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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

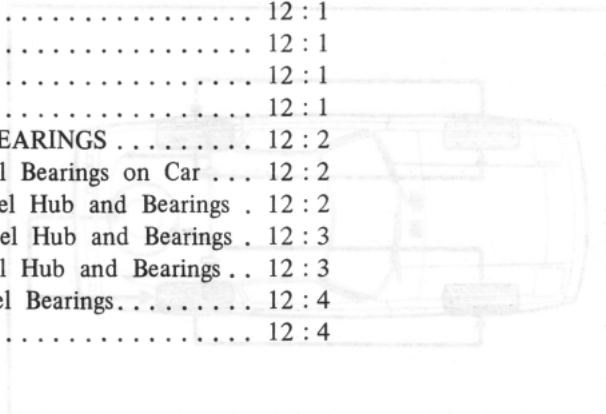
12-A. INFLATION OF TIRES
 Check the inflation pressure with a reliable gauge when tires are cold. The recommended cold tire inflation pressures are as follows:

Tire size	Load	Pressure
185/70 HR 13	1.8 kN/cm ² (28 psi)	1.8 kN/cm ² (28 psi)
185 HR 13	1.8 kN/cm ² (28 psi)	1.8 kN/cm ² (28 psi)



WHEELS AND TIRES

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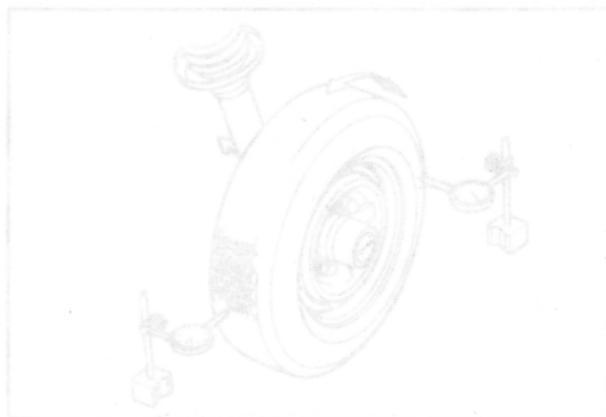


12-C. WHEEL AND TIRE RUN-OUT
 Wheel and tire should be measured for both radial and lateral run-out. To measure the radial run-out, apply a dial indicator against the center rib of the tire tread and rotate the wheel slowly.

Run-out limit: 2.0 mm (0.08 in)

To measure the lateral run-out, position a dial indicator against the side of the tire.

Run-out limit: 2.8 mm (0.10 in)



12-D. WHEEL BALANCING
 The allowable unbalance is less than 50 gr (10.70 oz) at the rim. Excessive wheel unbalance causes shimmy at high speed. If unbalance exceeds the specification or when a tire is disassembled for repair, the tire and wheel assembly should be statically and dynamically balanced with a wheel balancer in accordance with the manufacturer's instructions.



Fig. 12-1

Fig. 12-2

Fig. 12-3

Fig. 12-4



Fig. 12-1

12-A. INFLATION OF TIRES

Check the inflation pressure with a reliable gauge when tires are cold. The recommended cold tire inflation pressure are as follows.

Tire size	Front	Rear
185/70 HR 13	1.8 kg/cm ² (26 psi)	1.8 kg/cm ² (26 psi)
165 HR 13	1.8 kg/cm ² (26 psi)	1.8 kg/cm ² (26 psi)

Snow tires should always be inflated 4 psi above the recommended inflation pressures shown on the table.

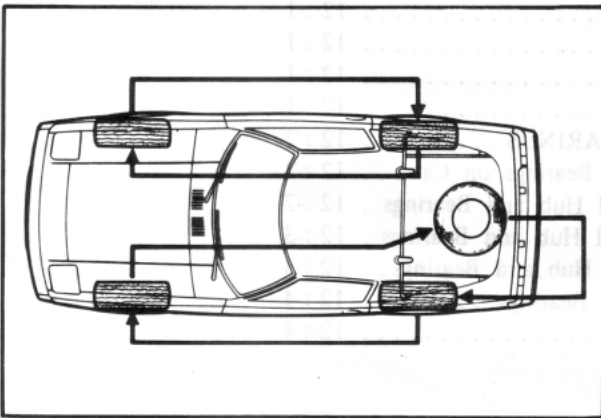


Fig. 12-2

12-B. TIRE ROTATION

To equalize wear and make a set of tires last longer, it is recommended that the tires be rotated periodically, as shown in figure.

When rotating the tires, check for signs of abnormal wear and bulging and any stone, nail, glass, etc. should be removed.

Tightening torque of wheel nut :
9 ~ 11 m-kg (65 ~ 80 ft-lb)

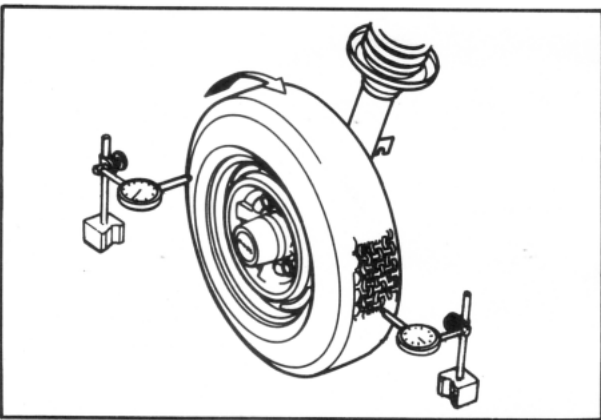


Fig. 12-3

12-C. WHEEL AND TIRE RUN-OUT

Wheel and tires should be measured for both radial and lateral run-out.

To measure the radial run-out, apply a dial indicator against the center rib of the tire tread and rotate the wheel slowly.

Run-out limit: 2.0 mm (0.08 in)

To measure the lateral run-out, position a dial indicator against the side of the tire.

Run-out limit: 2.5 mm (0.10 in)

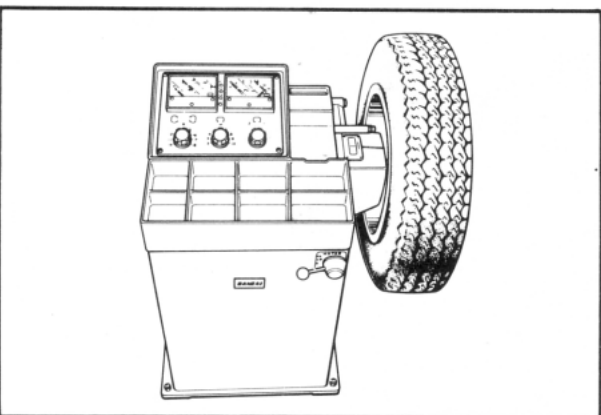


Fig. 12-4

12-D. WHEEL BALANCING

The allowable unbalance is less than 20 gr (0.70 oz) at the rim.

Excessive wheel unbalance causes shimmy at high speed.

If unbalance exceeds the specification or when a tire is disassembled for repair, the tire and wheel assembly should be statically and dynamically balanced with a wheel balancer in accordance with the manufacture's instructions.



Fig. 12-5

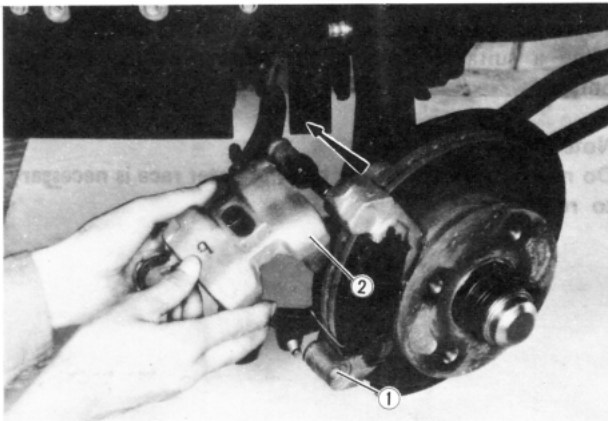


Fig. 12-6



Fig. 12-7

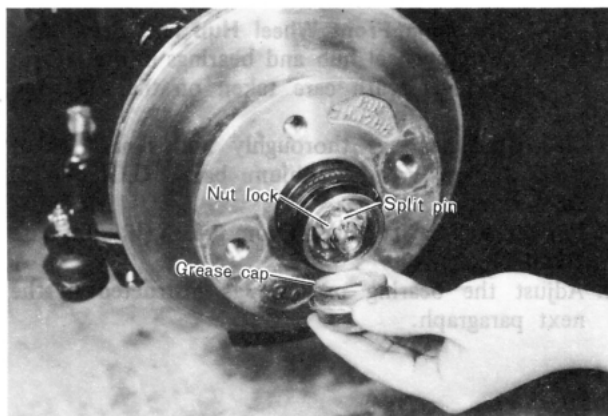


Fig. 12-8

12-E. FRONT WHEEL HUB AND BEARINGS

12-E-1. Checking Front Wheel Bearings on Car

Raise the front end of the vehicle until the wheels clear the ground and support it with stand. Grip the tire and shake it sideways. If considerable play is noticed, this indicates that the bearings are rough.

12-E-2. Removing Front Wheel Hub and Bearings

Raise the front end of the vehicle and support it with stands, and remove the front wheel.

Remove the following parts.

1. Caliper attaching bolt (lower side)
 2. Caliper
- Attach the caliper assembly to the coil spring with a piece of wire.
- Never allow the caliper assembly to hang from the brake pipe, as damage may occur.**

3. Anti-rattle spring
4. Disc brake pads and shims
5. Caliper bracket

6. Grease cap, split pin, nut lock and adjusting nut
7. Washer and outer bearing

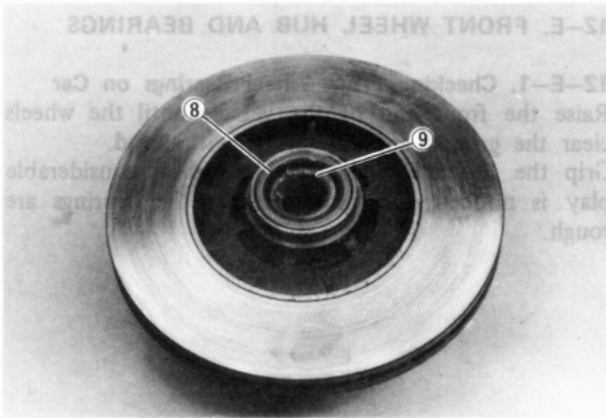


Fig. 12-9

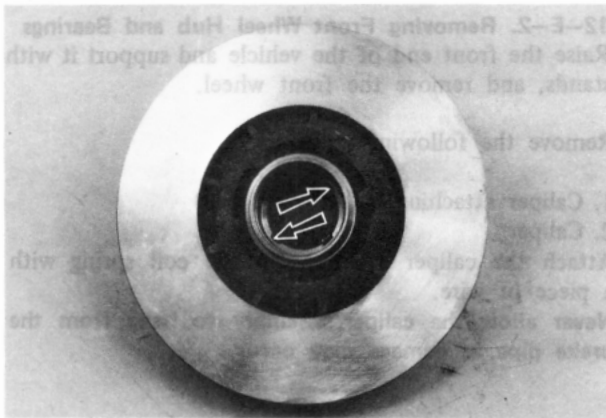


Fig. 12-10

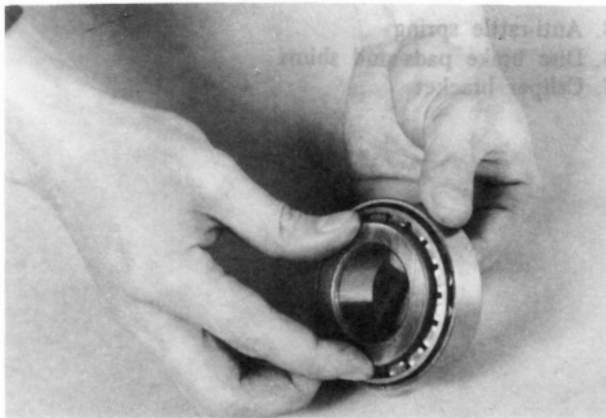
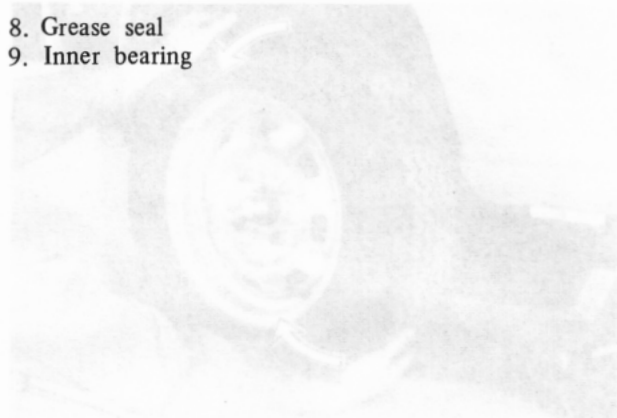


Fig. 12-11



Fig. 12-12

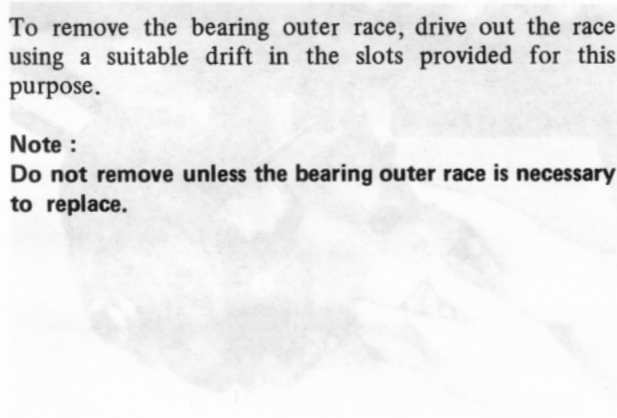
- 8. Grease seal
- 9. Inner bearing



To remove the bearing outer race, drive out the race using a suitable drift in the slots provided for this purpose.

Note :

Do not remove unless the bearing outer race is necessary to replace.



12-E-3. Inspecting Front Wheel Hub and Bearings

1. Clean the lubricant off the inner and outer bearing outer races with solvent and inspect the outer races for scratches, pits, excessive wear and other damage.
2. Thoroughly clean the bearing with solvent and dry it thoroughly.

Note :

Do not spin the bearings with compressed air.

3. Inspect the bearing rollers for damage, wear and other defects. Replace the bearing if necessary.
4. Clean the spindle and inside of the hub with solvent to remove all old grease.

12-E-4. Installing Front Wheel Hub and Bearings

Install the front wheel hub and bearings in the reverse order of removal, with care taken on the following points.

1. Clean the bearings thoroughly and repack them with lithium grease (lithium base NLGI No. 2) **Do not overpack.**
2. Fill the hub cavity with lithium grease (lithium base NLGI No. 2).
3. Adjust the bearing preload, as instructed in the next paragraph.

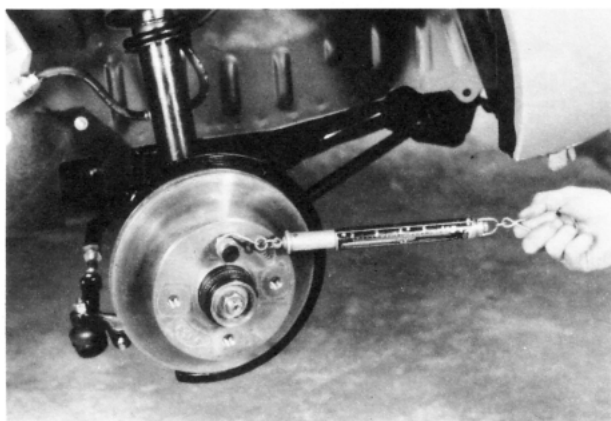


Fig. 12-13

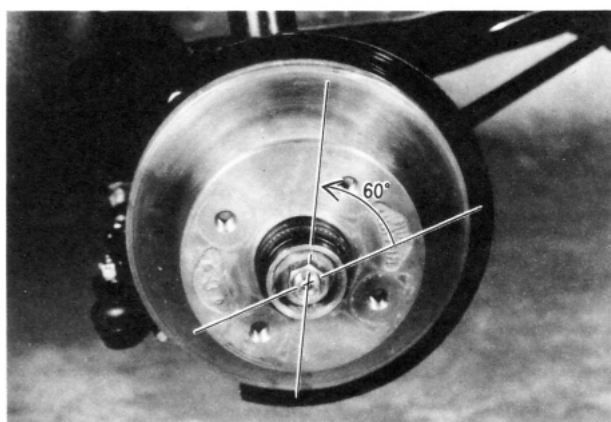


Fig. 12-14

12-E-5. Adjusting Front Wheel Bearings

1. Tighten the adjusting nut to lock the wheel hub and back off the adjusting nut until the wheel hub turns smoothly.
2. Rotate the hub back and forth about three times to snug down the bearings.
3. Hook a spring scale on the hub bolt.
Pull the spring scale squarely and take a reading on the scale when the hub starts to run. The reading should be within the 0.45 ~ 0.65 kg (0.99 ~ 1.43 lb).
4. Adjust the reading by turning the adjusting nut.
5. Fit the nut lock onto the adjusting nut and align the slots of the nut lock with the hole of the spindle. Install the split pin and the grease cap.

Note :

If a spring scale is not available, adjust the preload as follows:

Rotate the hub and tighten the adjusting nut until the hub binds.

Then, back off the adjusting nut about one-sixth of a turn, making sure that the hub rotates freely without any sidewise stroke.

12-F. REAR WHEEL BEARING

Servicing the rear wheel bearing is explained in Par. 9-A.