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who, well, didn't do much this time, since Paul Lee provided the thing already scanned and compiled into a PDF! (Thanks!). Go visit his website: <http://www.iluvmyrx7.com/index.htm> Lots of RX-7 goodness there.

There are several ways to get around in the document. I have provided Bookmarks to all the sections, and thumbnails are also provided in the Thumbnails side bar.

I have also included a label for the spine of a binder, for those who wish to print out all the pages and keep a dead-tree edition handy.☺

The original document is © 1979 Toyo Kogyo Co., Ltd., and remains so. This version is provided as a service for owners of first generation Mazda RX-7s who are having a devil of a time locating the factory service manual for a reasonable price.

If you really want to send me money, email me and I'll tell you where to send it, but it's not necessary. Consider this payback for all the good advice and information gleaned from the various RX-7 email lists!

Subscribe to the Early Mazda Rotaries email list:

Send an email with "subscribe" (without the quotes) to list-request@sa22c.org

See <http://www.dfw-rx7.com> for information on the DFW-RX7 email list.

09/16/03

8-A. PROPELLER SHAFT REMOVAL
 Raise the rear end of the vehicle and support it with stands.

Note:
 To maintain drive line balance, mark the mating parts of the companion flange, yokes and propeller shaft so that they may be reinstalled in their original positions.

Remove the following parts:

PROPELLER SHAFT



Fig. 8-1

8-A. PROPELLER SHAFT REMOVAL 8 : 1
 8-B. PROPELLER SHAFT INSPECTION 8 : 1
 8-C. UNIVERSAL JOINT DISASSEMBLY 8 : 2
 8-D. UNIVERSAL JOINT INSPECTION 8 : 2
 8-E. UNIVERSAL JOINT ASSEMBLY 8 : 2
 8-F. PROPELLER SHAFT INSTALLATION 8 : 3

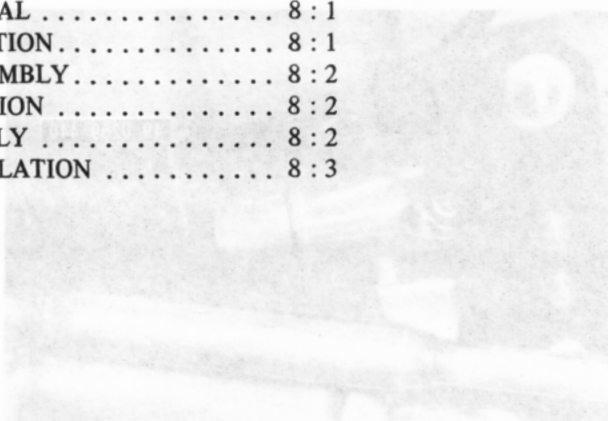


Fig. 8-2

8-B. PROPELLER SHAFT INSPECTION
 Inspect the propeller shaft for damage and rusty conditions.

1. Check the run-out of the propeller shaft.
 If it exceeds limit, replace the propeller shaft.

Run-out limit: 0.4 mm (0.016 in)



Fig. 8-3

2. Check the propeller shaft for dynamic imbalance. The maximum permissible imbalance is shown in the left table. If the imbalance is not within the specifications, correct or replace the propeller shaft assembly.

	Max. permissible imbalance
At 2000 rpm	12 gm-cm (0.31 in-cm)
At 1000 rpm	15 gm-cm (0.31 in-cm)

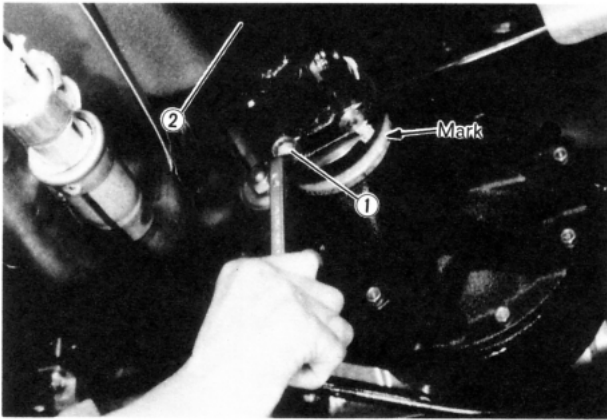


Fig. 8-1

8-A. PROPELLER SHAFT REMOVAL

Raise the rear end of the vehicle and support it with stands.

Note :

To maintain drive line balance, mark the mating parts of the companion flange, yokes and propeller shaft so that they may be reinstalled in their original positions.

Remove the following parts.

1. Attaching bolts
2. Propeller shaft assembly

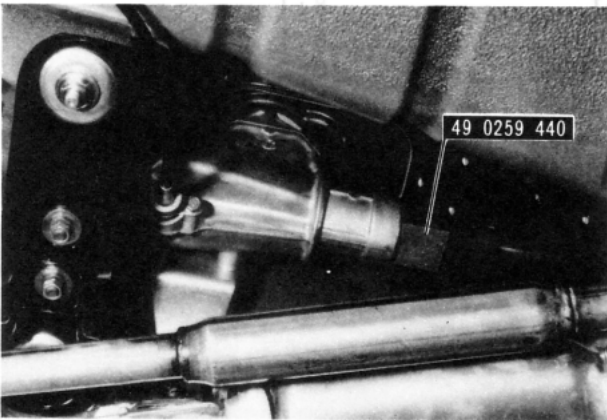


Fig. 8-2

After removing the propeller shaft, install the **turning holder** (49 0259 440) into the extension housing to prevent lubricant from leaking out of the housing.

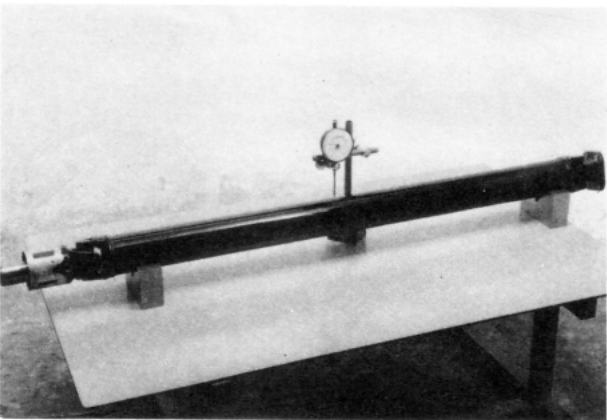


Fig. 8-3

8-B. PROPELLER SHAFT INSPECTION

Inspect the propeller shaft for damage and rusty conditions.

1. Check the run-out of the propeller shaft.
If it exceeds limit, replace the propeller shaft.

Run-out limit: 0.4 mm (0.016 in)

	Max. permissible unbalance at 4,000 rpm
At front	15 cm-gr (0.21 in-oz)
At rear	15 cm-gr (0.21 in-oz)

2. Check the propeller shaft for dynamic unbalance. The maximum permissible unbalance is shown in the left table. If the unbalance is not within the specifications, correct or replace the propeller shaft assembly.

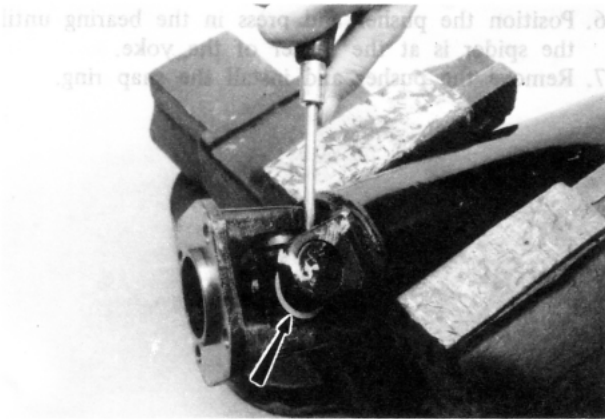


Fig. 8-4



Fig. 8-5



Fig. 8-6

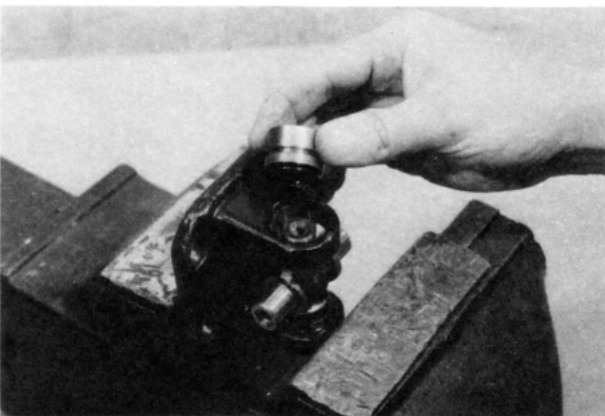


Fig. 8-7

8-C. UNIVERSAL JOINT DISASSEMBLY

The propeller shaft should be replaced as an assembly only. But, if the unbalance of the propeller shaft assembly can be checked and corrected within the specifications, the universal joint only may be replaced.

1. Clean the outside of the universal joint with a suitable solvent.
2. Place the propeller shaft in a vise being careful not to damage it.
3. Remove the snap rings.

4. Tap spider bearing in the yoke with a suitable tool until the opposite side bearing come out enough.
5. Remove the forced out spider bearing by lightly tapping the base of the yoke with a hammer.
6. Remove the bearing at opposite side by the above procedures 4 and 5, and separate the flange yoke from the propeller shaft.
7. Remove the remaining two bearings in the same manner.
8. Remove the spider from the flange yoke.

8-D. UNIVERSAL JOINT INSPECTION

1. Examine the bearing surfaces of the spider. They should be smooth and free from pits.
2. Measure the diameter of the spider. If it is **less than the limit**, replace with a new universal joint assembly.

Spider diameter:

Limit 24.908 mm (0.9806 in)

8-E. UNIVERSAL JOINT ASSEMBLY

1. Apply grease on the bearing rollers and cup inner surface, and assemble them.
2. Position the spider and one bearing on the flange yoke. (sliding yoke or companion flange yoke)
3. Position a suitable pusher on the bearing and press in the bearing to sufficient depth.
4. Remove the pusher and install the snap ring.
5. Place the bearing in the bore at other side of yoke.



Fig. 8-8



Fig. 8-9

1.22 mm (0.0480 in)	1.32 mm (0.0520 in)
1.24 mm (0.0488 in)	1.34 mm (0.0528 in)
1.26 mm (0.0496 in)	1.36 mm (0.0535 in)
1.28 mm (0.0504 in)	1.38 mm (0.0543 in)
1.30 mm (0.0512 in)	

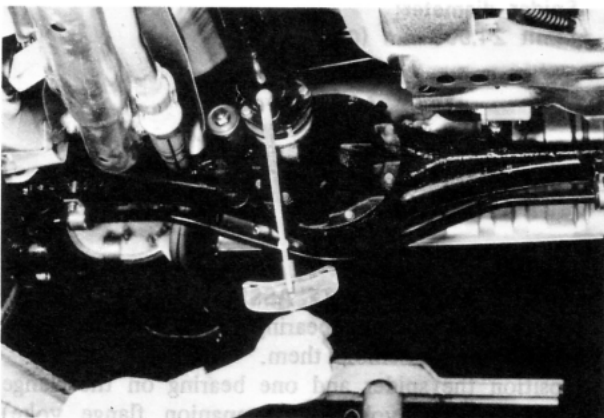


Fig. 8-10

6. Position the pusher and press in the bearing until the spider is at the center of the yoke.
7. Remove the pusher and install the snap ring.



Fig. 8-7

8. Install the sliding yoke (or flange yoke) and spider assembly to the propeller shaft in the same manner as instructed above.

Note :

- a) Avoid reusing the old snap rings.
- b) Use snap rings of same thickness at both sides of yoke.
- c) Select snap rings so as to place the spider at the center of the yoke and to give a suitable slight drag fit (not binding).

Snap rings are available in 9 thicknesses as shown in the left table.

8-F. PROPELLER SHAFT INSTALLATION

Install the propeller shaft in the reverse order of removing.

Note :

Be sure to observe location marks on the companion flange, yokes and propeller shaft for correct assembly.