



Advanced Braking Pty Ltd

## Technical Bulletin – TBN-006

**Product: EMMA hydraulic pump used on LCV1 & LCV5 – SIBS on Toyota Landcruiser & Toyota Hilux**

**Subject: Conversion of EMMA pump unit to Aluminium reservoir**

In underground mining environments, the low speed of the vehicle reduces the airflow and cooling under the bonnet. The higher temperatures may cause damage to the plastic reservoir of the EMMA pump.

### Change Revision

Issue Revision	Issue Date	Comments
00	27-JUNE-2005	INITIAL RELEASE
01	16-JAN-07	ADDITION OF PHOTOS. NEW ABT FORMAT
02	06-OCT-08	ADDITION OF M5 BOLT OPTION



## Technical Procedure – TBN-006




**Product:** EMMA Hydraulic Pump

**Subject:** Conversion to Aluminium Reservoir

**Relevant Part Numbers:** 02-6016 Aluminium tank  
02-0086 Aluminium tank with dip-stick & coupling

### **Equipment Required.**

- Aluminium Reservoir Kit
- #10 UNF 32TPI Tap or M5 x 0.8mm tap depending on bolt supplied with tank. Note: tanks with dip-stick will be supplied with M5 cap head bolt.
- General Hand Tools

		
<p><b>EMMA pump with C type plastic reservoir</b></p>	<p><b>EMMA pump with B type aluminium reservoir – after conversion.</b> <b>Note: no dip stick</b></p>	<p><b>Aluminium reservoir with dip stick (ABT P/N: 02-0086). This tank is supplied with M5 bolt</b></p>

### Conversion Procedure.

1. Remove EMMA pump from vehicle.
2. Remove plastic reservoir.
3. Remove the pickup screen from the pump intake and mark the pump intake for future reference.



4. Tap a #10 UNF 32 TPI or M5 x 0.8mm thread into the leg protruding from the middle of the pump. Be careful to avoid swarf from entering the pump pickup. Clean the thread with solvent and blow out with compressed air.

**Note:** bolt supplied may be a M5 cap head screw or a #10 UNF set screw with slot for a flat blade screwdriver.

**Aluminium tanks with dip-stick will be supplied with M5 cap head screw.**



5. Using a socket which fits over the pickup extension, drift the extension over the pump pickup.



6. Using a socket which fits over the new intake screen, drift the new intake screen onto the pickup extension.
7. Clean the pump with solvent and compressed air.
8. Install the new aluminium reservoir onto the pump, using the new screw and dowty washer provided.

For aluminium tank with dip stick, orientate spout so that it will not interfere with other engine components and can be easily reached.



9. Fill reservoir with ATF, and reinstall pump in vehicle.

## END OF PROCEDURE

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