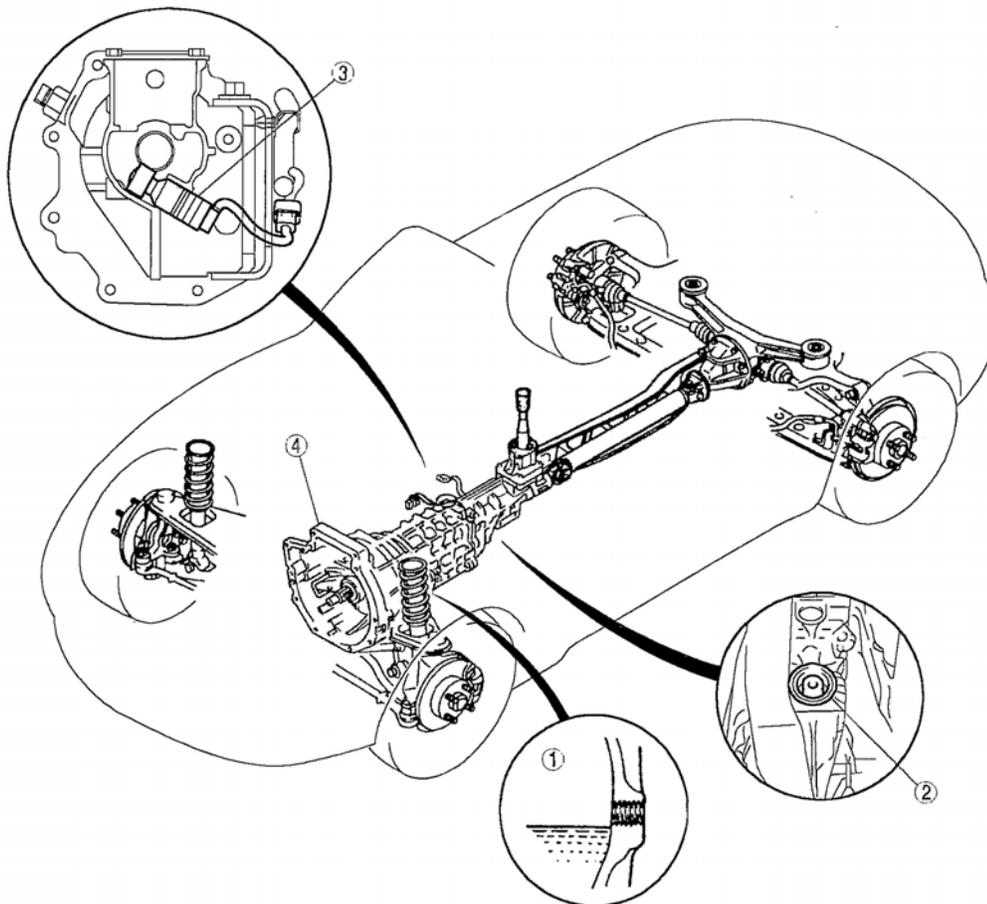


2005 TRANSMISSION

Manual Transmission [Y16M-D] - MX-5 Miata

MANUAL TRANSMISSION [Y16M-D] LOCATION INDEX



1	Transmission oil (See TRANSMISSION OIL INSPECTION [Y16M-D]) (See TRANSMISSION OIL REPLACEMENT [Y16M-D])
2	Oil seal (See OIL SEAL (REAR) REPLACEMENT [Y16M-D])

3	Vehicle speedometer sensor (See VEHICLE SPEEDOMETER SENSOR REMOVAL/INSTALLATION [Y16M-D]) (See VEHICLE SPEEDOMETER SENSOR INSPECTION [Y16M-D])
4	Manual transmission (See MANUAL TRANSMISSION REMOVAL/INSTALLATION [Y16M-D])

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**Fig. 1: Identifying Manual Transmission [Y16M-D] Components**  
 Courtesy of MAZDA MOTORS CORP.

**TRANSMISSION OIL INSPECTION [Y16M-D]**

1. Place the vehicle on level ground.

## 2005 Mazda MX-5 Miata

2005 TRANSMISSION Manual Transmission [Y16M-D] - MX-5 Miata

2. Remove the filler plug A.
3. Verify that the oil is at the brim of the filler plug hole as shown.
  - If it is low, add the specified oil from the filler plug hole.

### **Specified oil**

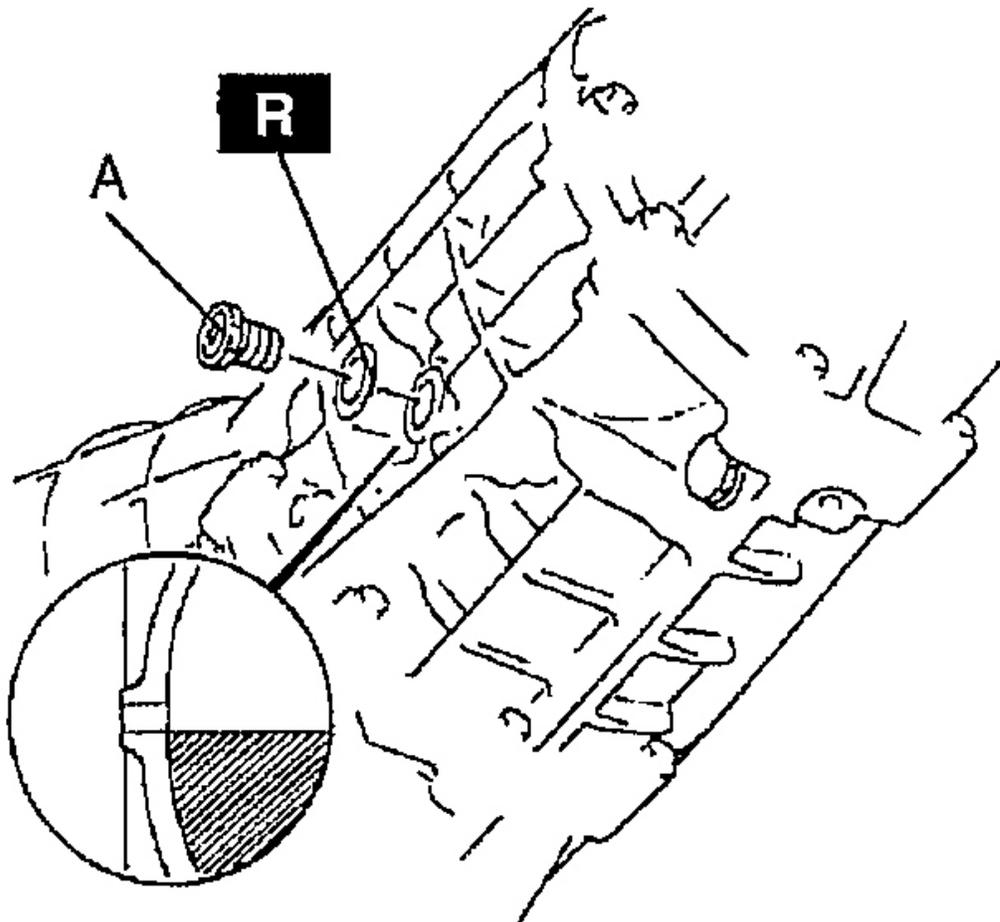
**Grade: API service GL-4**

**Viscosity: SAE 75W-90**

4. Install the filler plug A with new washer.

### **Tightening torque**

**A:27-48 N.m {2.7-4.9 kgf.m, 20-35 ft.lbf}**



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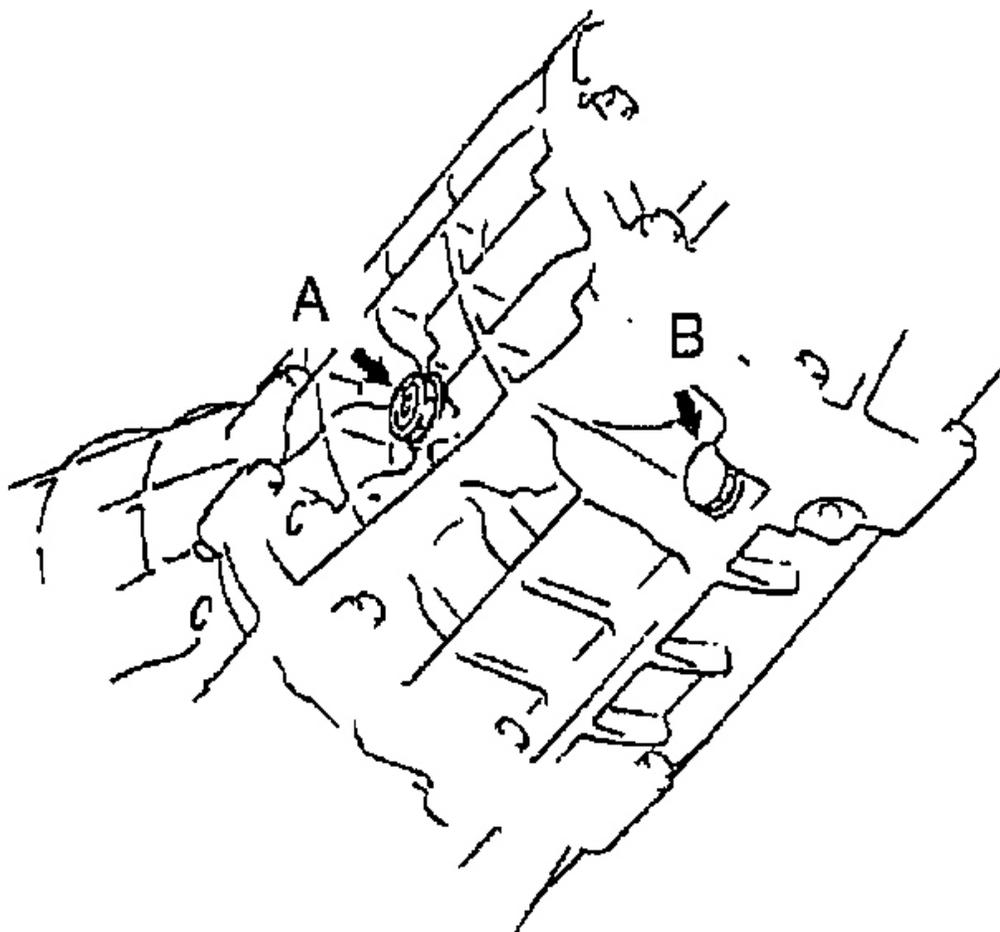
**Fig. 2: Removing Filler Plug**  
Courtesy of MAZDA MOTORS CORP.

## TRANSMISSION OIL REPLACEMENT [Y16M-D]

1. Put the vehicle on level ground.
2. Remove the filler plug A and the drain plug B.
3. Drain the oil into a container.
4. Wipe the drain plug B clean.
5. Install the drain plug B with new washer.

**Tightening**

torque B:27-48 N.m {2.7-4.9 kgf.m, 20-35 ft.lbf}



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**Fig. 3: Removing Filler Plug A And Drain Plug B**  
Courtesy of MAZDA MOTORS CORP.

6. Add the specified oil from the filler plug hole.

**Specified oil**

**Grade: API service GL-4**

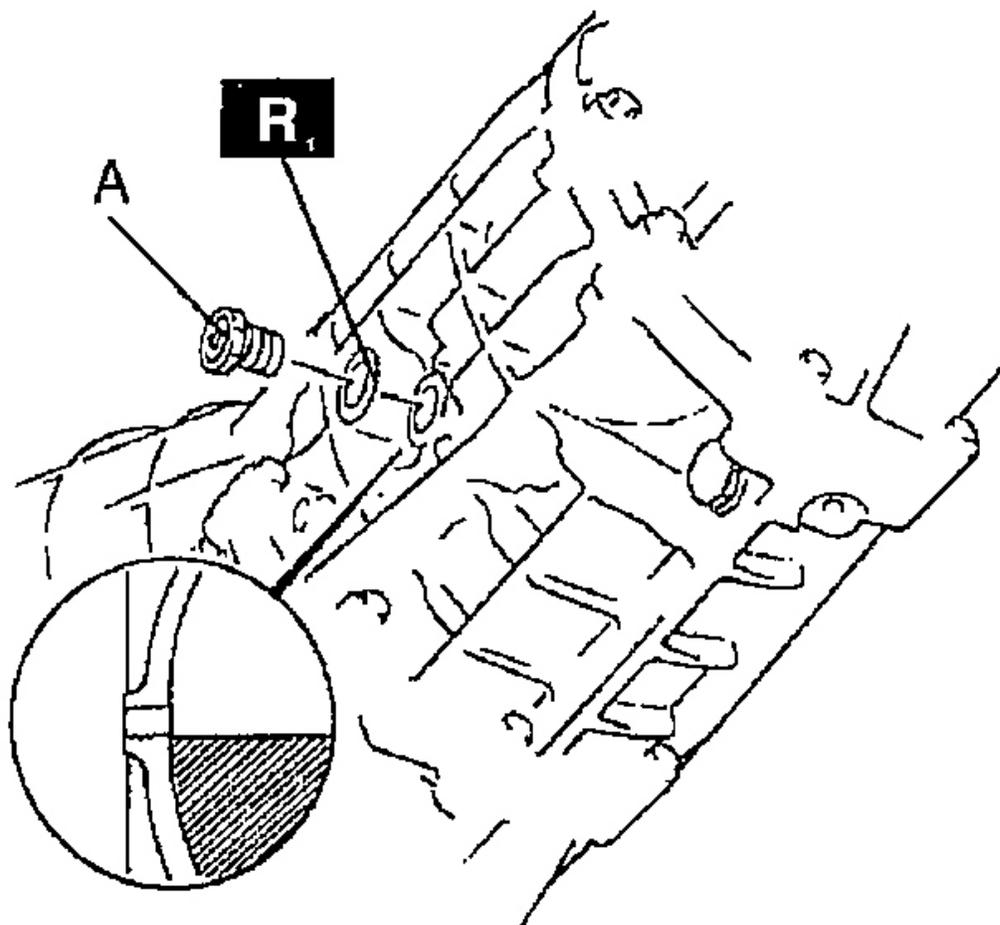
**Viscosity: SAE 75W-90**

**Capacity (approx.quantity):1.70-1.80 L {1.79-1.90 US qt, 1.49-1.58 Imp qt}**

7. Verify that the oil is at the brim of the filler plug hole.
8. Install the filler plug A with new washer.

**Tightening torque**

**A:27-48 N.m {2.7-4.9 kgf.m, 20-35 ft.lbf}**



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**Fig. 4: Installing Filler Plug With Washer**

Courtesy of MAZDA MOTORS CORP.

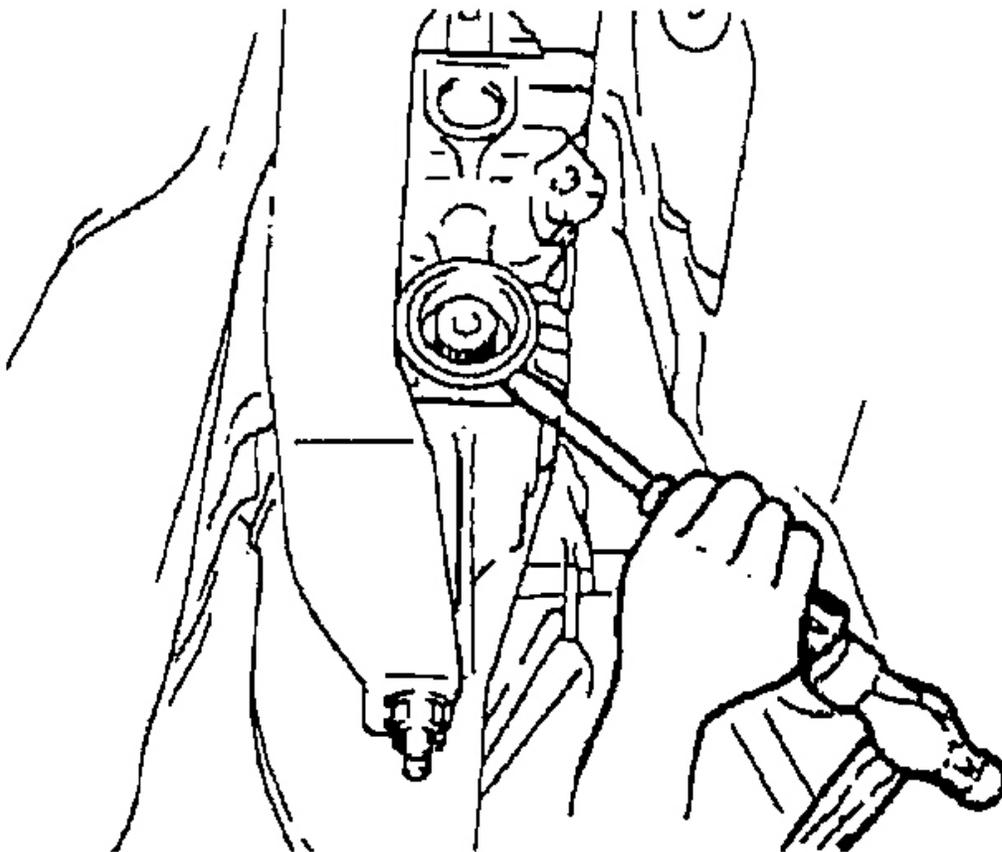
## OIL SEAL (REAR) REPLACEMENT [Y16M-D]

1. Raise the vehicle and support it with safety stands.
2. Remove the propeller shaft. (See **PROPELLER SHAFT REMOVAL/INSTALLATION** .)

**CAUTION:**

- Do not damage the extension housing and main shaft spline when removing the oil seal.

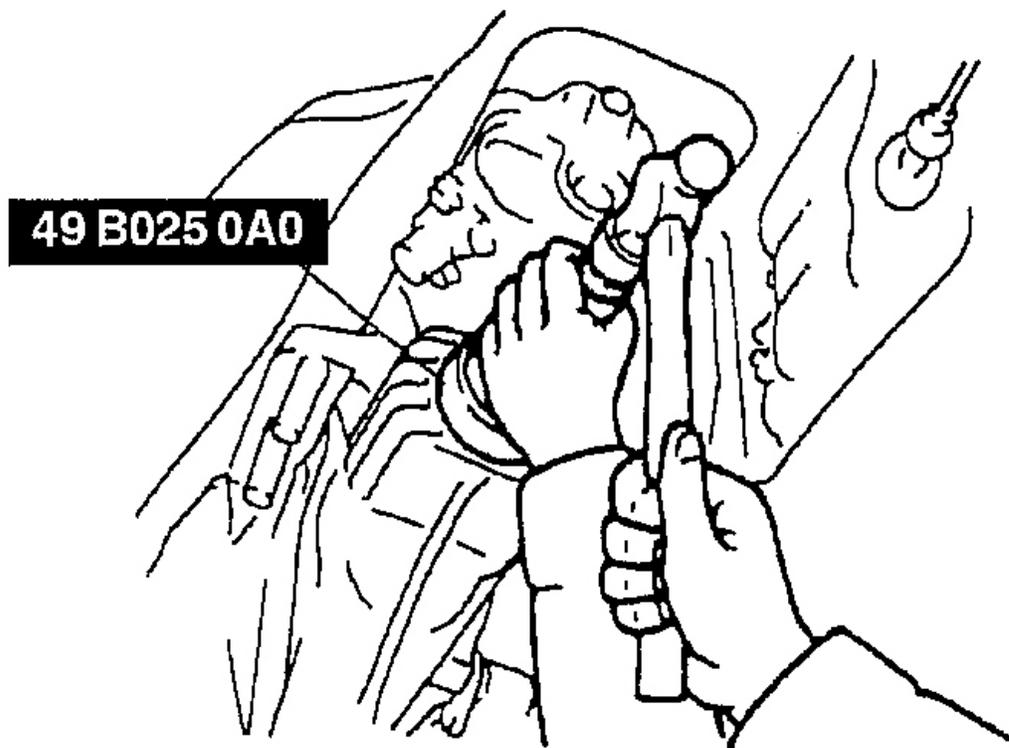
3. Remove the oil seal from the extension housing using a screwdriver.
4. Apply the transmission oil to a new oil seal.



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**Fig. 5: Removing Oil Seal From Extension Housing Using Screwdriver**  
Courtesy of MAZDA MOTORS CORP.

5. Install the new oil seal using the SST.
6. Install the propeller shaft. (See **PROPELLER SHAFT REMOVAL/INSTALLATION** .)
7. Inspect the oil level. (See **TRANSMISSION OIL INSPECTION [Y16M-D]**.)



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**Fig. 6: Installing Oil Seal Using SST**  
Courtesy of MAZDA MOTORS CORP.

## VEHICLE SPEEDOMETER SENSOR REMOVAL/INSTALLATION [Y16M-D]

(See **VEHICLE SPEEDOMETER SENSOR REMOVAL/INSTALLATION [M15M-D]** .)

## VEHICLE SPEEDOMETER SENSOR INSPECTION [Y16M-D]

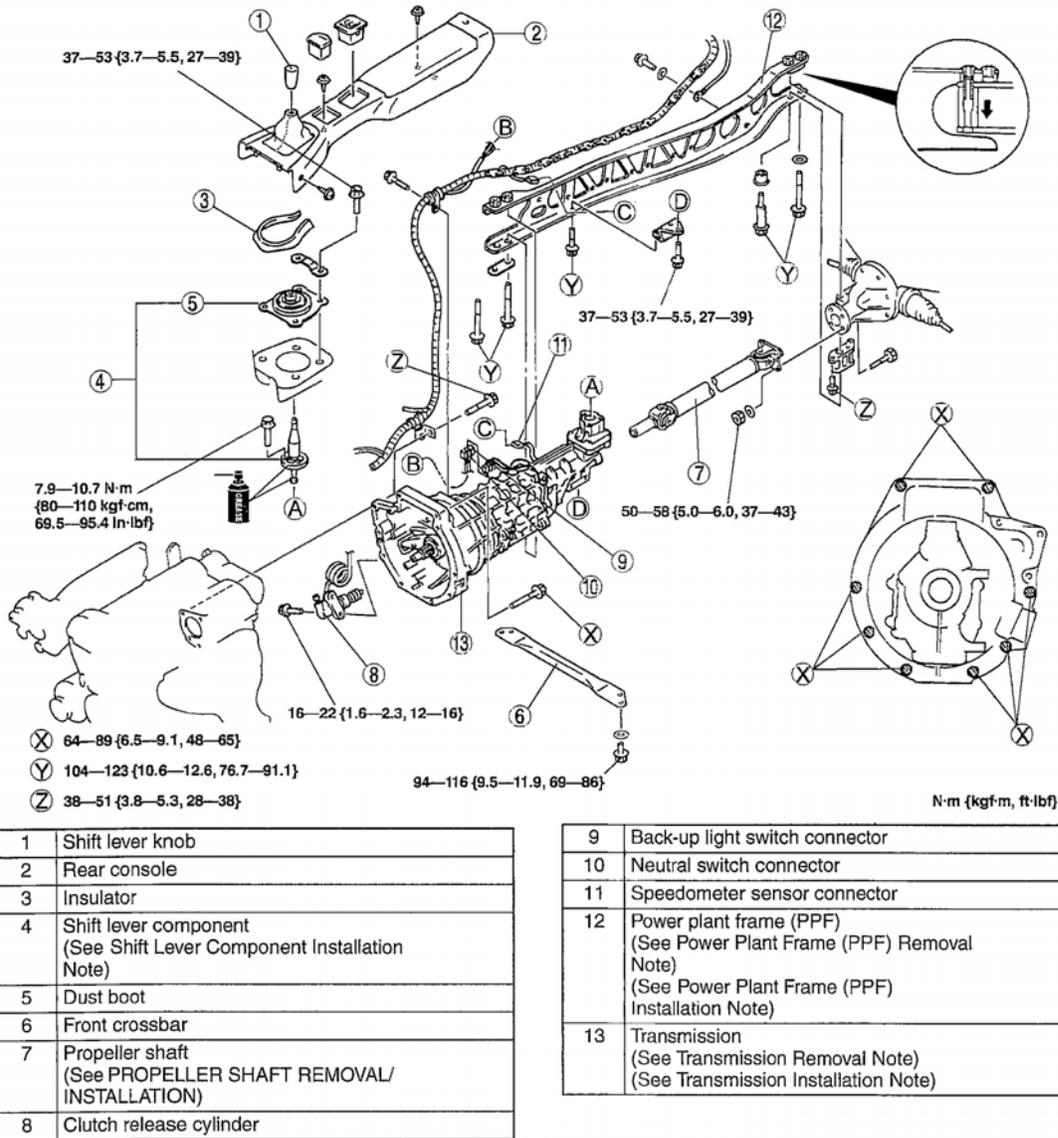
(See **VEHICLE SPEEDOMETER SENSOR INSPECTION [M15M-D]** .)

## MANUAL TRANSMISSION REMOVAL/INSTALLATION [Y16M-D]

1. Drain the transmission oil. (See **TRANSMISSION OIL REPLACEMENT [Y16M-D]**.)
2. Remove the cross member.(16-inch wheel vehicles)
3. Remove the cross member bracket.(16-inch wheel vehicles)
4. Remove the rear crossbar.(16-inch wheel vehicles) (See **REAR CROSSMEMBER REMOVAL/INSTALLATION** .)
5. Remove the undercover.
6. Remove the starter. (See **STARTER REMOVAL/INSTALLATION** .)
7. Remove the front pipe and middle pipe. (See **EXHAUST SYSTEM REMOVAL/INSTALLATION [BP]** .) (See **EXHAUST SYSTEM REMOVAL/INSTALLATION [BP WITH TC]** .)
8. Remove in the order indicated in the table.

# 2005 Mazda MX-5 Miata

## 2005 TRANSMISSION Manual Transmission [Y16M-D] - MX-5 Miata



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**Fig. 7: Removing Manual Transmission - With Torque Specification**  
 Courtesy of MAZDA MOTORS CORP.

9. Install in the reverse order of removal.
10. Add the specified amount and type of transmission oil. (See **TRANSMISSION OIL REPLACEMENT [Y16M-D]**.)
11. Warm up the engine and transmission, inspect for oil leakage, and verify the transmission operation.