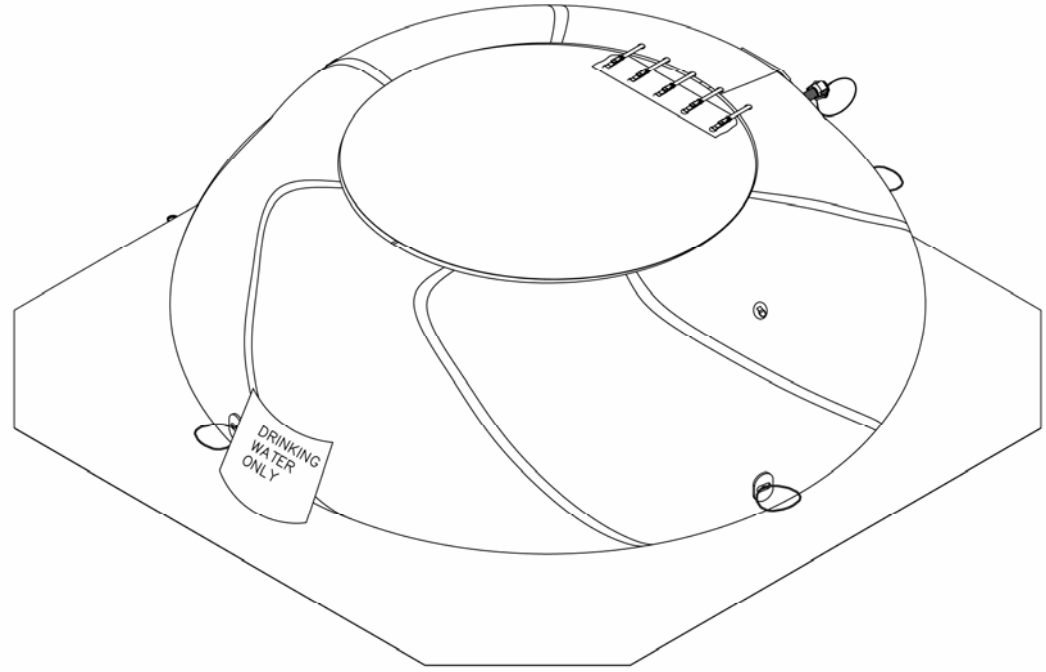
TM 10-5430-249-13&P

TECHNICAL MANUAL

OPERATOR AND FIELD MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065 (TAN)



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HEADQUARTERS, DEPARTMENT OF THE ARMY

MARCH 2007

WARNING SUMMARY

GENERAL WARNING PRECAUTIONS

This warning summary contains general safety warnings and hazardous materials warnings that must be understood and applied during operation of this equipment. Failure to observe these precautions could result in serious injury or death to personnel. Also included are explanations of safety and hazardous materials icons within this technical manual.

EXPLANATION OF SAFETY WARNING ICONS

CHEMICAL - drops of liquid on hand shows that the material will cause burns or irritation to human skin or tissue.

ELECTRICAL – Electrical wire to hand with electricity symbol running through human body shows that shock hazard is present.

EXPLOSION - rapidly expanding symbol shows that the material may explode if subjected to high temperatures, sources of ignition or high pressure.

FALLING PARTS - arrow bouncing off human shoulder and head shows that falling parts present a danger to life or limb.

HEAVY OBJECT – Human figure stooping over heavy object shows physical injury potential from improper lifting technique.

MOVING PARTS – Hand with fingers caught between rollers shows that the moving parts of the equipment present a danger to life or limb.

TRIPPING – Line shows that objects on the floor may cause tripping.

SPECIFIC WARNING PRECAUTIONS

WARNING

Serious injury to personnel or damage to tank may occur if tank is placed over drop offs greater than 4 inches (0.1 meter). (see WP 0005, pg 1)

Do not deploy the tank system on a slope greater than 10%. Personnel injury or equipment damage may occur (see WP 0005, pg 1)

WARNING

Do not locate tank system near electrical equipment, power generation or power distribution equipment. Electrical shock, death or equipment damage may result (if the tank ruptures). (see WP 0005, pg 1)

WARNING

The packaged tank is heavy. Four personnel are required to lift system. Always lift with your legs not your back. Failure to observe this warning may result in back injury. (see WP 0005, pg 2)

WARNING

Do not fill if the tank has trapped air. Filling the tank with water if air is trapped in the tank could cause tank rupture. Personal injury may result from shrapnel. (see WP 0005, pg 5)

WARNING

Use caution to ensure fingers are not caught or pinched in the valve's camlock lever. Personal injury to fingers may occur. (see WP 0005, pg 5)

WARNING

Use caution when walking near the tank system. Valves and hoses can cause tripping. (see WP 0005, pg 10)

WARNING

Use only approved cleaning chemicals. Personnel injury and equipment damage may occur. (see WP 0005, pg 15)

Do not use decontamination spray on personnel. It could cause personal injury. (see WP 0006, pg 5)

WARNING

Do not swim or bathe in filled tank. Personnel should not enter tank unless it is empty and only to clean when required. Personnel injury, suffocation or equipment damage may occur. (see WP 0005, pg 11)

Do not lift or move the tank with the lift handles if there is any standing water remaining in the bottom of the tank. Personal injury or damage to the handles and/or tank fabric may occur. (see WP 0005, pg 14)

LIST OF EFFECTIVE PAGES/WORK PACKAGES

NOTE: Zero in the "Change No." column indicates an original page or work package.

Dates of issue for original and updated pages/work packages are:

Original ..... 30 March 2007

TOTAL NUMBER OF PAGES FOR FRONT AND REAR MATTER IS 142 AND TOTAL NUMBER OF WORK PACKAGES IS 22 CONSISTING OF THE FOLLOWING:

Page/WP No.	Change No.	Page/WP No.	Change No.
Front Cover	0		
Warning summary (4 pgs)	0		
i – vi	0		
Chp 1 title page	0		
WP 0001 (4 pgs)	0		
WP 0002 (2 pgs)	0		
WP 0003 (2 pgs)	0		
Chp 2 title page	0		
WP 0004 (2 pgs)	0		
WP 0005 (30 pgs)	0		
WP 0006 (6 pgs)	0		
Chp 3 title page	0		
WP 0007 (2 pgs)	0		
Chp 4 title page	0		
WP 0008 (6 pgs)	0		
Chp 5 title page	0		
WP 0009 (2 pgs)	0		
WP 0010 (2 pgs)	0		
WP 0011 (4 pgs)	0		
WP 0012 (2 pgs)	0		
Chp 6 title page	0		
WP 0013 (8 pgs)	0		
WP 0014 (4 pgs)	0		
WP 0015 (4 pgs)	0		
WP 0016 (2 pgs)	0		
WP 0017 (2 pgs)	0		
Chp 7 title page	0		
WP 0018 (2 pgs)	0		
WP 0019 (4 pgs)	0		
WP 0020 (2 pgs)	0		
WP 0021 (4 pgs)	0		
WP 0022 (2 pgs)	0		
INDEX-1-INDEX-4	0		

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C., 30 MARCH 2007

TECHNICAL MANUAL

OPERATOR AND FIELD MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST
FOR

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065 (TAN)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this publication. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Submit your DA Form 2028 (Recommended Changes to Equipment Technical Publications), through the Internet, on the Army Electronic Product Support (AEPS) website. The Internet address is **http://aeps.ria.army.mil.** If you need a password, scroll down and click on "ACCESS REQUEST FORM". The DA Form 2028 is located in the ONLINE FORMS PROCESSING section of the AEPS. Fill out the form and click on SUBMIT. Using this form on the AEPS will enable us to respond quicker to your comments and better manage the DA Form 2028 program. You may also mail, fax or email your letter or DA Form 2028 direct to: AMSTA-LC-LPIT/TECH PUBS, TACOM-RI, 1 Rock Island Arsenal, Rock Island, IL 61299-7630. The email address is **ROCK-TACOM-TECH-PUBS@conus.army.mil**. The fax number is DSN 793-0726 or Commercial (309) 782-0726.

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TABLE OF CONTENTS

WP Sequence No.
Page No.

HOW TO USE THIS MANUAL

This Operator and Field Maintenance Manual for Tank, Fabric, Collapsible, Drinking Water contains general information, operating instructions, maintenance procedures and operator Preventive Maintenance Checks and Services (PMCS) for the water tank. Use the Table of Contents or the index to locate particular sections of this manual.

TM-10-5430-249-13&P

TECHNICAL MANUAL

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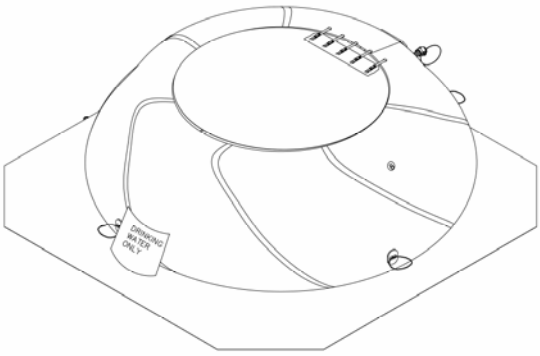

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HEADQUARTERS, DEPARTMENT OF THE ARMY
MARCH 2007

The manual is divided into chapters and work packages (WP) that are numbered in sequence. Pages and tables are numbered by WP. For example, page 3 of WP 2 is marked 0002 00-3, the second table of WP 1 is labeled Table 2. To quickly find specific information, use the Table of Contents on page i. The Table of Contents lists work packages by chapter. For example, the Table of Contents tells you that Chapter 1, Equipment Description and Data, is in WP 0002 00. The Table of Contents on page i tells you the exact WP where each section of each chapter is located. The RPSTL located in WP 0018 00 lists and authorizes spares and repair parts. A comprehensive alphabetical index starts on page I1 at the end of the manual.

CHAPTER 1

DESCRIPTION AND THEORY OF OPERATION for the FABRIC, COLLAPSIBLE, DRINKING WATER TANK

OPERATOR AND FIELD MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

GENERAL INFORMATION

SCOPE

This technical manual contains instructions for operations, checks and corrective maintenance for the Fabric, Collapsible, Drinking Water Tank.

Type of Manual: Operator and Unit Maintenance.

Model Number and Equipment Name: 03-TAC-TNK, Tank, Fabric, Collapsible, Drinking Water.

Purpose of Equipment: The tanks provide potable drinking water storage containers when quick storage facilities are needed and where permanent potable water storage facilities are not available or when the storage of potable water is needed only on a temporary basis.

MAINTENANCE FORMS, RECORDS, AND REPORTS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by (as applicable) DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual; DA PAM 738-751, Functional Users Manual for the Army Maintenance Management Systems - Aviation (TAMMS-A); or AR 700-138, Army Logistics Readiness and Sustainability.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

If your Fabric, Collapsible, Drinking Water Tank 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. If you have Internet access, the easiest and fastest way to report problems or suggestions is to go to https://aeps.ria.army.mil/aepspublic.cfm (scroll down and choose the “Submit Quality Deficiency Report” bar). The Internet form lets you choose to submit an Equipment Improvement Recommendation (EIR), a Product Quality Deficiency Report (PQDR or a Warranty Claim Action (WCA). You may also submit your information using an SF 368 (Product Quality Deficiency Report). You can send your SF 368 via e-mail, regular mail, or facsimile using the addresses/facsimile numbers specified in DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual. We will send you a reply.

CORROSION PREVENTION AND CONTROL (CPC)

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 can be made to prevent the problem in future items.

Corrosion specifically occurs with metals. It is an electrochemical process that causes the degradation of metals. It is commonly caused by exposure to moisture, acids, bases, or salts. An example is the rusting of iron. Corrosion damage in metals can be seen, depending on the metal, as tarnishing, pitting, fogging, surface residue, and/or cracking.

Plastics, composites, and rubbers can also degrade. Degradation is caused by thermal (heat), oxidation (oxygen), solvation (solvents), or photolytic (light, typically UV) processes. The most common exposures are excessive heat or light. Damage from these processes will appear as cracking, softening, swelling, and/or breaking.

SF Form 368, Product Quality Deficiency Report should be submitted to the address specified in DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual.

DESTRUCTION OF ARMY MATERIAL TO PREVENT ENEMY USE

Destruction of Army material to prevent enemy use shall be in accordance with TM 750-244-3, Procedure for Destruction of Army Material to Prevent Enemy Use.

PREPARATION FOR STORAGE OR SHIPMENT

Refer to WP 0005 00 to prepare the Tank for storage and shipment.

WARRANTY INFORMATION

Warranty. A product registration card with identification numbers is packed with each tank. The registration card is packaged along with setup instructions in a clearly identifiable envelope inside the shipping container. This envelope will instruct the user how to send in the product registration card to Berg Companies when the tank is first wetted (used). The three-year warranty will begin on the date the Registration is received at Berg Companies. No warranty claims will be allowed against a product where a Product Registration card has not been received.

Limited Warranty. Berg Companies warrants the Fabric, Collapsible, Drinking Water Tank are free from major defects in materials or workmanship and will meet performance specifications as listed in section C-4 in solicitation number W56HZV-04-R-1101 for a period of three years after first use (wetting of tank). If defects are found, the preferred and most reliable method for filling out and submitting the PQDR, is to go to the Army Electronic Product Support website: https://aeps.ria.army.mil/aepspublic.cfm and click on "Electronic Deficiency Reporting System". Then click on "New Report" in the left hand vertical menu. Then proceed to fill in the report and submit. You will receive an e-mail message confirming that we received it.

If you do not have the capability to access AEPS, fill out the SF 368 in hard copy, scan to your computer and send by email attachment to: tacomdrs@tacom.army.mil

If you do not have E-mail capability, Fax the form to: Commercial: 586-574-5666, DSN: 786-5666, Attention: PQDR Team Leader, AMSRD-TAR-E/PQDR. Bldg. 200A. You can also mail a hard copy PQDR to: US Army TACOM, ATTN: AMSRD-TAR-E/PQDR, (MS: 268, BLDG. 200A) Warren, MI 48397-5000.

The TACOM Warranty Coordinator will then contact Berg Companies customer service for a return authorization. If, after inspection, we find that the product was defective in material or workmanship, we shall, at our option, either repair or replace it without charge and pay for shipping within CONUS. If, after inspection, Berg Companies finds the product was not defective, shipping charges will be the responsibility of TACOM. We are not responsible for normal wear and tear or for damage caused by accidents, misuse, alterations, or improper installations. Additionally, although we manufacture our products with quality materials, we are not responsible for the negative effects of climate, pollution or acts of God beyond those outlined in section C-4 in solicitation number W56HZV-04-R-1101. Because tanks are temporary structures, it is necessary that each unit be installed and maintained according to the manufacturer's instructions.

There are no other express warranties beyond the terms of this limited warranty. In no event shall Berg Companies be liable for incidental or consequential damages.

NOMENCLATURE CROSS-REFERENCE LIST

Common Name	Official Name
Tank	Tank, Fabric, Collapsible, Drinking Water

LIST OF ABBREVIATIONS/ACRONYMS

BII	Basic Issue Item
COEI	Component of End Item
CPC	Corrosion Prevention Control
DS2	Decontamination Solution (Ready to Use)
EIR	Equipment Improvement Recommendation
ISO	International Standards Organization
MTOE	Modified Table of Organization and Equipment
PMCS	Preventative Maintenance Checks and Services
RPSTL	Repair Parts and Special Tools List
STB	Supertropical Bleach—Decontamination Agent
TAMMS	The Army Maintenance Management System
TOE	Table of Organization and Equipment
U/M	Unit of Measure
UOC	Usable On Code
AAL	Additional Authorized list
MAC	Maintenance Allocation Chart
FT	Feet
In	Inch
Ft^3	Cubic feet

SAFETY, CARE AND HANDLING

Always observe Warnings, Cautions, and Notes in the manual. They appear before appropriate procedures. Be sure you read and understand each of the Warnings, Cautions, and Notes. Failure to observe them may cause damage to yourself, others, or equipment.

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

EQUIPMENT DESCRIPTION AND DATA

EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

Characteristics, capabilities, and features of the Tank, Fabric, Collapsible, Drinking Water assemblies include:

Characteristics:

Highly mobile.
Easily transportable.

Capabilities and Features:

Self-supporting on slopes up to 10%.
Quick setup/tear down.

Setup: Four personnel in 10 minutes.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

Refer to Chapter 2, WP 0004 00.

EQUIPMENT DATA

Table 1. Leading Particulars

Item	Characteristic
Dimensions, outside:	
(Packaged)	
Height	28 in
Width	25 in
Length	44 in
Weight	139 pounds – 4 person lift
(Filled)	
Height	46 in
Base Diameter	156 in
Top Diameter	90 in

Table 1. Leading Particulars (Cont.)

Item	Characteristic
Environmental Requirements:	
Temperature:	
Operating	32 to 125 ^{o}F
Storage	-25 to 160 ^{o}F
Water Storage Capacity:	3000 Gallons

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

THEORY OF OPERATION

Refer to Chapter 2.

END OF WORK PACKAGE

CHAPTER 2

OPERATOR INSTRUCTIONS
for the
FABRIC, COLLAPSIBLE, DRINKING WATER TANK

OPERATOR'S AND FIELD MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

DESCRIPTION AND USE OF OPERATOR CONTROLS AND INDICATORS

GENERAL

This section lists major components, controls, and indicators, and describes their function within the Tank assembly.

DESCRIPTION AND USE OF MAJOR COMPONENTS

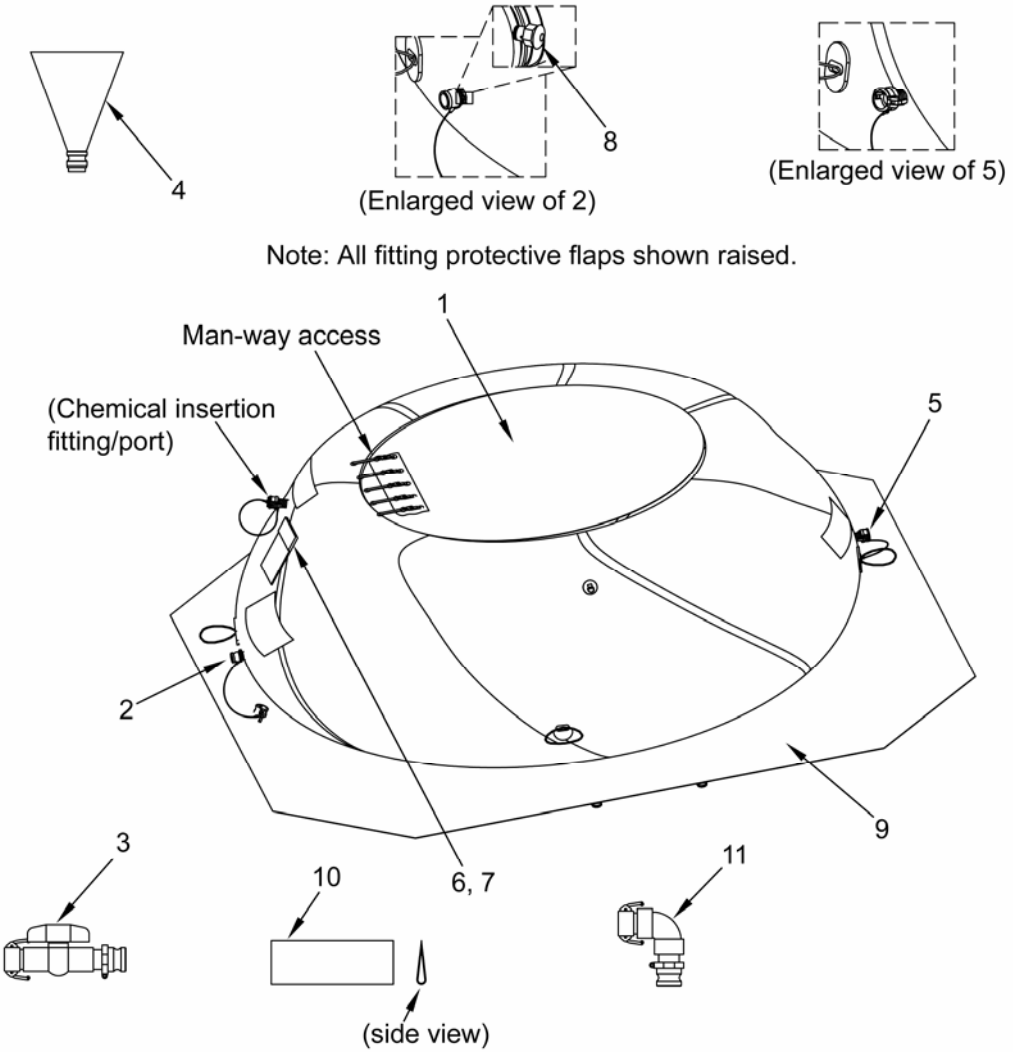
Description and use of major components, including controls and indicators, are contained in Table 1.

Table 1. Major Components, Controls and Indicators.

Key	Component, Control or Indicator	Function
1	Tank Body	Provides the means to store drinking water.
2	Discharge Fitting With Male Cam-Type Coupling	Provides the means to remove water from the tank. Accessed by removing the dust cap which is held in place with two cam-lever arms.
3	Ball Valve	Used with the input/output Cam-Type couplings.
4	Chemical insertion funnel	Provides a means to pour chemicals into the chemical port.
5	Fill/Discharge Fitting With Female Cam-type Coupling	Provides the means to add water (or chemicals) to the tank. This 2" female fitting can also be used to remove water from the tank. Accessed by removing the dust plug which is held in place with two cam-lever arms.
6	Tank Storage Pouch	The tank storage pouch is attached to the outside wall of the tank and is used to store the repair kit and technical manual.
7	Repair Kit	The repair kit contains all items needed to perform emergency repair of cuts and punctures in the tank fabric. Repair kit items are stored in the repair kit bag. Also included with the repair kit is a laminated instruction sheet, detailing fabric repair.
8	Sampling Valve	Provides a means to take samples of water from the tank.

Table 1. Major Components, Controls and Indicators. (Cont.)

Key	Component, Control or Indicator	Function
9	Valise	Used as a carrying case for tank, ball valves, funnel, elbow and repair kit. The valise is also used as a ground cloth.
10	Ball valve carrying case	Provides a means to transport the two ball valves.
11	Elbow	Used with the input/output Cam-Type couplings.



END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

OPERATION UNDER USUAL CONDITIONS

SITTING REQUIREMENTS

WARNING

Serious injury to personnel or damage to tank may occur if tank is placed over drop offs greater than 4 inches (0.1 meter).

WARNING

Do not deploy the tank system on a slope greater than 10%. Personnel injury or equipment damage may occur.

WARNING

Do not locate tank system near electrical equipment, power generation or power distribution equipment. Electrical shock, death or equipment damage may result (if the tank ruptures).

Select an area to erect the tank. Ensure the area will be large enough for the tank and supply lines that will be installed (see Table 1). The area should be clear of trees, rocks and debris. Choose a relatively flat area, the ground should not vary by more than a 10% slope. A trench should be dug around the perimeter of the tank about 2 feet away from the edge of the Valise. A drainage ditch should also be dug for water to exit the perimeter trench.

Table 1. Area Setup Requirements.

	Length	Width	Height
Required space:	19 ft	19 ft	6 ft

ASSEMBLY AND PREPARATION FOR USE

Unpacking the Equipment

WARNING

The packaged tank is heavy. Four personnel are required to lift the packaged valise tank. Always lift with your legs not your back. Failure to observe this warning may result in back injury.

1. Position the packaged tank on an approved site.

CAUTION

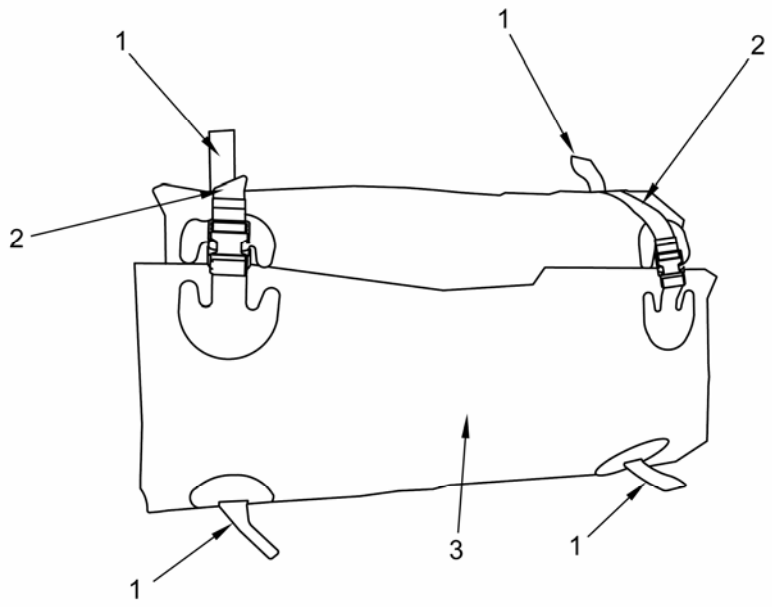
Use care when unpacking the tank. Tank can be easily damaged by tools or other sharp objects.

2. Carefully open shipping container and remove tank. If a tank is being replaced, package the unserviceable tank in the empty container in the same manner that the new tank was packaged.
3. Set tank on the ground, with the four carrying handles up (1).
4. Remove the two straps from the ladder locks to release the bundle (2).
5. Remove all debris and material from installation area that could damage the tank or the valise (3).

CAUTION

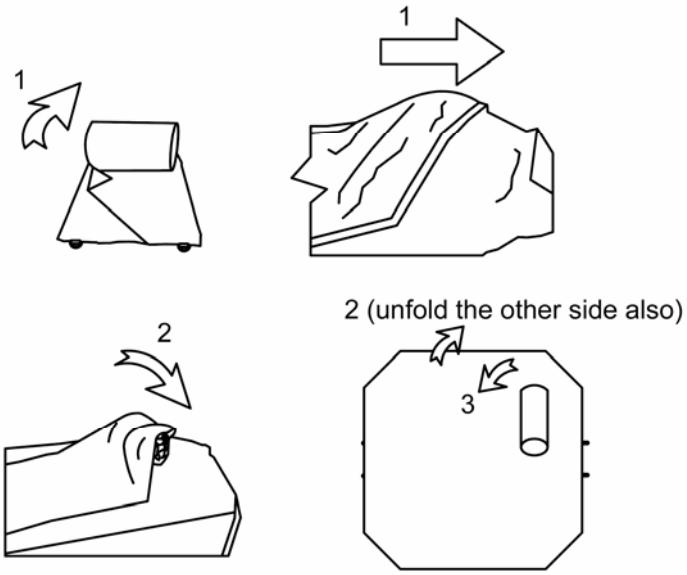
Do not walk on outside or inside of tank, as damage and/or contamination may occur.

6. The Tank will be installed in the center of the Valise (3), make sure the Valise is in the center of the installation area.



Unfolding

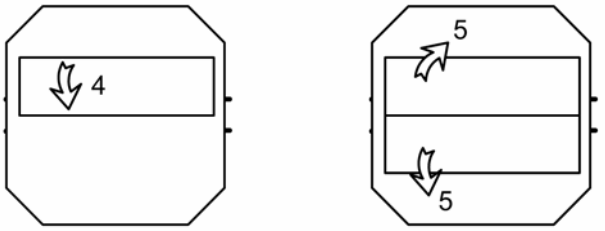
1. Unroll the tank (1).



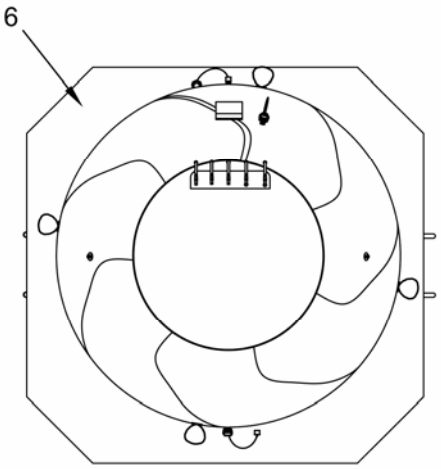
2. Unfold the Valise sides (2).

3. (Once you have unfolded the Valise) The Tank will be rolled-up on one side of the Valise, unroll the tank (3). You may have to rotate the rolled-up tank 180^{o}, so that it unrolls **over** the valise.

4. Place the ball valve carrying case beside the valise perimeter.
5. The Tank will be folded over itself, grab the top half and unfold it (4).



6. The Tank can now be completely unfolded, starting from the center, grab the Tank sides and unfold the sections towards the outside (away from Tank center line) (5). The Tank should now be flat over the Valise.
7. In the installation area, fully spread out the tank, top end up, on the pre-positioned Valise (6).
8. The exact position of the Tank on the Valise isn't important; just make sure it is centered on the Valise.
9. Perform the "before" preventive maintenance checks and services (PMCS) in WP 0008.



OPERATING PROCEDURES

Filling the Tank

WARNING

Do not fill if the tank has trapped air. Filling the tank with water if air is trapped in the tank could cause tank rupture. Personal injury may result from shrapnel.

WARNING

Use caution to ensure fingers are not caught or pinched in the valve's camlock lever. Personal injury to fingers may occur.

CAUTION

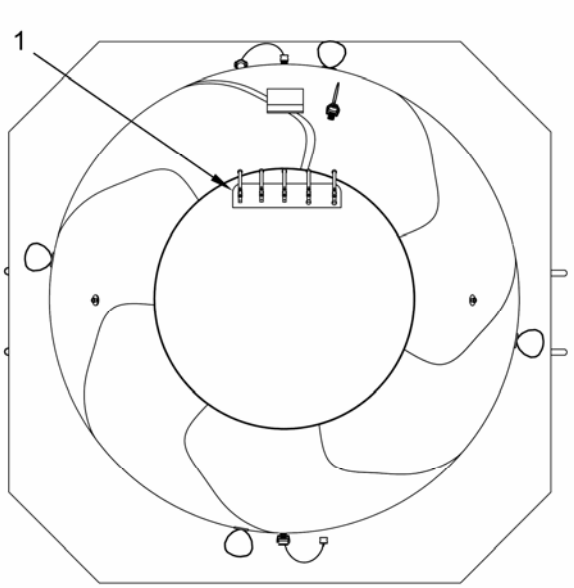
Do not overfill the tank. Damage to the tank will occur if overfilled. If metering gauge is not available, tank is full when tank height reaches specified marks (on tank).

NOTE

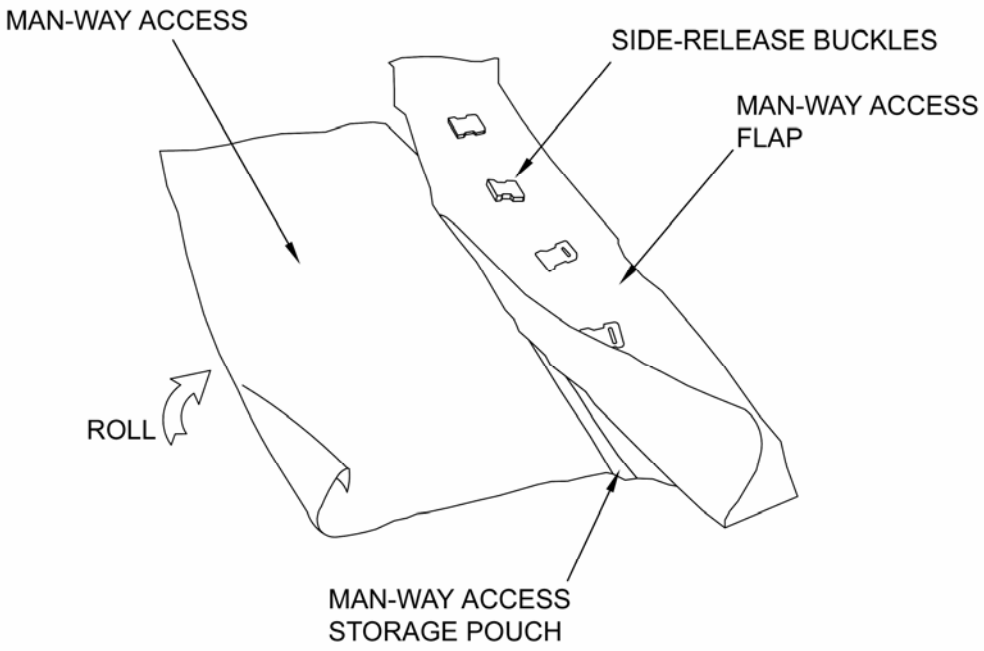
There are two Fill/Discharge fittings located 180^{o} from each other (opposite ends of the tank), which provide a 2-inch cam-type coupling. One fitting provides a female connection; the other fitting provides a male connection.

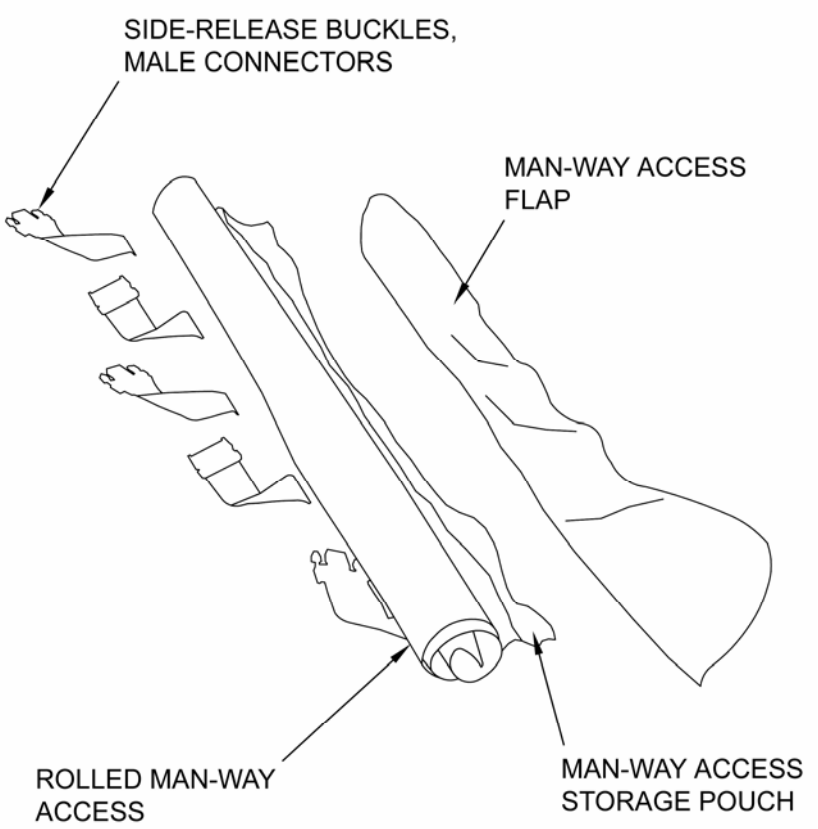
NOTE

When the tank is filled to capacity, the top of the tank will not be taught.

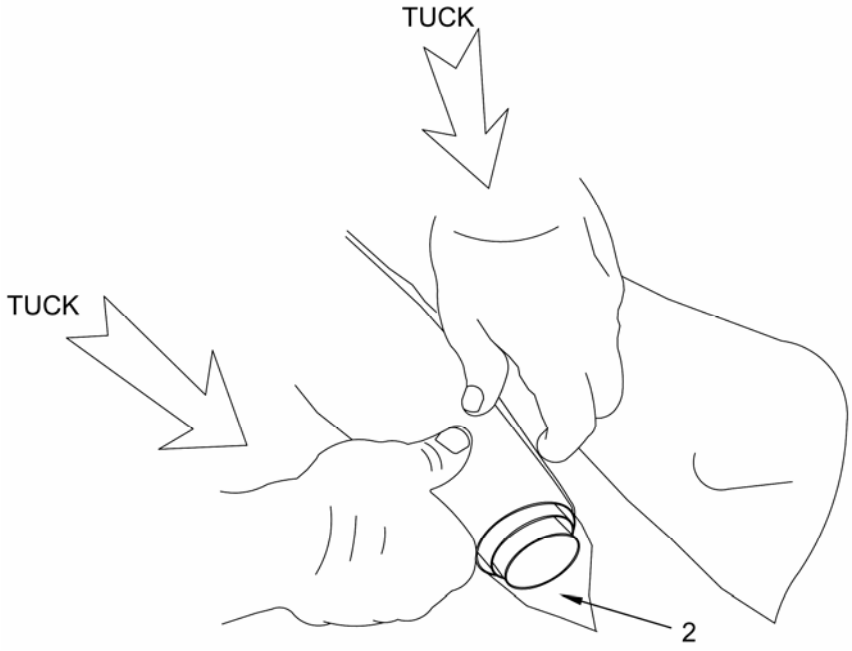


1. Ensure man-way access (1) is rolled-up and the side release buckles (that secure it) are secured.

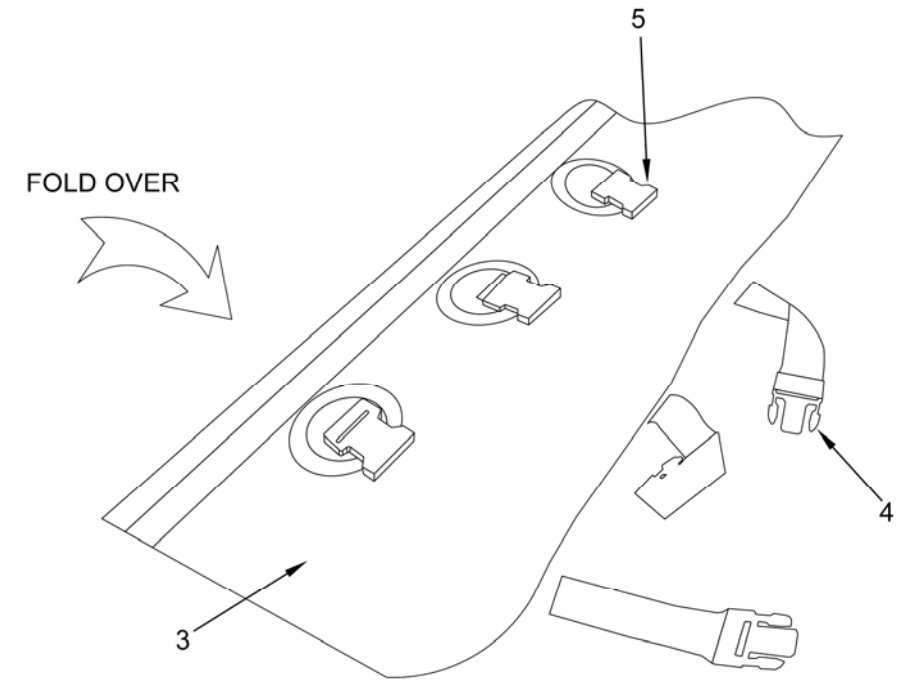




2. Tuck the man-way access inside the man-way access storage pouch (2). The fit is tight, so pull in the middle of the rolled-up section outwards, while you tuck the ends inside the pouch.



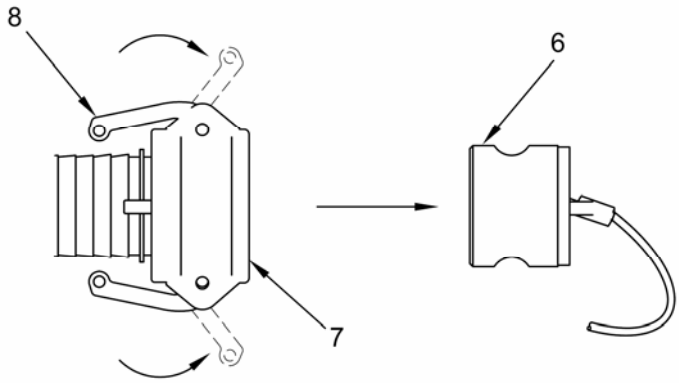
3. After you have tucked the man-way access into the storage pouch, fold the man-way access flap (3) over to cover the pouch.



4. Connect the male side-release buckle connectors (4) to the corresponding female connectors (5). Do not twist the webbing when you connect the two connectors.

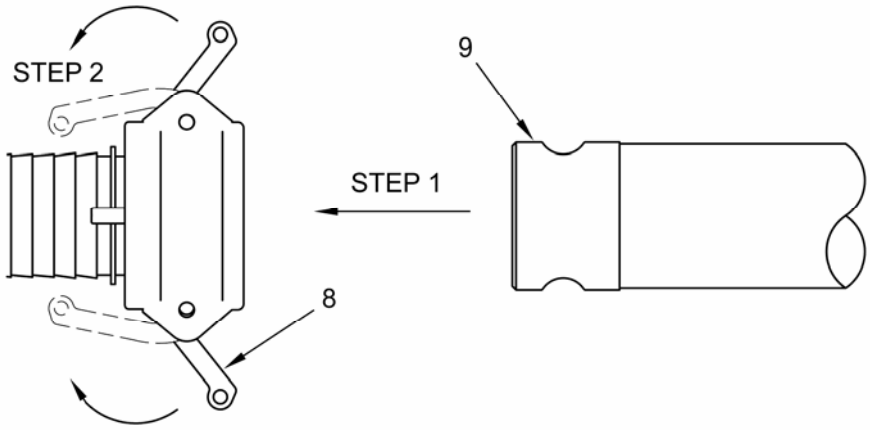
5. All of the cam-type fitting are protected by flaps; remove the straps that secure these flaps over the fittings. This may be done by undoing the straps from the ladder locks. The straps are attached to the flaps.

6. Remove the dust plug (6) from the female cam-lock coupling (7) that is located towards the bottom of the tank by pulling the cam-lever arms (8) out.

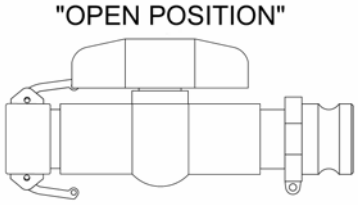


7. Locate the ball valves in the ball valve case. (The case looks like a pouch and is 40 inches long).

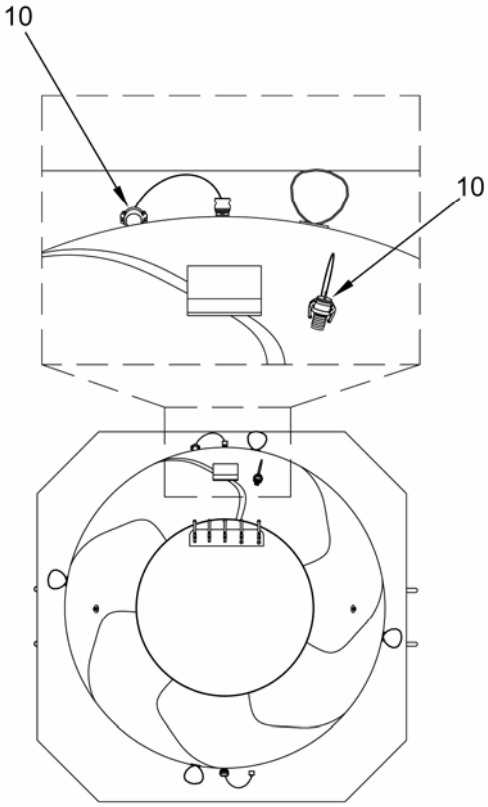
8. Connect ball valve (9) (or fill line) to the fitting; secure by pushing cam-lever arms (8) towards the fitting (7).



9. Open ball valve. The ball valve is in the “open” position when the handle is aligned with the valve body.



10. Check the other two fittings (10) to make sure the plugs and/or caps are securely installed; insert them into the fittings if they are not and secure them to the fittings using the cam-lever arms if needed.



11. Connect fill line to ball valve and start flow of water. A maximum of 3,000 gallons may be put into the tank.

12. Turn off flow of water when tank is full.

13. Close ball valve.

14. You may disconnect the supply line from the ball valve now (if you choose).

Perform the “During” preventive maintenance checks and services (PMCS) in WP 0008 while operating the Tank.

WARNING

Use caution when walking near the tank system. Valves and hoses can cause tripping.

WARNING

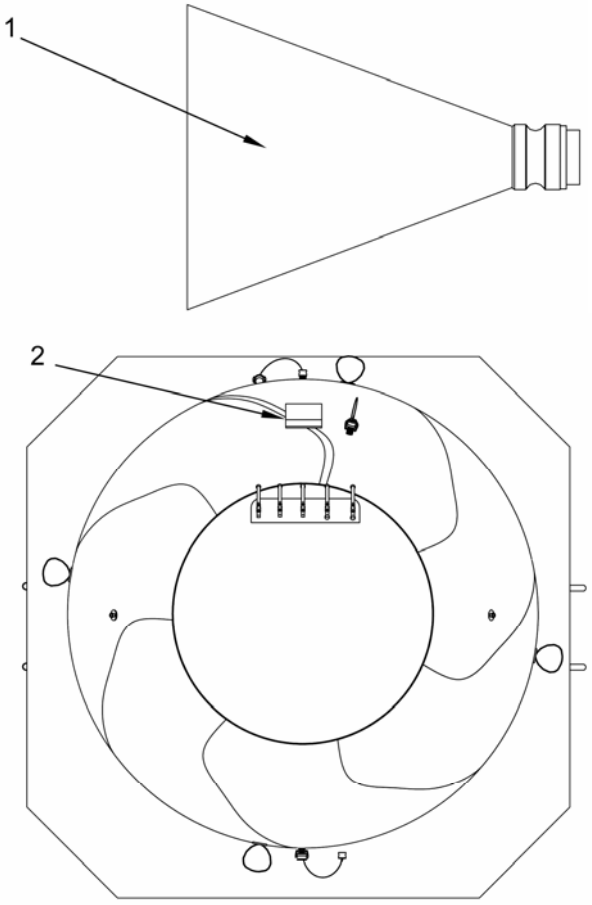
Do not swim or bathe in filled tank. Personnel should not enter tank unless it is empty and only to clean when required. Personnel injury, suffocation or equipment damage may occur.

Chemical Insertion

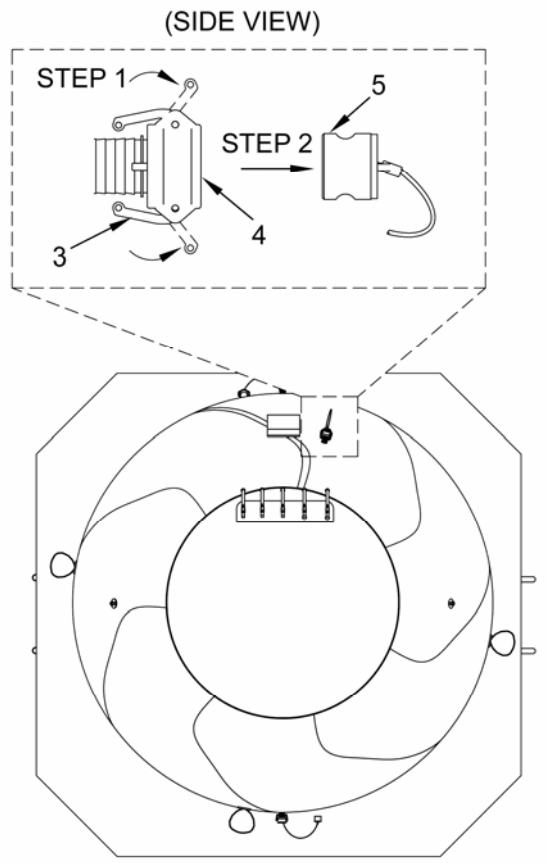
The addition of chemicals should always occur through the chemical introduction port because it resides near the top of the tank. This allows the added chemical to gravity disperse through the tank. Chemical mixing should be accomplished by "closed loop" cycling the contents of the tank for a period of 5 minutes. In the event that a pump or ROWPU (Reverse Osmosis Water Purification Unit) system is not available to enable pumping, an alternate method of mixing the tank contents can be achieved by hand displacing the tank walls for a period of one minute.

This will cause the contents of the tank to mix; however, the preferred method is always to cycle the contents with a positive displacement pump.

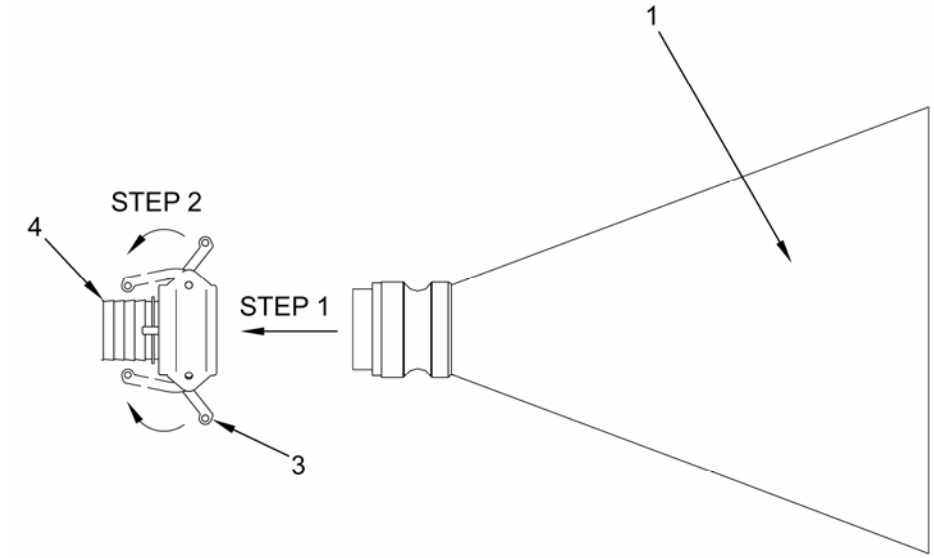
1. Locate a chemical insertion funnel (1) in the tank storage pouch (2).



2. Remove dust plug from chemical insertion port by pulling the cam-lever arms (3) away from the chemical insertion port fitting (4) and pull the dust plug (5) out.



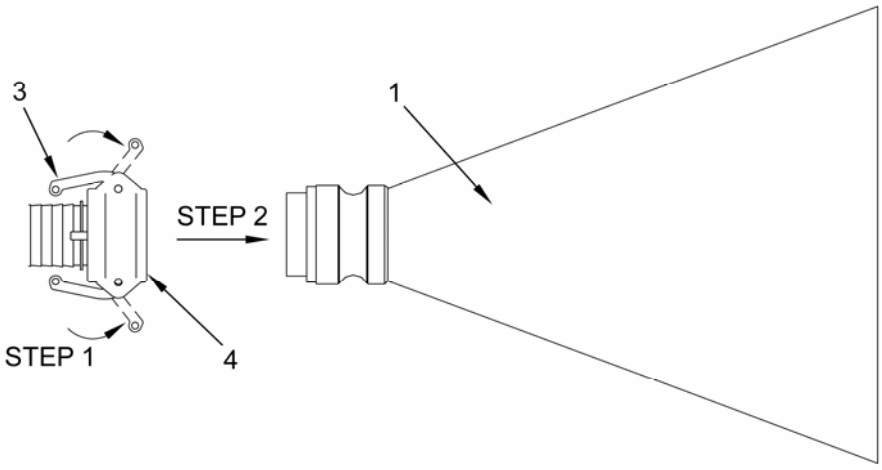
3. Insert funnel (1) into chemical insertion port fitting (4).



4. Pull the cam-lever arms (3) toward the fitting body (4) to secure the funnel (1) to the fitting.

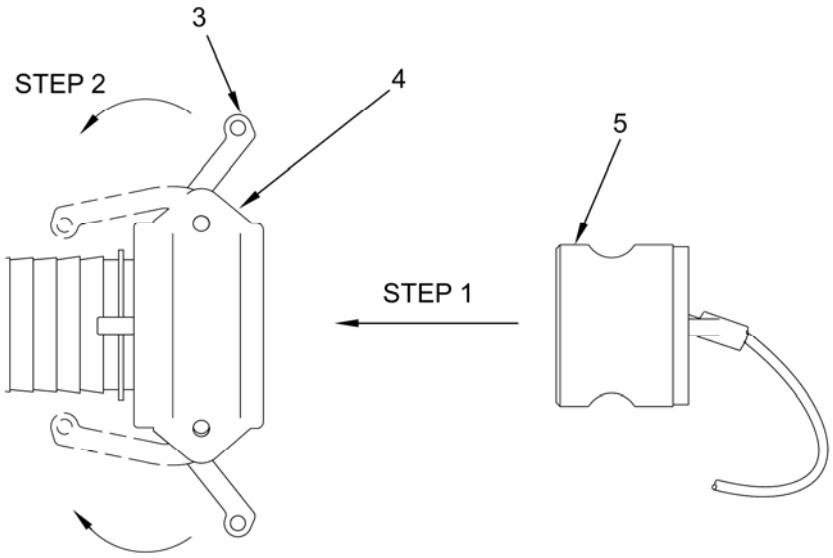
5. Chemicals may now be added to the water tank.

6. To remove the chemical insertion funnel (1), pull the cam-lever arms (3) away from the chemical insertion port fitting (4) and pull the funnel (1) out of the chemical insertion port (4).



7. Dry the funnel and then return to the tank storage pouch.

8. Re-install the chemical insertion dust plug (5) by inserting the plug (5) into the fitting and push the cam-lever arms (3) against the fitting (4) body.



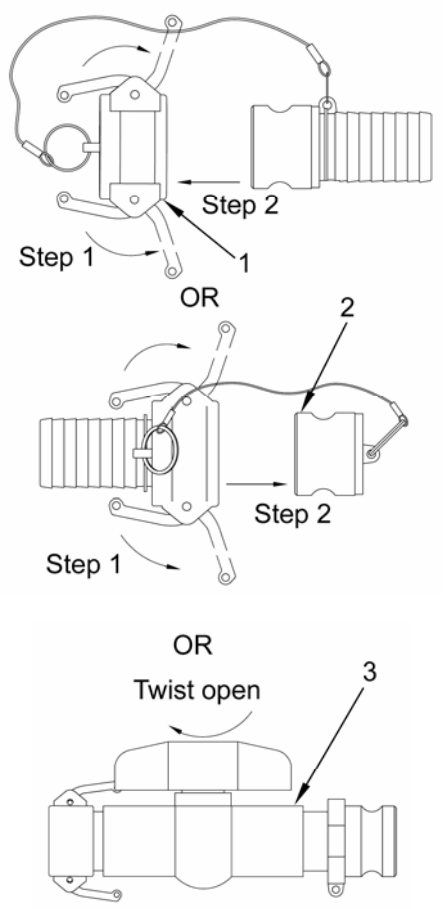
PREPARATION FOR MOVEMENT

Draining and Drying

WARNING

Do not lift or move the tank with the lift handles if there is any standing water remaining in the bottom of the tank. Personal injury or damage to the handles and/or tank fabric may occur**.**

1. Drain all water from the tank. This may be accomplished by removing the dust cap (1) or dust plug (2) or opening the ball valve (3) if one is installed.



2. Disconnect fill/discharge lines (or ball valve(s)) from tank fittings. Return the ball valves to their carrying case.

3. Ensure all water has been drained from tank.

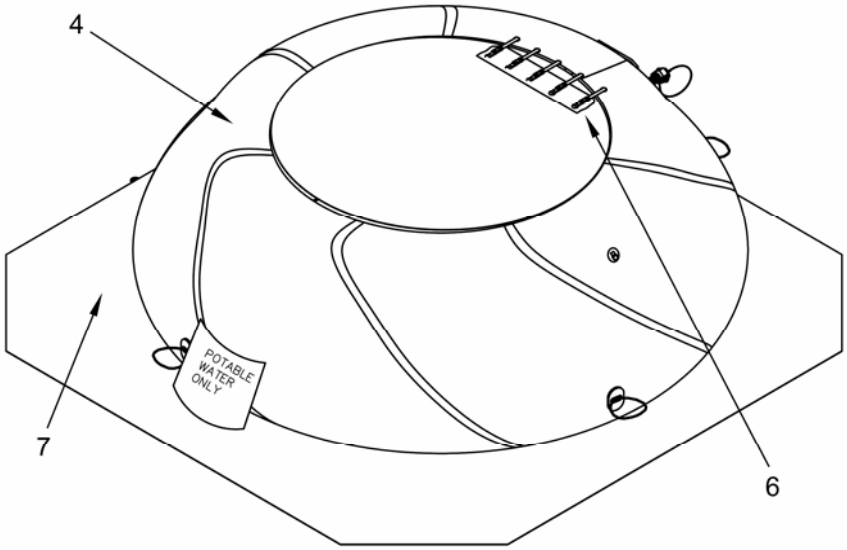
4. To remove any **small** amounts of remaining water, you may lift the sides of the tank with the carrying handles located along the bottom of the tank. Use the handles located **away** from the input/output fittings.

WARNING

Use only approved cleaning chemicals. Personnel injury and equipment damage may occur.

5. Clean the outside of the tank (4) with a mild detergent (Item 1, WP 0022) and water solution. Rinse thoroughly with clean water.

6. Allow the outside of the tank (4) to dry thoroughly.



7. If needed, open the man-way access (6) and clean the inside of the tank with a mild detergent (Item 1, WP 0022) and water solution.

8. Invert the tank and hang from the outside bottom center handle.

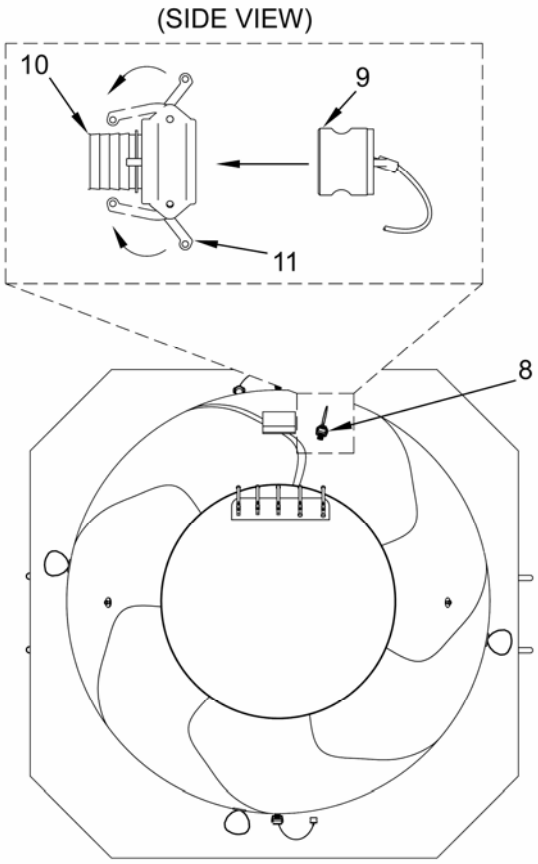
9. Rinse thoroughly with clean water.

10. Keep the tank suspended until thoroughly dry.

11. Shake out the Valise (7) to remove loose dirt and debris. If needed, spot clean Valise with a mild detergent (Item 1, WP 0022) and water solution, and rinse with clean water. Allow Valise to dry thoroughly.

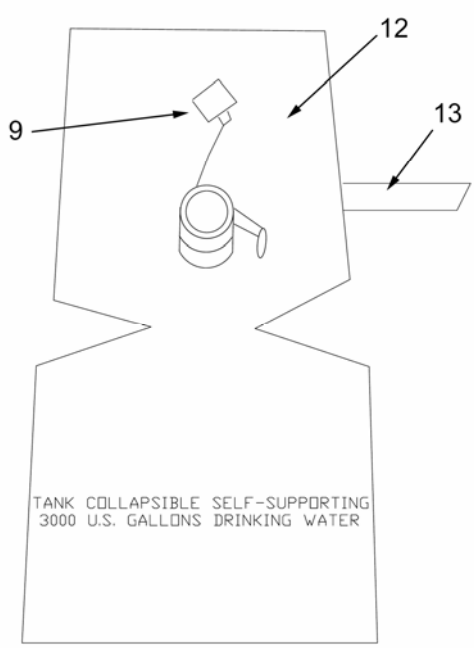
12. Take down the tank. Position the tank over the valise with the top side up.

13. If the chemical insertion port (8) plug (9) is not installed in the fitting (10), insert it now and pull the cam-lever arms (11) towards the fitting body (10).

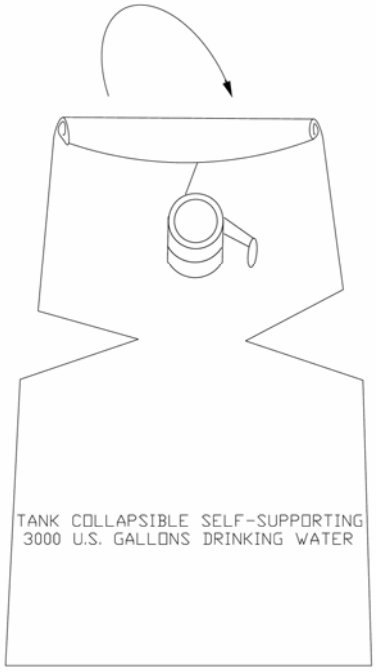


14. Locate the chemical insertion port protective flap (12) attached to the base of the insertion port.

15. Place the insertion port plug (9) on the protective flap (12).

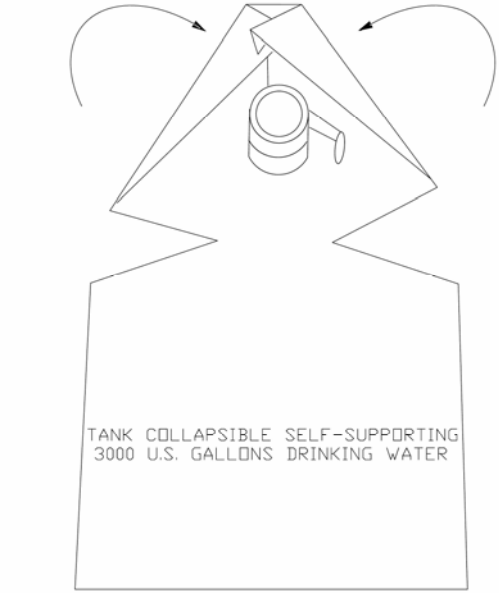


16. Roll the end of the protective flap (12) over insertion port plug (9).

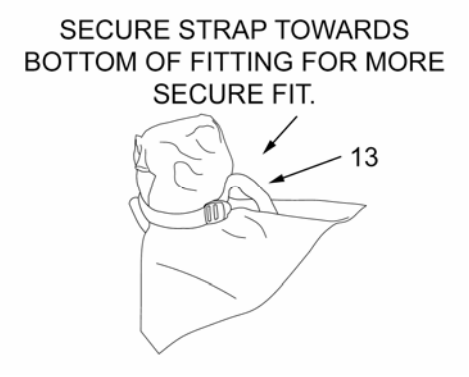


17. Fold one corner of the rolled end of the protective flap over to plug area.

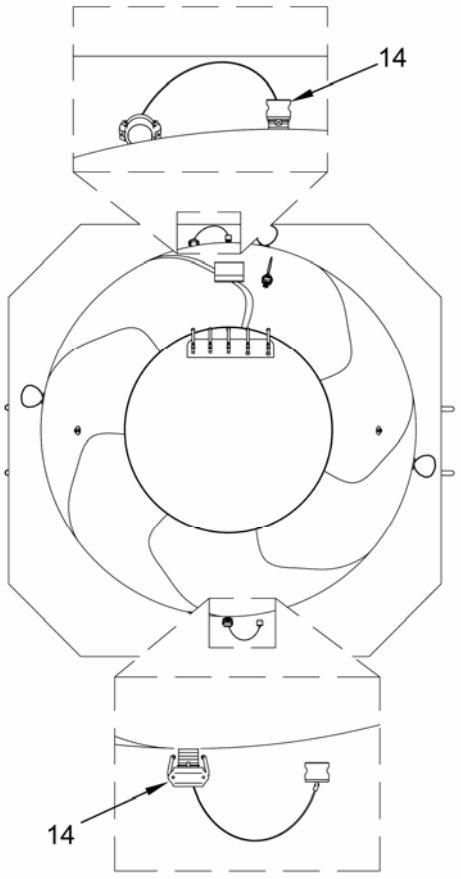
18. Fold the other corner of the rolled end.



19. Fold the protective flap with plug over the insertion port and secure with the strap (13) towards the bottom of the fitting for a more secure fit.

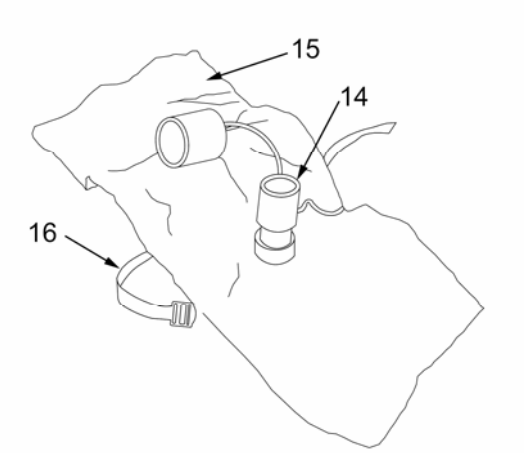


20. Locate the fill and discharge fittings (14).

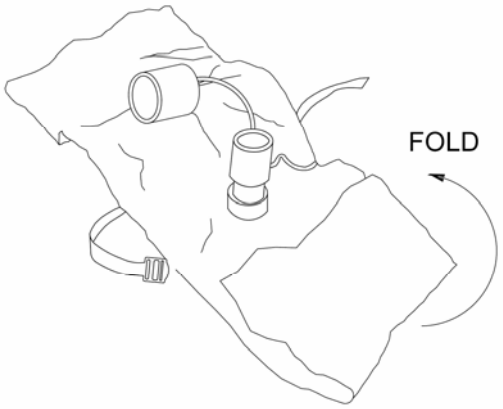


21. If the dust plugs and or caps are installed, remove them from the fittings by raising the cam-lever arms away from the fittings and remove the dust plugs and or caps.

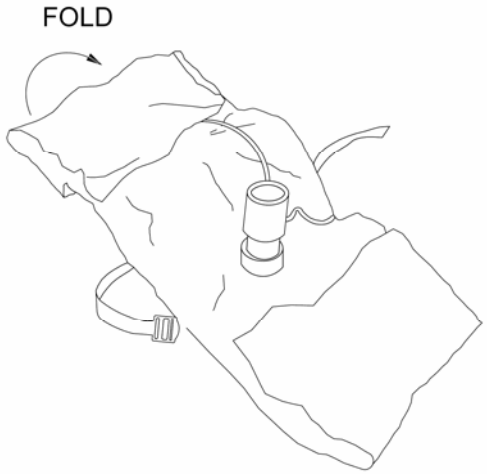
22. Starting at on one side, lay the fitting protective flaps (15) flat and locate the fitting straps (16) attached to the back side of the flap.



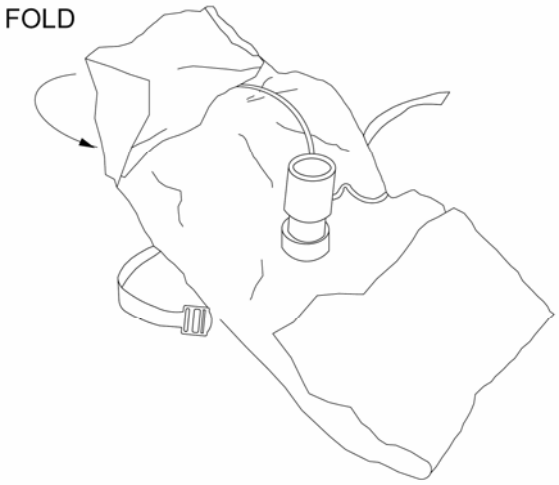
23. Place the dust plug (or cap) on the flap that is facing away from the tank.
24. Fold the opposite flap in half.



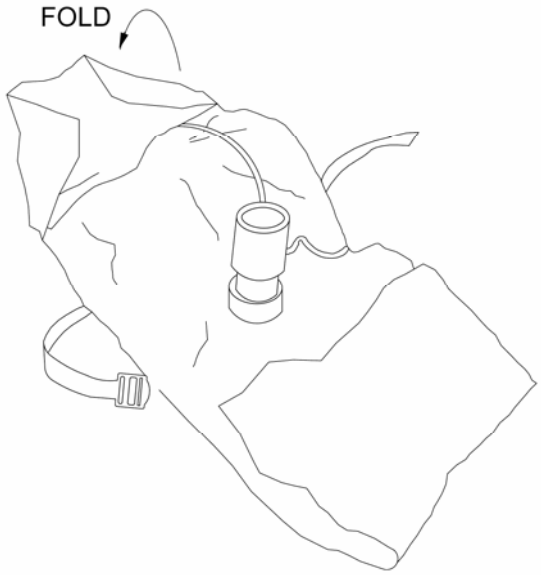
25. Fold the flap in half over the dust plug (or cap).



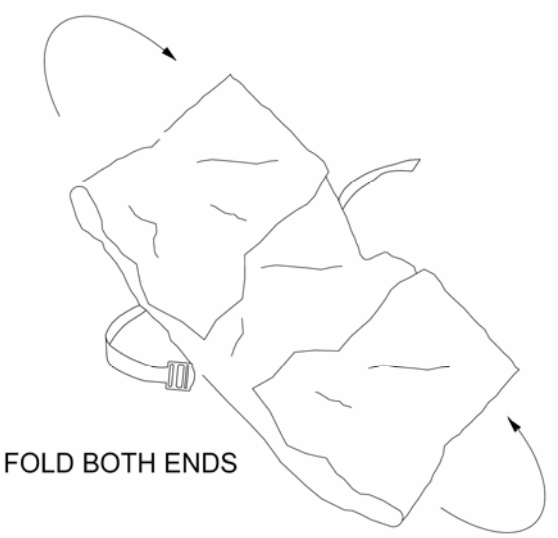
26. Fold one corner of the flap with the dust plug (or cap) over the plug (or cap) area.



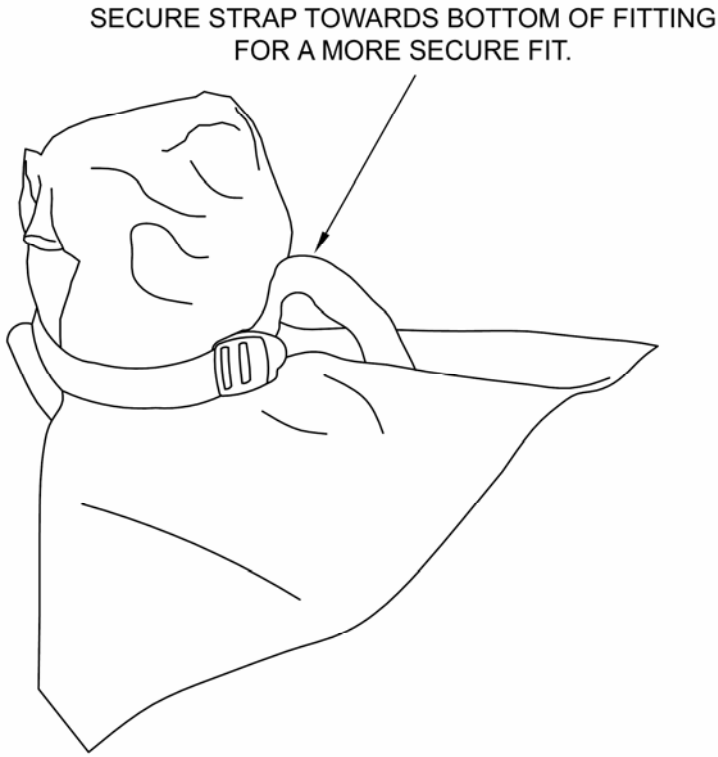
27. Fold the other corner over then fold the folded flap with the plug (or cap) over the fitting.



28. Fold the flap over the fitting. Fold opposite side over.



29. Secure with the attached strap (16). Secure the strap towards the bottom of the fitting for more a secure fit.



30. Follow the above procedures for the other fitting.

Folding

CAUTION

Make sure the tank is completely dry before folding. Water will create mildew, decreasing the life of the tank if it is not completely dry.

NOTE

Use two-man teams.

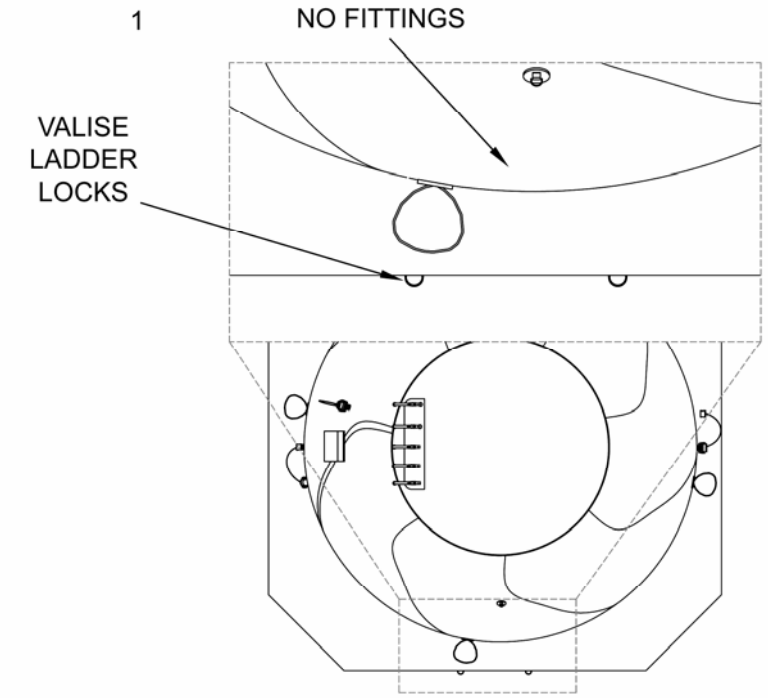
NOTE

Ensure fill/discharge fittings are positioned at the ends of the tank.

NOTE

Throughout the folding process, be sure to brush off any stones, grass, or other debris that may accumulate on the tank or the valise.

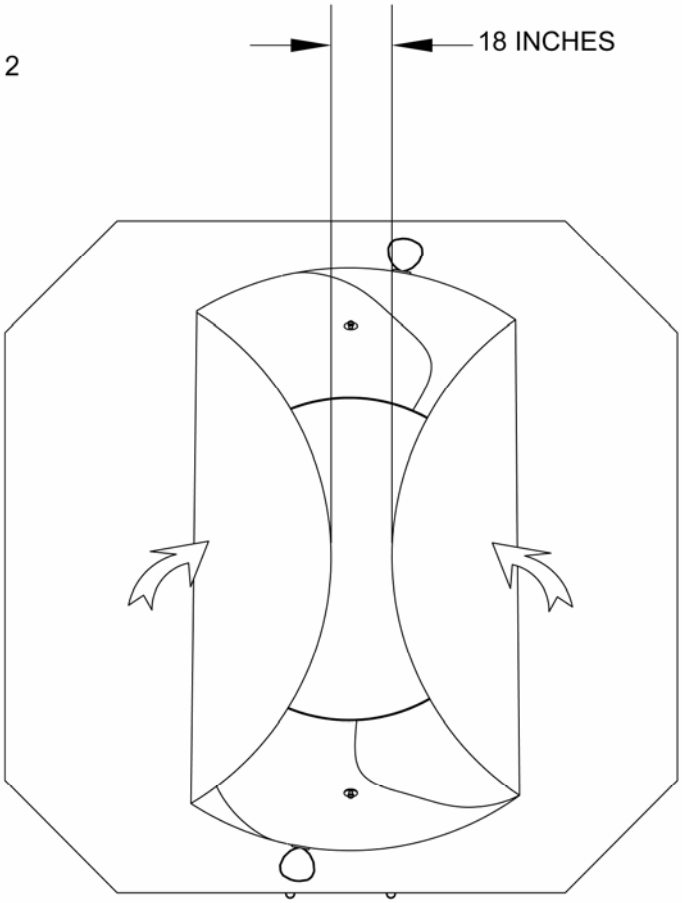
1. Ensure that all elements of the tank are inspected as specified in the “after” Preventive Maintenance Checks and Services (PMCS), WP 0008.
2. Make sure the Tank is laid out flat on the valise, with the tank top up (1). **The inlet/outlet fittings need to be on the sides that DO NOT have the ladder locks (1)**.



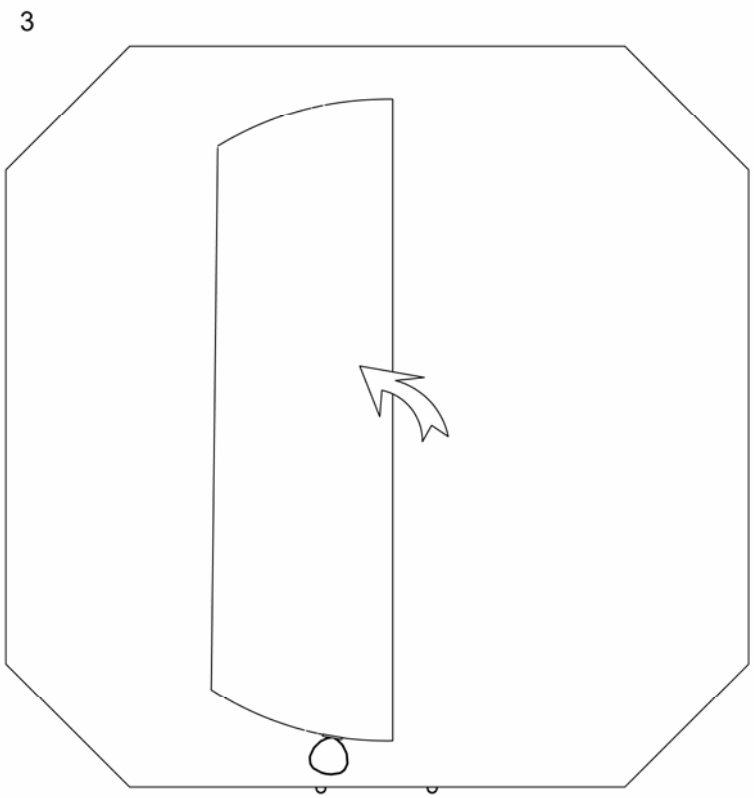
3. **Disconnect the side-release buckles that secure the man way and unroll the man way access**, this will allow air to escape the tank as you roll it.

4. Ensure man way access is laid flat along with its flap.

5. Using two-man teams (one on each side of tank), fold the sides of the tank towards the center of the tank (2), but leave 18 inches between the folded sections.



6. Fold the tank in half (3).

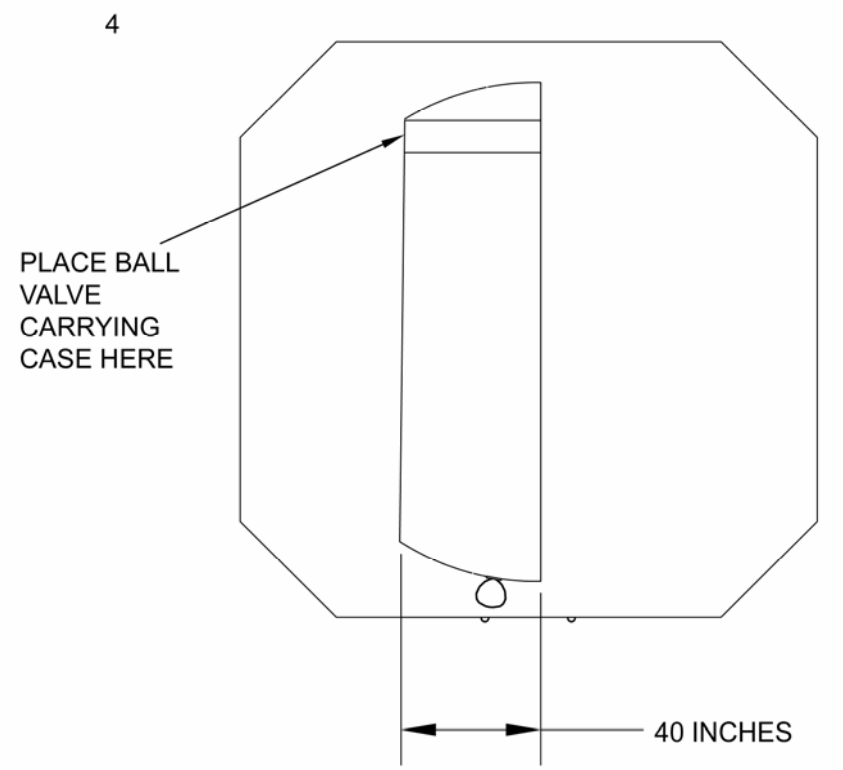


NOTE

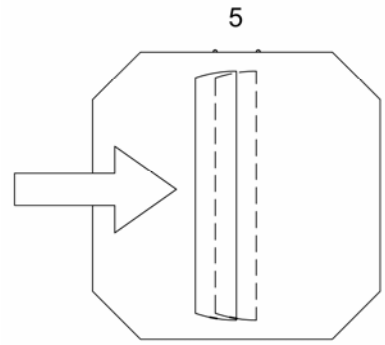
It is important, to try to get as much air out of the tank before you roll it. Any residual air in the tank will make it harder to roll.

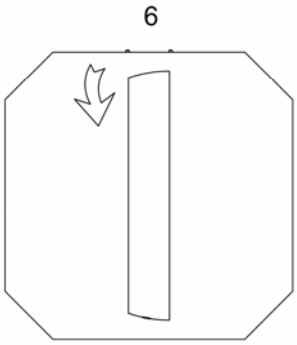
7. Tramp tank body to get air out.

8. The entire width of the folded tank should be 40 inches (4). If the width is more than 40 inches, unfold the Tank and refold it until it is. You can use the ball valve carrying case as a guide (it is 40 inches long).



9. You may need to slide the Tank over if it is not in the center of the valise (5).





10. Tramp the tank again to get as much air out.

11. Ensure both ball valves are in the ball valve case and that they are in the “open” position.

12. Make sure the ball valve carrying case is on top of the tank, at the end of the tank by the valise ladder locks.

NOTE

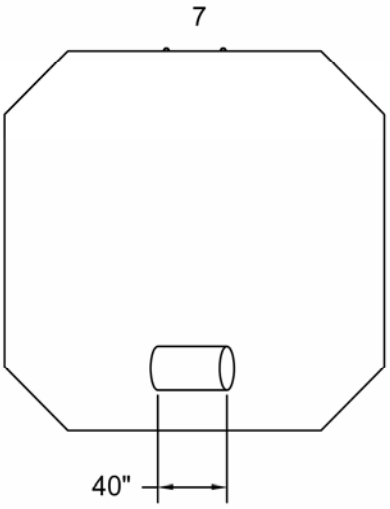
Ensure the valise ladder locks are positioned “up” and not positioned under the valise.

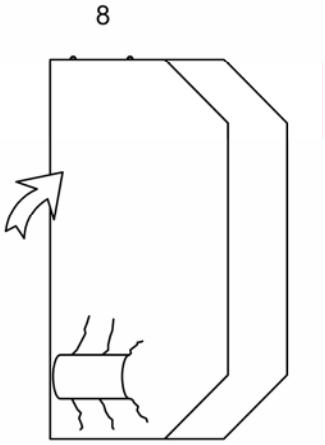
13. Starting at the end of the Tank **by the valise ladder locks**, roll the tank fabric tightly towards the other end (6). Leave a little room between the rolled-up tank and the edge of the valise (about 2-3 feet).

14. Rotate the tank 180°.

15. Check to make sure (again) that the rolled-up Tank fabric is 40 inches wide in width (7) **AND** centered on the valise.

16. Fold the valise over the rolled-up Tank, so that the folded edge of the valise aligns with the edge of the rolled-up Tank (8).

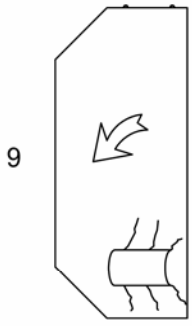


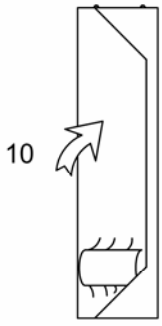


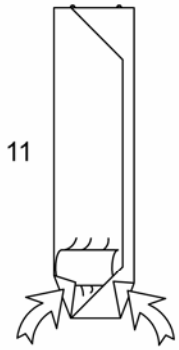
17. Fold the other side over the first (9).

18. Fold the fabric that overlaps the first fold so the edges line up (10).

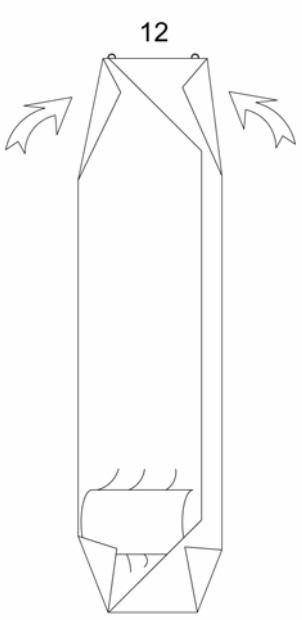
19. For the fabric nearest the rolled-up tank, fold the corners inward (11).





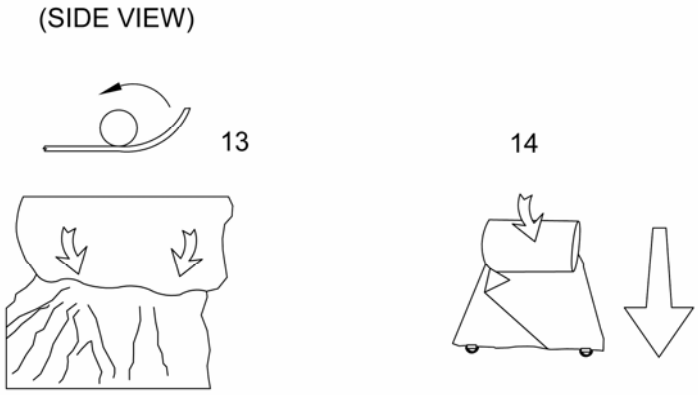


20. To ease rolling of the tank, fold the corners of the valise (12), but make sure the valise ladder locks are still facing down.

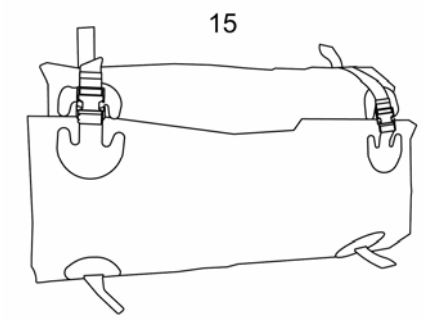


21. Start rolling the tank and valise wrap towards the ladder locks end, as you roll, tuck the valise fabric in tight (13) while keeping the wrap tight and straight.

22. Continue to roll the tank and valise fabric towards the end with the ladder locks (14).



23. When the tank and valise have been rolled completely, secure the straps with the ladder locks and dress the rolled assembly for a neat finished look (15).



The Tank assembly is now ready for shipment; the shipping container should have the following contents stored in it:

1 Tank
1 Valise
1 Funnel
2 Ball Valves
1 Ball valve carrying case
1 Elbow
1 Repair Kit
1 Technical manual

Storage of the tank should be short, if not maintained. Items should be mission readied for deployment within 24 hours. While in storage, maintenance records should be kept.

Before placing the tank in long term storage, all problems should be fixed. All Modification Work Orders (MWO's) should be incorporated.

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

OPERATION UNDER UNUSUAL CONDITIONS

OPERATION IN EXTREME HEAT

1. Ensure that the man way is rolled-up and the side-release buckles are secured, to decrease water evaporation from the tank.

2. If possible, set up protective shade over the tank.

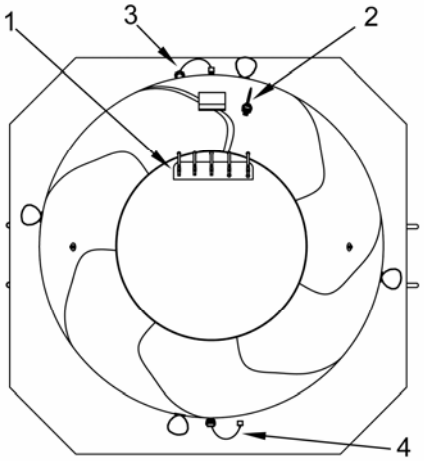
OPERATION IN EXTREME COLD

CAUTION

The tank is not designed to be used in temperatures below freezing [32°F (0°C)], caution must be used to prevent water in the tank or in contact with the fluid discharge fittings from freezing. If water freezes, damage may occur to the tank and/or fittings.

Do not allow ice to accumulate on the tank.

OPERATION IN SALT WATER AREAS



1. Keep man way and (1) chemical insertion ports (2) closed to keep salt water from contaminating drinking water.

2. Clean fill and discharge fittings (3 and 4) with clean water prior to filling or drawing water from the tank.

OPERATION IN SANDY OR DUSTY AREAS

1. Keep chemical insertion port closed to prevent sand or dust from contaminating drinking water. Keep man way opening closed.
2. Ensure that fill and discharge fittings (3 and 4) are free of sand or dirt prior to filling or drawing water from the tank.

OPERATION AT HIGH ALTITUDES

No special procedures are required for operation at high altitudes.

OPERATION IN SNOW AND ICE

1. Keep man way rolled-up and side-release buckles secured to prevent snow from contaminating water supply.
2. Sweep snow from exterior of tank with a soft-bristled broom or brush.
3. Do not allow ice to accumulate on the tank or the fluid discharge fittings (3 and 4).
4. Cover fittings to keep ice from forming on fluid discharge fittings (3 and 4).

OPERATION IN MUD

Ensure that fluid discharge fittings (3 and 4) are clean before filling or drawing water from the tank.

OPERATION IN HIGH WINDS

Keep tank as full of drinking water as possible.

NOTE

You may use the D-rings (on the tank) to tie down the tank during windy conditions.

OPERATION IN RAIN

1. Keep man way opening closed to prevent rain from contaminating water supply.
2. If possible, provide adequate drainage ditches to prevent standing water around tank.

EMERGENCY PROCEDURES

General

Emergency repair is performed when cuts or punctures occur in the tank when it is in use. The Emergency Repair Kit is stored in the repair pouch on the outside wall of the tank.

Emergency Repairs with Wood Plugs

In emergencies, as an immediate temporary measure, the wood plugs may be used for sealing small holes or punctures.

The size of hole or tear will determine the size of wood plug to be used.

1. For holes (tears) up to approximately 0.6 inch in size, use the 3-inch long plug.
2. For holes (tears) up to approximately 1.5 inch in size, use the 4.5-inch long plug.
3. For holes (tears) up to approximately 2.0 inch in size, use the 5.25-inch long plug.

Select the size plug needed to fit (seal) the tank puncture, wet and insert in the hole. Twist plug clockwise (to the right) until the leak is either stopped or slowed. Follow-up regular inspection should be made of the wood plugs, as possible tightening may be necessary if the leaks resume. Later, if a leak is not totally stopped, the use of a small sealing clamp may become necessary.

Emergency Repairs with Sealing Clamps

Small slits, tears, or cuts [not to exceed 6 inches (15.24 cm) in length] may be repaired with sealing clamps. The size of the damaged area (opening) needing repair will govern the size of the clamp needed. Select clamp size as follows:

1. For holes (tears) less than 2-1/4 inches in length, use the 2-1/4 inch clamp.
2. For holes (tears) 2 to 4 inches in length, use the 4-inch clamp.
3. For holes (tears) 4 to 6 inches in length, use the 6-inch clamp.

NOTE

It may be necessary to increase the size of the tears in order to be able to insert the bottom plate of the clamp.

4. Loop cord around wrist (1) to prevent loss of clamp into tank.

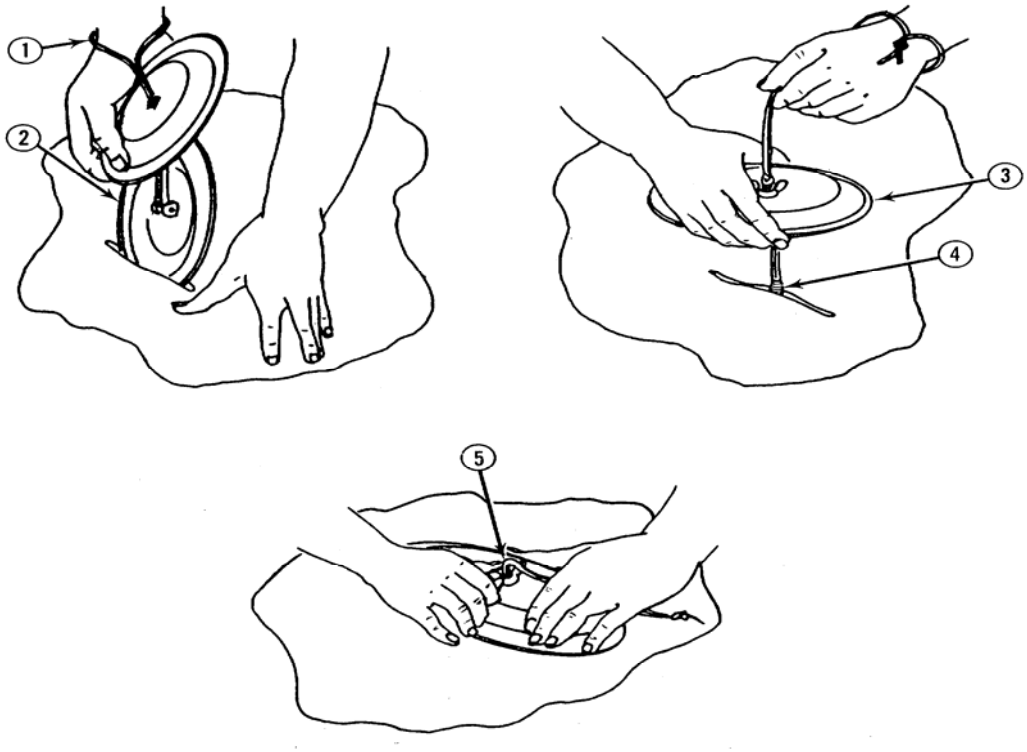
5. Slip the bottom plate of the clamp (2) through the hole or tear and rotate it until it is centered and its length runs with the tear.

6. Pull bottom plate up against fabric, and slide top plate and wing nut (3) down cord and onto threaded stud (4) of bottom plate.

CAUTION

Do not over tighten, as stud threads may be stripped, or damage to tank fabric may occur.

7. With plates aligned, tighten wing nut (5) to clamp the tank wall between the two plates. Tighten enough to stop leak.



INTERIM NUCLEAR, BIOLOGICAL, AND CHEMICAL (NBC) DECONTAMINATION PROCEDURES

NOTE

Detailed decontamination procedures can be found in: FM 3-3, FM 3-4 and FM 3-5.

General

The following emergency procedures can be performed until field NBC decontamination facilities are available.

Emergency Procedures

If NBC attack is known or suspected, mask at once and continue mission. Do not unmask until told to do so.

1. **Nuclear decontamination** - Brush fallout from skin, clothing, and equipment with available brushes, rags, and tree branches. Wash skin and have radiation check made as soon as tactical situation permits.
2. **Biological decontamination** - Remain masked and continue mission until told to unmask.
3. **Chemical detection and decontamination:**

WARNING

Do not use decontamination spray on personnel. It could cause personal injury.

a. Use M8 paper from the M256 chemical agent detector kit or M9 paper to determine if liquid agent is present on the surface of the equipment.

b. If exposure to liquid agent is known or suspected, clean exposed skin, clothing, and personal gear, in that order, using M258A1 kit. Use the buddy system. Wash exposed skin and thoroughly decontaminate as soon as tactical situation permits.

c. If the M8 or M9 paper indicates that liquid chemical agent is present, rinse the exposed portion of the tank with a liberal amount of water. When the tactical situation permits, wash the tank with soapy water and rinse.

d. Decontamination procedures take time. Do as much as you can based on the tactical situation.

END OF WORK PACKAGE

CHAPTER 3

OPERATOR TROUBLESHOOTING
for the
FABRIC, COLLAPSIBLE, DRINKING WATER TANK

OPERATOR AND FIELD MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

TROUBLESHOOTING PROCEDURES

INTRODUCTION TO TROUBLESHOOTING

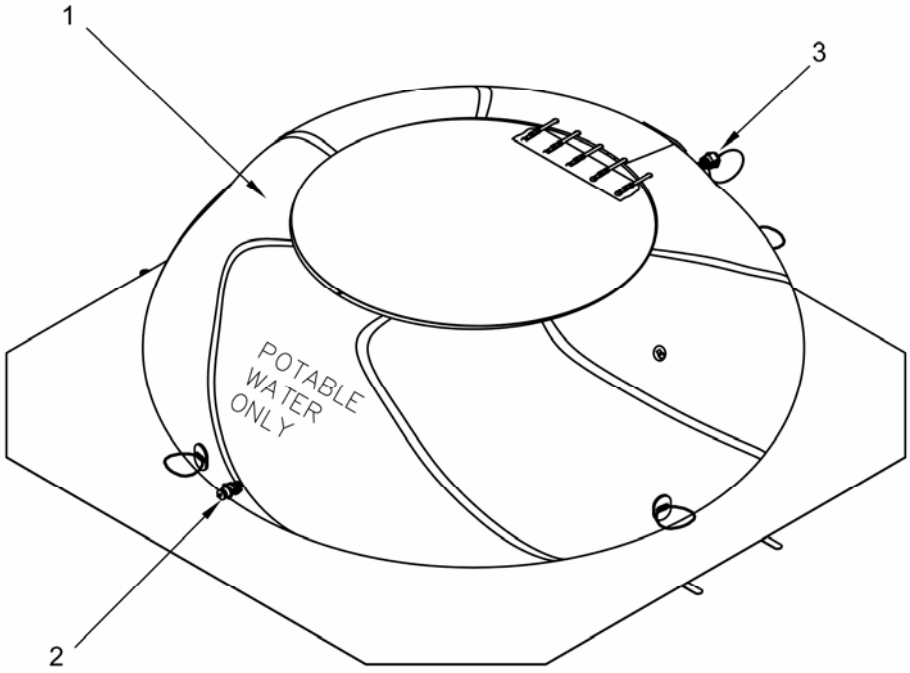
The Troubleshooting Malfunctions list the common malfunctions which you may find during the operation or maintenance of the tank. Perform the tests/inspections and corrective actions in the order listed in the table.

This manual cannot list all malfunctions that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed or is not corrected by listed corrective actions, notify your supervisor.

TROUBLESHOOTING PROCEDURE

Table 1. Troubleshooting

SYMPTOM	PROBABLE CAUSE	POSSIBLE REMEDY
TANK		
Tank leaks.	Check tank (1) for cuts or punctures.	Perform emergency repairs (WP 0006 00).
FILL/DISCHARGE FITTINGS		
Fill/discharge fittings leak.	Make sure dust plug/cap is securely installed on fill/discharge fittings (2 and 3) and that cam-lever arms are secured.	Properly install dust plug/cap, if required.



END OF WORK PACKAGE

CHAPTER 4

OPERATOR MAINTENANCE INSTRUCTIONS for the FABRIC, COLLAPSIBLE, DRINKING WATER TANK

OPERATOR MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

PMCS INTRODUCTION

INTRODUCTION

General

Preventive Maintenance Checks and Services (PMCS) are performed to keep the tank in operating condition. The checks are used to find, correct or report problems. Be sure to perform your PMCS each time you service the tank assembly. Using the PMCS table, always do PMCS in the same order, so it gets to be a habit. With practice, you'll quickly spot anything wrong. Pay attention to WARNING and CAUTION statements. A WARNING means someone could be hurt. A CAUTION means equipment could be damaged.

Before you use the tank assembly, do **Before PMCS**.

During use, do **During PMCS**.

After the tank assembly is used, do **After PMCS**.

Do **weekly PMCS** once a week.

If you find something wrong when performing PMCS, fix it if you can, using troubleshooting procedures and/or maintenance procedures.

Use DA Form 2404 (Equipment Inspection and Maintenance Worksheet) to record any faults that you discover before, during, or after operation, unless you can fix them. You DO NOT need to record faults that you fix. For further information on how to use this form, see DA PAM 738-750.

PMCS Procedures

Your Preventive Maintenance Checks and Services, Table 1, lists the inspections and care required to keep the water tank assembly in good operating order.

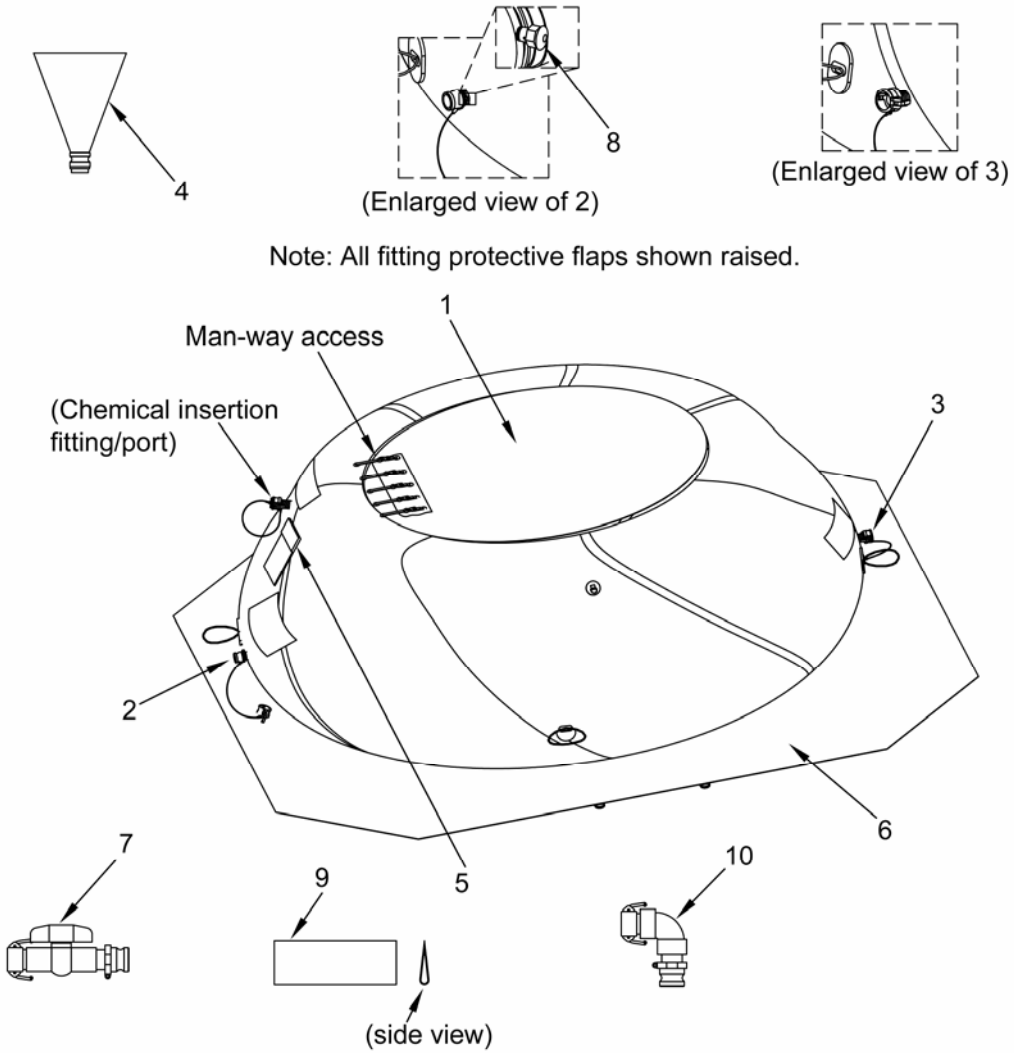
The Interval column of Table 1 tells you when to do a certain check or service.

NOTE

When a check and service procedure is required for both weekly and before intervals, it is not necessary to perform the weekly procedure during the same week in which the before procedure was done.

The Procedure column of Table 1 tells you how to do the required checks and services. Carefully follow these instructions. When the procedure tells you to, notify your supervisor.

"Equipment Not Ready/Available If" column tells you when and why your equipment cannot be used.



NOTE

Within designated interval, these checks are to be performed in the order listed.

Table 1. Preventive Maintenance Checks and Services for Tank

ITEM NO.	INTERVAL	MAN HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before		Installation Area	Inspect the installation area for sticks and other sharp objects that might cause punctures and leaks.	Sharp objects are present.
2	Before		Tank body (1)	Inspect for cuts, punctures and leaks.	Tank body is cut, punctured or leaks.
				Inspect man way for damage or missing side-release buckles.	Man way damaged or missing side-release buckles.
3	Before		Fill/Discharge Fittings (2 & 3)	Inspect for damage or leakage.	Fittings are damaged, leaking or loose.
4	Before		Assy, Filler (4)	Inspect the Filler Assy for any cuts or tears in the fabric section. Inspect the Cam Type connector for damage that would prevent the filler from performing its mission. Make sure the Tank has a Filler Assembly.	The Filler fabric material is torn or leaks. The Cam Type connection is damaged, so that is will not mate with the chemical insertion port. Or the Filler Assy is missing.
5	Before		Repair Kit (5)	Check for missing components (Table 2, WP 0022). Ensure instruction sheet is present.	Emergency repair items are missing.
6	Before		Valise (6)	Inspect spread out Valise for evidence of debris or covered debris that could damage tank. Inspect Valise for through holes that allow the tank to have direct contact with the ground.	Valise is damaged.

Table 1. Preventive Maintenance Checks and Services for Tank (Cont.)

ITEM NO.	INTERVAL	MAN HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
7	Before		Valve, Ball (7)	Inspect the Ball Valves for any damage that would prevent it from performing its mission.	The Ball Valve is damaged in a way that keeps it from working.
8	Before		Valve, Sampling (8)	Inspect the Sampling Valve for leaks. Check to make sure the push button can be used to take water samples.	The Sampling Valve is leaking or the valve cannot be used to draw water samples.
9	Before		Ball Valve Case (9)	Inspect the case for any cuts or tears in the fabric section. Make sure the Tank has a Ball Valve Case.	The tank can be used without a case, however order a replacement case if needed.
10	Before		Elbow Assy (10)	Inspect the Elbow for any damage that would prevent it from performing its mission.	The Elbow is damaged in a way that keeps it from working.
11	During		Tank body (1)	Inspect for cuts, punctures and leaks.	Tank body is cut, punctured or leaking.
12	During		Assy, Filler (4)	Inspect the Filler Assy for leaks.	The Filler is leaking or damaged.
13	During		Fill/Discharge Fittings (2 & 3)	Inspect for damage or leakage.	Fittings are damaged, leaking or loose.
14	During		Valve, Ball (7)	Inspect the Ball Valve for damage (that would prevent it from working) or leaks.	The Ball valve is damaged and/or leaking.
15	During		Valve, Sampling (8)	Inspect the Sampling Valve to make sure the push button functions properly and that the Valve isn't leaking.	The Sampling Valve is leaking or the valve cannot be used to draw water samples.

Table 1. Preventive Maintenance Checks and Services for Tank (Cont.)

ITEM NO.	INTERVAL	MAN HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
16	During		Elbow Assy (10)	Inspect the Elbow for damage (that would prevent it from working) or leaks.	The Elbow is damaged and/or leaking.
17	After		Assy, Filler (4)	Inspect the Filler Assy for any cuts or tears in the fabric section. Inspect the Cam Type connector for damage that would prevent the filler from performing its mission. Make sure the Tank has a Filler Assembly.	The Filler fabric material is torn or leaks. The Cam Type connection is damaged, so that is will not mate with the chemical insertion port. Or the Filler Assy is missing.
18	After		Ball Valve Case (9)	Inspect the case for any cuts or tears in the fabric section. Make sure the Tank has a Ball Valve Case.	The tank can be used without a case, however order a replacement case if needed.
19	After		Elbow Assy (10)	Inspect for damage or leakage.	Elbow is damaged or leaking.
20	After		Repair Kit (5)	Check for missing components (Table 2, WP 0022). Ensure instruction sheet is present.	Emergency repair items are missing.
21	After		Fill/Discharge Fittings (2 & 3)	Inspect for damage or leakage.	Fittings are damaged, leaking or loose.
22	After		Valve, Ball (7)	Inspect the Ball Valve for damage (that would prevent it from working).	The Ball valve is damaged (damage that would prevent it from work, cosmetic ok).
23	After		Valve, Sampling (8)	Inspect the Sampling Valve for any damage incurred during use.	The Sampling Valve is damaged.

Table 1. Preventive Maintenance Checks and Services for Tank (Cont.)

ITEM NO.	INTERVAL	MAN HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
24	After		Valise (6)	Inspect the Valise for any tears, cuts or holes.	The Valise has any cuts, holes or tears.
25	Weekly		Assy, Filler (4)	Inspect the Filler Assy for any cuts or tears in the fabric section. Inspect the Cam Type connector for damage that would prevent the filler from performing its mission. Ensure each Tank has a Filler Assy.	The Filler fabric material is torn or leaks. The Cam Type connection is damaged, so that is will not mate with the chemical insertion port. Or the Filler Assy is missing.
26	Weekly		Tank body (1)	Inspect for cuts, punctures and leaks.	Tank body is cut, punctured or leaking.
27	Weekly		Repair Kit (5)	Check for missing components (Table 2, WP 0022). Ensure instruction sheet is present.	Emergency repair items are missing.
28	Weekly		Valise (6)	Inspect the Valise for any tears, cuts or holes that would cause the Tank to touch the ground. If the Tank isn't touching the ground, you may order another Valise and replace the damaged Valise when the Tank is not in use.	The Valise is torn in such a way that the Tank is touching the ground.
29	Weekly		Valve, Ball (7)	Inspect the Ball Valve for damage (that would prevent it from working) or leaks.	The Ball valve is damaged and/or leaking.
30	Weekly		Valve, Sampling (8)	Inspect the Sampling Valve to make sure the push button functions properly and that the Valve isn't leaking. Inspect the valve to make sure it isn't damaged.	The Sampling Valve is leaking or the valve cannot be used to draw water samples. The Valve has incurred damage during use.

END OF WORK PACKAGE

CHAPTER 5

UNIT MAINTENANCE INSTRUCTIONS
for the
FABRIC, COLLAPSIBLE, DRINKING WATER TANK

UNIT MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

SERVICE UPON RECEIPT

SERVICE UPON RECEIPT OF MATERIEL

Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage in accordance with the instructions of DA PAM 738-750. Check the equipment against the packing slip to see if the shipment is complete. Report all discrepancies in accordance with the instructions of DA PAM 738-750.

Check to see whether the equipment has been modified.

INSTALLATION INSTRUCTIONS

Refer to WP 0005 00.

END OF WORK PACKAGE

UNIT MAINTENANCE

VALVE, SAMPLING

NSN 5430-01-xxx-xxxx

REMOVAL, SERVICE, REPAIR AND INSTALLATION

INITIAL SETUP

Tools
Tool Kit, General Mechanics
(Item 1, Table 2, WP 0020 00)

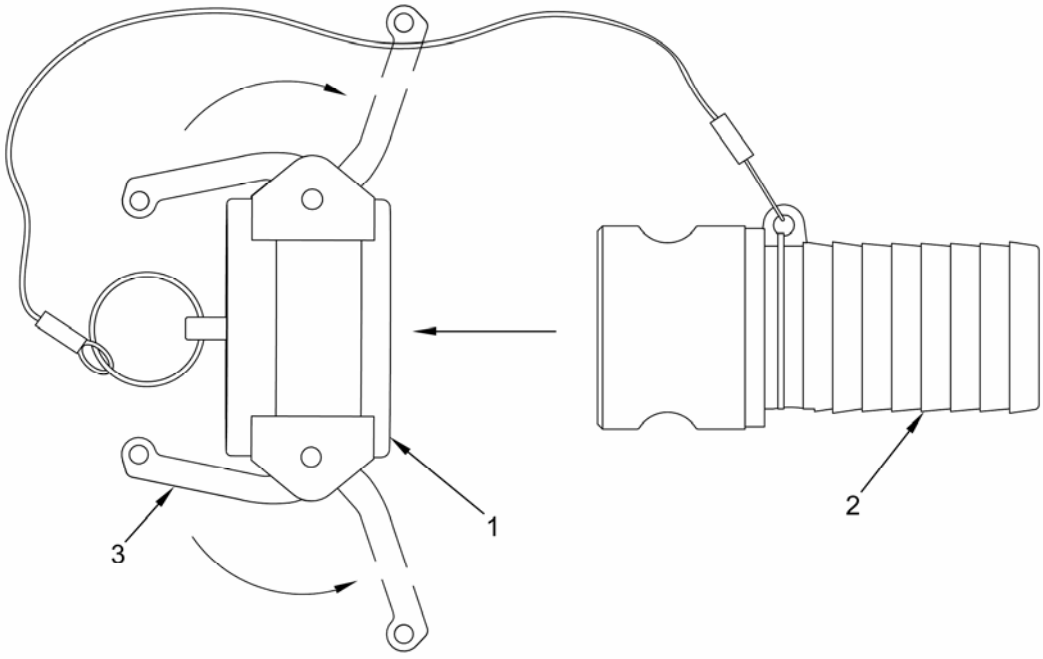
Equipment Condition
Tank Drained (WP 0005 00)

Materials/Parts
Cleaning Compound
(Item 1, WP 0022 00)
Rags, Wiping
(Item 7, WP 0022 00)
Valve, Sampling
(Item 5, WP 0014 00)
Tape, Antiseizing
(Item 5, WP 0022 00)

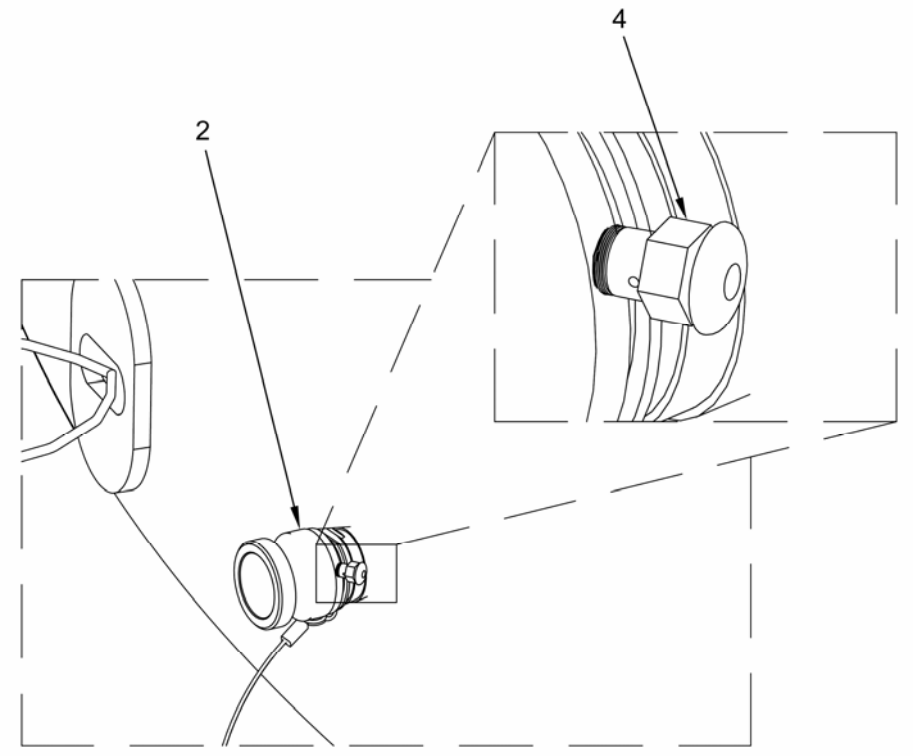
Personnel required
One

REMOVAL

1. To ease removal of the Sampling Valve, remove the Dust Cap (1) from the Coupling (2) by pulling the Cam-lever arms (3) out, away from the body of the Dust Cap (1).



2. Using a wrench, remove the Sampling Valve (4) by unscrewing it from the Coupling (2) in a counter-clockwise direction.



SERVICE

1. Clean the Sampling Valve (1) with cleaning compound and rinse thoroughly.
2. Inspect Sampling Valve (1) for cracks or breaks.
3. If damaged, replace Sampling Valve (1) with new Sampling Valve.

REPAIR

Repair is limited to replacement of damaged components.

INSTALLATION

1. Apply Teflon Tape to the threaded section of the replacement Sampling Valve (1).
2. Using a wrench, screw the replacement Sampling Valve (1) into the Coupling (2).
3. After you have replaced the Sampling Valve (1), put the Dust Cap back onto the coupling and secure in position using the Dust Cap cam-lever arms.

END OF WORK PACKAGE

UNIT MAINTENANCE

MALE AND FEMALE CAM-TYPE COUPLINGS

REMOVAL, SERVICE, REPAIR AND INSTALLATION

INITIALSETUP

Tools
Tool Kit, General Mechanics
(Item 1, Table 2, WP 0020 00)

Equipment Condition
Tank Drained (WP 0005 00)

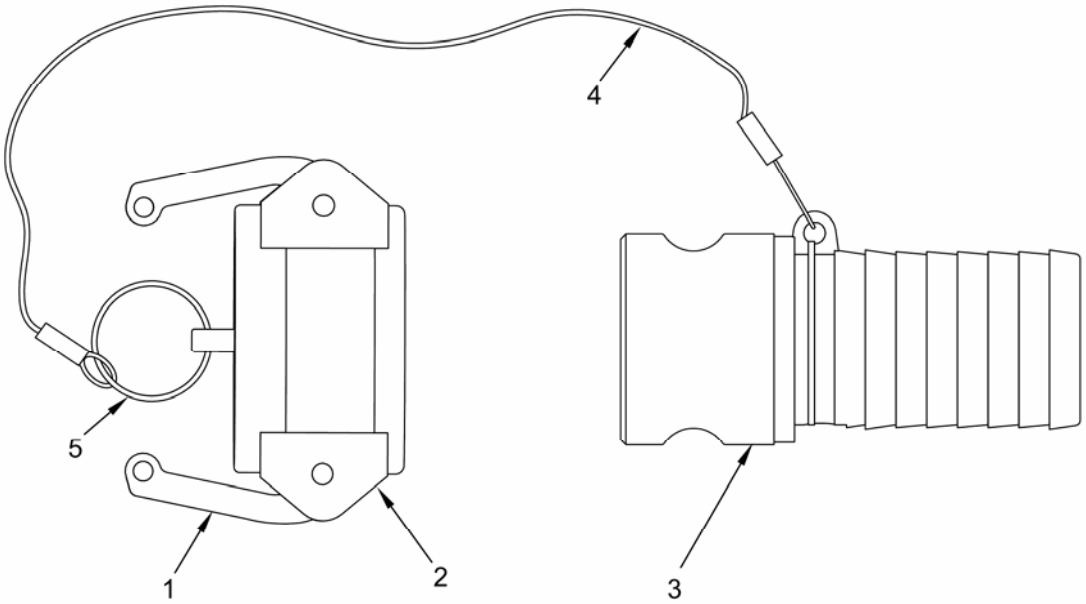
Materials/Parts
Cleaning Compound
(Item 1, WP 0022 00)
Rags, Wiping
(Item 7, WP 0022 00)
Dust Cap
(Item 3, WP 0014 00)
Dust Plug
(Item 4, WP 0014 00)

Personnel required
One

REMOVAL

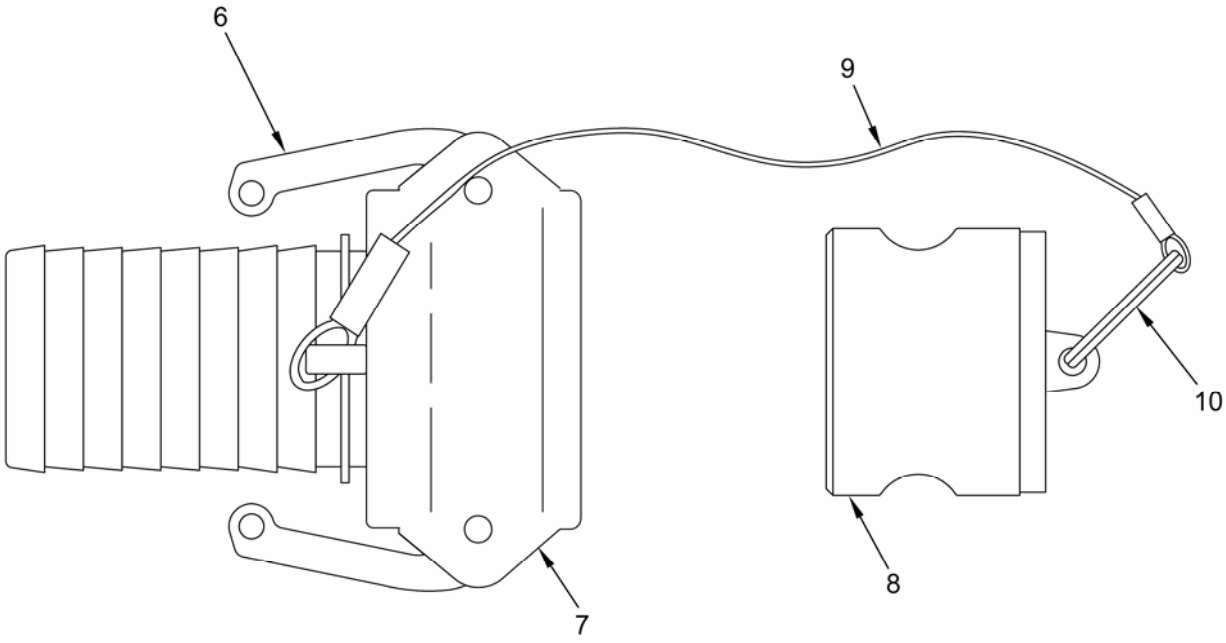
Dust Cap

1. Pull cam-lever arms (1) on dust cap (2) out, away from body of cap (2).
2. Remove dust cap (2) from coupling (3).
3. Disconnect cable assembly (4) and key ring (5) from dust cap (2).



Dust plug

1. Pull cam-lever arms (6) on coupling (7) out, away from body of coupling (7).
2. Remove dust plug (8) from coupling (7).
3. Disconnect cable assembly (9) and key ring (10) from plug (8).



SERVICE/INSPECT

1. Clean dust cap (2), dust plug (8) and couplings (3 and 7) with cleaning compound and rinse thoroughly.
2. Inspect dust cap (2) and dust plug (8) for cracks or breaks.
3. If damaged, replace.
4. Inspect cable assemblies (4 and 9) and key rings (5 and 10) for cracks, distortion or other damage.
5. If damaged, replace.

REPAIR

Repair is limited to replacement of damaged components.

INSTALLATION

Dust Plug

1. Connect cable assembly (9) and key ring (10) to dust plug (8).
2. Pull cam-lever arms (6) on coupling (7) outward, away from body of coupling (7).
3. Install dust plug (8) in coupling (7).
4. Push cam-lever arms (6) on coupling (7) inward toward body of coupling until locked.

Dust Cap

1. Connect cable assembly (4) and key ring (5) to dust cap (2).
2. Pull cam-lever arms (1) on dust cap (2) outward and away from body of dust cap (2).
3. Install dust cap (2) onto end of coupling (3).
4. Pull cam-lever arms (1) upward and inward toward dust cap (2) until locked.

END OF WORK PACKAGE

UNIT MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

PREPARATION FOR STORAGE OR SHIPMENT

PRESERVATION PROCEDURES FOR STORAGE OR SHIPMENT

Strike the tank in accordance with the procedures in WP 0005 00.

ADMINISTRATIVE STORAGE

1. Placement of equipment in administrative storage should be for short periods of time when a shortage of maintenance effort exists. Items should be in mission readiness within 24 hours or within the time factors as determined by the directing authority. During the storage period, appropriate maintenance records will be kept.

2. Before placing the equipment in administrative storage, current preventive maintenance checks and services should be completed, shortcomings and deficiencies should be corrected, and all Modification Work Orders (MWO) should be applied.

3. Inside storage is preferred for items selected for administrative storage. If inside storage is not available, trucks, vans, conex containers, and other containers may be used. Refer to WP 0002 00 for ambient storage temperature range.

END OF WORK PACKAGE

CHAPTER 6

PARTS INFORMATION
for the
FABRIC, COLLAPSIBLE, DRINKING WATER TANK

OPERATOR AND FIELD MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

INTRODUCTION

SCOPE

This RPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of Unit maintenance of the Fabric, Collapsible, Drinking Water Tank. It authorizes the requisitioning, issue, and disposition of spares, repair parts, and special tools as indicated by the source, maintenance, and recoverability (SMR) codes.

GENERAL

In addition to the Introduction work package, this RPSTL is divided into the following work packages.

1. **Repair Parts List Work Packages**. Work packages containing lists of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. These work packages also include parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Sending units, brackets, filters, and bolts are listed with the component they mount on. Bulk materials are listed by item name in FIG. BULK at the end of the work packages. Repair parts kits are listed separately in their own functional group and work package. Repair parts for reparable special tools are also listed in a separate work package. Items listed are shown on the associated illustrations.

2. **Special Tools List Work Packages**. Work packages containing lists of special tools, special TMDE, and special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in the DESCRIPTION AND USABLE ON CODE (UOC) column). Tools that are components of common tool sets and/or Class VII are not listed.

3. **Cross-Reference Indexes Work Packages**. There are 2 cross reference indexes work packages in this RPSTL: the National Stock Number (NSN) Index work package and the Part Number (P/N) Index work package. The National Stock Number Index work package refers you to the figure and item number. The Part Number Index work package refers you to the figure and item number.

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES

ITEM NO. (Column (1)). Indicates the number used to identify items called out in the illustration.

SMR CODE (Column (2)). The SMR code containing supply/requisitioning information, maintenance level authorization criteria, and disposition instruction, as shown in the following breakout:

TABLE 1. SMR Code Explanation.

Source Code	Maintenance Code		Recoverability Code
XX	XX		X
1st two positions: How to get an item.	3rd position: Who can install, replace, or use the item.	4th position: Who can do complete repair* on the item	5th position: Who determines disposition action on unserviceable items.

*Complete Repair: Maintenance capacity, capability, and authority to perform all corrective maintenance tasks of the "Repair" function in a use/user environment in order to restore serviceability to a failed item.

Source Code. The source code tells you how you get an item needed for maintenance, repair, or overhaul of an end item/equipment. Explanations of source codes follow:

Source Code	Application/Explanation
PA PB PC PD PE PF PG PH PR PZ	**NOTE** Items coded PC are subject to deterioration. Stock items; use the applicable NSN to requisition/request items with these source codes. They are authorized to the level indicated by the code entered in the third position of the SMR code.
KD KF KB	Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance level indicated in the third position of the SMR code. The complete kit must be requisitioned and applied.
MO-Made at Unit/AMC level MF-Made at DS/ASB level MH-Made at sustainment level ML-Made at SRA/TASMG MD-Made at depot MG-Navy only	Items with these codes are not to be requisitioned/requested individually. They must be made from bulk material which is identified by the part number in the DESCRIPTION AND USABLE ON CODE (UOC) column and listed in the bulk material group work package of the RPSTL. If the item is authorized to you by the third position code of the SMR code, but the source code indicates it is made at higher level, order the item from the higher level of maintenance.

Source Code	Application/Explanation
AO-Assembled by unit/AMC level AF-Assembled by DS/ASB level AH-Assembled by sustainment level AL-Assembled by SRA/TASMG AD-Assembled by depot AG-Navy only	Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the third position of the SMR code authorizes you to replace the item, but the source code indicates the item is assembled at a higher level, order the item from the higher level of maintenance.
XA	Do not requisition an "XA" coded item. Order the next higher assembly.(Refer to NOTE below.)
XB	If an item is not available from salvage, order it using the CAGEC and part number.
XC	Installation drawings, diagrams, instruction sheets, field service drawings; identified by manufacturer's part number.
XD	Item is not stocked. Order an XD-coded item through local purchase or normal supply channels using the CAGEC and part number given, if no NSN is available.

NOTE

Cannibalization or controlled exchange, when authorized, may be used as a source of supply for items with the above source codes except for those items source coded "XA" or those aircraft support items restricted by requirements of AR 750-1.

Maintenance Code. Maintenance codes tell you the level(s) of maintenance authorized to use and repair support items. The maintenance codes are entered in the third and fourth positions of the SMR code as follows:

Third Position. The maintenance code entered in the third position tells you the lowest maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to the following levels of maintenance:

Maintenance Code	Application/Explanation
O* -	Unit level/AMC maintenance can remove, replace, and use the item.
F -	Direct support/ASB maintenance can remove, replace, and use the item.
H -	Sustainment maintenance can remove, replace, and use the item.
L -	Specialized repair activity/TASMG can remove, replace, and use the item.

Maintenance Code	Application/Explanation
G -	Afloat and ashore intermediate maintenance can remove, replace, and use the item (Navy only)
K -	Contractor facility can remove, replace, and use the item.
Z -	Item is not authorized to be removed, replace, or used at any maintenance level
D -	Depot can remove, replace, and use the item.

*NOTE - Army may use C in the third position. However, for joint service publications, Army will use O.

Fourth Position. The maintenance code entered in the fourth position tells you whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (perform all authorized repair functions).

NOTE

Some limited repair may be done on the item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes.

Maintenance Code	Application/Explanation
O -	Unit/AMC is the lowest level that can do complete repair of the item.
F -	Direct support/ASB is the lowest level that can do complete repair of the item.
H -	Sustainment is the lowest level that can do complete repair of the item.
L -	Specialized repair activity/TASMG (enter specialized repair activity or TASMG designator) is the lowest level that can do complete repair of the item.
D -	Depot is the lowest level that can do complete repair of the item.
G -	Both afloat and ashore intermediate levels are capable of complete repair of item. (Navy only).
K -	Complete repair is done at contractor facility.
Z -	Nonreparable. No repair is authorized.
B -	No repair is authorized. No parts or special tools are authorized for maintenance of "B" coded item. However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

Recoverability Code. Recoverability codes are assigned to items to indicate the disposition action on unserviceable items. The recoverability code is shown in the fifth position of the SMR code as follows:

Recoverability Code	Application/Explanation
Z -	Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in the third position of the SMR code.
O -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the service/AMC level.
F -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the field level/ASB.

Recoverability Code	Application/Explanation
H -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the below depot sustainment level.
D -	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item are not authorized below depot level.
L -	Reparable item. Condemnation and disposal not authorized below Specialized Repair Activity (SRA) or theater aviation sustainment maintenance group (TASMG).
A -	Item requires special handling or condemnation procedures because of specific reasons (such as precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.
G -	Filed level reparable item. Condemn and dispose at either afloat or ashore intermediate levels. (Navy only)
K -	Reparable item. Condemnation and disposal to be performed at contractor facility

NSN (Column (3)). The NSN for the item is listed in this column.

CAGEC (Column (4)). The Commercial and Government Entity Code (CAGEC) is a five-digit code which is used to identify the manufacturer, distributor, or Government agency/activity that supplies the item.

PART NUMBER (Column (5)). Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

NOTE

When you use an NSN to requisition an item, the item you receive may have a different part number from the number listed.

DESCRIPTION AND USABLE ON CODE (UOC) (Column (6)). This column includes the following information:

1. The federal item name, and when required, a minimum description to identify the item.

2. Part numbers of bulk materials are referenced in this column in the line entry to be manufactured or fabricated.

3. Hardness Critical Item (HCI). A support item that provides the equipment with special protection from electromagnetic pulse (EMP) damage during a nuclear attack.

4. The statement END OF FIGURE appears just below the last item description in column (6) for a given figure in both the repair parts list and special tools list work packages.

QTY (Column (7)). The QTY (quantity per figure) column indicates the quantity of the item used in the breakout shown on the illustration/figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column instead of a quantity indicates that the quantity is variable and quantity may change from application to application.

EXPLANATION OF CROSS-REFERENCE INDEXES WORK PACKAGES FORMAT AND COLUMNS

1. National Stock Number (NSN) Index Work Package. NSN's in this index are listed in National Item Identification Number (NIIN) sequence.

   STOCK NUMBER Column. This column lists the NSN in NIIN sequence. The NIIN consists of the last nine digits of the NSN. When using this column to locate an item, ignore the first four digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

   For example, if the NSN is 5385-01-574-1476, the NIIN is 01-574-1476.

   FIG. Column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in the repair parts list and special tools list work packages.

   ITEM Column. The item number identifies the item associated with the figure listed in the adjacent FIG. column. This item is also identified by the NSN listed on the same line.

2. Part Number (P/N) Index Work Package. Part numbers in this index are listed in ascending alphanumeric sequence (vertical arrangement of letter and number combinations which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).

   PART NUMBER Column. Indicates the part number assigned to the item.

   FIG. Column. This column lists the number of the figure where the item is identified/located in the repair parts list and special tools list work packages.

   ITEM Column. The item number is the number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

HOW TO LOCATE REPAIR PARTS

1. When NSNs or Part Numbers Are Not Known.

   First. Using the table of contents, determine the assembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and lists are divided into the same groups.

   Second. Find the figure covering the functional group or the subfunctional group to which the item belongs.

   Third. Identify the item on the figure and note the number(s).

   Fourth. Look in the repair parts list work packages for the figure and item numbers. The NSNs and part numbers are on the same line as the associated item numbers.

2. When NSN Is Known.

First. If you have the NSN, look in the STOCK NUMBER column of the NSN index work package. The NSN is arranged in NIIN sequence. Note the figure and item number next to the NSN.

Second. Turn to the figure and locate the item number. Verify that the item is the one you are looking for.

3. When Part Number Is Known.

First. If you have the part number and not the NSN, look in the PART NUMBER column of the part number index work package. Identify the figure and item number.

Second. Look up the item on the figure in the applicable repair parts list work package.

OPERATOR AND FIELD MAINTENANCE

GROUP 00 TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL)

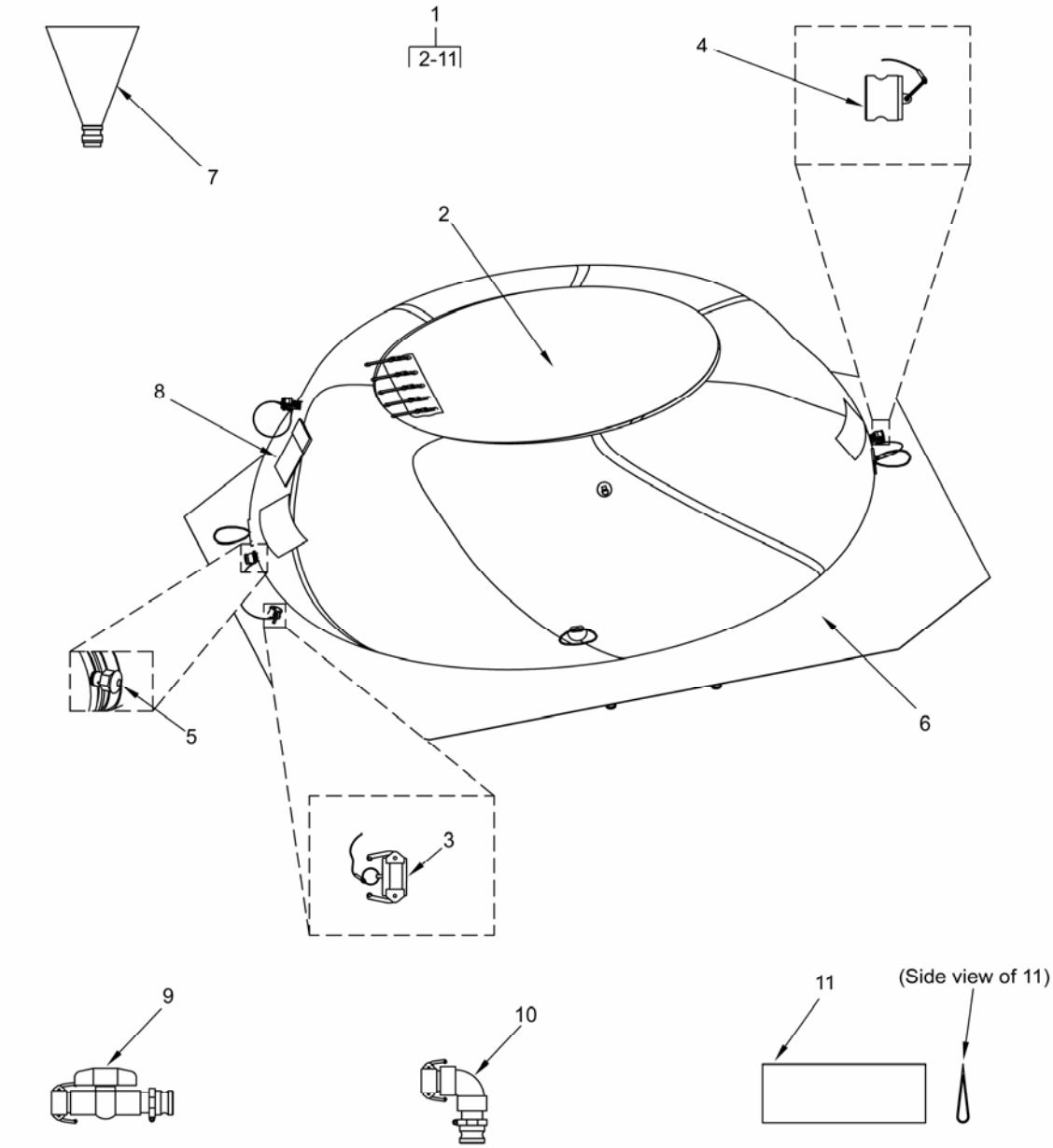


Figure 1. Tank, Fabric, Collapsible, Drinking Water.

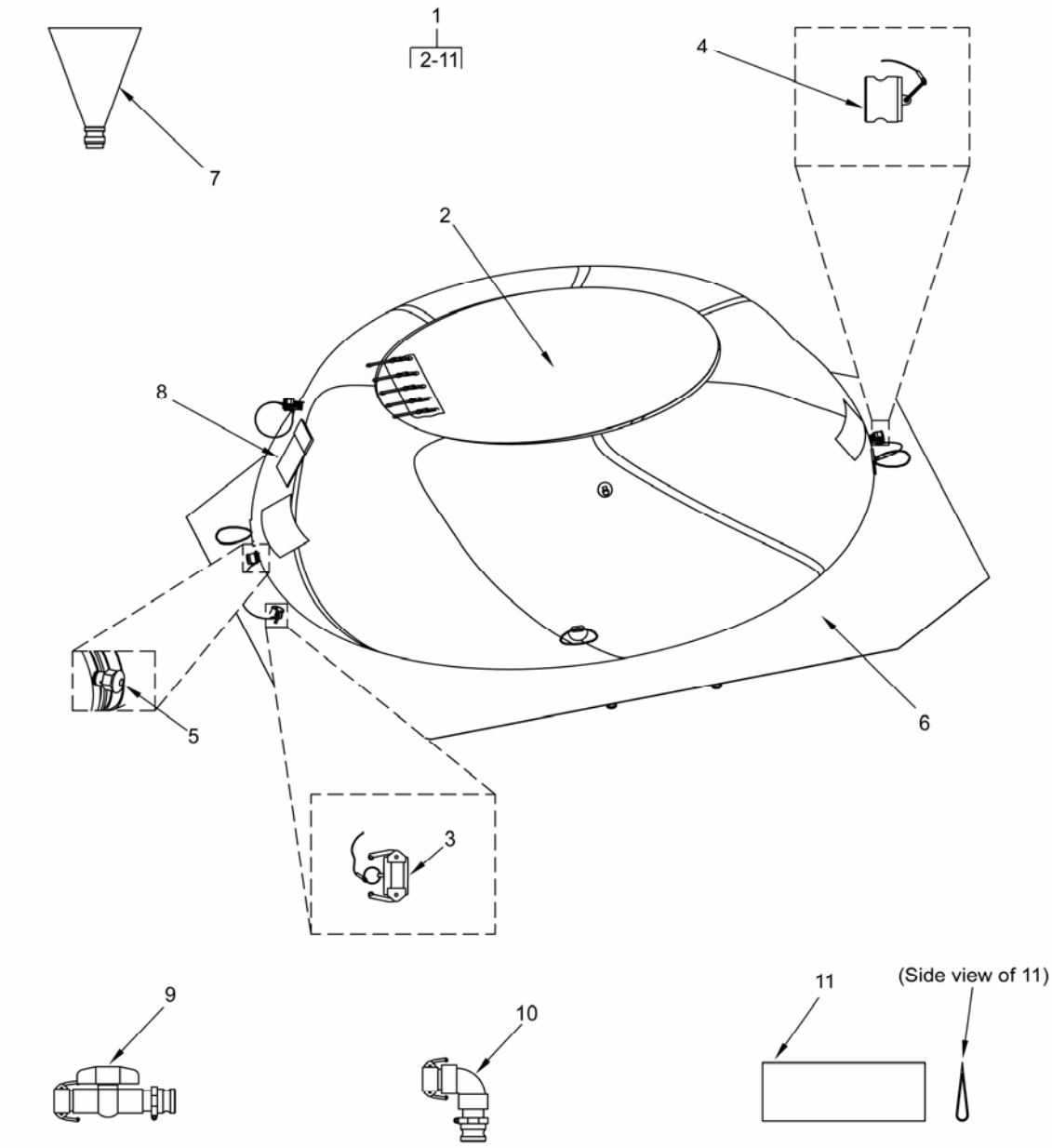


Figure 1. Tank, Fabric, Collapsible, Drinking Water.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 00 Tank	
					Figure 1. Tank, Fabric, Collapsible, Drinking Water	
1	PAOZZ	5430-01-542-5905	1FR69	03-TAC-TNK	TANK	1
2	PAOZZ		3NUA7	03-TAC-TNK-01	.TANK, ASSY	1
3	PAOZZ	4710-01-506-6807	33813	20V-SS	..CAP, DUST	1
4	PAOZZ	4710-01-506-6803	33813	20W-SS	..PLUG, DUST	2
5	PAOZZ		3NUA7	PORT-SAM	.VALVE, SAMPLING	1
6	PAOZZ		3NUA7	03-TAC-TNK-02	.VALISE	1
7	PAOZZ		3NUA7	03-TAC-TNK-03	.ASSY, FUNNEL, CHEM INSERT	1
8	PAOZZ		84583	ATPD-2263 TY II	.KIT, REPAIR TY II	1
9	PAOZZ		3NUA7	03-TAC-TNK-04	.VALVE ASSY, BALL	2
10	PAOZZ		3NUA7	03-TAC-TNK-05	.ELBOW ASSY	1
11	PAOZZ		3NUA7	03-TAC-TNK-06	.BV CASE	1
					END OF FIGURE	

OPERATOR AND FIELD MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

GROUP 01 REPAIR KIT TY II

NSN 5430-XX-XXX-XXXX

REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL)

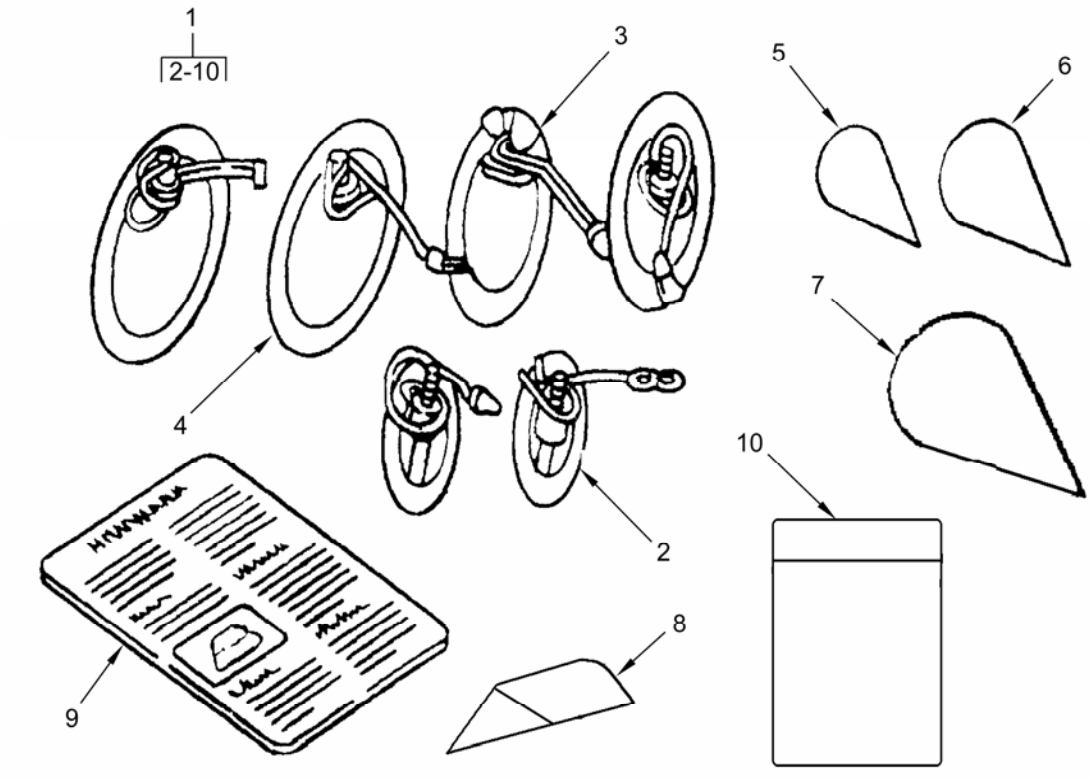


Figure 2. Repair kit TY II.

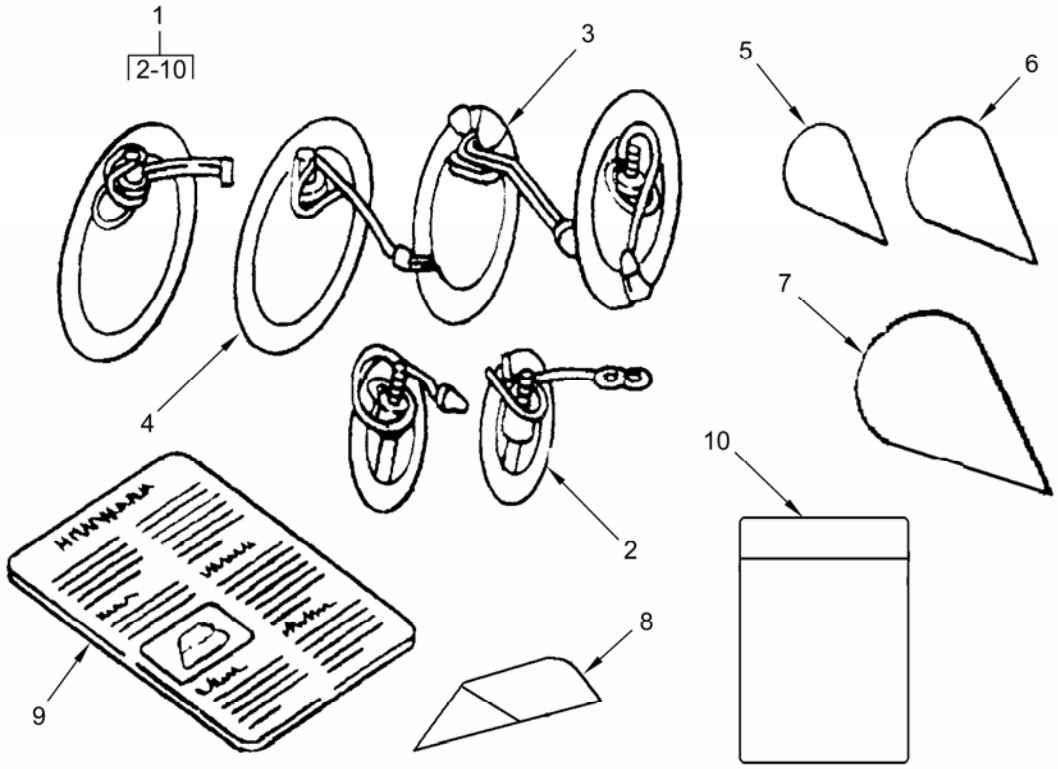


Figure 2. Repair kit TY II.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 01 KIT, REPAIR TY II	
					Figure 2. Kit, Repair TY II	
1	PAOZZ		84583	ATPD-2263 TY II	KIT, REPAIR TY II	1
2	PAOZZ	5342-00-720-8864	84583	CLAMP 3	.PATCH, 2.25”	1
3	PAOZZ	5342-00-720-8863	84583	CLAMP 5	.PATCH, 4”	1
4	PAOZZ	5342-00-720-8858	84583	CLAMP 7 1/2	.PATCH, 6”	2
5	PAOZZ		84583	X-3059-5/8	.PLUG, WOOD 3”	1
6	PAOZZ		84583	X-3059-11/2	.PLUG, WOOD 4.5”	1
7	PAOZZ		84583	X-3059-2	.PLUG, WOOD 5.25”	1
8	PAOZZ		84583	KNIFE TY 2	.BLADE, RETR	1
9	KFOZZ		84583	INST-ATPD	.SHEET, INSTR	1
10	KFOZZ		84583	CTN-ATPD-2	.BAG, STORAGE	1

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM
4710-01-506-6803	1	4
4710-01-506-6807	1	3
5342-00-720-8858	2	4
5342-00-720-8863	2	3
5342-00-720-8864	2	2
5430-01-542-5905	1	1

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

PART NUMBER INDEX

PART NUMBER	FIG.	ITEM
ATPD-2263 TY II	2	1
	1	8
CLAMP 3	2	2
CLAMP 5	2	3
CLAMP 7 1/2	2	4
CTN-ATPD-2	2	10
INST-ATPD	2	9
KNIFE TY 2	2	8
PORT-SAM	1	5
X-3059-5/8	2	5
X-3059-11/2	2	6
X-3059-2	2	7
03-TAC-TNK	1	1
03-TAC-TNK-01	1	2
03-TAC-TNK-02	1	6
03-TAC-TNK-03	1	7
03-TAC-TNK-04	1	9
03-TAC-TNK-05	1	10
03-TAC-TNK-06	1	11
20V-SS	1	3
20W-SS	1	4

END OF WORK PACKAGE

CHAPTER 7

SUPPORTING INFORMATION
for the
FABRIC, COLLAPSIBLE, DRINKING WATER TANK

OPERATOR AND FIELD MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

REFERENCES

SCOPE

This work package lists all field manuals, forms, technical manuals and miscellaneous publications referenced in this manual.

FIELD MANUALS

FM 21-11	First Aid
FM-3, FM-4, FM-5	Detailed Decontamination Procedures

FORMS

DA Form 2028	Recommended Changes to Publications and Blank Forms
DA Form 2404	Equipment Inspection and Maintenance Worksheet
SF 364	Report of Discrepancy
SF 368	Quality Deficiency Report

TECHNICAL MANUALS

TM 750-244-3	Destruction of Equipment to Prevent Enemy Use
TM 4700-15/1	Equipment Record Procedures

MISCELLANEOUS

AR 700-138	Army Logistics Readiness and Sustainability
(TAMMS) DA PAM 738-750	The Army Maintenance Management Systems
(TAMMS) DA PAM 738-751	Functional Users Manual for
CTA 8-100	Army Medical Dept. Expendable/Durable Items
CTA 50-790	Expendable/Durable Items
SB 740-99-1	Storage Serviceability Standard

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

MAINTENANCE ALLOCATION CHART (MAC) INTRODUCTION

MAINTENANCE ALLOCATION CHART (MAC) INTRODUCTION

The Army Maintenance System MAC

This introduction provides a general explanation of all maintenance and repair functions authorized at the two maintenance levels under the Two-Level Maintenance System concept.

This MAC (immediately following the introduction) designates overall authority and responsibility for the performance of maintenance functions on the identified end item or component. The application of the maintenance functions to the end item or component shall be consistent with the capacities and capabilities of the designated maintenance levels, which are shown on the MAC in column (4) as:

Field – includes three subcolumns, Crew maintenance (C), Service maintenance (O), and Field maintenance (F).

Sustainment – includes two subcolumns, Below Depot (H) and Depot (D)

The tools and test equipment requirements (immediately following the MAC) list the tools and test equipment (both special tools and common tool sets) required for each maintenance function as referenced from the MAC.

The remarks (immediately following the tools and test equipment requirements) contain supplemental instructions and explanatory notes for a particular maintenance function.

Maintenance Functions

Maintenance functions are limited to and defined as follows:

1. Inspect. To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination (e.g., by sight, sound, or feel). This includes scheduled inspection and gagings and evaluation of cannon tubes.

2. Test. To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards on a scheduled basis, i.e., load testing of lift devices and hydrostatic testing of pressure hoses.

3. Service. Operations required periodically to keep an item in proper operating condition; e.g., to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases. This includes scheduled exercising and purging of recoil mechanisms. The following are examples of service functions:

   a. Unpack. To remove from packing box for service or when required for the performance of maintenance operations.

   b. Repack. To return item to packing box after service and other maintenance operations.

   c. Clean. To rid the item of contamination.

   d. Touch up. To spot paint scratched or blistered surfaces.

   e. Mark. To restore obliterated identification.

4. Adjust. To maintain or regulate, within prescribed limits, by bringing into proper position, or by setting the operating characteristics to specified parameters.

5. Align. To adjust specified variable elements of an item to bring about optimum or desired performance.

6. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments of test, measuring, and diagnostic equipment used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

7. Remove/Install. To remove and install the same item when required to perform service or other maintenance functions. Install may be the act of emplacing, seating, or fixing into position a spare, repair part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.

8. Paint (ammunition only). To prepare and spray color coats of paint so that the ammunition can be identified and protected. The color indicating primary use is applied, preferably, to the entire exterior surface as the background color of the item. Other markings are to be repainted as original so as to retain proper ammunition identification.

9. Replace. To remove an unserviceable item and install a serviceable counterpart in its place "Replace" is authorized by the MAC and assigned maintenance level is shown as the third position code of the Source, Maintenance and Recoverability (SMR) code.

10. Repair. The application of maintenance services, including fault location/troubleshooting, removal/installation, disassembly/assembly procedures and maintenance actions to identify troubles and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

NOTE

The following definitions are applicable to the "repair" maintenance function: Services. Inspect, test, service, adjust, align, calibrate, and/or replace.

Fault location/troubleshooting. The process of investigating and detecting the case of equipment malfunctioning; the act of isolating a fault within a system or Unit Under Test (UUT).

Disassembly/assembly. The step-by-step breakdown (taking apart) of a spare/functional group coded item to the level of its least component, that is assigned an SMR code for the level of maintenance under consideration (i.e., identified as maintenance significant).

Actions. Welding, grinding, riveting, straightening, facing, machining, and/or resurfacing

11. Overhaul. That maintenance effort (service/action) prescribed to restore an item to a completely serviceable/operational condition as required by maintenance standards in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.

12. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of material maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (e.g., hours/miles) considered in classifying Army equipment/components.

Explanation of Columns in the MAC

Column (1) Group Number. Column (1) lists Functional Group Code (FGC) numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the Next Higher Assembly (NHA).

Column (2) Component/Assembly. Column (2) contains the item names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

Column (3) Maintenance Function. Column (3) lists the functions to be performed on the item listed in column (2). (For a detailed explanation of these functions refer to "Maintenance Functions" outlined above).

Column (4) Maintenance Level. Column (4) specifies each level of maintenance authorized to perform each function listed in column (3), by indicating work time required (expressed as man hours in whole hours or decimals) in the appropriate subcolumn. This work time figure represents the active time required to perform that maintenance function at the indicated level of maintenance. If the number or complexity of the tasks within the listed maintenance function varies at different maintenance levels, appropriate work time figures are to be shown for each level. The work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the MAC. The symbol designations for the various maintenance levels are as follows:

Field:
C Operator or Crew maintenance
O Unit maintenance
F Direct Support maintenance

Sustainment:
L Specialized Repair Activity
H General Support maintenance
D Depot maintenance

NOTE

The “L” maintenance level is not included in column (4) of the MAC. Functions to this level of maintenance are identified by work time figure in the “H” column of column (4), and an associated reference code is used in the REMARKS column (6). This code is keyed to the remarks and the SRA complete repair application is explained there.

Column (5) Tools and Equipment Reference Code. Column (5) specifies, by code, those common tool sets (not individual tools), common Test, Measurement and Diagnostic Equipment (TMDE), and special tools, special TMDE and special support equipment required to perform the designated function. Codes are keyed to the entries in the tools and test equipment table.

Column (6) Remarks Code. When applicable, this column contains a letter code, in alphabetical order, which is keyed to the remarks table entries.

Explanation of Columns in the Tools and Test Equipment Requirements

Column (1) Tool or Test Equipment Reference Code. The tool or test equipment reference code correlates with a code used in column (5) of the MAC.

Column (2) Maintenance Level. The lowest level of maintenance authorized to use the tool or test equipment.

Column (3) Nomenclature. Name or identification of the tool or test equipment.

Column (4) National Stock Number (NSN). The NSN of the tool or test equipment.

Column (5) Tool Number. The manufacturer's part number, model number, or type number.

Explanation of Columns in the Remarks

Column (1) Remarks Code. The code recorded in column (6) of the MAC.

Column (2) Remarks. This column lists information pertinent to the maintenance function being performed as indicated in the MAC.

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

MAINTENANCE ALLOCATION CHART (MAC)

Table 1. MAC for the Fabric, Collapsible, Drinking Water Tank

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS AND EQUIPMENT REF CODE	(6) REMARKS CODE
			FIELD			SUSTAINMENT			
			CREW	SERVICE	FIELD	BELOW DEPOT	DEPOT		
			C	O	F	H	D		
00	Tank								
01	Tank envelope	Inspect	.25						A
		Repair	.5						C
		Service	1						B
		Replace		.5					
0101	Fluid Fittings, 2”	Inspect	.25						
		Replace		.5					
02	Valve, Sampling	Inspect	.25						A
		Replace		.5				1	
03	Valise	Inspect	.25						A
		Replace	.5						
04	Assy, Funnel	Inspect	.25						A
		Replace	.25						
05	Kit, Repair, TY II	Inspect	.25						A
		Replace	.25						
06	Valve, Ball	Inspect	.25						A
		Replace	.5						
07	Elbow Assy	Inspect	.25						A
		Replace	.25						
08	BV Case	Inspect	.25						A
		Replace	.25						

Table 2. Tools and Test Equipment for Tank.

(1) TOOL OR TEST EQUIPMENT REF CODE	(2) MAINTENANCE LEVEL	(3) NOMENCLATURE	(4) NATIONAL STOCK NUMBER	(5) TOOL NUMBER
1	O	Tool Kit, General Mechanics	5180-00-177-7033	SC5180-95-CL-N26

Table 3. Remarks for Tank.

(1) REMARKS CODE	(2) REMARKS
A	Inspect in accordance with PMCS.
B	Clean all fabric components with soapy water.
C	Operator level repair is limited to the capabilities of the Repair Kit (WP 0006).

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

COMPONENTS OF END ITEM (COEI) AND BASIC ISSUE ITEMS (BII) LISTS

COMPONENTS OF END ITEM (COEI) AND BASIC ISSUE ITEMS (BII) LISTS

INTRODUCTION

Scope

This work package lists COEI and BII for the Fabric, Collapsible, Drinking Water Tank to help you inventory items for safe and efficient operation of the equipment.

General

The COEI and BII information is divided into the following lists:

Components of End Item (COEI). This list is for information purposes only and is not authority to requisition replacements. These items are part of the Tank. As part of the end item, these items must be with the end item whenever it is issued or transferred between property accounts. Items of COEI are removed and separately packaged for transportation or shipment only when necessary. Illustrations are furnished to help you find and identify the items.

Basic Issue Items (BII). These essential items are required to place the Tank in operation, operate it, and to do emergency repairs. Although shipped separately packaged, BII must be with the Tank during operation and when it is transferred between property accounts. Listing these items is your authority to request/requisition them for replacement based on authorization of the end item by the TOE/MTOE. Illustrations are furnished to help you find and identify the items.

Explanation of Columns in the COEI List and BII List

Column (1) Illus Number. Gives you the number of the item illustrated.

Column (2) National Stock Number (NSN). Identifies the stock number of the item to be used for requisitioning purposes.

Column (3) Description, Part Number/(CAGEC). Identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The stowage location of COEI and BII is also included in this column. The last line below the description is the part number and the Commercial and Government Entity Code (CAGEC) (in parentheses).

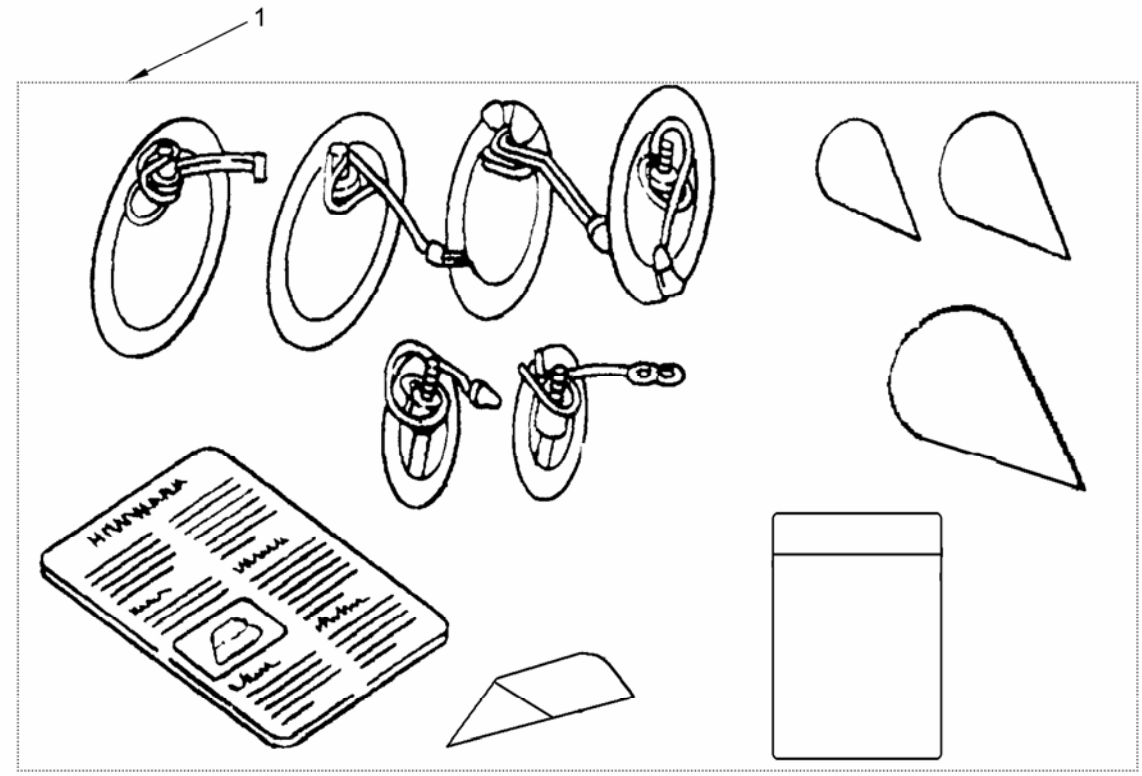
Column (4) Usable On Code. When applicable, gives you a code if the item you need is not the same for different models of equipment.

Column (5) U/I. Unit of Issue (U/I) indicates the physical measurement or count of the item as issued per the National Stock Number shown in column (2).

Column (6) Qty Rqr. Indicates the quantity required.

Table 1. Components of End Item List.

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/M	(6) QTY / RQR



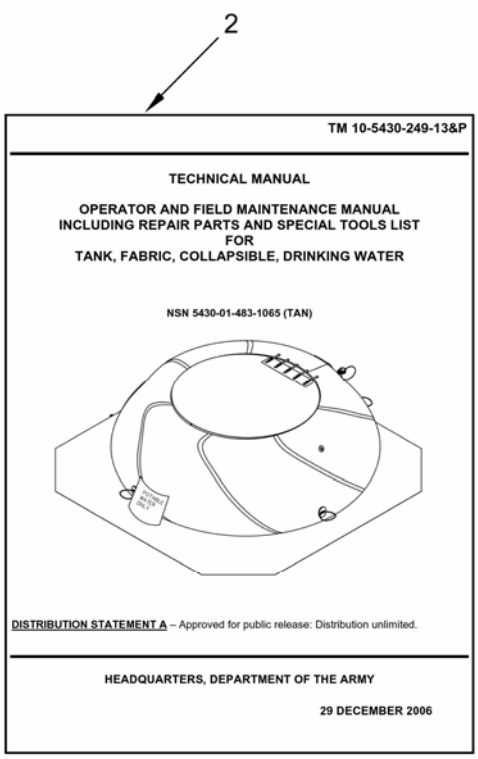


Table 2. Basic Issue Items List.

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/M	(6) QTY / RQR
1		REPAIR KIT TY II (84583) ATPD-2263	TNT	EA	1
2		TECHNICAL MANUAL, Operator's and Field Level Maintenance TM 10-5430-249-13&P	TNT	EA	1

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

TANK, FABRIC, COLLAPSIBLE, DRINKING WATER

NSN 5430-01-483-1065

EXPENDABLE AND DURABLE ITEMS LIST

EXPENDABLE AND DURABLE ITEMS LIST

INTRODUCTION

Scope

This work package lists expendable and durable items that you will need to operate and maintain the Tank. This list is for information only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, Expendable/Durable Items (Except Medical, Class V Repair Parts, and Heraldic Items), CTA 50-909, Field and Garrison Furnishings and Equipment or CTA 8-100, Army Medical Department Expendable/Durable Items.

Explanation of Columns in the Expendable/Durable Items List

Column (1) Item No. This number is assigned to the entry in the list and is referenced in the narrative instructions to identify the item (e.g., Use brake fluid (WP 0098, item 5)).

Column (2) Level. This column identifies the lowest level of maintenance that requires the listed item C = Operator/Crew.

Column (3) National Stock Number (NSN). This is the NSN assigned to the item which you can use to requisition it.

Column (4) Item Name, Description, Part Number/(CAGEC). This column provides the other information you need to identify the item. The last line below the description is the part number and the Commercial and Government Entity Code (CAGEC) (in parentheses).

Column (5) U/I. Unit of Issue (U/I) code shows the physical measurement or count of an item, such as gallon, dozen, gross, etc.

EXPENDABLE AND DURABLE ITEMS LIST

Table 1. Expendable and Durable Items List.

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) ITEM NAME, DESCRIPTION, (CAGEC), PART NUMBER	(5) U/M
1	C	7930-00-880-4454	DISHWASHING COMPOUND (81348) P-D-410	BX
2	C	4240-01-063-5996	GOGGLES, INDUSTRIAL (02622) 40832	EA
3	C		GLOVES, NITRILE (2V507) 5415T76 [SIZES 7-11]	PR
4	C	7920-00-240-7174	BRUSH, SCRUB (80244) 7920-00-240-7174	EA
5	C	8030-00-889-3535	TAPE, ANTISEIZING (39428) 4591K12	EA
6	C	8520-00-129-0803	SOAP, TOILET (58536) A-A-51	BX
7	C	7920-00-205-1711	RAGS, WIPING (58536) A-A-2522	BL

END OF WORK PACKAGE

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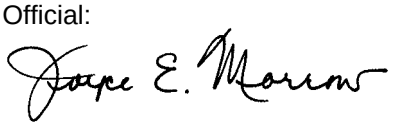
By Order of the Secretary of the Army:

PETER J. SCHOOMAKER
General, United States Army
Chief of Staff

Official:



JOYCE E. MORROW
Administrative Assistant to the
Secretary of the Army

0707901

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TO: *(Forward to proponent of publication or form) (Include ZIP Code)* AMSTA-LC-LPIT / TECH PUBS, TACOM-RI 1 Rock Island Arsenal Rock Island, IL 61299-7630	FROM: *(Activity and location) (Include ZIP Code)* Your mailing address	

PART I – ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

PUBLICATION/FORM NUMBER	DATE	TITLE
TM 10-5430-249-13&P	30 March 2007	TANK, FABRIC, COLLAPSIBLE, DRINKING WATER RPSTL

ITEM NO.	PAGE NO.	PARA-GRAPH	LINE NO. *	FIGURE NO.	TABLE NO.	RECOMMENDED CHANGES AND REASON (Provide exact wording of recommended changes, if possible).

**Reference to line numbers within the paragraph or subparagraph.*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
Your Name		Your Signature

TO: *(Forward direct to addressee listed in publication)*	FROM: *(Activity and location) (Include ZIP Code)*	DATE

PART II - REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS

PUBLICATION NUMBER	DATE	TITLE
TM 10-5430-249-13&P	30 March 2007	TANK, FABRIC, COLLAPSIBLE, DRINKING WATER RPSTL

PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION

SAMPLE

PART III - REMARKS *(Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE

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DA FORM 2028, FEB 74 REPLACES DA FORM 2028, 1 DEC 68, WHICH WILL BE USED. USAPA V3.01

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The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
1 decimeter = 10 centimeters = 3.94 inches
1 meter = 10 decimeters = 39.37 inches
1 dekameter = 10 meters = 32.8 feet
1 hectometer = 10 dekameters = 328.08 feet
1 kilometer = 10 hectometers = 3,280.8 feet

Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounce
1 deciliter = 10 centiliters = 3.38 fl. ounces
1 liter = 10 deciliters = 33.81 fl. ounces
1 dekaliter = 10 liters = 2.64 gallons
1 hectoliter = 10 dekaliters = 26.42 gallons
1 kiloliter = 10 hectoliters = 264.18 gallons

Weights

1 centigram = 10 milligrams = .15 grain
1 decigram = 10 centigrams = 1.54 grains
1 gram = 10 decigrams = .035 ounce
1 dekagram = 10 grams = .35 ounce
1 hectogram = 10 dekagrams = 3.52 ounces
1 kilogram = 10 hectograms = 2.2 pounds
1 quintal = 100 kilograms = 220.46 pounds
1 metric ton = 10 quintals = 1.1 short tons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
1 cu. meter = 1000 cu. decimeters = 35.31 feet

Approximate Conversion Factors

To change	*To*	*Multiply by*	*To change*	*To*	*Multiply by*
inches	centimeters	2.540	ounce–inches	newton–meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29.573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound–feet	newton–meters	1.356	metric tons	short tons	1.102
pound–inches	newton–meters	.11296			

Temperature (Exact)

_F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	_C

PIN: 083903-000