

# Steering Linkage

## GENERAL MOTORS (Cont.)

pitman arm. See illustrations for proper alignment and orientation of connecting rod clamps.

**Pitman Arm Replacement** – 1) Raise vehicle on a hoist. Remove cotter pin from pitman arm ball stud and remove nut. Remove pitman arm or relay rod from ball stud by tapping on side of rod or arm (in which stud mounts) with a hammer while using heavier hammer as a backing. Remove pitman arm nut from shaft or clamp bolt from pitman arm, and mark arm-to-shaft position. Remove pitman arm from shaft using suitable puller.

2) To install, reverse removal procedure and note following: If a clamp type pitman arm is used, spread pitman arm with a wedge just enough to slip arm onto shaft by hand pressure. Do

not hammer or damage to steering gear may result. Be sure to reinstall the hardened steel washer before installing nut.

### "K" Models

**Steering Connecting Rod Replacement** – 1) Remove cotter pins from ball studs and remove castellated nuts. Remove ball studs from steering arm and pitman arm boss by tapping with a light hammer while using a heavy hammer as a backing.

2) To install, reverse removal procedure and note following: Ensure that threads on studs and nuts are clean and smooth. Check ball stud seals and replace if necessary. Install connecting rod on steering components, torque nuts and install new cotter pins. See illustration for proper alignment and orientation of connecting rod clamps.

### TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.	Application	Ft. Lbs.
Tie Rod Ball Stud Nuts .....	①50	"P" Motor Home Chassis .....	125
Tie Rod Clamps .....	22	All Other Models .....	180
Idler Arm Mounting Bolt .....	30		
Idler Arm-to-Relay Rod Nut .....	②66		
Pitman Arm-to-Relay Rod Nut .....	②66		
Steering Connecting Rod Nut			
P10/30 & "P" Motor Home Chassis .....	③70		
K10/20 .....	①50		
Steering Connecting Rod Clamps .....	40		
Pitman Arm-to-Pitman Shaft Nut			
K10/20 .....	90		

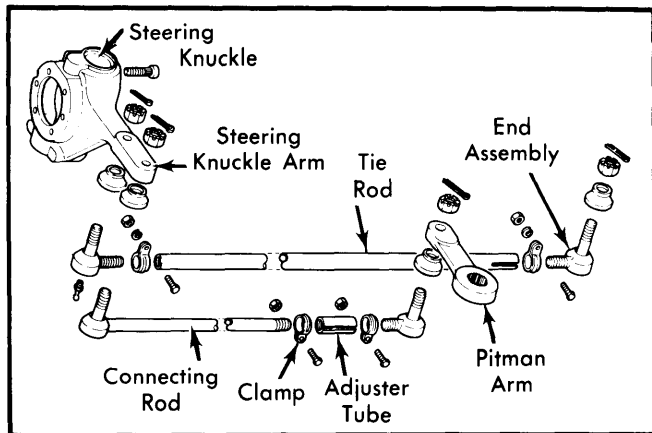
- ① – Plus torque required to align cotter pin.
- ② – Seat the taper using a free-spinning nut torqued to 40 ft. lbs., then remove nut and install torque prevailing replacement nut and torque to specification.
- ③ – Plus torque required to align cotter pin with maximum torque of 100 ft. lbs.

## JEEP

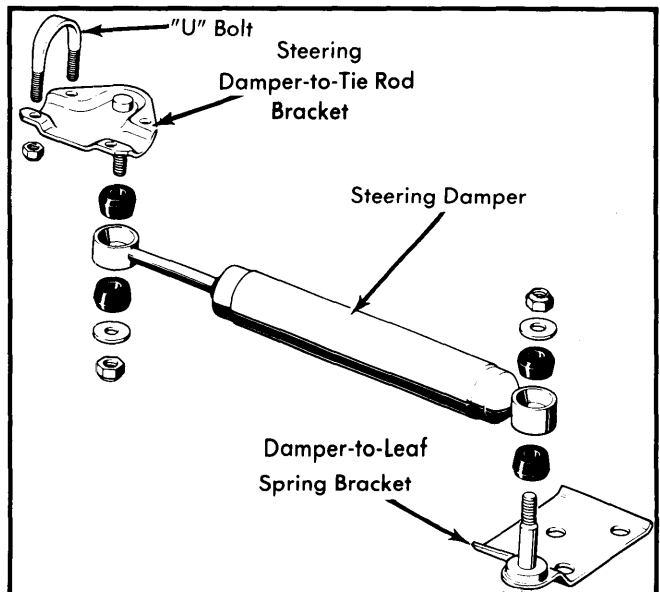
### All Models

**Tie Rod Replacement** – Remove cotter pins and retaining nuts at both ends of tie rod and from end of connecting rod where it attaches to tie rod. Disconnect steering damper push rod at tie rod bracket. Remove tie rod ends from steering arms and connecting rod using a puller or expansion fork. To install, attach tie rod ends to steering arms. Tighten nuts and install new cotter pins. Attach connecting rod, tighten nuts, and

install new cotter pin. Attach steering damper. Check and adjust toe-in as necessary.



**Fig. 1 Disassembled View of Steering Linkage ("CJ" & Scrambler Models)**

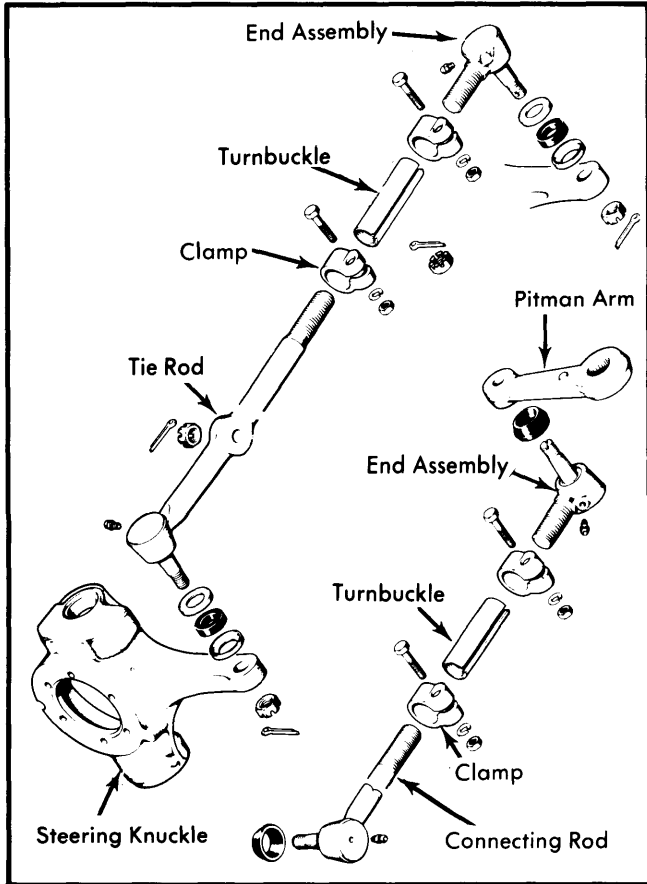


**Fig. 2 Positioning of Steering Damper Bushings All Models Except "CJ" & Scrambler**

## JEEP (Cont.)

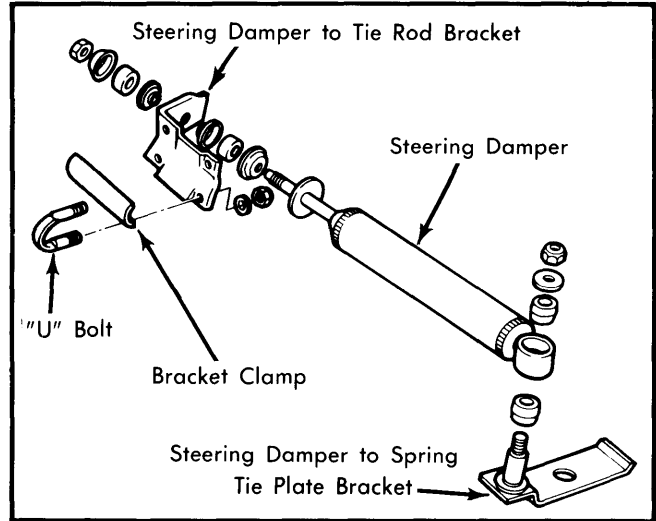
**Steering Damper Replacement** — With front wheels in straight-ahead position, remove lock nut securing damper to bracket on tie plate, then lift damper off stud. Remove lock nut securing push rod end to tie rod bracket and remove damper assembly. To install, install rubber bushings in damper eyelets, then secure eyelet at push rod end to stud on tie rod bracket with attaching hardware. Install rubber bushings in damper body eyelet. Extend push rod by pulling back on damper body until eyelet can be located on, and secured to, stud on damper bracket. Tighten all lock nuts.

steering gear steering arm properly indexed, with line marks on steering arm, and gear shaft on center of high point. With steering arm so positioned, install connecting rod.



**Fig. 3 Disassembled View of Steering Linkage (Cherokee, Wagoneer & Truck Models)**

**Connecting Rod Replacement** — Remove cotter pins and nuts from both ends of connecting rod, then remove rod. When installing be sure wheels are in straight ahead position and steering arm is parallel to centerline of vehicle. Have



**Fig. 4 Steering Damper Assembly "CJ" & Scrambler Models**

### TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
Connecting Rod Clamp Bolt	
CJ & Scrambler Models	10-15
All Other Models	25-35
Connecting Rod 5/8"	
(To Castellated Nut Slot)	70 Min.
Connecting Rod 9/16"	
(To Castellated Nut Slot)	60 Min.
Pitman Arm-to-Shaft	160-210
Tie Rod Clamp Bolt	
CJ & Scrambler Models	10-15
All Other Models	25-35
Tie Rod Stud Nuts	
(To Castellated Nut Slot) CJ & Scrambler	40 Min.
Tie Rod Stud Nuts	
(To Castellated Nut Slot) All Other Models	60 Min.
Steering Damper Lock Nut	
CJ & Scrambler Models	16-28
All Other Models	24-36