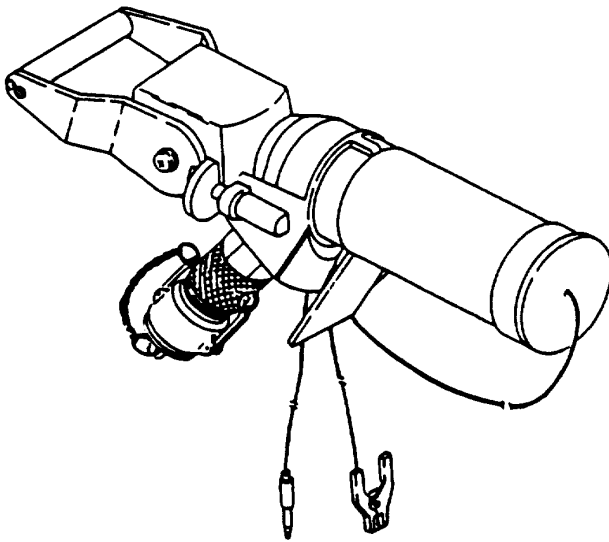
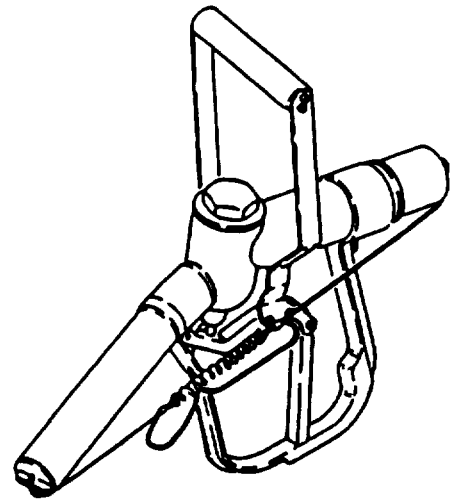


TECHNICAL MANUAL
 OPERATOR'S, UNIT, AND DIRECT
 SUPPORT MAINTENANCE MANUAL
 INCLUDING REPAIR PARTS AND
 SPECIAL TOOLS LIST
 FOR
 CLOSED-CIRCUIT REFUELING
 NOZZLE AND GRAVITY
 FILL ADAPTER,
 ARCTIC SERVICE

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CLOSED-CIRCUIT
 REFUELING NOZZLE
 Model Number 64017Z
 NSN: 4930-01-370-3061



GRAVITY FILL ADAPTER
 Model Number 64033
 NSN: 4930-01-376-7725

Distribution Statement A: Approved for public release; distribution is unlimited.

TECHNICAL MANUAL
NO. 10-4930-243-13&P

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C. 31 March 1996

OPERATOR'S, UNIT AND DIRECT SUPPORT
MAINTENANCE MANUAL INCLUDING REPAIR
PARTS AND SPECIAL TOOLS LIST
FOR
CLOSED CIRCUIT REFUELING NOZZLE AND
GRAVITY FILL ADAPTER, ARCTIC SERVICE

CLOSED-CIRCUIT REFUELING NOZZLE
Model Number 64017Z
NSN 4930-01-370-3061
and
GRAVITY FILL ADAPTER
Model Number 64033
NSN 4930-01-376-7725

(Current as of 3 October 1995)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes, or if you know of a way to improve these procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual directly to: Commander, US Army Aviation and Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. You may also submit your recommended changes by E-mail directly to <mpmt%avma28@st-louis-emh7.army.mil>. A reply will be furnished directly to you.

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HOW TO USE THIS MANUAL

Be sure to read all Warnings before using your equipment.

This manual contains instructions for operation and maintenance of the Closed-Circuit Refueling (CCR) Nozzle and Gravity Fill Adapter.

MANUAL OVERVIEW

a. Index Tabs.

Notice the front cover index of this manual. It lists the most important areas of the manual and guides you to those sections. Follow the black mark on the cover index edge through the pages to the edge mark on the section you want. The subjects on the front cover index are also highlighted in the table of contents by boxes. A detailed alphabetical index is located at the back of this manual.

b. Contents.

The following gives you a summary of each chapter and appendix. Before beginning a maintenance task, you must familiarize yourself with the entire procedure.

- Chapter 1-Introduces you to the equipment and gives you information such as weight, dimensions, abbreviations used and information on how the unit works.
- Chapter 2-Provides information necessary to identify and use the equipment. Operating instructions in this chapter tell you how to use the equipment in both usual and unusual weather conditions.
- Chapter 3-Provides operator troubleshooting procedures for identifying equipment malfunctions and maintenance procedures for performing operator maintenance tasks.
- Chapter 4-Provides unit maintenance personnel with troubleshooting procedures for identifying equipment malfunctions and maintenance procedures for repairing defective equipment
- Chapter 5-Provides direct support maintenance personnel with maintenance instructions for performing repairs on equipment as authorized by the maintenance allocation chart
- Appendix A-Provides a list of frequently used forms and publications referenced or used in this manual.
- Appendix B-The Maintenance Allocation Chart identifies repairable components and the maintenance level authorized to perform the repairs.
- Appendix C-If you find that a part or component is damaged and must be replaced, you can identify the part needed by referring to the illustrations and parts lists found in this Repair Parts and Special Tools List.
- Appendix D-Lists components that are not mounted on the equipment, but are required to make the unit functional.

HOW TO USE THIS MANUAL
continued

- Appendix E-Lists additional equipment authorized for your unit for use with the CCR nozzle, but which are not supplied with the CCR nozzle.
- Appendix F-Provides you with information about expendable supplies such as sealants, lubricants, chemicals, etc., that are used when operating or maintaining equipment.
- Appendix G-Provides Illustrated List of Manufactured Items.
- Appendix H-Mandatory Replacement Parts.
- Glossary.
- Alphabetical Index.

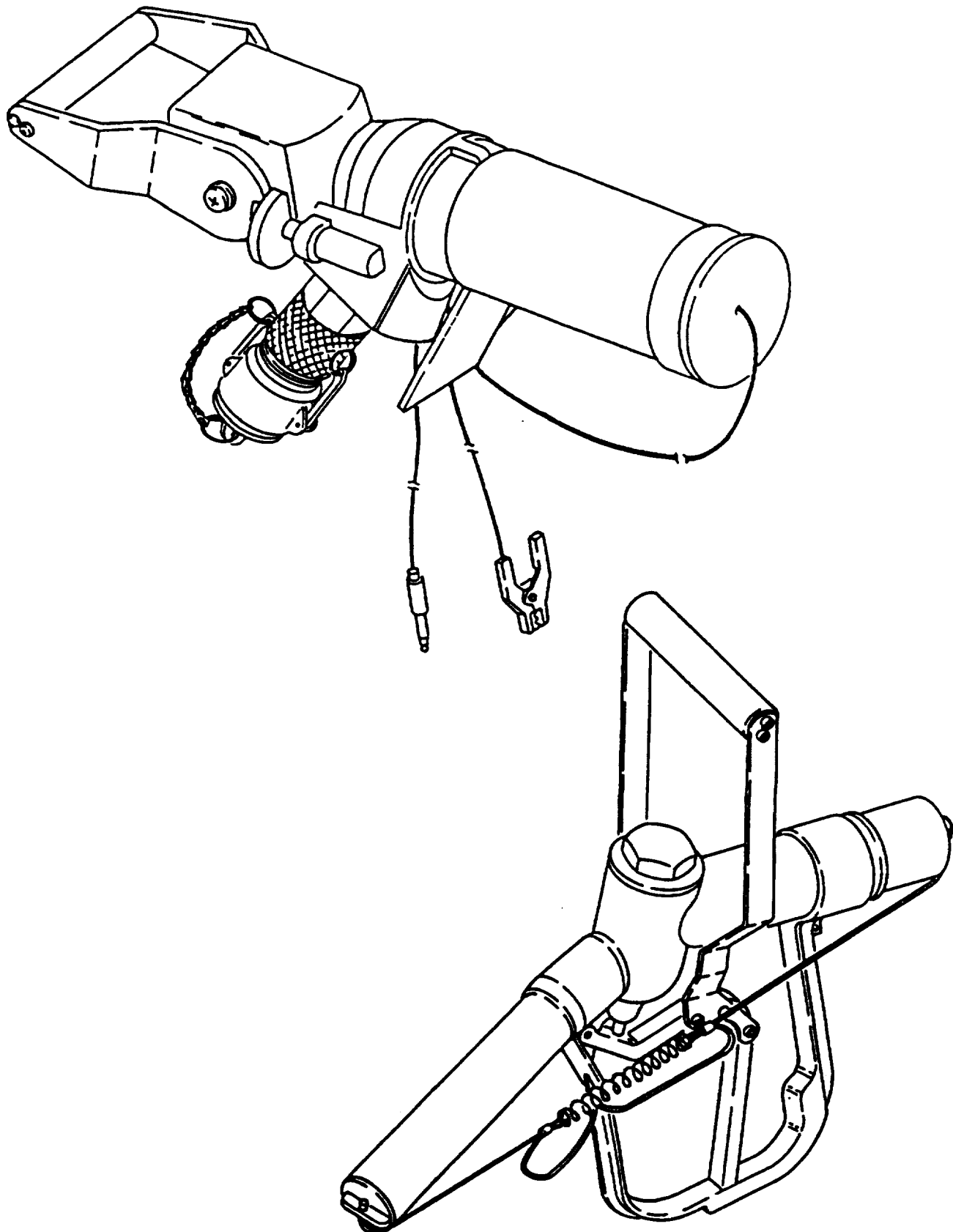


Figure 1-0. Closed-Circuit Refueling Nozzle and Gravity Fill Adapter

CHAPTER 1

INTRODUCTION

Section I. GENERAL INFORMATION

1-1. SCOPE.

This manual is for use by personnel responsible for the operation and maintenance of the Arctic CCR Nozzle and Gravity Fill Adapter.

- a. Type of Manual. Operator's, Unit and Direct Support Maintenance.
- b. Model Number and Equipment Name. Model #64017Z Closed-Circuit Refueling Nozzle and Model #64033 Gravity Fill Adapter, Arctic Service.
- c. Purpose of Equipment. To mate with adapters conforming to MIL-N-53093 or equivalent and permit fuel servicing in arctic conditions by one person wearing arctic mittens. The nozzle can be adapted to perform conventional gravity fill dispensing by attaching an adapter nozzle conforming to MIL-N-53043.

1-2. MAINTENANCE FORMS, RECORDS AND REPORTS.

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA Pam 738-750, The Army Maintenance Management Systems (TAMMS).

1-3. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE.

Instructions for destruction of the equipment to prevent enemy use are in TM 750-244-3.

1-4. CORROSION PREVENTION AND CONTROL (CPC).

- a. Corrosion Prevention and Control (CPC) of Army materiel is a continuing concern. It is important that any corrosion problems with this item be reported so that the problem can be corrected and improvements made to prevent the problem in future items.
- b. While corrosion is typically associated with rusting of metals. it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling or breaking of the materials may be a corrosion problem.
- c. If a corrosion problem is identified, it can be reported using Standard Form 368, Product Quality Deficiency Report. Using key words such as "rust", "deterioration", or "cracking" will ensure that the information is identified as a CPC problem. The form should be submitted to the address specified in DA PAM 738-750.

1-5. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIRs).

If your CCR nozzle or Gravity Fill Adapter needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. Put it on an SF 368 (Product Quality Deficiency Report). Mail it to us at: Commander, U.S. Army Aviation and Troop Command, ATTN: AMSAT-MDO, 4300 Goodfellow Boulevard, St. Louis. MO 63120-1798. We will send you a reply.