

# Technical Service Bulletin



**SUBJECT:**  
Drive Line Vibration  
At Speeds Over 60 MPH

**NO:** 03-01-98  
**GROUP:** Differential/DriveLine  
**DATE:** Mar. 27, 1998

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## MODELS:

1997 - 1998 (XJ) Cherokee

**NOTE: THIS BULLETIN APPLIES TO VEHICLES EQUIPPED WITH 4.0L ENGINES AND AUTOMATIC TRANSMISSIONS.**

## SYMPTOM/CONDITION:

A vibration may be present while driving at speeds over 60 MPH. The condition is usually accompanied by a droning noise and has a higher frequency vibration usually associated with propeller shaft speed as opposed to lower frequency vibrations associated with wheel and tire vibrations.

## DIAGNOSIS:

Road test the vehicle. If the vibration is present, refer to the 1997 Cherokee Service Manual, publication number 81-370-8146, for basic diagnostic procedures to eliminate the possibility of mistaking vibration caused by other rotating components. It is important that all of the basic diagnostic procedure be performed in the following areas prior to installing the Repair Procedures parts listed below:

- Check and correct tire pressures
- Wheel and tire run out
- Drive Line angles
- Prop Shaft and yoke run out

If no problems are identified during the basic diagnostic procedures, perform the repair Procedure.

**PARTS REQUIRED:**

2	05011910AA	Shim - Transmission cross member
4	06101504	Bolt
AR	05011845AA	Bracket - Transfer Case Shifter
AR	05011882AA	Shim - Skid Plate (if Equipped)
AR	06100929	Bolt (Skid Plate Shim)
AR	05012900AA	Prop Shaft - 2WD (Dana M35)
AR	05012899AA	Prop Shaft - 2WD (Chrysler 8.25 in.)
AR	05012898AA	Prop shaft - 4 WD (Dana M35)
AR	05012897AA	Prop shaft - 4 WD (Chrysler 8.25 in.)
4	J4006928	Screws - Prop Shaft retaining strap
2	J3240553	Strap -Prop Shaft retaining

**REPAIR PROCEDURE:**

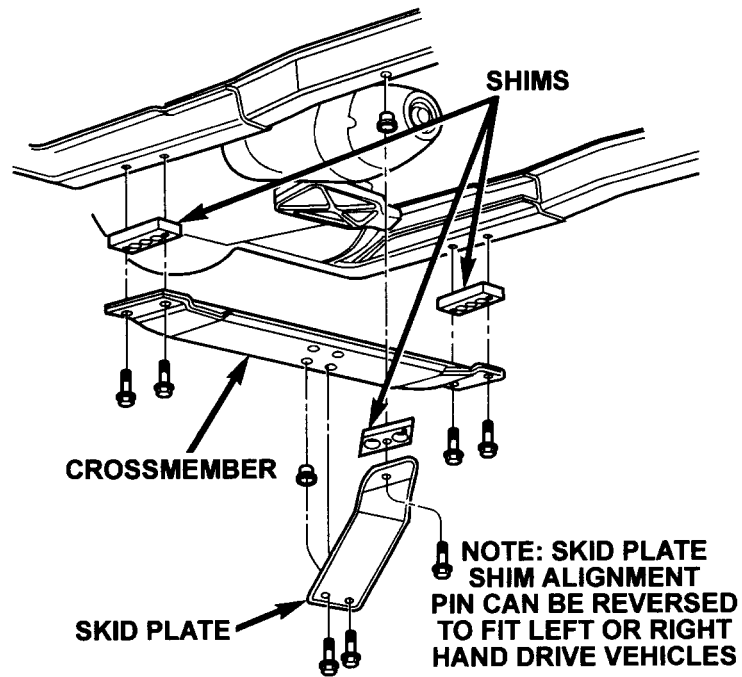
This bulletin involves installing shims to the transmission cross member to alter the drive shaft operating angles and replacing the prop shaft with a revised part containing a vibration damper.

1. Raise the vehicle and support the transmission with an adjustable jack stand to allow for removal of the transmission cross member.
2. Loosen but do not remove the engine support bracket to frame sill attaching nuts.
3. Loosen but do not remove the exhaust pipe nuts at the exhaust manifold to allow for movement during the shim installation.
4. Remove the transfer case skid plate to frame rail bolt if equipped.
5. Remove the transmission cross member to frame rail bolts.
6. Lower the cross member and install the cross member with the new shims, p/n 05011910AA, and longer bolts, p/n 06101505, and hand tighten the bolts. (See figure 1)

**NOTE: THE SKID PLATE SHIM CONTAINS AN ALIGNMENT PIN. THE PIN CAN BE REMOVED AND REVERSED FOR USE ON EITHER LEFT OR RIGHT-HAND DRIVE VEHICLES.**

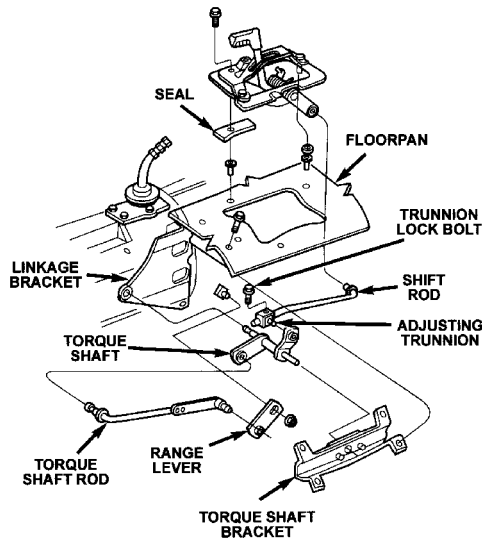
7. Install the skid plate shim, if equipped, and hand tighten the bolts.

8. Tighten the cross member and skid plate bolts to 41 Nm (30 ft. lbs.).



**Figure 1**

9. Tighten the engine support bracket nuts to 41 Nm (30 ft. Lbs.).
10. Tighten the exhaust pipe nuts to 31 Nm (23 ft. Lbs.).



**Figure 2**

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11. Remove the transfer case linkage bracket. (See Figure 2)
12. Install the new bracket, p/n 05011845, and tighten the bolts to 30 Nm (22 ft. Lbs.).
13. Check the transfer case shifter operation and adjust the linkage as necessary.
14. Remove the rear propeller shaft.
15. Install the new prop shaft containing the damper. Replace the universal joint straps and nuts with p/n J4006926 & J3240553. Tighten the nuts to 19 Nm (14 ft. lbs).

**POLICY:** Reimbursable within the provisions of the warranty.

**TIME ALLOWANCE:**

Labor Operation No:

Install Shims, Bracket and Prop Shaft	
13-30-02-91 .....	1.2 Hrs.
Add for Skid Plate	
13-30-02-60 .....	0.2 Hrs.

**FAILURE CODE:** XX - Service Adjustment