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This file was not scanned to deprive Mazda of any money - it was scanned due to the rareness of the original manuals and the overwhelming need of the RX-7 owner to have this information so that they can accurately troubleshoot problems. Perhaps if Mazda's dealerships could support the Rotary Engine it wouldn't be so necessary for the owners to do so.



Many thanks to Lenny Terris for scanning this.

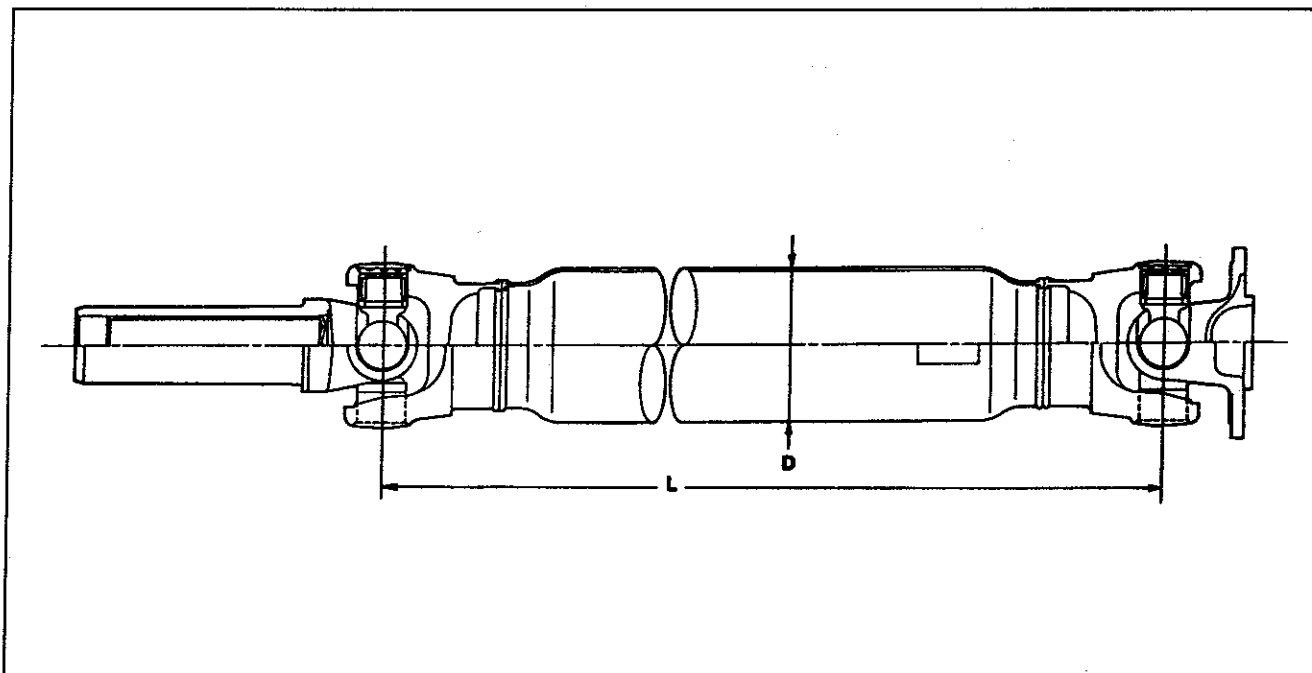
PROPELLER SHAFT

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OUTLINE

SPECIFICATIONS

Engine / Transmission			RE 13B (TURBO)	
			R15M-D (MT)	RB4A-EL (AT)
Length	mm (in)	L	863 (33.98)	875 (34.45)
Outer diameter	mm (in)	D	75 (3.0)	




TROUBLESHOOTING GUIDE

Problem	Possible cause	Action	Page
Vibration	Bent propeller shaft	Replace	L-3
	Worn or damaged universal joint	Replace	L-3
	Worn slip yoke or splines	Replace	L-3
	Damaged slip yoke	Replace	L-3
	Damaged universal joint yoke	Replace	L-3
Abnormal noise	Worn or damaged universal joint	Replace	L-3
	Damaged slip yoke	Replace	L-3
	Damaged universal joint yoke	Replace	L-3
	Worn slip yoke or splines	Replace	L-3

PROPELLER SHAFT

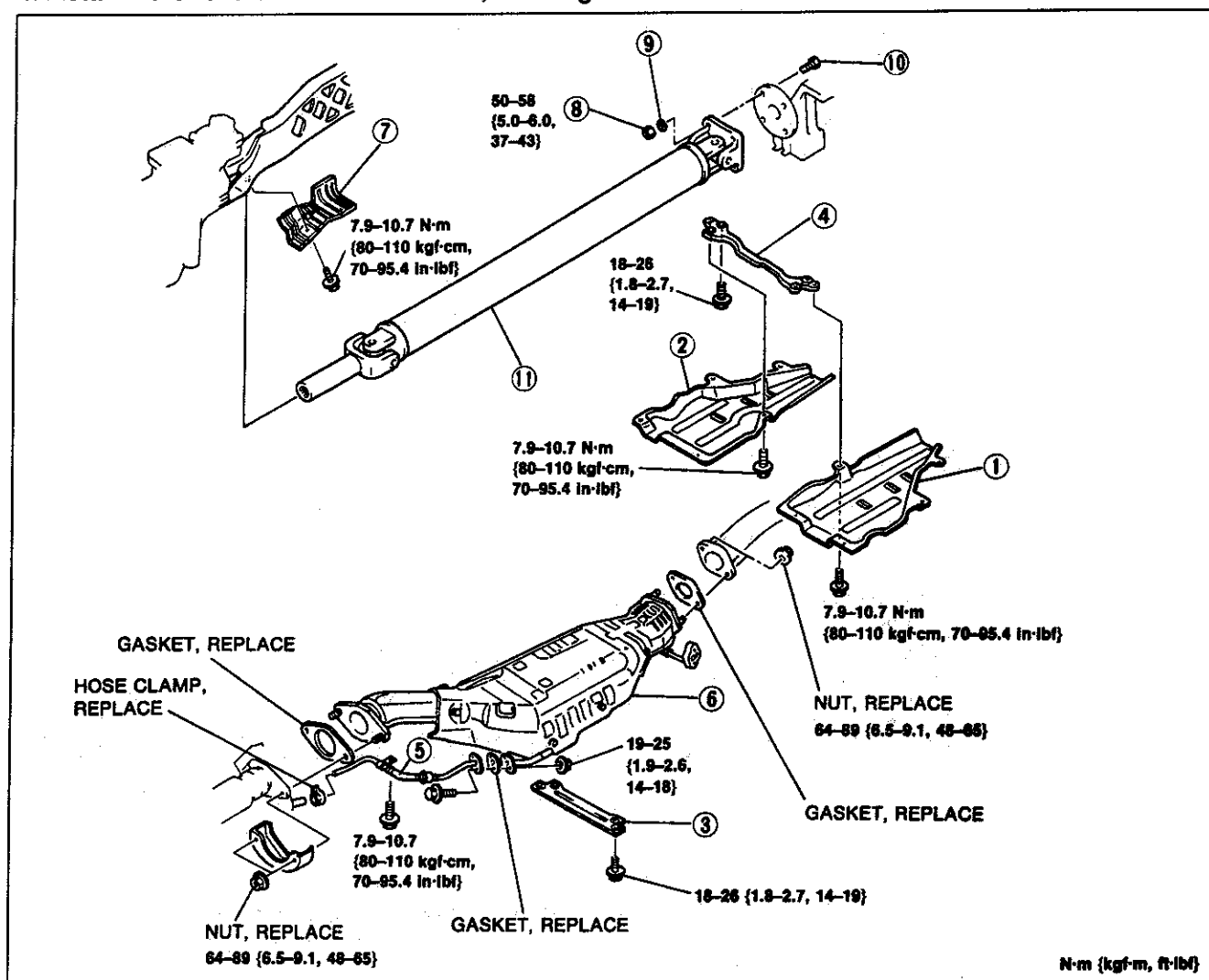
PREPARATION

SST

49 S120 440		
Holder, mainshaft		For prevention of oil leakage

REMOVAL / INSPECTION / INSTALLATION

1. Remove in the order shown in the figure, referring to **Removal Note**.
2. Clean the propeller shaft (except for the universal joint) with a steam cleaner or solvent.
3. Inspect all parts and repair or replace as necessary.
4. Install in the reverse order of removal, referring to **Installation Note**.

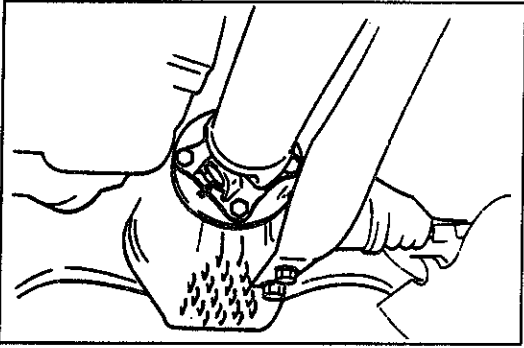


1. Left undercover
2. Right undercover
3. Tunnel reinforcement (center)
4. Tunnel reinforcement (rear)

5. Secondary air injection pipe
6. Catalytic converter assembly
7. Cover
8. Nut
9. Lock washer
10. Bolt

11. Propeller shaft
Removal Note page L-4
Inspection page L-4
Installation Note page L-4

PROPELLER SHAFT

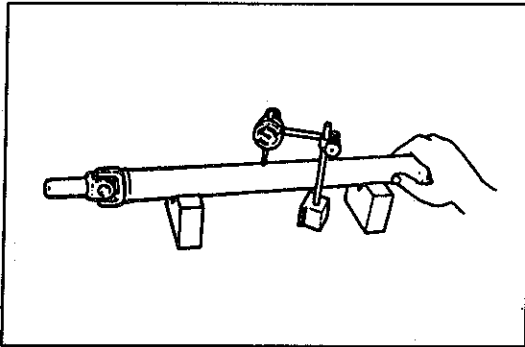


Removal Note Propeller shaft

1. Before removing the propeller shaft, mark the companion flange and yoke for correct reassembly.



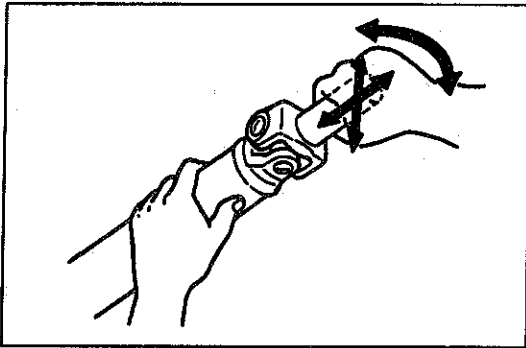
2. Remove the propeller shaft from the extension housing, and immediately install the SST to prevent oil leakage.



Inspection Propeller shaft

1. Measure the propeller shaft runout with a dial indicator.
2. If the runout is excessive, replace the propeller shaft assembly.

Runout: 0.4 mm {0.02 in} max.



3. Move the universal joint in the direction shown, and inspect joint play.

Note

- Starting torque

Front yoke:

30–98 N·m {3.0–10 kgf·m, 22–72 ft·lbf}

Rear yoke:

30–98 N·m {3.0–10 kgf·m, 22–72 ft·lbf}

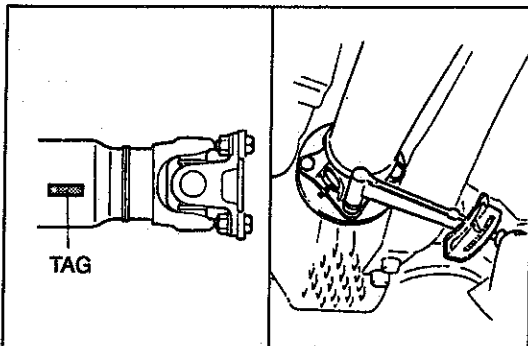
4. If there is excessive play or the starting torque is not within specification, replace the propeller shaft.

Installation Note Propeller shaft

1. Align the marks made during removal, and install the propeller shaft. If installing a new propeller shaft, align the differential companion flange precast marking with the tag on the propeller shaft.

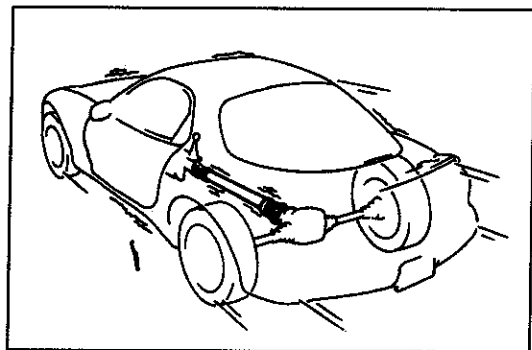
Tightening torque:

50–58 N·m {5.0–6.0 kgf·m, 37–43 ft·lbf}



PROPELLER SHAFT

L



2. Perform a road test and verify that there is no noise or vibration when driving the vehicle.
3. Replace the propeller shaft assembly if noise or vibration comes from it.

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