

Steering Gears & Linkage

CHRYSLER CORP. IMPORTS RACK & PINION

**Champ
Colt**

DESCRIPTION

Rack and pinion type steering is mounted by rubber insulators to crossmember. Adjustment is provided for pinion gear preload. Pinion shaft is coupled to the steering shaft and tie rods connect end of rack to steering arms of front wheels.

ADJUSTMENT

NOTE — Adjustments of pinion gear preload are performed during overhaul. See OVERHAUL procedure.

REMOVAL & INSTALLATION

Removal — Raise and support front of vehicle. Remove wheels. Remove coupling bolt from pinion shaft joint. Using a puller, disconnect tie rod ends from knuckle arms. Remove mount bolts at crossmember and remove rack and pinion assembly.

Installation — Install in reverse order of removal. Check wheel alignment.

OVERHAUL

Disassembly — 1) With rack and pinion assembly mounted in a soft-jawed vise, remove tie rod staking with a chisel. Then, use a wrench to remove tie rod assemblies.

2) Remove lock nut and using a special socket (MB990607 or equivalent), remove yoke adjusting screw. Remove yoke spring, rubber cushion and support yoke. Carefully pry out oil seal.

3) Remove snap ring and remove pinion and bearing. Remove snap ring retaining bearing to shaft and press off bearing.

4) Remove rack from left side of housing to avoid damage from rack teeth during removal.

Inspection — 1) Check tie rod ends for wear or damage. Check rubber boot (bellows) for wear or damage. Check tie rod stud nut for proper tightness. Check to see that nut is tightened to 12-24 INCH Lbs. (1.3-2.6 N·m).

2) Check tie rod end for axial play. Using a large pair of pliers, compress and release tie rod end while measuring axial play. Play should not exceed .06" (1.5 mm).

Reassembly & Adjustment — 1) Use grease on all friction surfaces during assembly. Install rack from left side. Install bearing to pinion, then install pinion into housing. Install snap ring that eliminates axial play. See *Pinion Bearing Snap Ring chart*. Install new oil seal.

Pinion Bearing Snap Rings

Snap Ring Color	In. (mm)
Blue063 (1.59)
White066 (1.67)
Yellow069 (1.74)

2) Grease and install yoke, cushion and spring with yoke adjusting screw. Using a socket, tighten adjusting screw to 5-11 ft. lbs. (7-15 N·m), then back off 30° to 60°. Install lock nut with sealer. Install tie rod assemblies and stake ends to rack keyways.

3) Measure rack starting force and pinion preload with a torque wrench and adaptor at pinion shaft. Pinion preload should be 4-10 INCH Lbs. (.44-1.1 N·m). Starting force should measure 11-66 ft. lbs. (15-90 N·m). If specifications are not obtained, replace yoke spring and rubber cushion and readjust.

4) Install rack and pinion assembly on crossmember. Connect tie rod ends to steering knuckles and pinion shaft to steering shaft coupler. Check wheel alignment.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (N·m)
Ball Joint-to-Knuckle Arm	11-25 (15-34)
Housing-to-Crossmember	22-29 (30-39)
Pinion Gear-to-Steering Shaft	11-14 (15-19)
Tie Rod Lock Nut	36-40 (49-54)
Tie Rod-to-Rack	58-72 (79-98)
Yoke Screw Lock Nut	36-51 (49-69)

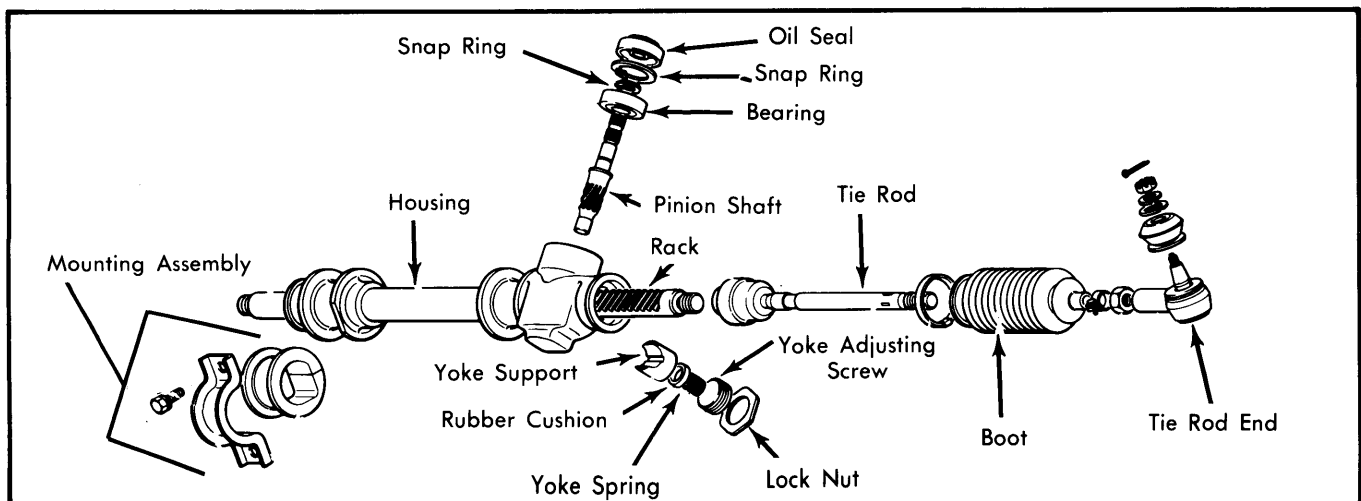


Fig. 1 Exploded View of Champ and Colt Hatchback Rack and Pinion Steering