

No: 76/04/99/NAS Ref: TIB 76/03/99/NAS

Issue: 1

Date: 04/09/99

### Front Seat Squeaks and Rattles

AFFECTED VEHICLE RANGE:

DISCOVERY Series II (LT) ALL

#### SITUATION:

#### **SQUEAKS AND RATTLES FROM FRONT SEATS**

A number of squeaks and rattles have been detected on Discovery Series II seats. A quick reference chart has been developed to aid in the detection and resolution of these issues.

#### RESOLUTION:

#### PERFORM REPAIRS TO RESOLVE CUSTOMER COMPLAINTS

Upon customer complaint of squeaks or rattles, refer to the Quick Reference chart to determine if seat removal is required. The repair steps are grouped based on the requirement for seat removal. All steps in each group are to be treated as one operation.

#### PARTS INFORMATION:

CYK100050 .....Krytox Repair A

LRN100050S ......Spray Krytox Repair B, Repair C, Repair G

HZP100030....."J" Clip Repair D Qty 2 (Availability Pending)

LRNR600D .....EVO Lube Repair E

STC3095.....Anti rattle tape Repair F Qty 8 feet LRN5034K11.....Tubing Kit Repair F Qty 1 per seat

**LOCALLY SOURCED** 

PDFE Lubricant Spray Repair C

Electrical Tape Repair D Alternative to "J" clips

Duct Tape Repair F

### **WARRANTY CLAIMS:**

Repairs A and B

78.85.89/31 .....Time 0.25 hrs.

Lubricate armrest and Squab friction points, one side \$1.00 Material Allowance Krytox lubricants

Repairs C through H

78.85.89/34 .....Time 1.20 hrs.

Lubricate and isolate seat base components, one side

\$5.00 Material Allowance Lubricants, tape, tubing, anti-rattle tape

**FAULT CODE:.K** 

Normal warranty policy and procedures apply

TIB	CIRCULATE:	Service Mgr	Warranty	Workshop	Body Shop	Parts
76/04/99/NAS	TO	Χ	Χ	X	X	X

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#### REPAIR PROCEDURE:

### **Quick Reference for Discovery Series II Seat Noises**

Repair	Problem	Cause
Repair A	Front seat squeak	Arm rest plastic to plastic squeak
Repair B	Front seat squeak	Friction between seat cushion and seat back (squab)

# NOTE: Repairs C through H are to be performed as one combined operation after the seat cushion has been removed.

Repair C	Front seat squeak	Rivet-to-frame creak
Repair D	Front seat rattle	Seat suspension tapping on height adjustment cross member
Repair E	Front seat squeak	Rear height adjuster pivot points squeak
Repair F	Front seat squeak	Seat suspension mat isolation
Repair G	Front seat squeak	Seat cushion foam squeaking on frame
Repair H	Front seat squeak	Metal valance contact with frame

WARNING: Always exercise caution when manipulating a seat to avoid contact or entanglement with moving mechanism components.

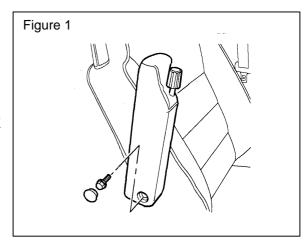
### Arm Rest and Cushion Squeaks

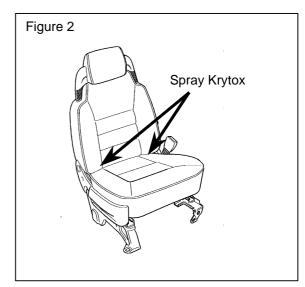
#### **REPAIR A - ARM REST PLASTIC TO PLASTIC SQUEAK**

- Tighten armrest adjuster fully clockwise and remove bolt cover.
- 2. Remove bolt-securing armrest to seat. (Figure 1)
- 3. Remove armrest.
- 4. Apply Krytox around the mounting face of the armrest frame pivot point.
- 5. Install armrest.
- 6. Secure with bolt and install bolt cover.
- 7. Set the armrest back to its original position.

### **REPAIR B: SEAT CUSHION TO SQUAB SQUEAK**

- 1. Tilt seat back (squab) backward to the fully reclining position.
- 2. Spray Krytox into the joint between the seat bottom cushion and the seat back. (Figure 2)
- 3. Adjust seat back through its range of motion to verify that squeak has been eliminated.



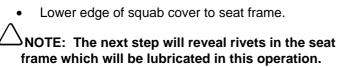


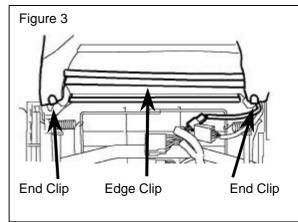


### Front Seat Rattles and Squeaks

### REPAIR C: RIVET-TO-FRAME CREAK

- 1. Adjust the seat to give maximum access to the seat frame, when viewed from the rear.
- 2. Refer to Workshop Manual section 78.10.43.99 and remove seat.
- 3. Position seat upside down on clean suitable bench.
- 4. Refer to Figure 3 and release clips securing seat bottom cover as follows:
  - Front edge of cushion cover to seat frame.
  - Side edges of cushion cover to seat frame.





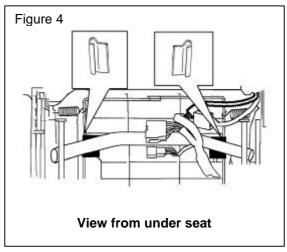
- 5. Release two end clips securing rear edge of seat cover to seat frame. (Figure 3)
- 6. Release main central clip securing rear edge of cushion cover to seat frame.
- 7. Release bonded rear edge of cushion seat frame.
- 8. Remove seat cushion.
- 9. Apply PTFE lubricant spray in and around the rivet area to lubricate under the head of each rivet and between the two metal stampings.

# REPAIR D: SEAT SUSPENSION FRAME TAPPING ON HEIGHT ADJUSTMENT CROSS MEMBER

1. Locate the rear height adjuster cross bar.

NOTE: Contact between the cross bar and suspension frame will only occur when the seat is in use.

- 2. Determine the position on the rear cross bar where the wire frame makes contact by noting witness marks.
- 3. Install "J" clip (HZP100030) on seat suspension frame edge with the flat surface above the springs/mouth down (Figure 4) to protect crossbar from frame contact.
- 4. To perform the repair if the "J" clip is not available, wrap the rear crossbar at the contact area with electrical tape.



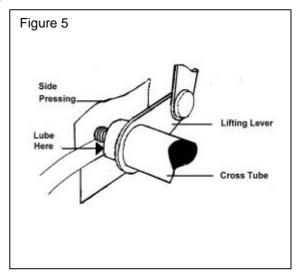


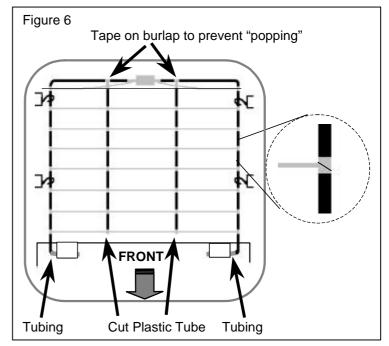
#### REPAIR E: REAR HEIGHT ADJUSTER PIVOT POINTS SQUEAK

- Perform the following lubrication repair to each side of the cross tube:
  - Release the nut retaining the cross tube to the cushion frame. (Figure 5)
  - Pry with a large screwdriver to widen the gap between the frame side stamping and the cross tube.
  - Apply lithium grease liberally around the end of cross the tube.
  - Install nut and torque to 16 Nm (12 lbf.ft.).
  - Repeat Step 1 repair to the alternate side.
- 2. Apply grease to all pivot points associated with the rear height adjustment mechanism.

#### REPAIR F: SEAT SUSPENSION MAT ISOLATION

- Release seat suspension mat frame from the front corner retention tabs.
- 2. Examine the stamped tabs for burrs or irregularities.
- 3. Remove burrs if present.
- 4. Slide plastic tubing over suspension mat frame ends.
- Install suspension mat with tubing positioned to engage retention tabs.
- 6. Cut the two center plastic tubes back to the nearest cross wire at the front of the seat.
- 7. Cover each metal cross wire with anti rattle tape (shown in gray in Figure 6).
- 8. Finish each cross wire wrap by wrapping the ends of the metal wire in a crisscross method with anti rattle tape.
- Place strips of cloth (duct) tape over the burlap material surrounding seat cushion to prevent springs or other seat components from sticking to the burlap and consequently "popping."







#### REPAIR G: FRONT SEAT FOAM SQUEAKING ON FRAME

- 1. Spray Krytox on the seat frame. Ensure good coverage on leading edge.
- 2. Fit cushion and cover assembly to seat frame.
- 3. Secure rear edge of cushion cover with clip.
- 4. Fit end clips over rear edge of cushion cover.
- 5. Secure lower edge of squab cover to seat frame.
- 6. Secure edge of cushion cover with clips.
- 7. Secure front edge of cushion cover with clip.
- 8. Secure inner edge trim casing to seat frame.

### REPAIR H: METAL VALANCE CONTACT WITH FRAME.

1. Refer to Figure 7 and pull the valance outwards about 12mm (½ inch).

CAUTION: Seat mounting bolt torque sequence is vital for correct seat operation.

- 2. Refer to TIB 76/03/99/NAS and to Workshop Manual 78.10.43.99. Install front seat.
- 3. Adjust the seat to all positions to ensure the metal valance does not contact the frame and seat operations conform to "13 second rule" in TIB 76/03/99/NAS.
- 4. Fit outer edge trim casing to seat frame and secure with screws.

