

## 1. Propeller Shaft

### A: ON-CAR SERVICE

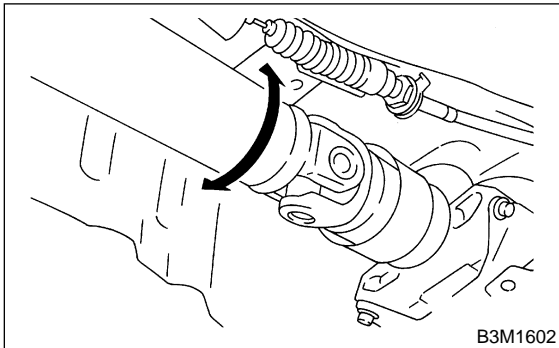
Check the following points with propeller shaft installed in vehicle.

#### 1. JOINTS AND CONNECTIONS

- 1) Remove front and center exhaust pipes.  
<Ref. to 2-9 [W1A0].>
- 2) Remove heat shield cover.
- 3) Check for any looseness of yoke flange connecting bolts and center bearing retaining bolts.

#### 2. SPLINES AND BEARING LOCATIONS

- 1) Remove front and center exhaust pipes.  
<Ref. to 2-9 [W1A0].>
- 2) Remove rear exhaust pipe and muffler.  
<Ref. to 2-9 [W2A0].> and <Ref. to 2-9 [W3A0].>
- 3) Remove heat shield cover.
- 4) Turn propeller shaft by hand to see if abnormal free play exists at splines. Also move yokes to see if abnormal free play exists at spiders and bearings.



#### 3. RUNOUT OF PROPELLER SHAFT

- 1) Remove front and center exhaust pipes.  
<Ref. to 2-9 [W1A0].>
- 2) Remove rear exhaust pipe and muffler.  
<Ref. to 2-9 [W2A0].> and <Ref. to 2-9 [W3A0].>
- 3) Remove heat shield cover.

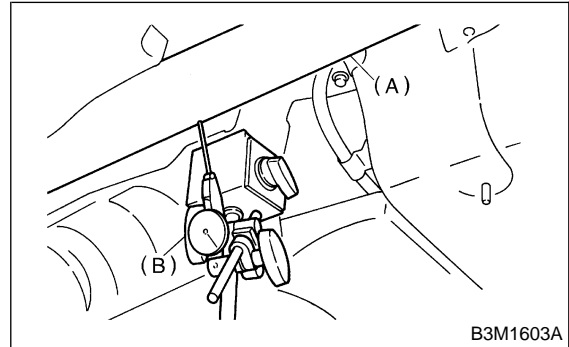
- 4) Turn rear wheels by hand to check for "runout" of propeller shaft.

#### NOTE:

Measure runout with a dial gauge at the center of front and rear propeller shaft tubes.

#### Runout:

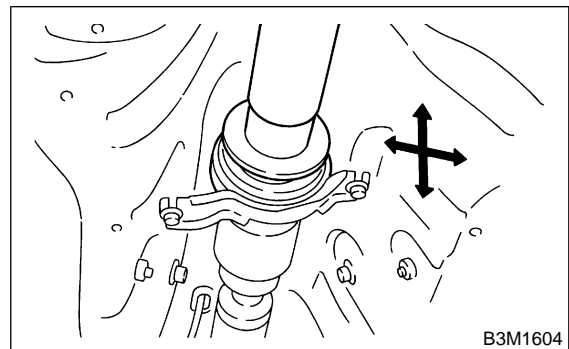
**Limit 0.6 mm (0.024 in)**



- (A) Propeller shaft  
(B) Dial gauge

#### 4. CENTER BEARING FREE PLAY

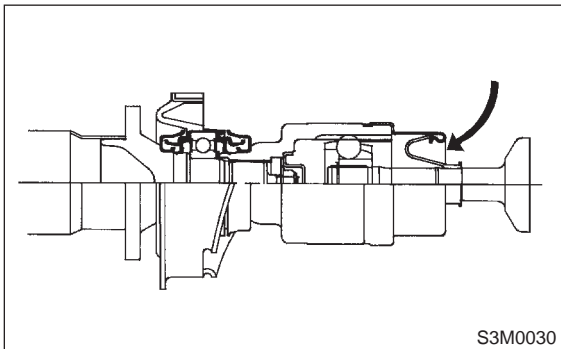
- 1) Remove front and center exhaust pipes.  
<Ref. to 2-9 [W1A0].>
- 2) Remove rear exhaust pipe and muffler.  
<Ref. to 2-9 [W2A0].> and <Ref. to 2-9 [W3A0].>
- 3) Remove heat shield cover.
- 4) While holding propeller shaft near center bearing with your hand, move it up and down, and left and right to check for any abnormal bearing free play.



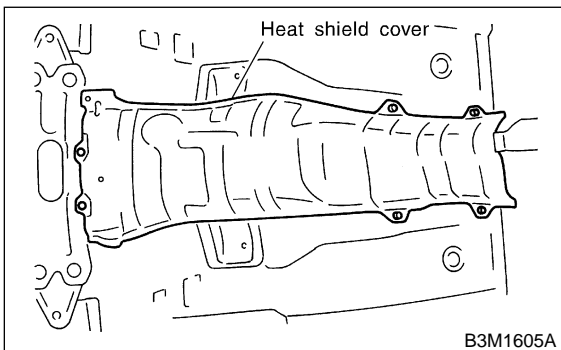
## B: REMOVAL

### NOTE:

- Before removing propeller shaft, wrap metal parts with a cloth or rubber material.
- In case of DOJ type, before removing propeller shaft, wrap metal parts (installed at the rubber boot of center DOJ) with a cloth or rubber material, as shown in the figure. Rubber boot may be damaged due to interference with adjacent metal parts while bending the DOJ during removal.



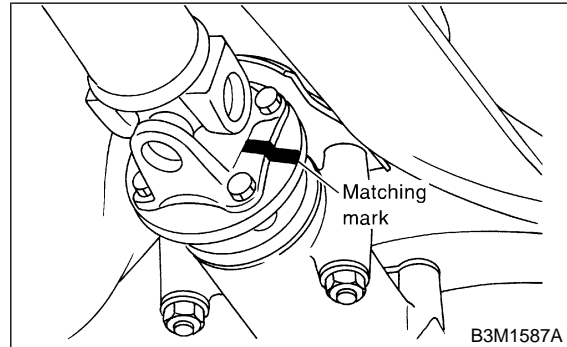
- 1) Disconnect ground cable from battery.
- 2) Move selector lever or gear shift lever to "N".
- 3) Release the parking brake.
- 4) Jack-up vehicle and support it with sturdy racks.
- 5) Remove front and center exhaust pipes.  
<Ref. to 2-9 [W1A0].>
- 6) Remove rear exhaust pipe and muffler.  
<Ref. to 2-9 [W2A0].> and <Ref. to 2-9 [W3A0].>
- 7) Remove heat shield cover.



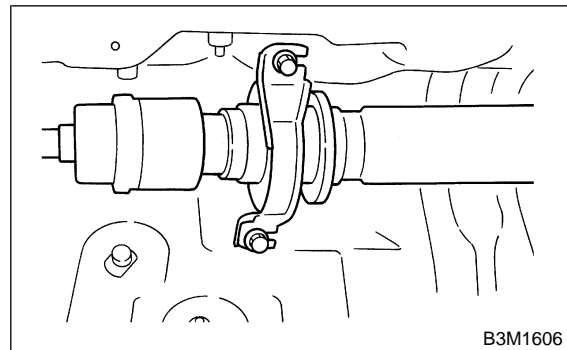
- 8) Remove the four bolts which hold propeller shaft to rear differential.

### NOTE:

- Put matching mark on affected parts before removal.
- Remove all but one bolt.



- 9) Remove the two bolts which hold center bearing to vehicle body.



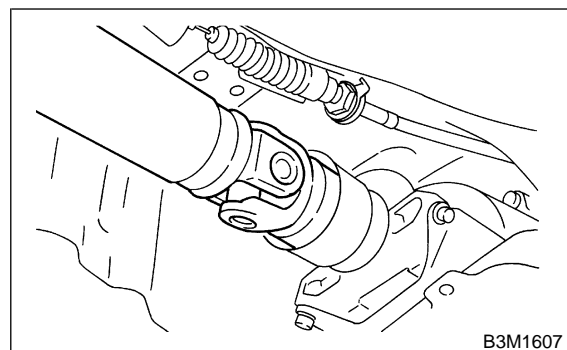
- 10) Remove propeller shaft from transmission.

### CAUTION:

**Be sure not to damage oil seals and the frictional surface of sleeve yoke.**

### NOTE:

- Be sure to use an empty oil can to catch oil flowing out when removing propeller shaft.
- Be sure to plug the opening in transmission after removal of propeller shaft.

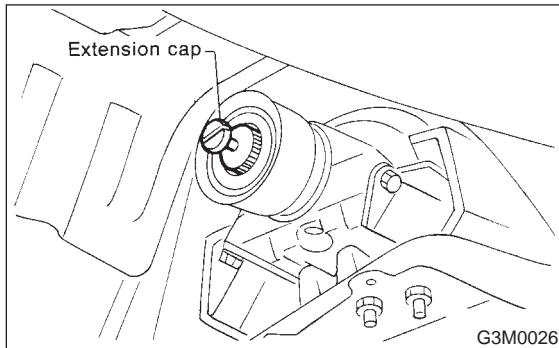


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11) Install the extension cap to transmission.

**NOTE:**

If extension cap is not available, place vinyl bag over opening and fasten with string to prevent gear oil or ATF from leaking.

**C: INSPECTION****NOTE:**

Do not disassemble propeller shaft. Check the following and replace if necessary.

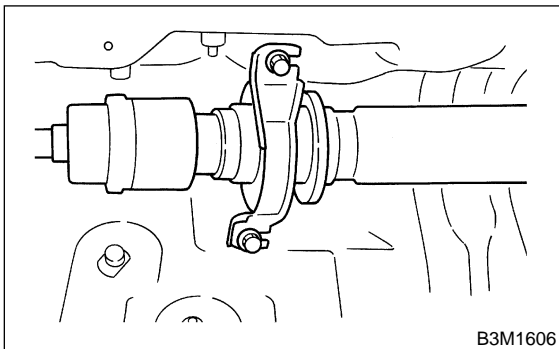
- 1) Tube surfaces for dents or cracks
- 2) Splines for deformation or abnormal wear
- 3) Joints for non-smooth operation or abnormal noise
- 4) Center bearing for free play, noise or non-smooth operation
- 5) Oil seals for abnormal wear or damage
- 6) Center bearing for breakage

**D: INSTALLATION**

1) Insert sleeve yoke into transmission and attach center bearing to body.

**Tightening torque:**

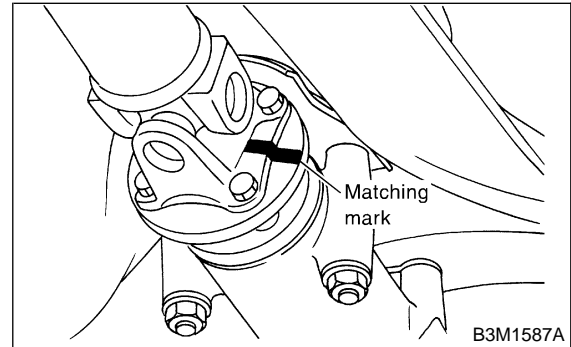
**$52 \pm 5 \text{ N}\cdot\text{m}$  ( $5.3 \pm 0.5 \text{ kg}\cdot\text{m}$ ,  $38.3 \pm 3.6 \text{ ft}\cdot\text{lb}$ )**



2) Align matching marks and connect flange yoke and rear differential.

**Tightening torque:**

**$31 \pm 8 \text{ N}\cdot\text{m}$  ( $3.2 \pm 0.8 \text{ kg}\cdot\text{m}$ ,  $23.1 \pm 5.8 \text{ ft}\cdot\text{lb}$ )**



3) Install heat shield cover.

4) Install front and center exhaust pipes.

<Ref. to 2-9 [W1B0].>

5) Install rear exhaust pipe and muffler.

<Ref. to 2-9 [W2B0].> and <Ref. to 2-9 [W3A0].>