

TRUCK, FUEL TANKER, HEAVY, MC3 – MACK

STAINLESS STEEL LOW-POINT DRAINS

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 removal of the existing plastic tubing and dissimilar metallic fittings that make up the current low-point drain system. The current system has proved to be ineffective due to a high incidence of blockage by heavy particulate matter.
2. **Associated Publications.** Reference may be necessary to the latest issue of the following documents:
 - a. Technical Regulation of Army Materiel Manual (TRAMM);
 - b. TRAMM, Volume 3, Section 2, Chapter 2, Fleet Engineering Change Management Process;
 - c. MEMA, Volume 1, Chapter 9 – Army Unit Stores Accounts;
 - d. MEMA, Volume 2, Chapter 20 – Accounting for Repair Parts; and
 - e. DEF(AUST)5695 – Minimum Standards of Practice for the Storage, Handling and Quality Control of Fuels, Lubricants and Allied Products.
3. **Authority.** Engineering Change Order (ECO) ENGSP0 (BLD) 018/02.

GENERAL

4. **Modification Application.** This modification is to be applied to all stocks of Truck, Tank, Fuel, Heavy, MC3 (Mack) NSN 2320-66-112-8852.
5. **Items Affected.** This modification alters the following assemblies:
 - a. Sample Valve and Fittings – RPS 02167 Group WBF.
6. **Priority – Group 2.** All applicable equipment is to be modified:
 - a. when next in a workshop for Heavy Repair; or
 - b. prior to issue from depot or pool stock.

NOTE

Where modification would delay priority issues of depot or pool stock, equipment may be issued unmodified providing the equipment record book is endorsed appropriately.

7. **Action Required.** Actions detailed in this instruction are to be performed by civilian workshops authorised to carry out Heavy Repairs on Dangerous Goods cargo vehicles.

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 8.0 workhours to perform.
9. **Stores Required.** The stores required are listed in Table 1 and are indicative only. The list is only to be referenced for contractor quoting purposes.

10. Items to be Removed. The items to be removed are listed in Table 2. All stores removed are to be processed in accordance with the MEMA, Volume 1, Chapter 9, and MEMA, Volume 2, Chapter 20.

11. Drawings Required. The following drawings are available on request from the Drawing Office, Technical Data Centre, Defence Plaza Melbourne, Level 5 on (03) 9282 7540:

- a. DRG No. TDC 3043-1 Titled: R Series Mack TTF Low-point Drain Mod.
- b. DRG No. TDC 3043-2 Titled: Details R Series Mack TTF Low-point Drain Mod.
- c. DRG No. TDC 3043-3 Titled: Mounting Plate Detail R Series Mack TTF Low-point Drain Mod.

DETAIL

12. Modification of Sample Valves and Fittings. The procedure is as follows:

- a. Ensure the tanker is empty of all product and is parked in a safe area at least 15 m away from any ignition source.
- b. Tanker repairs shall be carried out in workshops in which the staff have prior training in the precautions and emergency procedures required for tankers for flammable liquids.

NOTE

The contractor is to be advised of the type of product last carried in the tanker compartments.

- c. Ensure fire suppression measures are in place before starting work.

WARNING

Use nitrile rubber gloves and eye protection when carrying out this task. Have spill control kit on hand in the event of a product spill.

- d. Remove all existing sample valves and fittings as listed in Table 1 and dispose of in accordance with Para 10.
- e. Refer to drawing package (Para 11).

NOTE

Use Loctite 567 on all male threads when assembling piping.

- f. Refer to Figure 1 and fit forward compartment low-point drain assembly.



Figure 1 Forward Compartment Low-point Drain Assembly

- g. Refer to Figure 2 and fit centre compartment low-point drain assembly.

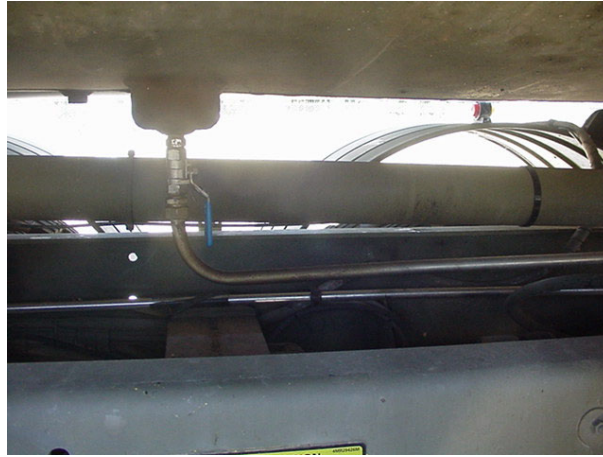


Figure 2 Centre Compartment Low-point Drain Assembly

- h. Refer to Figure 3 and fit rear compartment low-point drain assembly.



Figure 3 Rear Compartment Low-point Drain Assembly

- i. Refer to Figure 4 and fit the low-point drain sample valve mounting plate and ball valves.

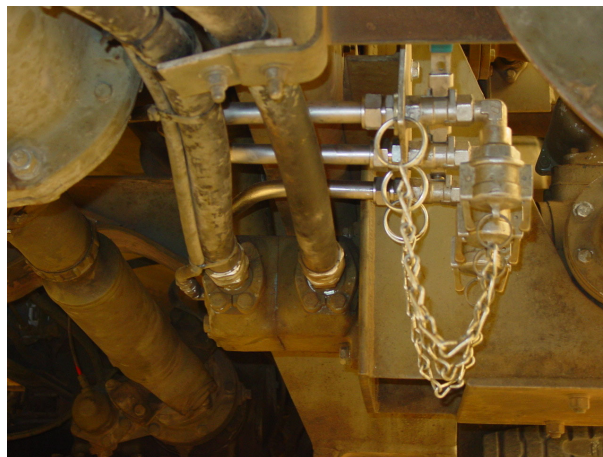


Figure 4 Low-point Drain Sample Valve Mounting Plate and Ball Valves

13. Post Modification Testing.

- a. With the assistance of a qualified operator, have the tanker partially filled and operate all sampling valves ensuring a steady constant flow.
- b. Check all fittings and unions for leaks.

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14. 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. Deface the number 31 on the modification record plate.
- b. Complete the modification details in the GM 120 – Record Book for Service Equipment.
- c. 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:

Fleet Manager Bulk Liquid Distribution
ENG SPO, DMO
Victoria Barracks, St Kilda Rd
SOUTHBANK VIC 3006

Table 1 Stores Required

| Item | NSN | Mfr Part No | Designation or Description | Unit of Issue | Qty per Kit | Qty per Equip |
|------|-----|-------------|--|---------------|-------------|---------------|
| 1 | NIC | | Mod Kit – Low-point Drain | EA | | 1 |
| 2 | NIC | | 1200 mm (nominal) X ¼ inch Stainless Steel Tube – Front Compartment. | EA | 1 | |
| 3 | NIC | | 2600 mm (nominal) X ¼ inch Stainless Steel Tube – Centre Compartment. | EA | 1 | |
| 4 | NIC | | 4300 mm (nominal) 4 Piece combination ¼ inch Stainless Steel Tube & Braided Hose – Rear Compartment. | EA | 1 | |
| 5 | NIC | | Sample Valve Mounting Plate (Alloy) 280 mm X 150 mm X 5 mm. | EA | 1 | |
| 6 | NIC | | ¼ inch 316 stainless steel full port ball valve with locking handle. | EA | 6 | |
| 7 | NIC | | ¼ inch 316 stainless steel nipple. | EA | 7 | |
| 8 | NIC | | ¼ inch nickel-plated elbow. | EA | 3 | |
| 9 | NIC | | ¼ inch QAM camlock. | EA | 3 | |
| 10 | NIC | | ¼ inch camlock dust cap. | EA | 3 | |
| 11 | NIC | | 35 mm diameter corrosion resistant pull ring. | EA | 6 | |
| 12 | NIC | | Pull ring chain 300 mm length. | EA | 3 | |

Table 2 Items to be Removed

| Item | NSN | Mfr Part No | Designation or Description | Qty per Equip |
|------|-----|-------------|---|---------------|
| 1 | NIC | | All parts described in RPS 02167 Group WBF. | 1 |

END

Distribution List: **VEH G 54.0 – Code 2** (Maint Code)
(Sponsor: MOBSPO BLD)
(DMO Job No: ECO ENG SPO (BLD) 018/02)

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