

TRUCK, MEDIUM, MC2, UNIMOG - ALL TYPES

HANDBRAKE LEVER

MODIFICATION INSTRUCTION

This instruction is authorised for use by command of the Chief of Army. It provides direction, mandatory controls and procedures for the operation, maintenance and support of equipment. Personnel are to carry out any action required by this instruction in accordance with EMEI General A 001.

INTRODUCTION

1. This instruction details the procedures for the overhaul of the Unimog handbrake lever. This action allows the assembly to be lubricated during periodic servicing and on an 'as required' basis after water immersion. Lubrication of the assembly reduces the occurrence of water-induced corrosion and eventual seizure of the park brake.
2. **Associated Publications.** Reference may be necessary to the latest issue of the following documents:
 - a. Technical Regulation of Army Materiel Manual (TRAMM) (available from DTR-A website <http://intranet.defence.gov.au/armyweb/Sites/DTRA>);
 - b. TRAMM, Volume 3, Section 2, Chapter 2, Fleet Engineering Change Management Process;
 - c. Defence Supply Chain Manual (DSCM), Volume 4, Section 3 – Supply Management Processes, Stores Accounting General (DSCM website <http://dknln009.car.defence.gov.au/dscm/index.htm>); and
 - d. DSCM, Volume 6 – Manage Repairable Items.
3. **Authority.** Engineering Change Order MHB 015/04 is the authority to carry out this modification.

GENERAL

4. **Modification Application.** This modification is to be applied to all handbrake levers upon failure.
5. **Items Affected.** This modification alters the handbrake lever to allow overhaul and subsequent servicing of the unit.
6. **Priority – Group 2.** All applicable handbrake levers are to be modified upon failure.
7. **Action Required.** Actions detailed in this instruction are to be performed by workshops (or unit tradespeople) authorised to carry Heavy Grade Repairs.

NOTE

On receipt of this instruction, enter all relevant information other than date completed in the modifications section of the GM 120 Record Book for Service Equipment.

8. **Estimated Workhours.** For initial planning purposes only, it is estimated that this modification will take 1.5 workhours to perform.
9. **Stores Required.** The stores required are listed in Table 1. All stores are to be demanded through normal supply channels.

DETAIL

10. **Modification of Handbrake Lever.** The procedure is as follows:
 - a. Remove handbrake lever from rear calliper.
 - b. Remove the welsh plug in the end of the lever and remove the circlip.
 - c. Press the cam lever out of the housing.
 - d. Remove the seal from the body.
 - e. Break the cage on the outer bearing and remove from the housing by running two welds approximately 36 mm long and 180 degrees apart on the inner race to shrink it.



Take care not to damage the thread on the bearing housing.

- f. Using a suitable punch, drive the outer bearing from the housing.
- g. Remove the intermediate bearing from the housing.
- h. Remove the inner bearing from the housing using a suitable punch.
- i. Machine all bearing surfaces on the lever to take the new speedi sleeves, 0.0 mm interference fit. Fit sleeves with Loctite 680.
- j. Drill a 23/64 inch hole in the middle of Mercedes emblem, located in the centre of the part numbers on the housing. Tap a 1/8 inch gas thread and fit grease nipple.
- k. Ensure all items are clean before assembly and pack all bearings with grease (XG274).
- l. Fit the intermediate bearing into the housing.
- m. Fit the outer (larger) bearing, and with a suitable drift, punch into place ensuring that the cam bearings are still free to move.
- n. Fit the seal to the housing.
- o. Fit the cam lever to the housing, ensuring that the lever seats on the seal.
- p. Turn over and fit the inner bearing, washer and circlip.
- q. Fit the pressure relief valve (PRV) to the welsh plug by drilling a 23/64 inch hole, 1/2 inch from the outer edge of the plug. Tap the hole in the welsh plug using a 1/8 inch gas thread and fit the PRV to the welsh plug.
- r. Fit the welsh plug to the housing, ensuring the plug is fitted with the PRV upper most.
- s. Pump grease into the housing until the grease has replaced all air in the lever assembly. This is indicated by grease exuding from the PRV.
- t. Conduct a final function test of the cam lever by ensuring that it rotates freely in the housing.

11. Recording Action. On completion of the modification, the following action is to be taken in accordance with TRAMM, Volume 3, Section 2, Chapter 2, Annex D:

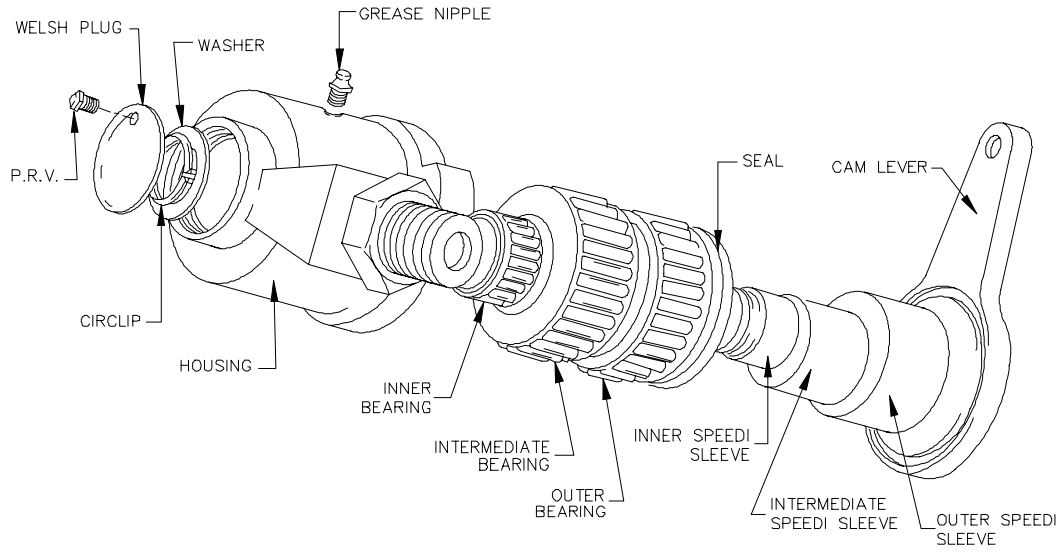
- a. Complete the modification details in the GM 120 – Record Book for Service Equipment.
- b. Forward the modification completion details using form GM 119 – Advice of Change in Build State (TRAMM, Volume 3, Section 2, Chapter 3, Annex C) to:

WO2 Tech Adviser
Unimog, Medium/Heavy B Vehilces
LV SPO, DMO
D1-61-21
Victoria Barracks, St Kilda Rd
SOUTHBANK VIC 3006

Table 1 Stores Required

Item	NSN	Designation or Description	Unit of Issue	Qty per Kit	Qty per Equip
1	3120-66-135-1322	Parts kit brake lever	kit	1	1
2	4730-01-151-4462	Pressure relief valve	ea	1	1
3	NIC	Grease nipple	ea	1	1

UNCONTROLLED IF PRINTED



TDC3228

Figure 1 Handbrake Lever Components

UNCONTROLLED IF PRINTED

END

Distribution List: **VEH G 30.0 – Code 4** (Maint Level)
(Sponsor: LV SPO, Med/Hvy B Vehicles)