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## GROUP 25

# PROPELLER SHAFT

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## SERVICE SPECIFICATION

M1251000300555

Item	Limit	
Deflection of the propeller shaft mm	Front	1.0
	Rear	1.0

## LUBRICANT

M1251000400659

Item	Specified Lubricant	Quantity
Sleeve yoke of the front propeller shaft	Hypoid gear oil API classification GL-5 SAE80	Adequate

## SPECIAL TOOL

M1251000600244

Tool	Number	Name	Use
 MB991193	MB991193	Plug	Prevent the entry of foreign materials into the transfer case during removal of the propeller shaft.

## ON-VEHICLE SERVICE

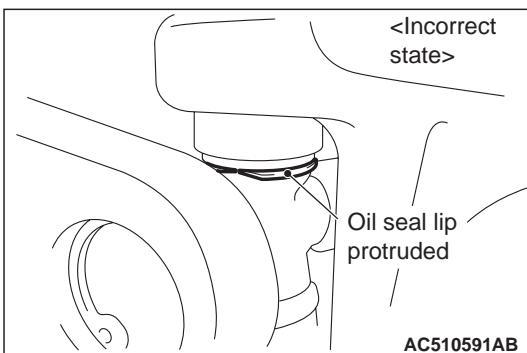
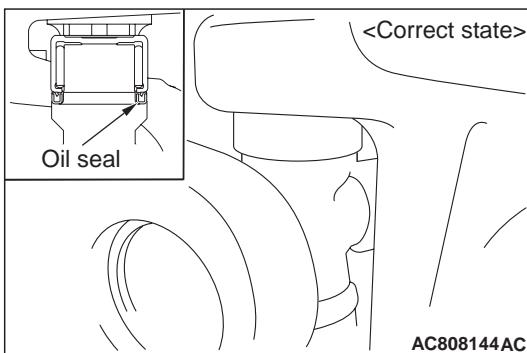
PROPELLER SHAFT UNIVERSAL JOINT  
CHECK

2. Check the propeller shaft for dent, damage or crack.

M1251002400332

## PROPELLER SHAFT VISUAL CHECK

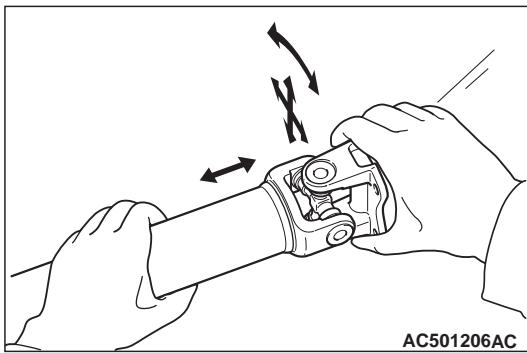
1. Place the gearshift lever to the selector lever to the "N" position.



3. Check the propeller shaft universal joint, oil seal for crack or damage. If abnormality is recognized, replace the propeller shaft with a new one.

### PROPELLER SHAFT UNIVERSAL JOINT PLAY CHECK

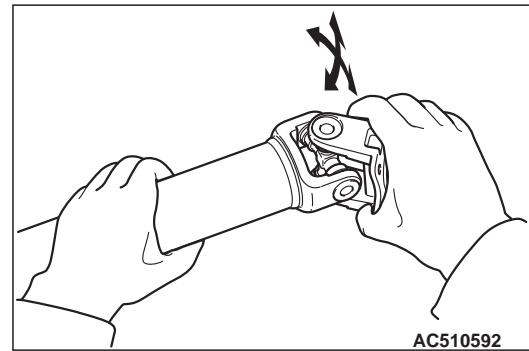
1. Place the gearshift lever to the selector lever to the "N" position.



2. Hold the tube of propeller shaft by one hand, and apply force by the other hand to the flange yoke or sleeve yoke in rotating direction, axial direction, and perpendicular direction for checking looseness. If looseness is recognized, replace the propeller shaft with a new one.

### PROPELLER SHAFT UNIVERSAL JOINT FLECTION CHECK

1. Place the gearshift lever to the selector lever to the "N" position.
2. Make phase alignment marks on the flange yoke and differential companion flange and disconnect the flange yoke.



3. Hold the tube of propeller shaft by one hand, and apply force by the other hand to the flange yoke in flection direction for checking flection. If showing a sign of catch in the flection direction is recognized, replace the propeller shaft with a new one.

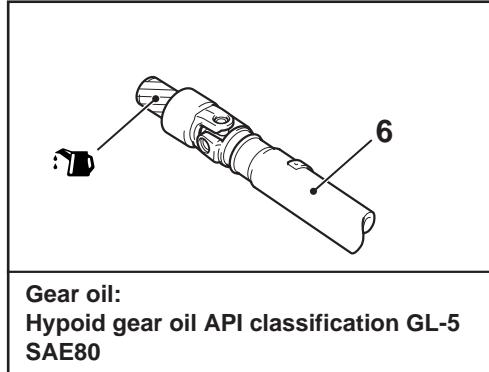
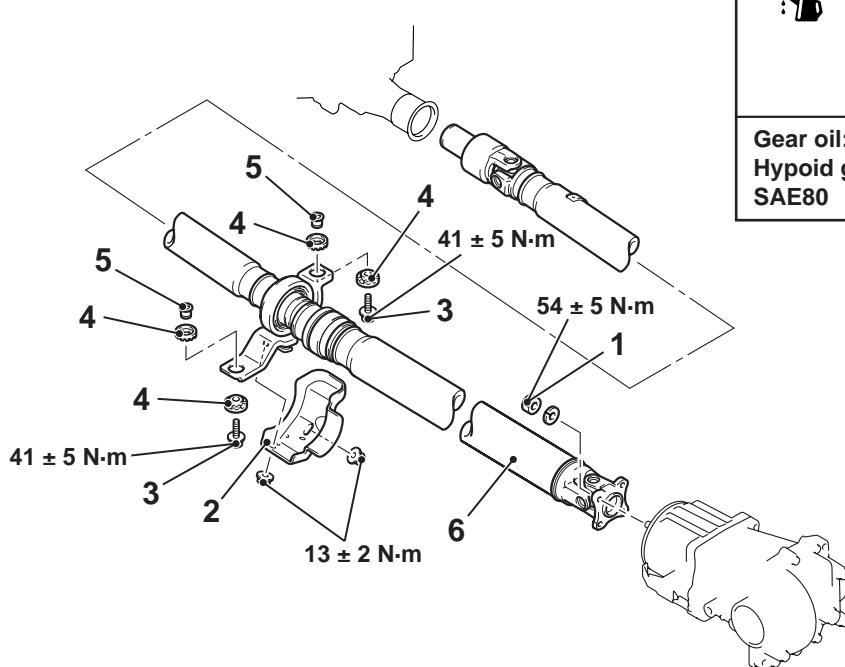
## PROPELLER SHAFT

## REMOVAL AND INSTALLATION

M1251001001271

## Pre-removal and Post-installation operation

- Engine Room Under Cover Removal and Installation (Refer to GROUP 51, Under Cover .)
- Transfer Oil Draining and Filling (Refer to GROUP 23A, On-vehicle Service, Transfer Oil Change .)

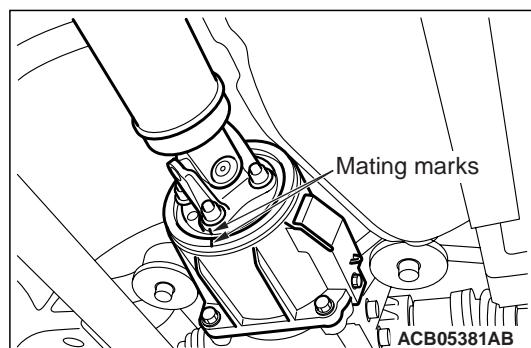


**Removal steps**

<<A>> >>B<< 1. Flange yoke and electronic control coupling connecting nut  
2. Heat protector  
3. Bolt  
4. Insulator  
5. Spacer  
<<B>> >>A<< 6. Propeller shaft assembly

## REMOVAL SERVICE POINTS

## &lt;&lt;A&gt;&gt; FLANGE YOKE AND ELECTRONIC CONTROL COUPLING CONNECTING NUT REMOVAL



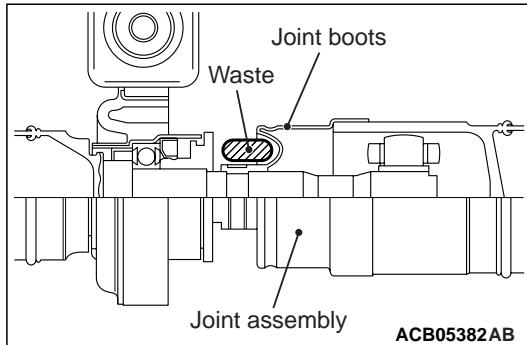
Put mating marks on the flange yoke and the electronic control coupling, then remove the connecting nuts.

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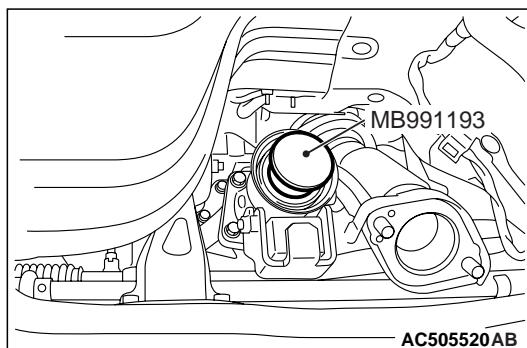
## <<B>> PROPELLER SHAFT ASSEMBLY REMOVAL

### CAUTION

If the joint assembly is bent, it may be damaged when pinching the joint boots.



1. Insert a waste or similar materials into the joint boots, and remove the propeller shaft assembly by aligning the front propeller shaft with the rear shaft.

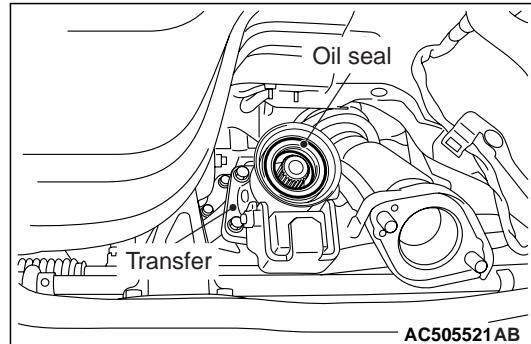


2. Using special tool plug (MB991193), cover the transfer case to prevent the entry of foreign materials.

## INSTALLATION SERVICE POINT

### >>A<< PROPELLER SHAFT ASSEMBLY INSTALLATION

### CAUTION



Do not damage the oil seal lip of the transfer.

- The mounting bolt and nut may be loosened if oil or grease is stuck on the threads of the bolt and nut. Tighten them after degreasing the threads.
- If the joint assembly is bent, it may be damaged when pinching the joint boots.

### >>B<< PROPELLER SHAFT FLANGE YOKE AND REAR DIFFERENTIAL CONNECTION NUT INSTALLATION

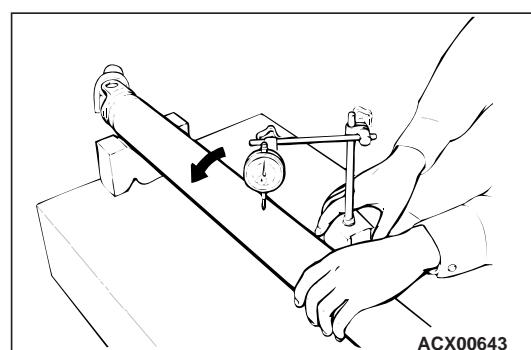
If the propeller shaft is reused, align the mating marks and install the connecting nuts.

**Tightening torque:  $54 \pm 5 \text{ N}\cdot\text{m}$**

## INSPECTION

M1251001100703

### DEFLECTION OF THE PROPELLER SHAFT



Check the deflection of the front and rear shafts.

**Limit**

Front : 1.0 mm

Rear : 1.0 mm