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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 Anh Diep for scanning this file.

PROPELLER SHAFT

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37U0LX-001



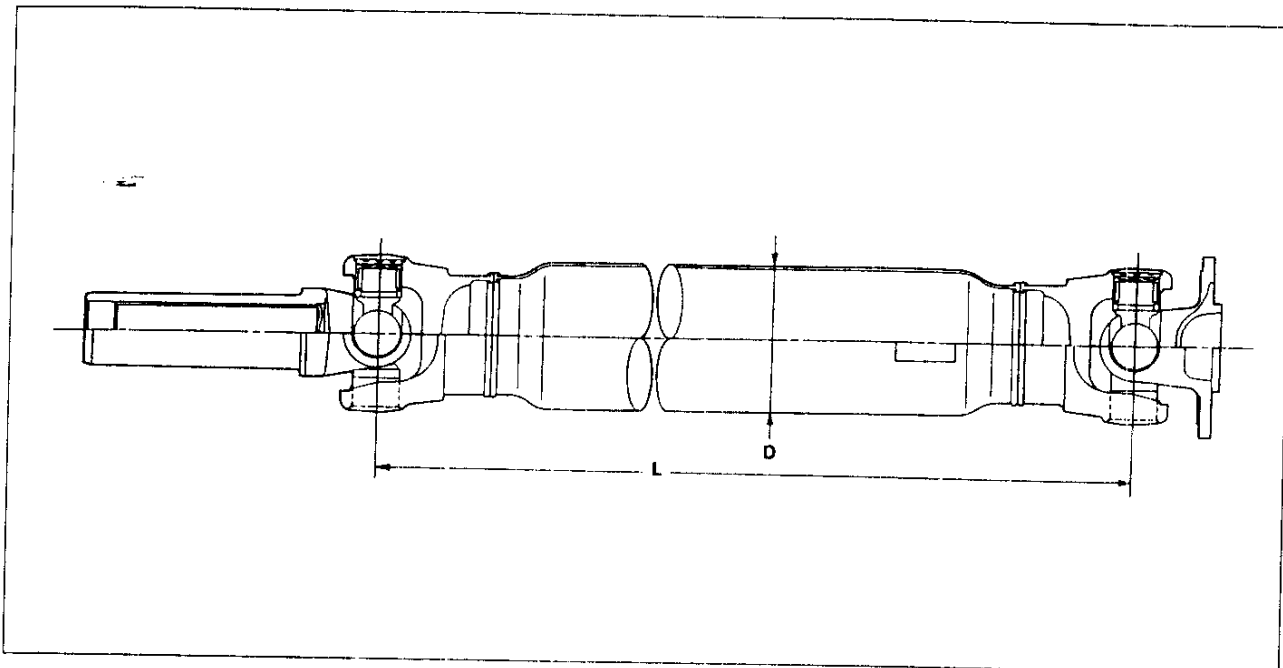
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OUTLINE , TROUBLESHOOTING GUIDE

OUTLINE

SPECIFICATIONS

| Item | 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} | |



37U0LX-002

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 |
| Abnormal noise | Damaged universal joint yoke | Replace | L-3 |
| | 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 |

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PROPELLER SHAFT

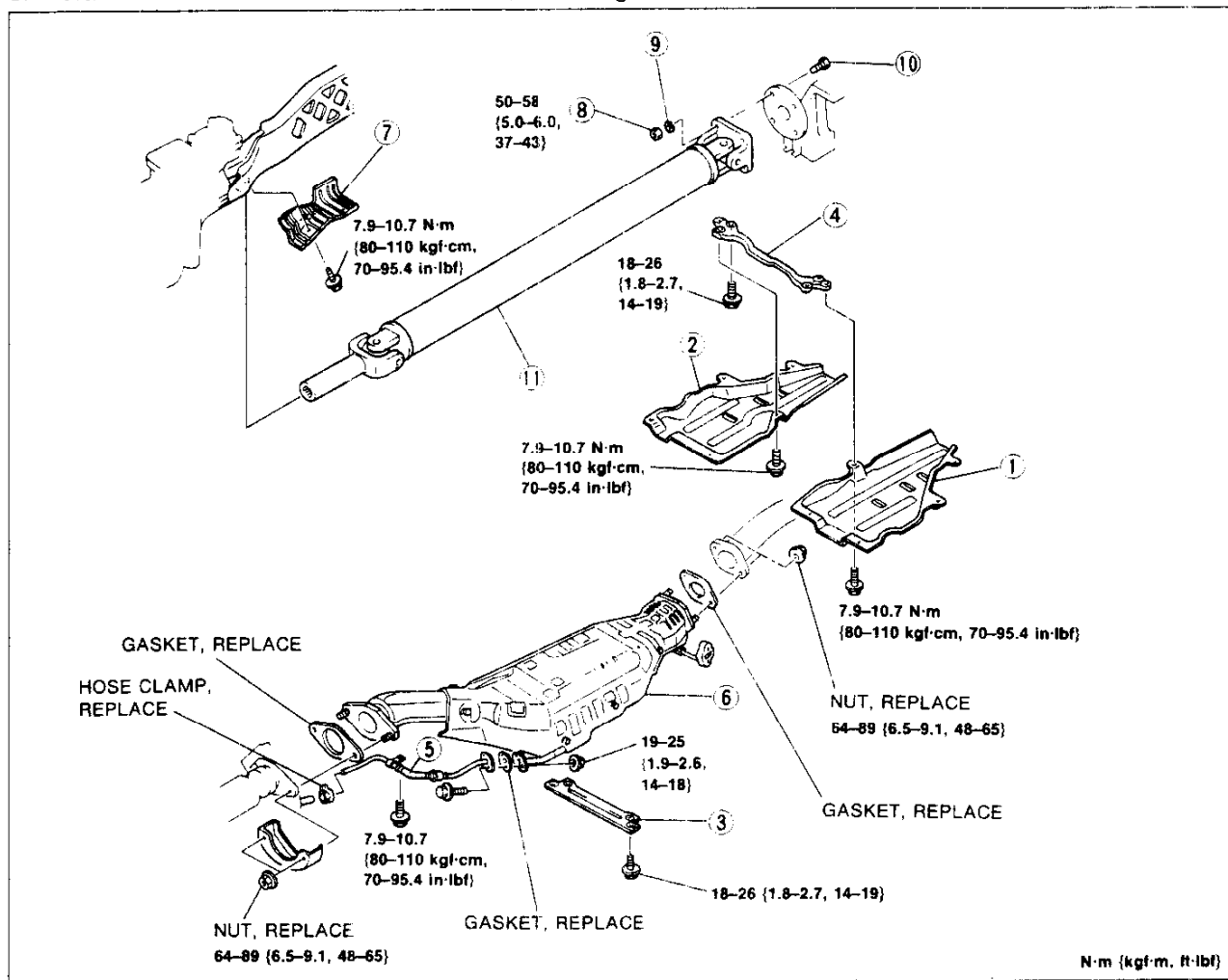
PREPARATION
SST

| | | |
|-------------------|--|-------------------------------|
| 49 S120 440 | | For prevention of oil leakage |
| Holder, mainshaft | | |

37U01 X-004

REMOVAL / INSPECTION / INSTALLATION

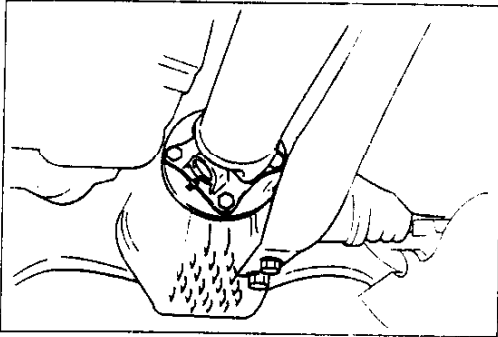
1. Remove in the order shown in the figure, referring to **Removal Note**.
2. Inspect all parts and repair or replace as necessary.
3. Install in the reverse order of removal, referring to **Installation Note**.



37U01 X-005

- | | | |
|----------------------------------|---------------------------------|---------------------------|
| 1. Left undercover | 5. Secondary air injection pipe | 11. Propeller shaft |
| 2. Right undercover | 6. Catalytic converter assembly | Removal Note |
| 3. Tunnel reinforcement (center) | 7. Cover | page L-4 |
| 4. Tunnel reinforcement (rear) | 8. Nut | Inspection page L-4 |
| | 9. Lock washer | Installation Note |
| | 10. Bolt | page L-4 |

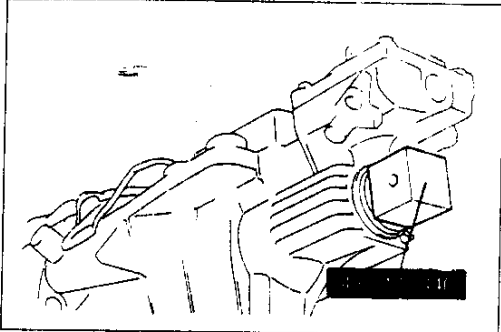
PROPELLER SHAFT



37UOLX-006

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.



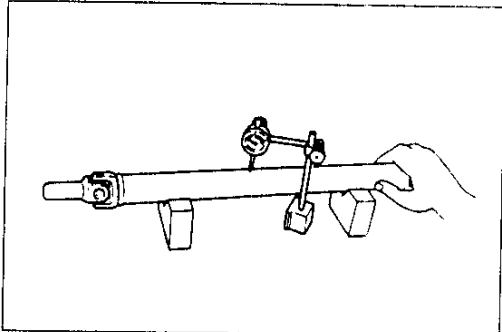
37UOLX-007

Inspection Propeller shaft

Note

- Before inspecting, clean the propeller shaft (except for the universal joint) with a steam cleaner or solvent.

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



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Runout: 0.4mm {0.02in} max.

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

Note

- Starting torque

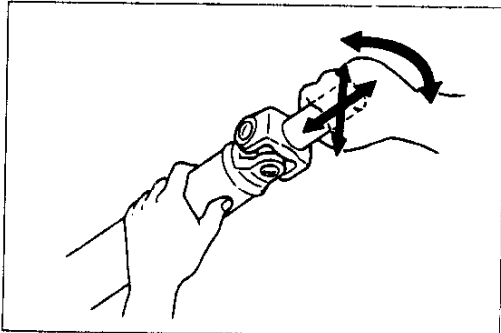
Front yoke:

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

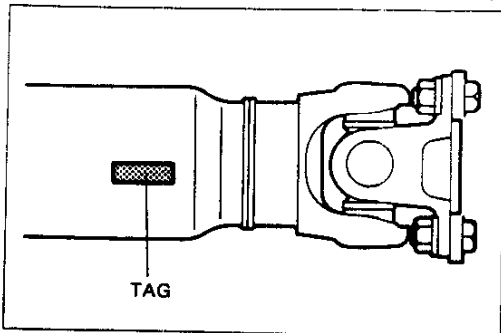
Rear yoke:

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.



37UOLX-009



37UOLX-010

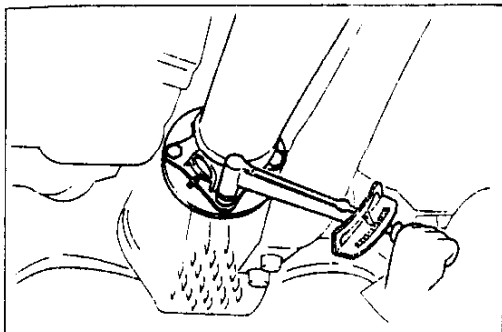
Installation Note Propeller shaft

Caution

- If installing a new propeller shaft, align the differential companion flange precast marking with the tag on the propeller shaft.

PROPELLER SHAFT

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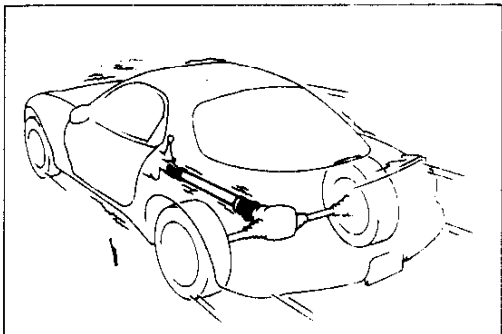


37JCLX-011

1. Align the marks made during removal, and install the propeller shaft.

Tightening torque:

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



37UCLX-012

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

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