

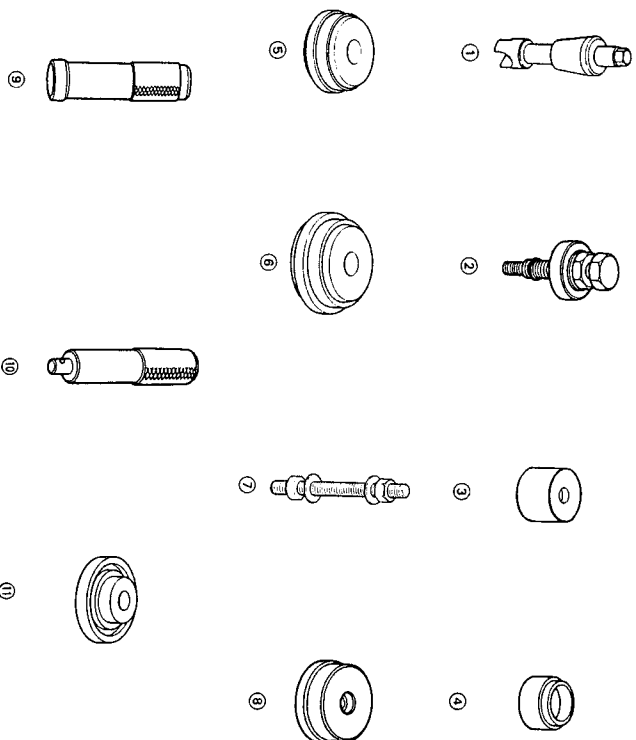
Differential

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Ref. No.	Tool Number	Description	Qty	Page Reference
①	07HAI-PK40201	Preload Inspection Tool	1	15-9, 10, 21, 22
②	07LAC-PW50101	Extension Shaft Puller	1	15-6
③	07LAD-PW50500	Pinion Cover Driver Attachment	1	15-20, 24
④	07MAD-PR90100	Attachment, 45 x 55 mm	1	15-14
⑤	07MAF-SP0011A	Taper Bearing Race Installer A	1	15-16, 17
⑥	07MAF-SP0012A	Taper Bearing Race Installer B	1	15-16, 17
⑦	07MAF-SP0013A	Installer Shaft	1	15-16, 17
⑧	07746-0010600	Attachment, 72 x 75 mm	1	15-17
⑨	07746-0030100	Driver, 40 mm I.D.	1	15-16, 18, 20
⑩	07749-0010000	Driver	1	15-17, 20, 23, 24
⑪	07947-6110501 or 07947-6110500	Driver Attachment	1	15-23



Differential

Troubleshooting

NOTE: Most problems in the unit are to be diagnosed by identifying noises from the gears or bearings. Care should be taken during diagnosis not to confuse differential noises with those from other drivetrain components.

[Noise symptoms will be most prominent]

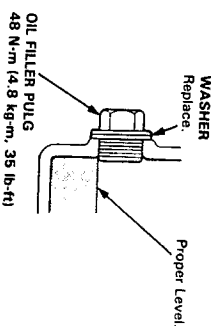
Symptom	Probable Cause	Remedy
Consistent noise during cruising	<ul style="list-style-type: none"> Lack of oil Foreign matter stuck in gears, etc. Improper tooth contact between ring gear and drive pinion Worn or damaged side bearing 	<ul style="list-style-type: none"> Replenish oil Clean and inspect Adjust or replace Replace any damaged or faulty parts
Gear noises while accelerating	<ul style="list-style-type: none"> Lack of oil Foreign matter stuck in gears, etc. Improper drive pinion preload Chipped or damaged gears 	<ul style="list-style-type: none"> Replenish oil Clean and inspect Adjust Replace
Gear noises while coasting or accelerating	<ul style="list-style-type: none"> Improper drive pinion preload Damaged or chipped gears 	<ul style="list-style-type: none"> Adjust or replace
Bearing noises while coasting/deceleration	<ul style="list-style-type: none"> Cracked or damaged drive pinion bearing or side bearing 	<ul style="list-style-type: none"> Replace
Abnormal noises when rounding a curve	<ul style="list-style-type: none"> Worn (excessive play) or damaged side bearing Damaged side gear, pinion, or pinion shaft 	<ul style="list-style-type: none"> Replace
Abnormal noises during acceleration or when first driving away from a stop.	<ul style="list-style-type: none"> Excessive backlash between ring gear and drive pinion. Improper ring gear or drive pinion preload Excessive pinion backlash Worn differential splines Loose companion flange nuts and other fasteners 	<ul style="list-style-type: none"> Adjust Adjust or replace Recheck torque or replace
Oil leak	<ul style="list-style-type: none"> Oil level too high Clogged breather hole Loose carrier or inadequate sealing Worn or damaged oil seal 	<ul style="list-style-type: none"> Lower to proper level Clean or replace Recheck torque or apply sealant Replace
Overheating	<ul style="list-style-type: none"> Lack of oil Insufficient ring gear-to-pinion backlash Excessive ring gear or drive pinion preload Chipped or damaged oil cooler 	<ul style="list-style-type: none"> Replenish Adjust Adjust or replace Replace
Coolant leak	<ul style="list-style-type: none"> Inadequate hose or clamp 	<ul style="list-style-type: none"> Recheck torque or replace

Maintenance

Differential Oil

NOTE: Check the oil with engine OFF, and the car on level ground.

1. Remove the oil filler plug, then check the level and condition of the oil.



2. The oil level must be up to the fill hole. If it is below the hole, add oil until it runs out, then reinstall the oil filler plug with a new washer.

3. If the differential oil is dirty, remove the drain plug and drain the oil.

4. Reinstall the drain plug with a new washer, and refill the differential oil to the proper level.

NOTE:

- The drain plug washer should be replaced at every oil change.
- Clean the drain plug before reinstalling.

5. Reinstall the oil filler plug with a new washer.

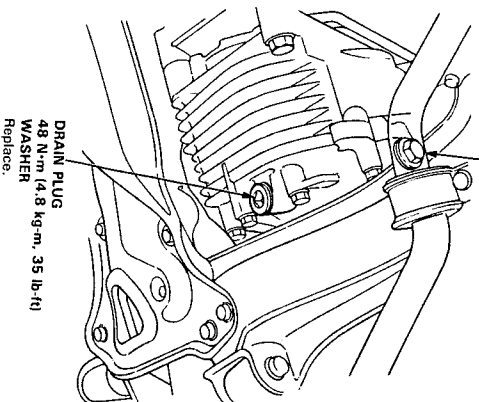
Oil Capacity

0.95 L (1.00 US qt, 0.84 Imp qt) at oil change.
1.05 L (1.11 US qt, 0.92 Imp qt) at overhaul.

Recommended oil:

Hypoid gear oil
API Classification GL4 or GL5, viscosity:
SAE 90 above 0°F (-18°C)
SAE 80 W 90 below 0°F (-18°C)

OIL FILLER PLUG
48 N·m (4.8 kg·m, 35 lb-ft)
WASHER
Replace.



Differential Assembly

Removal

⚠ WARNING

- Make sure jacks and safety stands are placed properly, and hoist brackets are attached to correct positions on the engine.
- Apply parking brake and block rear wheels, so car will not roll off stands and fall on you while working under it.

CAUTION: Use fender covers to avoid damaging painted surfaces.

NOTE: The radio may have a coded theft protection circuit. Be sure to get the customer's code number before

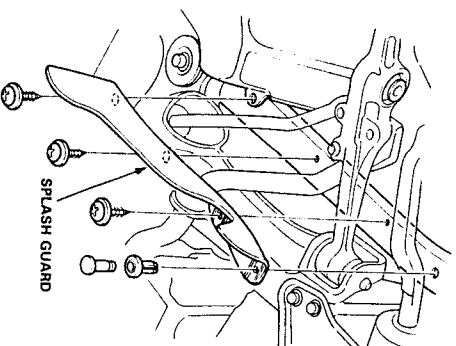
- Disconnecting the battery.
- Removing the No. 39 (10 A) fuse in the under-hood fuse/relay box

— Removing the radio.

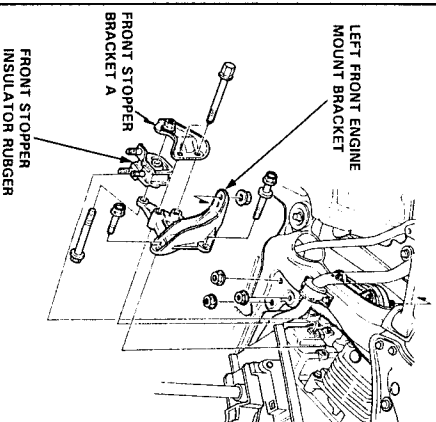
After service, reconnect power to the radio and turn it on. When the word "CODE" is displayed, enter the customer's 5-digit code to restore radio operation.

1. Disconnect the battery negative (-) and positive (+) cables from the battery.
2. Remove the air cleaner assembly.
3. Remove the drain plug, and drain the differential oil (see page 15-4).
4. Remove the driveshafts and intermediate shaft (see section 16).
5. Attach a hoist chain to the engine hanger plate, then lift the engine slightly to unload the mounts.

6. Remove the splash guard.



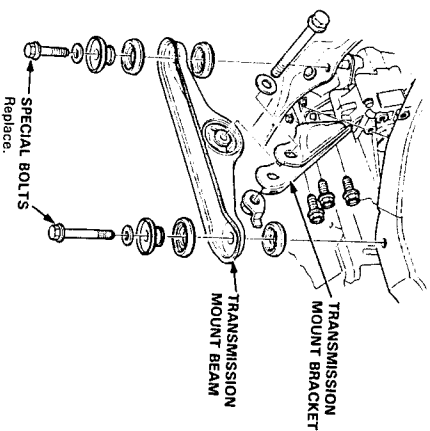
7. Remove the front stopper bracket A, front stopper insulator rubber and left front engine mount bracket.



Differential Assembly

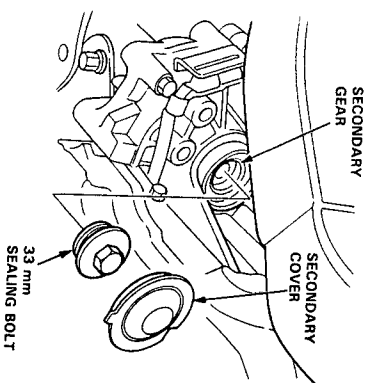
Removal (cont'd)

8. Remove the transmission mount beam and the transmission mount bracket.

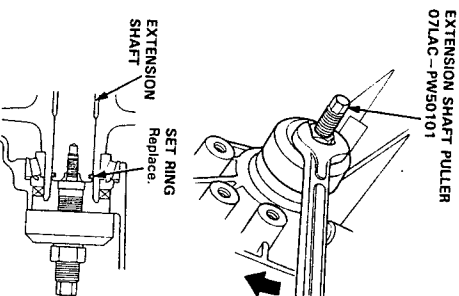


9. Remove the secondary cover and the 33 mm sealing bolt.

NOTE: Shift to 1st gear (M/T) or position (A/T) to lock the secondary gear.



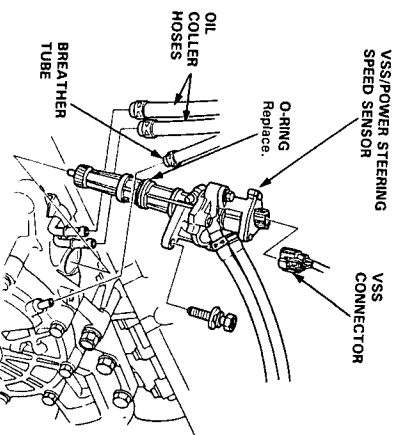
10. Disconnect the extension shaft from the differential using the special tool as shown.



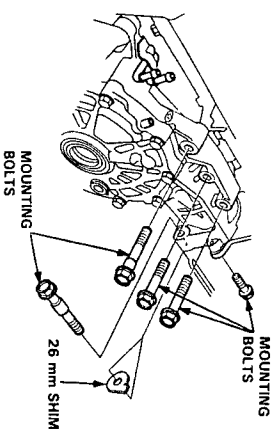
11. Disconnect the oil cooler hoses, breather tube and VSS connector, then remove the vehicle speed sensor (VSS)/power steering speed sensor.

NOTE:

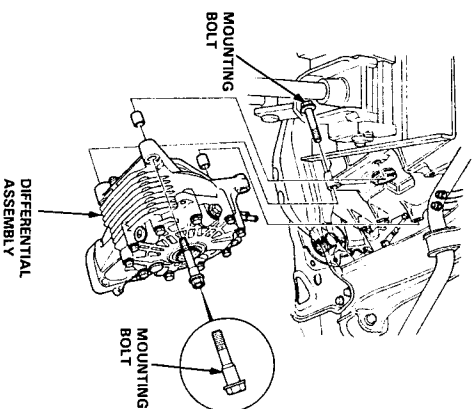
- Do not disconnect the hoses of the power steering speed sensor.
- Do not let the engine coolant flow into the differential.



12. Remove the mounting bolts and the 26 mm shim.

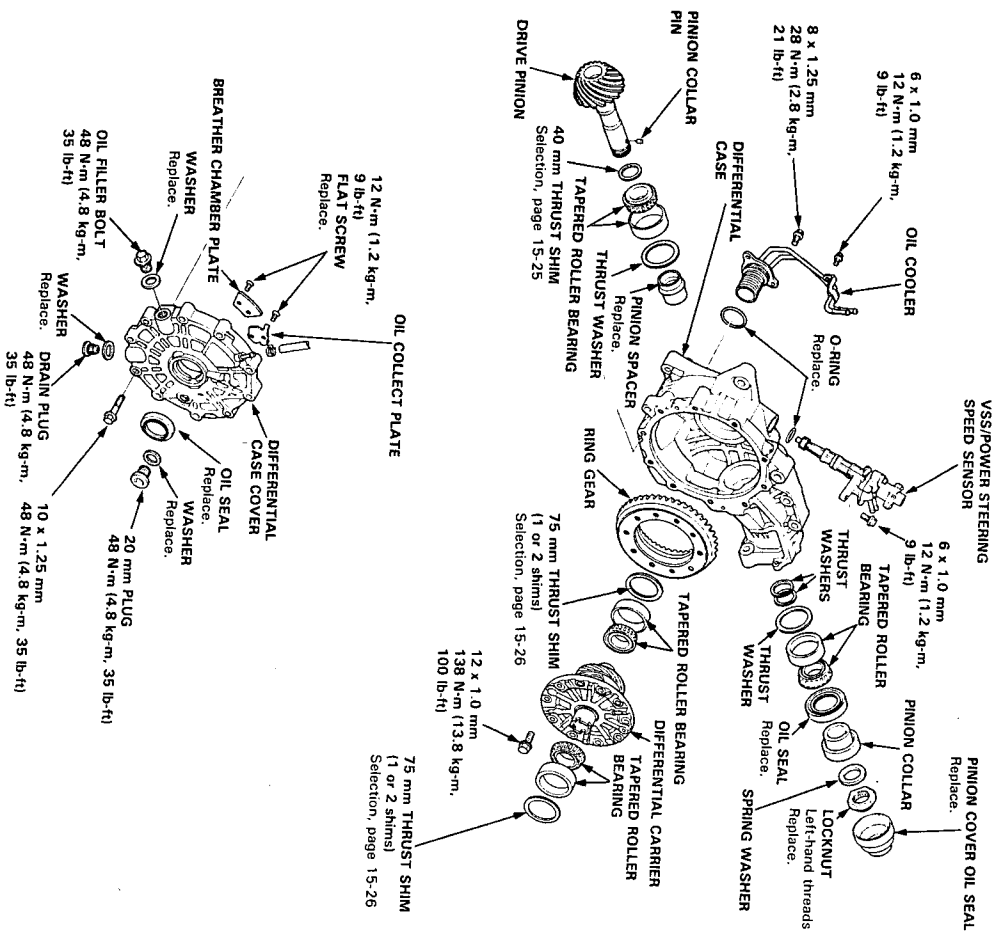


13. Remove the mounting bolts and the differential assembly.



Differential Assembly

Illustrated Index



Inspection

To establish a starting point before disassembly, it is necessary to inspect the following:

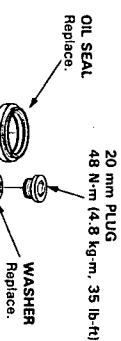
- Ring gear backlash
- Total bearing preload
- Gear tooth contact

NOTE:

- Be sure the differential is at room temperature before inspecting.
- Record the results of the preliminary inspections as this information will become helpful during reassembly.

Ring gear backlash

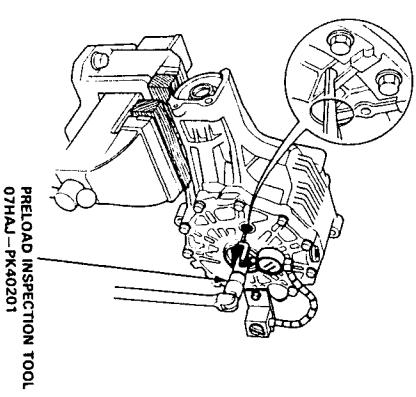
1. Remove the 20 mm plug and the oil seal.



4. Measure the backlash of the ring gear in 3–4 places on the differential carrier using the special tools as shown.

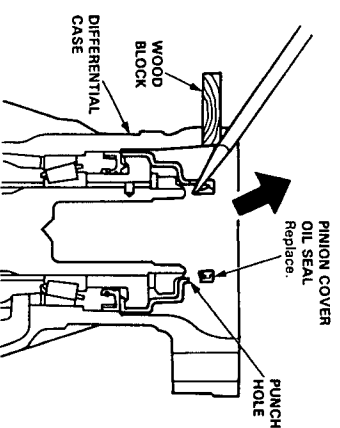
Standard: 0.04–0.10 mm (0.002–0.004 in)

The difference among the 3–4 measurements taken, must not exceed 0.04 mm (0.002 in).

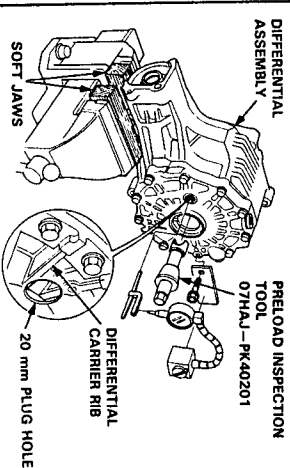


5. Remove the pinion cover oil seal by punching two holes in the seal 180° apart. Use the same pry point and alternate between the two holes to lift the seal as shown.

NOTE: Use a wood block to protect the differential case.



2. Secure the differential assembly in a vise using soft jaws.
3. Align a differential carrier rib with the 20 mm plug hole and install special tools as shown.



(cont'd)

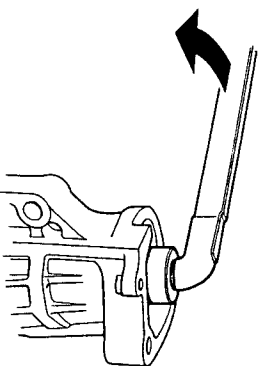
Differential Assembly

Inspection (cont'd)

Total bearing preload

- Use a dial-type torque wrench on the drive pinion to measure the total bearing preload.

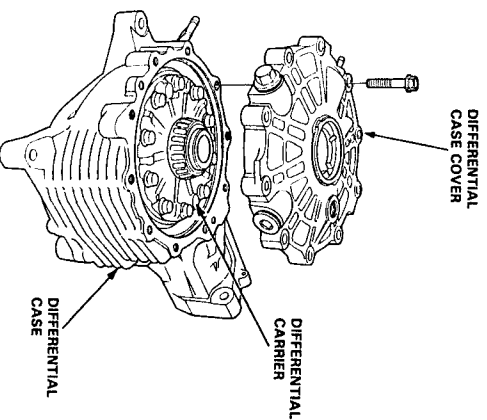
Standard: 1.56–2.20 N·m
(15.6–22.0 kg·cm, 13.5–19.1 lb-in)



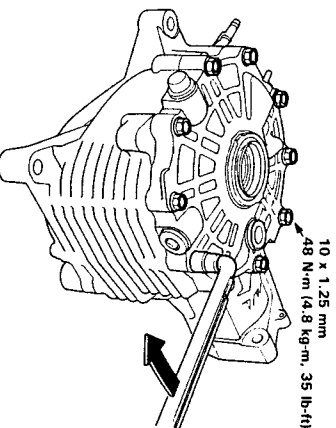
Gear tooth contact

- Remove the differential case cover and differential carrier. Clean and paint the ring gear teeth lightly and evenly with Prussian Blue (on both sides of each tooth).

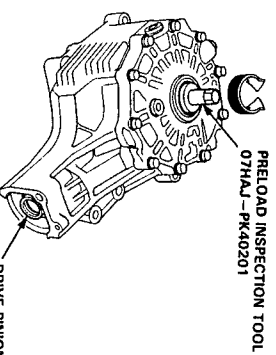
NOTE: Loosen the bolts in a crisscross pattern, in several steps.



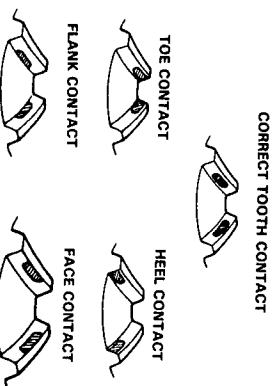
- Reinstall the differential carrier and the differential case cover, then torque the bolts in a crisscross pattern, in several steps.



- Install the special tool as shown. Rotate the ring gear one full turn in both directions while applying resistance to the drive pinion.

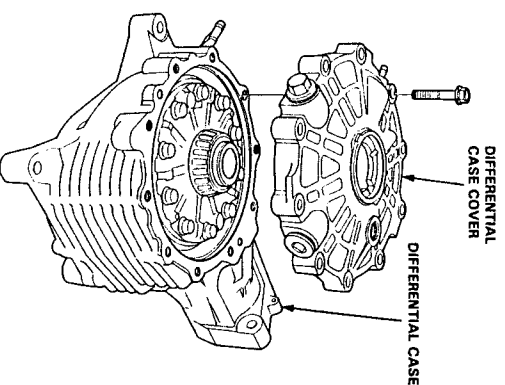


- Remove the differential case cover and the differential carrier, then check the tooth contact pattern.

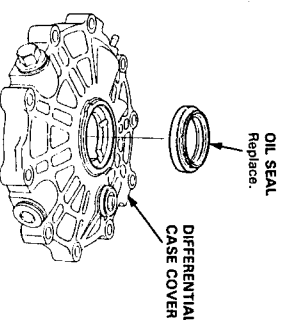


Disassembly

- Remove the bolts in a crisscross pattern, in several steps, then remove the differential case cover.



- Remove the oil seal from the differential case cover.

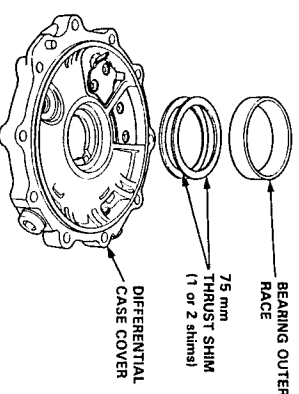


- Remove the bearing outer race and the 75 mm thrust shim from the differential case cover by driving them out or by heating the differential case cover to about 212°F (100°C).

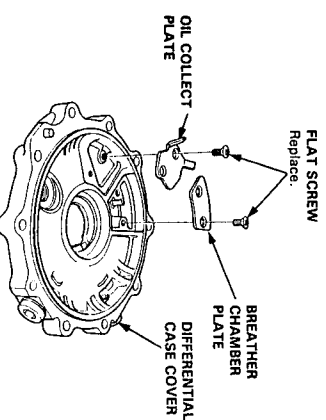
CAUTION: Do not reuse the 75 mm thrust shim if the bearing outer race was driven out.

NOTE:

- Do not heat the differential case cover in excess of 212°F (100°C).
- If the bearing outer race was removed by heating, allow the differential cover to cool to room temperature.
- Replace the tapered roller bearing with a new one whenever the bearing outer race is replaced.



- Remove the breather chamber plate and the oil collector plate.



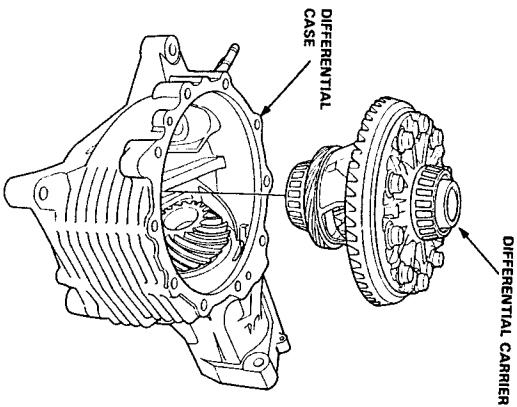
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Differential Assembly

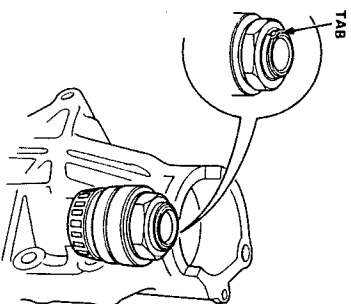
Disassembly (cont d)

- Remove the differential carrier from the differential case.

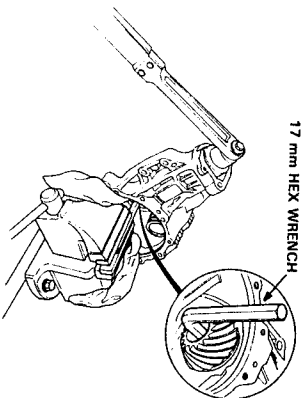


- Raise the locknut tab from the groove of the drive pinion.

CAUTION: Make sure that the tab completely clears the groove to prevent damage the drive pinion threads.

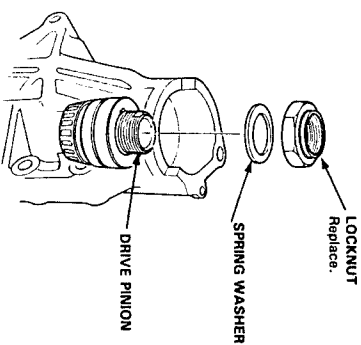


- Hold the drive pinion using a 17 mm hex wrench as shown.

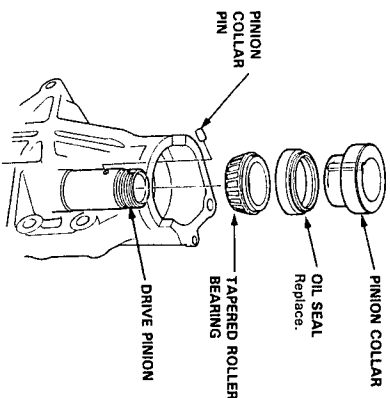


- Remove the locknut and the spring washer from the drive pinion.

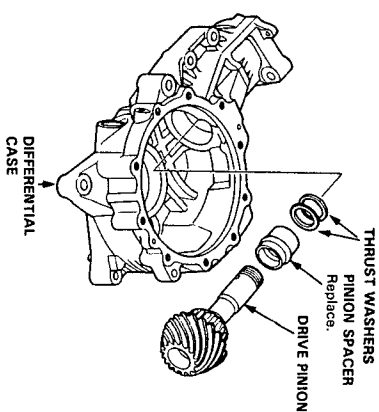
NOTE: The locknut has left-hand threads.



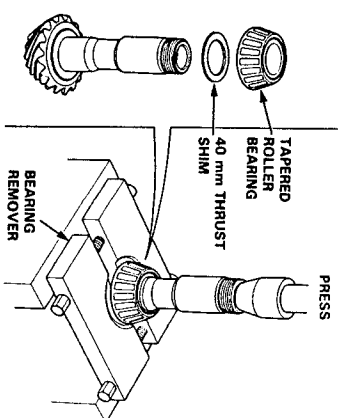
- Remove the pinion collar, the oil seal, and the pinion collar pin, then tap the drive pinion through the tapered roller bearing.



- Remove the drive pinion, the pinion spacer, and the thrust washers.



- Remove the tapered roller bearing and 40 mm thrust shim using a press as shown.



(cont d)

Differential Assembly

Disassembly (cont'd)

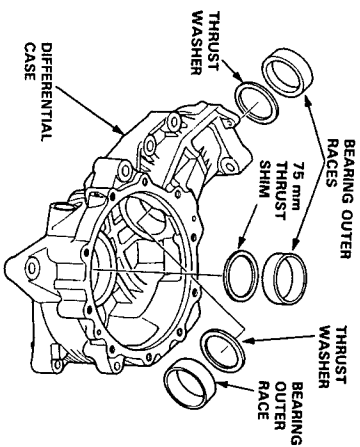
- Remove the bearing outer races, 75 mm thrust shim(s), and thrust washers by driving them out from behind using the grooves provided or by heating the differential case to about 212°F (100°C).

NOTE: Use care when driving out the bearing outer races to prevent damage to the differential case.

CAUTION: Do not reuse the 75 mm thrust shim and thrust washer if the bearing outer race was driven out.

NOTE:

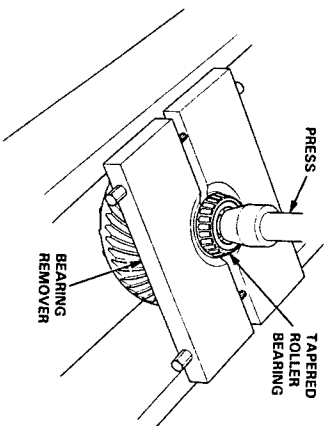
- Do not heat the differential case in excess of 212°F (100°C).
- If the bearing outer race was removed by heating, allow the differential case to cool to room temperature.
- Replace the tapered roller bearing with a new one whenever the bearing outer race is replaced.



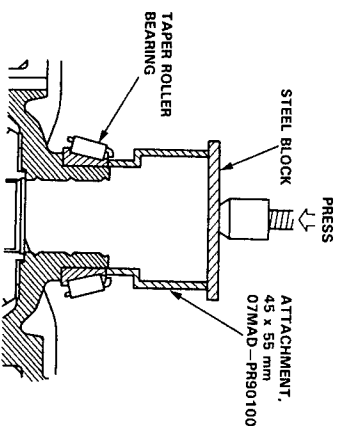
Differential Carrier

Tapered Roller Bearing Replacement

- Remove the tapered roller bearings using a press as shown.

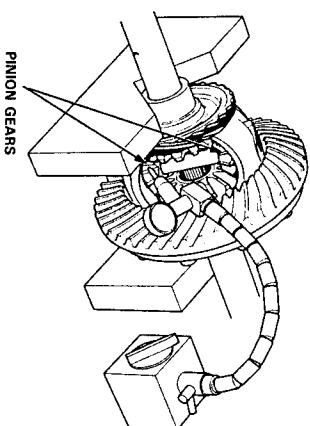


- Install the tapered roller bearings using the special tools and a press as shown.



Backlash Inspection

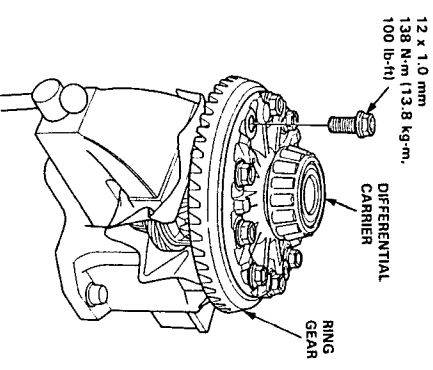
- Remove the tapered roller bearings (see page 15-14).
- Install the left driveshaft and the intermediate shaft in the side gears.
- Measure the backlash of both pinion gears.
Standard: 0.05–0.15 mm (0.002–0.006 in)
Service Limit: 0.30 mm (0.012 in)



If the backlash exceeds the service limit, replace the differential carrier.

Ring Gear Replacement

- Remove the bolts in a crisscross pattern, in several steps, and remove the ring gear.



- Install the ring gear by tightening the bolts in a crisscross pattern, in several steps.
If the bolts are difficult to tighten, make sure that the ring gear is going on to the differential carrier correctly.

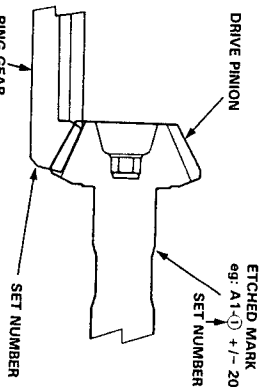


Differential Assembly

Reassembly

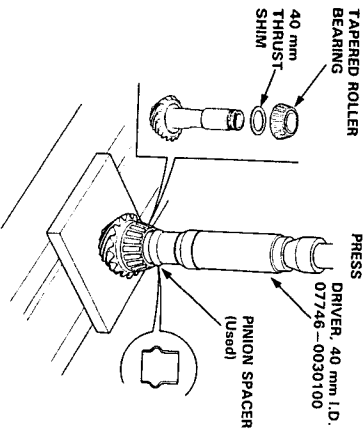
NOTE:

- If replacement is required, always replace the drive pinion and ring gear as a set.
- If the drive pinion and ring gear are replaced, check the height adjustment (see page 15-25).



1. Install the 40 mm thrust shim and tapered roller bearing using the special tool and a press as shown.

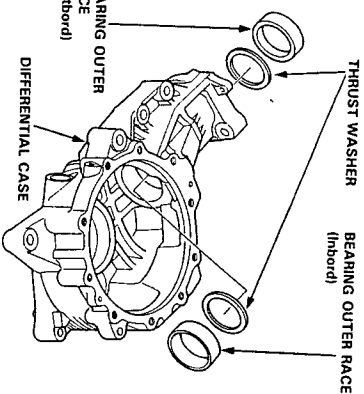
NOTE: Use a used pinion spacer with the special tool for bearing installation, and then discard the used pinion spacer.



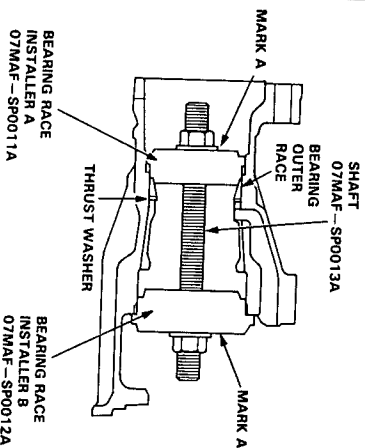
2. Check the differential case bearing surface areas for burrs, and remove as needed. Position the inboard thrust washer into the differential case. Using the sides of the special tools stamped "B", install the inboard bearing outer race as shown. Repeat for the outboard bearing outer race.

NOTE:

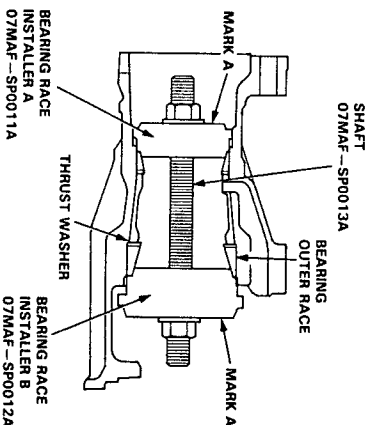
- Heating the differential case to about 212°F (100°C) will assist the bearing outer race installation.
- Do not heat the differential case in excess of 212°F (100°C).
- Let the differential case cool to room temperature before adjusting the tapered roller bearing preload.



1. First install the outboard bearing outer race.

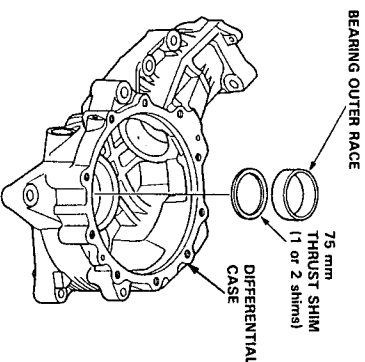


2. Next install the inboard bearing outer race.



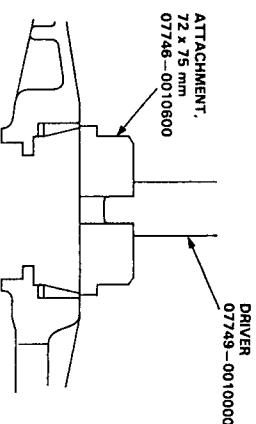
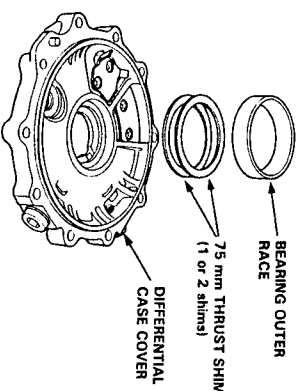
3. Install the 75 mm thrust shim(s) and bearing outer race using the special tools as shown.

NOTE: Install the 75 mm thrust shim that was removed.



4. Install the 75 mm thrust shim(s) and bearing outer race using the special tools as shown.

NOTE: Install the 75 mm thrust shim that was removed.

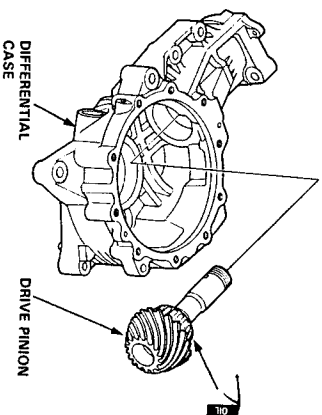


Differential Assembly

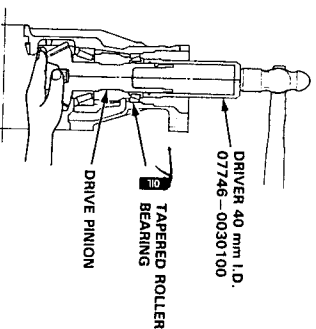
Reassembly (cont'd)

5. Apply lubricant to the tapered roller bearing, then install the drive pinion into the differential case as shown.

NOTE: Do not install the pinion spacer and thrust washers at this time.



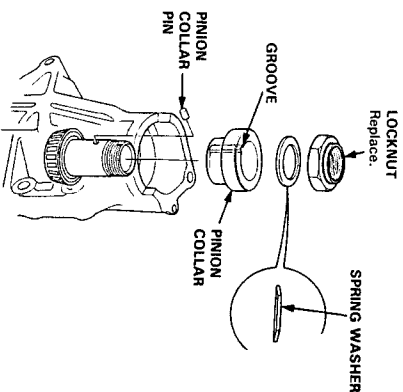
6. Apply lubricant to the tapered roller bearing, then install it using the special tool by holding the drive pinion as shown.



7. Install the pinion collar pin, then install the pinion collar by aligning the pinion collar pin with the groove in the pinion collar. Install the spring washer and a new locknut.

NOTE:

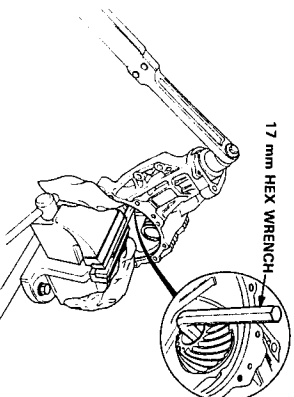
- The locknut has left-hand threads.
- Apply a sufficient amount of lubricant (gear oil and molybdenum disulfide in a mixing ratio of 5 : 1) to the locknut and the threaded part of the shaft.



8. Hold the drive pinion using a 17 mm hex wrench as shown, and carefully tighten the pinion locknut until there is no play in the drive pinion.

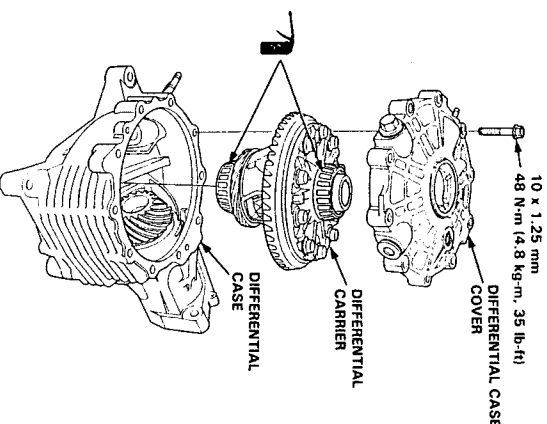
Torque: 20 N·m (2.0 kg·m, 14 lb·ft)

CAUTION: To avoid damaging the tapered roller bearing, do not overtighten the locknut.

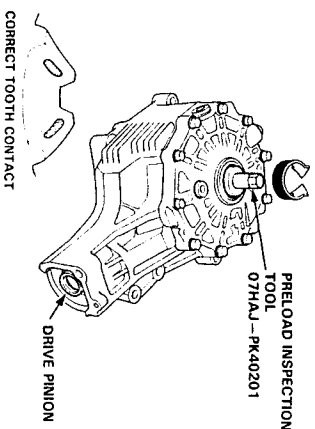


9. Clean and paint the ring gear teeth lightly and evenly with Prussian Blue (on both sides of each tooth).
10. Apply lubricant to the tapered roller bearings. Install the differential carrier into the differential case, and install the differential case cover.

11. Install the bolts and tighten in a crisscross pattern, in several steps.

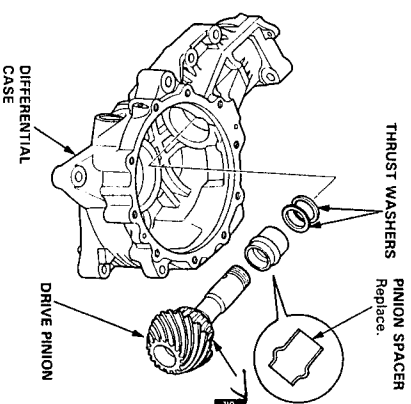


12. Install the special tool as shown. Rotate the ring gear one full turn in both directions while applying resistance to the drive pinion.



13. Remove the differential case cover, and check the tooth contact pattern (heel and toe). Adjust the ring gear tooth contact as needed (see page 15-26).

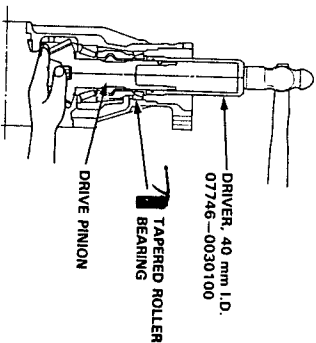
14. After adjusting the ring gear tooth contact, remove the drive pinion, and install a new pinion spacer and thrust washers on the drive pinion.



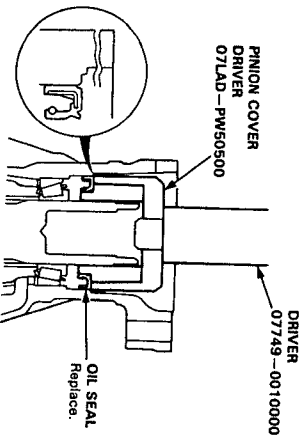
Differential Assembly

Reassembly (cont'd)

15. Apply lubricant to the tapered roller bearing, then install it using the special tool while holding the drive pinion as shown.

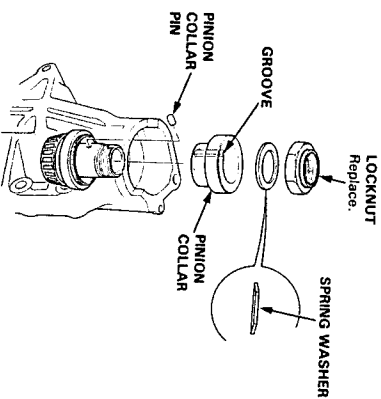


16. Install a new oil seal using the special tools as shown.

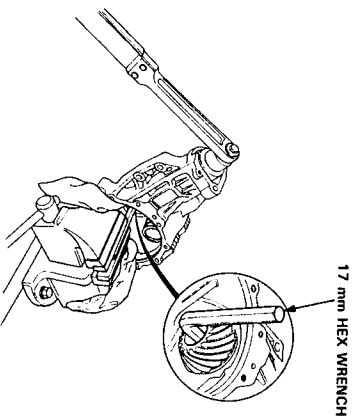


17. Install the pinion collar pin, then install the pinion collar by aligning the pinion collar pin with the groove in the pinion collar. Install the spring washer and a new locknut.

NOTE: The locknut have left-hand threads.



18. Hold the drive pinion using a 17 mm hex wrench as shown.

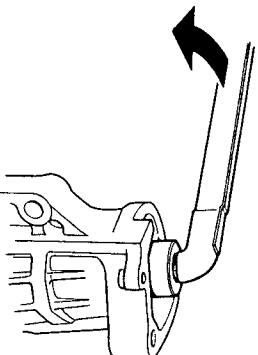


19. Tighten the locknut to 260 N·m (26 kg·m, 188 lb-ft), and measure the tapered roller bearing preload.

NOTE: Rotate the drive pinion several times to ensure proper tapered roller bearing contact.

Standard:

New Bearing: 1.3–1.7 N·m
(1.3–1.7 kg·cm, 11.3–14.8 lb-in)
Reused Bearing: 0.65–1.05 N·m
(6.5–10.5 kg·cm, 5.6–9.1 lb-in)



If the tapered roller bearing preload exceeds the standard, replace the pinion spacer.

If the tapered roller bearing preload is less than the standard, adjust by tightening the locknut a little at a time, but keep the torque within 260–330 N·m (26–33 kg·m, 188–239 lb-ft). If this is not possible, replace the pinion spacer.

20. Clean and paint the ring gear teeth lightly and evenly with Prussian Blue (on both sides of each tooth).

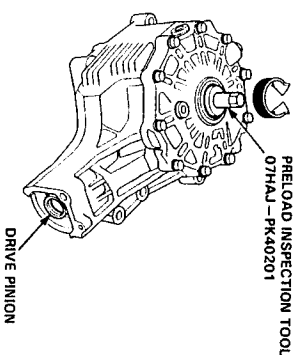
21. Install the differential carrier into the differential case, and reinstall the differential case cover.

22. Install the bolts and tighten in a crisscross pattern in several steps.

Torque: 48 N·m (4.8 kg·cm, 35 lb-ft)

23. Install the special tool as shown.

Rotate the ring gear one full turn in both directions while applying resistance to the drive pinion.



24. Remove the special tool, and use a dial-type torque wrench on the pinion shaft to check total bearing preload.

NOTE: Rotate the drive pinion several times to ensure proper bearing contact.

Standard:

New bearings: 2.58–3.30 N·m
(25.8–33.0 kg·cm, 22.4–28.6 lb-in)

Reused bearings:

1.56–2.20 N·m
(15.6–22.0 kg·cm, 13.5–19.1 lb-in)
Replaced only the bearing on the ring gear side: 1.93–2.65 N·m
(19.3–26.5 kg·cm, 16.8–23.0 lb-in)
Replaced only the bearing on the drive pinion side: 2.21–2.85 N·m
(22.1–28.5 kg·cm, 19.2–24.7 lb-in)

If the total preload is not within the standard, correct it by increasing or decreasing the preload on the carrier bearings as needed. If there is too much preload, decrease the shim thickness equal amounts on both sides. If there is not enough preload, increase the shim thickness equal amounts on both sides.

NOTE: Be sure the same amount of shim thickness is added or subtracted from both sides, so that the backlash and tooth contact pattern are not affected.



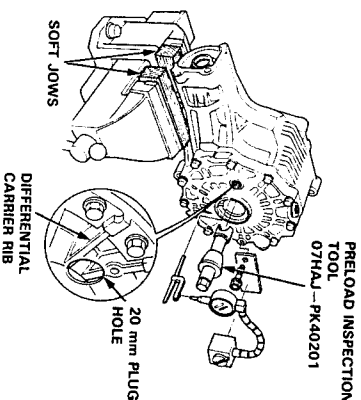
(cont'd)

Differential Assembly

Reassembly (cont'd)

25. Secure the differential assembly in a vise using soft jaws.

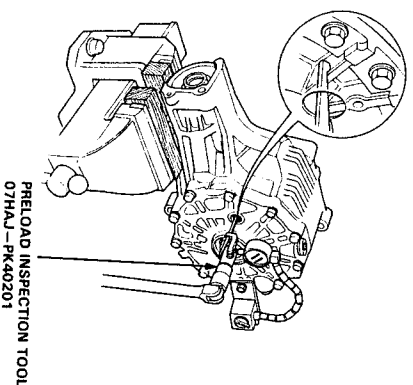
26. Align a differential carrier rib with the 20 mm plug hole, and install the special tools as shown.



27. Measure backlash in 3–4 places on the differential carrier using the special tools as shown.

Standard: 0.04–0.10 mm (0.002–0.004 in)

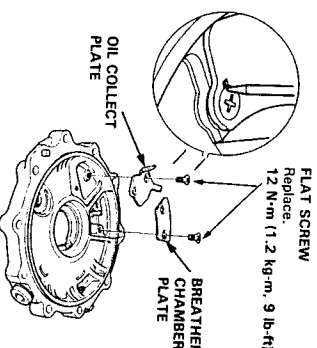
The difference among the 3–4 measurements taken, must not exceed 0.04 mm (0.002 in).



28. If the backlash is less than the standard, adjust the ring gear backlash (see page 15-26).

29. Remove the differential case cover, and check the tooth contact pattern (face and flank). If the tooth contact is not correct, adjust ring gear tooth contact (see page 15-26).

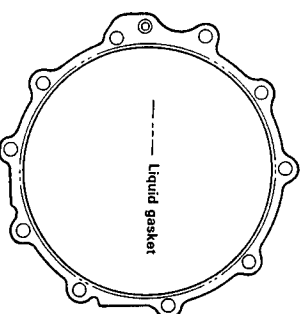
30. After all adjustments are made, install the oil collect plate and the breather chamber plate, then stake the screw heads in the groove as shown.



31. Apply liquid gasket to the mating surface of the differential case.

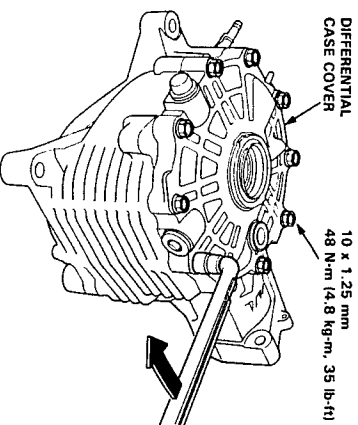
NOTE:

- Use liquid gasket (P/N 08718–0001).
- Remove the dirt and oil from the sealing surface.
- If 20 minutes have passed after applying liquid gasket, reapply it and assemble the housings, and allow it to cure at least 30 minutes after assembly before filling the transmission with oil.

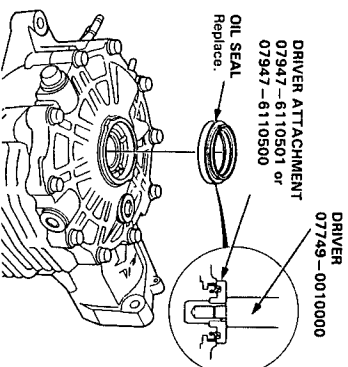


32. Install the differential case cover.

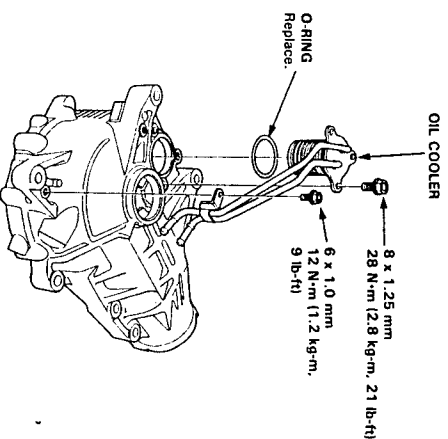
NOTE: Torque the bolts in a crisscross pattern, in several steps.



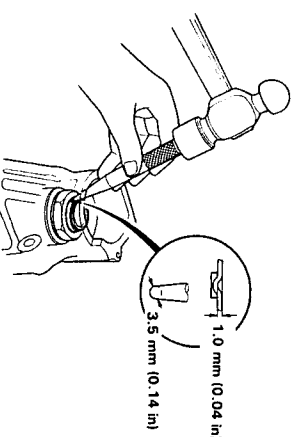
33. Install the oil seal using the special tools as shown.



34. Install the O-ring and the oil cooler.



35. Stake the locknut tab into the groove.

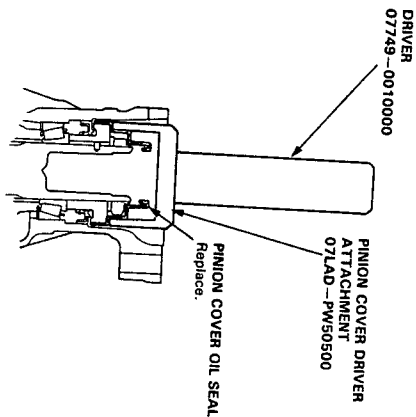


(cont'd)



Differential Assembly
Reassembly (cont'd)

36. Install the pinion cover oil seal using the special tools as shown.



Drive Pinion
Height Adjustment

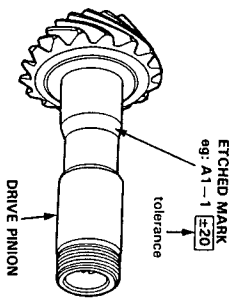
NOTE: If the drive pinion and ring gear are replaced (always as a set), height has to be adjusted.

Select the proper 40 mm thrust shim as follows:

First, calculate the difference in size between the old shim and the new drive pinion.

The last one of the numbers (see ill.) on each drive pinion is the plus (+) or minus (-) tolerance in thousandths of a millimeter. So, a drive pinion with +20 is 0.02 mm large and a drive pinion with -20 is 0.02 mm small.

1. If the number on the old drive pinion is a plus (+), add it to the old shim thickness. If it is a minus (-), subtract it from the old shim thickness.
2. If the number on the new drive pinion is a plus (+), subtract it from the number you got in step 1. If it is a minus (-), add it to the step 1 number.
3. Select the shim that is closest (but not more than) the final number you got from steps 1 and 2.



Example 1:
Old shim: 1.30 mm thickness
Old pinion: +20 (0.02 mm)
New pinion: -20 (-0.02 mm)
 $1.30 + 0.02 + 0.02 = 1.34$
Select the 1.33 mm (0.0524 in) new shim.

Example 2:
Old shim: 1.30 mm thickness
Old drive pinion: +20 (0.02 mm)
New drive pinion: +40 (0.04 mm)
 $1.30 + 0.02 - 0.04 = 1.28$

Select the 1.27 mm (0.0500 in) new shim.

40 mm THRUST SHIM

Part Number	Thickness
A 41381-PW5-000	1.18 mm (0.0465 in)
B 41382-PW5-000	1.21 mm (0.0476 in)
C 41383-PW5-000	1.24 mm (0.0488 in)
D 41384-PW5-000	1.27 mm (0.0500 in)
E 41385-PW5-000	1.30 mm (0.0512 in)
F 41386-PW5-000	1.33 mm (0.0524 in)
G 41387-PW5-000	1.36 mm (0.0535 in)
H 41388-PW5-000	1.39 mm (0.0547 in)
I 41389-PW5-000	1.42 mm (0.0559 in)
J 41390-PW5-000	1.45 mm (0.0571 in)
K 41391-PW5-000	1.48 mm (0.0583 in)
L 41392-PW5-000	1.51 mm (0.0594 in)
M 41393-PW5-000	1.54 mm (0.0606 in)
N 41394-PW5-000	1.57 mm (0.0618 in)
O 41395-PW5-000	1.60 mm (0.0630 in)
P 41396-PW5-000	1.63 mm (0.0642 in)

Ring Gear Tooth Contact

Adjustment

1) CORRECT TOOTH CONTACT



2) TOE CONTACT

- Use a thinner drive pinion shim (40 mm thrust shim) to move the drive pinion away from the ring gear.



3) HEEL CONTACT

- Use a thicker drive pinion shim (40 mm thrust shim) to move the drive pinion toward the ring gear.



4) FLANK CONTACT

- Use a thicker side bearing shim (75 mm thrust shim) on the drive pinion side and a thinner one on the ring gear side to move the ring gear away from the drive pinion.

NOTE: Recheck backlash after replacing the side bearing shims. If out of specification, adjust as described under TOE CONTACT.



5) FACE CONTACT

- Use a thinner side bearing shim (75 mm thrust shim) on the drive pinion side and a thicker one on the ring gear side to move the ring gear from the drive pinion.

NOTE: Recheck backlash after replacing the side bearing shims. If out of specification, adjust as described under HEEL CONTACT.



Ring Gear Backlash

Adjustment

- If the backlash exceeds the standard, correct by decreasing the shim thickness on one side and increasing the thickness of the other shim the same amount.

NOTE:

- The total thickness of both shims must still equal the total thickness of the original shims.
- If there is too much backlash, move the ring gear toward the drive pinion. If there is not enough backlash, move the ring gear away from the drive pinion.

- After adjustment, recheck backlash (see page, 15-22).

Standard: 0.04–0.10 mm (0.002–0.004 in)

75 mm THRUST SHIM

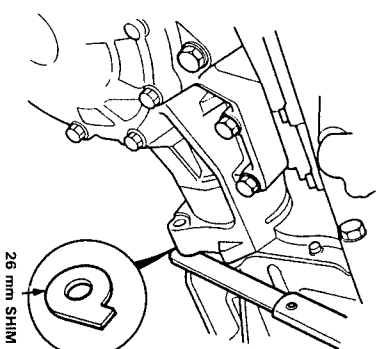
Part Number	Thickness
A 41401–PW8–010	0.66 mm (0.0260 in)
B 41402–PW8–010	1.67 mm (0.0657 in)
C 41403–PW8–010	1.70 mm (0.0669 in)
D 41404–PW8–010	1.73 mm (0.0681 in)
E 41405–PW8–010	1.76 mm (0.0693 in)
F 41406–PW8–010	1.79 mm (0.0705 in)
G 41407–PW8–010	1.82 mm (0.0717 in)
H 41408–PW8–010	1.85 mm (0.0728 in)
I 41409–PW8–010	1.88 mm (0.0740 in)
J 41410–PW8–010	1.91 mm (0.0752 in)
K 41411–PW8–010	1.94 mm (0.0764 in)
L 41412–PW8–010	1.97 mm (0.0776 in)
M 41413–PW8–010	2.00 mm (0.0787 in)
N 41414–PW8–010	2.03 mm (0.0799 in)
O 41415–PW8–010	2.06 mm (0.0811 in)
P 41416–PW8–010	2.09 mm (0.0823 in)
Q 41417–PW8–010	2.12 mm (0.0835 in)
R 41418–PW8–010	2.15 mm (0.0846 in)
S 41419–PW8–010	2.18 mm (0.0858 in)
T 41420–PW8–010	2.21 mm (0.0870 in)
U 41421–PW8–010	2.24 mm (0.0882 in)
V 41422–PW8–010	2.27 mm (0.0894 in)
W 41423–PW8–010	2.30 mm (0.0906 in)
X 41424–PW8–010	2.33 mm (0.0917 in)
Y 41425–PW8–010	2.36 mm (0.0929 in)
Z 41426–PW8–010	2.39 mm (0.0941 in)

Differential Assembly

Installation

NOTE: If the differential carrier is replaced, the 26 mm shim must be adjusted.

- Install the differential assembly.
- Measure the clearance between the differential case and the clutch housing.

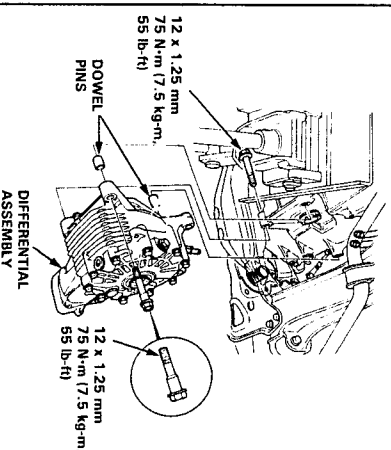


- Select the shim from the following table.

26 mm SHIM

Part Number	Thickness	Measurement Value
41432–PY4–000	1.9 mm (0.0748 in)	1.99–1.9 mm
41433–PY4–000	2.0 mm (0.0787 in)	2.09–2.0 mm
41434–PY4–000	2.1 mm (0.0827 in)	2.19–2.1 mm
41435–PY4–000	2.2 mm (0.0866 in)	2.29–2.2 mm
41436–PY4–000	2.3 mm (0.0906 in)	2.39–2.3 mm
41437–PY4–000	2.4 mm (0.0945 in)	2.49–2.4 mm
41438–PY4–000	2.5 mm (0.0984 in)	2.59–2.5 mm
41439–PY4–000	2.6 mm (0.1024 in)	2.69–2.6 mm
41440–PY4–000	2.7 mm (0.1063 in)	2.79–2.7 mm
41441–PY4–000	2.8 mm (0.1102 in)	2.89–2.8 mm
41442–PY4–000	2.9 mm (0.1142 in)	2.99–2.9 mm
41443–PY4–000	3.0 mm (0.1181 in)	3.09–3.0 mm

- Install the dowel pins and the differential assembly.



- Fill the extension shaft with Super High Temp Urea Grease (P/N 08798–9002).

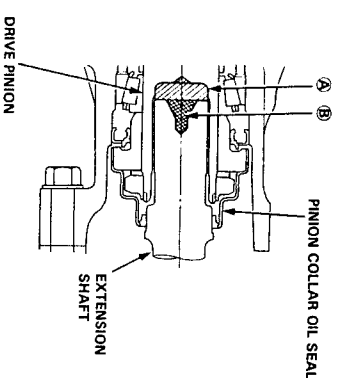
- Fill the drive pinion with Super High Temp Urea Grease (P/N 08798–9002).

If the pinion collar oil seal is replaced:

Ⓐ: 19–20 g (0.67–0.71 oz)

If the pinion collar oil seal is not replaced:

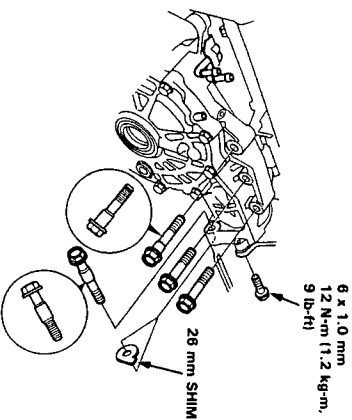
Ⓐ: 3.5–4.5 g (0.12–0.16 oz)



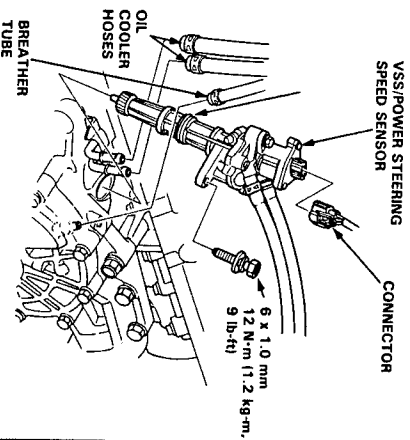
Differential Assembly

Installation (cont'd)

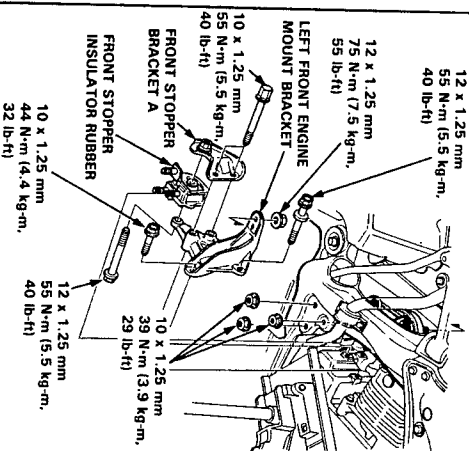
4. Install the mounting bolts and the 26 mm shim.
Torque:
12 x 1.25 mm
75 N·m (7.5 kg-m, 55 lb-ft)



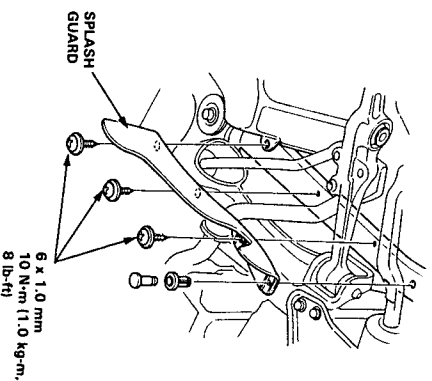
5. Install the vehicle speed sensor (VSS)/power steering speed sensor, then connect the oil cooler hoses and the breather tube.



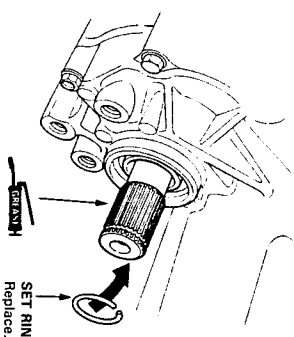
6. Install the left front engine mount bracket, the front stopper insulator rubber, and the front stopper bracket A.



7. Install the splash guard.

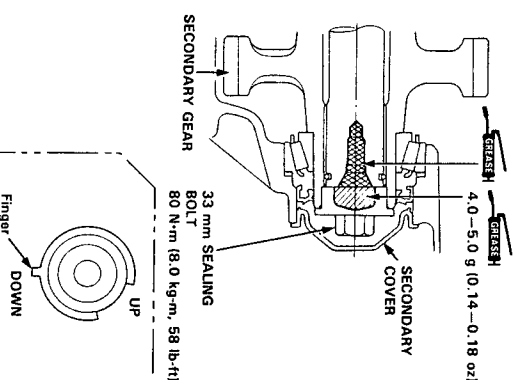


8. Install the set ring and the extension shaft, and apply Super High Temp Urea Grease (P/N 08798-9002) to the extension shaft spline.

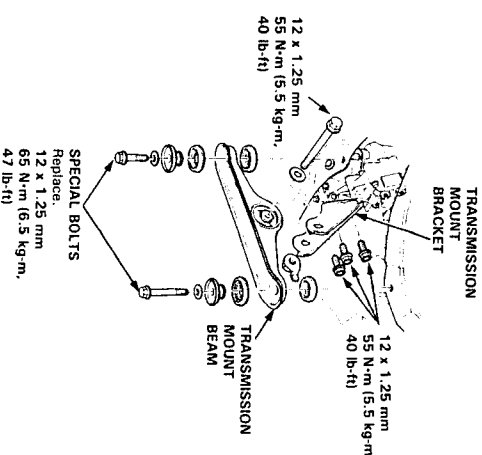


9. Install the 33 mm sealing bolt and the secondary cover.

- NOTE:
- Shift to 1st gear (M/T) or **P** position (A/T) to lock the secondary gear.
 - Apply liquid gasket (P/N 08718-0001) to the threads.
 - Turn the secondary cover so the finger is facing down.



10. Install the transmission mount bracket and the transmission mount beam.



11. Install the driveshafts and the intermediate shaft (see section 16).
12. Refill the differential with oil (see page 15-4).
13. Refill the coolant (see section 10).
14. Install the air cleaner assembly.
15. Connect the battery positive (+) and negative (-) cables to the battery.
16. Check the clutch operation.
17. Shift the transmission, and check for smooth operation.
18. After service, reconnect power to the radio and turn it on.
When the word "CODE" is displayed, enter the customer's 5-digit code to restore radio operation.

