GENERAL MAINTENANCE INSTRUCTIONS

0011 00

THIS WORK PACKAGE COVERS

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INITIAL SETUP

Maintenance Level

Unit

Tools and Special Tools

Tool Kit, General Mechanic's (Item 10, WP 0032 00)

Shop Equipment, Common No. 1 (Item 8, WP 0032 00)

Materials/Parts

Adhesive, Thread (Item 1, WP 0033 00)

Cleaning Compound, Solvent (Item 2, WP 0033 00)

Cloth, Abrasive (Item 3, WP 0033 00)

Detergent (Item 4, WP 0033 00)

Materials/Parts - Continued

Oil, Lubricating (Item 5, WP 0033 00)

Rag, Wiping (Item 7, WP 0033 00)

Tag, Marker (Item 10, WP 0033 00)

References

TB 43-0209

TB 43-0242

TM 9-2320-364-10

TM 9-247

SCOPE

1. These general maintenance instructions contain general shop practices and specific methods you must be familiar with to properly install and maintain the Crew Protection Kit.

2. Read and understand these practices and methods before starting maintenance tasks on the armor kit.

WORK SAFETY

1. Before starting a task, think about the risks and hazards to your safety as well as others. Wear protective gear such as safety goggles, face shield, safety shoes and gloves. Protect yourself against injury.

2. Observe all WARNINGs and CAUTIONs.

3. When lifting heavy parts, always use assistance. Ensure lifting equipment is working properly, suitable for the task assigned, is of sufficient load capacity, and secured against slipping.

4. Always use power tools carefully.

5. Before beginning a procedure, ensure that the following conditions have been observed, unless otherwise specified:

    a. Vehicle must be parked on level ground with parking/emergency brake applied (TM 9-2320-364-10).

    b. Transmission must be in N (Neutral) (TM 9-2320-364-10).

    c. Engine must be off (TM 9-2320-364-10).

    d. If equipped, battery disconnect switch must be in OFF position (TM 9-2320-364-10).

GENERAL INFORMATION

1. Before beginning a task, find out how much teardown is needed to fix equipment as described in this manual. Sometimes complete teardown is not necessary. Remove components only as far as necessary to replace damaged or broken parts.

2. All tags and forms attached to the equipment must be checked to learn the reason for removal from service. Check all Modification Work Orders (MWOs) and Technical Bulletins (TBs) for equipment changes and updates.

3. Replace all locknuts and lockwashers.

4. Inspect seals for damage. Replace seals if damaged.

CLEANING INSTRUCTIONS

1. <u>**General**</u>.

   a. The importance of cleaning must be thoroughly understood by maintenance personnel. Great care and effort are required in cleaning. Dirt and foreign material are a constant threat to satisfactory maintenance.

   b. The following should apply to all cleaning operations:

      (1) Keep all related parts and components together. Do not mix parts.

      (2) Clean all parts before inspection and before installation.

      (3) To prevent contamination, hands should be kept free of accumulation of grease, which can collect dust, dirt, or grit.

2. <u>**Cleaning Instructions**</u>.

WARNING

- Solvent cleaning compound MIL-PRF-680 Type III is an environmentally compliant and low toxic material. However, It may be irritating to the eyes and skin. Use protective gloves and goggles. Use in well-ventilated areas. Keep away from open flames and other sources of ignition. Failure to follow this warning may result in injury or death to personnel.

- Improper cleaning methods and use of unauthorized cleaning solvents may injure personnel and damage equipment. Refer to TM 9-247, *Materials Used for Cleaning, Preserving, Abrading, and Cementing Ordnance Materiels and Related Materiels Including Chemicals*, for correct information.

- Fire extinguishers should be placed nearby when using solvent cleaning compound. Failure to follow this warning may result in injury or death.

- Cloths or rags saturated with solvent cleaning compound must be disposed of IAW authorized facilities' procedures. Failure to follow this warning may result in injury.

- Eye shields must be worn when cleaning with a wire brush. Flying rust and metal particles may cause injury.

- Particles blown by compressed air are hazardous. DO NOT exceed 15 psi (103 kPa) nozzle pressure when drying parts with compressed air. Use a maximum of 30 psi (207 kPa) when cleaning components. DO NOT direct compressed air against human skin. Failure to follow this warning may result in injury or death. Make sure air stream is directed away from user and other personnel in the area. To prevent injury, user must wear protective goggles or face shield.

   a. Use solvent cleaning compound to clean any surface coated with grease or oil.

   b. Clear out all drilled or tapped (threaded) holes with compressed air to remove dirt and solvent cleaning compound.

CLEANING INSTRUCTIONS - CONTINUED

c. Use detergent and water to wash externally exposed parts that are not subject to grease and oil. Rinse thoroughly and air dry.

d. Use a wire brush and solvent cleaning compound to remove old sealing compound.

e. Use a wire brush and abrasive cloth to clean all rusted surfaces.

f. After cleaning, cover or wrap all parts to protect them from dust and dirt. Any part that is subject to rust should be lightly coated with clean lubricating oil.

INSPECTION INSTRUCTIONS

1. **General.** Inspect all components and parts carefully to determine if they are serviceable for reuse or if they must be replaced.

2. **Drilled and Tapped (Threaded) Holes.**

   a. Inspect for wear, distortion (stretching), cracks, or any other damage in or around holes.

   b. Inspect threaded areas for wear, distortion, or evidence of cross-threading.

   c. If damage is noted, repair or replace as required.

3. **Armor Plates.**

   a. Inspect for breaks, cracks, dents, and rust damage.

   b. Particularly check areas around studs, screw openings, and sharp corners.

WARNING

To ensure survivability of personnel, welding repairs on armor kit are NOT authorized. If armor plates are damaged, they must be replaced. Failure to follow this warning may cause failure of armor, resulting in injury or death to personnel.

   c. Replace any damaged armor plate. DO NOT repair by welding.

4. **Bolts and Screws.** Replace if threads are damaged, bent, loose, or stretched.

5. **Studs.** If studs are damaged, repair or replace as necessary.

PAINTING INSTRUCTIONS

CAUTION

Whenever paint is applied, care must be taken to prevent covering up installation aid markings (**THIS SIDE UP**, up arrows ⇑, etc.). These installation aid markings must be protected during paint application by using masking tape, paper, etc.

Parts must be painted in accordance with TB 43-0209, *Color, Marking, and Camouflage Painting of Military Vehicles, Construction Equipment, and Materials Handling Equipment*, and TB 43-0242, *CARC Spot Painting*.

STANDARD TOOL REQUIREMENTS

1. The following are general practices regarding the use of tools:

    a. Always use the proper tool kit and tools for the procedure being performed.

    b. Ensure that tools are clean and lubricated to reduce wear and prevent rust.

    c. Keep track of tools. Do not be careless with them.

    d. Return tools to toolbox when finished with repair or maintenance.

    e. Return toolboxes and tools to tool storage when not in use.

    f. Inventory tools before and after each use.

2. Some maintenance tasks may require special or fabricated tools. The "Initial Setup" of the procedure will specify any special or fabricated tools needed to perform that procedure. Use these special tools only for the maintenance procedures for which they are designed or specified. If you are unfamiliar with a required tool, see your supervisor.

USE OF THREAD ADHESIVE

WARNING

Use caution when using adhesives and sealants. Prolonged inhalation of vapors can cause lung irritation. Contact with skin can cause dermatitis. Wear gloves and safety goggles and use product in a well-ventilated area away from open flame. If ingested, keep individual calm and seek medical attention. DO NOT induce vomiting. If contact with skin or eyes is made, flush thoroughly with water. Dispose of cleanup rags IAW local policy and ordinances. Failure to follow this warning may cause injury to personnel.

1. All nuts, bolts, and screws used in the installation of the armor kit or when replacing armor kit components must be coated with Thread Adhesive (Item 1, WP 0033 00), unless otherwise stated.

2. Locknuts supplied with the kit do not require thread adhesive.

USE OF SEALANT

1. When applying sealant, follow manufacturer's instructions on label of container.

2. Sealant should be applied in an even and continuous 1/4 inch bead along mating surfaces.

APPLYING TORQUE

1. When tightening fasteners, use torque value as specified in *Torque Limits* (WP 0034 00).

2. If a unique torque value is required, it will be provided in the procedural step of the task.

TAGGING INSTRUCTIONS

1. Use marker tags to identify all electrical wires and any other parts that may be hard to identify or replace later. Fasten tags to parts during removal by wrapping wire fasteners around or through parts and twisting ends together. Position tags to be out of the way during cleaning, inspection, and repair. Mark tags with a pencil, pen, or marker.

2. Whenever possible, identify electrical wires with the number of the terminal or wire to which it connects. If no markings can be found, tag both wires or wire and terminal, and use the same identifying mark for both. If you cannot tag a wire because it must fit through a small hole or you cannot reach it, write down the description of the wire and the point to which it connects, or draw a simple diagram on paper. Be sure to write down enough information so you will be able to properly connect the wires during assembly. If you need to identify a loose wire, look for identifying number near end of the wire, stamped on a permanent metal tag. Compare the number to wire numbers on the appropriate electrical schematic.

3. Identify and tag other parts as required by name and installed location.

END OF WORK PACKAGE