

## 2006 ENGINE

### Engine And Gearbox Suspension - Repair Instructions - M Coupe, M Roadster

## 11 ENGINE SUSPENSION

### 22 11 001 REPLACING RIGHT ENGINE MOUNT (S54)

Necessary preliminary tasks:

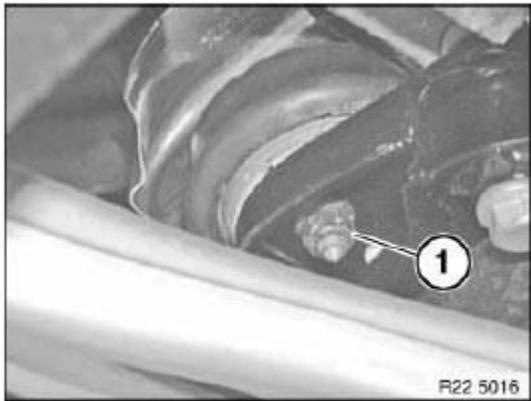
- Secure **ENGINE IN INSTALLATION POSITION (S54)** .
- Release engine mounts on left and right from above
- Remove **REINFORCEMENT PLATE** .
- Remove **FRONT UNDERBODY PROTECTION** .

Unscrew nut (1).

Tightening torque, see 22 11 1AZ in **ENGINE AND GEARBOX SUSPENSION - TIGHTENING TORQUES - M COUPE** .

*Installation:*

Replace nuts.



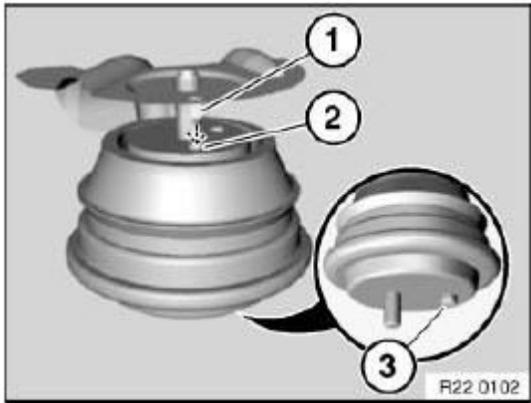
**Fig. 1: Identifying Nut**  
Courtesy of BMW OF NORTH AMERICA, INC.

*Installation:*

Fit heat shield for engine mount.

Lug (1) of heat shield must rest in corresponding bore (2) of engine mount.

Installation position of engine mount predetermined by locating pin (3). Pin (3) is in direction of travel at front.



**Fig. 2: Identifying Lug Of Heat Shield, Bore Of Engine Mount And Pin**  
Courtesy of BMW OF NORTH AMERICA, INC.

#### **22 11 011 REPLACING LEFT ENGINE MOUNT (S54)**

Necessary preliminary tasks:

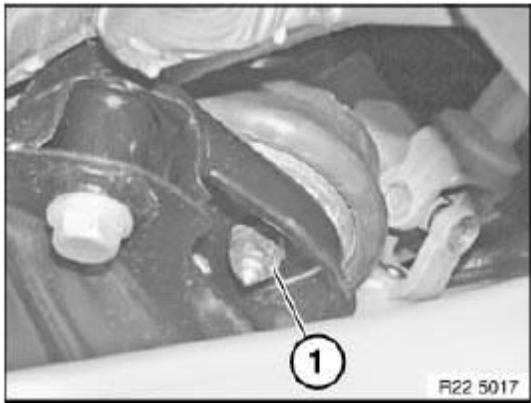
- Secure **ENGINE IN INSTALLATION POSITION (S54)** .
- Release engine mounts on left and right from above
- Remove **REINFORCEMENT PLATE** .
- Remove **FRONT UNDERBODY PROTECTION** .

Unscrew nut (1).

Tightening torque, see 22 11 1AZ. in **ENGINE AND GEARBOX SUSPENSION - TIGHTENING TORQUES - M COUPE** .

*Installation:*

Replace nuts.

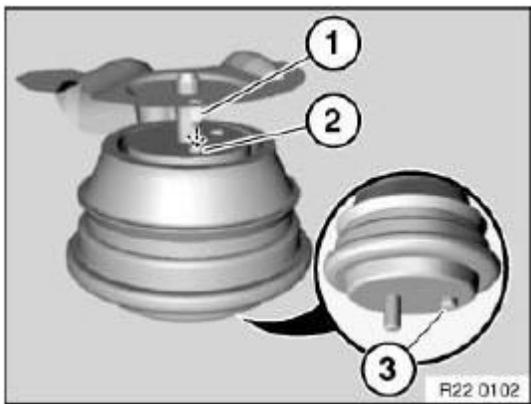


**Fig. 3: Identifying Nut**  
Courtesy of BMW OF NORTH AMERICA, INC.

*Installation:*

Installation position of engine mount predetermined by locating pin (3). Pin (3) is in direction of travel at front.

Heat shield only fitted on right engine mount.



**Fig. 4: Identifying Lug Of Heat Shield, Bore Of Engine Mount And Pin**  
Courtesy of BMW OF NORTH AMERICA, INC.

**22 11 100 REPLACING RIGHT ENGINE SUPPORT ARM (S54)**

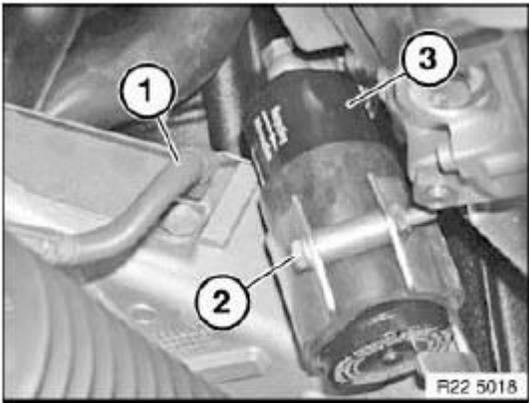
Necessary preliminary tasks:

- Remove right engine mount . See **REPLACING RIGHT ENGINE MOUNT (S54)**.
- Remove heat shields

Release grounding strap (1) from engine support arm.

Release screw (2).

Pull VANOS pressure accumulator (3) upwards out of mounting.

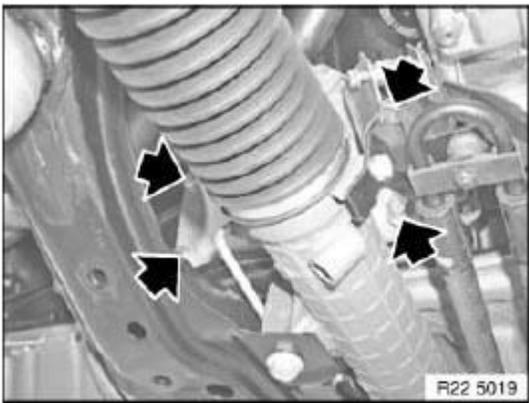


**Fig. 5: Identifying Grounding Strap, Screws And VANOS Pressure Accumulator**  
Courtesy of BMW OF NORTH AMERICA, INC.

Unfasten screws.

Remove right engine support arm from engine block.

Tightening torque 22 11 3AZ. in **ENGINE AND GEARBOX SUSPENSION - TIGHTENING TORQUES - M COUPE** .



**Fig. 6: Locating Screws**  
Courtesy of BMW OF NORTH AMERICA, INC.

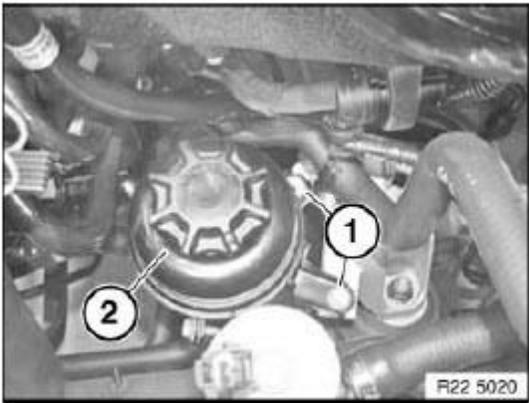
### **22 11 110 REPLACING LEFT ENGINE SUPPORT ARM (S54)**

Necessary preliminary tasks:

- Remove manifold. . See **REMOVING AND INSTALLING INTAKE AIR MANIFOLD (S54)** .

Release screws (1).

Slide power steering expansion tank (2) to one side.



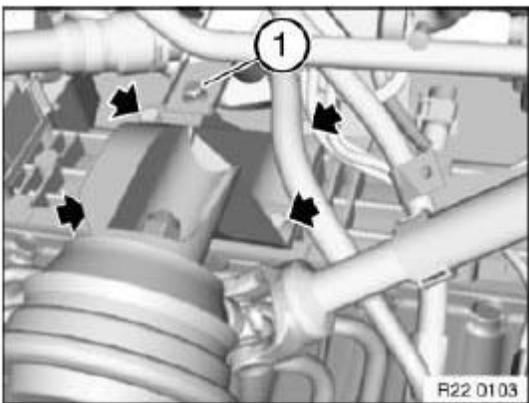
**Fig. 7: Identifying Screws And Power Steering Expansion Tank**  
Courtesy of BMW OF NORTH AMERICA, INC.

Release screw (1).

Unfasten screws.

Remove left engine support arm from engine block.

Tightening torque, see 22 11 3AZ. in **ENGINE AND GEARBOX SUSPENSION - TIGHTENING TORQUES - M COUPE** .



**Fig. 8: Identifying Screws**  
Courtesy of BMW OF NORTH AMERICA, INC.

## **32 TRANSMISSION SUSPENSION**

### **22 32 001 REPLACING RUBBER MOUNT FOR TRANSMISSION MOUNTING (S54)**

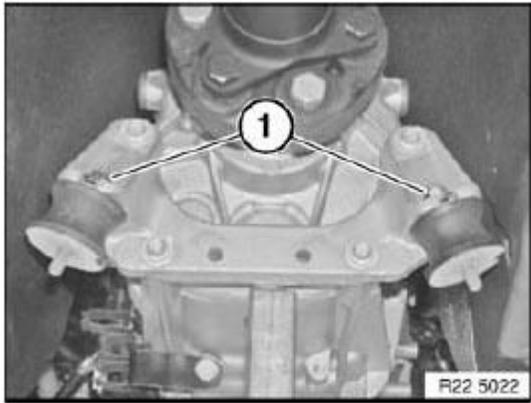
*Necessary preliminary tasks:*

Remove cross-member for transmission mounting. See **Replacing Cross-Member For Transmission Mounting (S54)**.

Unscrew nuts (1).

Remove rubber mount.

Tightening torque: 22 32 3AZ in **ENGINE AND GEARBOX SUSPENSION - TIGHTENING TORQUES - M COUPE**



**Fig. 9: Identifying Rubber Mount Screws**  
Courtesy of BMW OF NORTH AMERICA, INC.

### **22 32 050 REPLACING CROSS-MEMBER FOR TRANSMISSION MOUNTING (S54)**

*Necessary preliminary tasks:*

- Remove heat shields

Support transmission with hydraulic jack.

Release screws (1).

Tightening torque: 22 32 4AZ. in **ENGINE AND GEARBOX SUSPENSION - TIGHTENING TORQUES - M COUPE** .

Unscrew nuts (2).

Tightening torque: 22 32 3AZ. in **ENGINE AND GEARBOX SUSPENSION - TIGHTENING TORQUES - M COUPE** .

Remove cross-member.