



V8 XJ Series/XK

DATE 01/03

303-59

SERVICE

## TECHNICAL BULLETIN

### Chirping Noise From Accessory Drive Belt – Misaligned Belt – Replace FEAD Tensioner

MODEL  
2001-02 XK Range  
2001-03 MY V8 XJ Series  
VIN  
A11051-A30644  
F20645-F59525

#### Issue:

On some 2001-02 MY XK and 2001-03 MY V8 XJ Series vehicles, within the above VIN ranges, a chirping noise may be apparent from the Front End Accessory Drive (FEAD) that is caused by misalignment of the drive belt.

#### Action:

On a customer complaint basis only, install a new revised FEAD belt tensioner and a new FEAD belt and check that the Air Conditioning (A/C) compressor locating dowel is installed correctly. If the A/C compressor locating dowel is not protruding by at least 3.2 mm, install a new A/C compressor/PAS pump bracket also.

If a new A/C compressor/PAS pump bracket is installed, check that the dowel hole of the A/C compressor is not worn out-of-round. If the hole is out-of-round, install a new A/C compressor.

Follow the workshop procedure outlined below.

#### REPLACEMENT PROCEDURE

1. Open hood and fit fender protector covers.
2. Open luggage compartment lid and remove battery cover.
3. Disconnect battery.

**Note:** Ensure the radio code is available before disconnecting the battery.

4. On supercharged engines, remove supercharger drive belt (see Workshop Manual, JTIS CD ROM, section: 303-12, SRO 18.50.08 except 2001 MY XKR vehicles see Workshop Manual, JTIS CD ROM, section: 303-05).
5. On all engines, remove FEAD belt and tensioner (see Workshop Manual, JTIS CD ROM, section: 303-05, SRO 12.10.41).
6. On V8 XJ Series vehicles, remove front undertray (see Workshop Manual, JTIS CD ROM, section: 501-02, SRO 76.22.90).
7. On all vehicles, loosen and reposition A/C compressor upper securing bolts.
8. Loosen the lower securing bolts of the A/C compressor by approximately 10 mm to allow A/C compressor to be levered clear of upper dowel.

**Note:** A/C compressor lower securing bolts are to remain engaged in threads to keep the upper securing bolt aligned with the dowel.

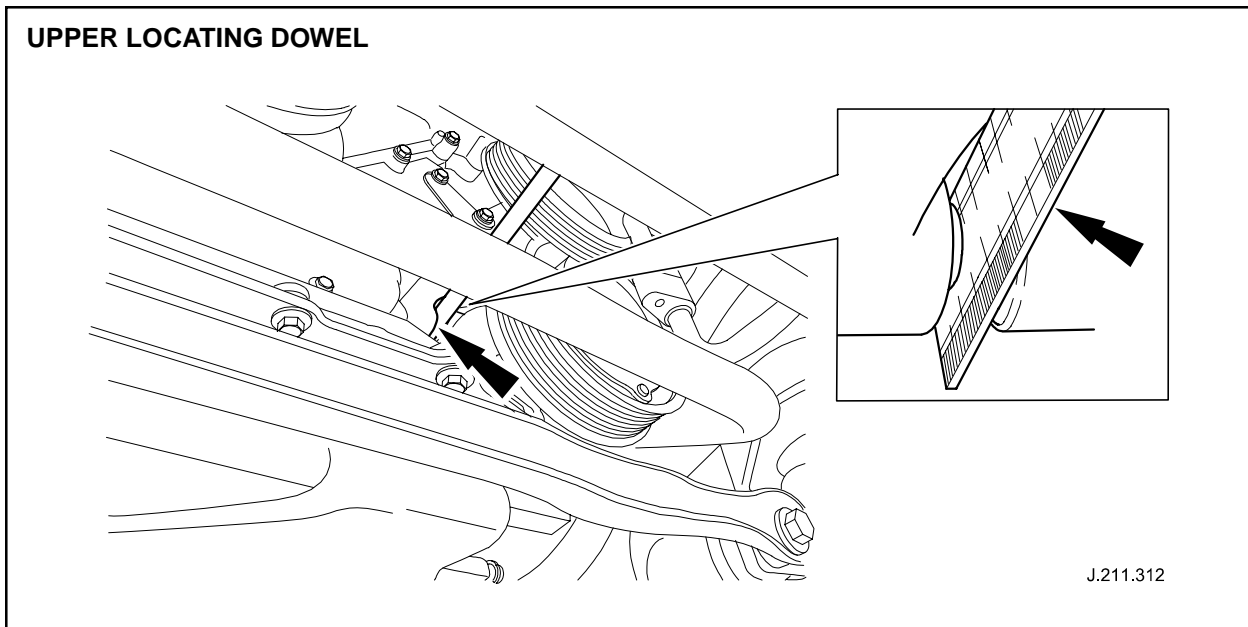


ILLUSTRATION 1

9. Using suitable lever, reposition A/C compressor from upper dowel.
10. Place suitable piece of metal stock across A/C compressor upper dowel (Illustration 1).

**Note:** A short steel engineers rule can be used as an alternative to a flat metal stock.

11. Trap metal stock against dowel end using finger pressure on A/C compressor upper securing bolt head.

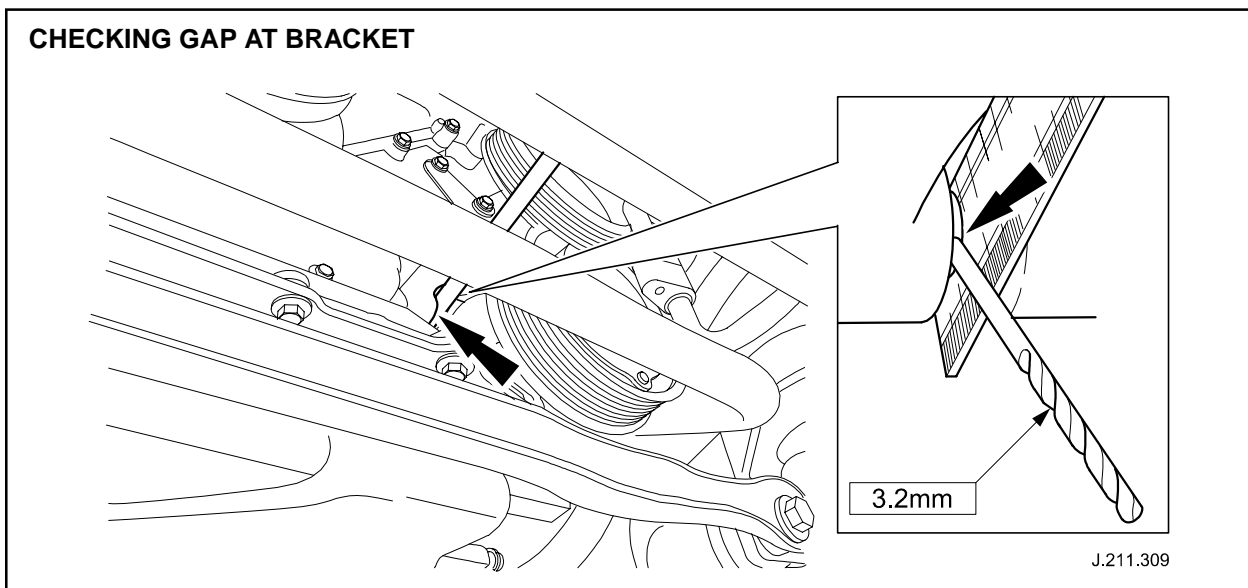


ILLUSTRATION 2

12. Using the shank of a new 3.2 mm (1/8 in.) twist drill, ensure gap between A/C compressor/PAS pump bracket and flat metal stock is 3.2 mm (1/8 in.) or greater (Illustration 2).

13. Remove 3.2 mm (1/8 in.) twist drill.
14. Remove flat metal stock.

**Note:** If the gap between A/C compressor bracket and flat metal stock is within specification continue from step 41. If gap is less than 3.2 mm (1/8 in.) continue from step 15.

15. Recover A/C refrigerant (see Workshop Manual, JTIS CD ROM, section: 412-00, General Procedures, Recover/Reclaim).
16. Place special tool 303-D055 on the PAS pump pulley and tighten tool belt.
17. Remove the PAS pump pulley securing screws.
18. Remove special tool 303-D055 from the PAS pump pulley.
19. Remove the PAS pump pulley.
20. Remove the A/C compressor (see Workshop Manual, JTIS CD ROM, section: 412-03, SRO 82.10.20).

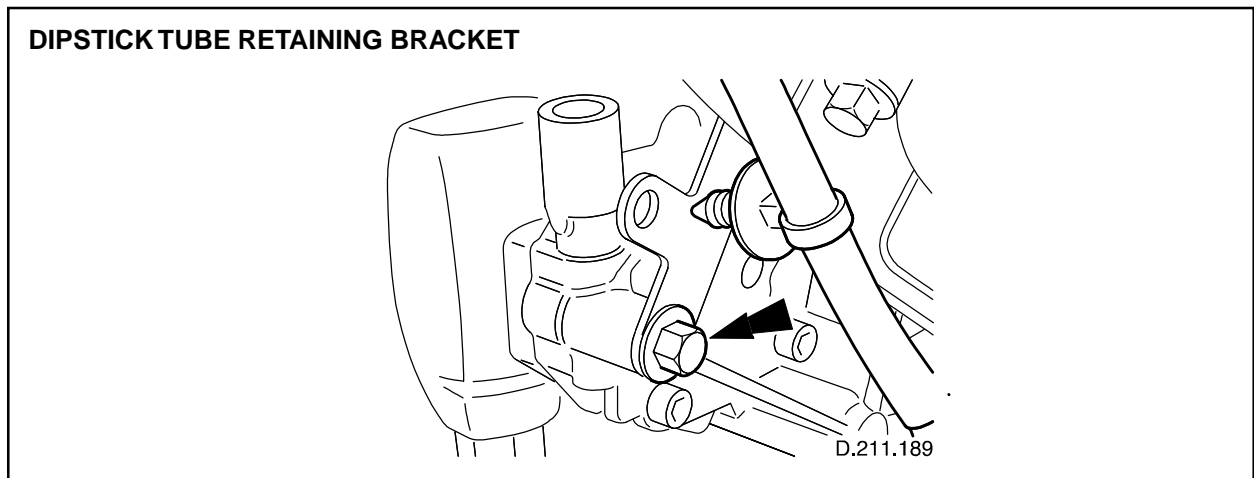


ILLUSTRATION 3

21. Remove the screw securing the engine dipstick tube retaining bracket to the PAS pump (Illustration 3).
22. Remove the rear bolt securing the A/C compressor/PAS pump mounting bracket to the engine.
23. Reposition crank sensor harness support clip.
24. Remove the front bolt securing the A/C compressor/PAS pump mounting bracket to the engine.
25. Remove the A/C compressor/PAS pump mounting bracket.
26. Place new A/C compressor/PAS pump mounting bracket to front.

## CHECK DOWEL PROTRUSION

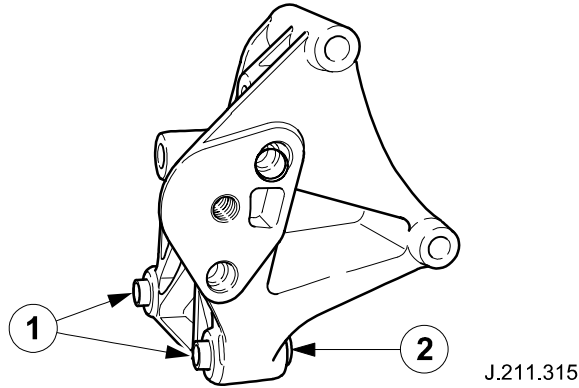


ILLUSTRATION 4

27. Install three new dowels to A/C compressor/PAS pump mounting bracket (Illustration 4).

**Note:** Using suitable vernier caliper, check that the two dowels locating the A/C compressor/PAS pump mounting bracket to the engine (see 1, Illustration 4) protrude 4.2-4.8 mm and that the dowel locating the A/C compressor to the bracket (see 2, Illustration 4) protrudes 3.2-3.8 mm.

28. Seat A/C compressor/PAS pump mounting bracket on the engine.
29. Install and tighten the upper front bolt securing the A/C compressor/PAS pump mounting bracket to the engine.
30. Align crank sensor harness support clip to A/C compressor/PAS pump mounting bracket upper rear fixing hole.
31. Install and tighten the upper rear bolt securing the A/C compressor/PAS pump mounting bracket to the engine.
32. Reposition and align PAS pump to mounting bracket.

## PAS PUMP MOUNTING BOLTS

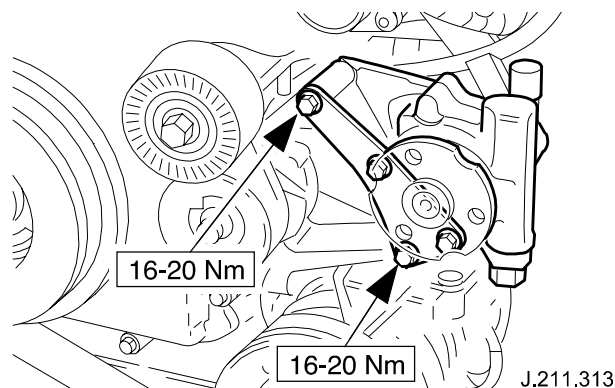


ILLUSTRATION 5

33. Install and tighten PAS pump securing bolts to 16-20 Nm (Illustration 5).

34. Install and tighten engine dipstick tube retaining bracket to PAS pump securing bolt to 8-12 Nm.
35. Position PAS pump pulley and align fixing holes.
36. Install, but do not tighten, PAS pump pulley securing bolts.
37. Position special tool 303-D055 on PAS pump pulley and tighten tool belt.
38. Final tighten PAS pump pulley securing bolts to 18-24 Nm.
39. Remove special tool 303-D055 from PAS pump pulley and place aside.

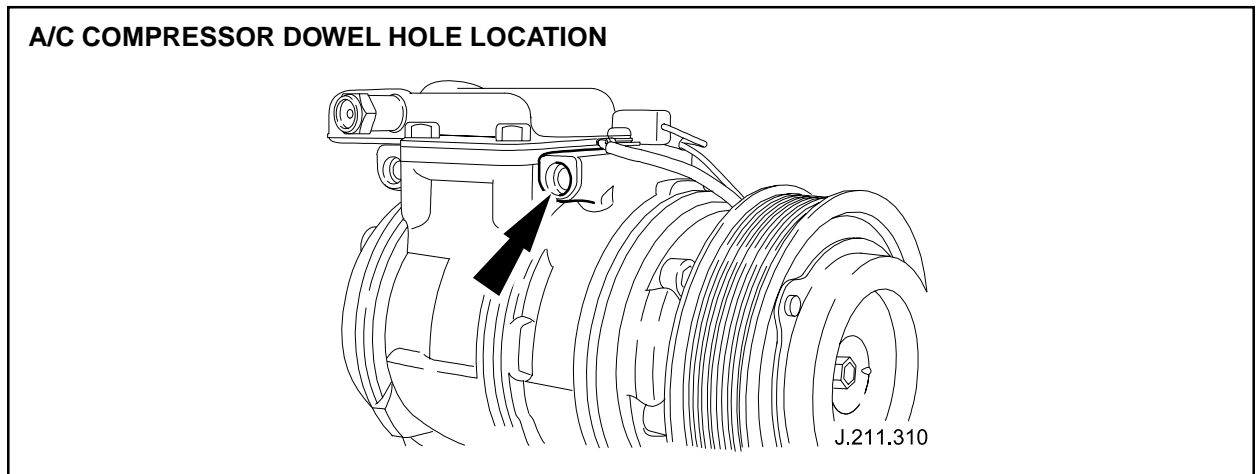


ILLUSTRATION 6

40. Inspect A/C compressor dowel location hole to ensure it is not worn out-of-round (Illustration 6).

**Note:** If the A/C compressor dowel hole is out of round, install a new A/C compressor.

41. Install A/C compressor (see Workshop Manual, JTIS CD ROM, section: 412-03, SRO 82.10.20).
42. Install new FEAD belt and tensioner (see Workshop Manual, JTIS CD ROM, section: 303-05, SRO 12.10.41).
43. If fitted, install supercharger drive belt (see Workshop Manual, JTIS CD ROM, section: 303-12, SRO 18.50.08 except 2001 MY XKR vehicles see Workshop Manual, JTIS CD ROM, section: 303-05).
44. If required, recharge A/C system (see Workshop Manual, JTIS CD ROM, section: 412-00).
45. Reconnect battery.
46. Install battery cover and close luggage compartment lid.
47. Remove fender protectors and close hood.

**Parts Information:**

<b>DESCRIPTION</b>	<b>PART NUMBER</b>	<b>QTY</b>
FEAD belt tensioner	NCA 7739AE	1
FEAD belt	NCA 2211DA	1
A/C compressor/PAS pump bracket	NCA 8301AB	1
A/C compressor/PAS pump bracket dowel	EAZ 2159	3
A/C compressor	MCA 7300AE	1

## Warranty Information:

Warranty claims should be submitted quoting the information found in the table below. This will result in payment of the stated time and, where applicable parts/miscellaneous expense codes as listed.

Description	SRO	Time	Causal Part Number	Causal Part Description
Checking A/C compressor/PAS pump bracket dowel, installing new FEAD belt and tensioner XKR	12.92.10	0.7 hrs.	NCA 7739AE	FEAD belt tensioner
XK8	12.92.10	0.5 hrs.	NCA 7739AE	FEAD belt tensioner
V8 XJ SC	12.92.10	0.9 hrs.	NCA 7739AE	FEAD belt tensioner
V8 XJ N/A	12.92.10	0.7 hrs.	NCA 7739AE	FEAD belt tensioner
Checking A/C compressor/PAS pump bracket dowel, installing new bracket, FEAD belt and tensioner XKR	12.92.10/01	1.9. hrs.	NCA 7739AE	FEAD belt tensioner
XK8	12.92.10/01	1.7. hrs.	NCA 7739AE	FEAD belt tensioner
V8 XJ SC	12.92.10/01	2.0 hrs.	NCA 7739AE	FEAD belt tensioner
V8 XJ N/A	12.92.10/01	1.8 hrs.	NCA 7739AE	FEAD belt tensioner
Recover and recharge A/C system All	82.30.30	0.4 hrs.	NCA 7739AE	FEAD belt tensioner
Checking A/C compressor/PAS pump bracket dowel, installing new bracket, FEAD belt, tensioner and A/C compressor XKR	12.92.10/02	1.9. hrs.	NCA 7739AE	FEAD belt tensioner
XK8	12.92.10/02	1.7. hrs.	NCA 7739AE	FEAD belt tensioner
V8 XJ SC	12.92.10/02	2.0 hrs.	NCA 7739AE	FEAD belt tensioner
V8 XJ N/A	12.92.10/02	1.8 hrs.	NCA 7739AE	FEAD belt tensioner
Recover and recharge A/C systemAll	82.30.30	0.4 hrs.	NCA 7739AE	FEAD belt tensioner