# **TECHNICAL BULLETIN**



# Steering Rack – Surface Cracks – Service Action \$450

57-20 Amended 8/95

MODEL XJS (4.0L) Range 1995 MY

**DATE 8/95** 

VIN 196998-197112

Remove and destroy Bulletin 57-20, Date 8/95.

Replace with this Bulletin.

Revisions are marked with a bar and indicated in Bold Text.

#### **ISSUE:**

A limited number of 4.0L XJS Range vehicles may exhibit surface cracks on the aluminum casting of the steering rack. These cracks may result in fluid seepage but will not affect the function of the steering. The specific VINs are listed on page 3.

#### **ACTION:**

The steering racks of vehicles in the above VIN range should be inspected for surface cracks. Locate the part number on the plate located on the underside of the steering rack. If the vehicle is equipped with part number MHD 3891CA, replace it with part number MHB 3891AA/NK. If the vehicle is already in service, make arrangements to have it inspected and, if necessary, to have the steering rack replaced at the earliest opportunity.

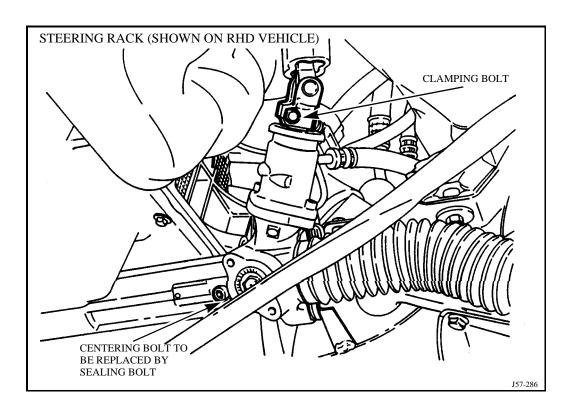
#### STEERING RACK REPLACEMENT PROCEDURE

- 1. Disconnect the battery negative cable.
- 2. Disconnect the supply and return hoses from the rack and allow them to drain into a drain pan.
- 3. After the oil has drained into the tray, install plugs into the rack and hoses to prevent dripping.
- 4. Remove the clamping bolt and nut that attach the steering shaft to the pinion, Illustration 1.
- 5. Turn the ignition key to position 1 and turn the steering wheel to the straight-ahead position. Turn the key to the OFF position and remove.
- 6. Use tool JD 100 to disconnect the tie rod end ball joints from the steering arms.
- 7. Loosen the steering rack upper and lower mounting bolts and remove the heat shield bracket.
- 8. Remove the steering rack, stiffener, and shims from the crossmember.
- 9. Remove the mounting bushes from the rack assembly.
- 10. Place the new steering rack in position with the mounting bushes, stiffener, and the heat shield, then connect the steering shaft to the pinion.
- 11. Insert bolts in position in the double lug and insert the bolt in the single lug with the thrust washers.

12. Center the single lug in the mounting bracket using the shims.

**NOTE:** Check that a gap of 0.10 to 0.12 inch (2.5 to 3.0 mm) exists between the thrust washer and the lug.

13. Install the nuts on the mounting bolts and tighten them sufficiently to hold the rack while aligning it to the crossmember using the elongated bolt holes. Once the rack is aligned, tighten the mounting bolts to 13.276 - 17.702 lb ft (18 - 24 Nm).



#### **ILLUSTRATION 1**

- 14. Insert the clamping bolt and nut (Illustration 1) and tighten to 17.702 22.127 lb ft (24 30 Nm).
- 15. Connect the supply and return hoses.
- 16. Connect the tie rod ends to the steering arms and tighten to 44.991 50.892 lb ft (61 69 Nm).
- 17. Remove the centering bolt and replace it with the sealing bolt (JZS 100046) and washer (JZW 100019), Illustration 1. Tighten the bolt to 4 5.25 lb ft (5.5 8.5 Nm).
- 18. Refill the steering system, reconnect the battery, run the engine and turn the steering wheel from lock to lock to purge the air from the system. Check the fluid level.
- 19. Check/adjust the front wheel alignment.
- 20. Reset the clock.

### S450 SERVICE ACTION MODEL CODE AND VIN LIST

| Model, VIN   |
|--------------|--------------|--------------|--------------|--------------|
| U.S.         |              |              |              |              |
| 2030, 196998 | 2030, 196999 | 2030, 197002 | 2030, 197005 | 2030, 197007 |
| 2030, 197012 | 2030, 197014 | 2030, 197015 | 2030, 197017 | 2030, 197020 |
| 2030, 197029 | 2030, 197035 | 2030, 197032 | 2030, 197034 | 2030, 197037 |
| 2030, 197040 | 2030, 197042 | 2030, 197044 | 2030, 197045 | 4234, 197046 |
| 2030, 197048 | 2030, 197053 | 2030, 197055 | 2030, 197058 | 2030, 197059 |
| 2030, 197062 | 2030, 197064 | 2030, 197067 | 2030, 197083 | 2030, 197092 |
| 2030, 197104 | 2030, 197112 |              |              |              |
|              |              |              |              |              |

CANADA

2030, 197009 2030, 197098

# PARTS INFORMATION:

<u>DESCRIPTION</u>	PART NUMBER	<u>OTY</u>
Steering Rack	MHB 3891AA/NK	1
Bolt	JZS 100046	1
Washer	JZW 100019	1

#### **WARRANTY INFORMATION:**

Service Action S450

<u>VEHICLE</u>	SUMMARY <u>CODE</u>	<u>DESCRIPTION</u>	TIME ALLOWANCE
XJS (4.0L) 1995 MY VIN 196998-197112 Model codes 2030, 4234	FX	Inspect steering rack, with no defect found - with drive in/out time	0.25 hrs.
XJS (4.0L) 1995 MY VIN 196998-197112 Model codes 2030, 4234	FY	Replace steering rack, <b>check/adjust wheel alignment</b> - with drive in/out time	2.05 hrs.

## CLAIM SUBMISSION PROCEDURE:

Warranty summary codes have been assigned to this service action in order to simplify claim submission. The dealership will be reimbursed the parts and labor time allowance as indicated.

#### **DCS** Dealers

Submit claims using the appropriate summary code for the vehicle model and work performed. Follow standard campaign submission procedures.

#### Non-DCS Dealers

Submit claims on the Recall Campaign Summary form W-25. Enter the appropriate summary code for the vehicle model and work performed in the Repair Code column. Do not use the W-1 warranty claim form.