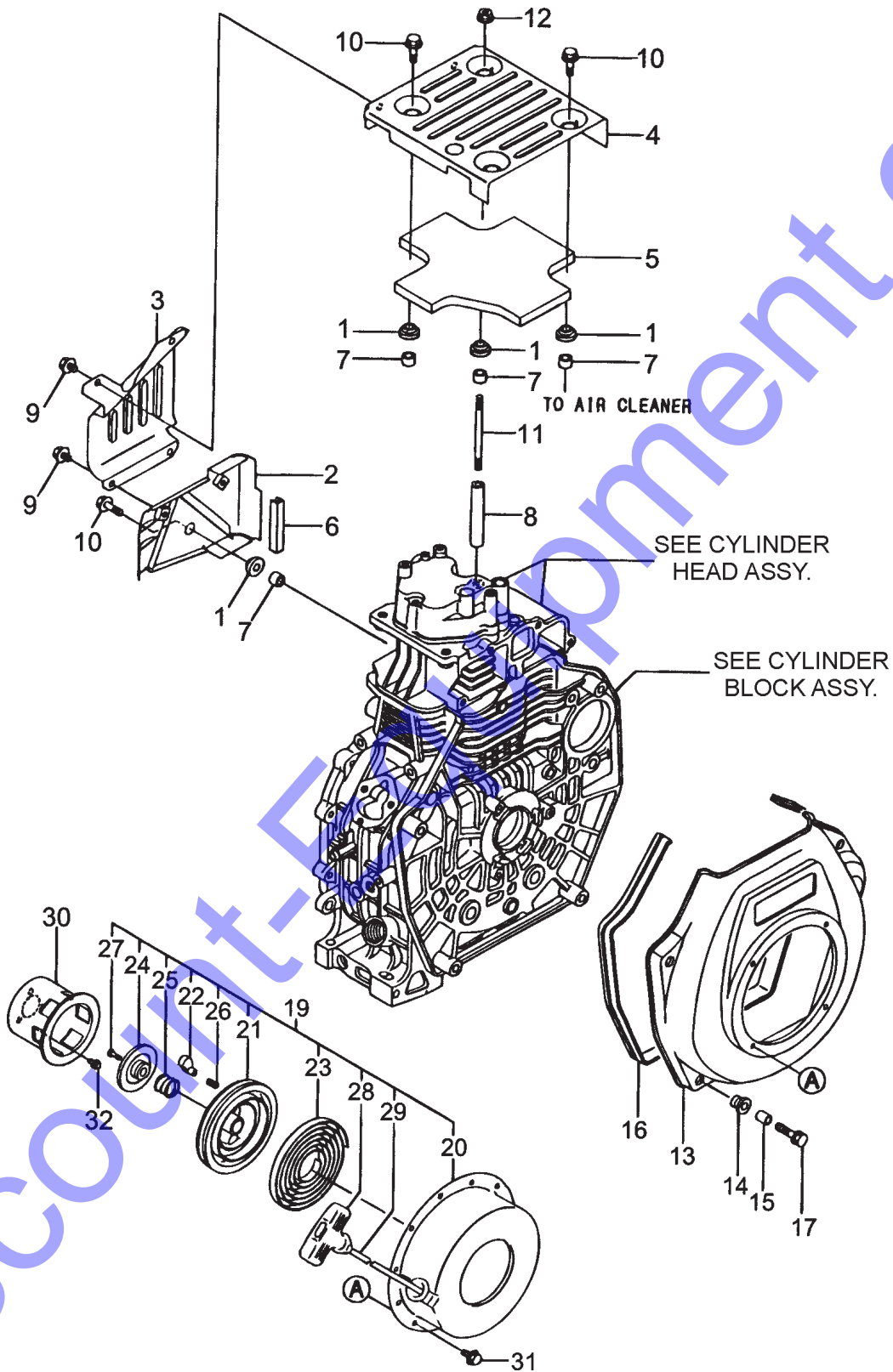
# YANMAR L70V6 — LUB OIL PUMP AND GOVERNOR ASSY.



# YANMAR L70V6 — LUB OIL PUMP AND GOVERNOR ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>              | <u>QTY.</u> | <u>REMARKS</u>       |
|------------|-----------------|-------------------------------|-------------|----------------------|
| 1          | 11425032010     | LUB. OIL PUMP ASSY.           | 1           |                      |
| 7          | 11429932070     | LUB. OIL PUMP COVER           | 1           |                      |
| 8          | 11429932570     | O-RING COVER                  | 1           |                      |
| 9          | 22312030160     | PARALLEL PIN 3X16             | 1           |                      |
| 10         | 26106060122     | BOLT M 6X12 PLATED            | 3           |                      |
| 11         | 11425035110     | LUBE OIL FILTER COMPLETE..... | 1           | INCLUDES ITEMS W/ \$ |
| 13\$       | 24341000224     | O-RING 1A S- 22.4             | 1           |                      |
| 14         | 26106060162     | BOLT M 6X16 PLATED            | 1           |                      |
| 15         | 11421061500     | LEVER ASSY. ....              | 1           | INCLUDES ITEMS W/ #  |
| 27#        | 22322030200     | TAPER PIN 3X20                | 1           |                      |
| 32#        | 22322030200     | TAPER PIN 3X20                | 1           |                      |
| 35         | 71421061700     | GOVERNOR ASSY. ....           | 1           | NCLUDES ITEMS W/ +   |
| 36+        | 11421061290     | GOVERNOR WEIGHT ASSY.         | 1           |                      |
| 41         | 11429961600     | OIL SEAL                      | 1           |                      |
| 42         | 11477061610     | THRUST WASHER                 | 1           |                      |
| 43         | 11429961190     | GOVERNOR WASHER               | 1           |                      |
| 44         | 11477161810     | PLAIN WASHER 14               | 1           |                      |
| 45         | 11477161830     | PLATE                         | 1           |                      |
| 46         | 11429561940     | NUT                           | 1           |                      |
| 47         | 11477166600     | FUEL LIMITER ASSY.            | 1           |                      |
| 48         | 11477166690     | NUT M14                       | 1           |                      |
| 49         | 11478061090     | LEAD                          | 1           |                      |
| 50         | 22451060000     | WIRE 0.6                      | 1           |                      |
| 51         | 11477061520     | NEEDLE BEARING                | 2           |                      |
| 52         | 11425266051     | REGULATOR HANDLE              | 1           |                      |
| 54         | 18336066110     | REGULATOR BRACKET             | 1           |                      |
| 55         | 11429966250     | RETURN SPRING                 | 1           |                      |
| 56         | 11429966440     | ADJUSTING BOLT                | 1           |                      |
| 57         | 10522566990     | SCREW                         | 1           |                      |
| 58         | 26106060142     | BOLT M 6X14 PLATED            | 1           |                      |
| 59         | 26106060202     | BOLT M 6X20 PLATED            | 1           |                      |
| 60         | 26756060002     | LOCK NUT M6 PLATED            | 1           |                      |
| 61         | 11421066010     | REGULATOR SPRING              | 1           |                      |
| 62         | 11429966200     | RETURN SPRING                 | 1           |                      |
| 63         | 11477161890     | PROTECTOR COMPLETE.....       | 1           | INCLUDES ITEMS W/ %  |
| 65%        | 11477161960     | SPACER                        | 1           |                      |
| 66%        | 24311000180     | O-RING 1A P- 18.0             | 1           |                      |

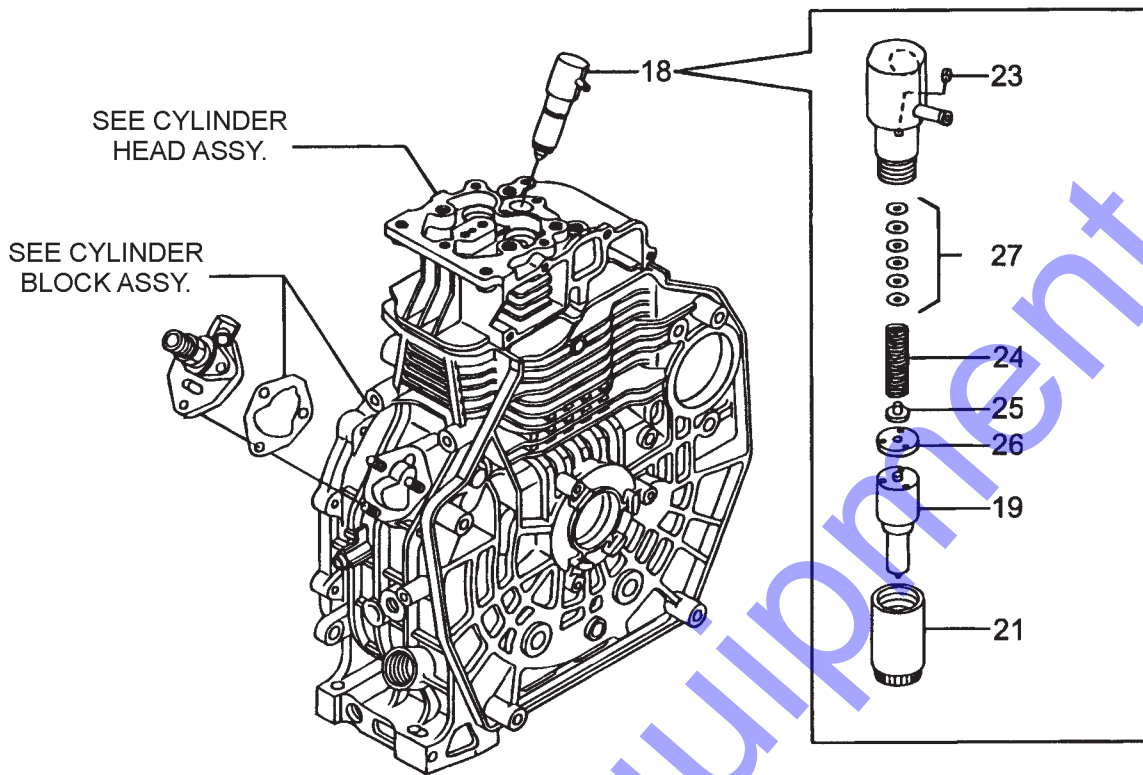
# YANMAR L70V6 — COOLING AND STARTING DEVICE ASSY.



## YANMAR L70V6 — COOLING AND STARTING DEVICE ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>              | <u>QTY.</u> | <u>REMARKS</u>      |
|------------|-----------------|-------------------------------|-------------|---------------------|
| 1          | 11429945220     | TANK GROMMET                  | 5           |                     |
| 2          | 11421045260     | SIDE COVER B (13)             | 1           |                     |
| 3          | 11421045270     | SIDE COVER A (13)             | 1           |                     |
| 4          | 11421045300     | TOP COVER, BLACK (13)         | 1           |                     |
| 5          | 11421045310     | DAMPER                        | 1           |                     |
| 6          | 11439945320     | SEAL RUBBER                   | 1           |                     |
| 7          | 11435045340     | CYLINDER COLLAR COVER         | 5           |                     |
| 8          | 11421045350     | TOP COVER SPACER              | 1           |                     |
| 9          | 26106060082     | BOLT M 6X 8 PLATED            | 4           |                     |
| 10         | 26106060202     | BOLT M 6X 20 PLATED           | 4           |                     |
| 11         | 26226060852     | BOLT STUD 6X85                | 1           |                     |
| 12         | 26366060002     | NUT M 6                       | 1           |                     |
| 13         | 11421045100     | FAN CASE (SILVER) (17)        | 1           |                     |
| 14         | 11429945300     | CUSHION RUBBER                | 4           |                     |
| 15         | 11429945310     | FAN CASE COLLAR               | 4           |                     |
| 16         | 11429945330     | FAN CASE SEAL                 | 1           |                     |
| 17         | 11429945350     | FAN CASE BOLT                 | 4           |                     |
| 19         | 11439976251     | RECOIL STARTER (D) ASSY. .... | 1           | INCLUDES ITEMS W/ # |
| 20#        | 11439976510     | STARTER CASE                  | 1           |                     |
| 21#        | 11439976521     | RECOIL REEL                   | 1           |                     |
| 22#        | 11439976530     | RATCHET                       | 1           |                     |
| 23#        | 11439976540     | SPIRAL SPRING                 | 1           |                     |
| 24#        | 11439976550     | RATCHET COVER                 | 1           |                     |
| 25#        | 11439976560     | SPRING                        | 1           |                     |
| 26#        | 11439976570     | RETURN SPRING                 | 1           |                     |
| 27#        | 11439976580     | SCREW                         | 1           |                     |
| 28#        | 11439976620     | STARTER KNOB                  | 1           |                     |
| 29#        | 11439976630     | STARTER ROPE                  | 1           |                     |
| 30         | 11439976590     | STARTER PULLEY                | 1           |                     |
| 31         | 26106060082     | BOLT M 6X 8 PLATED            | 4           |                     |
| 32         | 26106060122     | BOLT M 6X 12 PLATED           | 3           |                     |

# YANMAR L70V6 — FUEL INJECTION PUMP ASSY.



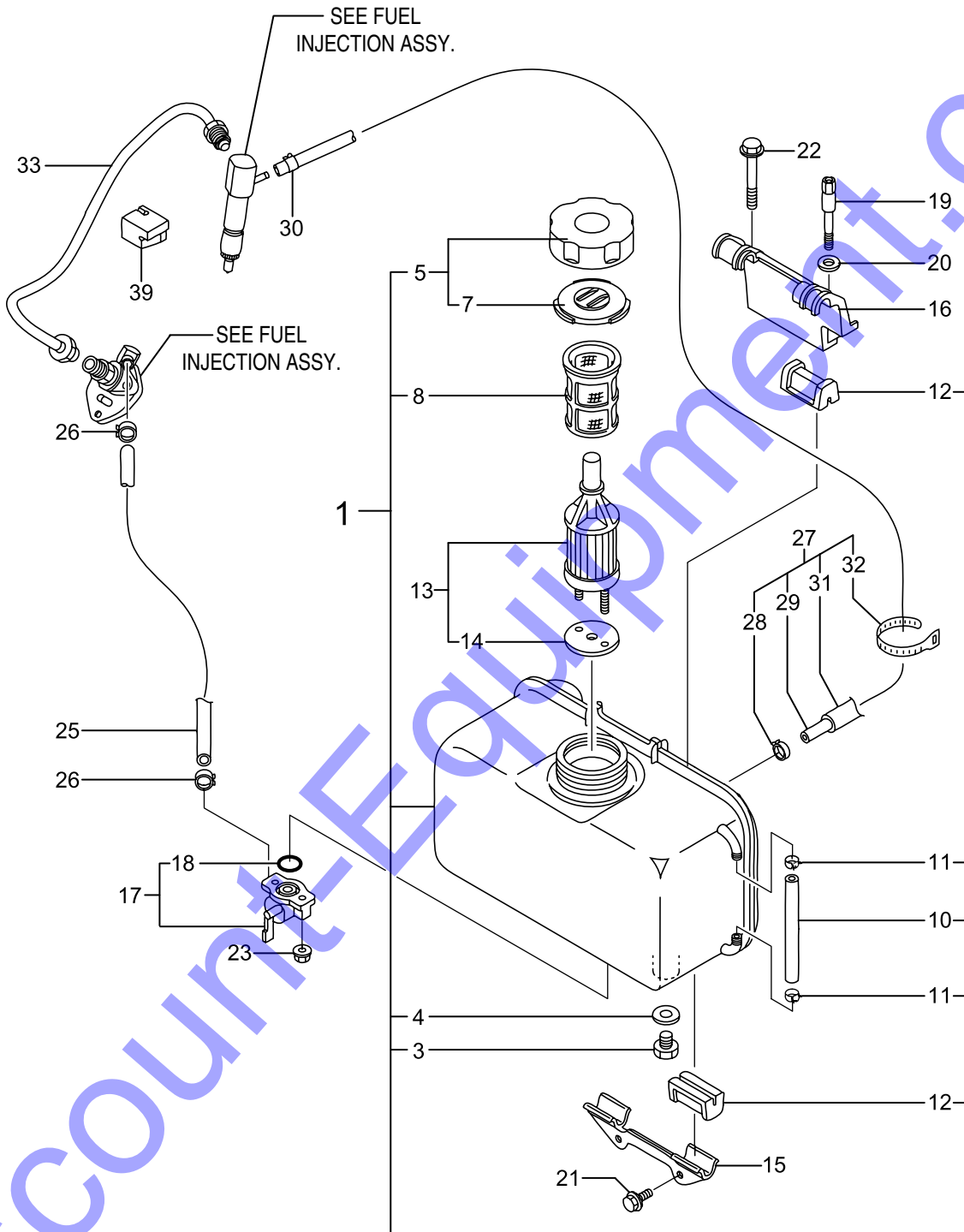
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- T=1 05
- T=1 10
- T=1 15
- T=1 20
- T=1 25
- T=1 30
- T=1 35
- T=1 40
- T=1 45
- T=1.50
- T=1 55
- T=1 60
- T=1 65
- T=1 70
- T=1 75
- T=1 80
- T=1 85
- T=1 90
- T=1 95
- T=2 00

SHIMS, USE AS  
REQUIRED FOR  
ITEM 27.

## YANMAR L70V6 — FUEL INJECTION PUMP ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>               | <u>QTY.</u> | <u>REMARKS</u>      |
|------------|-----------------|--------------------------------|-------------|---------------------|
| 1          | 71424951400     | FUEL INJECTION PUMP ASSY. .... | 1.....      | INCLUDES ITEMS W/*  |
| 18         | 71421053100     | FUEL INJECTOR.....             | 1.....      | INCLUDES ITEMS W/\$ |
| 19\$       | 11421053000     | NOZZLE ASSY.                   | 1           |                     |
| 21\$       | 11421053080     | NOZZLE NUT                     | 1           |                     |
| 23\$       | 11421053330     | PIN                            | 1           |                     |
| 24\$       | 11421053120     | NOZZLE SPRING                  | 1           |                     |
| 25\$       | 11421053130     | SPRING SEAT                    | 1           |                     |
| 26\$       | 11421053140     | VALVE SPACER ASSY.             | 1           |                     |
| 27\$       | 11421053410     | SHIM (T=1.00)                  | 1           |                     |
| 27         | 11421053420     | SHIM (T=1.05)                  | 1           |                     |
| 27         | 11421053430     | SHIM (T=1.10)                  | 1           |                     |
| 27         | 11421053440     | SHIM (T=1.15)                  | 1           |                     |
| 27         | 11421053450     | SHIM (T=1.20)                  | 1           |                     |
| 27         | 11421053460     | SHIM (T=1.25)                  | 1           |                     |
| 27         | 11421053470     | SHIM (T=1.30)                  | 1           |                     |
| 27         | 11421053480     | SHIM (T=1.35)                  | 1           |                     |
| 27         | 11421053490     | SHIM (T=1.40)                  | 1           |                     |
| 27         | 11421053500     | SHIM (T=1.45)                  | 1           |                     |
| 27         | 11421053510     | SHIM (T=1.50)                  | 1           |                     |
| 27         | 11421053520     | SHIM (T=1.55)                  | 1           |                     |
| 27         | 11421053530     | SHIM (T=1.60)                  | 1           |                     |
| 27         | 11421053540     | SHIM (T=1.65)                  | 1           |                     |
| 27         | 11421053550     | SHIM (T=1.70)                  | 1           |                     |
| 27         | 11421053560     | SHIM (T=1.75)                  | 1           |                     |
| 27         | 11421053570     | SHIM (T=1.80)                  | 1           |                     |
| 27         | 11421053580     | SHIM (T=1.85)                  | 1           |                     |
| 27         | 11421053590     | SHIM (T=1.90)                  | 1           |                     |
| 27         | 11421053600     | SHIM (T=1.95)                  | 1           |                     |
| 27         | 11421053610     | SHIM (T=2.00)                  | 1           |                     |

# YANMAR L70V6 — FUEL TANK AND FUEL LINE ASSY.

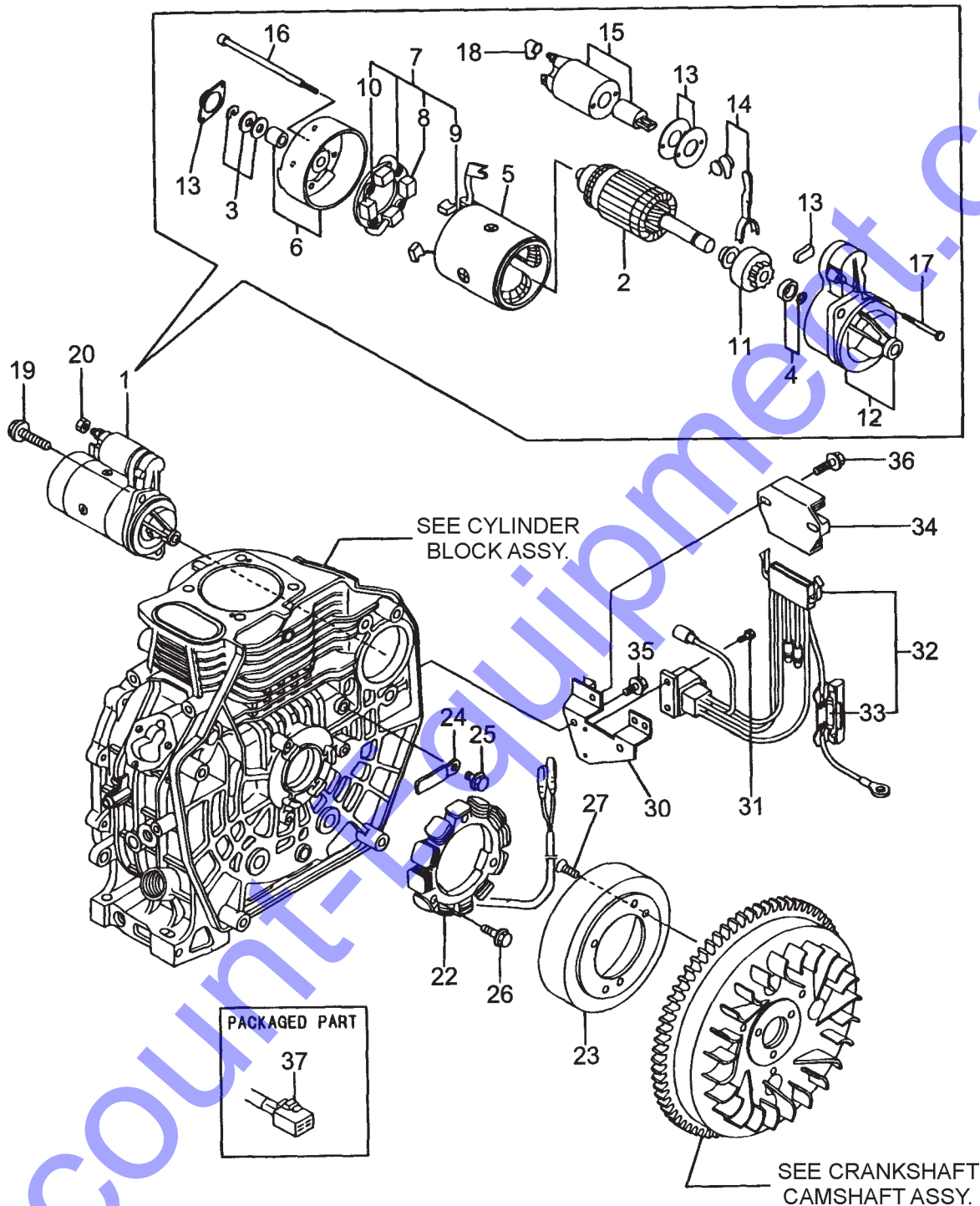


## YANMAR L70V6 — FUEL TANK AND FUEL LINE ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>         | <u>QTY.</u> | <u>REMARKS</u>       |
|------------|-----------------|--------------------------|-------------|----------------------|
| 1          | 71424955020     | FUEL TANK, BLACK.....    | 1.....      | INCLUDES ITEMS W/@   |
| 3@         | 11429955080     | DRAIN PLUG               | 1           |                      |
| 4@         | 23414080000     | PACKING 8                | 1           |                      |
| 5@         | 11428855041     | FUEL TANK CAP ASSY. .... | 1.....      | INCLUDES ITEMS W/+   |
| 7@+        | 11428855081     | CAP VALVE                | 1           |                      |
| 8          | 11425055100     | FILTER, FUEL             | 1           |                      |
| 10         | 11435055150     | PIPE GUAGE               | 1           |                      |
| 11         | 10385455220     | CLAMP                    | 2           |                      |
| 12         | 11425055201     | FUEL TANK DAMPER         | 4           |                      |
| 13         | 11423955120     | FUEL FILTER.....         | 1.....      | INCLUDES ITEMS W/#   |
| 14#        | 11425055130     | GASKET                   | 1           |                      |
| 15         | 11421055210     | FUEL TANK STAY A         | 1           |                      |
| 16         | 11421055230     | FUEL TANK STAY B         | 1           |                      |
| 17         | 11424055300     | FUEL COCK ASSY. ....     | 1.....      | INCLUDES ITEMS W/ \$ |
| 18\$       | 24341000150     | O-RING 1A S- 15.0        | 1           |                      |
| 19         | 11421055810     | LIFTING BOLT             | 1           |                      |
| 20         | 22117080000     | WASHER 8                 | 1           |                      |
| 21         | 26106060162     | BOLT M 6X 16 PLATED      | 2           |                      |
| 22         | 26106080452     | BOLT M 8X 45 PLATED      | 1           |                      |
| 23         | 26366060002     | NUT M6                   | 2           |                      |
| 25>        | 11478059060     | FUEL OIL PIPE            | 1           |                      |
| 26>        | 23080014000     | CLAMP 14                 | 2           |                      |
| 27         | 11423959300     | RETURN PIPE ASSY.....    | 1.....      | INCLUDES ITEMS W/%   |
| 28%        | 12472259050     | CLAMP 9                  | 1           |                      |
| 29%        | 11465059060     | FUEL RETURN PIPE         | 1           |                      |
| 30         | 12406659100     | CLAMP 8                  | 1           |                      |
| 31%        | 11465259310     | PROTECT TUBE             | 1           |                      |
| 32%        | 12175059890     | RETAINER                 | 1           |                      |
| 33         | 11421059800     | FUEL INJECTION PIPE      | 1           |                      |
| 39         | 11421059850     | INJECTION PIPE SUPPORT   | 1           |                      |



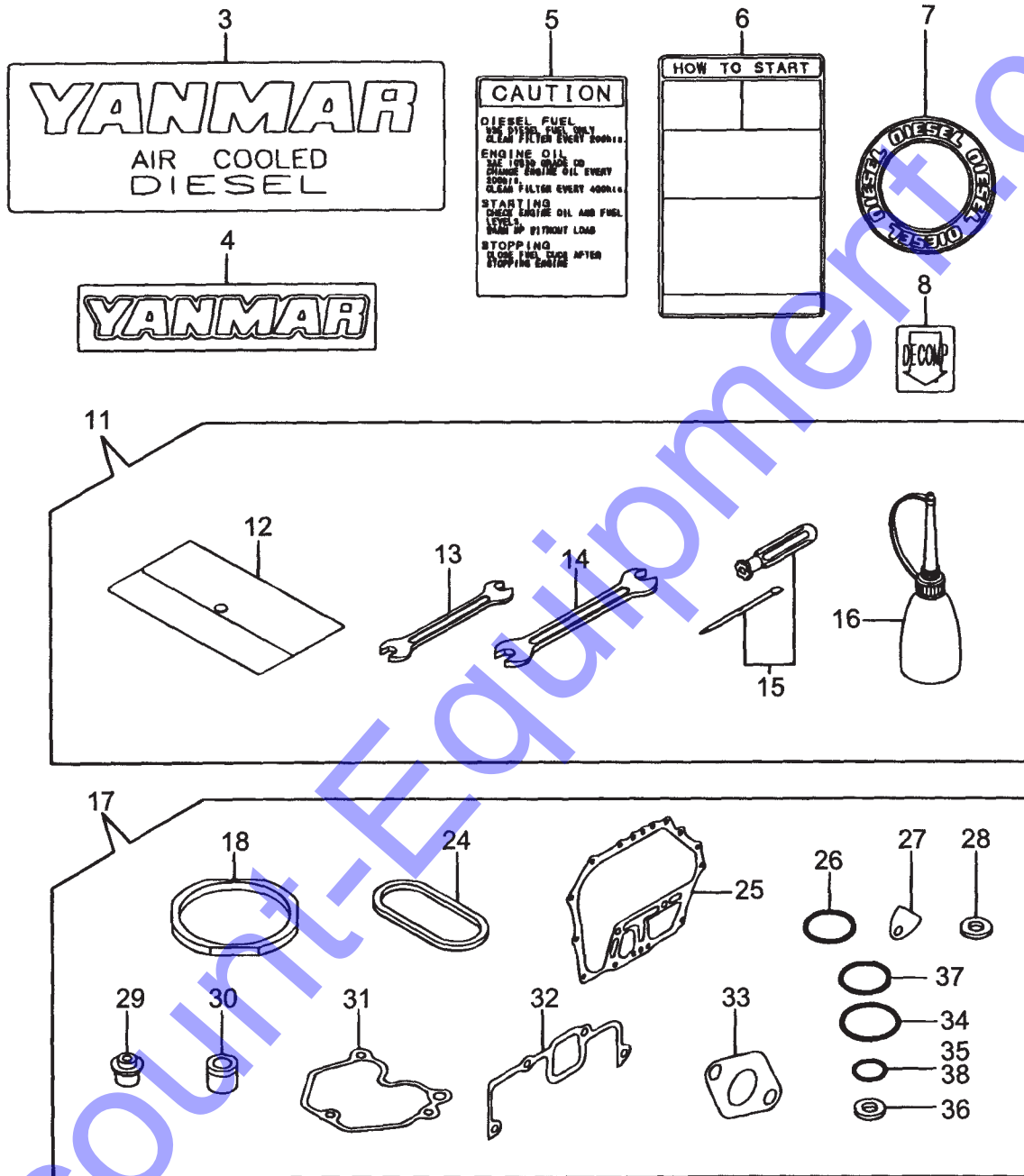
# YANMAR L70V6 — STARTING MOTOR AND DYNAMO ASSY.



# YANMAR L70V6 — STARTING MOTOR AND DYNAMO ASSY.

| NO.    | PART NO.    | PART NAME              | QTY. | REMARKS              |
|--------|-------------|------------------------|------|----------------------|
| 1      | 71436277011 | STARTER.....           | 1    | INCLUDES ITEMS W/ \$ |
| 2 \$   | 11438177110 | ARMATURE               | 1    |                      |
| 3 \$   | X2114811000 | THRUST WASHER KIT      | 1    |                      |
| 4 \$   | X2114715500 | PINION STOPPER SET     | 1    |                      |
| 5 \$   | 11438177130 | FIELD COIL ASSY.       | 1    |                      |
| 6 \$   | 11438177140 | REAR COVER             | 1    |                      |
| 7 \$   | 11437177160 | BRUSH HOLDER ASSY..... | 1    | INCLUDES ITEMS W/#   |
| 8 \$#  | 11437179040 | BRUSH (-)              | 2    |                      |
| 9 \$#  | 11437179050 | BRUSH (+)              | 1    |                      |
| 10 \$# | 11437179060 | BRUSH SPRING           | 4    |                      |
| 11 \$  | X211445508  | PINION ASSY.           | 1    |                      |
| 12 \$  | 11438177151 | GEAR HOUSING ASSY.     | 1    |                      |
| 13 \$  | 11437177170 | DUST COVER KIT         | 1    |                      |
| 14 \$  | 11437177180 | SHIFT LEVER KIT        | 1    |                      |
| 15 \$  | 12969877020 | MAGNET SWITCH          | 1    |                      |
| 16 \$  | 11926077260 | THROUGH BOLT           | 2    |                      |
| 17 \$  | 11437179070 | BOLT M6X37             | 2    |                      |
| 18 \$  | 12125477810 | TERMINAL COVER         | 1    |                      |
| 19     | 26106100302 | BOLT M10X30 PLATED     | 2    |                      |
| 20     | 26716080002 | NUT M8                 | 1    |                      |
| 22     | 11439978730 | STATOR ASSY.           | 1    |                      |
| 23     | 11439978740 | DYNAMO WHEEL           | 1    |                      |
| 24     | 16026078700 | CORD CLAMP             | 1    |                      |
| 25     | 26106060122 | BOLT M6X12 PLATED      | 1    |                      |
| 26     | 26106060202 | BOLT M6X20 PLATED      | 3    |                      |
| 27     | 26577060152 | SCREW M6X15            | 3    |                      |
| 30     | 11434077400 | HARNESS BRACKET        | 1    |                      |
| 31     | 26023040102 | SCREW M4X10            | 2    |                      |
| 32     | 11435177540 | WIRE HARNESS .....     | 1    | INCLUDES ITEMS W/ %  |
| 33%    | 29411200000 | CARTRIDGE FUSE 20A     | 2    |                      |
| 34     | 11434077710 | REGULATOR              | 1    |                      |
| 35     | 26106060182 | BOLT M6X18 PLATED      | 2    |                      |
| 36     | 26106060202 | BOLT M6X20 PLATED      | 2    |                      |
| 37     | 11435177520 | JOINT                  | 1    |                      |

# YANMAR L70V6 — TOOL, LABEL, AND GASKET ASSY.



## YANMAR L70V6 — TOOL, LABEL, AND GASKET ASSY.

| <u>NO.</u> | <u>PART NO.</u> | <u>PART NAME</u>           | <u>QTY.</u> | <u>REMARKS</u>      |
|------------|-----------------|----------------------------|-------------|---------------------|
| 3          | 11429907100     | AIR COOLED LABEL           | 1           |                     |
| 4          | 11429907110     | YANMAR LABEL               | 1           |                     |
| 5          | 11421007120     | CAUTION LABEL              | 1           |                     |
| 6          | 11421007130     | HOW TO START- E LABEL      | 1           |                     |
| 7          | 11429907160     | DIESEL LABEL               | 1           |                     |
| 8          | 11421007200     | DECOMPRESSION LABEL        | 1           |                     |
| 11         | 11429992590     | TOOL ASSY. ....            | 1           | INCLUDES ITEMS W/ % |
| 12%        | 11429992600     | TOOL BAG                   | 1           |                     |
| 13%        | 11429992710     | WRENCH, BOX                | 1           |                     |
| 14%        | 11429992720     | WRENCH, BOX                | 1           |                     |
| 15%        | 11429992730     | DRIVER                     | 1           |                     |
| 16%        | 11429992740     | FUEL FITTING               | 1           |                     |
| 17         | 71421092600     | GASKET SET (NON- ASB)..... | 1           | INCLUDES ITEMS W/ # |
| 18#        | 11439501330     | CYLINDER HEAD GASKET ASSY. | 1           |                     |
| 24#        | 11435001380     | O-RING                     | 1           |                     |
| 25#        | 11435001412     | CRANK CASE GASKET          | 1           |                     |
| 26#        | 24311000180     | O-RING                     | 2           |                     |
| 27#        | 11425001841     | GASKET                     | 1           |                     |
| 28#        | 22190160002     | WASHER SEAL 16S            | 2           |                     |
| 29#        | 11435011340     | VALVE STEM SEAL            | 2           |                     |
| 30#        | 11477111461     | NOZZLE GASKET              | 1           |                     |
| 31#        | 11421011310     | BONNET GASKET              | 1           |                     |
| 32#        | 11421012210     | AIR CLEANER GASKET         | 1           |                     |
| 33#        | 11429913200     | MUFFLER GASKET             | 1           |                     |
| 34#        | 11429932570     | O-RING COVER               | 1           |                     |
| 35#        | 24341000100     | O-RING 1A S- 10.0          | 1           |                     |
| 36#        | 23414080000     | PACKING 8                  | 1           |                     |
| 37#        | 24341000224     | O-RING 1A S- 22.4          | 1           |                     |
| 38#        | 24341000150     | O-RING 1A S-15.0           | 1           |                     |

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