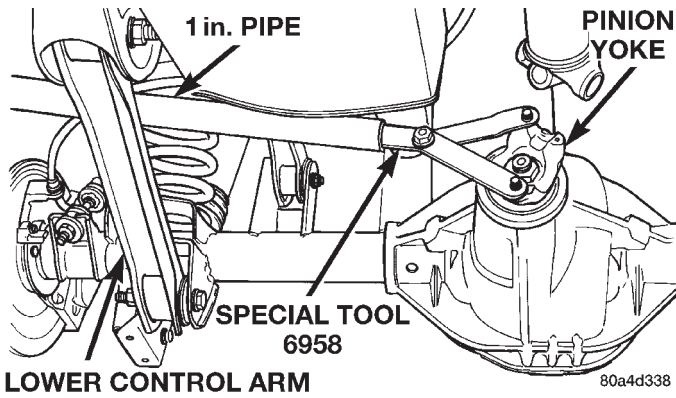
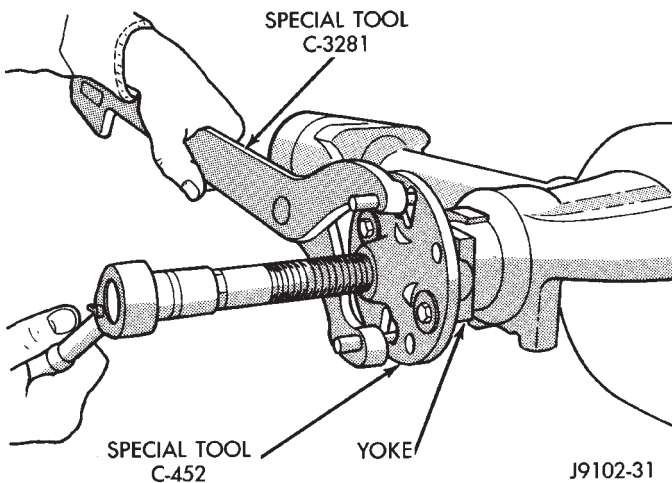
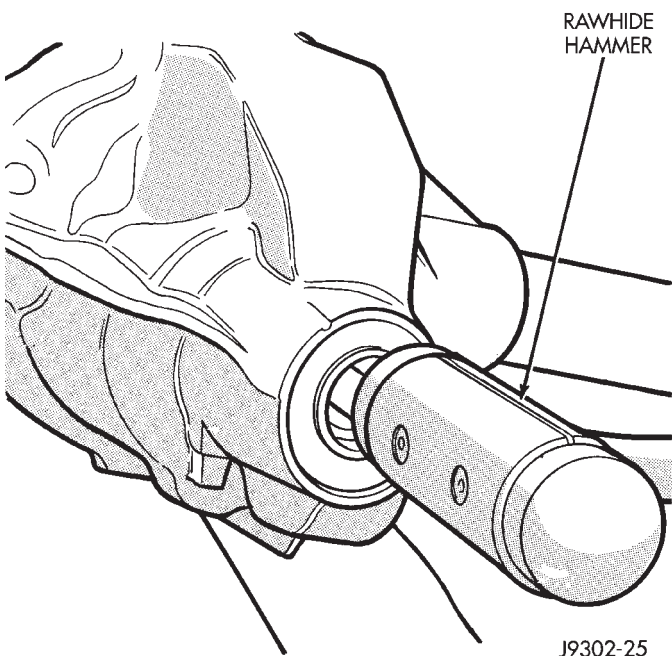
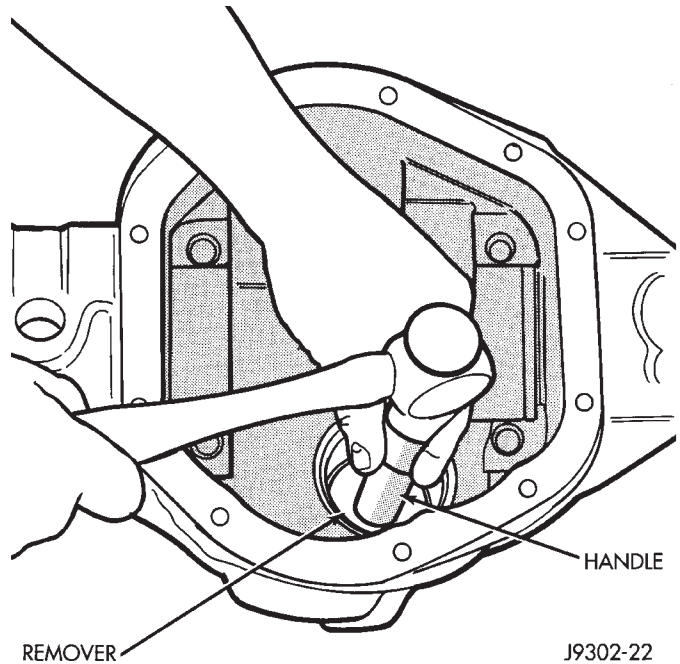
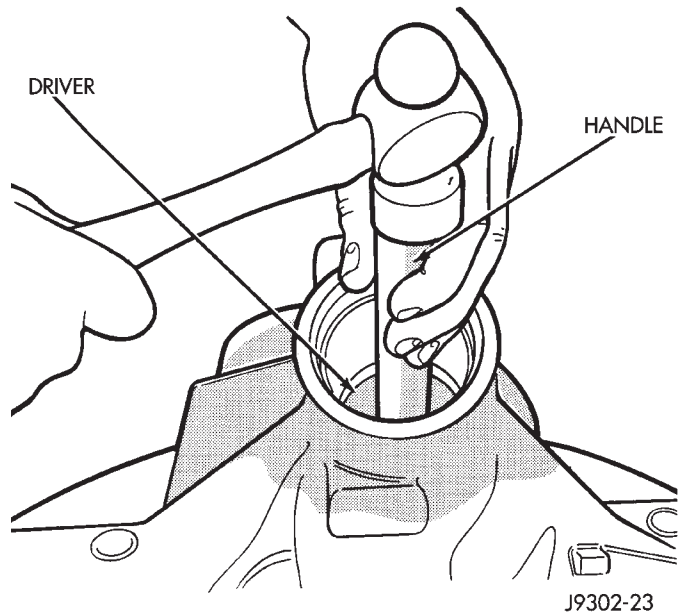


REMOVAL AND INSTALLATION (Continued)

*Fig. 35 Pinion Yoke Holder**Fig. 36 Pinion Yoke Removal**Fig. 37 Remove Pinion Gear**Fig. 38 Front Bearing Cup Removal**Fig. 39 Rear Bearing Cup Removal*

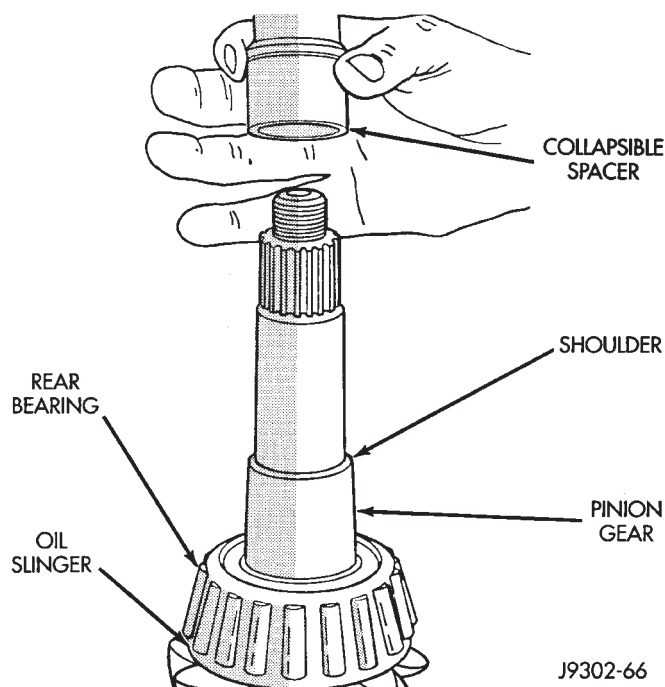
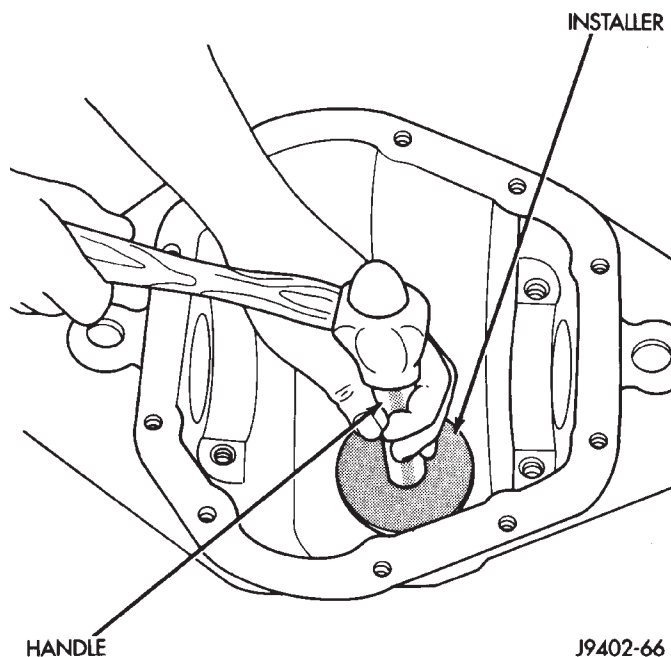
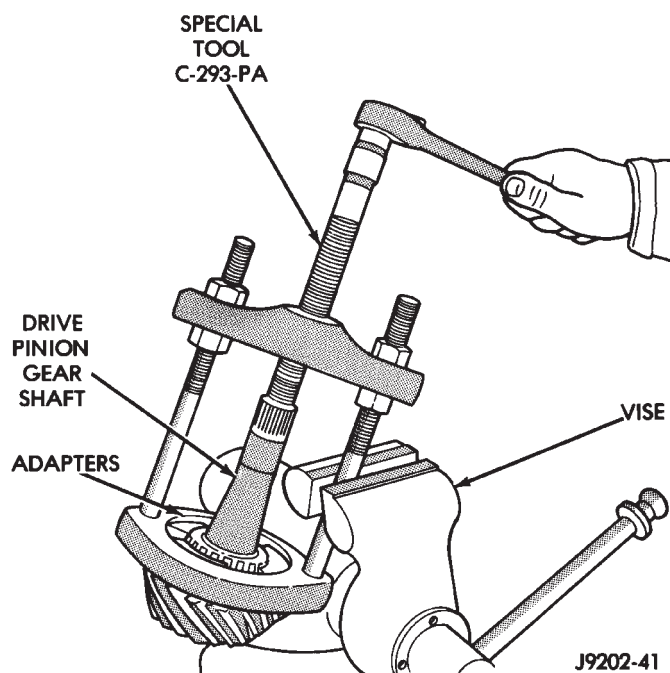
(11) Remove the collapsible preload spacer (Fig. 40).

(12) Remove the rear bearing from the pinion with Puller/Press C-293-PA and Adapters C-293-42 (Fig. 41).

Place 4 adapter blocks so they do not damage the bearing cage.

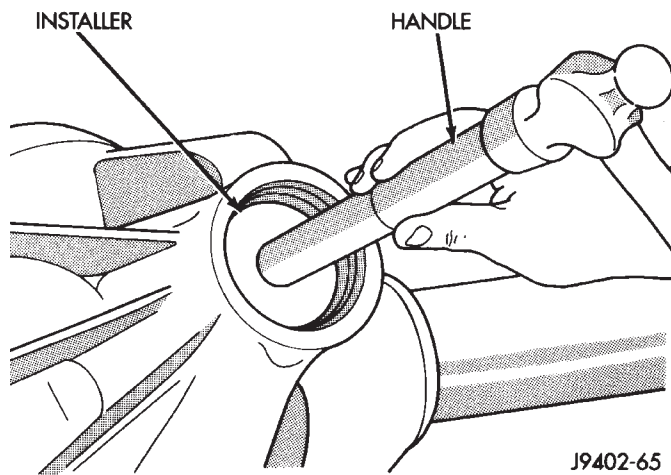
(13) Remove the pinion depth shims from the pinion gear shaft. Record the total thickness of the depth shims.

REMOVAL AND INSTALLATION (Continued)

**Fig. 40 Collapsible Spacer****Fig. 42 Pinion Rear Bearing Cup Installation****Fig. 41 Inner Bearing Removal****PINION GEAR INSTALLATION**

(1) Apply Mopar® Door Ease stick lubricant to outside surface of bearing cup. Install the pinion rear bearing cup with Installer C-4308 and Driver Handle C-4171 (Fig. 42). Ensure cup is correctly seated.

(2) Apply Mopar® Door Ease stick lubricant to outside surface of bearing cup. Install the pinion front bearing cup with Installer D-129 and Handle C-4171 (Fig. 43).

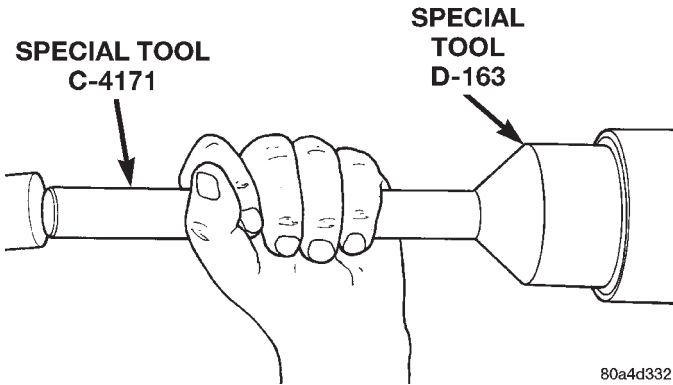
**Fig. 43 Pinion Front Bearing Cup Installation**

(3) Install pinion front bearing and oil slinger, if equipped. Apply a light coating of gear lubricant on the lip of pinion seal. Install seal with Installer D-163 and Handle C-4171 (Fig. 44).

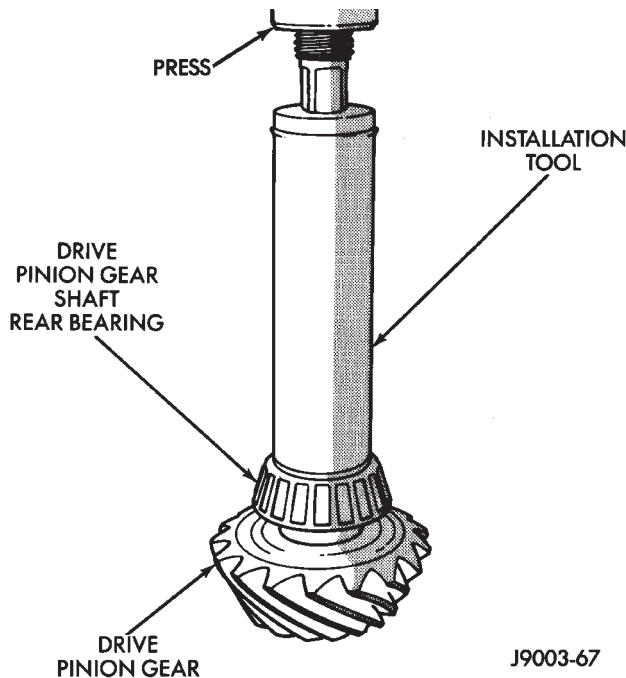
NOTE: Pinion depth shims are placed between the rear pinion bearing cone and pinion gear to achieve proper ring and pinion gear mesh. If the factory installed ring and pinion gears are reused, the pinion depth shim should not require replacement or adjustment. Refer to Pinion Gear Depth paragraph in this section to select the proper thickness shim before installing rear pinion bearing cone.

(4) Place the proper thickness pinion depth shim on the pinion gear.

REMOVAL AND INSTALLATION (Continued)

**Fig. 44 Pinion Seal Installation**

(5) Install the rear bearing (and slinger if used) on the pinion gear with Installer 6448 (Fig. 45).

**Fig. 45 Shaft Rear Bearing Installation**

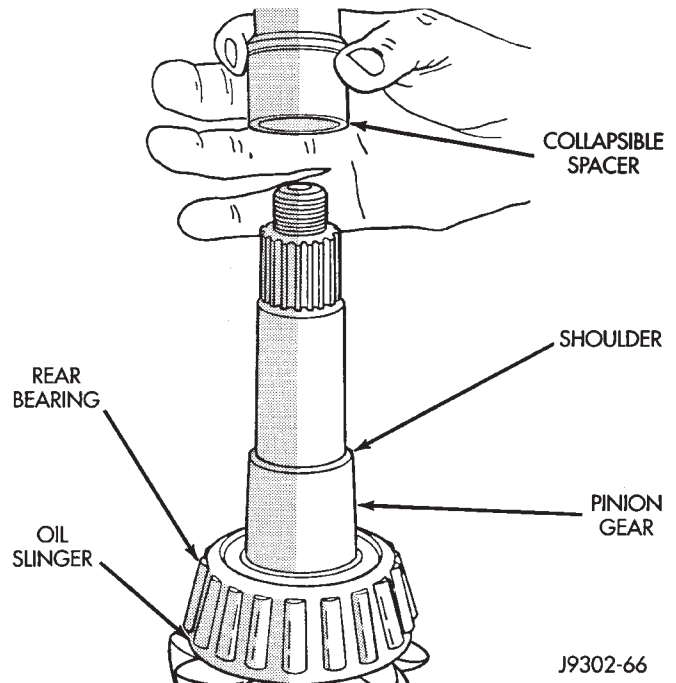
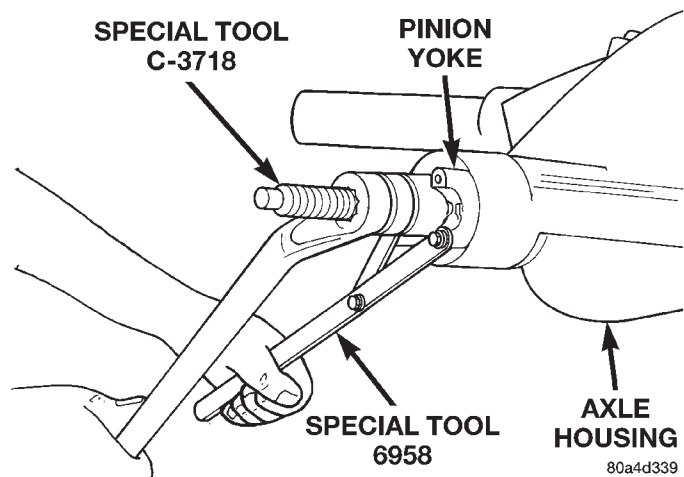
(6) Install a new collapsible preload spacer on pinion shaft (Fig. 46).

(7) Install pinion gear in housing.

(8) Install yoke with Installer C-3718 and holder 6958 (Fig. 47).

(9) Install the yoke washer and a new nut on the pinion gear. Tighten the nut to 298 N·m (220 ft. lbs.) minimum. **Do not over-tighten.** Maximum torque is 380 N·m (280 ft. lbs.).

CAUTION: Never loosen pinion gear nut to decrease pinion gear bearing preload torque and never exceed specified preload torque. If preload torque is exceeded a new collapsible spacer must be installed. The torque sequence will have to be repeated.

**Fig. 46 Collapsible Preload Spacer****Fig. 47 Pinion Yoke Installation**

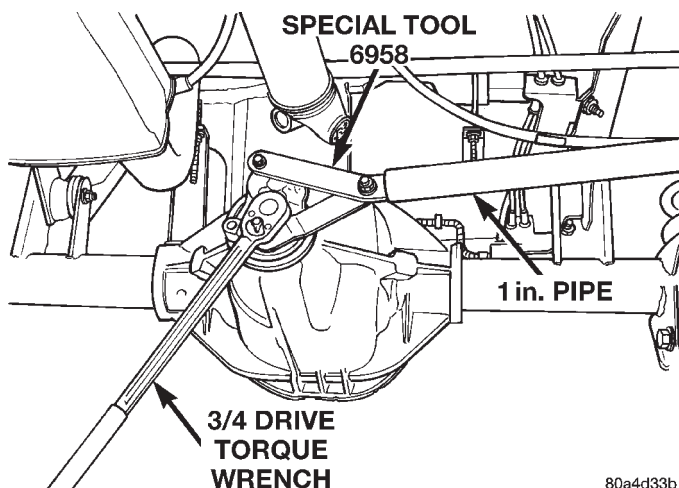
NOTE: A new collapsible spacer will start to crush at around 265 ft. lbs. torque. If the spacer requires more than 280 ft. lbs. torque to crush, the collapsible spacer is defective.

(10) Using yoke holder 6958, a short length of 1 in. pipe, and a torque wrench set at 380 N·m (280 ft. lbs.), crush collapsible spacer until bearing end play is taken up (Fig. 48).

(11) Slowly tighten the nut in 6.8 N·m (5 ft. lbs.) increments until the rotating torque is achieved. Measure the rotating torque frequently to avoid over crushing the collapsible spacer (Fig. 49).

(12) Check bearing rotating torque with an inch pound torque wrench (Fig. 49). The torque necessary to rotate the pinion gear should be:

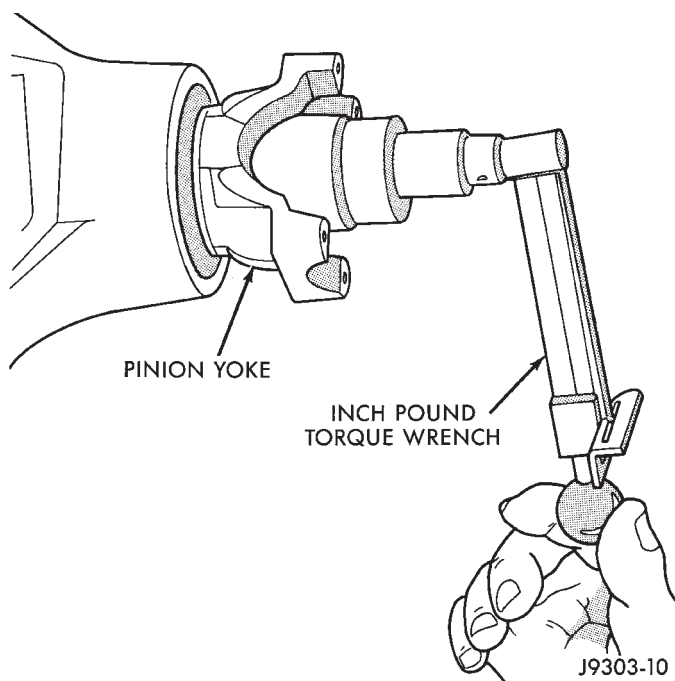
REMOVAL AND INSTALLATION (Continued)



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Fig. 48 Tightening Pinion Nut

- Original Bearings — 1 to 3 N·m (10 to 20 in. lbs.).
- New Bearings — 2 to 5 N·m (15 to 35 in. lbs.).



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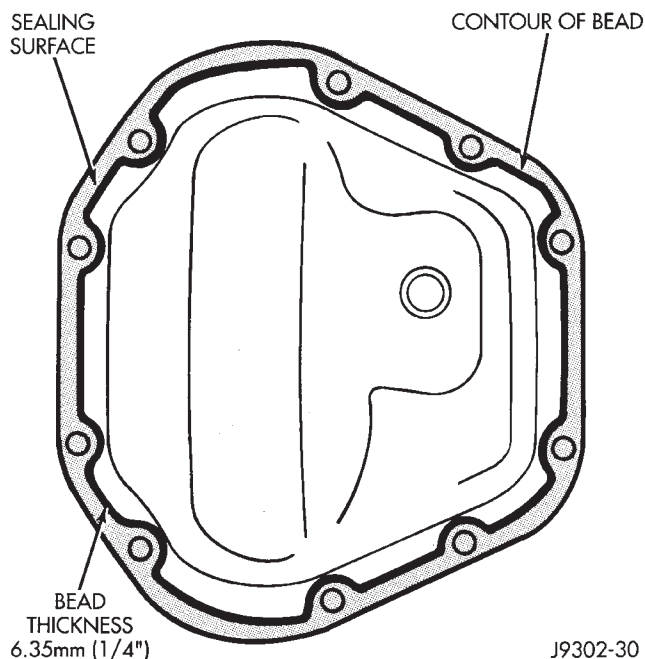
Fig. 49 Check Pinion Gear Rotation Torque

(13) Align previously made marks on yoke and propeller shaft and install propeller shaft.

(14) Install differential housing into the axle housing.

FINAL ASSEMBLY

(1) Scrape the residual sealant from the housing and cover mating surfaces. Clean the mating surfaces with mineral spirits. Apply a bead of Mopar® Silicone Rubber Sealant, or equivalent, on the housing cover (Fig. 50).



J9302-30

Fig. 50 Typical Housing Cover With Sealant

Install the housing cover within 5 minutes after applying the sealant.

(2) Install the cover on the differential with the attaching bolts. Install the identification tag. Tighten the cover bolts to 41 N·m (30 ft. lbs.) torque.

CAUTION: Overfilling the differential can result in lubricant foaming and overheating.

(3) Refill the differential housing with gear lubricant. Refer to the Lubricant Specifications for the gear lubricant requirements.

(4) Install the fill hole plug.

DISASSEMBLY AND ASSEMBLY**STANDARD DIFFERENTIAL****DISASSEMBLE**

(1) Remove pinion gear mate shaft lock screw (Fig. 51).

(2) Remove pinion gear mate shaft.

(3) Rotate the differential side gears and remove the pinion mate gears and thrust washers (Fig. 52).

(4) Remove the differential side gears and thrust washers.

DIFFERENTIAL ASSEMBLE

(1) Install the differential side gears and thrust washers.

(2) Install the pinion mate gears and thrust washers.

(3) Install the pinion gear mate shaft.

DISASSEMBLY AND ASSEMBLY (Continued)

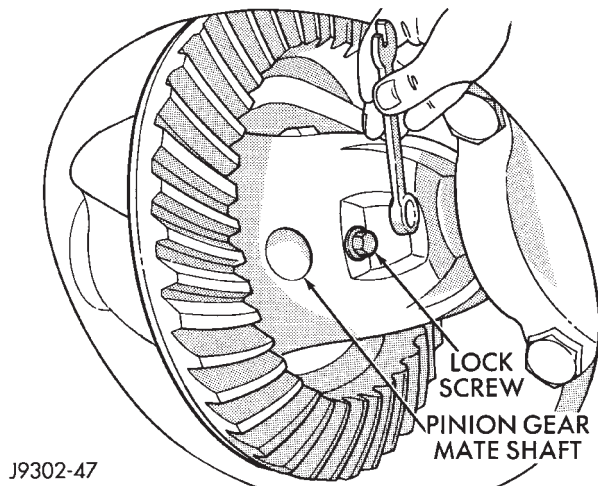


Fig. 51 Pinion Gear Mate Shaft Lock Screw

(4) Align the hole in the pinion gear mate shaft with the hole in the differential case and install the pinion gear mate shaft lock screw.

(5) Lubricate all differential components with hypoid gear lubricant.

TRAC-LOK DIFFERENTIAL

The Trac-Lok differential components are illustrated in (Fig. 53). Refer to this illustration during repair service.

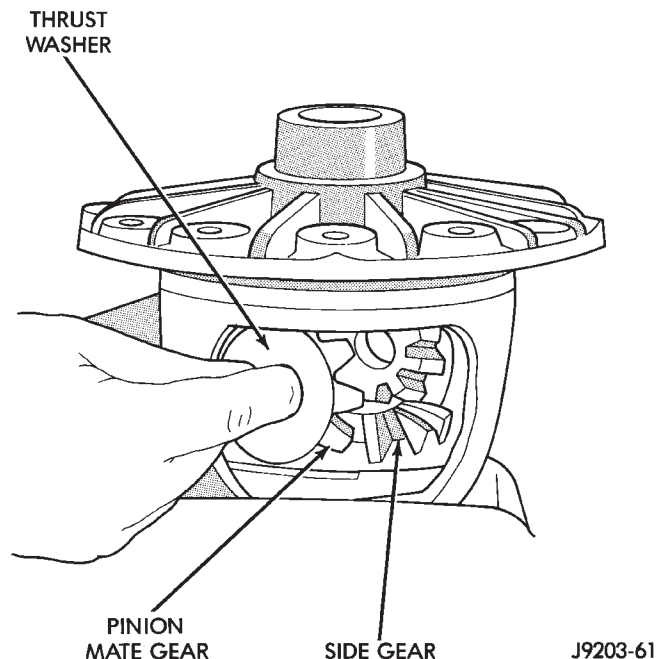


Fig. 52 Pinion Mate Gear Removal

DISASSEMBLY

(1) Clamp Side Gear Holding Tool 6963-A in a vise.

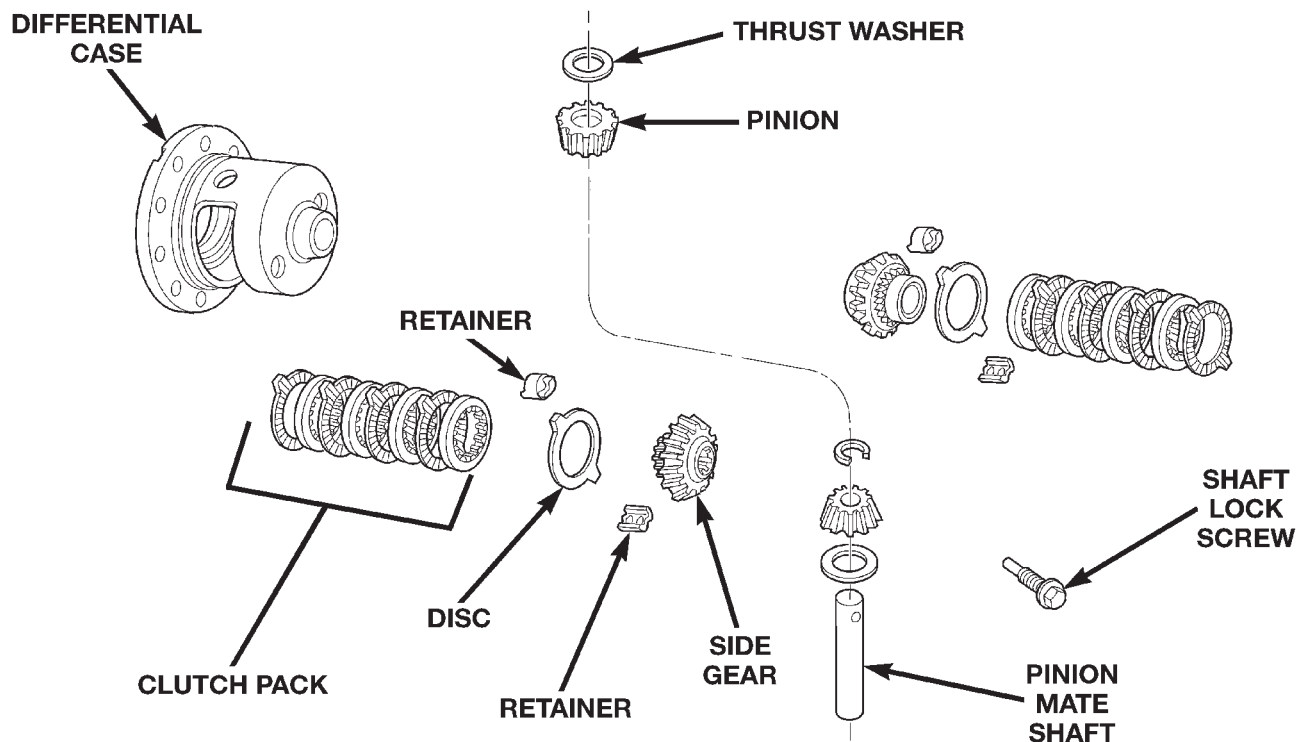


Fig. 53 Trac-Lok Differential Components

DISASSEMBLY AND ASSEMBLY (Continued)

(2) Position the differential case on Side Gear Holding Tool 6963-A (Fig. 54).

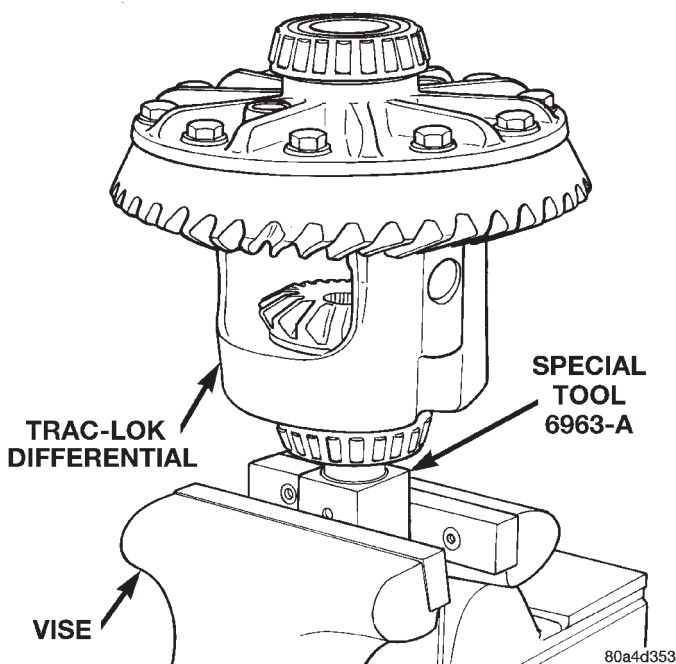


Fig. 54 Differential Case Holding Tool

(3) Remove ring gear, if necessary. Ring gear removal is necessary only if the ring gear is to be replaced. The Trac-Lok differential can be serviced with the ring gear installed.

(4) Remove the pinion gear mate shaft lock screw (Fig. 55).

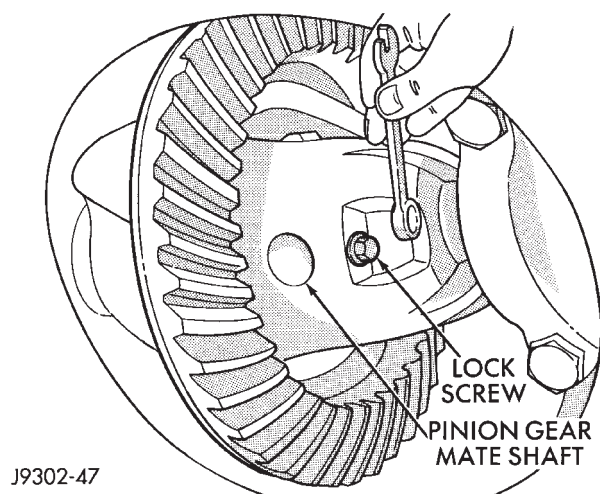


Fig. 55 Mate Shaft Lock Screw

(5) Remove the pinion gear mate shaft. If necessary, use a drift and hammer (Fig. 56).

(6) Install and lubricate Step Plate C-4487-1 (Fig. 57).

(7) Assemble Threaded Adapter C-4487-3 into top side gear. Thread Forcing Screw C-4487-2 into adapter until it becomes centered in adapter plate.

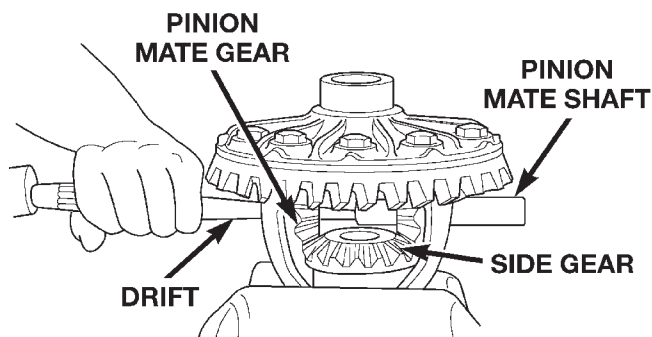


Fig. 56 Mate Shaft Removal

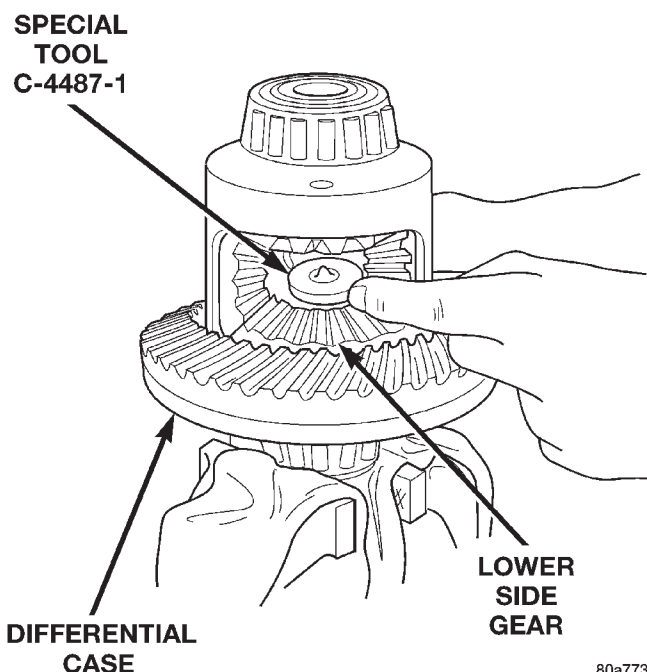


Fig. 57 Step Plate Tool Installation

(8) Position a small screw driver in slot of Threaded Adapter C-4487-3 (Fig. 58) to prevent adapter from turning.

(9) Tighten forcing screw tool 122 N·m (90 ft. lbs.) (maximum) to compress Belleville springs in clutch packs (Fig. 59).

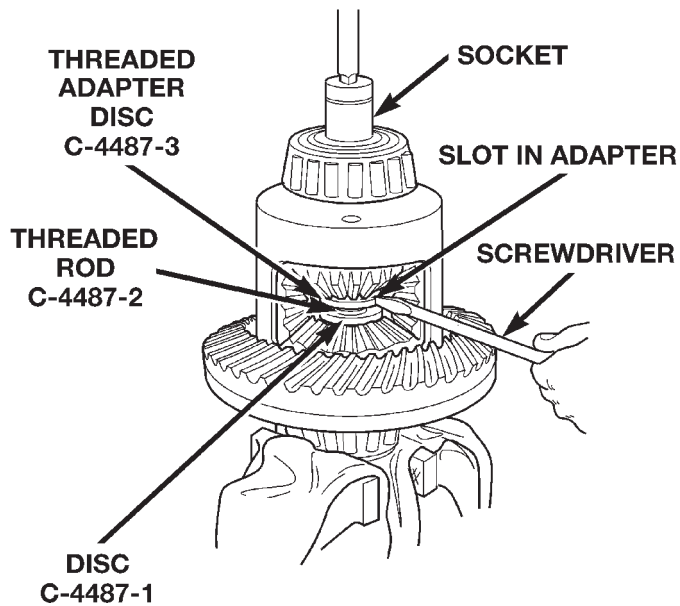
(10) Using an appropriate size feeler gauge, remove thrust washers from behind the pinion gears (Fig. 60).

(11) Insert Turning Bar C-4487-4 in case (Fig. 61).

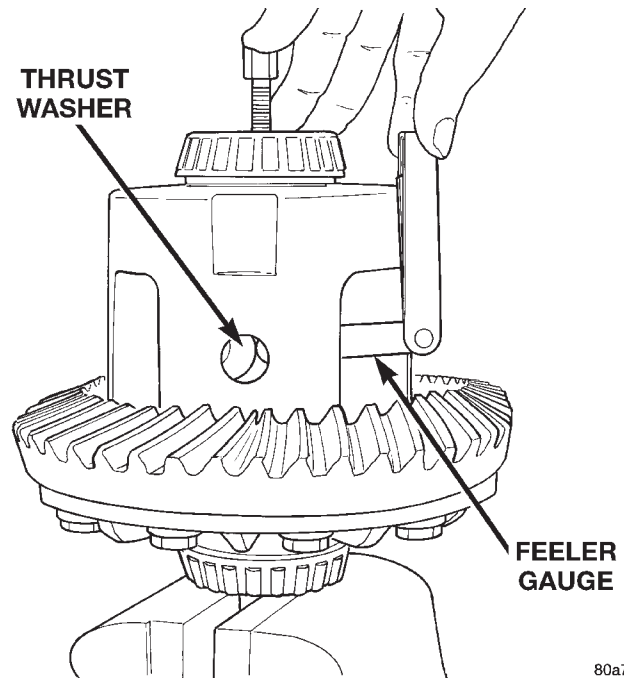
(12) Loosen the Forcing Screw C-4487-2 in small increments until the clutch pack tension is relieved and the differential case can be turned using Turning Bar C-4487-4.

(13) Rotate differential case until the pinion gears can be removed.

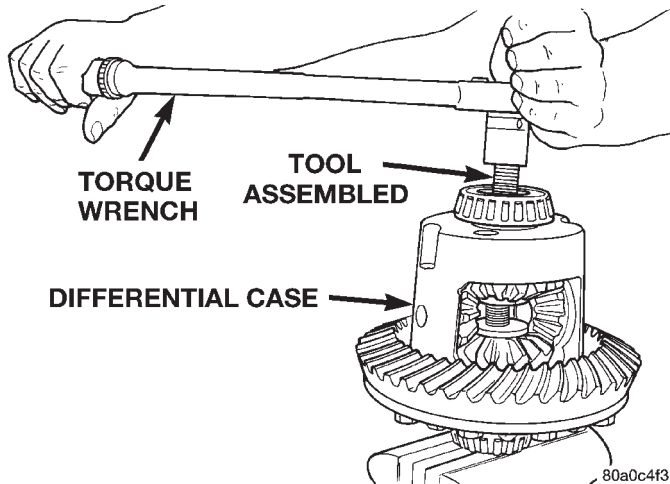
DISASSEMBLY AND ASSEMBLY (Continued)



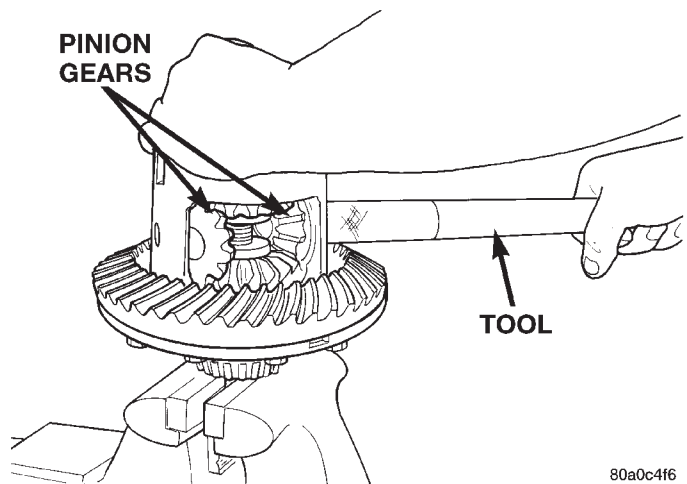
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Fig. 58 Threaded Adapter Installation

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Fig. 60 Remove Pinion Gear Thrust Washer

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Fig. 59 Tighten Belleville Spring Compressor Tool

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Fig. 61 Pinion Gear Removal

- (14) Remove pinion gears from differential case.
- (15) Remove Forcing Screw C-4487-2, Step Plate C-4487-1, and Threaded Adapter C-4487-3.
- (16) Remove top side gear, clutch pack retainer, and clutch pack. Keep plates in correct order during removal (Fig. 62).
- (17) Remove differential case from Side Gear Holding Tool 6963-A. Remove side gear, clutch pack retainer, and clutch pack. Keep plates in correct order during removal.

ASSEMBLY

NOTE: The clutch discs are replaceable as complete sets only. If one clutch disc pack is damaged, both packs must be replaced.

Lubricate each component with gear lubricant before assembly.

- (1) Assemble the clutch discs into packs and secure disc packs with retaining clips (Fig. 63).
- (2) Position assembled clutch disc packs on the side gear hubs.
- (3) Install clutch pack and side gear in the ring gear side of the differential case (Fig. 64). **Be sure clutch pack retaining clips remain in position and are seated in the case pockets.**
- (4) Position the differential case on Side Gear Holding Tool 6963-A.
- (5) Install lubricated Step Plate C-4487-1 on side gear (Fig. 65).
- (6) Install the upper side gear and clutch disc pack (Fig. 65).

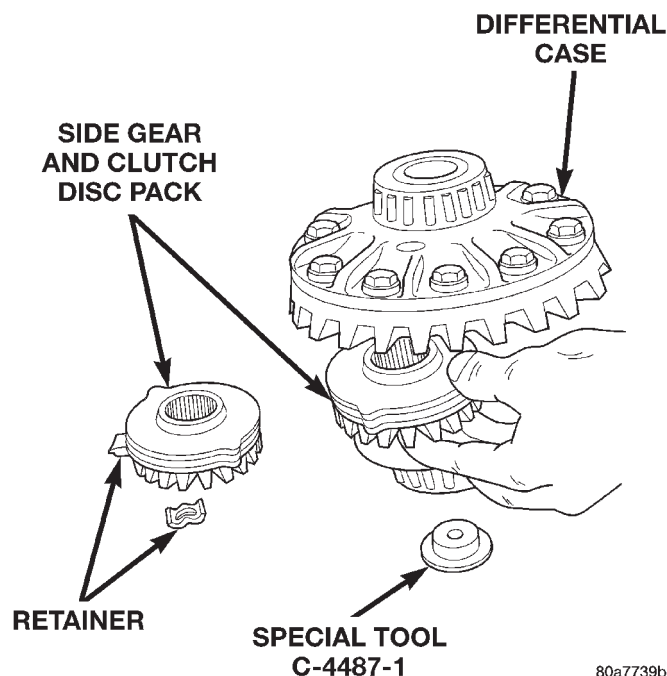


Fig. 62 Side Gear & Clutch Disc Removal

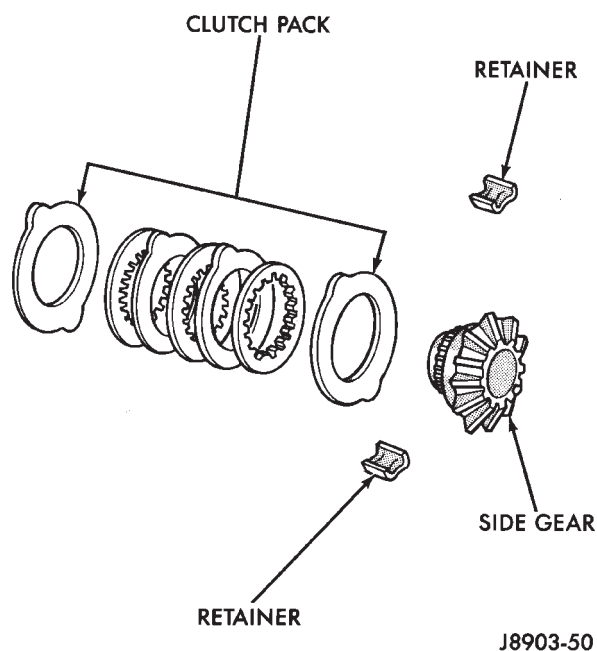


Fig. 63 Clutch Disc Pack

- (7) Hold assembly in position. Insert Threaded Adapter C-4487-3 into top side gear.
- (8) Insert Forcing Screw C-4487-2.
- (9) Tighten forcing screw tool to slightly compress clutch discs.
- (10) Place pinion gears in position in side gears and verify that the pinion mate shaft hole is aligned.
- (11) Rotate case with Turning Bar C-4487-4 until the pinion mate shaft holes in pinion gears align with holes in case. It may be necessary to slightly

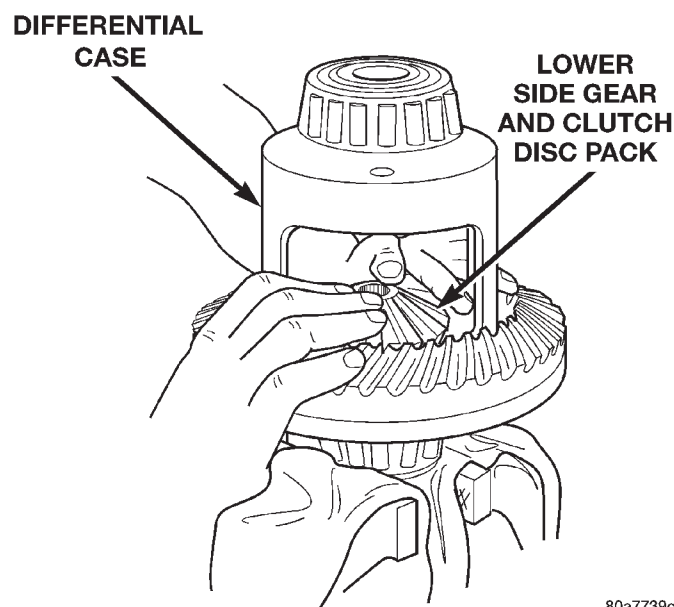


Fig. 64 Clutch Discs & Lower Side Gear Installation

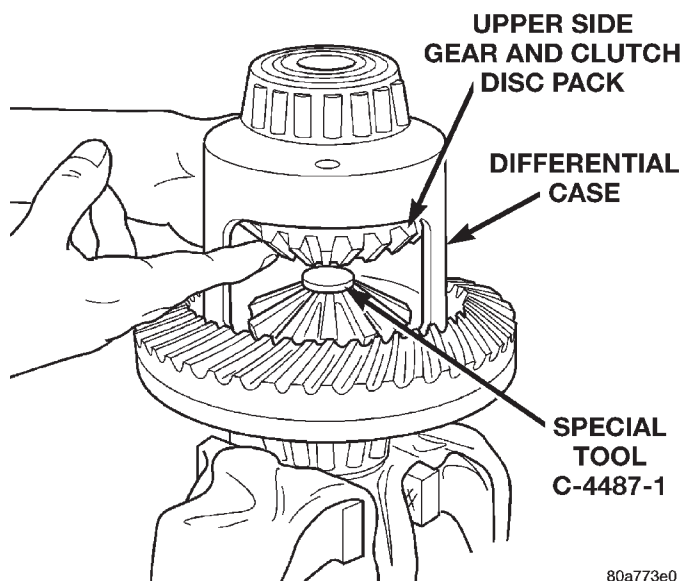


Fig. 65 Upper Side Gear & Clutch Disc Pack Installation

tighten the forcing screw in order to install the pinion gears.

- (12) Tighten forcing screw to 122 N·m (90 ft. lbs.) to compress the Belleville springs.

(13) Lubricate and install thrust washers behind pinion gears and align washers with a small screw driver. Insert mate shaft into each pinion gear to verify alignment.

(14) Remove forcing screw, threaded adapter, and step plate.

(15) Install pinion gear mate shaft and align holes in shaft and case.

DISASSEMBLY AND ASSEMBLY (Continued)

(16) Install the pinion mate shaft lock screw finger tight to hold shaft during differential installation.

If replacement gears and thrust washers were installed, it is not necessary to measure the gear backlash. Correct fit is due to close machining tolerances during manufacture.

(17) Lubricate all differential components with hypoid gear lubricant.

CLEANING AND INSPECTION

AXLE COMPONENTS

Wash differential components with cleaning solvent and dry with compressed air. **Do not steam clean the differential components.**

Wash bearings with solvent and towel dry, or dry with compressed air. **DO NOT** spin bearings with compressed air. **Cup and bearing must be replaced as matched sets only.**

Clean axle shaft tubes and oil channels in housing. Inspect for;

- Smooth appearance with no broken/dented surfaces on the bearing rollers or the roller contact surfaces
- Bearing cups must not be distorted or cracked
- Machined surfaces should be smooth and without any raised edges
- Raised metal on shoulders of cup bores should be removed with a hand stone
- Wear and damage to pinion gear mate shaft, pinion gears, side gears and thrust washers. Replace as a matched set only.
- Ring and pinion gear for worn and chipped teeth
- Ring gear for damaged bolt threads. Replaced as a matched set only.
- Pinion yoke for cracks, worn splines, pitted areas, and a rough/corroded seal contact surface. Repair or replace as necessary.
- Preload shims for damage and distortion. Install new shims if necessary.

TRAC-LOK

Clean all components in cleaning solvent. Dry components with compressed air. Inspect clutch pack plates for wear, scoring or damage. Replace both clutch packs if any one component in either pack is damaged. Inspect side and pinion gears. Replace any gear that is worn, cracked, chipped or damaged. Inspect differential case and pinion shaft. Replace if worn or damaged.

PRESOAK PLATES AND DISC

Plates and discs with fiber coating (no grooves or lines) must be presoaked in Friction Modifier before assembly. Soak plates and discs for a minimum of 20 minutes.

ADJUSTMENTS

PINION GEAR DEPTH

GENERAL INFORMATION

Ring and pinion gears are supplied as matched sets only. The identifying numbers for the ring and pinion gear are etched into the face of each gear (Fig. 66). A plus (+) number, minus (–) number or zero (0) is etched into the face of the pinion gear. This number is the amount (in thousandths of an inch) the depth varies from the standard depth setting of a pinion etched with a (0). The standard setting from the center line of the ring gear to the back face of the pinion is 109.52 mm (4.312 in.). The standard depth provides the best teeth contact pattern. Refer to Backlash and Contact Pattern Analysis Paragraph in this section for additional information.

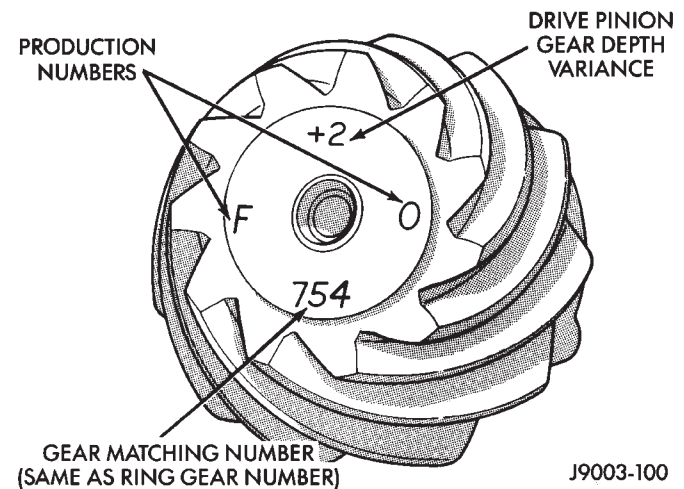


Fig. 66 Pinion Gear ID Numbers

Compensation for pinion depth variance is achieved with select shims. The shims are placed under the inner pinion bearing cone (Fig. 67).

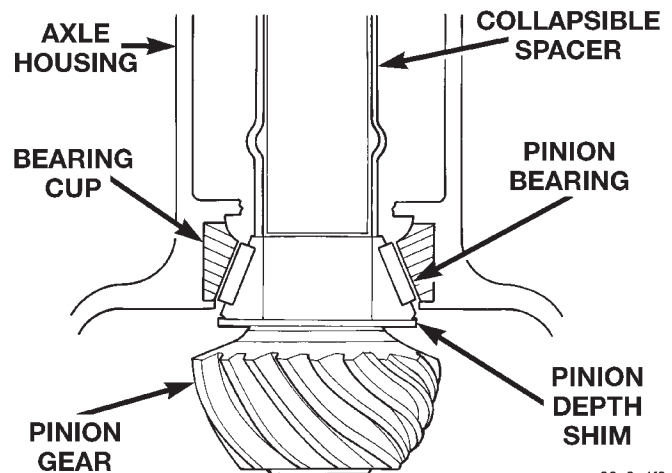


Fig. 67 Shim Locations

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ADJUSTMENTS (Continued)

If a new gear set is being installed, note the depth variance etched into both the original and replacement pinion gear. Add or subtract the thickness of the original depth shims to compensate for the difference in the depth variances. Refer to the Depth Variance charts.

Note where Old and New Pinion Marking columns intersect. Intersecting figure represents plus or minus amount needed.

Note the etched number on the face of the drive pinion gear (-1, -2, 0, +1, +2, etc.). The numbers represent thousands of an inch deviation from the standard. If the number is negative, add that value to the required thickness of the depth shim(s). If the number is positive, subtract that value from the thickness of the depth shim(s). If the number is 0 no change is necessary. Refer to the Pinion Gear Depth Variance Chart.

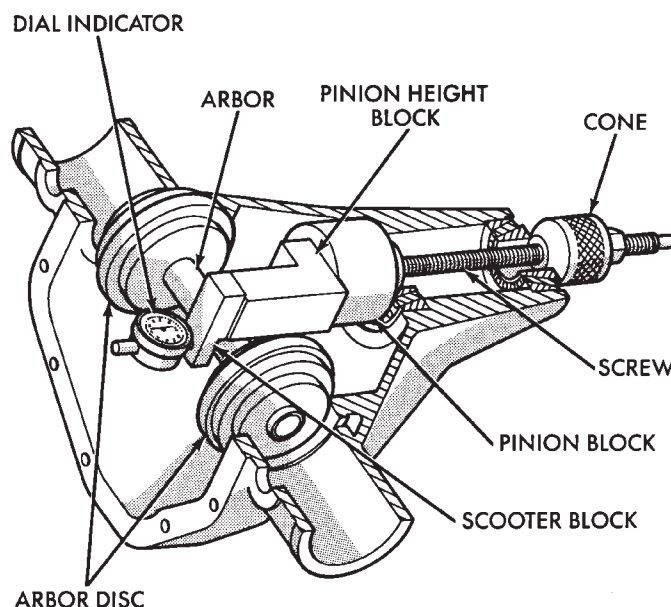
PINION DEPTH MEASUREMENT AND ADJUSTMENT

Measurements are taken with pinion cups and pinion bearings installed in housing. Take measurements with Pinion Gauge Set 6955, Dummy Bearing/Arbor Disc Set 6956, and Dial Indicator C-3339 (Fig. 68).

(1) Assemble Pinion Height Block 6739, Pinion Block 6734, and rear pinion bearing onto Screw 6741 (Fig. 68).

(2) Insert assembled height gauge components, rear bearing and screw into axle housing through pinion bearing cups (Fig. 69).

(3) Install front pinion bearing and Cone 6740 hand tight (Fig. 68).



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Fig. 68 Pinion Gear Depth Gauge Tools—Typical

(4) Place Arbor Disc 6927 on Arbor D-115-3 in position in axle housing side bearing cradles (Fig. 70). Install differential bearing caps on Arbor Discs and tighten cap bolts. Refer to the Torque Specifications in this section.

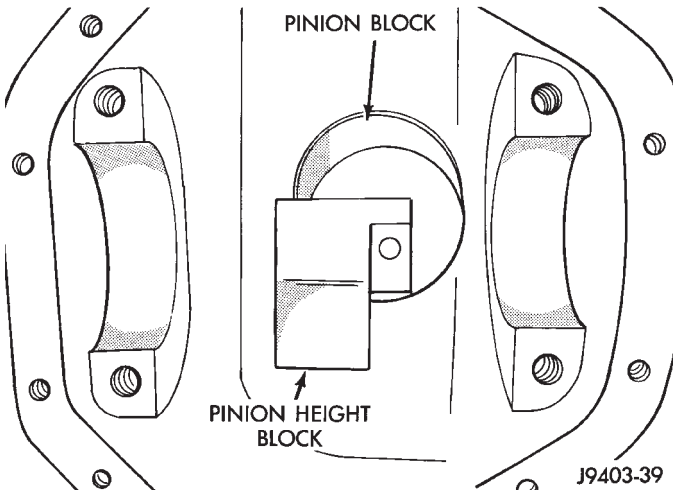
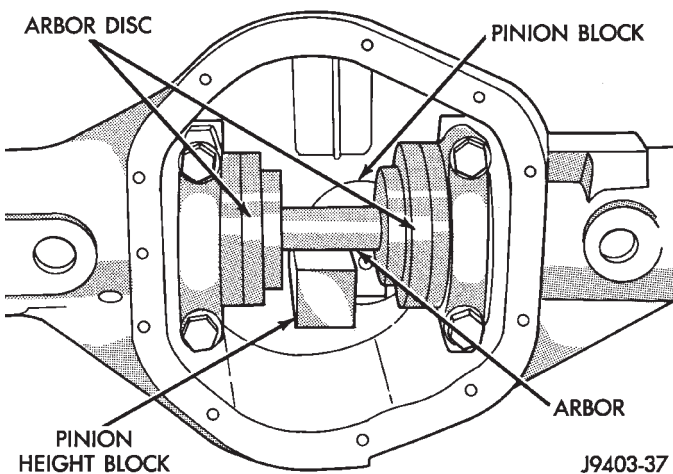
NOTE: Arbor Discs 6927 have different step diameters to fit other axle sizes. Pick correct size step for axle being serviced.

PINION GEAR DEPTH VARIANCE

Original Pinion Gear Depth Variance	Replacement Pinion Gear Depth Variance								
	-4	-3	-2	-1	0	+1	+2	+3	+4
+4	+0.008	+0.007	+0.006	+0.005	+0.004	+0.003	+0.002	+0.001	0
+3	+0.007	+0.006	+0.005	+0.004	+0.003	+0.002	+0.001	0	-0.001
+2	+0.006	+0.005	+0.004	+0.003	+0.002	+0.001	0	-0.001	-0.002
+1	+0.005	+0.004	+0.003	+0.002	+0.001	0	-0.001	-0.002	-0.003
0	+0.004	+0.003	+0.002	+0.001	0	-0.001	-0.002	-0.003	-0.004
-1	+0.003	+0.002	+0.001	0	-0.001	-0.002	-0.003	-0.004	-0.005
-2	+0.002	+0.001	0	-0.001	-0.002	-0.003	-0.004	-0.005	-0.006
-3	+0.001	0	-0.001	-0.002	-0.003	-0.004	-0.005	-0.006	-0.007
-4	0	-0.001	-0.002	-0.003	-0.004	-0.005	-0.006	-0.007	-0.008

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ADJUSTMENTS (Continued)

**Fig. 69 Pinion Height Block—Typical****Fig. 70 Gauge Tools In Housing—Typical**

(5) Assemble Dial Indicator C-3339 into Scooter Block D-115-2 and secure set screw.

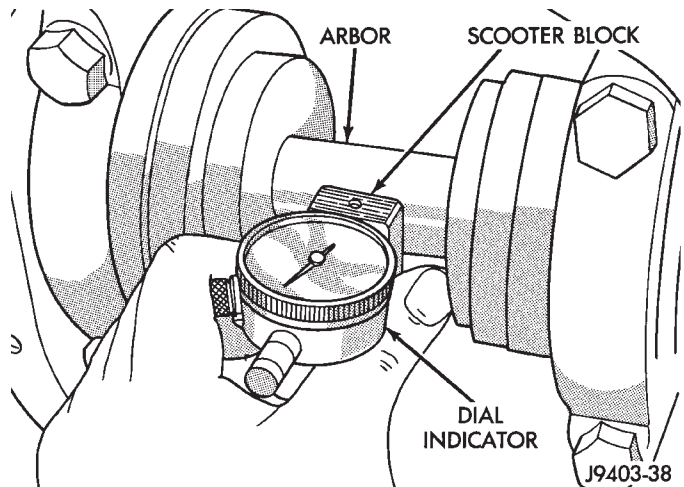
(6) Place Scooter Block/Dial Indicator in position in axle housing so dial probe and scooter block are flush against the surface of the pinion height block. Hold scooter block in place and zero the dial indicator face to the pointer. Tighten dial indicator face lock screw.

(7) With scooter block still in position against the pinion height block, slowly slide the dial indicator probe over the edge of the pinion height block. Observe how many revolutions counterclockwise the dial pointer travels (approximately 0.125 in.) to the out-stop of the dial indicator.

(8) Slide the dial indicator probe across the gap between the pinion height block and the arbor bar with the scooter block against the pinion height block (Fig. 71). When the dial probe contacts the arbor bar, the dial pointer will turn clockwise. Bring dial pointer back to zero against the arbor bar, do not turn dial face. Continue moving the dial probe to the

crest of the arbor bar and record the highest reading. If the dial indicator can not achieve the zero reading, the rear bearing cup or the pinion depth gauge set is not installed correctly.

(9) Select a shim equal to the dial indicator reading plus the drive pinion gear depth variance number etched in the face of the pinion gear (Fig. 66) using the opposite sign on the variance number. For example, if the depth variance is -2, add +0.002 in. to the dial indicator reading.

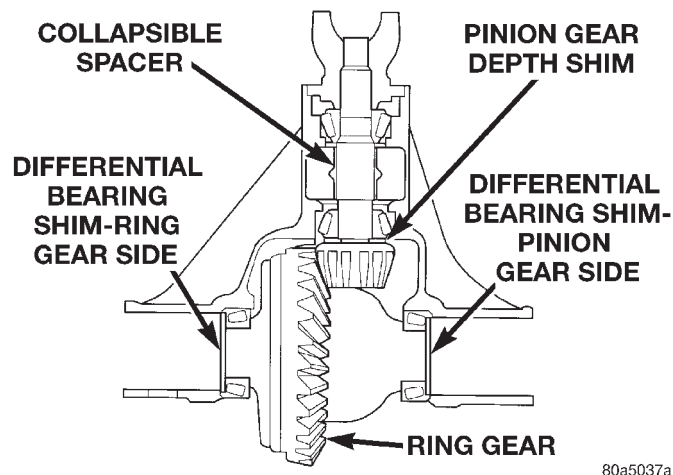
**Fig. 71 Pinion Gear Depth Measurement—Typical**

(10) Remove the pinion depth gauge components from the axle housing

DIFFERENTIAL BEARING PRELOAD AND GEAR BACKLASH

Differential side bearing preload and gear backlash is achieved by selective shims inserted between the bearing cup and the axle housing. The proper shim thickness can be determined using slip-fit dummy bearings 6929-A in place of the differential side bearings and a dial indicator C-3339. Before proceeding with the differential bearing preload and gear backlash measurements, measure the pinion gear depth and prepare the pinion gear for installation. Establishing proper pinion gear depth is essential to establishing gear backlash and tooth contact patterns. After the overall shim thickness to take up differential side play is measured, the pinion gear is installed, and the gear backlash shim thickness is measured. The overall shim thickness is the total of the dial indicator reading, starting point shim thickness, and the preload specification added together. The gear backlash measurement determines the thickness of the shim used on the ring gear side of the differential case. Subtract the gear backlash shim thickness from the total overall shim thickness and select that amount for the pinion gear side of the differential (Fig. 72).

ADJUSTMENTS (Continued)

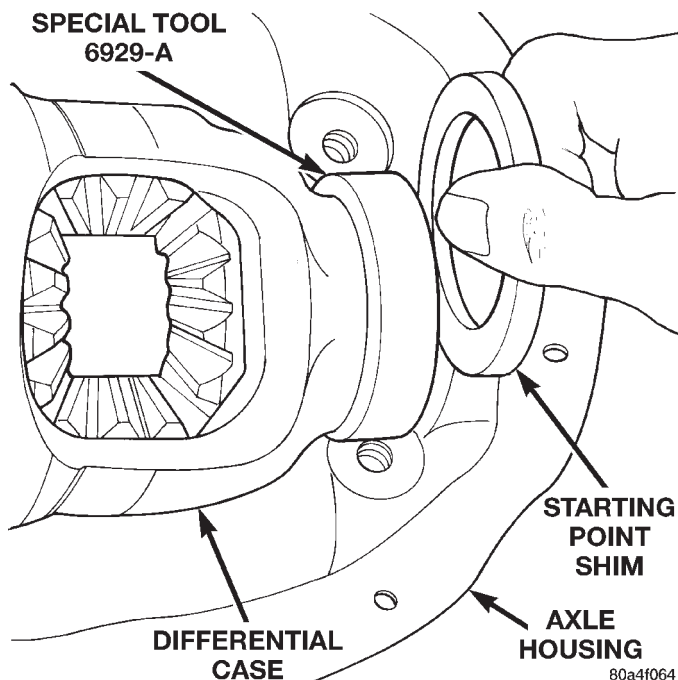


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Fig. 72 Axle Adjustment Shim Locations**DIFFERENTIAL PRELOAD AND GEAR BACKLASH SHIM SELECTION**

NOTE: It is difficult to salvage the differential side bearings during the removal procedure. Install replacement bearings if necessary.

- (1) Remove side bearings from differential case.
- (2) Install ring gear on differential case and tighten bolts to specification.
- (3) Install dummy side bearings 6929-A on differential case.
- (4) Install differential case in axle housing.
- (5) Insert 0.126 in. (3.2 mm) starting point shims between the dummy bearing and the axle housing on side of differential (Fig. 73).



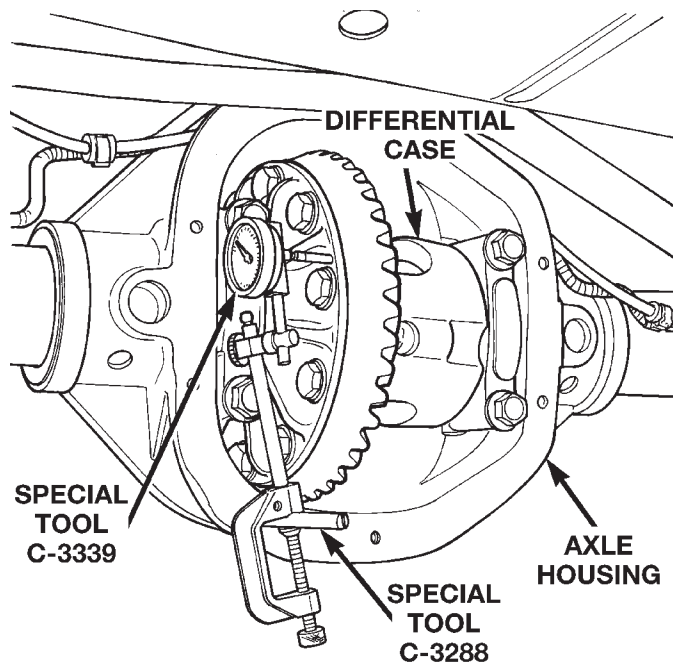
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Fig. 73 Preload Measurement Starting Point Shim

(6) Install the marked bearing caps in their correct positions. Install and snug the bolts.

(7) Thread guide stud C-3288 into rear cover bolt hole below ring gear (Fig. 74).

(8) Attach dial indicator C-3339 to guide stud. Position the dial indicator plunger on a flat surface between the ring gear bolt heads (Fig. 74).



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Fig. 74 Differential Side play Measurement

- (9) Push and hold differential case to pinion gear side of axle housing.
- (10) Zero dial indicator face to pointer.
- (11) Push and hold differential case to ring gear side of the axle housing.
- (12) Record dial indicator reading.
- (13) Add the dial indicator reading to the starting point shim thickness to determine total shim thickness to achieve zero differential end play.
- (14) Add 0.012 in. (0.3 mm) to the zero end play total. This new total represents the thickness of shims to compress, or preload the new bearings when the differential is installed.
- (15) Rotate dial indicator out of the way on guide stud.
- (16) Remove differential case, dummy bearings, and starting point shims from axle housing.
- (17) Install pinion gear in axle housing. Install the yoke and establish the correct pinion rotating torque.
- (18) Install differential case and dummy bearings in axle housing (without shims) and tighten retaining cap bolts snug.
- (19) Position the dial indicator plunger on a flat surface between the ring gear bolt heads (Fig. 74).
- (20) Push and hold differential case toward pinion gear.

ADJUSTMENTS (Continued)

- (21) Zero dial indicator face to pointer.
- (22) Push and hold differential case to ring gear side of the axle housing.
- (23) Record dial indicator reading.
- (24) Subtract 0.002 in. (0.05 mm) from the dial indicator reading to compensate for backlash between ring and pinion gears. This total is the thickness of shim required to achieve proper backlash.
- (25) Subtract the backlash shim thickness from the total preload shim thickness. The remainder is the shim thickness required on the pinion side of the axle housing.
- (26) Rotate dial indicator out of the way on guide stud.
- (27) Remove differential case and dummy bearings from axle housing.
- (28) Install new side bearing cones and cups on differential case.
- (29) Install spreader W-129-B on axle housing and spread axle opening enough to receive differential case and side bearing shims.
- (30) Place side bearing shims in axle housing against axle tube ends.
- (31) Install differential case in axle housing.
- (32) Remove spreader from axle housing.
- (33) Rotate the differential case several times to seat the side bearings.
- (34) Position the indicator plunger against a ring gear tooth (Fig. 75).
- (35) Push and hold ring gear upward while not allowing the pinion gear to rotate.
- (36) Zero dial indicator face to pointer.
- (37) Push and hold ring gear downward while not allowing the pinion gear to rotate. Dial indicator reading should be between 0.12 mm (0.005 in.) and 0.20 mm (0.008 in.). If backlash is not within specifications transfer the necessary amount of shim thickness from one side of the axle housing to the other (Fig. 76).
- (38) Verify differential case and ring gear runout by measuring ring to pinion gear backlash at several locations around the ring gear. Readings should not vary more than 0.05 mm (0.002 in.). If readings vary more than specified, the ring gear or the differential case is defective.

After the proper backlash is achieved, perform the Gear Contact Pattern Analysis procedure.

GEAR CONTACT PATTERN ANALYSIS

The ring and pinion gear teeth contact patterns will show if the pinion gear depth is correct in the axle housing. It will also show if the ring gear backlash has been adjusted correctly. The backlash can be adjusted within specifications to achieve desired tooth contact patterns.

- (1) Apply a thin coat of hydrated ferric oxide, or equivalent, to the drive and coast side of the ring gear teeth.

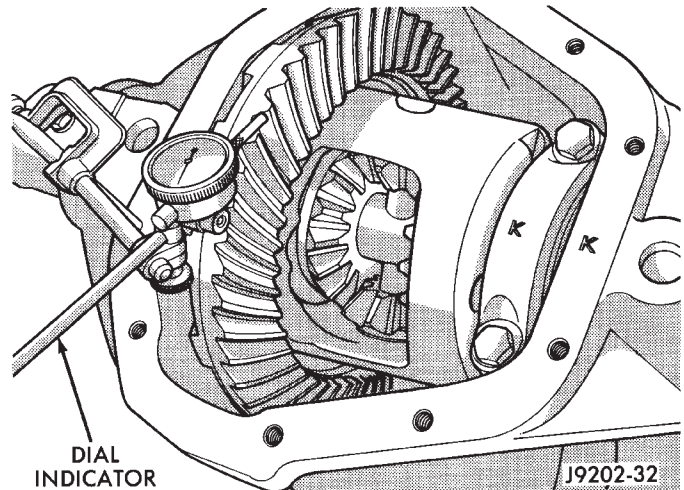


Fig. 75 Ring Gear Backlash Measurement

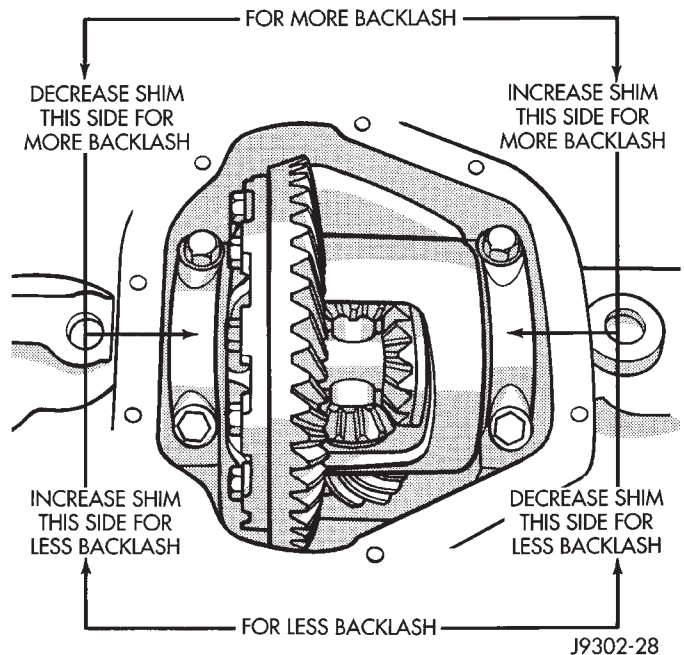


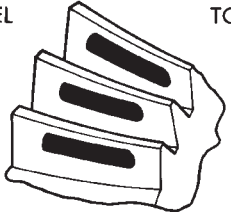
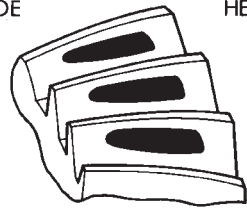
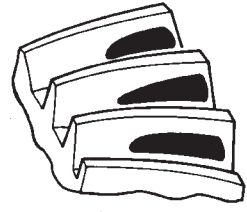
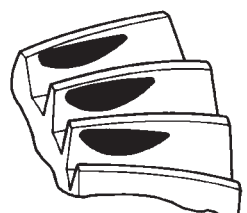
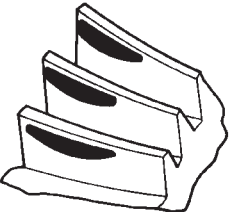
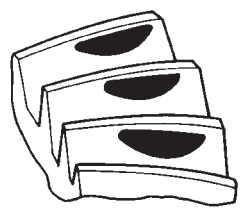
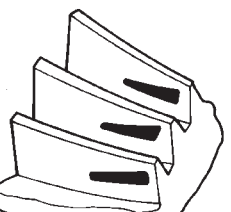
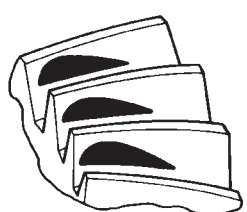
Fig. 76 Backlash Shim Adjustment

- (2) Wrap, twist, and hold a shop towel around the pinion yoke to increase the turning resistance of the pinion gear. This will provide a more distinct contact pattern.

- (3) Using a boxed end wrench on a ring gear bolt, Rotate the differential case one complete revolution in both directions while a load is being applied from shop towel.

The areas on the ring gear teeth with the greatest degree of contact against the pinion gear teeth will squeegee the compound to the areas with the least amount of contact. Note and compare patterns on the ring gear teeth to Gear Tooth Contact Patterns chart (Fig. 77) and adjust pinion depth and gear backlash as necessary.

ADJUSTMENTS (Continued)

DRIVE SIDE OF RING GEAR TEETH HEEL TOE 	COAST SIDE OF RING GEAR TEETH TOE HEEL 	DESIRABLE CONTACT PATTERN. PATTERN SHOULD BE CENTERED ON THE DRIVE SIDE OF TOOTH. PATTERN SHOULD BE CENTERED ON THE COAST SIDE OF TOOTH, BUT MAY BE SLIGHTLY TOWARD THE TOE. THERE SHOULD ALWAYS BE SOME CLEARANCE BETWEEN CONTACT PATTERN AND TOP OF THE TOOTH.
		RING GEAR BACKLASH CORRECT. THINNER PINION GEAR DEPTH SHIM REQUIRED.
		RING GEAR BACKLASH CORRECT. THICKER PINION GEAR DEPTH SHIM REQUIRED.
		PINION GEAR DEPTH SHIM CORRECT. DECREASE RING GEAR BACKLASH.
		PINION GEAR DEPTH SHIM CORRECT. INCREASE RING GEAR BACKLASH.

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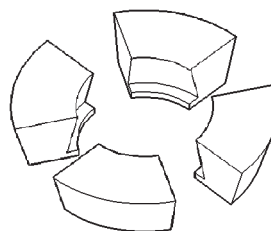
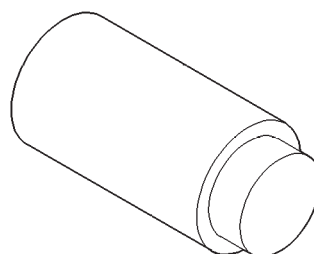
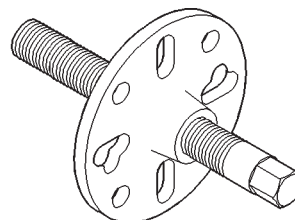
Fig. 77 Gear Tooth Contact Patterns

SPECIFICATIONS

MODEL 44 AXLE

DESCRIPTION SPEC.

Type	Semi-floating Hypoid
Axle Ratios	3.55/3.73
Ring Gear Diameter	.216 mm (8.5 in.)
Gear Backlash	.013–0.20 mm (0.005–0.008 in.)
Pinion Depth	.109.52 mm (4.312 in.)
Brg. Preload, Pinion	
(New)	.2.26–4.52 N·m (20–40 in. lbs.)
Brg. Preload, Pinion	
(Used)	.1–3 N·m (10–20 in. lbs.)
Maximum Carrier Spread	.0.51 mm (0.020 in.)

*Adapter—C-293-42**Extension—C-293-3**Remover—C-452*

TORQUE

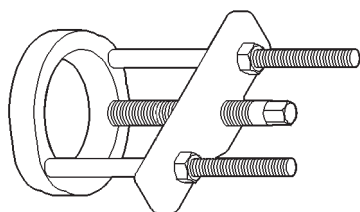
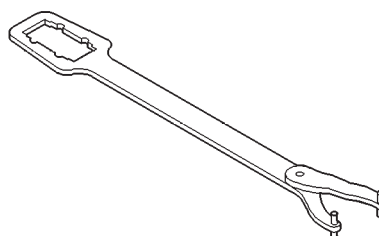
DESCRIPTION TORQUE

Bolts, Diff. Cover	.41 N·m (30 ft. lbs.)
Bolts, Diff. Bearing Cap	.85 N·m (63 ft. lbs.)
Bolts, Ring Gear	.108 N·m (80 ft. lbs.)
Screw, ABS Sensor	.8 N·m (70 in. lbs.)
Screw, Pinion Gear Mate	
Shaft Lock	.17.6 N·m (13 ft. lbs.)
Nuts, Brake Backing Plate	.61 N·m (45 ft. lbs.)
Nut, Pinion	
Gear—Minimum *	.298 N·m (220 ft. lbs.)
Nut, Pinion	
Gear—Maximum *	.380 N·m (280 ft. lbs.)

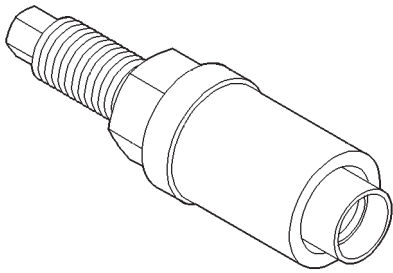
NOTE: *—Refer to Pinion Gear Removal and Installation procedures for proper pinion nut tightening instructions. Do not exceed 380 N·m (280 ft. lbs.) during collapsible spacer crushing procedure.

SPECIAL TOOLS

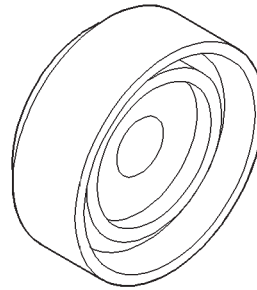
MODEL 44 AXLE

*Puller Set—C-293-PA**Holder—C-3281*

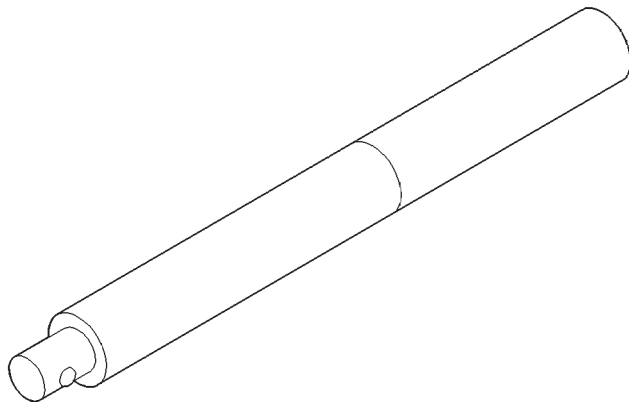
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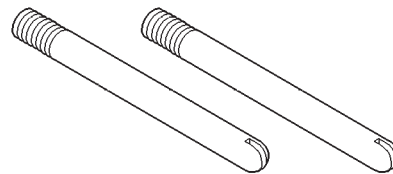
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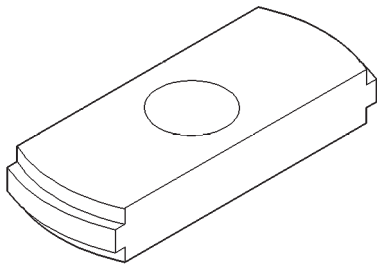
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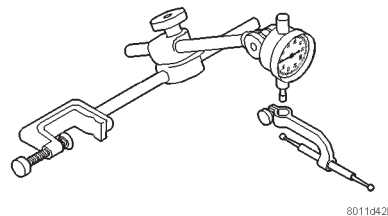
Handle—C-4171



Pilot—C-3288

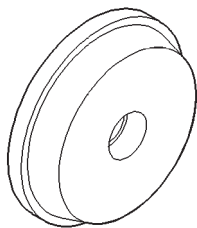


Remover—C-4307

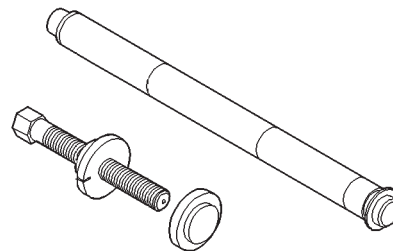


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Dial Indicator—C-3339

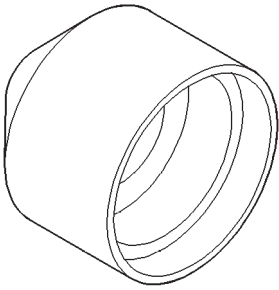


Installer—C-4308

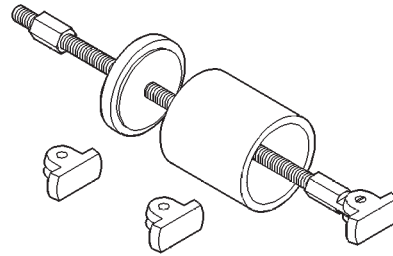


Trac-lok Tool Set—C-4487

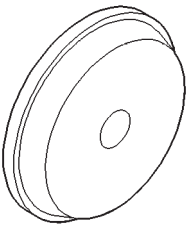
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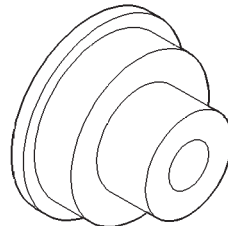
Installer—D-163



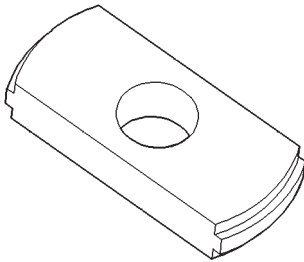
Remover—6310



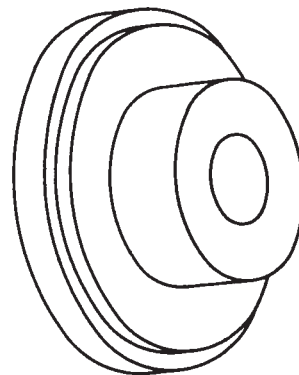
Installer—D-129



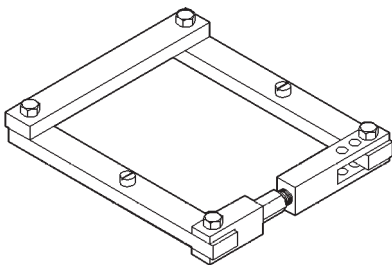
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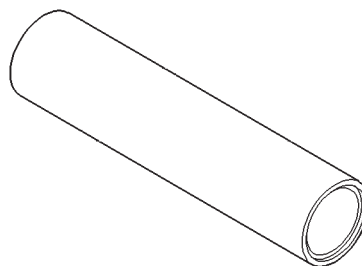
Remover—D-103



Installer—6437

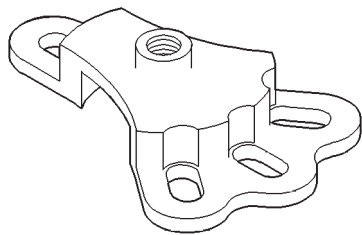


Spreader—W-129-B

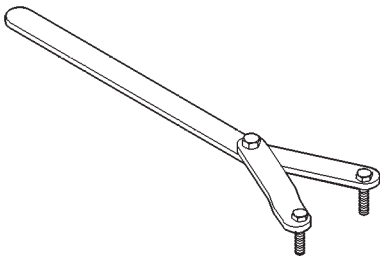


Installer—6448

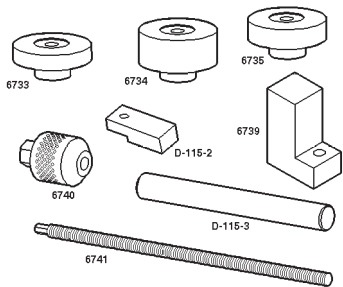
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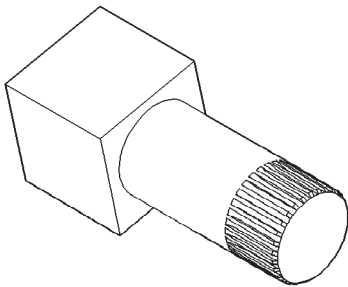
Adapter—6790



Holder—6958



Pinion Depth Set—6955



Holder—6963-A

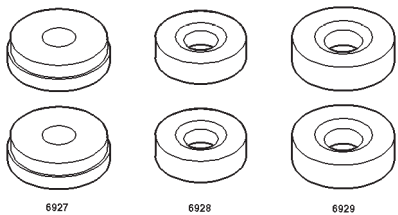
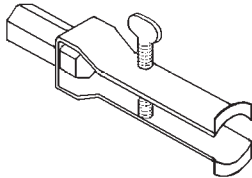


Fig. 78 Adapter Set—6956



Remover—7794-A