

## MAINTENANCE AND ADJUSTMENTS

### LUBRICATION

The steering gear is filled at the factory with a special all-season gear lubricant. Seasonal change of this lubricant is unnecessary and the housing should not be drained. The steering gear lubricant level should be checked every 30,000 miles. Whenever required, additions should be made using a lubricant which will provide satisfactory lubrication under all conditions.

### ADJUSTMENTS

#### Steering Gear

Before any adjustments are made to the steering gear in an attempt to correct such conditions as shimmy and loose or hard steering, a careful check should be made of front end alignment, shock absorbers, wheel balance and tire pressure for possible causes.

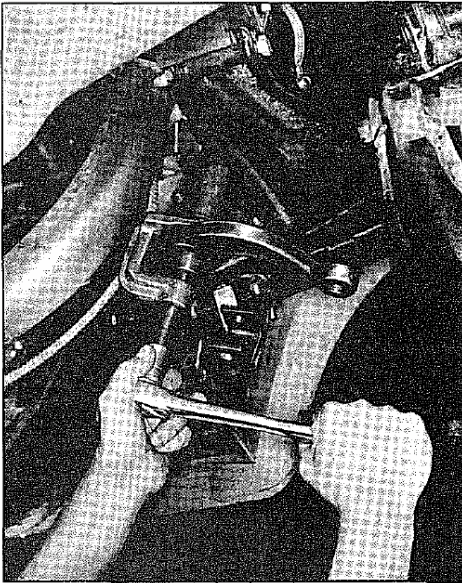


Fig. 2—Removing Pitman Arm

- Using Tool J-0544 (fig. 4) measure pull at rim of wheel which is required to keep wheel in motion. This should be between  $\frac{3}{8}$  and  $\frac{1}{4}$  pounds.

**NOTE:** When making this check, it is important that the centerline of the scale be kept at right angles to the wheel spoke.

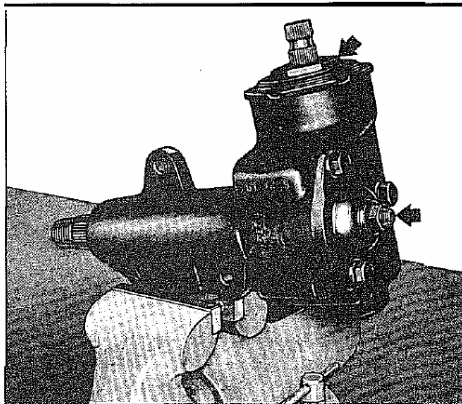


Fig. 3—Steering Gear Adjusting Points

Correct adjustment of steering gear is very important. While there are but two adjustments to be made, the following procedure must be followed step-by-step in the order given.

- Remove pitman arm nut and mark relation of pitman arm position to sector shaft. Remove piston arm with Tool J-6632 as shown in Figure 2.
- Loosen the pitman shaft lash adjuster screw lock nut and turn the adjuster screw a few turns in a counterclockwise direction. This removes the load imposed on the worm bearings by the close meshing of rack and sector teeth. Turn steering wheel gently in one direction until stopped by gear, then back away about one turn.

**CAUTION:** Do not turn steering wheel hard against stops when steering relay rod is disconnected as damage to ball guides may result.

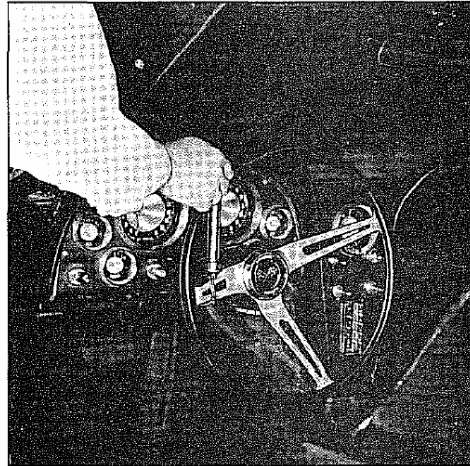


Fig. 4—Checking Wheel Pull

If the pull necessary to move the wheel does not lie between the limits given above, adjustment of worm bearings is necessary.

- To adjust worm bearings, loosen worm bearing adjuster lock nut and turn worm bearing adjuster until there is no perceptible end play in worm. Check pull at wheel rim, re-adjusting if necessary to obtain proper pull. Tighten lock nut and recheck pull. If the gear feels rough after adjustment of worm bearings, there is probably damage in the bearings due to severe impact or to improper adjustment and the gear must be disassembled for replacement of damaged parts.
- After proper adjustment of worm is obtained, and all mounting bolts securely tightened, adjust lash adjuster screw. First turn the steering wheel gently from one stop all the way to the other, carefully counting the total number of turns. Then turn wheel back exactly half way, to center position. Note position of mark on top of wormshaft just below the coupling clamp. This mark should be at top of shaft at 12 o'clock position and in line with the saw cut at the coupling lower clamp. Turn lash adjuster screw clockwise to take out all lash in gear teeth, and tighten lock nut. Check pull at wheel rim with checking scale, taking highest reading of checking scale as wheel is turned through center position. This should be between  $\frac{3}{8}$  and 1 pound. Readjust if necessary to obtain proper pull.
- Tighten lock nut then recheck pull.
- Reassemble pitman arm to sector shaft, lining up marks made on disassembly. Torque nut to 100-150 ft. lbs.