

**HAND RECEIPT**

**COVERING CONTENTS OF COMPONENTS OF  
END ITEM (COEI), BASIC ISSUE ITEMS (BII),  
AND ADDITIONAL AUTHORIZATION LIST (AAL)**

**FOR**

**TACTICAL WATER DISTRIBUTION  
EQUIPMENT SYSTEM (TWDS)  
SET 10-MILE SEGMENT**

**MODEL 06749-0183-81 (4320-01-122-3547)**

**MODEL 110-00-0000 (4320-01-168-0591)**

**MODEL 919 (4320-01-168-0590)  
(4320-01-221-6006)**

**Approved for public release; distribution is unlimited**

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**HEADQUARTERS, DEPARTMENT OF THE ARMY  
30 JULY 1990**

Technical Manual  
TM 5-4320-303-10-HR

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, D.C., 30 July 1990

**HAND RECEIPT**

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SET 10 MILE SEGMENT  
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**REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual directly to: Commander, U.S. Army Troop Support Command, ATTN: AMSTR-MCTS, 4300 Goodfellow Boulevard, St. Louis, Missouri 63120-1798. A reply will be furnished to you.

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## Section I. INTRODUCTION

**1. SCOPE.** This publication provides an overprinted DA Form 2062 (Hand Receipt) which lists the contents of Components of End Item (COEI), Basic Issue Items (BII), and Additional Authorization List (AAL) items related to the TWDS.

### 2. GENERAL.

a. Section II is the overprinted DA Form 2062 which lists the line item entry for system/end item and the content of COEI, BII, and AAL extracted from TM 5-4320-303-10. The listings consist of exactly the same items and are in the same sequence as those listings in TM 5-4320-303-10.

b. The overprinted DA Form 2062 will eliminate manual preparation of the form and will assist organizations in inventorying and accounting for property as required by AR 710-2.

c. Local reproduction of the overprinted DA Form 2062 is authorized. However, organizations will comply with local policies in the reproduction of DA Form 2062 by office copying equipment, field printing plant, or duplicating plant facilities.

d. Additional copies may be requisitioned from the U.S. Army Publications Distribution Center, 2800 Eastern Boulevard, Baltimore, MD 21220-2896, in accordance with Chapter 12, AR 25-30.

**3. EXPLANATION OF BLOCKS AND COLUMNS (DA FORM 2062).** Refer to DA Pam 710-2-1, Chapter 6, for additional information required to complete DA Form 2062.

a. FROM. Enter the organization, unit, section or squad which issues the property.

b. TO. Enter the Unit Identifier Code (UIC) and the hand receipt file number of the unit/personnel receiving the property.

c. HAND RECEIPT NUMBER. Enter a locally designated number. Use it to post the location of property in the property book.

d. END ITEM STOCK NUMBER. Contains the National Stock Number (NSN) of the end item covered by the hand receipt.

e. END ITEM DESCRIPTION. Contains the end item short title.

f. PUBLICATION NUMBER. Contains the TM number of the technical manual containing the operator/ crew instructions for the equipment.

g. PUBLICATION DATE. Date of the operator/crew technical manual.

h. QUANTITY. Quantity of the end item covered by this hand receipt.

i. STOCK NUMBER (column a). National stock number of the item described. Items without stock numbers should be requisitioned by Commercial and Government Entity Code (CAGEC) and part number with exception data in accordance with AR 710-2.

j. ITEM DESCRIPTION (column b). Enter a description of the end item, to include the make or model, and the serial/USA number, followed by item description of COEI, BII, and AAL items. In addition, it will contain the 5-digit Commercial and Government Entity Code (CAGEC), Part Number (P/N), and "Used On Code," if applicable.

Code	Used on
DTC	MODEL 06749-0183-81
DTQ	MODEL 110-00-0000
DTR	MODEL 919

All items without a "Used on Code" are used with all models of the end item.

k. \* (column c). The accounting requirements code (ARC) is provided here. One of the following ARC's will apply:

#### NOTE

**The Accounting Requirements Code (ARC) refers to property accountability, not the Recoverability Code (RC). The ARC and the RC are listed in the Army Master Data File (AMDF).**

N - Nonexpendable: Items not consumed in use, retaining their identity during use, and requiring that accountability be maintained throughout the life of the item.

D - Durable: Non-consumable components of sets, kits, outfits, and assemblages; all tools in FSC's 5110, 5120, 5130, 5133, 5136, 5140, 5180, 5210, 5220, and 5280; and any other non-consumable with a price in excess of \$50.00 not already "N".

X - Expendable: Items regardless of type classification or price and which are consumed in use. Includes all class 9 repair parts. Items not consumed in use which cost \$50.00 or less and not already "N" or "D".

l. SEC (column d). The Controlled Inventory Item Code (formerly SEC code) is entered here. This is a one-position code which indicates the security classification, security risks, or pilferage controls required for storage or transportation of assets. Order of precedence for assignment of codes is classified, sensitive, pilferable, unclassified, as applicable. Codes applicable to this hand receipt are as follows:

SEC CODE	CONTROLLED INVENTORY ITEM CODE
U	UNCLASSIFIED PILFERABLE ITEMS
M	Handtools and shop equipment
J	Pilferable item due to its size, shape and utility, which does not fall under one of the above categories. Pilferage controls may be designated by the coding activity to items coded U (unclassified) by recoding the items to J

- m. UI (column e). Unit of Issue. Refer to AR 708-1 and/or CDA Pam 18-1 (Catalog Data Activity) for explanation of abbreviations used in this column.
- n. QTY AUTH (column f). The quantity authorized to be on hand, or part of the end item.
- o. QUANTITY (column g). Actual quantity on hand. Subcolumns A through F are to be filled in by the receiving unit/personnel in accordance with DA Pam 710-2-1, chapter 6.
- p. PAGE\_\_\_\_OF\_\_\_\_PAGES. Contains page number and total number of pages for the COEI, BII, and AAL portions of the hand receipt. Hand receipt holder will initial each page No. (only when two or more forms are involved). When hand receipt holders change, the old initials will be lined out and the new hand receipt holder will initial each page.

#### **4. AUTHORIZATION DOCUMENTS.**

- a. Components of End Item (COEI) are authorized by the applicable Repair Parts and Special Tools List (RPSTL).
- b. Basic Issue Items (BII) are authorized by the applicable operator's manual.
- c. Additional Authorization List (AAL) items are authorized by appropriate MTOE, TDA, CTA or JTA authorization documents.

#### **5. SPECIAL INFORMATION.** Items coded (.) indicate information is not available.

## Section II. Hand Receipt

TM 5-4320-303-10-HR

<b>HAND RECEIPT/ANNEX NUMBER</b> <i>For use of this form, see DA PAM 710-2-1.</i> <i>The proponent agency is ODCSLOG.</i>		<b>FROM:</b>		<b>TO:</b>		<b>HAND RECEIPT NUMBER</b>							
<b>FOR ANNEX CR ONLY</b>	<b>END ITEM STOCK NUMBER</b>	<b>END ITEM DESCRIPTION</b> Tactical Water Distribution Equipment System (TWDS)		<b>PUBLICATION NUMBER</b> TM 5-4320-303-10		<b>PUBLICATION DATE</b> 14 April 1986		<b>QUANTITY</b> 1					
<b>STOCK NUMBER</b> <i>a.</i>	<b>ITEM DESCRIPTION</b> <i>b.</i>			<b>★</b> <i>c</i>	<b>SEC</b> <i>d.</i>	<b>UI</b> <i>e.</i>	<b>QTY</b> <b>AUTH</b> <i>f</i>	<b>g. QUANTITY</b>					
								<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
4320-01-122-3547	TACTICAL WATER DISTRIBUTION EQUIPMENT SYSTEM (TWDS)												
4320-01-168-0591	MODEL 06749-0183-81												
4320-01-168-0590	MODEL 110-00-0000												
	MODEL 919												
	COMPONENTS OF END ITEM (COEI)												
	PUMPING STATIONS												
	COUPLING, GROOVED PIPE, 6 IN. (81349) M10387-1-D-11			N		EA	48						
	HOSE ASSEMBLY, DISCHARGE, 6 IN. X 10 FT. (81349)			N		EA	6						
	MIL-H-53027												
	HOSE ASSEMBLY, DISCHARGE, 6 IN. X 20 FT (81349)			N		EA	6						
	MIL-H-53027												
	HOSE ASSEMBLY, DISCHARGE, 6 IN. X 75 FT (81349)			N		EA	6						
	MIL-H-53027												
	PIPE FITTING, LATERAL GROOVED, 45°, 6 IN			N		EA	12						
★ WHEN USED AS A: HAND RECEIPT, enter Hand Receipt Annex Number HAND RECEIPT FOR QUARTERS FURNITURE, enter Condition Codes HAND RECEIPT ANNEX/COMPONENTS RECEIPT, enter Accounting Requirements Code (ARC).													

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<b>HAND RECEIPT/ANNEX NUMBER</b> <i>For use of this form, see DA PAM 710-2-1.</i> <i>The proponent agency is ODCSLOG.</i>		<b>FROM:</b>		<b>TO:</b>		<b>HAND RECEIPT NUMBER</b>		
<b>FOR ANNEX CR ONLY</b>	<b>END ITEM STOCK NUMBER</b>	<b>END ITEM DESCRIPTION Tactical Water Distribution Equipment System (TWDS)</b>		<b>PUBLICATION NUMBER TM 5-4320-303-10</b>		<b>PUBLICATION DATE 14 April 1986</b>		
<b>QUANTITY 1</b>								
<b>STOCK NUMBER a.</b>	<b>ITEM DESCRIPTION b.</b>			<b>★ c</b>	<b>SEC d.</b>	<b>UI e.</b>	<b>QTY AUTH f</b>	<b>g. QUANTITY</b>
								<b>A B C D E F</b>
5310-00-823-8803	COEI - CONTINUED							
	ELBOW, 4 IN. X 90°, FEMALE-TO-FEMALE (81718) OPW-633KB			N		EA	2	
	ELBOW, 4 IN. X 90°, FEMALE-TO-MALE (81718) OPW-633K			N		EA	2	
	FLANGE ADAPTER, 4 IN. (96906) MS27023-17			N		EA	2	
	FLATWASHER, 0.046 ID X 0.812 OD (96906) MS27183-211			N		EA	64	
	GASKET, CLASS 150, 4 IN. NOM (97403) 13220E1069			N		EA	4	
	HOSE ASSY, DISCH, 4 IN. X 10 FT (97403) 13225E9136-3			N		EA	8	
	HOSE, SUCTION, 3/4 IN. (56221) 3/4 X 8-0-LG			N		EA	2	
5310-00-820-6653	LOCKWASHER, 0.375 IN. (96906) MS35338-50			N		EA	32	
5310-00-004-5038	NUT, PLAIN, 0.375 16 UNC-2B (96906) MS51967-20			N		EA	32	
	PIPE FITTING, COUPLING 4 IN. (81349)			N		EA	2	
	M 10388-A-07-AI-1-A-6C							
	REDUCING TEE, GROOVED PIPE, 6 X 6 X 4 IN. (81349)			N		EA	2	
	M 10388-A-30-EB-1-A-6C							
	REPAIR ITEMS, POTW, 20,000 GAL TANK (56221)			N		EA	2	
	480-4-44987-101							
★ WHEN USED AS A: HAND RECEIPT, enter Hand Receipt Annex Number HAND RECEIPT FOR QUARTERS FURNITURE, enter Condition Codes HAND RECEIPT ANNEX/COMPONENTS RECEIPT, enter Accounting Requirements Code (ARC).								

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STOCK NUMBER a.	ITEM DESCRIPTION b.	★ c	SEC d.	UI e.	QTY AUTH f.	g. QUANTITY					
						A	B	C	D	E	F
	COEI - CONTINUED										
	CLAMP, 3 IN.			EA	8						
	CLAMP, 5 IN.			EA	4						
	CLAMP, 7 1/2 IN.			EA	4						
	GASKET, COUPLING, 2 IN.			EA	4						
	GASKET, COUPLING, 4 IN.			EA	4						
	GASKET, FLANGE, 4 IN.			EA	4						
	O-RING			EA	4						
	O-RING			EA	4						
	PLUG, TAPERED, 3 IN.			EA	4						
	PLUG, TAPERED, 5 IN.			EA	4						
	REPAIR KIT, 20,000 GAL TANK (56221) 480-4-44992-101	N		EA	2						
	ADHESIVE, 12 IN. X 18 IN.			EA	4						
	AIRFOAM, CLOTH BACKED, 1/2 IN.			EA	2						
	BOARD, 8 IN. X 8 IN. X 1 IN. THICK			EA	2						
	CURE IRON			EA	2						
	DISC, ADHESIVE, 4 IN.			EA	20						
	DISC, FABRIC COATED			EA	20						
	FABRIC, COATED, 12 IN. X 18 IN.			EA	4						
	FILM, TEFLON, 8 IN. X 8 IN.			EA	4						
	INSTRUCTIONS			EA	2						

<b>HAND RECEIPT/ANNEX NUMBER</b> <i>For use of this form, see DA PAM 710-2-1. The proponent agency is ODCSLOG.</i>		<b>FROM:</b>		<b>TO:</b>		<b>HAND RECEIPT NUMBER</b>							
<b>FOR ANNEX CR ONLY</b>	<b>END ITEM STOCK NUMBER</b>	<b>END ITEM DESCRIPTION</b> Tactical Water Distribution Equipment System (TWDS)		<b>PUBLICATION NUMBER</b> TM 5-4320-303-10		<b>PUBLICATION DATE</b> 14 April 1986		<b>QUANTITY</b> 1					
<b>STOCK NUMBER</b> a.	<b>ITEM DESCRIPTION</b> b.			<b>★</b> c	<b>SEC</b> d.	<b>UI</b> e.	<b>QTY</b> AUTH f	<b>g. QUANTITY</b>					
								A	B	C	D	E	F
5430-01-106-9678	COEI - CONTINUED PLATE ALUMINUM, 6 IN. X 6 IN. RAGS SCISSORS, 6 IN. SHEET, GUM 12 IN. X 18 IN. SOLVENT, MEK STITCHER, 1-1/2 IN. DIA X 1 1/2 IN. WIDE TANK, STORAGE, 20,000 GAL (97403) 80303 VALVE, GATE, 1/2 IN. (12168) T-111-1/2 VALVE, GATE, 4 IN., FLANGED (97403) 13220E1071 DISTRIBUTION POINTS			N		EA	1						
4610-00-268-9890	BAG, DRINKING WATER STORAGE, 36 GAL (97403) 13200E6480			N		EA	4						
4730-00-088-9285	COUPLING HALF, 200-B (96906) MS27026-11			N		EA	8						
4730-00-938-7997	COUPLING HALF, 200-F (96906) MS27022-11			N		EA	8						
	HOSE ASSY. DISCH 2 IN. X 10 ft. (97403) 13225E9136-2			N		EA	14						
★ WHEN USED AS A: HAND RECEIPT, enter Hand Receipt Annex Number HAND RECEIPT FOR QUARTERS FURNITURE, enter Condition Codes HAND RECEIPT ANNEX/COMPONENTS RECEIPT, enter Accounting Requirements Code (ARC).													

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STOCK NUMBER a.	ITEM DESCRIPTION b.	★ c	SEC d.	UI e.	QTY AUTH f.	g. QUANTITY					
						A	B	C	D	E	F
4610-00-937-6862	COEI - CONTINUED	N		EA	2						
	HOSE ASSY, SUCTION, 2 IN. X 20 ft. (97403) 13225E9135-2				2						
4610-00-880-0514	HYPOCHLORINATION UNIT 1955-1 (09680) MIL-H-12732	N		EA	2						
	USED ON DTC, DTR										
6630-01-044-0334	HYPOCHLORINATION UNIT A-506131 (79172) A506131	N		EA	2						
	USED ON DTQ										
4730-00-915-5127	KIT, COLOR COMPARATOR (12308) U25337	N		EA	2						
	COLOR COMPARATOR			EA	1						
	CONTAINER, KIT			EA	1						
	DISC, CHLORINE			EA	1						
	DISC, PH			EA	1						
	INSTRUCTIONS			EA	1						
	SAMPLE CELLS			EA	4						
	SOLUTION, PH, 4 OZ			OZ	1						
	STIRRING ROD			EA	1						
	TABLETS, DPD			BX	1						
	NOZZLE, 1 1/4 IN. (97403) 13225E9096			EA	4						
4320-00-542-3347	PLUG, DUST, QUICK-DISCONNECT, 200 DP (96906) MS27029-11	N		EA	4						
4730-01-192-1624	PUMP, 125 GPM (97403) MIL-P-52109	N		EA	2						
	REDUCER, 2015-B (96906) MS49002-9	N		EA	4						

<b>HAND RECEIPT/ANNEX NUMBER</b> <i>For use of this form, see DA PAM 710-2-1. The proponent agency is ODCSLOG.</i>		<b>FROM:</b>		<b>TO:</b>		<b>HAND RECEIPT NUMBER</b>	
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<b>STOCK NUMBER</b> a.	<b>ITEM DESCRIPTION</b> b.		<b>★</b> c	<b>SEC</b> d.	<b>UI</b> e.	<b>QTY</b> AUTH f	g. <b>QUANTITY</b> A B C D E F
4730-00-951-3295	COEI - CONTINUED						
4730-00-951-3297	REDUCER, 2015-DA (96906) MS49000-5		N		EA	4	
4730-01-186-0821	REDUCER, 2030-DA-AL (96906) MS49000-11		N		EA	2	
4730-01-064-0560	REDUCER, 2040-DA-AL (96906) MS49000-19		N		EA	2	
	REDUCER, 4020-DA (97403) MS49000-17		N		EA	2	
	STAND ASSY, NOZZLE (97403) 13225E9140		N		EA	4	
	VALVE, ELBOW COUPLER, 2 IN. X 2 IN. (97403)		N		EA	4	
	13219E0491						
4820-00-810-4250	VALVE, GATE 2 IN. (82666) B120-2"		N		EA	4	
	Y-CONNECTION, QUICK DISCONNECT, 2 X 2 X 2 IN. (81718) 319K		N		EA	6	
	10 MILE HOSE LINE SEGMENT						
	BOX, FLAKING(97403) 13225E9182		N		EA	132	
	COUPLING, GROOVED PIPE, 6 IN. (81349) M10387-1-D-11		N		EA	15	
4730-00-915-5127	COUPLING, HALF, QUICK DISCONNECT, FEMALE, 6 IN. (96906) MS27024-19		N		EA	1	
★ WHEN USED AS A: HAND RECEIPT, enter Hand Receipt Annex Number HAND RECEIPT FOR QUARTERS FURNITURE, enter Condition Codes HAND RECEIPT ANNEX/COMPONENTS RECEIPT, enter Accounting Requirements Code (ARC).							

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STOCK NUMBER a.	ITEM DESCRIPTION b.	★ c	SEC d.	UI e.	QTY AUTH f.	g. QUANTITY					
						A	B	C	D	E	F
4730-01-178-0317	COEI - CONTINUED	N		EA	2						
	DISPLACEMENT AND EVACUATION KT (97403)										
	13226E1577										
	BALL POLYURETHANE, 6 IN.				4						
	COUPLER, PNEUMATIC, UF-75-B				4						
	COUPLER, PNEUMATIC, UF-100-B				2						
	COUPLER, PNEUMATIC, UM-100-B				2						
	COUPLING, SNAPLOCK, GROOVED PIPE, 6 IN.				2						
	EJECTOR ASSEMBLY, BRONZE				2						
	END CAP, GROOVED PIPE, 6 IN.				48						
	END CAP, GROOVED PIPE, 6 IN DRILLED				2						
	AND TAPPED										
	KIT CHEST, METAL				2						
	REDUCER, GROOVED PIPE, 8 IN. X 6 IN.				2						
	REDUCER, GROOVED PIPE, 8 IN. X 6 IN. MODIFIED				2						
	AS BALL RECEIVER			EA							
	END CAP, GROOVED PIPE, 6 IN. (81349)				1						
	M10388-A-05-AK-1-A										
	GUARD, ROAD CROSSING, 6 IN. HOSELINE				24						
	(97403) 13226E1576										
	HANDLE, SOCKET WRENCH (97403) 13225E9090-28			EA	4						

<b>HAND RECEIPT/ANNEX NUMBER</b> <i>For use of this form, see DA PAM 710-2-1.</i> <i>The proponent agency is ODCSLOG.</i>		<b>FROM:</b>		<b>TO:</b>		<b>HAND RECEIPT NUMBER</b>							
<b>FOR ANNEX CR ONLY</b>	<b>END ITEM STOCK NUMBER</b>	<b>END ITEM DESCRIPTION</b> Tactical Water Distribution Equipment System (TWDS)		<b>PUBLICATION NUMBER</b> TM 5-4320-303-10		<b>PUBLICATION DATE</b> 14 April 1986		<b>QUANTITY</b> 1					
<b>STOCK NUMBER</b> a.	<b>ITEM DESCRIPTION</b> b.			<b>★</b> c.	<b>SEC</b> d.	<b>UI</b> e.	<b>QTY</b> AUTH f.	<b>g. QUANTITY</b>					
								<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
	COEI - CONTINUED												
	HOSE ASSEMBLY, COLLAPSIBLE, 6 IN. X 500 FT (81349)			N		EA	132						
	MIL-H-53027												
	HOSE ASSEMBLY, SUCTION, 6 IN. X 10 FT. (97403) 13225E9135-6			N		EA	12						
	NAIL, STEEL ROOFING, 1-1/2 IN.					EA	240						
	PACKING KIT, HOSELINE, 6 IN. (81349) MIL-P-52348-6			N		EA	1						
	CHAIN HOIST					EA	1						
	EYEBOLT ASSEMBLY					EA	2						
	KIT CHEST, METAL					EA	1						
	PULLBOARD ASSEMBLY					EA	1						
	TOGGLE CLAMP AND BRACKET, LEFT HAND					EA	1						
	TOGGLE CLAMP AND BRACKET, RIGHT HAND					EA	1						
	PIPE FITTING, COUPLING, 6 IN. (81349)					EA	1						
	M10388-A-07-AK-1-A-6A												
	REDUCER, Y-CONNECTION, 6 X 4 X 4 IN. (97403)					EA	1						
	13225E9190												
★ WHEN USED AS A: HAND RECEIPT, enter Hand Receipt Annex Number HAND RECEIPT FOR QUARTERS FURNITURE, enter Condition Codes HAND RECEIPT ANNEX/COMPONENTS RECEIPT, enter Accounting Requirements Code (ARC).													

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STOCK NUMBER a.	ITEM DESCRIPTION b.	★ c	SEC d.	UI e.	QTY AUTH f.	g. QUANTITY					
						A	B	C	D	E	F
	COEI - CONTINUED	N									
	REPAIR KIT, HOSEINE, 6 IN. (97403) 13226E1581			EA	1						
	ADAPTER, GROOVED PIPE, 6 IN.			EA	6						
	BANDING STRAP, 3/4 IN. X 200 FT.			EA	1						
	BANDING TOOL/SCREW ACTION			EA	1						
	BUCKLE, BANDING, 3/4 IN.			EA	100						
	CLAMP, HOSE, 6 IN.			EA	2						
	CLOTH, EMERY, MEDIUM			EA	3						
	COUPLING, GROOVED PIPE, 6 IN.			EA	3						
	FILE, 1/2 ROUND, 8 IN.			EA	1						
	HACKSAW BLADE, 10 IN.			EA	10						
	HACKSAW FRAME, ADJUSTABLE			EA	1						
	HAMMER, BALL-PEEN, 6 IN.			EA	1						
	HANDLE, SOCKET WRENCH 3/4 IN. DRIVE			EA	1						
	HOSE, RUBBER, 6 IN. X 15 FT.			EA	2						
	KIT CHEST, METAL			EA	1						
	KNIFE, RUBBER CUTTING, 8 X 1 IN.			EA	1						
	MALLET, RUBBER, 32 OZ.			EA	1						
	PLIERS, LINESMAN			EA	1						
	SCREW DRIVER, 6-1/2 IN.			EA	1						
	SOCKET, 3/4 IN.			EA	1						

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						<b>QUANTITY</b> 1	
<b>STOCK NUMBER</b> a.	<b>ITEM DESCRIPTION</b> b.			<b>★</b> c	<b>SEC</b> d.	<b>UI</b> e.	<b>QTY</b> AUTH f
							<b>g. QUANTITY</b> A B C D E F
	COEI - CONTINUED						
	TOOL BOX, METAL					EA	1
	SUSPENSION KIT, HOSELINE, 6 IN. (81349) MIL-S-53012			N		EA	5
	ANCHOR STAKE, STEEL, 3/4 IN. X 34 IN.					EA	70
	CLAMP, U-BOLT, 1/2 IN.					EA	125
	DRIVING HEAD, STAKE					EA	5
	HOIST					EA	5
	KIT CHEST, METAL					EA	5
	PULLEY BLOCK					EA	20
	ROPE, MANILA, 1/2 IN. X 300 FT.					EA	5
	ROPE WIRE, 1/2 IN. X 350 FT.					EA	5
	SADDLE, 6 IN.					EA	300
	SHACKLE, 1/2 IN.					EA	300
	THIMBLE, WIRE ROPE, 1/2 IN.					EA	20
	TURN BUCKLE, 3/4 IN. X 18 IN.					EA	20
★ WHEN USED AS A: HAND RECEIPT, enter Hand Receipt Annex Number HAND RECEIPT FOR QUARTERS FURNITURE, enter Condition Codes HAND RECEIPT ANNEX/COMPONENTS RECEIPT, enter Accounting Requirements Code (ARC).							

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STOCK NUMBER a.	ITEM DESCRIPTION b.	★ c	SEC d.	UI e.	QTY AUTH f.	g. QUANTITY					
						A	B	C	D	E	F
	COEI - CONTINUED										
	SLING ASSEMBLY, FOUR LEG (LIFTING SLING)	N		EA	1						
	(97403) 13226E 1582										
	SWIVEL JOINT AND COUPLING, 6 IN. (81349) MIL-H-53027			EA	65						
	VALVE ASSEMBLY, PRESSURE REDUCING (86184) 6-906-01BV	N		EA	1						
	VALVE ASSEMBLY, PRESSURE RELIEF (97403) 13225E9196			EA	1						
	WRENCH, SOCKET, 1-1/4 IN. (97403) 1322E9090-27			EA	4						
	WRENCH, SOCKET, 1-1/16 (97403) 1322E9090-26			EA	2						
	BASIC ISSUE ITEMS (BII)										
	MANUAL, OPERATOR'S TACTICAL WATER			EA	8						
	DISTRIBUTION EQUIPMENT SYSTEM (TWDS) SET										
	10 MILE SEGMENT, TM5-4320-303-10										
	ADDITIONAL AUTHORIZATION LIST (AAL)										
	BRUSH, SOFT			EA	6						
	BRUSH, WIRE			EA	6						
	PAIL, UTILITY, 1 GAL			EA	2						
	SCRAPER, PLASTIC			EA	6						
	WRENCH, COMBINATION BOX - AND OPEN - END,			EA	6						
	1-3/8 IN. USED ON DTR										

<b>HAND RECEIPT/ANNEX NUMBER</b> <i>For use of this form, see DA PAM 710-2-1.</i> <i>The proponent agency is ODCSLOG.</i>		FROM:		TO:		HAND RECEIPT NUMBER						
FOR ANNEX CR ONLY	END ITEM STOCK NUMBER	END ITEM DESCRIPTION <b>Tactical Water Distribution Equipment System (TWDS)</b>	PUBLICATION NUMBER <b>TM 5-4320-303-10</b>		PUBLICATION DATE <b>14 April 1986</b>		QUANTITY <b>1</b>					
STOCK NUMBER <i>a.</i>	ITEM DESCRIPTION <i>b.</i>		★ <i>c</i>	SEC <i>d.</i>	UI <i>e.</i>	QTY AUTH <i>f</i>	g. A	B	C	D	E	F
5120-00-277-1461	AAL- CONTINUED WRENCH, PIPE, 1 IN. MIN AND 2 IN. MAX		EA		2							
5120-00-277-1481	WRENCH, PIPE, 2-7/8 IN. MIN AND 4 IN. MAX		EA		2							
	WRENCH, PIPE 6 IN.		EA		1							
5120-00-895-9566	WRENCH SET, COMBINATION BOX - AND OPEN - END		EA		6							
★ WHEN USED AS A: HAND RECEIPT, enter Hand Receipt Annex Number HAND RECEIPT FOR QUARTERS FURNITURE, enter Condition Codes HAND RECEIPT ANNEX/COMPONENTS RECEIPT, enter Accounting Requirements Code (ARC). <div style="text-align: right; font-weight: bold;">PAGE 13 OF 13 PAGES.</div>												

STOCK NUMBER <i>a.</i>	ITEM DESCRIPTION <i>b.</i>	★ <i>c</i>	SEC <i>d.</i>	UI <i>e.</i>	QTY AUTH <i>f.</i>	<i>g.</i> QUANTITY					
						A	B	C	D	E	F

**By Order of the Secretary of the Army:**

**CARL E. VUONO**  
*General, United States Army*  
*Chief of Staff*

Official:

**THOMAS F. SIKORA**  
*Brigadier General, United States Army*  
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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

### *Weights*

1 centigram = 10 milligrams = .15 grain  
 1 decigram = 10 centigrams = 1.54 grains  
 1 gram = 10 decigrams = .035 ounce  
 1 decagram = 10 grams = .35 ounce  
 1 hectogram = 10 decagrams = 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

### *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

### *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 cu. feet

## Approximate Conversion Factors

<i>To change</i>	<i>To</i>	<i>Multiply by</i>	<i>To change</i>	<i>To</i>	<i>Multiply by</i>
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
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