**Service Bulletin No. VR20050524 REV A**
**Subject: Engine Shock Mount Replacemnts**
**Model:P33/24/HHMR**
**Product Group: Walk-Behind Vibratory Roller**
**Date: 11/30/2005**

# SERVICE BULLETIN Group: VR

[X] **Mandatory** [ ] **Information** [ ] **Recommended Change**

## Series/Parts Affected:

**ENGINE SHOCK MOUNTS**

## Machines Affected

**P33/24HHMR S/N 1535201 ~1535796 (Hatz 2G40 Engine)**

## SERVICE INFORMATION

Field reports have documented shock mounts beneath the engine to show excessive wear, signs of breakage or may have been torn. This allows excessive engine movement that may lead to engine and component damage. This is a precautionary measure only, and units should be inspected for these conditions. Failure to inspect these shock mounts may cause ***severe engine damage***.

## SOLUTION

Perform the following inspection on all affected units ***immediately***. See the Procedure section for illustrated instructions.

- If one or more engine shock mounts shows failure – replace all (6) shock mounts – (note: the larger, stabilization shock mount on top of the engine is seldom affected).
- If the unit has been sold, contact the new owner and advise them of the need to inspect and or replace engine shock mounts.

Multiquip recommends that a qualified mechanic or an Authorized Service Center perform this modification. To locate a Multiquip Authorized Service Center nearest you, call 800-478-1244 or check for ASC locations on-line at www.multiquip.com.

## PARTS INFORMATION

| Quantity | Part # | Description | Remarks |
|---|---|---|---|
| 1 | 3-10135 | SHOCK MOUNT | |
| 5 | 63521 | SHOCK MOUNT | Studded Shock Mounts |

**Required Tools**

- Ratchet
- 13 and 17 mm sockets with extensions
- 13 and 17 mm combination wrenches
- Large Pry Bar
- Engine Hoist with chain/strap and lifting hook/eye.
- Screwdrivers Flat and Phillips
- Universal Allen-Wrench

## INSPECTION PROCEDURES

### Shock Mount Wear Verification

1. Grasp and unlock hood Latch (**A**), lift engine hood and pull back.
2. Using two service technicians, push the engine from side to side and verify if engine shock mounts are broken. If the engine ***moves excessively***, the shock mounts need to be replaced immediately. If the engine ***moves slightly***, then it can be determined the shock mounts are good and do not require replacement.

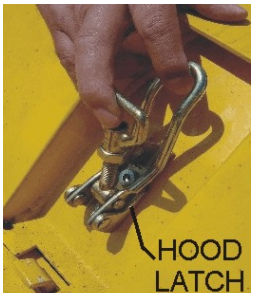


**Figure A**

## INSTALLATION INSTRUCTIONS

### Engine Hood Removal

1. Using a ratchet with a 17 mm socket, remove the top 3 hex bolts (**B**) on both sides of the hood.

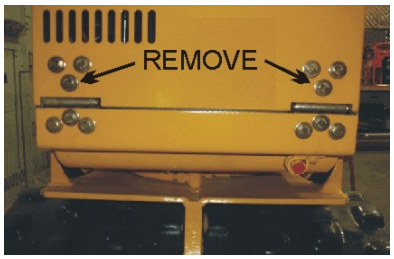


**Figure B**

2. Disconnect the pressurized shock rod (**C**) that supports the hood from the frame body.

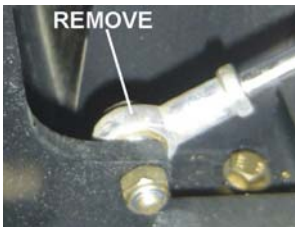


**Figure C**

3. Disconnect the hood support cable (**D**) from the frame and lift off the hood. Set hood and associated hardware aside in a safe place where they will not be damaged.

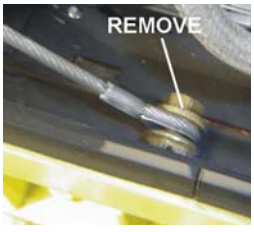


**Figure D**

## Battery and Electrical Components Removal

1. Disconnect the positive (+) and negative (–) battery cables (**E**) from the battery terminals. Remove the battery from the unit.


**Figure E**

2. Disconnect the electrical power connector (**F**) plug from the frame receptacle, by turning counterclockwise.

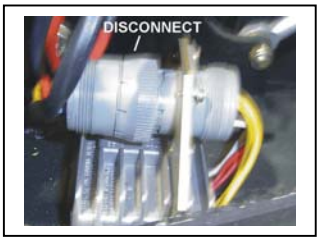


**Figure F**

3. Disconnect the wire (**G**) connected to the top of the fuse holder.


**Figure G**

## Battery Box Removal

1. Using a ratchet with a 17 mm socket and extension, remove the battery box (**H**) so that the oil switch connector on the backside is accessible.

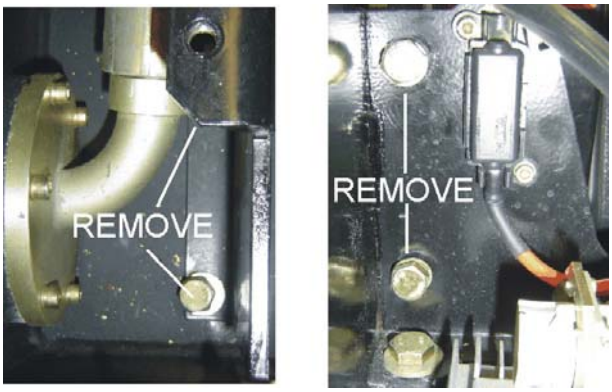


**Figure H**

2. There is an electrical oil switch (**I**) connector located behind the battery box, disconnect this connector. To disconnect the connector, the removal of the battery box is required. See the battery box removal procedure.


**Figure I**

## Engine Shroud Removal

1. Using a ratchet with a 13 mm socket with extension, remove the 4 screws (**J**) that secure the shroud to the flywheel side of the frame.
2. Once the 4 bolts have been removed from the flywheel side of the shroud (2 on each side located at the bottom of the shroud), there are still 3 more bolts to be removed. These bolts are located underneath the engine compartment at the front of the unit.


**Figure J**

3. Using a combination wrench, remove the 3 screws (**K**) that secure the shroud to the frame.

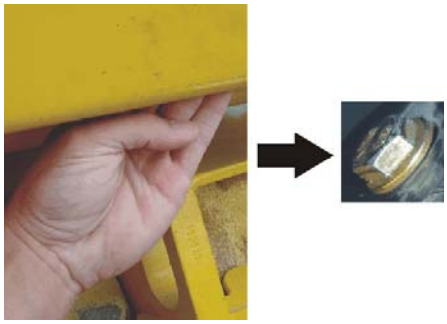

**Figure K**

4. Remove the engine shroud from the unit. Set shroud and associated hardware aside in a safe place where they will not be damaged.

## Air Cleaner Removal

1. Loosen clamp (**L**) that connects air cleaner hose to engine body. Pull air cleaner hose away from engine body. Set clamp aside.

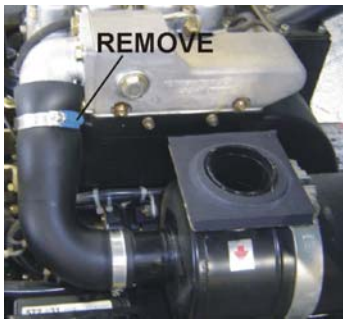


**Figure L**

2. Remove the screws and clamps **(M**) that secure the air cleaner to the support bracket.

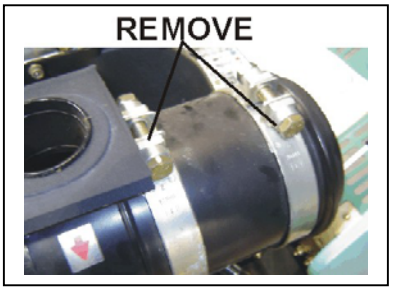


**Figure M**

3. Completely remove the air cleaner from the unit. Place air cleaner in a safe location where it will not get damaged.

### Starter Connector and Cable Removal

1. Disconnect all wires connected to the starter (**N**).

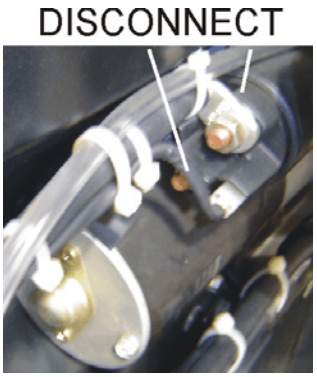


**Figure N**

### Throttle Cable Removal

1. Disconnect the throttle cable by loosening the jam nut (**O**) at one end of the cable and at the other end of the cable disconnect the cable from the clevis pin.

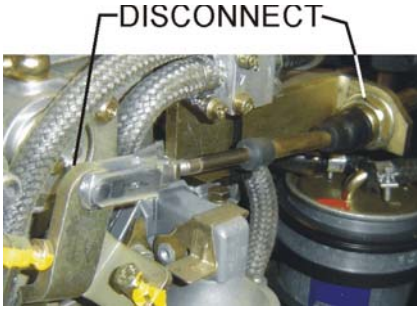


**Figure O**

### Fuel Line Removal

1. Disconnect the fuel line (**P**) from the fuel filter. Be careful when removing this line and wipe up any spilled fuel immediately. It may be necessary to the fuel filter to prevent the spillage of fuel.
2. Disconnect the fuel return line (**P1)** on the fuel tank side.


**Figure P**


**Figure P1**

### Access Panel Removal

1. At the top center of the unit, near the lifting hook, there is an access panel (**Q**). Remove the 4 screws that secure the access panel.
2. Lift the access panel upward from the unit and set aside in a safe place where it will not get damaged. Removal of the panel will allow for easy access when removing the top engine shock mount and support bracket.

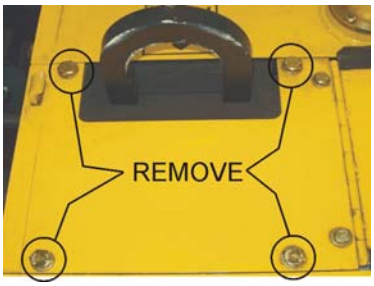


**Figure Q**

### Hydraulic Pump Support Bolts Removal

1. The hydraulic pump does not have to be removed from the unit, but the bolts that connect it to the engine bell housing need to be removed.
2. Using an universal allen wrench, remove the 4 allen head bolts (**R**) that secure the hydraulic pump to the engine. Removal of these bolts will allow the engine to move freely when hoisted.

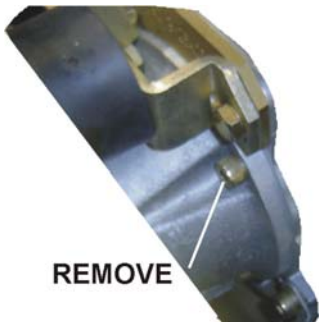


**Figure R**

### Pump and Engine Support Brackets

1. Remove the upper engine shock mount and support bracket (**S**) located at the top of the unit.

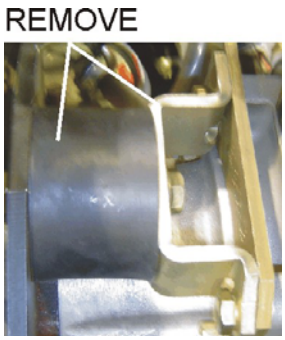


**Figure S**

### Oil Drain Hose Clamp Removal

1. Loosen oil drain hose clamp (**T**). Push oil drain hose inward when lifting of the engine is required.


**Figure T**

### Removal of Engine Shock Mount Hardware

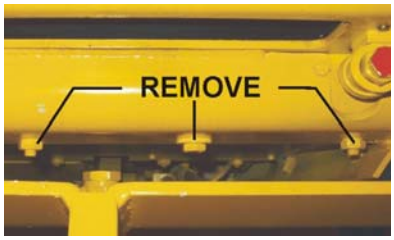


**Figure U**

1. Using a 17 mm combination wrench and ratchet remove all the nuts and bolts (**U**) securing the six engine shock mounts to frame. There are three shocks in the front of the unit and three in the rear.

### Engine Removal


**Figure V**

1. Insert a lifting eye or hook (**V**) into the engine body.
2. Attach a chain or strap to the lifting eye or hook on the engine.
3. Using a hoist of adequate lifting capability, lift the engine slowly from the unit being very ***careful not to bend or break the fan blades on the hydraulic pump.*** For best results it is advisable to place a support block underneath the pump while the engine is being lifted.
4. Remove all 6 engine shock mounts from the engine support plate/frame. If the shock mounts are stuck to the support plate (frame), use a pry bar to help loosen the shock mounts
5. Retain old or worn shock mounts for at least 90 days. Multiquip may request them for evaluation. **DO NOT** attempt to reuse shock mounts.

### Engine Installation

1. Perform this procedure in reverse order when re-installing the engine.
2. After the engine and all components have been re-installed, start the engine and look for any leaks, also listen for any abnormal sounds that might be associated with loose hardware.

## WARRANTY INFORMATION

Multiquip will pay a flat rate labor time of 4 hours if the engine shock mounts need replacing. If replacement parts are required, Warranty will pay for the labor and cost of those parts. Please keep any defective parts for 90 days in case we request them for evaluation.

**Campaign: Reference No. 20051026**

Please contact Chris Fairchild or George Manrique @ 1-800-421-1244 for warranty claim number and warranty form.

**Labor Allowance: Flat Rate to install – 4 HRS**