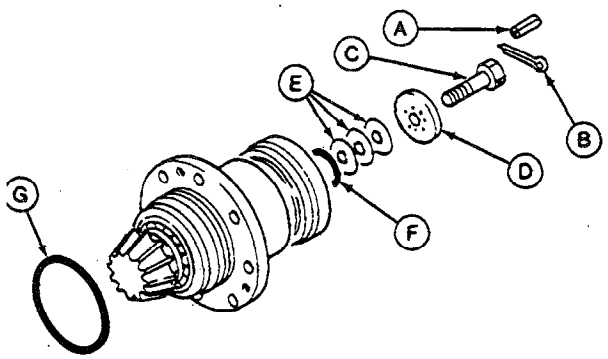
DISASSEMBLE INPUT PINION

1. Remove pin (A) and cotter pin (B).
2. Remove cap screw (C) and spacer (D).
3. Identify shims (E) to aid at assembly. Remove shims.
4. Remove O-rings (F and G).

A—Spring Pin
B—Cotter Pin
C—Cap Screw
D—Spacer
E—Shim Pack
F—O-Ring
G—O-Ring



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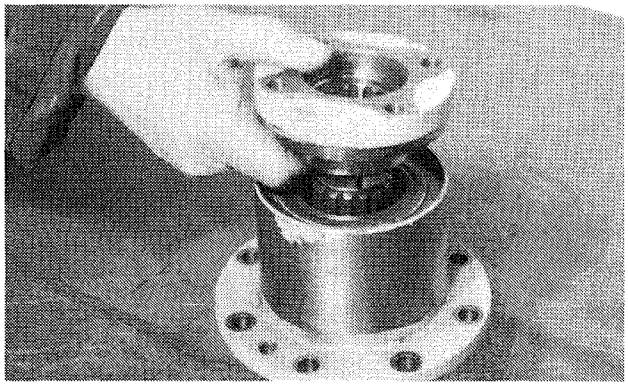
5. Remove input flange.



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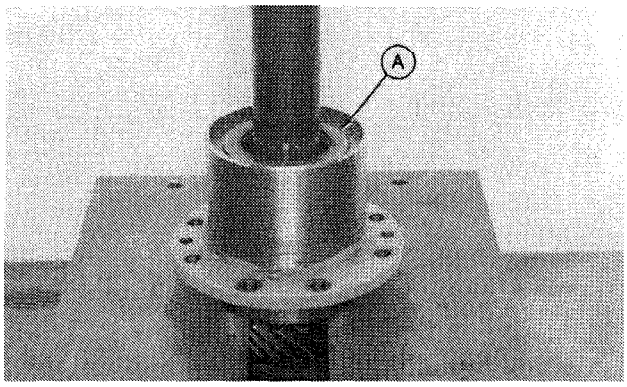
6. Remove pinion shaft.
7. Remove oil seal (A).



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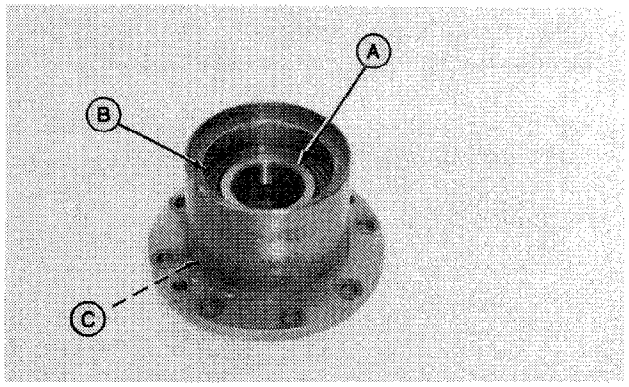
8. Remove bearing (A). Replace bearing cup (B) if bearing is replaced.

9. Inspect bearing cups (B and C). Remove with puller if replacement is necessary.



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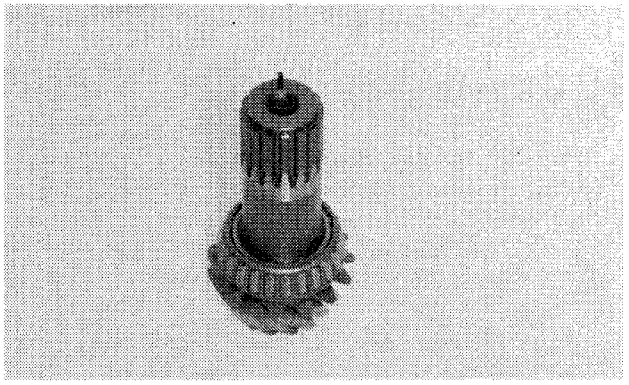
10. Inspect bearing. Remove with puller if replacement is necessary.

NOTE: Replace bearing cup (C) in step 9 if bearing is replaced.



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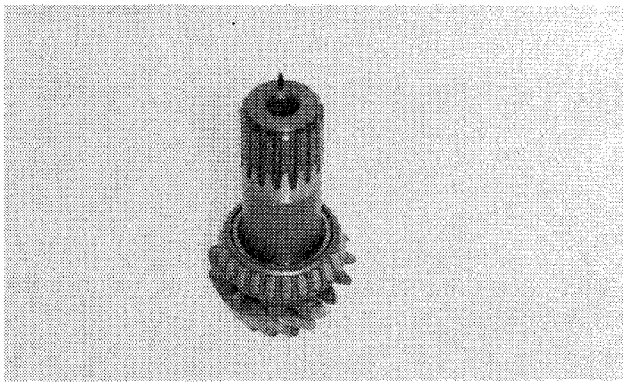
ASSEMBLE INPUT PINION

CAUTION: DO NOT heat oil over 182C (360F). Oil fumes or oil can ignite above 193C (360F). Use a thermometer. Do not allow a flame or heating element to come in direct contact with the oil. Heat the oil in a well ventilated area. Plan a safe handling procedure to avoid burns.

1. Heat bearing cone to 150C (300F) and install on shaft.



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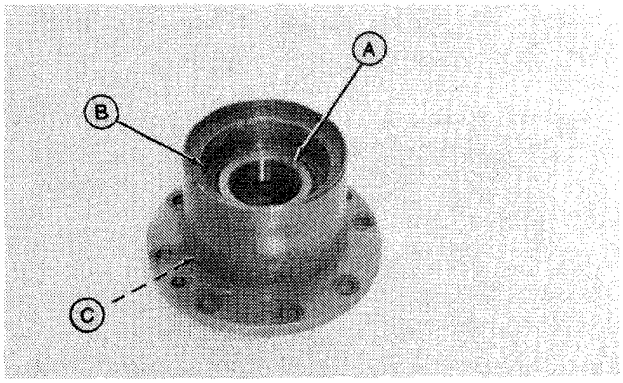
2. Install bearing cup (C) using a 78 mm (3-5/64 in.) disk. Install cup tight against shoulder in quill.

3. Install bearing cup (B) using a 74 mm (2-29/32 in.) disk. Install cup tight against shoulder in quill.

4. Install bearing (A).



0210,19 -19-20APR90

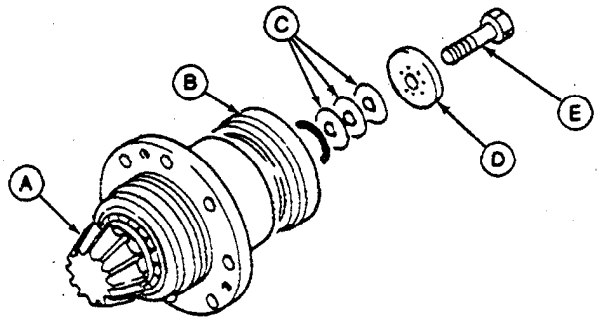
5. Install pinion shaft (A).

6. Install input flange (B).

7. Install original shim pack (C), spacer (D), and cap screw (E). Tighten cap screw to 180 N·m (80 lb-ft).

NOTE: Do not install oil seal at this time. Oil seal will be installed after pinion shaft adjustment.

A—Pinion Shaft
B—Input Flange
C—Shim Pack
D—Spacer
E—Cap Screw



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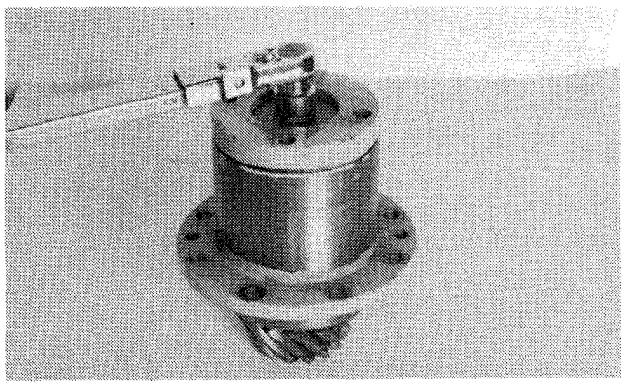
8. Check rolling drag torque to be within 15—18 N·m (11—13 lb-ft). Add shims to decrease or subtract shims to increase rolling drag torque.

9. Check to make sure there is no end play in the pinion shaft bearings.



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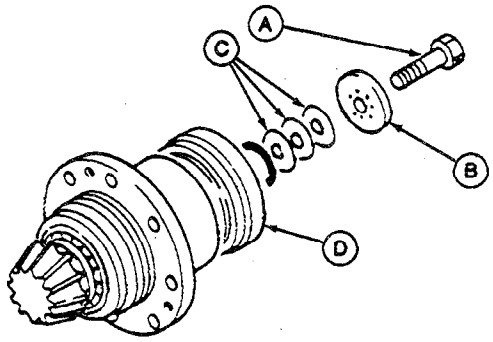
10. Remove cap screw (A), spacer (B), shims (C), and input flange (D).

A—Cap Screw
B—Spacer
C—Shim Pack
D—Input Flange



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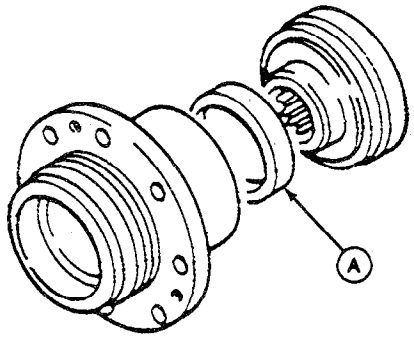
11. Apply thread lock and sealer (medium strength) or an equivalent, on the outside surface of the oil seal (A).

12. Install new oil seal (A) using an 81 mm (3-3/16 in.) disk. Put multipurpose grease on seal lips.



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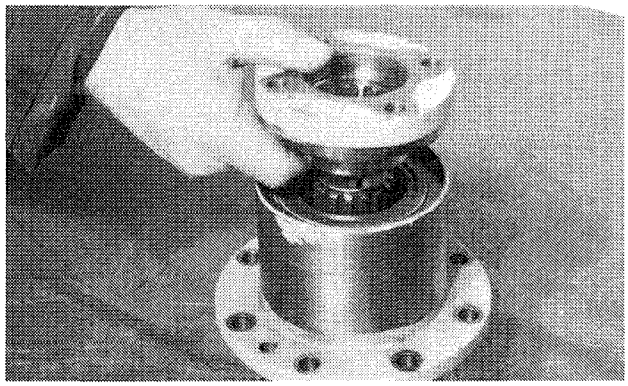
13. Install input flange.



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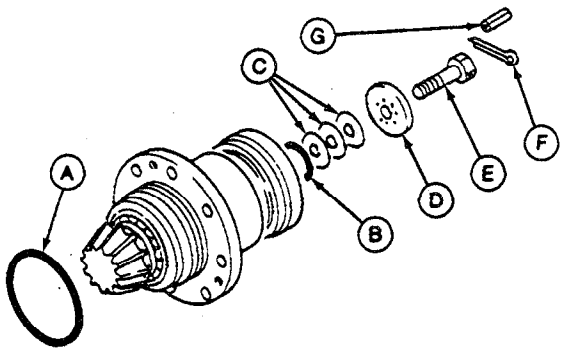
14. Install O-rings (A and B).

15. Install shims (C), spacer (D), and cap screw (E). Tighten cap screws to 108 N·m (80 lb-ft).

16. Install cotter pin (F) and spring pin (G). Bend ends of cotter pin around spring pin.

A—O-Ring
B—O-Ring
C—Shim Pack
D—Spacer
E—Cap Screw
F—Cotter Pin
G—Spring Pin



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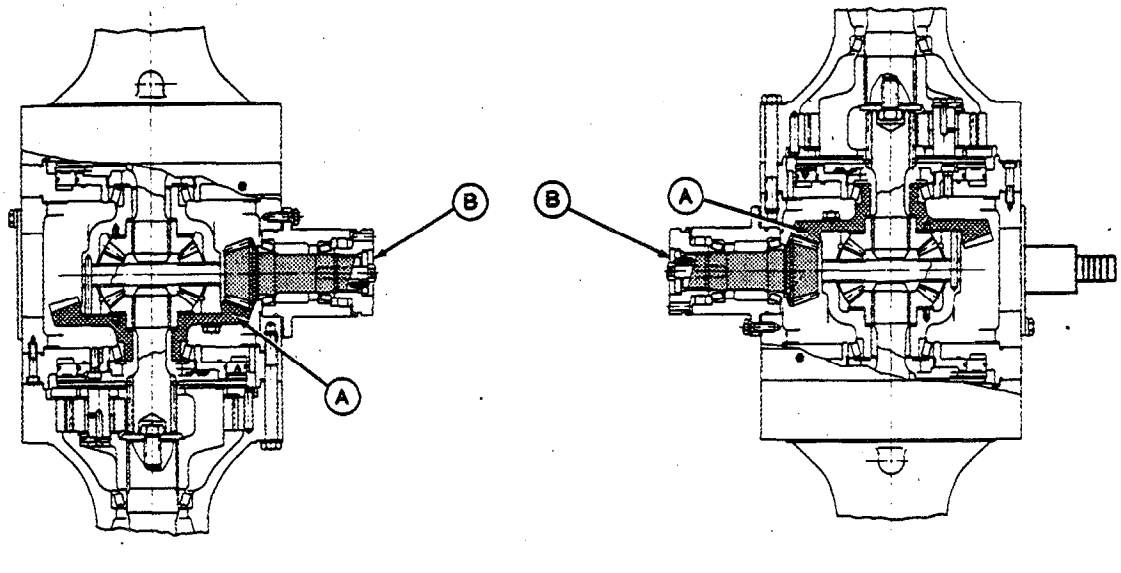
INSTALL DIFFERENTIAL AND INPUT PINION



1. Install differential. The ring gear (A) will be on the left side when facing the input pinion (B).

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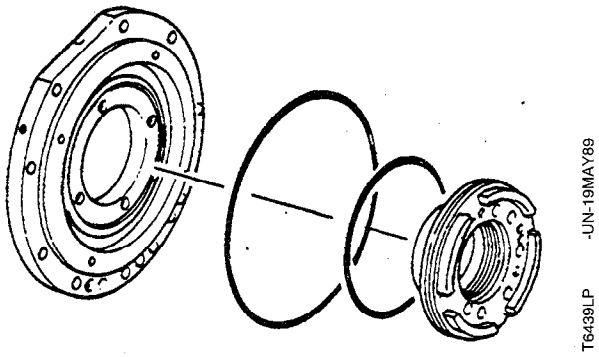
2. Coat O-rings with hydraulic oil. Install O-rings.



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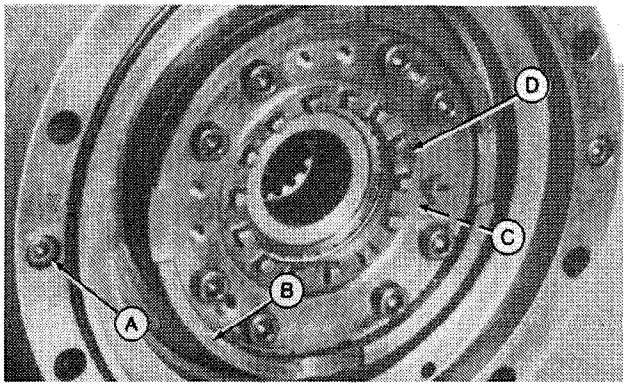
3. Install brake piston housing. Apply thread lock and sealer (medium strength) to the cap screw threads (A). Tighten to 30 N·m (22 lb-ft) torque.

4. Install carriers (B) and bearing cup (C). Apply thread lock and sealer (medium strength) to the cap screw threads. Tighten to 59 N·m (44 lb-ft) torque.

5. Install adjusting nuts (D).

6. Install brake line.

A—Cap Screw
B—Carrier
C—Bearing Cup
D—Adjusting Nut



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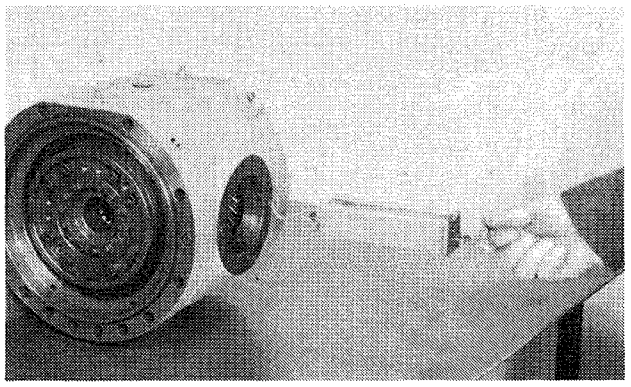
7. Measure amount of effort to turn differential housing using a spring scale and string. Reading on scale must be 2.2—2.75 kg (4.8—6.1 lb). To increase or decrease amount of pull, loosen or tighten adjusting nut.



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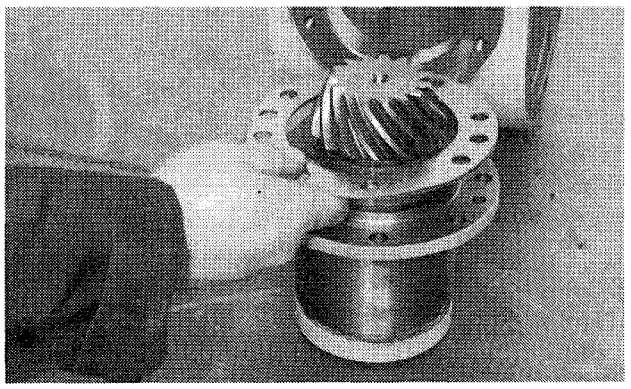
8. Install original shim Pack.

9. Install input pinion.

10. Tighten cap screws (A) to 59 N·m (44 lb-ft) torque.



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11. Position dial indicator with contact point resting against ring gear tooth.

12. Hold pinion shaft stationary. Move ring gear back and forth. Measure backlash.

BACKLASH SPECIFICATION

Backlash	0.15—0.20 mm (0.006—0.008 in.)

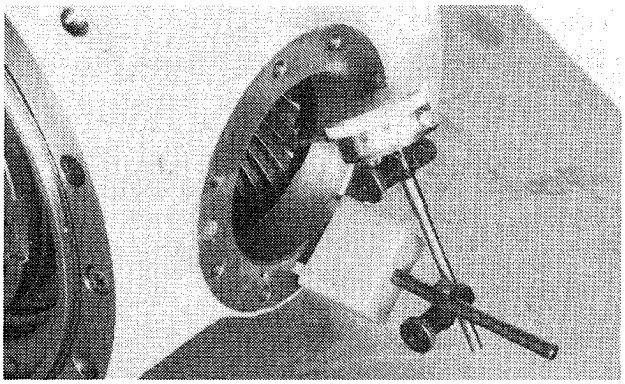
13. Adjust backlash by turning both differential adjusting nuts an equal amount in the same direction to move the differential closer to or farther away from the input pinion.

14. Apply dye on several teeth of ring gear drive side (convex).

15. Hold ring gear just tight enough to create resistance. Turn input pinion flange so that pinion shaft teeth contact drive side of ring gear teeth. Turn ring gear one complete revolution.

16. Check tooth pattern on ring gear.

17. Make adjustments indicated in chart.



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