JAGUAR	**TECHNICAL BULLETIN**	**S307-16v2** **08/2004**

Subject

Gearshift Lever Difficult to Disengage from Park

Model: S-TYPE (Automatic Vehicles)

Year: 1999.25 to 2002 **VIN L00600 to M45254**

Section: 307-01 **Automatic Transmission/Transaxle**

Summary
This Technical Bulletin has been issued to address customer concerns of having difficulty disengaging the gearshift lever from park.

This Technical Bulletin has been issued due to a change in the Workshop Procedure and Parts Information and is a replacement for Technical Bulletin S307-16. Please destroy all copies of S307-16 and replace it with this Technical Bulletin S307-16v2.

Action

Customers may express a concern relating to difficulties in disengaging the gearshift lever from park, particularly when the vehicle is parked on an incline. This is caused by the profile of the transmission manual control lever being too severe, and to address this a new transmission manual control lever should be installed. Follow the workshop procedure outlined below.

Workshop Procedure

1 Open driver door.
2 Switch ignition 'ON'.
3 Apply footbrake, move transmission lever to the neutral position and release the footbrake.
4 Switch ignition 'OFF'.
5 Close driver door.
6 Disconnect battery (see Global Technical Reference GTR Workshop Manual, section: 414-01).
7 Place a suitable drain tin under the transmission.
8 Undo and remove the transmission drain plug and discard the seal.
9 Allow the transmission fluid to drain.
10 Install a new fiber washer and install and tighten the drain plug.
11 Remove transmission extension housing seal (see Global Technical Reference GTR Workshop Manual, section: 307-01).
12 Transfer transmission jack from storage area and align under transmission.
13 Place suitable supporting blocks onto the transmission jack and raise to support the transmission.
14 Undo and remove the transmission rear mounting securing bolts.

CAUTION: DO NOT ALLOW THE ENGINE TO CONTACT THE BULKHEAD.

15 Lower the transmission jack.
16 Undo and remove extension housing securing bolts, and remove extension housing. Remove and discard gasket.

Working with an assistant:

17 Raise rear of the transmission by hand and reposition the jack to support the transmission between the sump and rear of transmission main casing (see Fig. 1).

Fig. 1

Working alone:

18 Disconnect the transmission range (TR) sensor electrical connector.

19 Undo and remove the TR sensor securing screws, and displace and remove the TR sensor from the transmission (see Fig. 2).

Fig. 2

20 Remove transmission fluid pan, gasket and filter (see Global Technical Reference GTR Workshop Manual, section: 307-01).

21 Disconnect the solenoid block electrical connector (see Fig. 3).

Fig. 3

22 Disconnect the pressure switch electrical connector (see Fig. 4).

Fig. 4

23 Undo and remove the solenoid block fixing bolts and remove solenoid block. Remove and discard the ' O ring (see Fig. 5).

Fig. 5

24 Undo and remove the manual control lever detent spring securing bolt (see Fig. 6).

Fig. 6

25 Displace and remove the manual control lever detent spring.
26 Disconnect the inner selector cable from the transmission lever ball pin.

Note: When rotating the manual shaft to allow removal of its nut, the external lever may foul the inner selector cable and prevent rotation. To overcome the foul condition, the end of the inner cable should be pushed out of the way as required.

27 Remove the manual control lever shaft retaining pin (see Fig. 7).

Fig. 7

28 Displace the manual control lever shaft from the main casing towards the transmission tunnel disengaging the manual valve from the peg.

29 Reposition the manual valve rearwards into the valve body.

CAUTION: WHEN CARRYING OUT THE FOLLOWING OPERATION, BE CAREFUL NOT TO BEND THE MANUAL CONTROL VALVE OPERATING PEG.

30 Undo and remove the manual control valve lever securing nut (see Fig. 8).

Note: Lever front stop will contact the main case.

Fig. 8

31 Disconnect the manual control lever from the shaft.

32 Remove the manual control lever from the park pawl actuating rod (see Fig. 9).

Fig. 9

33 Install the new manual control lever to the park pawl actuating rod (see Fig. 10).

Fig. 10

34 Connect the manual control lever to manual control lever shaft and engage on flats.
35 Install but do not tighten the manual control lever securing nut.
36 Reposition manual control lever shaft into main case.
37 Rotate the manual control shaft until the internal lever rear stop contacts main case.

CAUTION: DURING THE FOLLOWING OPERATION, BE CAREFUL NOT TO BEND THE MANUAL CONTROL VALVE OPERATING PEG.

38 Final-tighten the manual control lever securing nut to 48Nm (see Fig. 11).

Fig. 11

39 Reposition the manual control valve forward from the valve body to align with the manual control lever peg.
40 Align the manual control lever shaft alignment groove with the retaining pin bore of main case.

Note: The shank of a new 3mm twist drill will aid in this operation (see Fig. 12).

Fig. 12

41 Install the manual control lever shaft retaining pin and drive gently into position (see Fig. 13).

Fig. 13

42 Align and install the manual control lever detent spring.
43 Install and fully tighten the detent spring securing bolt to 10Nm.
44 Install new ' O' ring, install the solenoid block and install and tighten the solenoid block fixing bolts to 8Nm (see Fig. 14).

Fig. 14

45 Connect the pressure switch electrical connector.
46 Connect the solenoid block electrical connector.
47 Install new transmission fluid filter and gasket, and install the fluid pan (see Global Technical Reference GTR Workshop Manual, section: 307-01).

Note: Ensure the manual control lever is in the neutral position. Do NOT carry out the refill procedure shown in Global Technical Reference GTR Workshop Manual.

48 Ensure the manual control lever is in the neutral position.
49 Install the TR sensor to the manual control lever, install but do not fully tighten the TR sensor securing screws.
50 Align marks on the TR sensor (see Fig. 15).

Fig. 15

51 Final tighten the TR sensor securing screws.
52 Connect the TR sensor electrical connector.

Working with an assistant:

53 Raise rear of the transmission by hand and reposition the jack under the transmission fluid pan.

Working alone:

54 Install new gasket to extension housing, install extension housing to transmission and install and fully tighten securing bolts.
55 Raise transmission jack to align the transmission to the correct position.
56 Install and fully tighten rear mounting securing bolts.
57 Lower the transmission jack and return transmission jack to the storage area.
58 Install transmission extension housing seal (see Global Technical Reference GTR Workshop Manual, section: 307-01).
59 Connect battery (see Global Technical Reference GTR Workshop Manual, section: 414-01).

On vehicles from VIN L00600 to M30850 only, continue from step 59, on vehicles from M30851 continue from step 72.

60 From under the vehicle, reposition the selector cable outer casing convoluted heat protection away from the crimp.
61 Visually check to ensure the outer casing has not moved from the crimp. If the cable has moved, replace the selector cable.
62 Push and pull the outer casing to ensure it does not move within the crimp (see Fig. 16). If the cable has moved, replace the selector cable.

Fig. 16

63 Reposition the outer casing convoluted heat protection to original condition.
64 Reposition the manual control lever so the ball pin is furthest away from the inner cable end.
65 Remove floor console (see Workshop Manual, JTIS CD ROM, section: 501-12).
66 From inside the vehicle, visually check to ensure the selector cable outer casing has not moved from the crimp. If the cable has moved, replace the selector cable.
67 Push and pull the outer cable to ensure it does not move within the crimp. If the cable has moved, replace the selector cable.
68 Raise the gearshift lever locking solenoid plunger to allow operation of the gear shift lever.
69 Operate the gearshift lever to check for smooth operation of inner cable, If the cable does not move smoothly, replace the selector cable.

Note: Leave the gear shift lever in the 'N' position.

70 Install floor console (see Workshop Manual, JTIS CD ROM, section: 501-12).
71 From underside of vehicle, reposition the manual control lever to the ' N' position.
72 Connect inner selector cable to the transmission manual control lever ball pin.
73 Undo and remove the transmission filler plug.
74 Fill transmission with fluid using a suitable syringe.

Note: It is not possible to get all of the fluid into the transmission at this stage.

75 Reposition the gearshift lever to the ' P' position.
76 Position WDS alongside vehicle, switch Portable Test Unit (PTU) ' ON' and allow software to load.

Note: Ensure WDS is loaded with software release JTP 759/30 or later.

77 Connect PTU to vehicle using diagnostic cable.

78 Enter VIN and navigate to content model screen.
79 Select ' Transmission System' .
80 Press datalogger icon tab at the top of the screen.
81 Select and view ' Transmission Oil Temperature' signal ensuring the handbrake is on, with ' P' selected, and start the engine as instructed.
82 Press tick to monitor temperature.

Note: The fluid level should be checked with the temperature between 26°C and 48°C.

83 With the engine at idle, run through the gears several times returning to ' P' .
84 Undo and remove the transmission fluid level plug.
85 Check and top up with fluid until fluid drips from the level pipe every few seconds.
86 Install and tighten fluid level plug.
87 Install and tighten fluid filler plug.
88 Clean fluid residue from transmission.
89 Switch the ignition ' OFF.
90 Switch ' OFF' PTU, disconnect from vehicle and return WDS to original location.

Parts Information

The following parts must be ordered via Jaguar Cars Parts Operations (or through NSC/Importer).

Description	Part Number	Quantity
Transmission manual control lever	XR8 41639	1
Transmission fluid	JLM 21044	6
Transmission fluid pan gasket (from VIN L00600 to L31320)	XR8 5505	1
Transmission fluid pan gasket (from VIN L31321 to M45254)	XR8 14422	1
Transmission drain plug fiber washer	XR8 42768	1
Transmission filter assembly	XR8 5498	1
Transmission selector cable (from VIN L00600 to M30850)	XR8 33366	1
Transmission extension housing gasket	XR8 5774	1
Transmission extension housing seal	XR8 5804	1
Transmission extension housing nut	XR8 14456	1
Transmission ' O' ring	XR8 10082	2

Warranty Information

Description	VIN	SRO	Labor Time Allowance	Causal Part
Install new transmission manual control lever	L00600 to M30850	44 91 29	4.1 Hours	XR8 41639
Install new transmission manual control lever	M30851 to M45254	44 91 29	3.9 Hours	XR8 41639
Install new transmission selector cable	L00600 to M30850	44 15 08	0.5 Hours	XR8 33366