TECHNICAL INFORMATION

RECALL ACE High Pressure Pump Banjo **Torque Verification**

LAND= =ROVER

No: **RB149** Ref: Issue: 1 Date: 23 April 2004

AFFECTED VEHICLE RANGE:

Discovery Series II (LT) Build dates

YA258269 to 3A824597 13 December 1999 to 17 June 2003

SITUATION:

INCORRECTLY TIGHTENED BANJO FITTING MAY LEAK

Land Rover has determined that the Active Cornering Enhancement (ACE) pump banjo connection on Discovery Series II models may, under certain conditions, experience torque relaxation and allow fluid to leak past the joint. The loss of fluid could lead to low system pressure causing an amber or red warning light on the instrument console to illuminate. The ACE system will revert to "locked" mode if excessive fluid is lost and the system ceases to operate. In the presence of an ignition source there is a possibility that the leaking hydraulic fluid could catch fire.

RESOLUTION:

$^{ m b}$ NOTE: It is important that the DDW "Vehicle Inquiry" screen be consulted prior to any vehicle inspection or repair.

VERIFY BANJO TORQUE

All Discovery Series II models fitted with ACE within the affected VIN range will require the pump banjo connection to be checked for tightness as detailed in this bulletin. If incorrect torque is identified by the inspection, the proper torque must be applied using new seals.

PARTS INFORMATION:

RYF100420.....Sealing washers LRN2261.....Cold climate PAS fluid Qty 2 Top up as required

NOTE: Campaign labels are no longer required for Safety Recall Action activities. Retailers should maintain a modest supply of labels for future use with Emissions Recall activities.

DDW WARRANTY CLAIMS:

Warranty claims should be submitted quoting the program code and option from the table in place of the normal warranty complaint code. This will result in payment of the stated time and, where applicable parts/miscellaneous expense. The SRO is provided for information only.

| Program Code | Option | Job Description | SRO | Time (Hours) | Part Number | Part Description | QTY | Misc Expense |
|-----------------|--------|---|-------------|-----------------|-------------|------------------|-----|-----------------|
| B149 | x | Inspect banjo bolt for leakage and re- torque | 60.60.89/38 | 0.1 | | | | |
| B149 | ^ | Inspect banjo bolt for leakage, re- | 60 60 90/26 | 0.2 | RYF100420 | Sealing washers | 2 | |
| Б149 | | torque and replace banjo bolt washers | 60.60.89/36 | | LRN2261 | Cold climate PAS | X | |

Normal warranty policy and procedures apply. Material allowance is included in labor operation.

| TIB | CIRCULATE: | Service Mgr | Warranty | Workshop | Body Shop | Parts | |
|--------------------------|------------|-------------|----------|----------|-----------|-------|--|
| RB149 | TO | X | X | X | X | X | |
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REPAIR PROCEDURE

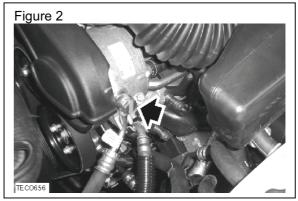
NOTE: Leaks other than the potential leak at the banjo fitting may be discovered upon inspection (for example, the pump joint or hose area). These leaks should be repaired as required and claimed following normal Warranty or customer pay practices outside of the terms of this Recall action.

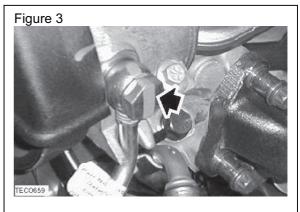
INSPECT BANJO BOLT FOR LEAKAGE

- 1. Open the hood and install fender protectors.
- 2. Inspect the ACE pump banjo bolt for leakage.
- 3. If a leak is visually evident, go to the "Replace the Banjo Bolt Washers" procedure below.
- 4. If a leak is *not* evident, perform the following:
 - Release jubilee clip and two spring clips securing air intake hose.
 - Release the hose and position aside. (Figure 1).
 - Set a torque wrench to **33 Nm (24 lbf.ft)** and apply torque to the ACE pump banjo bolt (Arrowed in Figure 2) until the wrench indicates the set torque has been reached.
- 5. If the banjo bolt rotates during the re-torque procedure, go to the "Replace the Banjo Bolt Washers" procedure below.
- 6. If the banjo bolt does *not* rotate, no corrective action is required. Perform the following
 - Apply a yellow paint stripe across the bolt head and the top of the banjo (Arrowed in Figure 3).
 - Position air intake hose and secure with clips.
 - Claim the first inspection Option.

REPLACE THE BANJO BOLT WASHERS

 Refer to RAVE or GTR battery disconnection process and disconnect the battery ground cable observing all Cautions and Warnings. Figure 1





CAUTION: The ace hydraulic system is extremely sensitive to the ingress of dirt or debris. The smallest amount of debris could render the system unserviceable. It is imperative that the following precautions are taken:

- ACE components are thoroughly cleaned externally before work commences.
- All opened pipe and module ports are capped immediately.
- All fluid is stored in, and administered through, clean containers.
- 2. Clean around the ACE pump banjo bolt and the surrounding area. (Arrowed in Figure 2)
- 3. Position a container to collect fluid spillage.

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Figure 4

- 4. Remove the banjo bolt and disconnect the pressure pipe from the ACE pump.
- 5. Discard both sealing washers. (Figure 4)
- 6. Clean pressure pipe and ACE pump mating surfaces.
- 7. Clean the banjo bolt and new sealing washers to remove any dirt or debris.
- 8. Connect pressure pipe to ACE pump with banjo bolt and new sealing washers.
- 9. Tighten banjo bolt to 33 Nm (24 lbf.ft).
- 10. Apply a yellow paint stripe across the bolt head and the top of the banjo. (Figure 5)
- 11. Position air intake hose and secure with clips.
- 12. Connect battery ground cable.
- 13. Check and top-up the ACE system reservoir.
- 14. Start the engine and allow to idle for one minute.
- 15. Check for leaks in all areas of the ACE system.

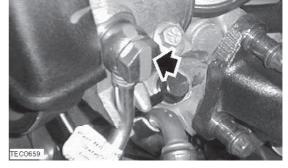
△ NOTE: Any further repairs fall outside of the terms of this Recall action.

- 16. If additional leaks are found and repair is required, perform the repair and claim separately.
- 17. Check and top-up the ACE system reservoir.
- 18. Remove fender protectors and close the hood.

CAMPAIGN LABEL

──NOTE: Campaign labels are no longer

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