TRUCK, TRANSPORTER, FLOATING BRIDGE, MC3, W/WINCH, MACK, LAUNCH AND RECOVERY VEHICLE

FITTING OF FLAG BRACKETS AND OVERSIZE SIGNS

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 fitting of flag brackets to the Launch and Recovery Vehicle (LRV), NSN 2320-66-131-6653, modification of the LRV front bumper to enable oversize signs to be mounted on it, and the modification of oversize signs to fit the LRV and FSB modules. The modifications will ensure the LRV complies with State and Federal regulations regarding oversize vehicles.

2. Associated Publications. Reference may be necessary to the latest issue of the following documents:
   b. EMEI Workshop A 851 – Recording Modifications to Equipment – Use of Modification Record Plates and Documentary Requirements;
   c. Engineering Change Order (ECO) No EE 34/02;
   d. MEMA, Vol 1, Chapter 9, Army Unit Stores Accounts; and
   e. MEMA, Vol 2, Chapter 20, Accounting for Repair Parts.

3. Authority. ECO No EE 34/02 is the authority to carry out this modification.

General

4. Modification Application. This modification is to be applied to all LRVs.

5. Items Affected. This modification alters the following assemblies:
   a. Front Roller Telescopic Assembly,
   b. The Pontoon Catch Plate, and
   c. Front Bumper Assembly.

6. Priority – Group 2. All applicable equipment is to be modified:
   a. when next in a workshop for Medium or Heavy Grade 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 RAEME workshops authorised to carry out repairs.

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

8. Estimated Workhours. For initial planning purposes only, it is estimated that this modification will take 4 workhours to perform.

9. Stores Required. The stores required are contained in Kit, Flag Bracket and Signs, NSN 2540-66-149-0702, and described in Table 1. Modification kits are available on request from DMO.

Detail

10. Modification of Front Roller Telescopic Assembly. The procedure is as follows:
   a. Disconnect and remove the clearance light from the assembly.
   b. Weld the front flag bracket across the end of the assembly, as detailed in Figure 1.

   NOTE
   For ease of understanding, the bracket in Figure 1 is shown without the flag holder.
   c. Paint all worked areas olive drab.
d. Attach the clearance light to the bracket, as shown in Figure 2.

**NOTE**
The lead to the light may require shortening.

11. **Modification of Front Oversize Sign.** Cut the sign, as detailed in Figure 3.

**NOTE**
All dimensions given in Figure 3 are approximate and may vary slightly from vehicle to vehicle. The cuts and holes are to allow the sign to be mounted, as per Figure 4, providing space for the winch assembly and lifting lugs. The cuts should be symmetrical, to allow the sign to be reversed when the LRV is unladen.

12. **Modification of Front Bumper Assembly.** The procedure is as follows:

a. Using the modified front oversize sign as a guide, drill two 10 mm dia holes through the front bumper assembly.

b. Fit the threaded bar to the bumper as follows (see Figure 5):

   (1) Attach a nut and washer to one end and push the bar through rear of the bumper, using the holes detailed above, so the nut and washer sit flush with the rear of the bumper.

   (2) Next, screw the spacer to the front of the threaded bar until it is flush with the front of the bumper.

13. **Modification of the Rear Oversize Sign.** Rivet the brackets, detailed in Table 1, to the rear of the sign, as per Figure 6.

14. **Modification of the Pontoon Catch Plate.** Remove the angle bracket (Item 10, Group SQJ, LRV RPS) and reattach to the mounting plate, so that it secures the flag bracket, as per Figure 7.

15. **Recording Action.** On completion of the modification, the following action is to be taken:

a. Deface the number 9 on the LRV modification record plate.

b. Complete the modification details in the LRV Record Book for Service Equipment (GM 120).

c. Forward the modification completion details to:
   National Fleet Manager
   Engineering Systems Program Office
   DMO
   Victoria Barracks, St Kilda Rd
   SOUTHBANK VIC 3006

d. The return should include the following information:


   (2) Unit: eg 1 CSSB

   (3) ARN.

   (4) Completion Date.

**Table 1 – Kit, Flag Bracket and Signs, NSN 2540-66-149-0702**

<table>
<thead>
<tr>
<th>Item</th>
<th>NSN</th>
<th>Mfr Part No</th>
<th>Designation or Description</th>
<th>Unit of Issue</th>
<th>Qty per Kit</th>
<th>Qty per Equip</th>
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<tbody>
<tr>
<td>1</td>
<td>8345-66-149-0695</td>
<td>100311A</td>
<td>Bracket, Flag, Front</td>
<td>1</td>
<td>2</td>
<td>2</td>
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<tr>
<td>2</td>
<td>8345-66-149-0696</td>
<td>100311B</td>
<td>Bracket, Flag, Rear</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>5340-66-149-0698</td>
<td>100311C</td>
<td>Bracket, 50 x 40 x 45 mm, incl pin and clip</td>
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<td>1</td>
<td>1</td>
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<tr>
<td>4</td>
<td>5340-66-149-0699</td>
<td>100311D</td>
<td>Bracket, 100 x 40 x 45 mm, incl pin and clip</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>5307-66-149-0697</td>
<td>100311E</td>
<td>100 mm Threaded Bar, 10 mm dia, complete with nut, wingnut, washers and spacer.</td>
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<td>2</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>5320-66-149-0703</td>
<td>100311F</td>
<td>Rivet, 3 mm dia</td>
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<td>8</td>
<td>8</td>
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<tr>
<td>7</td>
<td>9905-66-149-0701</td>
<td>100311G</td>
<td>Oversize sign, 1200 mm x 450 mm, with cutouts</td>
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<td>1</td>
<td>1</td>
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<tr>
<td>8</td>
<td>9905-66-149-0700</td>
<td>100311H</td>
<td>Oversize sign, 1200 mm x 450 mm, with mounting bracket</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
NOTE

All dimensions given in Figure 3 are approximate and may vary slightly from vehicle to vehicle.

Figure 3 – Cuts on Front Sign
Figure 4 – Position of Front Sign

Figure 5 – Mounting of Front Sign

Figure 6 – Mounting of Brackets on Rear Sign
Figure 7 – Fitting of Rear Flag Bracket