

# 7-12 DRIVE TRAIN

## Pinion Seal

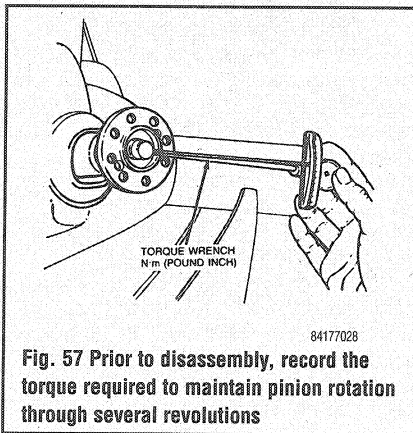
### REMOVAL & INSTALLATION

♦ See Figures 57, 58, 59, 60 and 61

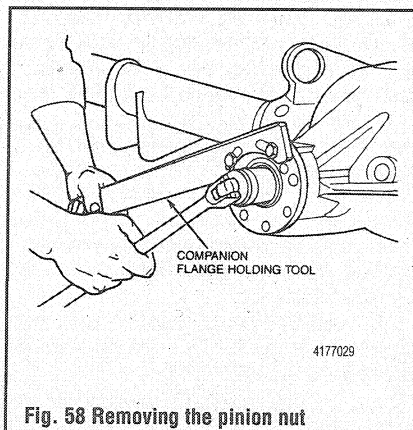
1. Raise and safely support the vehicle. Remove the wheel and tire assemblies and remove the brake drums or brake rotors.
2. Mark the position of the driveshaft yoke on the axle companion flange so they may be reassembled in the same way to maintain balance.
3. Disconnect the driveshaft from the rear axle companion flange, remove the driveshaft and remove the driveshaft from the extension housing. Plug the extension housing to prevent leakage.
4. Install an inch pound torque wrench on the pinion nut and record the torque required to maintain rotation of the pinion through several revolutions.
5. While holding the companion flange with holder tool T78P-4851-A or equivalent, remove the pinion nut.
6. Clean the area around the oil seal and place a drain pan under the seal.
7. Mark the companion flange in relation to the pinion shaft so the flange can be installed in the same position.
8. Remove the rear axle companion flange using tool T65L-4851-B or equivalent.

### \*\*\* WARNING

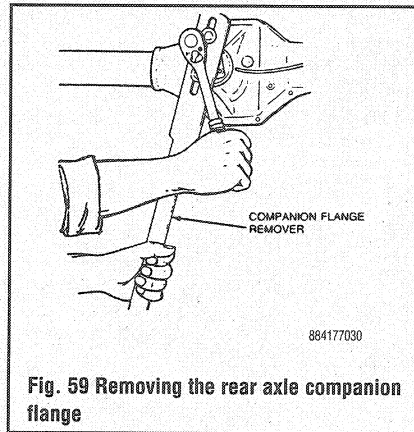
Never strike the companion flange with a hammer.



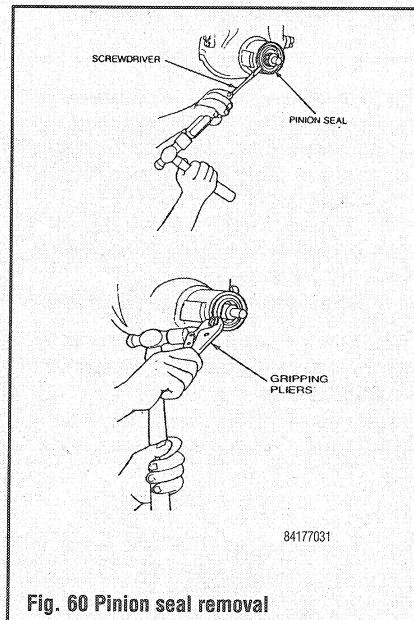
**Fig. 57** Prior to disassembly, record the torque required to maintain pinion rotation through several revolutions



**Fig. 58** Removing the pinion nut



**Fig. 59** Removing the rear axle companion flange



**Fig. 60** Pinion seal removal

9. Position a small prybar under the flange of the pinion seal and carefully strike with a hammer to wedge the prybar between the seal flange and differential housing.

10. Pry up on the metal flange of the pinion seal. Install gripping pliers and strike with a hammer until the pinion seal is removed.

#### To install:

11. Clean the oil seal seat surface and install the seal in the carrier using seal replacer tool T79P-4676-A or equivalent. Apply grease to the lips of the seal.

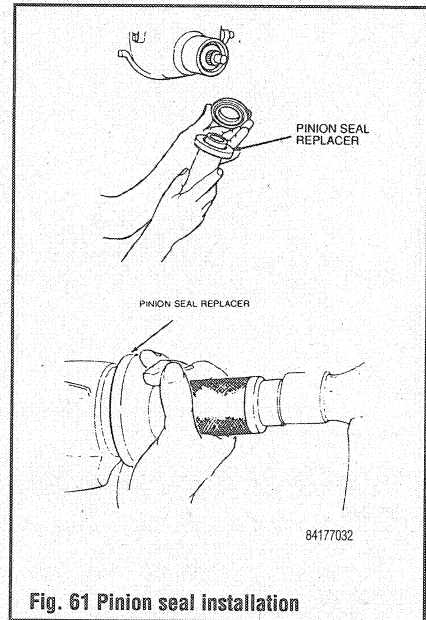
12. Check the companion flange and pinion shaft splines for burrs. If burrs are evident, remove them using crocus cloth.

13. Apply a small amount of lubricant to the companion flange splines, align the marks on the flange and the pinion shaft and install the flange.

14. Install a new nut on the pinion shaft and apply lubricant on the washer side of the nut.

15. Hold the flange with the holder tool while tightening the nut. Rotate the pinion occasionally to ensure proper seating. Take frequent pinion bearing torque preload readings until the original recorded preload reading is obtained.

16. If the original recorded preload is less than 8–14 inch lbs. (0.9–1.6 Nm), then tighten the nut



**Fig. 61** Pinion seal installation

until the rotational torque of to 8–14 inch lbs. (0.9–1.6 Nm) is obtained. If the original preload is higher than 8–14 inch lbs. (0.9–1.6 Nm), tighten to the original recorded preload.

➔ Under no circumstances should the pinion nut be backed off to reduce preload. If reduced preload is required, a new collapsible pinion spacer and pinion nut must be installed.

17. Remove the plug from the transmission extension housing and install the front end of the driveshaft on the transmission output shaft.

18. Connect the rear end of the driveshaft to the axle companion flange, aligning the scribe marks. Tighten the 4 bolts to 71–95 ft. lbs. (95–130 Nm).

19. Add lubricant to the axle until it is 1/4–9/16 in. below the bottom of the fill hole with the axle in operating position. If equipped with limited slip differential, add friction modifier C8AZ-19B564-A or equivalent. Make sure the axle vent is not plugged with debris.

20. Install the brake drums or rotors. Install the wheel and tire assemblies and lower the vehicle.

21. Operate the vehicle and check for leaks.

## Axle Housing

### REMOVAL & INSTALLATION

♦ See Figure 62

1. Raise and safely support the vehicle. Position safety stands under the rear frame crossmember.

2. Remove the cover and drain the axle lubricant.

3. Remove the wheel and tire assemblies. Remove the brake drums or brake rotors.

4. If equipped, remove the anti-lock brake speed sensors.

5. Remove the lock bolt from the differential pinion shaft and remove the shaft.

6. Push the axle shafts inward to remove the C-locks and remove the axle shafts.

7. If equipped with drum brakes, remove the 4