

C AND D VEHICLES

PREPARATION FOR SHIPMENT BY SEA

GENERAL 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.

GENERAL

Introduction

1. This EMEI is issued for the direction and guidance of personnel responsible for the preparation of C vehicles for shipment by sea using the preservatives, lubricants and material listed in Table 1.

Associated Publications

2. Reference may be required to the latest issue of the following documents to assist with the preparation of the equipment:

- a. [EMEI Engr Equip A 019](#) – Servicing of C Vehicles and Material Handling Equipment – Service and Inspections Timings of Engineering Plant and Material Handling Equipment;
- b. [EMEI Engr Equip A 020](#) – C and D Vehicles – Inspection for Useability;
- c. [EMEI Vehicle A 203-3](#) – Preservation of Vehicles and MUA;
- d. [EMEI Workshop D 700](#) – Painting of Army Equipment – Basic Painting Principles;
- e. Individual equipment EMEI and user handbooks; and
- f. [Electronic Supply Chain Manual \(ESCM\)](#) Volume 4, Section 3 – Supply Management Processes, Stores Accounting General.

3. Reference may be necessary to the latest issue of the following documents to ensure personnel safety and prevention of damage to equipment:

- a. Defence Safety Manual (SAFETYMAN) [Volume 1, Part 5, Chapter 1](#) – Management of Hazardous Substances (Excluding Explosives and Radioactive Materials);
- b. [Material Safety Data Sheets](#) (MSDS) – Product Information Sheets; and
- c. relevant individual equipment user/operator and servicing handbooks.

DETAIL

WARNING

All industrial safety, work practices and equipment operating and maintenance instructions pertaining to this instruction are to be adhered to. The handling, storage and use of chemical substances are to be in accordance with SAFETYMAN and MSDS requirements.

4. Preservatives, lubricants and material required to prepare the vehicle for shipment by sea are detailed in Table 1.

Table 1 Preservatives, Lubricants and Material

Serial	Preservative, Lubricant and Material	NSN	Use
1	Corrosion Preventative Compound, Lanolin Film (Protector Skin)	8030-66-132-7850	Metal surface coating
2	Corrosion Preventative Compound (CRC)	8030-00-546-8637	Battery and electrical terminals
3	Corrosion Preventative Compound (PX-115)	8030-66-088-7462	Chassis rails, box sections and hinges
4	Grease, General Purpose (XG-291)	9150-66-146-5340	Hydraulic rams and wheel studs and nuts
5	Lubricating Oil, General Purpose, Wire Rope (Rocol)	9510-66-150-1763	Winch ropes
6	Leather Refinishing Compound, Liquid	8030-66-017-9984	Vehicle dash/interior trim
7	Stabilizer Diesel Fuel (Fire Prep 1000)	6850-66-136-4038	Diesel fuel tanks
8	Barrier Material, Greaseproofed-Waterproofed, Flexible	8135-66-016-3350	Air intakes, breathers and engine accessories

Preparation of Fully Functional Vehicles Prior to Embarkation

5. The procedure for the preservation of vehicles is as follows:

WARNING

Exhaust pipes are not to be coated with any lubricants or protective coatings. Hot exhaust pipes can give off dangerous fumes from the chemical coatings and may cause a fire hazard.

- a. Clean and lubricate the vehicle in accordance with the relevant servicing instructions.

NOTE

Excess grease is not to be removed from the grease nipples after lubrication.

- b. Check the drive and transmission system for leaks.
- c. Check the fuel system for leaks.
- d. Check the hydraulic system for leaks.
- e. Check the air system for leaks.
- f. Check the cooling system for leaks.
- g. Check the coolant level for coolant inhibitor/additive strength.
- h. Top up the hydraulic reservoirs.
- i. Once the vehicle is positioned on the vessel, coat all exposed hydraulic rams with XG-291 (Table 1, Serial 4).
- j. Brush all wheel stud threads and nuts with XG-291.
- k. Top up the battery electrolyte.
- l. Clean and spray the battery terminals (Table 1, Serial 2).
- m. Clean the winch ropes and coat them with Rocol wire rope lubricating oil (Table 1, Serial 5).
- n. Clean and unblock all body, door and tool box drain holes.
- o. Coat all hinges with PX-115 (Table 1, Serial 3).
- p. Remove any rust and patch paint as required.
- q. Paint the vehicle’s painted surfaces and the exposed surfaces with protector skin (Table 1, Serial 1).

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NOTE

Protector skin can be applied by painting with a brush or spray gun. A minimum of two coatings must be applied to the surfaces. When using a spray gun, the chemical compounds will require dilution with petrol. Diluted compounds will require additional coatings to achieve the required protective coating (if diluted 50%, it will require two applications to achieve one recommended coating).

- r. Brush protector skin on all working parts without lubrication points e.g. brake rods, linkage joints and latches.
- s. Liberally apply PX-115 to the interiors of the box sections using an air powered engine cleaning gun.

NOTE

Ensure there is sufficient air pressure to spray PX-115 through the box sections.

- t. Coat the dash and interior trim with refinishing liquid (Table 1, Serial 6).
- u. Store all cushions in the storage bins or firmly secure them to the vehicle.



Vehicles that are to be stowed above deck are to have full fuel tanks prior to loading.

Vehicles that are to be stowed below deck are to have no more than five litres of fuel in the fuel tank.

- v. Thoroughly clean the fuel tanks to ensure the fuel system is free from bacterial contaminants.

NOTE

Treat all diesel fuel tanks with Fire Prep 1000 to prevent the build up of bacteria (Table 1, Serial 7).

- w. Secure the canopies to the vehicles.

Treatment after Embarkation

- 6. Service the vehicle as follows:
 - a. Disconnect the battery leads.
 - b. Coat all electrical terminals with CRC (Table 1, Serial 2).
 - c. Lightly coat the engine air intakes, breathers and external engine accessories with protective skin (Table 1, Serial 1) and then wrap them in barrier material (Table 1, Serial 8).
 - d. Where vehicles are to be stored onboard the vessel for more than one month, the tyres are to be inflated to 50 kPa above the normal highway inflation pressures.
 - e. Check that all preservation tasks have been completed.

NOTE

Any preservation that has been disturbed or has degraded is to be reapplied.

Treatment after Disembarkation

7. Service the vehicle as follows:

- a. Remove any barrier material.

NOTE

Thoroughly wash the vehicle/s with fresh water as soon as practical after disembarkation.

- b. Wash the vehicle with high pressure fresh water.

NOTE

There is no requirement to remove protective coatings from the vehicle's metal work. It is preferable that coatings remain on the vehicle to inhibit corrosion.

- c. Remove any floor and trunk mats and trim. Clean and dry the vehicles interior thoroughly, giving particular attention to re-entrant folds which form troughs for collection of moisture and dirt.
- d. Replace the floor and trunk mats and trim.
- e. Connect the battery leads.
- f. Remove the wheel nuts and clean all grease from the studs and nuts.
- g. Refit the wheel nuts and torque them in accordance with the OEM's specifications.
- h. Carry out a First Parade service.

END

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