



MODEL
XJ, XK
S-TYPE

DATE
31 Jul 2007

NUMBER
JTB00040
Version 2

SERVICE

TECHNICAL BULLETIN

**VERSION 2 OF THIS BULLETIN REPLACES PREVIOUSLY PUBLISHED BULLETINS
JTB00040 V1 AND JTB00030.
THIS BULLETIN COMBINES THE CONTENT OF TWO DOCUMENTS.
TEXT CHANGES ARE NOT HIGHLIGHTED.**

SECTION: 307-01

Harsh Transmission Shifts or Noise During Shifts

AFFECTED VEHICLE RANGE:

XJ	VIN: G00442 to G49700
S-TYPE	VIN: M45255 to N52047
XK8	VIN: A30645 to A48684

CONDITION SUMMARY:

SHIFT STRATEGY DRIFT CAUSES HARSH ENGAGEMENT

Situation: The customer may complain of harsh shifting. The adaptive shift strategy can drift over time causing higher than normal clutch pressures.

Additionally a squawk noise may be heard from the automatic transmission when changing into third gear. The noise may also occur on kick-down from fourth to third and sixth to third. A squawk or chirp noise can also be heard when changing from third to fourth gear at 50% throttle. The likely cause is that the 'E' clutch sticks and releases when engaging and disengaging gear.

⚠ CAUTION: If the vehicle exhibits only one of the issues, select the appropriate procedure from the Repair Procedure section. For example, the additive should not be added if the complaint is only a hard shift, but no squawk.

⚠ NOTE: The customer should be informed that after the adaption clearing procedure and re-configuration repair the transmission shift quality will improve over time as the transmission adapts to the customer's driving requirements.

Action: Should a customer express concern about harsh shifts, improve the shift characteristic of the Transmission Control Module (TCM) by clearing the adaptations and reconfiguring the TCM using IDS DVD 106 patch file 3 or later. After the harsh shift issue has been repaired, test the vehicle and determine if the transmission is making a squawk noise during gear shifts. If the squawk noise is present follow the repair procedure to remedy it using the additive.

ISSUE	S-TYPE	XJ	XK8	Procedure to be followed
Harsh transmission Shift	M45255 to N52047	G00442 to G49700	Not applicable	Procedure 1
Transmission noise (squawk) during gearshifts	M45255 to N52047	G00442 to G49700	A30645 to A48684	Procedure 2

NOTE: The information in Technical Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment required to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers." If you are not a Retailer, do not assume that a condition described affects your vehicle. Contact an authorized Jaguar service facility to determine whether the bulletin applies to a specific vehicle.



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PARTS



NOTE: The additive must only be used in the following cases:

- To fix a transmission noise during gearshifts (squawk).
- It must only be used once in a transmission. The exception to the "use once" rule is if the transmission has had a complete fluid change, where a second application may be used on a customer complaint of transmission squawk.



NOTE: The additive must not be used in the following circumstances:

- It must not be used in an attempt to fix any other transmission concerns, for example noises other than squawk, harsh transmission shifts, or Diagnostic Trouble Codes (DTC) logged in the transmission control module.
- The additive must not be used on any cars from 2006 MY onwards starting with VINS S-TYPE: N52048, XJ Range: H00332, New XK: ALL vehicles.
- The additive must not be used more than once in a transmission apart from the exception described in the second bullet of the NOTE above.
- Do not use the additive as a preventative measure. It must not be used unless there is transmission noise during gearshifts (squawk) present.
- Do not add the fluid during initial oil fill when a new or remanufactured transmission is installed.
- The effects of using the additive incorrectly as outlined above may be reduced friction of the clutches leading to poor shift quality, logged DTCs, and it can also induce flare.

C2C 37157.....Transmission fluid additive Qty 1

TOOLS:

IDS DVD106 Patch File 3 or later

WARRANTY:



NOTE: Repair procedures are under constant review, and therefore times are subject to change; those quoted here must be taken as guidance only. Always refer to DDW to obtain the latest repair time.

DDW requires the use of causal part numbers. Labor only claims must show the causal part number with a quantity of zero.

<i>Description</i>	<i>SRO</i>	<i>Time (Hours)</i>	<i>Condition Code</i>	<i>Causal Part</i>
Re-configure the TCM and carry out adaption drive cycle - Procedure 1 – S-TYPE, XJ	86.99.14	1.1	42	C2C 6718, C2C 27751 or C2C 33532
Re-configure the TCM and carry out adaption drive cycle - Procedure 1 - XK Range	86.99.14	1.2		
Transmission noise service procedure - Procedure 2 - S-TYPE VIN M45255 - N52047	44.91.35	1.0		
Transmission noise service procedure - Procedure 2 XJ Range - VIN G00442 - G49700 -	44.91.35	0.9		
Transmission noise service procedure - Procedure 2 - XK Range -	44.91.35	1.0		

Normal warranty policy and procedures apply.

REPAIR PROCEDURE

ADAPTION UPDATE – PROCEDURE 1



CAUTION: A Midtronics PSC-550 Vehicle Power Supply must be connected to the vehicle battery during diagnosis.

1. Connect the Midtronics PSC-550 power supply to the vehicle battery.
2. Ensure the ignition is switched 'OFF', parking brake is 'ON' and the transmission selector lever is in 'P' (Park).



NOTE: IDS must be loaded with software release DVD 106 with patch file 3 or later.

3. Connect the diagnostic tester to the vehicle and begin a new diagnostic session, by entering the correct VIN for the current vehicle.
4. Read and clear all DTCs.
5. Navigate to configuration main menu and select:
 - 'Special applications'
 - 'Transmission control module Adaption Clear'
 - Run 'Application'.
6. When the adaption clear has been carried out, select and run 'Re-configure existing TCM' application from the configuration menu.
7. After the re-configuration of the TCM is complete, switch 'OFF' tester and disconnect from the vehicle.
8. Carry out the adaption drive cycle road test as follows:
 - Ensure the vehicle is in normal mode (not sports mode) and the following conditions are met.
 - Conduct the test on a flat road.



NOTE: The transmission fluid temperature must be above 60°C (140°F) and below 100°C (212 °F)

- Ensure the vehicle is at normal operating temperature so that the transmission fluid temperature is above 60 deg C (140 deg f).



NOTE: The accelerator pedal may not be moved during shifts.



CAUTION: 1-2, 2-3, and 3-4 shifts must occur with engine speed between the specified limits.

- Accelerate from rest with light steady throttle without exceeding the following upper rev limits for shifting in the table below.

3.0L VIN ALL	4.2L N/A Prior VIN G13962	4.2L N/A From VIN G13963	4.2L N/A Prior VIN M96321	4.2L N/A From VIN M96322	4.2L S/C Prior VIN M96315	4.2L S/C From VIN M96316
1800 - 2000 rev/min	1450 - 1600 rev/min	1550 - 1700 rev/min	1600 - 1700 rev/min	1550 - 1700 rev/min	1450 - 1600 rev/min	1550 - 1700 rev/min

- Continue to accelerate gently to 50mph (80km/h) so that transmission shifts into 5th gear.
 - Go into overrun and let the transmission shift down into 4th gear **without** braking.
 - Brake gently to a standstill and hold footbrake on for **at least 15 seconds**.
9. Repeat the Step 8 procedure at least **five** times.

TRANSMISSION NOISE SERVICE – PROCEDURE 2

⚠ CAUTION: If the service fix label is already attached to the transmission oil pan, the Repair Procedure in this bulletin should **NOT** be carried out. Performing the procedure a second time can cause severe damage to the transmission.

1. Raise vehicle on a four-post ramp.
2. If an S-TYPE vehicle is being repaired, remove the engine undertray. (Figure 1)
3. Place clean drain container under the transmission.

⚠ CAUTION: The transmission must be cold before removing the fluid drain plug. The drain plug must not be fully removed as only one liter of fluid is to be collected.

△ NOTE: Illustrations show XJ Range. S-TYPE and XK are similar.

4. Undo and partially remove the transmission fluid drain plug. (Figure 2)
5. Collect one liter (33.8 oz) of fluid from the transmission into a clean measuring jug.
6. Reinstall and tighten the transmission fluid drain plug to **8Nm (5.9 lbf ft)**.
7. Ensure the selector lever is in 'P' and the handbrake is applied.
8. Start the engine and allow to idle.
9. Unscrew transmission **filler plug** and fill with one liter of the additive (C2C 37157) using a clean syringe.
10. Install filler plug.
11. Pull the service fix label off the bottle and apply it to the transmission oil pan near the filler plug. (Figure 3)
12. If an S-TYPE vehicle is being repaired, install the engine undertray. (Figure 1)

△ NOTE: Global Technical Reference (GTR) lookup sequence is as follows:
GTR Home > NAS > (select vehicle and year) / Service Information > Workshop Manuals > Bookmarks "Powertrain/Automatic Transmission/Transaxle/ 307-01 Automatic Transmission/Transaxle " LINK "Transmission Fluid Level Check"

13. Refer to GTR Workshop Manual, section: 307-01 and check / top-up the transmission fluid level.

Figure 1

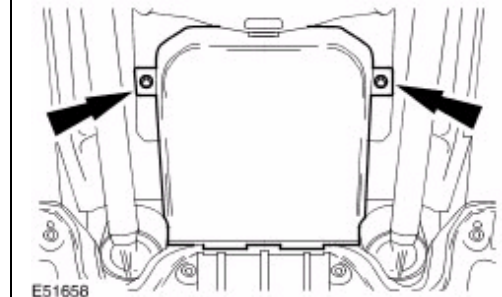


Figure 2

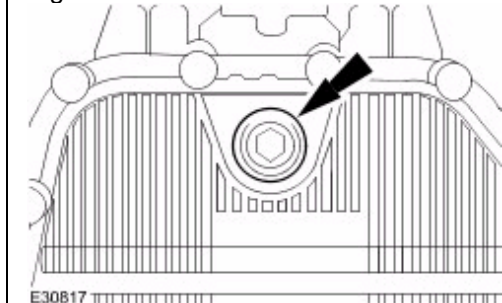


Figure 3

