



V8 XJ Series/XK8

DATE 7/99

307-11

SERVICE

## TECHNICAL BULLETIN

ZF 5HP24 – Replace Transmission –  
Recall R478

## MODEL

1999 MY XK8 Range  
1999 MY V8 XJ NA

## VIN

031401-038608  
852857-871502**Issue:**

A limited number of XK8 and V8 XJ Series vehicles within the above VIN ranges have been manufactured incorporating an automatic transmission unit in which there is a component which has the potential for failure. This is due an incorrect manufacturing process by the supplier of our transmission units. In the event of the component concerned failing in one possible manner, it has been found that the complete power train of the vehicle could lock up.

**Note:** It is important to emphasize that any failure of a transmission which involves complete lockup of the unit is only likely to occur at very low vehicle speed, as the transmission shifts down into 1st gear with the vehicle almost at a standstill, after being in higher gears when traveling at higher speeds.

In view of the implications of the above, particularly the inconvenience to the customer, Jaguar has decided to replace the transmission on a number of vehicles within the affected VIN ranges detailed above. The vehicles affected are individually listed by VIN in this bulletin.

In December 1998, Technical Bulletin 307-08 (Service Action S476), advised that there were serious quality concerns over a quantity of automatic transmission units, as being potentially liable to failure early in the life of the vehicle. The potential modes of failure were:

- abnormal and excessive noise when pulling away from rest in 1st gear
- loss of reverse drive
- temporary loss of forward drive, after which:
- the transmission will revert to “limp home” mode with forward drive only

Jaguar will immediately take the following course of action:

- To recall for replacement of the automatic transmission unit all ADDITIONAL vehicles of which Jaguar is now aware, by means of this Recall Action R478.

AND

- To include in the VIN listing for R478 all vehicles previously covered by Service Action S476 which have not yet been reworked.
- To close Service Action S476. Formal documentation covering this closure will follow.

Jaguar is writing to all affected customers requesting them to contact their selling dealer, or nearest dealer, as soon as possible, to arrange for the transmission assembly in their vehicle to be replaced at the earliest opportunity.

## Action:

Check if the recall has already been performed on the vehicle by performing a DCS claim search and checking for a R478 label. If the recall has not yet been performed, arrange to replace the transmission assembly in any affected vehicle listed in the VIN list, or after being contacted by a Customer to whom Jaguar has written.

It is important to note that **not all** vehicles within the above VIN Ranges are affected - many vehicles within the complete VIN Ranges detailed above have been assembled with transmission assemblies to 'known good' condition. It should be noted, therefore, that **only** the vehicles listed in the VIN list need to be serviced.

The necessary Procedure is outlined in this bulletin.

**Note:** XJR vehicles are NOT affected by this Service Action.

In case any vehicle listed in the VIN list has already had a replacement automatic transmission installed (particularly if the rework took place during May or June 1999) under normal Warranty, the replacement unit will have been to 'known good' condition, and it will not be necessary to perform this Recall Action. In this situation, advise the Warranty Claim Details and VIN to your warranty claims specialist, so that our records of this Recall Action may be amended accordingly.

**Note: Service action S476 will be closed effective immediately. Formal documentation to this effect will follow. Do not start a new job to replace an automatic transmission under S476 once you receive this bulletin. Any affected vehicle not yet reworked will be covered by this recall action.**

## NOTES ON WORKSHOP PROCEDURE

### ALL VEHICLES

The Workshop Procedure is fully detailed in JTIS, 1999 MY vehicles, Group 3, Section 307-01A Automatic Transmission, Removal & Installation and SRO 44-20-01. Refer also to Transmission Fluid Drain and Refill.

Replace the transmission unit complete with torque converter. Replacement transmissions are supplied overfilled with fluid, to compensate for the fluid to fill the cooling pipes and cooler.

**Note:** All removed transmissions **must be drained** prior to return.

Check the transmission fluid level as fully detailed in JTIS, 1999 MY vehicles, Group 3, Section 307-01A, SRO 44-24-02, on completion of its installation.

**⚠ Caution: Soak the exhaust manifold nuts with penetrating oil before attempting to remove them.**

### VEHICLES ALREADY IN SERVICE

Since debris from a faulty component could be circulating in the transmission fluid, it is **ESSENTIAL** that the fluid cooler and the connecting pipes are flushed **BEFORE** reconnecting the pipes to the replacement transmission unit.

If a vehicle has defaulted to 'limp home' mode, connect PDU to the vehicle. Read stored diagnostic trouble codes (DTCs) in the Transmission Control Module, and delete them.

## FLUID COOLER CIRCUIT FLUSHING PROCEDURE

1. While the transmission is removed, position a suitable drain container under the connectors of the fluid cooler pipes which have been disconnected from the transmission.
2. Disassemble and thoroughly clean a Snap-on® syringe (Snap-on reference YA 745) or suitable equivalent before use.
3. Connect a length of 12 mm internal diameter plastic or rubber pipe to the nozzle of the syringe. If necessary, Jaguar Part No. EBC 10850 (Hose, Evaporative Loss Flange to Filler Breather Pipe) may be used.

**▲ Caution: Absolute cleanliness is critical during the next operations.**

4. Fill the syringe from a new 1 liter container of automatic transmission fluid (ATF). Connect the hose of the syringe to the transmission cooler feed pipe (the upper of the two pipes connected to the cooler), after removing the o-ring from the pipe. Inject the entire amount in the syringe into the cooler pipe.
5. Disconnect the syringe from the hose. Kink the hose to prevent the ATF from flowing out of it.
6. Fill the syringe with the remainder of the 1 liter of ATF. Reconnect it to the hose and inject the remaining ATF into the cooler pipe. Then allow the ATF to drain from the cooler return pipe to flush the fluid cooler and pipes.
7. Clean up any minor fluid spillage. Install new o-rings on the cooler pipes, reconnect the pipes and tighten the union nuts.  
Union nut torque:        22 Nm            (16 lb.ft)

**▲ Warning: Handling of torque converter** - Use care when easing the transmission assembly away from the engine, and at all other times when the torque converter is not secured and could become detached from the transmission unit. The torque converter is heavy, particularly when still filled with fluid.

## BOLTS, DRIVE PLATE TO TORQUE CONVERTER

**Always** replace the drive plate to torque converter bolts.

## SELECTOR LEVER - CORRECT OPERATION

Correct adjustment of the gear selector cable may be verified by ensuring that the appropriate positions on the J-gate illumination module are correctly illuminated when the lever is adjacent to that position.

## FLUID LEVEL SETTING

The correct quantity of automatic transmission fluid has been supplied prefilled in the transmission unit and it should not require adjustment. Should it be necessary to recheck the level due to spillage, then follow JTIS 6 procedure, Section 307-1A, SRO 44-20-02.

Note that, as with all current Jaguar automatic transmissions, the level is checked with the engine running.

**RECALL LABEL**

**JAGUAR**

**AUTHORIZED MODIFICATIONS**

THE FOLLOWING MODIFICATIONS HAVE BEEN MADE:

**R478 GEARBOX REPLACE**

THESE MODIFICATIONS HAVE BEEN APPROVED,  
AS APPROPRIATE

DEALER NUMBER: ○ DATE: ○

CHANGE AUTHORITY: SAFETY RECALL R478

**JAGUAR PLC CAMPAIGN** PRINTED IN U.S.A.

WRITE IN DEALER NUMBER

WRITE IN DATE

ILLUSTRATION 1

INSTALL RECALL LABEL

**Write the date and your dealer number on the R478 authorized modification label (Illustration 1).** Apply the label to the underside of the hood on V8 XJ Series vehicles. Apply the label to the B-pillar on XK 8 vehicles. (This label will immediately indicate to any other dealer that the vehicle concerned has already been rectified).

## LIST OF AFFECTED VEHICLES AND MARKETS

### JAGUAR CARS NORTH AMERICA

NEW FOR R478	854387
	854388
	854390
031401	854402
031407	854435
031439	854480
031441	854482
031443	854500
031445	854502
031446	854505
031454	854507
031690	854510
031691	854512
031693	854514
032004	854515
032013	854517
032015	854519
032017	854520
033266	854522
033450	854523
033491	854524
033507	854537
033534	854538
033541	854539
033587	854547
033688	855051
033695	855112
033701	855210
033748	855212
033800	855234
033808	855237
033823	855240
033887	855241
033939	855242
034101	856151
034106	856152
034116	856156
034118	856157
034125	856186
034343	856187
038608	

856191	860766
856192	860768
856194	860776
856195	860986
856197	860992
859344	860998
859346	861002
860073	861006
860080	861027
860082	861054
860083	861055
860085	861057
860086	861062
860198	861134
860204	861138
860229	861139
860230	861140
860231	861143
860253	861158
860324	861162
860325	861165
860327	861170
860328	861178
860454	861226
860464	861253
860466	861254
860467	861718
860469	861751
860662	861753
860685	861755
860688	861769
860690	871502
860691	
860696	
860698	
860700	032780
860702	032827
860706	032935
860708	032990
860710	033034
860711	033793
860714	033954
860720	
860729	856892
860736	857778
860763	857822
860764	857864

**CARRIED OVER FROM S476**

857985  
858271  
858757  
858786  
858787  
858808  
858864  
858904  
858909  
858937  
858968  
859056  
859104  
860969  
860972

**JAGUAR CANADA**

**NEW**

857111  
859416  
860254  
860781

## Parts Information:

<u>DESCRIPTION</u>	<u>PART NO.</u>	<u>QTY/VEH</u>
Automatic Transmission w/ torque converter, supplied pre-filled	NNE 4400AA/NK	1
Seal - oil cooler pipe	EBC 4899	2
Bolt - torque converter to drive plate	EAC 5580	3
Gasket - exhaust manifold to catalytic converter	EAZ 2050	2
Nut, catalytic converter to downpipe (VDP only)	FN 110041/J	4
Nut, catalytic converter to manifold	JZN 100021	8
Gasket - catalytic converter to front downpipe (VDP only)	NNC 6764AB	2
Oil, auto transmission (1 liter container)	JLM 20237	See note

**Note:** Transmissions will be supplied overfilled, to compensate for the small loss of ATF when the cooler pipes are disconnected and reconnected. **No** ATF will normally be required for unsold vehicles in stock. For vehicles which have already been run in service, 1 liter of ATF is required to flush the oil cooler and connecting pipes.

## RETURN OF REMOVED TRANSMISSIONS:

### USA dealers

For this recall, return all removed transmissions, complete with torque converters, to ZF USA **as soon as possible**, reusing the packaging in which the new units were supplied. Ensure that the procedures below are followed before returning the transmission.

- Torque converters should **not** be removed from the transmissions. Ensure that the torque converter retaining strap is transferred over to the removed unit.
- Drain **all** oil before repacking for transit. Remove the drain plug from the sump pan, drain the oil and reinstall and tighten the drain plug.
- Transfer **all** shipping plugs from the new unit to the removed unit.
- All removed gaskets and seals along with all drained transmission oil should be discarded.
- Make a copy of the shipping ticket and attach it to the bar code label to ensure proper credit on the claim. Send both to:  
Jaguar Cars  
Att: Warranty Parts Return

### Canada dealers

Follow the normal return policy, i.e. await disposition list, then return the transmission to Jaguar Canada.



# Jaguar Transmission Recall R478

## Instruction Sheet (USA Dealers)

1. Please make a photocopy of page 9 and attach the address labels to boxes or skids (if there is more than 1 skid, make additional photocopies and attach to each skid or pallet).
2. Please make a photocopy of page 10 and attach the shipping ticket to boxes or skids (if there is more than 1 skid, make additional photocopies and attach to each skid or pallet).
3. Complete the shipping ticket in full (important to include dealer name and number, claim number, transmission serial number or VIN) for ID purposes on each transmission shipped. These numbers are needed prior to pickup.
4. Once shipping ticket is filled out in full fax back to United International Freight Services at (908) 851-9370.
5. U.I.F.S. will contact you for pickup and will supply the reference number.

If You Have Any Questions Or Problems Please Contact  
United International Freight Services At 1-800-934-8437 Or (908) 851-0441.

# Shipper:

Dealer Name

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Address

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Zip Code

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# Ship To:

ZF Industries  
777 Hickory Hill Drive  
Vernon Hills, Ill 60061

# Jaguar Transmission Shipping Ticket

Parts Manager Name: \_\_\_\_\_

U.I.F.S. Ref # \_\_\_\_\_ Date: \_\_\_\_\_

Jaguar Dealer Name: \_\_\_\_\_ Dealer Number: \_\_\_\_\_

Pcs: \_\_\_\_\_ Wt.: \_\_\_\_\_

Dimensions: \_\_\_\_\_

## Transmission Information (VIN, Claim #, Serial #)

VIN	_____	Claim #	_____	Transmission Serial #	_____
VIN	_____	Claim #	_____	Transmission Serial #	_____
VIN	_____	Claim #	_____	Transmission Serial #	_____
VIN	_____	Claim #	_____	Transmission Serial #	_____
VIN	_____	Claim #	_____	Transmission Serial #	_____

Fax Form To U.I.F.S. @ (908) 851-9370 Once Completed

Attach To Box / Crate Or Skid Before Shipping

## Warranty Information:

Service Action R478

<u>VEHICLE</u>	<u>SUMMARY CODE</u>	<u>R.O. NUMBER</u>	<u>DESCRIPTION</u>	<u>TIME ALLOWANCE</u>
V8 XJ Series	GW	44.20.01	Replace automatic transmission	4.45 hrs.
1999 MY		44.91.19	Check transmission oil, PDU check	
VIN 885857-871502			Flush oil cooler & pipes	0.50 hrs.
<b>Model codes 2811 and 2851</b>		10.10.10	Drive in/drive out	0.15 hrs.

### DESCRIPTION

Automatic Transmission w/ torque converter, supplied pre-filled  
 Seal - oil cooler pipe  
 Bolt - torque converter to drive plate  
 Gasket - exhaust manifold to catalytic converter  
 Nut, catalytic converter to manifold  
 Oil, auto transmission (1 liter container)

### PART NO.

NNE 4400AA/NK  
 EBC 4899  
 EAC 5580  
 EAZ 2050  
 JZN 100021  
 JLM 20237

### QTY/VEH

1  
 2  
 3  
 2  
 8  
 1

V8 XJ Series	GX	44.20.01	Replace automatic transmission	4.45 hrs.
1999 MY		44.91.19	Check transmission oil, PDU check	
VIN 885857-871502			Flush oil cooler & pipes	0.50 hrs.
<b>Model codes 2853</b>		10.10.10	Drive in/drive out	0.15 hrs.

### DESCRIPTION

Automatic Transmission w/ torque converter, supplied pre-filled  
 Seal - oil cooler pipe  
 Bolt - torque converter to drive plate  
 Gasket - exhaust manifold to catalytic converter  
 Nut, catalytic converter to downpipe (VDP only)  
 Nut, catalytic converter to manifold  
 Gasket - catalytic converter to front downpipe (VDP only)  
 Oil, auto transmission (1 liter container)

### PART NO.

NNE 4400AA/NK  
 EBC 4899  
 EAC 5580  
 EAZ 2050  
 FN 110041/J  
 JZN 100021  
 NNC 6764AB  
 JLM 20237

### QTY/VEH

1  
 2  
 3  
 2  
 4  
 8  
 2  
 1

<u>VEHICLE</u>	<u>SUMMARY CODE</u>	<u>R.O. NUMBER</u>	<u>DESCRIPTION</u>	<u>TIME ALLOWANCE</u>
XK8	GY	44.20.01	Replace automatic transmission	4.65 hrs.
1999 MY		44.91.19	Check transmission oil, PDU check	
VIN 031401-038608			Flush oil cooler & pipes	0.50 hrs.
<b>Model 2830 and 2840</b>		10.10.10	Drive in/drive out	0.15 hrs.

<u>DESCRIPTION</u>	<u>PART NO.</u>	<u>QTY/VEH</u>
Automatic Transmission w/ torque converter, supplied pre-filled	NNE 4400AA/NK	1
Seal - oil cooler pipe	EBC 4899	2
Bolt - torque converter to drive plate	EAC 5580	3
Gasket - exhaust manifold to catalytic converter	EAZ 2050	2
Nut, catalytic converter to manifold	JZN 100021	8
Oil, auto transmission (1 liter container)	JLM 20237	1

**NOTE:** Always perform a DCS claim search first to determine whether this recall has been performed on this vehicle. The warranty selection under the vehicle inquiry will give a listing of all claims against the vehicle. If R478 appears in the fault code field, do not perform this recall.

**CLAIM SUBMISSION PROCEDURE:**

Warranty summary codes have been assigned to this recall 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.

