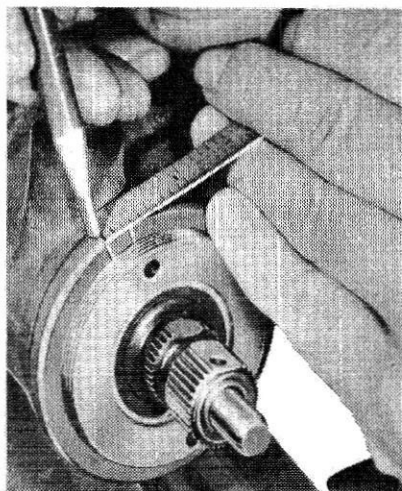
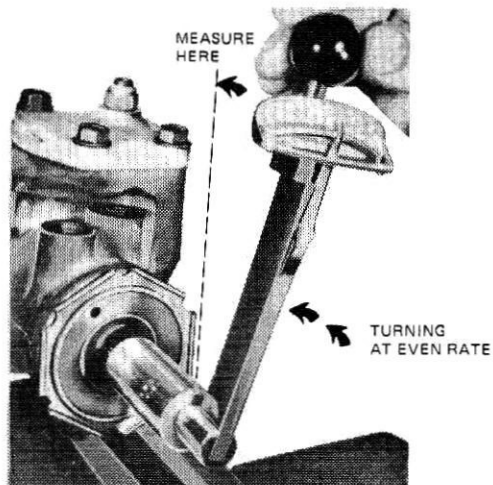




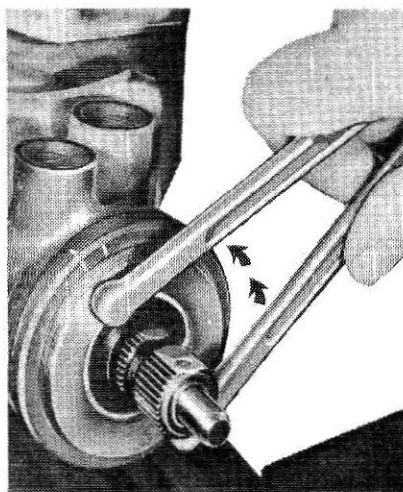
C2989-1A

FIG. 7. Marking Housing 3/16 Inch Counterclockwise from Bottomed Position



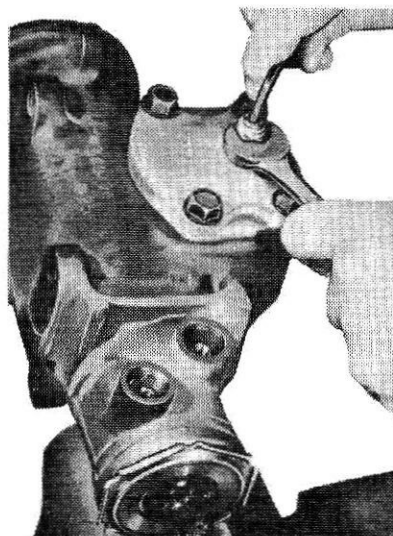
C2992-1A

FIG. 10 Checking Rotational Torque



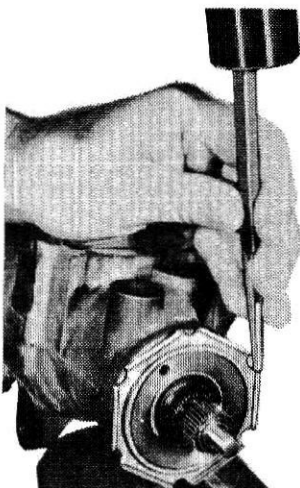
C2990-1A

FIG. 8 Rotating Adjuster to Second Mark



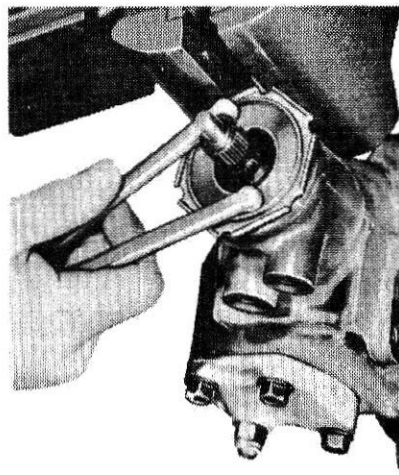
C2993-1A

FIG. 11 Loosening Pitman Shaft Preload Adjusting Screw



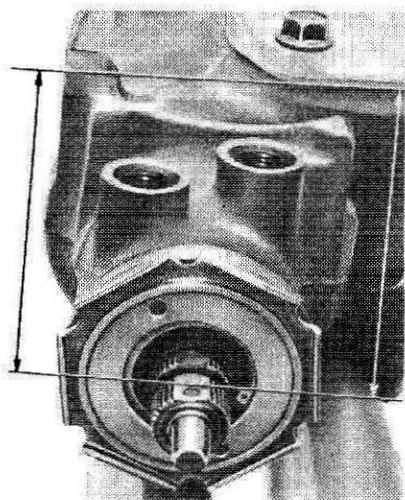
C2991-1A

FIG. 9 Tightening Lock Nut



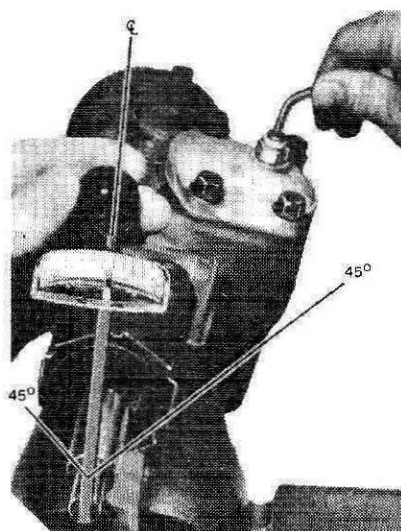
C2994-1A

FIG. 12 Loosening Adjuster Nut One Turn



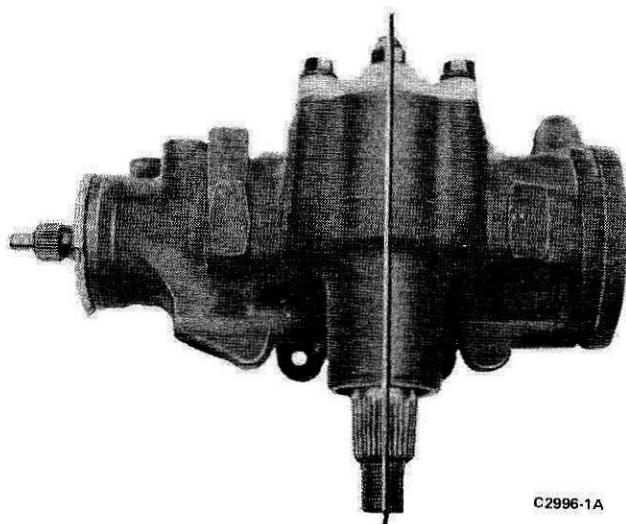
C2995-1A

FIG. 13 Aligning Stub Shaft Flat



C2997-1A

FIG. 15 Checking Over-Center Rotational Torque



C2996-1A

FIG. 14 Aligning Pitman Shaft Block Tooth

REMOVAL AND INSTALLATION

STEERING GEAR

Removal

1. Remove the catalytic converter on V-8 engined vehicles so equipped. Refer to Group 26, for information.
2. Disconnect the pressure and return lines from the steering gear. Plug the lines and ports in the gear to prevent entry of dirt.
3. Remove the bolts that secure the flex coupling to the steering gear and column.
4. Raise the vehicle and remove the Pitman arm attaching nut and lock washer.
5. Using Tool T64P-3590-F, remove the Pitman arm from the sector shaft. **Do not hammer on the end of the tool when pulling the Pitman arm from the shaft. Damage to the gear or cover could result.** Remove the tool from the Pitman arm.

6. On vehicles with standard transmissions, remove the clutch release lever retracting spring to provide clearance for removing the steering gear.
7. Support the steering gear. Remove the steering gear attaching bolts.
8. Work the steering gear free of the flex coupling and remove.
9. Lift the flex coupling off the shaft if it did not come off with the gear.

Installation

1. Slide the flex coupling into place on the steering shaft. Turn the steering wheel so that the spokes are in their normal position.
2. Center the steering gear input shaft.

3. Slide the steering gear input shaft into the flex coupling and into place on the frame side rail. Install the attaching bolts and torque to specification.
4. **Be sure that the wheels are in the straight-ahead position.** Then install the Pitman arm on the sector shaft. Install the sector shaft attaching nut and torque to specification.
5. Move the flex coupling into place on the input shaft and steering column shaft. Install the attaching bolts and torque to specification.
6. Connect the pressure and the return lines to the steering gear. Tighten the lines.
7. Install the catalytic converter, if so equipped.
8. Disconnect the coil wire. Fill the pump reservoir with Automatic Transmission Fluid C1AZ-19582-A, -C, or -D or equivalent. Crank the engine with the starter and continue adding fluid until the level remains constant. Turn the steering wheel from side to side without hitting the stops. Turn off the ignition and recheck the fluid level. Add fluid, if necessary.
9. Reconnect the coil wire. Start the engine and allow it to run for several minutes. Turn the steering wheel from stop to stop.
10. Turn off the engine and recheck the fluid level. Add fluid, if necessary.

DISASSEMBLY AND ASSEMBLY

Take the following precautions when servicing the steering gear.

1. **Use a clean workbench and tools.**
2. Thoroughly clean the exterior of the gear with solvent. Drain off excess hydraulic fluid, if necessary.
3. **Handle all parts carefully to avoid nicks, burrs, scratches and dirt.**
4. **Do not use solvent on seals.**

STEERING GEAR

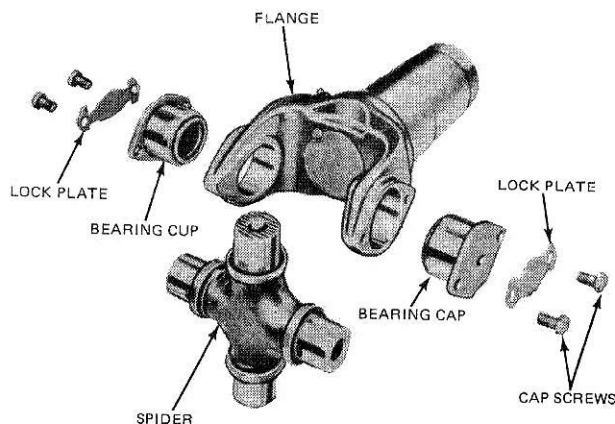
Disassembly

1. Using mounting pads for support, secure the steering gear in a bench mounted holding fixture T57P-500-A.
2. Rotate the end plug retaining ring so one end of the ring is opposite the hole in the housing.
3. Working through the hole in the housing (Fig. 16), unseat the retaining ring and work it out of the groove with a screwdriver.
4. Using a 3/4 inch, 12-point socket wrench, rotate the input shaft counterclockwise and force the end plug out of the housing. **Do not rotate the shaft any more than necessary to remove the plug. Further rotation will allow the balls to fall from their circuit causing the rack-piston to become disengaged from the sector shaft.** Remove the O-ring from the housing and discard.
5. Rotate the input shaft clockwise one-half turn to draw the piston inward.
6. Using a 1/2-inch drive extension, turn the end plug (Fig. 17) counterclockwise out of the piston.
7. Remove the lock nut from the sector shaft adjustment screw. Discard the nut.
8. Remove the cover attaching screws. Rotate the sector shaft adjustment screw with an Allen wrench until the cover is free of the housing. Remove the cover and the O-ring. Discard the O-ring.
9. Turn the input shaft to center the sector shaft teeth in the housing.
10. Tap the end of the sector shaft with a soft-faced hammer to free it from the housing.
11. Remove the adjuster plug lock nut.

12. Remove the adjuster plug using spanner wrench T65P-3A537-A (Fig. 18).
13. Insert Tool T65P-3D517-A into the end of the rack-piston until it contacts the worm shaft. Rotate the stub shaft counterclockwise until the worm is free of the rack-piston. Hold the tool all the way inside the piston to avoid dropping the balls, and withdraw the rack-piston from the housing. **Do not disassembly the rack-piston.**
14. Pull the stub shaft and valve assembly out of the housing.
15. Lift the worm, lower thrust bearing and races out of the housing.

Assembly

1. Using mounting pads for support secure the steering gear housing in bench mounted holding fixture T57L-500-A.
2. Lubricate the worm shaft, lower thrust bearing, and races with steering gear fluid and position the thrust bearing and races on the worm.
3. Align the valve body drive pin on the worm, with the narrow pin slot in the valve body. Install the



C1648-1A

FIG. 16 Removing End Plug Retaining Ring