

## Instruction Sheet

### DRAG LINK INSTALLATION WITH "GARRISON" VALVE G21

#### Material

Part no	Description	Qty
16-0435	Drag link assy	1
50-1785	Swivel fitting #8	4
50-2152	Cotter pin 1/8" x 3"	1
50-2104	Cotter pin 5/32" x 2"	1

**NOTE:** Material can be ordered through regular channel.

**NOTE:** Refer to the "Parts Manual", page 1407-02 for a complete description of the "Garrison" valve components.

#### Procedure

1. Park vehicle over a safe lifting equipment which minimum capacity must be 50,000 lbs (23 000 kg). Stop engine and shift transmission in neutral position. Apply parking brake, exhaust air from the suspension air springs and set battery main disconnect switch to the "OFF" position. Refer to figure 1.

2. Lift vehicle sufficiently to remove L.H. side front wheel.

**WARNING:** To prevent any injury in case of a defective lifting equipment, install 4 safety stands: 2 under drive axle (one on each side) with a capacity of 13,000 lbs (5 900 kg) each and 2 under front axle (one on each side) with a minimum capacity of 7,000 lbs (3 200 kg) each.

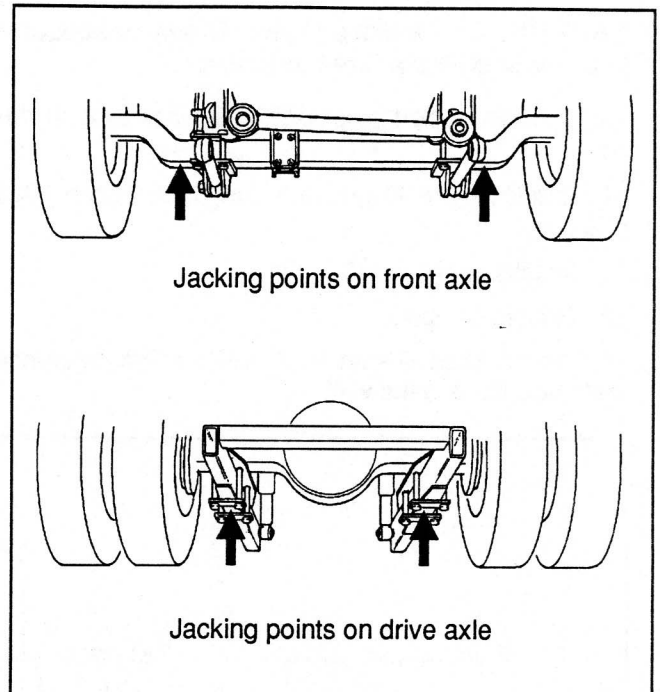


Figure 1

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IS9021B1

3. Remove L.H. side front wheel, then open steering compartment door.

**NOTE:** The "Garrison" valve is to be mounted on the pitman arm of the steering gearbox.

4. Loosen jam nut 1-14 on drag link, remove valve, then remove tie rod end nut. Refer to figure 2.

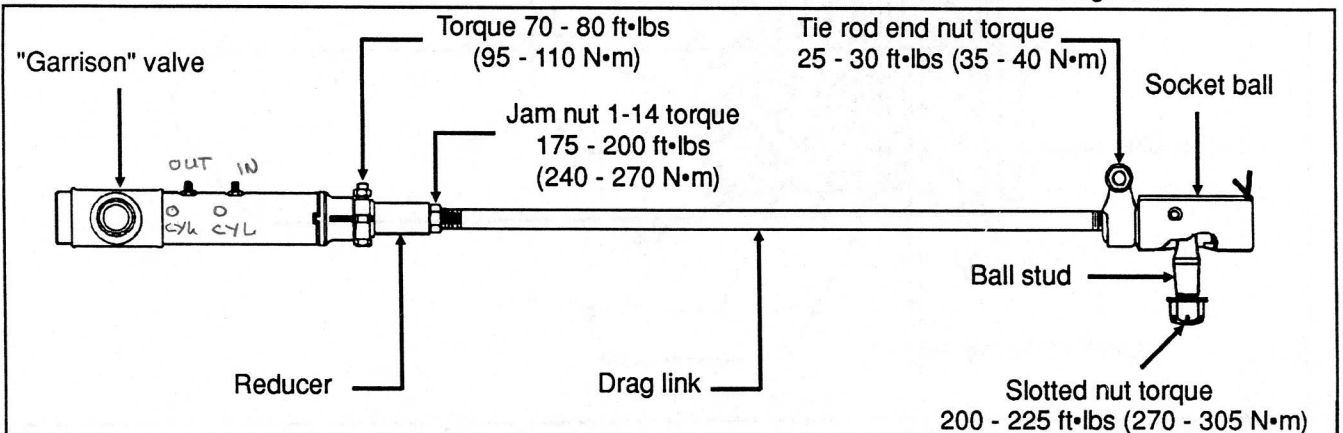


Figure 2

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5. Remove cotter pin on "Garrison" valve G21. See figure 3.
6. Unscrew plug.
7. Remove lock, socket plug, spring and ball pivot.
8. Insert pitman arm ball joint into the "Garrison" valve.
9. Fix ball pivot and spring, then tighten socket plug to seat it on the ball pivot.

**CAUTION: Check that ball pivot is seated adequately on its bushing before tightening.**

10. Loosen socket plug and insert lock tabs in next holes.
11. Torque plug to 50 in•lb (5,6 N•m), then loosen 0.060" (1,6 mm).
12. Install cotter pin #50-2152.
13. Grease ball pivot.
14. Insert drag link through the diaphragm (rubber protector) fixed to the wall.

15. Mount valve on drag link.

**NOTE: Make sure there is at least 1 1/2" (37 mm) of threaded rod engaged in the reducer.**

16. Fix tie rod end to the steering arm using ball stud, tighten slotted nut to 200 - 225 ft•lbs (270 - 305 N•m) and lock nut with cotter pin #50-2104.

**NOTE: Position the front wheels in a straight line before installing drag link.**

17. Adjust drag link, torque jam nut 1-14 between 175 - 200 ft•lbs (240 - 270 N•m) and tie rod end nut between 25 - 30 ft•lbs (35 - 40 N•m).

18. Check torque of bolt and nut on reducer. Refer to figure 2.

19. Replace fittings on hydraulic hoses with new swivel fittings #50-1785.

20. Connect hydraulic hoses to the "Garrison" valve according to the valve identification ports.

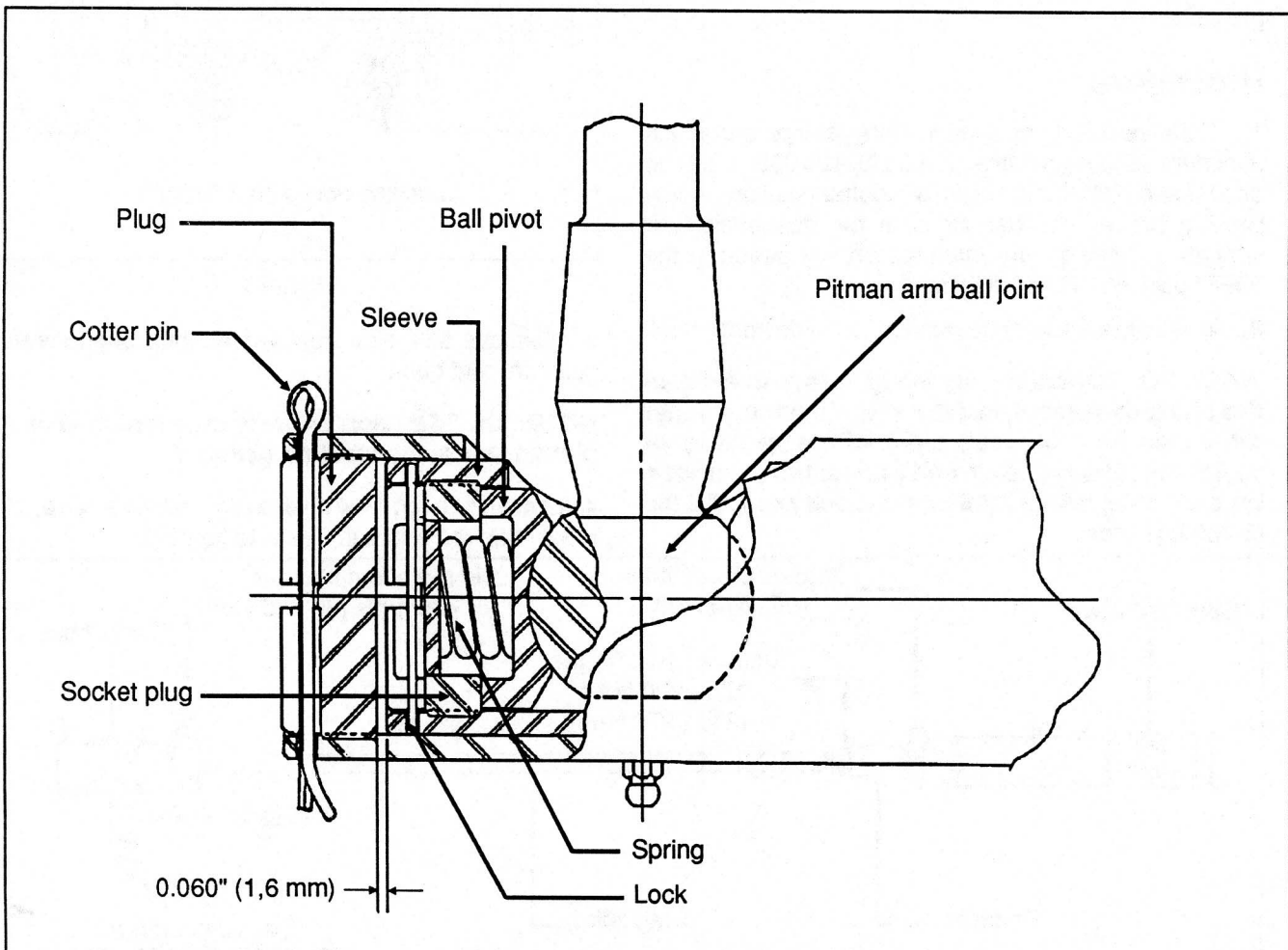


Figure 3

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21. Close steering compartment door.
22. Replace wheel, run in lightly the nuts and torque according to the recommended sequence in figure 4. This is important, otherwise wheel may be eccentric with hub and will not run straight. In this initial step, run the nuts up only as necessary to correctly position wheel.
23. Tighten nuts progressively as shown in figure 4. The final tightening should be done with a torque wrench. Torque nuts between 450 - 500 ft•lbs (610 - 675 N•m) for aluminium as well as steel wheels.

**NOTE: Tighten nuts every 100 miles (160 km) for the first 500 miles (800 km) to allow setting in of clamping surfaces.**

24. Remove the four safety stands and lower vehicle.
25. Check for steering alignment and make necessary adjustments.
26. Reset battery main disconnect switch to the "ON" position.

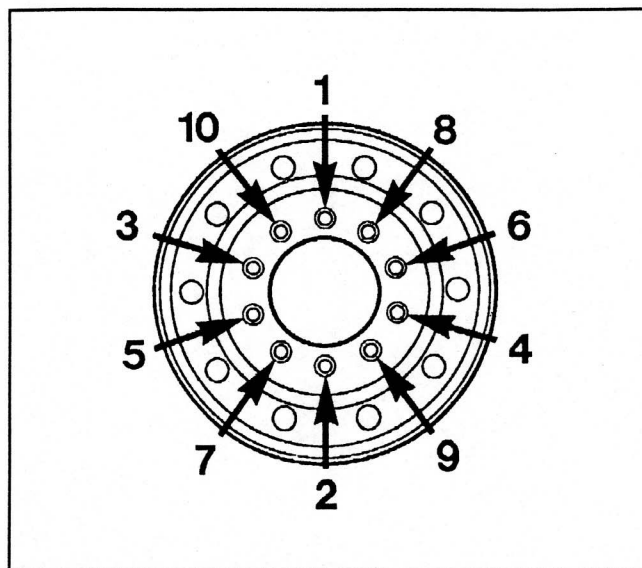


Figure 4 - Wheel nut tightening sequence

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