

**TECHNICAL MANUAL**

**UNIT AND DIRECT SUPPORT MAINTENANCE  
REPAIR PARTS AND SPECIAL TOOLS LIST**

**FOR**

**TACTICAL WATER DISTRIBUTION  
EQUIPMENT SYSTEM,  
10 MILE SEGMENT**

**NSN 4320-01-323-0305**

**MODEL 6IN-TWDS**

**DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.**

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**HEADQUARTERS, DEPARTMENT OF THE ARMY  
31 JULY1996**

TECHNICAL MANUAL

NO. 10-4320-317-23P

**HEADQUARTERS**  
 DEPARTMENTS OF THE ARMY  
 WASHINGTON, D.C., 31 July 1996

Unit and Direct Support Maintenance  
 Repair Parts and Special Tools List

For

**TACTICAL WATER DISTRIBUTION  
 EQUIPMENT SYSTEM,  
 10 MILE SEGMENT  
 NSN 4320-01-323-0305  
 MODEL 6IN-TWDS**

Current as of 4 March 1996

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**UNIT AND DIRECT SUPPORT MAINTENANCE  
REPAIR PARTS AND SPECIAL TOOLS LIST**

**SECTION I INTRODUCTION**

1. **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 Organizational Maintenance of the Lubricating and Servicing Unit. It authorizes the requisitioning, issue, and disposition of spares, repair parts and special tools as indicated by the source, maintenance and recoverability (SMR) codes.

2. **GENERAL.** In addition to this section, Introduction, this Repair Parts and Special Tools List is divided into the following sections:

a. **Section II. Repair Parts List.** A list of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. This list also includes 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. Bulk materials are listed in item name sequence. Repair parts kits are listed separately in functional groups in Section II. Repair parts for repairable special tools are also listed in this section. Items listed are shown in the associated illustration(s)/figure(s).

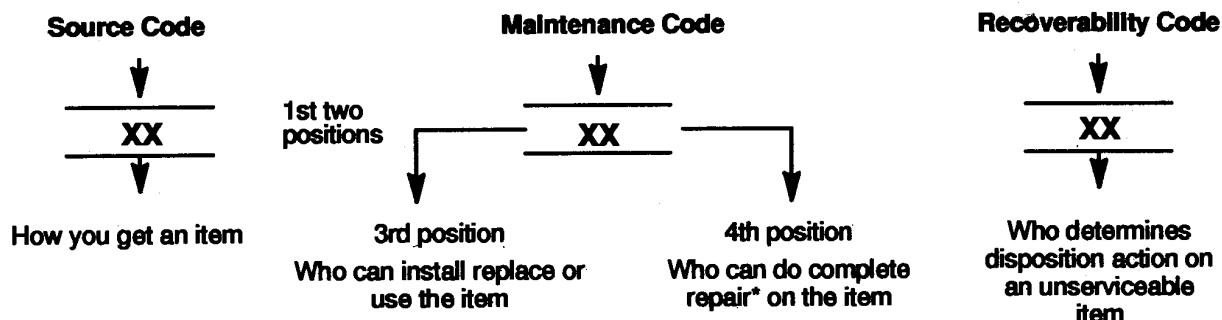
b. **Section III. Special Tools List.** A list of special tools, special TMDE, and other special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in DESCRIPTION AND USABLE ON CODE column) for the performance of maintenance.

c. **Section IV. Cross-Reference Index.** A list, in National Item Identification Number (NIIN) sequence, of all national stock numbered items appearing in the listing, followed by a list in alphanumeric sequence of all part numbers appearing in the listings. National stock numbers and part numbers are cross referenced to each illustration figure and item number appearance. The figure and item number index lists figure and item numbers in alphanumeric sequence and cross references NSN, FSCM and part number.

3. **EXPLANATION OF COLUMNS (SECTIONS II AND III).**

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

b. **SMR Code (Column (2)).** The Source, Maintenance, and Recoverability (SMR) code is a 5-position code containing supply/requisitioning information, maintenance category authorization criteria, and disposition instruction, as shown in the following breakout:



**NOTE**

\* Complete Rear: 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.

(1) **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	Explanation
PA PB PC** PD PE PF PG	<p>Stocked items; use the applicable NSN to request/requisition items with these source codes. They are authorized to the category indicated by the code entered in the 3rd position of the SMR code.</p> <p>**NOTE: Items coded PC are subject to deterioration.</p>
KD KF KB	

**Explanation**

MO (Made at org AVUM level) MF (Made at DS/AVUM level) MH (Made at GS level) ML (Made at Specialized Repair Activity (SRA)) MD (Made at Depot)	<p>Items with these codes are not to be requested/requisitioned 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 of the repair parts list in the RPSTL. If the item is authorized to you by the 3rd position code of the SMR code, but the source code indicates it is made at a higher level, order the item from the higher level of maintenance.</p>

**Explanation**

AO (Assembled by org AVUM Level) AF (Assembled by DS/AVUM Level) AH (Assembled by GS Category) AL (Assembled by SRA) AD (Assembled by Depot)	<p>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 3rd position code of the SMR code authorizes you to replace the item, but the source code indicates the items are assembled at a higher level, order the item from the higher level of maintenance.</p>

- XA - - Do not requisition an "XA"-coded item. Order its next higher assembly. (Also, refer to the NOTE below.)
- XB - - If an "XB" item is not available from salvage, order it using the FSCM and part number given.
- XC - - Installation drawing, diagram, instruction sheet, field service drawing, that is identified by manufacturer's part number.
- XD - - Item is not stocked. Order an "XD"-coded item through normal supply channels using the FSCM 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 source coded "XA" or those aircraft support items restricted by requirements of AR 750-1

(2) **Maintenance Code.** Maintenance codes tells 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:

(a) 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**

- C - Crew or operator maintenance done within the organization or aviation unit maintenance.
- O - Organizational or aviation unit category can remove, replace, and use the item.
- F - Direct support or aviation intermediate level can remove, replace, and use the item.
- H - General support level can remove, replace, and use the item.
- L - Specialized repair activity can remove, replace, and use the item.
- D - Depot level can remove, replace, and use the item.

(b) The maintenance code entered in the fourth position tells whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (i.e., 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. This position will contain one of the following maintenance codes.

**Code**

**Application/Explanation**

- O - Organizational or (aviation unit) is the lowest level that can do complete repair of the item.
- F - Direct support or aviation intermediate level is the lowest level that can do complete repair of the item.
- H - General Support is the lowest level that can do complete repair of the item.
- L - Specialized repair activity 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.
- Z - Nonreparable. No repair is authorized.
- B - No repair is authorized. (No parts or special tools are authorized for the maintenance of a "B" coded item). However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

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

**Recoverability Codes**

**Application/Explanation**

- Z - Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in 3rd position of SMR Code.
- O - Repairable item. When not economically repairable, condemn and dispose of the item at organizational or aviation unit level.
- F - Repairable item. When uneconomically repairable, condemn and dispose of the item at the direct support or aviation intermediate level.
- H - Repairable item. When uneconomically repairable, condemn and dispose of the item at the general support level.
- D - Repairable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item not authorized below depot level.
- L - Repairable item. Condemnation and disposal not authorized below specialized repair activity (SRA).
- A - Item requires special handling or condemnation procedures because of specific reasons (e.g., precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

c. **CAGEC (Column (3)).**

d. **PART NUMBER (Column (4)).** 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 part ordered.

e. **DESCRIPTION AND USABLE ON CODE (UOC) (Column (5)).** 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/fabricated.
- (3) The statement "END OF FIGURE" appears just below the last item description in Column (5) for a given figure in both Section II and Section III.

f. **QTY (Column (6)).** 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 the column in lieu of a quantity indicates that the quantity is variable and may vary from application to application.

**4. EXPLANATION OF INDEX FORMAT AND COLUMNS (SECTION IV).**

a. **NATIONAL STOCK NUMBER (NSN) INDEX.**

(1) **STOCK NUMBER Column.** This column lists the NSN in national item identification number (NIIN) sequence. The NIIN consists of the last nine digits of the NSN, i.e.

NSN
5305-01-574-1467
NIIN

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.

(2) **FIG. Column.** This column lists the number of the figure where the item is identified/located. The figures are in numerical order in Section II and Section III.

(3) **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.

b. **PART NUMBER INDEX.** Part numbers in this index are listed in ascending alphanumeric sequence (i. e., vertical arrangement of letter and number combinations which place 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).

- (1) **CAGEC column.** The Commercial and Government Entity Code (CAGEC) is a 5-digit numeric code which is used to identify the manufacturer, distributor, or Government agency/activity that supplies the item.
- (2) **PART NUMBER Column.** Indicates the primary number used by the manufacturer (individual, 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.
- (3) **STOCK NUMBER Column.** This column lists the NSN for the associated part number and manufacturer identified in the PART NUMBER and FSCM columns to the left.
- (4) **FIG. Column.** This column lists the number of the figure where the item is identified/located in Section II and Section III.
- (5) **ITEM Column.** The item number is that number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

**c. FIGURE AND ITEM NUMBER INDEX.**

- (1) **FIG. Column.** This column lists the number of the figure where the item is identified/located in Section II and Section III.
- (2) **ITEM Column.** The item number is that number assigned to the item as it appears in the figure referenced in the adjacent figure number column.
- (3) **STOCK NUMBER Column.** This column lists the NSN for the item.
- (4) **FSCM Column.** The Federal Supply Code for Manufacturer (FSCM) is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency/activity that supplies the item.
- (5) **PART NUMBER Column.** Indicates the primary number used by the manufacturer (individual, 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.

**5. SPECIAL INFORMATION.**

**a. USABLE ON CODE.** The usable on code appears in the lower left corner of the Description column heading. Usable on codes are shown as "UOC:.." in the Description Column (justified left) on the last line of the applicable item description/nomenclature. Uncoded items are applicable to all models.

<b>Code</b>	<b>Used On</b>
-------------	----------------

**b. FABRICATION INSTRUCTIONS.** Bulk materials required to manufacture items are listed in the Bulk Material Functional Group of this RPSTL. Part numbers for bulk materials are also referenced in the description column of the line entry for the item to be manufactured/fabricated. Detailed fabrication instructions for items source coded to be manufactured or fabricated are found in TM 10-4320-317-13.

**c. INDEX NUMBERS.** Items which have the word BULK in the figure column will have an index number shown in the item number column. This index number is a cross-reference between the National Stock Number/Part Number Index and the bulk material list in Section II.

**d. ASSOCIATED PUBLICATIONS.** The publications listed below pertain to the Tactical Water Distribution System and its components.

<u>Publication</u>	<u>Short Title</u>
TM 10-4320-317-13	Operator, Unit, and Direct Support Maintenance Manual. TACTICAL WATER DISTRIBUTION EQUIPMENT STSTEM, 10 MILE SEGMENT



## 6. HOW TO LOCATE REPAIR PARTS.

### a. When National Stock Numbers or Part Numbers are NOT Known.

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

(2) Second. Find the figure covering the assembly group or subassembly group to which the item belongs.

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

(4) Fourth. Refer to the Repair Parts List for the figure to find the part number for the item number noted on the figure.

### b. When National Stock Number or Part Number is Known:

(1) First. Using the of National Stock Number and Part Numbers, find the pertinent National Stock Number or Part Number. The NSN index is in National Item Identification Number (NIIN) sequence (see c-4a.(1)). The part numbers in the Part Number index are listed in ascending alphanumeric sequence (see paragraph c-4.b). Both indexes cross-reference you to the illustration figure and item number of the item you are looking for.

(2) Second. After finding the figure and item number, verify that the item is the one you are looking for, then locate the item number in the repair parts list for the figure.

## 7. ABBREVIATIONS. Abbreviations used in this manual are listed in MIL-STD-12.

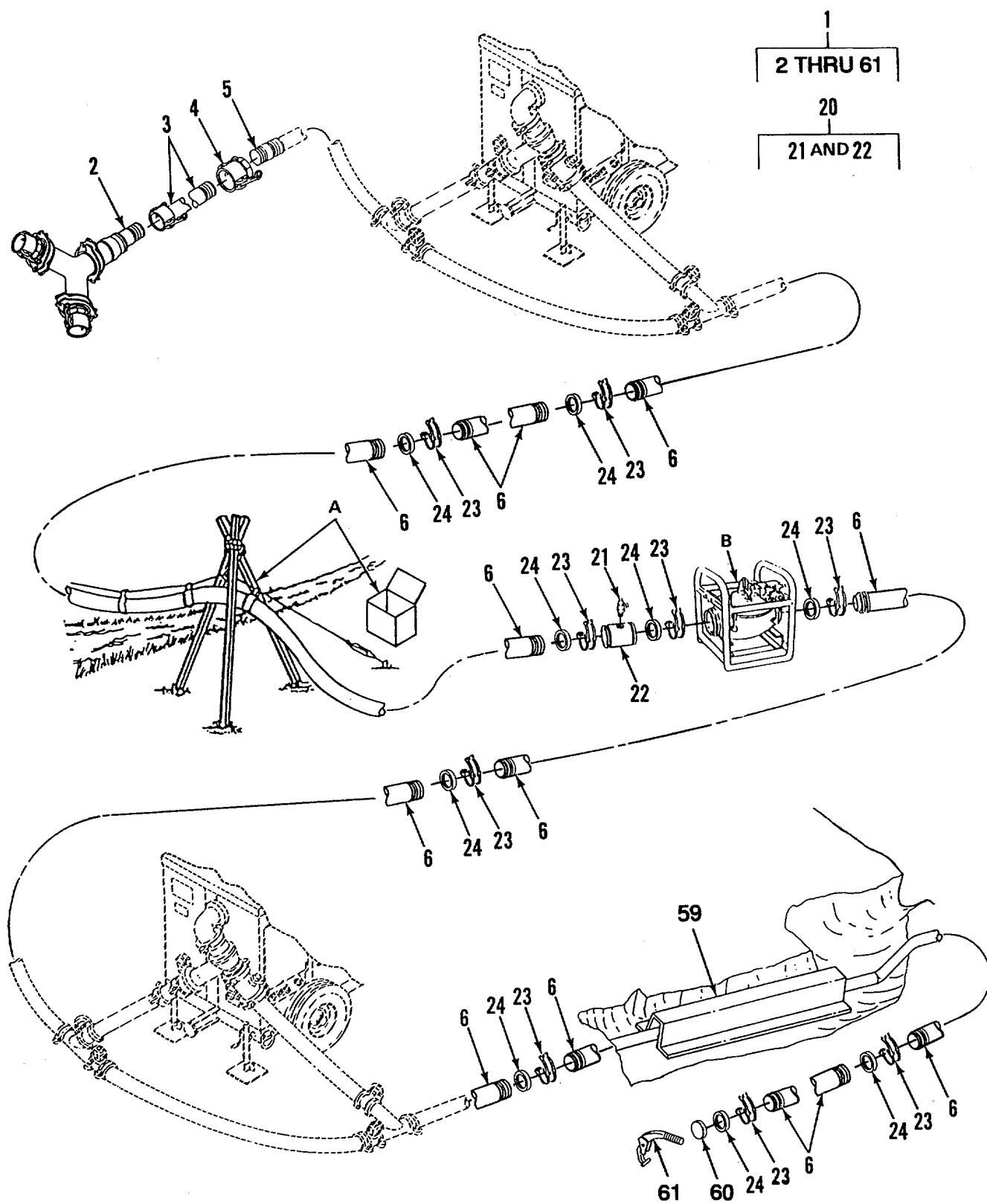
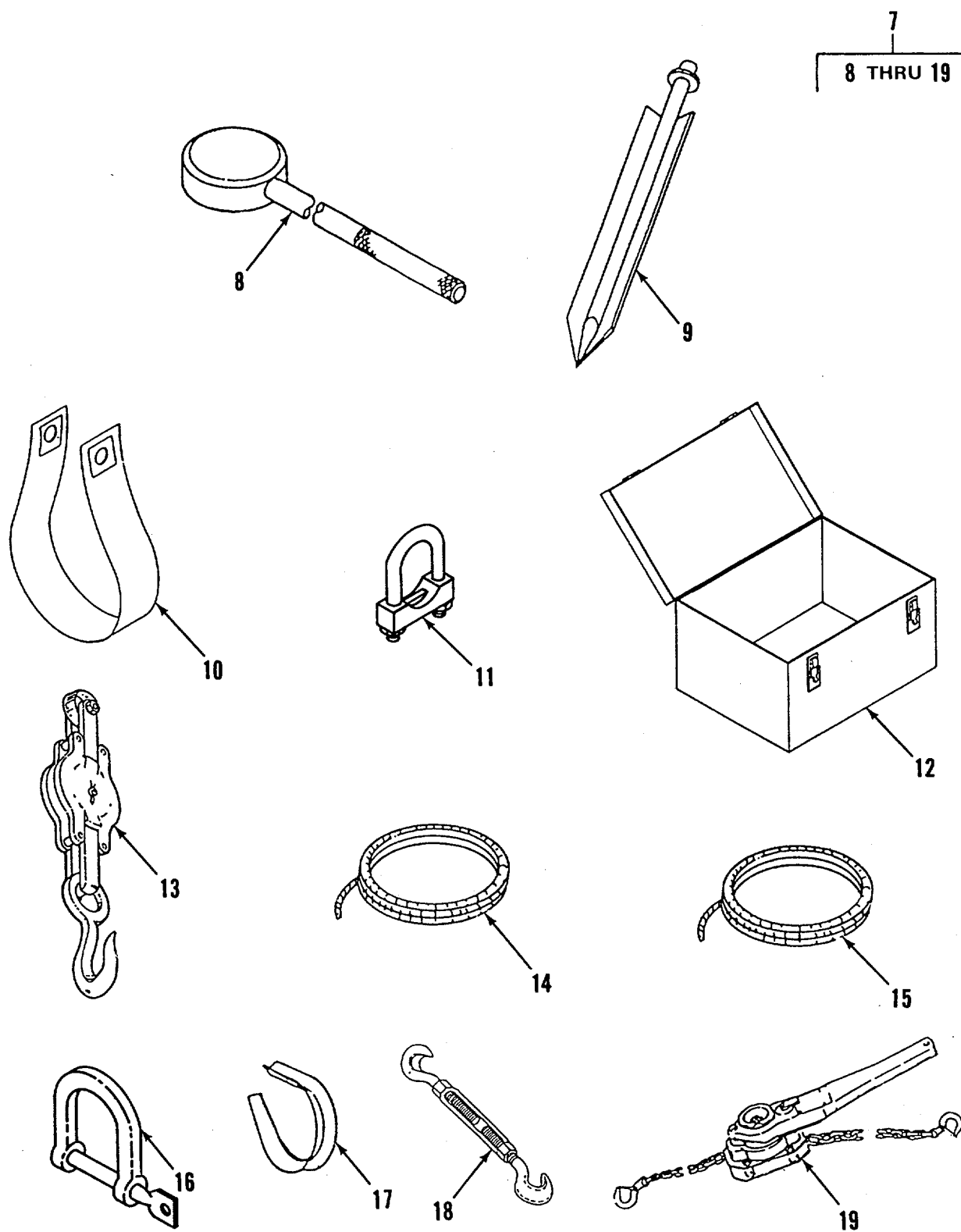


Figure 1. 10-Mile Hoseline Segments/Components (Sheet 1 of 3)



DETAIL A

Figure 1. 10-Mile Hoseline Segments/Components (Sheet 2 of 3)

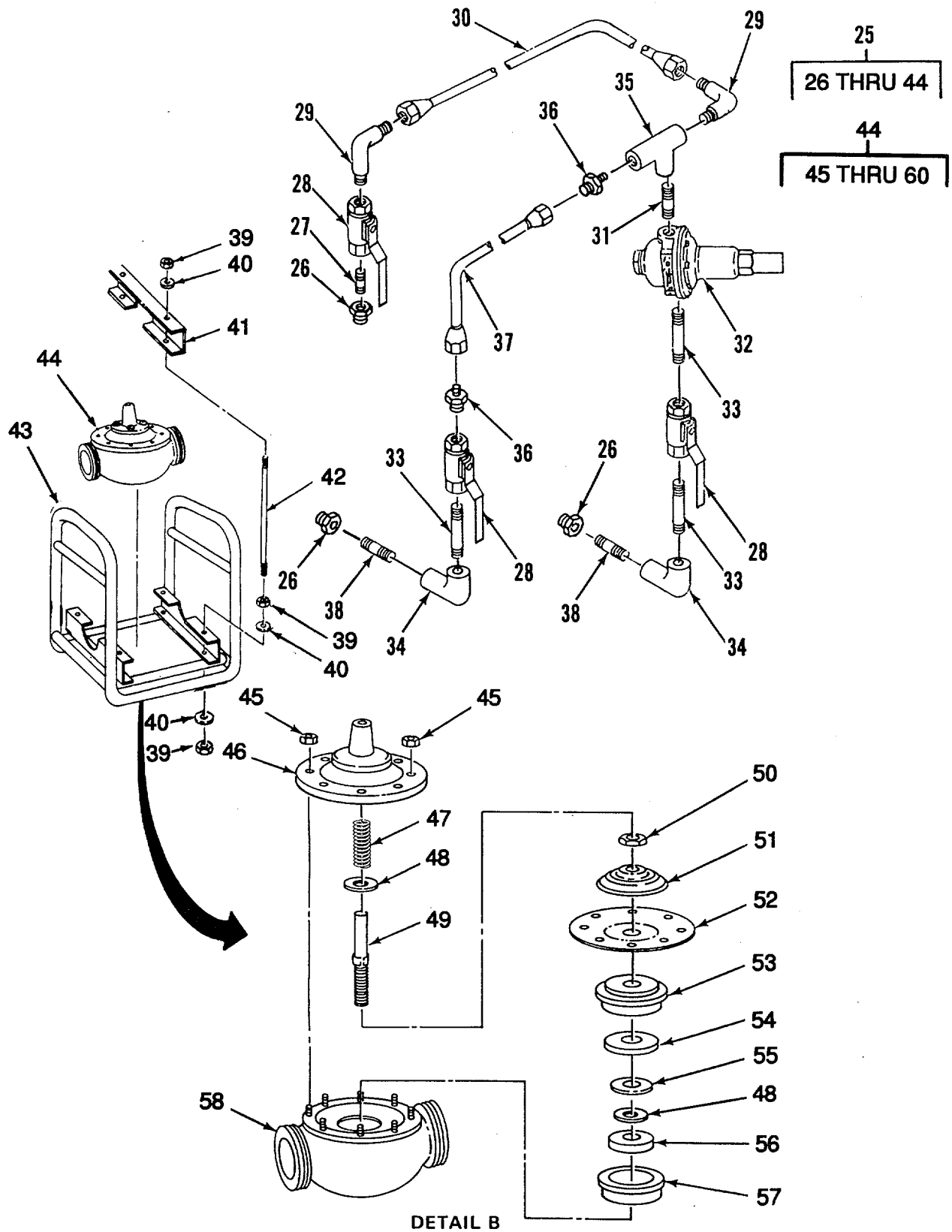


Figure 1. 10-Mile Hoseline Segments/Components (Sheet 3 of 3)

SECTION II		TM10-4320-317-23P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
GROUP 01 10-MILE HOSELINE SEGMENTS/ COMPONENTS					
FIG. 1 10-MILE HOSELINE SEGMENTS/ COMPONENTS					
1	XBFFF	97403	13225E9090	WATER DISTRIBUTION .....	1
2	XBOZZ	97403	13225E9190	Y REDUCER,WYE CONN .....	1
3	PAOOZ	81348	ZZH561AA2060120	HOSE ASSEMBLY,NONME .....	12
4	XBOZZ	96906	MS27024-19	COUPLING HALF,QUICK .....	1
5	XBOZZ	81349	M10388-AO7AK1A6A	COUPLING,PIPE.....	1
6	PAOOO	81349	M53027-5000	HOSE ASSEMBLY,NONME .....	128
7	XBOOO	97403	PD-82099	SUSPENSION KIT,HOSE .....	5
8	XBOZZ	97403	13225E9189	DRIVE HEAD,STAKE .....	1
9	PAOZZ	97403	13225E9188	STAKE,GUY .....	14
10	XBOZZ	97403	13226E1570	SADDLE,HOSE .....	60
11	PAOZZ	96906	MS16842-7	CLAMP,WIRE ROPE,SAD 1/2 INCH .....	25
12	XBOZZ	62503	D-9028-A	CHEST,METAL STORAGE .....	1
13	XBOZZ	75535	H-21-B-4IN	BLOCK,SNATCH .....	4
14	PAOZZ	81349	TR605	ROPE,FIBROUS TYPE M,CLASS 2,1/2 INCH DIA,MILDEW RESISTANT.....	1
15	PAOZZ	39428	3440T213	WIRE ROPE .....	1
16	PAOZZ	75535	G-210-1/2IN	SHACKLE .....	60
17	PAOZZ	72992	3564	THIMBLE,ROPE .....	4
18	XBOZZ	75535	HG-223 3/4 X 18 INCH	TURNBUCKLE .....	4
19	XBOZZ	5V588	SERIES 637-1 1/2 TON	HOIST .....	1
20	XBOOZ	97403	13225E9196	VALVE ASSEMBLY,SAFE .....	1
21	PAOZZ	34494	20M-3/4-200PSI	VALVE,SAFETY RELIEF .....	1
22	XBOZZ	81349	M10388-A-08-AK-4 -C-6A	COUPLING,PIPE .....	1
23	PAOZO	79154	C-060-791-A-EB	COUPLING,CLAMP,PIPE .....	194
24	PAOZZ	79154	G-060-077-OEO	GASKET .....	80
25	XBFFO	97403	13225E9090-13	VALVE ASSEMBLY,PRES .....	1
26	XBFFZ	96906	MS14315-8X	BUSHING,PIPE .....	3
27	XBFFZ	96906	MS51846-39	NIPPLE,PIPE .....	1
28	PAFZZ	72219	70-102	VALVE,BALL .....	3
29	XBFFZ	87373	2101-6-6B	ELBOW,MALE PIPE .....	2
30	XBFFZ	86184	7362013A	TUBING,PREFORMED .....	1
31	XBFFZ	96906	MS51846-45	NIPPLE,PIPE .....	1
32	PAFZF	86184	71943-04H	VALVE,REGULATING,FL.....	1
33	XBFFZ	96906	MS51846-52	NIPPLE,PIPE .....	3
34	XBFFZ	96906	MS51845-3	ELBOW,PIPE .....	2
35	XBFFZ	96906	MS14305-3J	TEE,PIPE .....	1
36	XBFFZ	39428	5068K22	UNION,MALE,HALF .....	2
37	XBFFZ	86184	7362023K	TUBING,PREFORMED .....	1
38	XBFFZ	96069	MS51846-48	NIPPLE,PIPE .....	2
39	XDFFF	96906	MS51971-3	NUT,HEX .....	12
40	XDFFF	96906	MS35338-46	WASHER,FLAT .....	12
41	XBFFF	62503	D-9048-2	BRACKET,HOLDDOWN .....	2

SECTION II		TM10-4320-317-23P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
42	XBFFF	62503	D-9048-3	ROD,HOLDDOWN .....	4
43	XBFFF	62503	D-9048-1	FRAME,SKID .....	1
44	XBFFF	86184	90-01-2526C	MAIN VALVE .....	1
45	XBFZZ	86184	6781118C	NUT,HEX .....	8
46	XBFZZ	86184	C7240K	COVER .....	1
47	PAFZZ	86184	C1534B	SPRING,HELICAL,COMP .....	1
48	PAFZZ	86184	V5138C	WASHER,FLAT .....	2
49	XBFZZ	86184	V5519D	STEM,VALVE .....	1
50	XBFZZ	86184	8937901A	NUT,PLAIN,HEXAGON .....	1
51	PAFZZ	86184	C0973C	WASHER,FLAT .....	1
52	PAFZZ	86184	87893E	DIAPHRAGM,VALVE,FLA .....	1
53	XBFZZ	86184	C0966G	RETAINER,DISK,VALVE .....	1
54	PAFZZ	86184	00851G	SEAT,VALVE .....	1
55	XBFZZ	86184	V1692C	DISK,VALVE .....	1
56	XBFZZ	86184	V5075B	GUIDE,DISC .....	1
57	PAFZA	86184	V6868D	SEAT,VALVE .....	1
58	XBFZZ	86184	79911E	VALVE BODY .....	1
59	XBOZZ	97403	13226E1576	GUARD,ROADWAY CROSS .....	24
60	XBOZZ	81349	M10388-A05AKIA	CAP,PIPE .....	1
61	XBOZZ	79154	H-020-792-P-06	TOOL,ASSEMBLY .....	4

END OF FIGURE

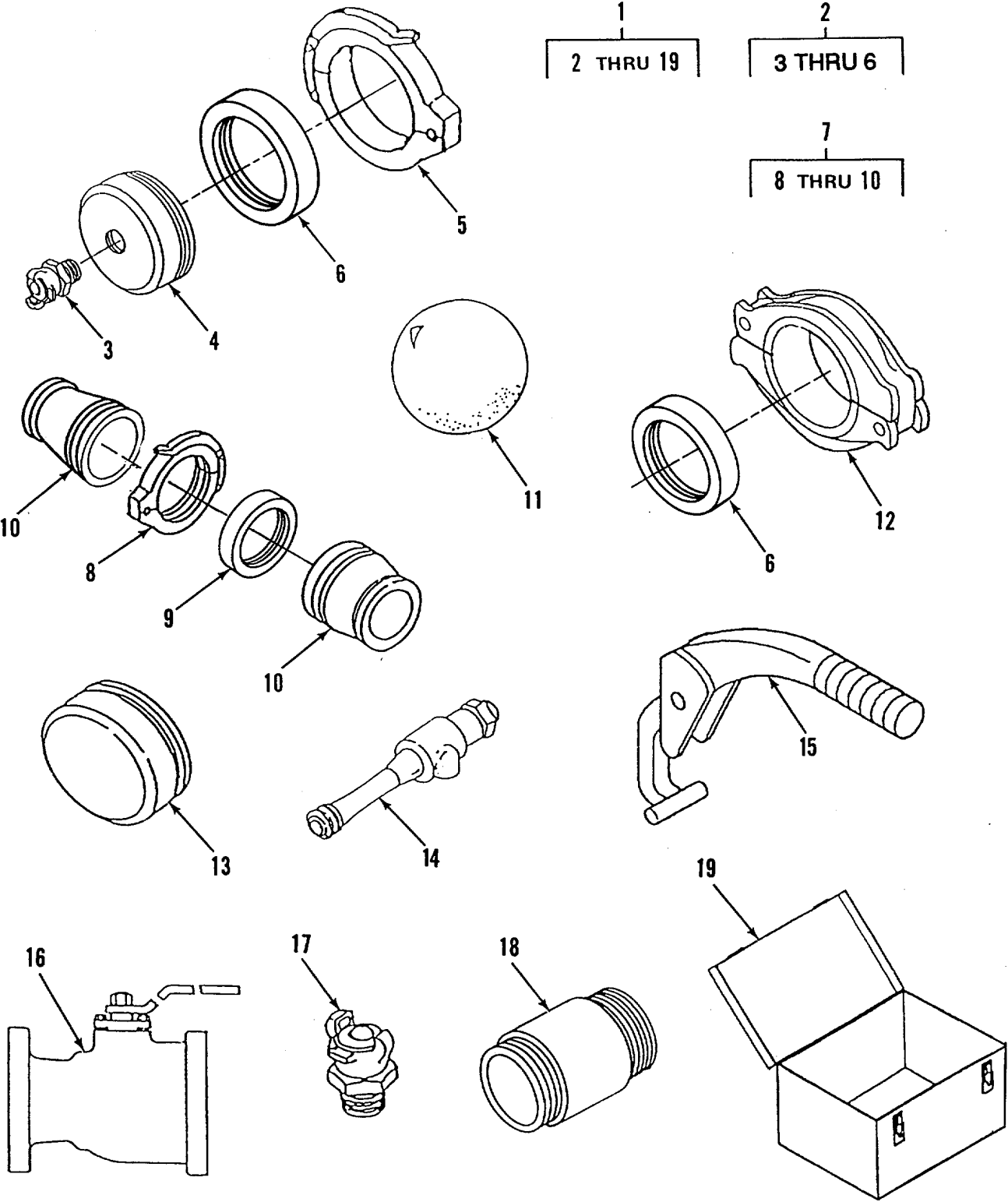


Figure 2. Displacement and Evacuation Kit, 6-Inch Hoseline

SECTION II		TM10-4320-317-23P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
				GROUP 01 10 MILE HOSELINE SEGMENTS/ COMPONENTS	
				FIG. 2 DISPLACEMENT AND EVACUATION KIT, 6-INCH HOSELINE	
1	XBOOO	97403	13226E1577	DISPLACEMENT AND EV .....	2
2	XBOZZ	97403	13225E9198	BALL ASSEMBLY,INLET .....	1
3	PAOZZ	81348	WWC633-15-B	COUPLING HALF,QUICK.....	1
4	XBOZZ	97403	13226E1580	CAP,PIPE .....	1
5	XBOZZ	79154	78AX6	COUPLING,CLAMP,PIPE 6 INCH.....	1
6	PAOZZ	79154	G-060-077-0E0	GASKET.....	8
7	XBOZO	97403	13226E1579	RECEIVER ASSEMBLY,B .....	1
8	XBOZZ	79154	78AX8	COUPLING,CLAMP,PIPE 8 INCH.....	1
9	PAOZZ	79154	G-080-077-0E0	GASKET .....	1
10	XBOZZ	79154	50A8X6	REDUCER,PIPE 8X6 INCH.....	2
10A	XBOZZ	90598	25116-100	REDUCER,PIPE 8X6 INCH, MODIFIED.....	2
11	PAOZZ	97403	13228E9872	BALL,DISPLACEMENT .....	2
12	XBOZZ	79154	C-060-791-A-EB	COUPLING,VICTAULIC .....	8
13	XBOZZ	81349	M10388-A05AKIC	CAP,PIPE .....	24
14	XBOZZ	62503	D-9038-1	EJECTOR ASSEMBLY .....	1
15	XBOZZ	79154	H-020-792-P-06	TOOL,ASSEMBLY .....	1
16	PAOZZ	12168	T-580 1IN	VALVE,BALL .....	1
17	XDOZZ	81348	WWC633-10-B	COUPLING HALF,QUICK.....	1
18	XBOZZ	81349	M10388-A08AKIC6A	COUPLING,PIPE .....	1
19	XBOZZ	62503	D-9027-A	CHEST,DSPL AND EVAC .....	1

END OF FIGURE



1  
2 THRU 37

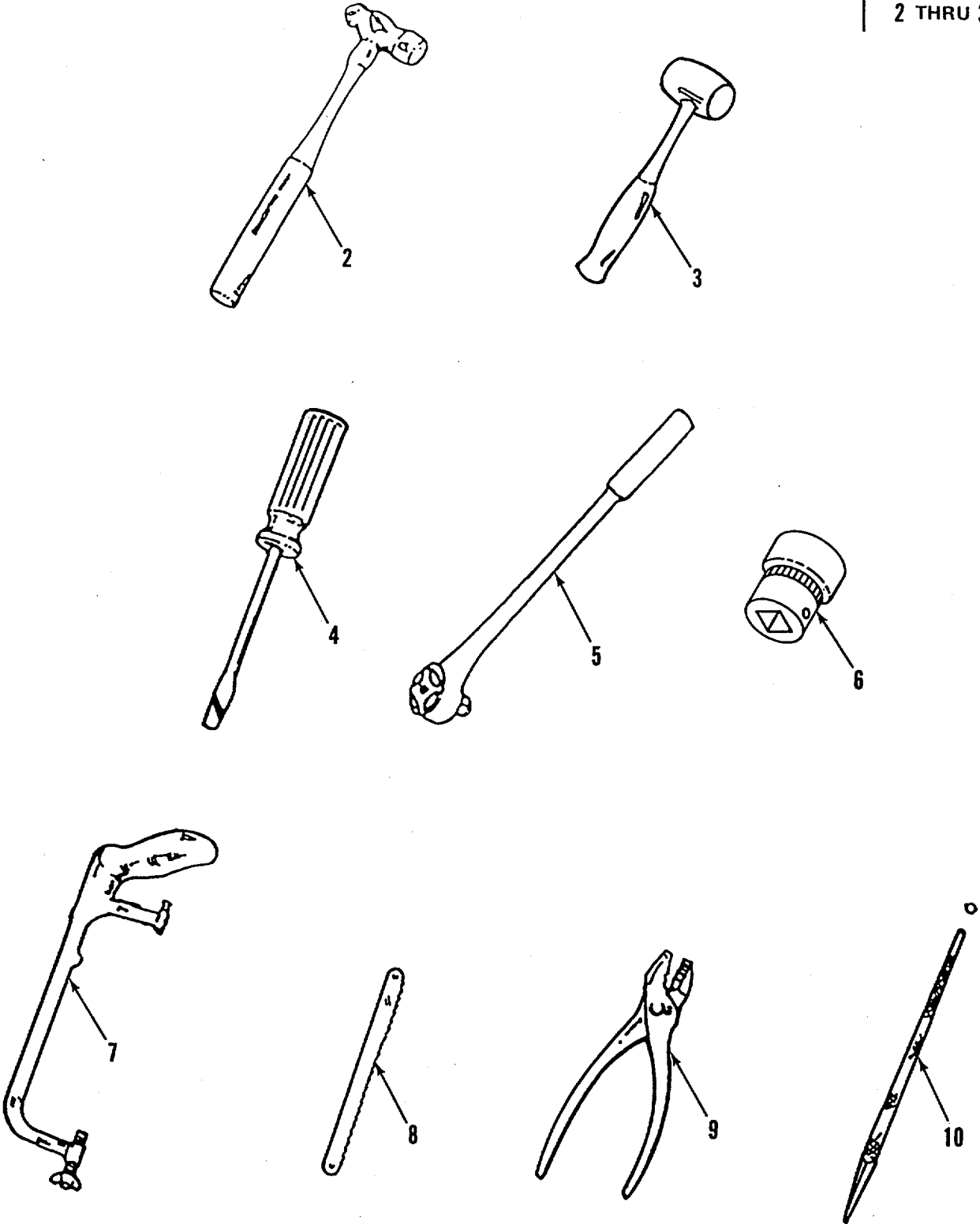


Figure 3. Repair Kit, Hoseline, 6-Inch (Sheet 1 of 3)

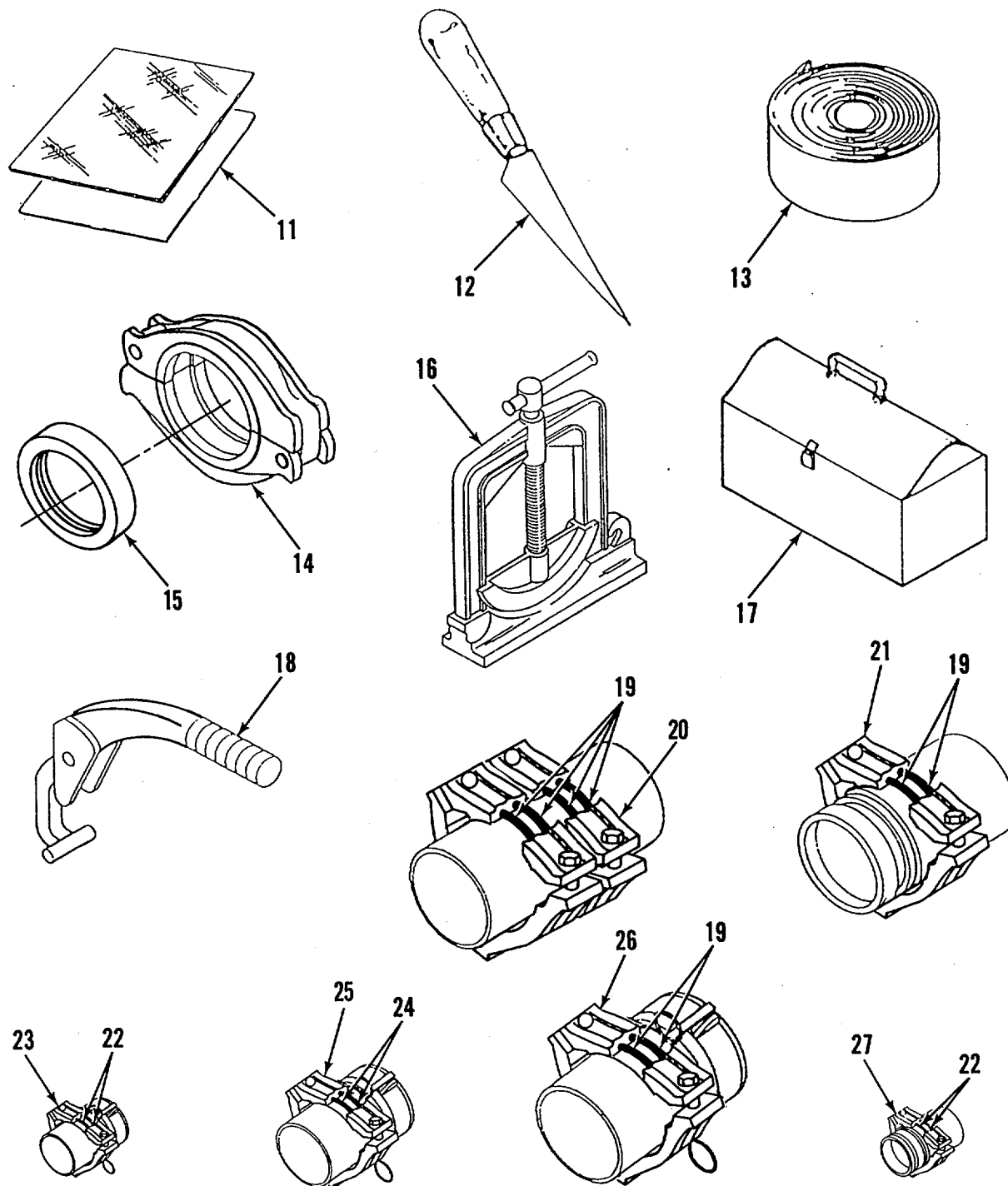


Figure 3. Repair Kit, Hoseline, 6-Inch (Sheet 2 of 3)

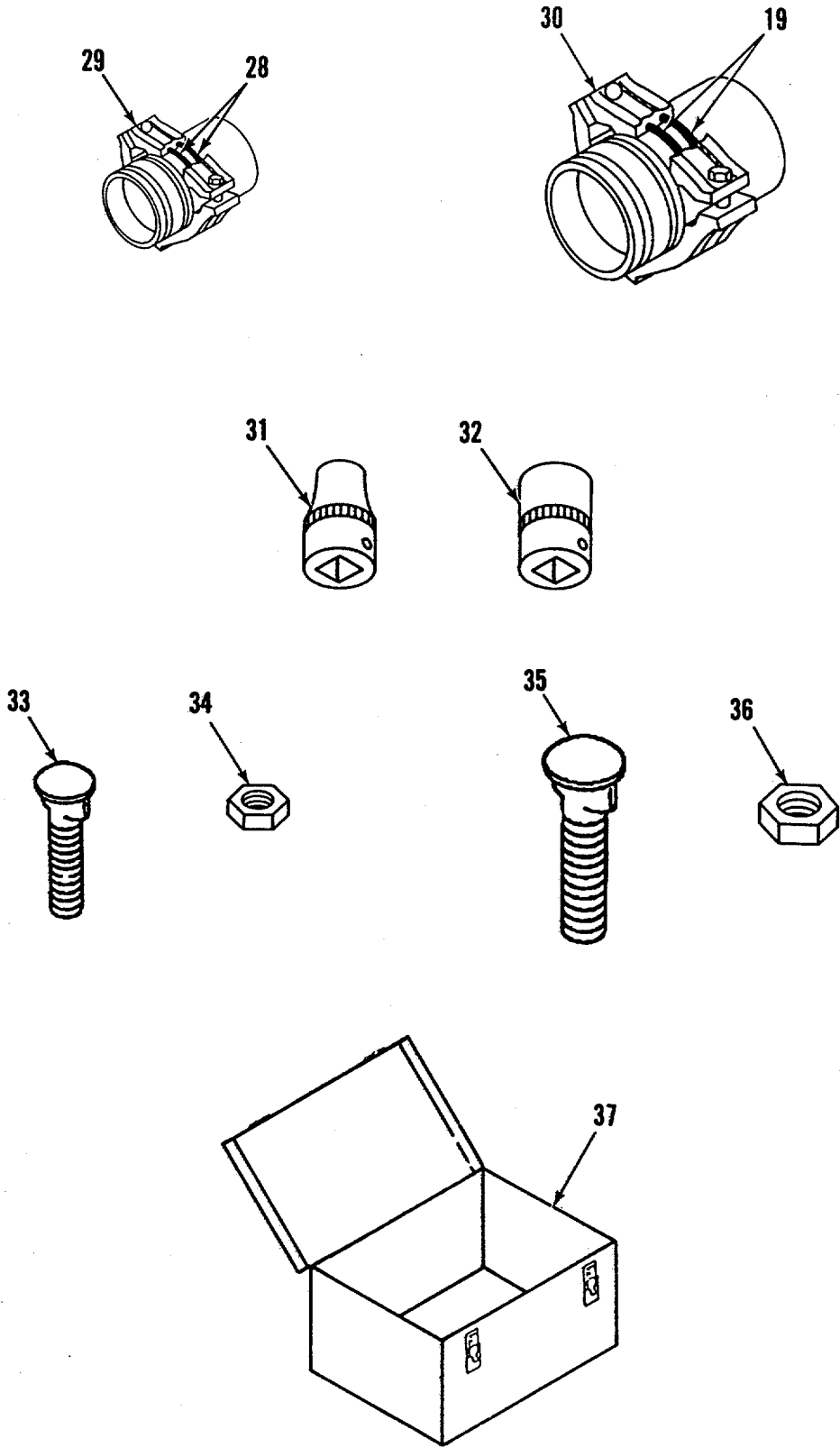


Figure 3. Repair Kit, Hoseline, 6-Inch (Sheet 3 of 3)

SECTION II		TM10-4320-317-23P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
				GROUP 01 10-MILE HOSELINE SEGMENTS/ COMPONENTS	
				FIG. 3 REPAIR KIT, HOSELINE, 6-INCH	
1	XBOOO	97403	13226E1581	REPAIR KIT,HOSE .....	1
2	XBOZZ	52572	310B	HAMMER,BALL PEEN .....	1
3	XBOZZ	03914	69-490	MALLET,RUBBER .....	1
4	XBOZZ	52572	63-266	SCREWDRIVER,FLAT TI .....	1
5	XBOZZ	52572	5649BL	WRENCH,SOCKET .....	1
6	XBOZZ	81348	GGG-W-641 TYIICL 2 STYLE A 1-1/4	SOCKET .....	1
7	XBOZZ	03914	70-865	SAW,HAND,METAL CUTT .....	1
8	PAOZZ	54921	30-01018	BLADE,HAND HACKSAW .....	10
9	XBOZZ	96508	2050-91	PLIERS,LINESMAN .....	1
10	PAOZZ	43786	00136	FILE,HALF ROUND .....	1
11	PAOZZ	06565	EMERYCLOSEKOTE	CLOTH,ABRASIVE .....	3
12	XBOZZ	29891	60870	KNIFE .....	1
13	XBOZZ	19099	A300-01-001	HOSE ASSEMBLY,NONME .....	2
14	XBOZZ	79154	C-060-791-A-EB	COUPLING,VICTAULIC .....	3
15	PAOZZ	79154	G-060-077-OEO	GASKET .....	3
16	XBOZZ	97403	13226E1581-15	CLAMP,HOSE .....	2
17	XBOZO	75206	K-20/20	TOOL BOX,PORTABLE .....	1
18	XBOZZ	79154	H-020-792-P-06	TOOL,ASSEMBLY .....	1
19	PAOZZ	79154	P25425214E	PACKING,PREFORMED .....	320
20	XBOZZ	79154	C-060-482-A-EO	REPAIR ASSY,HOSE .....	6
21	XBOZZ	79154	C-060-480-A-EO	NIPPLE ASSY,HOSE .....	30
22	PAOZZ	79154	P22325214E	PACKING,PREFORMED .....	16
23	XBOZZ	79154	C-020-484-A-EO	HOSE NIP ASSY,FEM .....	2
24	PAOZZ	79154	P23825214E	PACKING,PREFORMED .....	4
25	XBOZZ	79154	C-040-484-A-EO	HOSE NIP ASSY,FEM .....	2
26	XBOZZ	79154	C-060-484-A-EO	HOSE NIP ASSY,FEM .....	2
27	XBOZZ	79154	C-020-483-A-EO	HOSE NIP ASSY,MALE .....	2
28	PAOZZ	79154	P23125214E	PACKING,PREFORMED .....	4
29	XBOZZ	7-9154	C-040-483-A-EO	HOSE NIP ASSY,MALE .....	2
30	XBOZZ	79154	C-060-483-A-EO	HOSE NIP ASSY,MALE .....	2
31	XBOZZ	81348	GGG-W-641 TYIICL 2 STYLE A 9/16	SOCKET .....	5
32	XBOZZ	81348	GGG-W-641 TYIICL 2 STYLE A 11/16	SOCKET .....	5
33	PAOZZ		ODUKO 151950	BOLT,TRACK HEAD .....	5
34	PAOZZ		ODUKO 122750	NUT .....	5
35	PAOZZ	ODUKO	153450	BOLT,MACHINE .....	20
36	PAOZZ	ODUKO	151250	NUT,PLAIN,HEXAGON .....	20
37	XBOZZ	62503	D-9028-A	CHEST,METAL STORAGE .....	1

END OF FIGURE

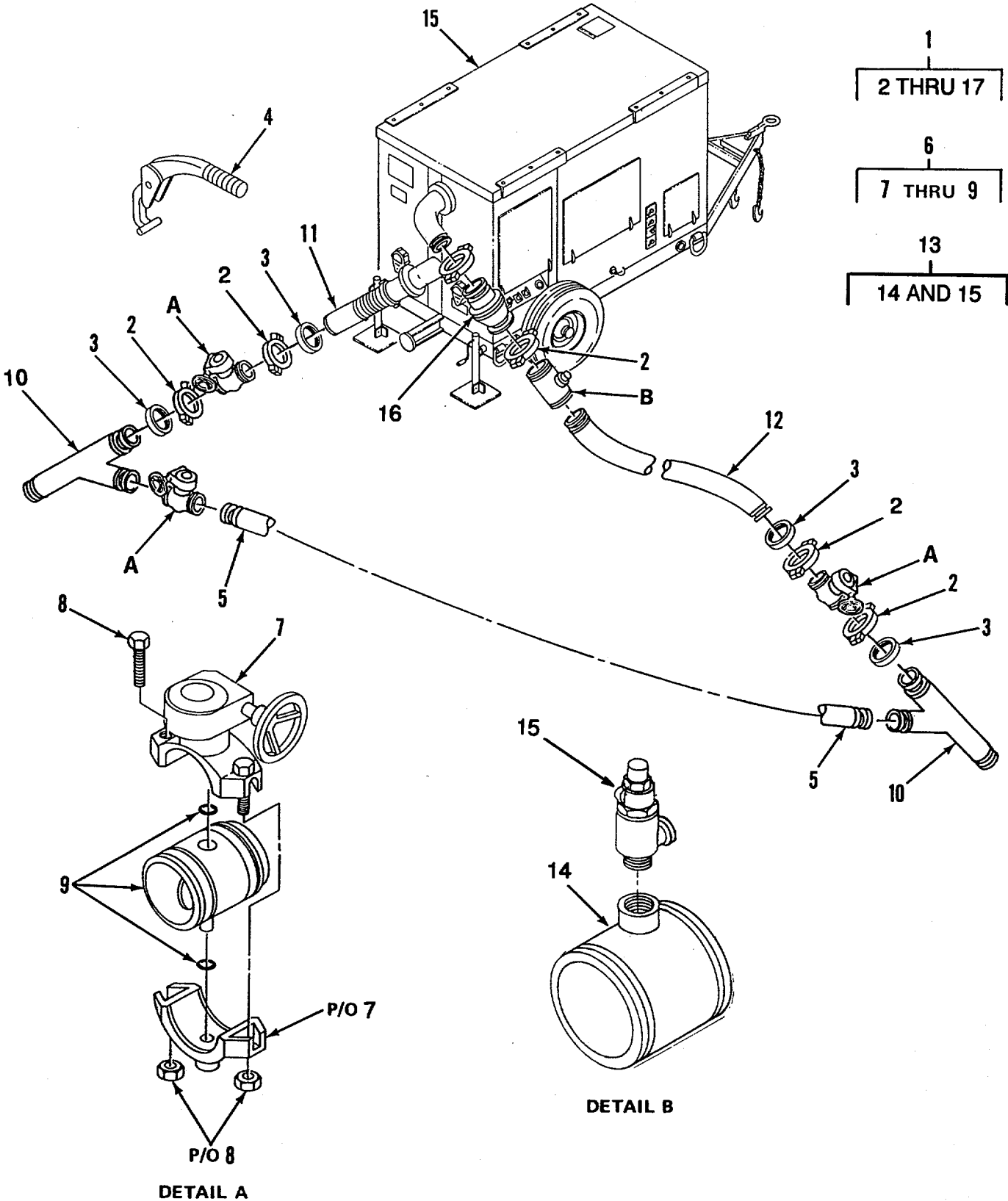


Figure 4. Pumping Station

SECTION II		TM10-4320-317-23P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
GROUP 02 PUMPING STATION					
FIG. 4 PUMPING STATION					
1	PDOOD	97403	13225E9088	PUMPING STATION .....	6
2	XBOZZ	79154	C-060-791-A-EB	COUPLING,VICTAULIC .....	8
3	PAOZZ	79154	G-060-077-OEO	GASKET .....	8
4	XBOZZ	79154	H-020-792-P-06	TOOL,ASSEMBLY .....	1
5	XBOZO	97403	13225E9088-6	HOSE ASSEMBLY,NONME 75 FT .....	1
6	XBOOO	79154	V-060-700-0-EM	VALVE,BUTTERFLY .....	3
7	XBOZZ	79154	K-060-700-0-E	OPERATOR,GEAR .....	1
8	XBOZZ	79154	B-A55-OO-Z-00	BOLT/NUT .....	2
9	PAOZZ	79154	K-060-700-0-1A	REPAIR KIT,VALVE .....	1
10	XBOZZ	81349	M10388-A-18-AK-1 -C	LATERAL,PIPE .....	2
11	PAOZO	97403	13225E9088-7	HOSE ASSEMBLY,NONME 10 FT .....	1
12	PAOZO	81349	M53027-0200	HOSE ASSEMBLY,NONME 20 FT .....	1
13	XBOZZ	97403	13225E9196	VALVE ASSEMBLY,SAFE .....	1
14	PAOZZ	34494	20M-3/4-200PSI	VALVE,SAFETY RELIEF .....	1
15	XBOZZ	81349	M10388-A-08-AK-4 -C-6A	COUPLING,PIPE .....	1
16	XBOZZ	79154	V-060-710-P-E3	VALVE,CHECK .....	1
17	PDODD	62503	6X6SP	PUMP UNIT,CENTRIFUG .....	1

END OF FIGURE

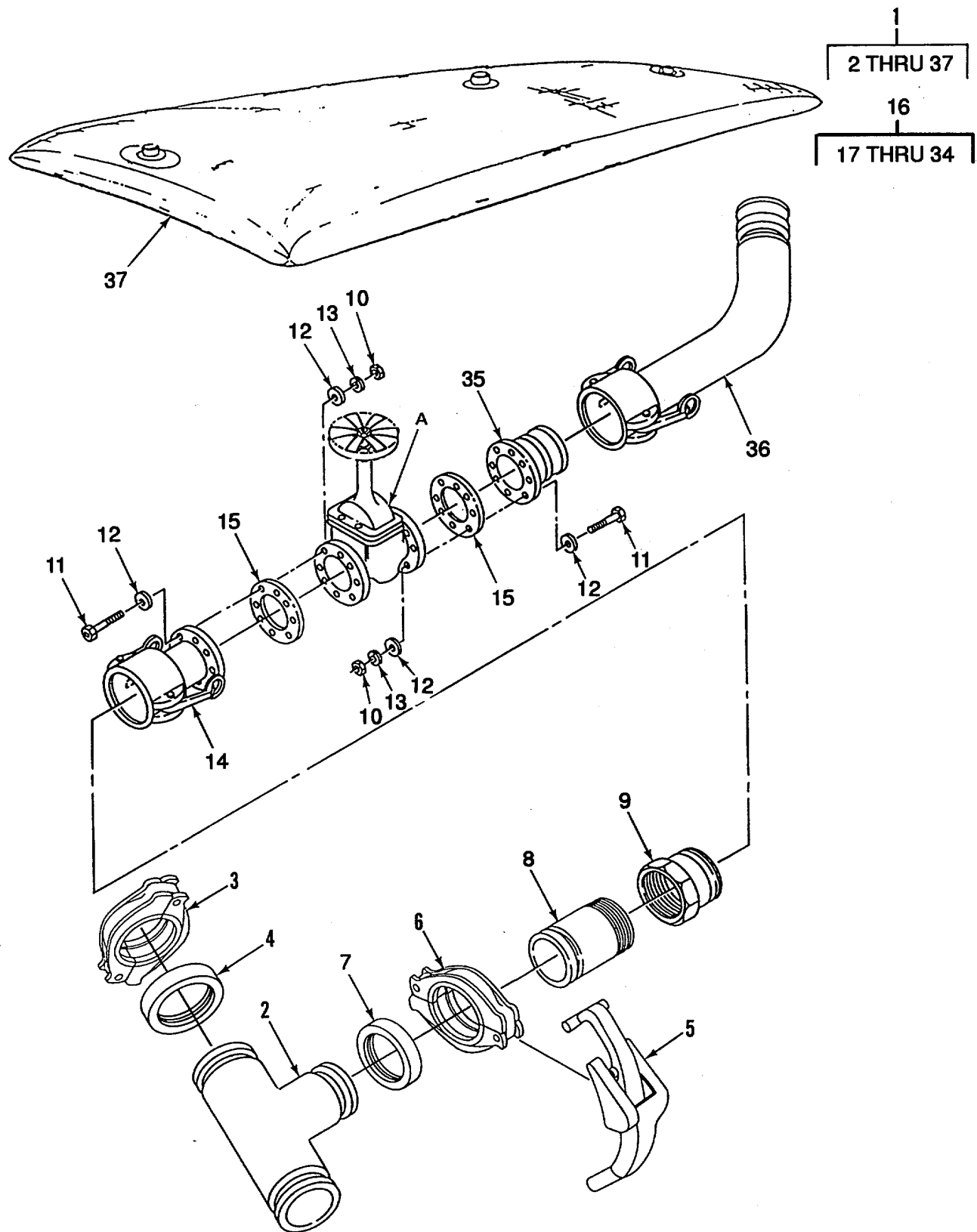


Figure 5. Storage Assembly (Sheet 1 of 2)

16  
17 THRU 34

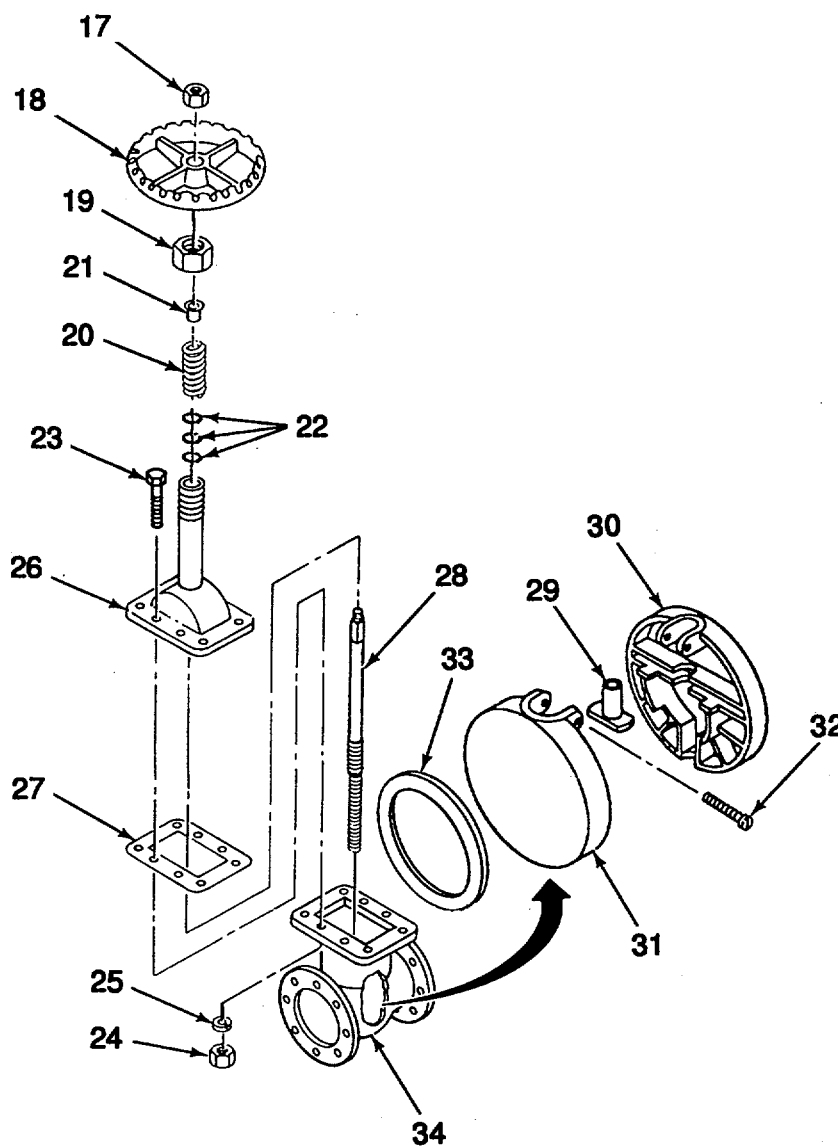


Figure 5. Storage Assembly (Sheet 2 of 2)



SECTION II		TM10-4320-317-23P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
GROUP 03 STORAGE ASSEMBLY					
FIG. 5 STORAGE ASSEMBLY					
1	PDOOD	97403	13225E9089	STORAGE ASSEMBLY .....	2
2	XBOZZ	81349	M10388-A30EB1A6C	TEE,REDUCING .....	2
3	PAOZO	79154	C-060-791-AEB	COUPLING,CLAMP,PIPE .....	1
4	PAOZZ	79154	G-060-077-OEO	GASKET .....	2
5	XBOZZ	79154	H-020-792-P-06	TOOL,ASSEMBLY .....	1
6	PAOZO	79154	C-060-791-A-EB	COUPLING,CLAMP,PIPE .....	2
7	PAOZZ	79154	G-060-077-OEO	GASKE T .....	1
8	XBOZZ	81349	M10388-A-02-AI-1 -C-6A	ADAPTER,STRAIGHT,FL .....	2
9	XBOZZ	96906	MS27020-17	COUPLING HALF,QUICK .....	2
10	PAOZZ	96906	MS51967-20	NUT,PLAIN,HEXAGON .....	32
11	PAOZZ	96906	MS90728-71	SCREW,CAP,HEXAGON H .....	32
12	PAOZZ	96906	MS27183-14	WASHER,FLAT .....	64
13	PAOZZ	96906	MS35338-46	WASHER,LOCK .....	32
14	XBOZZ	96906	MS27027-17	COUPLING HALF,QUICK .....	2
15	PAOZZ	97403	13220E1069-1	GASKET .....	4
16	XBOOO	41592	235RF-0200	VALVE,GATE .....	2
17	XBOZZ	41592	235RF-02052N	NUT,PLAIN,HEXAGON .....	1
18	XBOZZ	41592	235RF-0204 3R	HANDWHEEL .....	1
19	XBOZZ	41592	235RF-0207 2I	NUT,PACKING .....	1
20	PAOZZ	41592	235RF-02162S	SPRING,GLAND .....	1
21	PAOZZ	41592	235RF-0206 21	RETAINER,PACKING .....	1
22	XBOZZ	41592	235RF-02082P	RING,PACKING .....	3
23	XBOZZ	41592	235RF-02192S	SCREW,CAP,HEXAGON H .....	8
24	XBOZZ	41592	235RF-02202N	NUT,PLAIN,HEXAGON .....	8
25	XBOZZ	41592	235RF-02212W	WASHER,LOCK .....	8
26	XBOZZ	41592	235RF-0202 MB	BONNET .....	1
27	PAOZZ	41592	235RF-02092G	GASKET,VALVE BONNET .....	1
28	XBOZZ	41592	235RF-0203MS	STEM,VALVE .....	1
29	XBOZZ	41592	235RF-0217MR	RISER,DISK .....	1
30	XBOZZ	41592	235RF-0212MD	VALVE,GATE .....	1
31	XBOZZ	41592	235RF-0210MD	DISK,VALVE .....	1
32	XBOZZ	41592	235RF-02182S	SCREW,DISK .....	2
33	PAOZZ	41592	235RF-0215MR	RING,SEAT .....	1
34	XBOZZ	41592	235RF-0201MB	VALVE BODY .....	1
35	XBOZZ	96906	MS27023-17	COUPLING HALF,QUICK .....	1
36	XBOZZ	97403	13225E9136-3	HOSE ASSEMBLY,NONME .....	4
37	XBOOO	81349	M53029-20	TANK ASSEMBLY,FABRI .....	1

END OF FIGURE

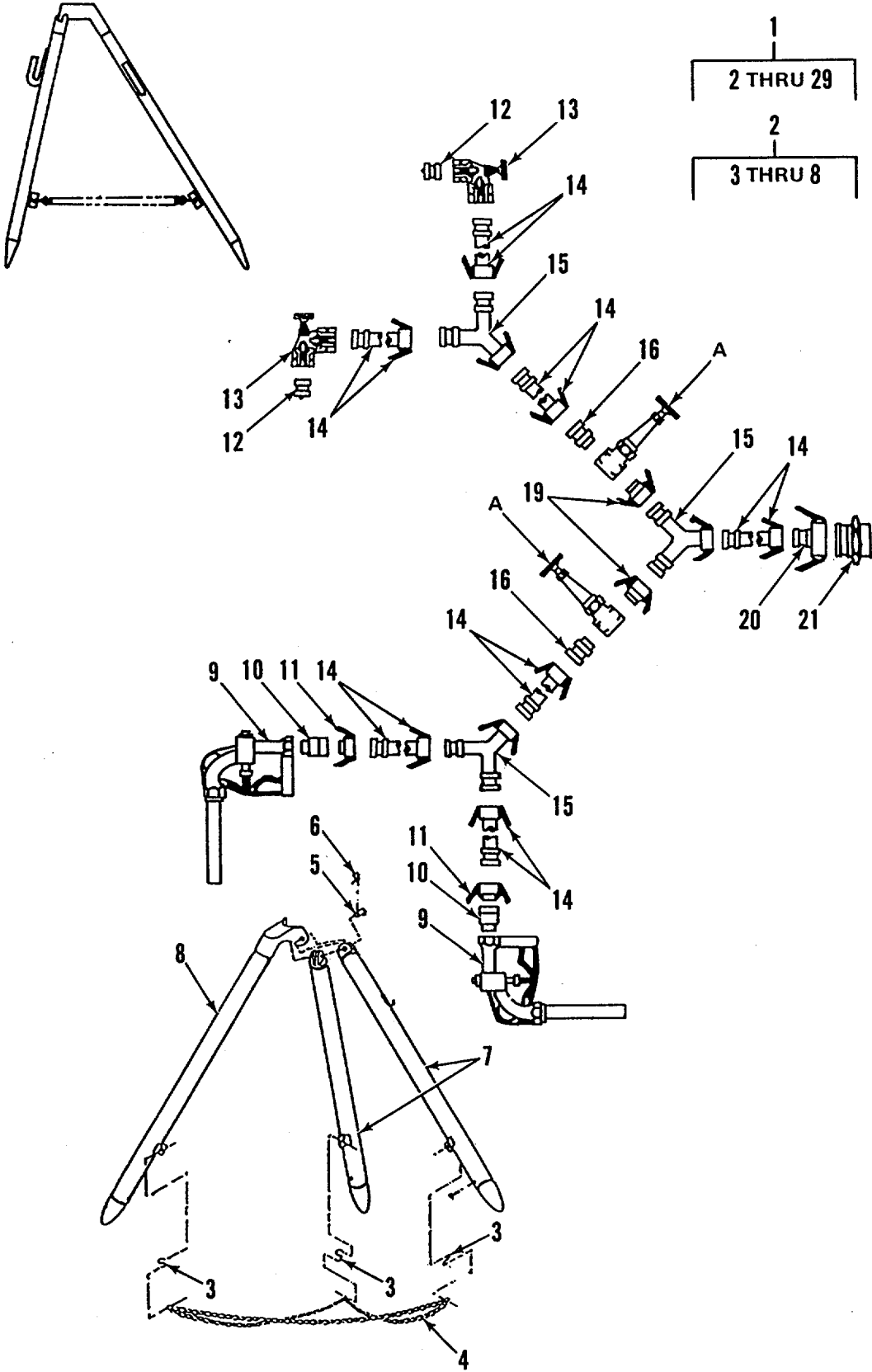


Figure 6. Distribution Point (Sheet 1 of 2)

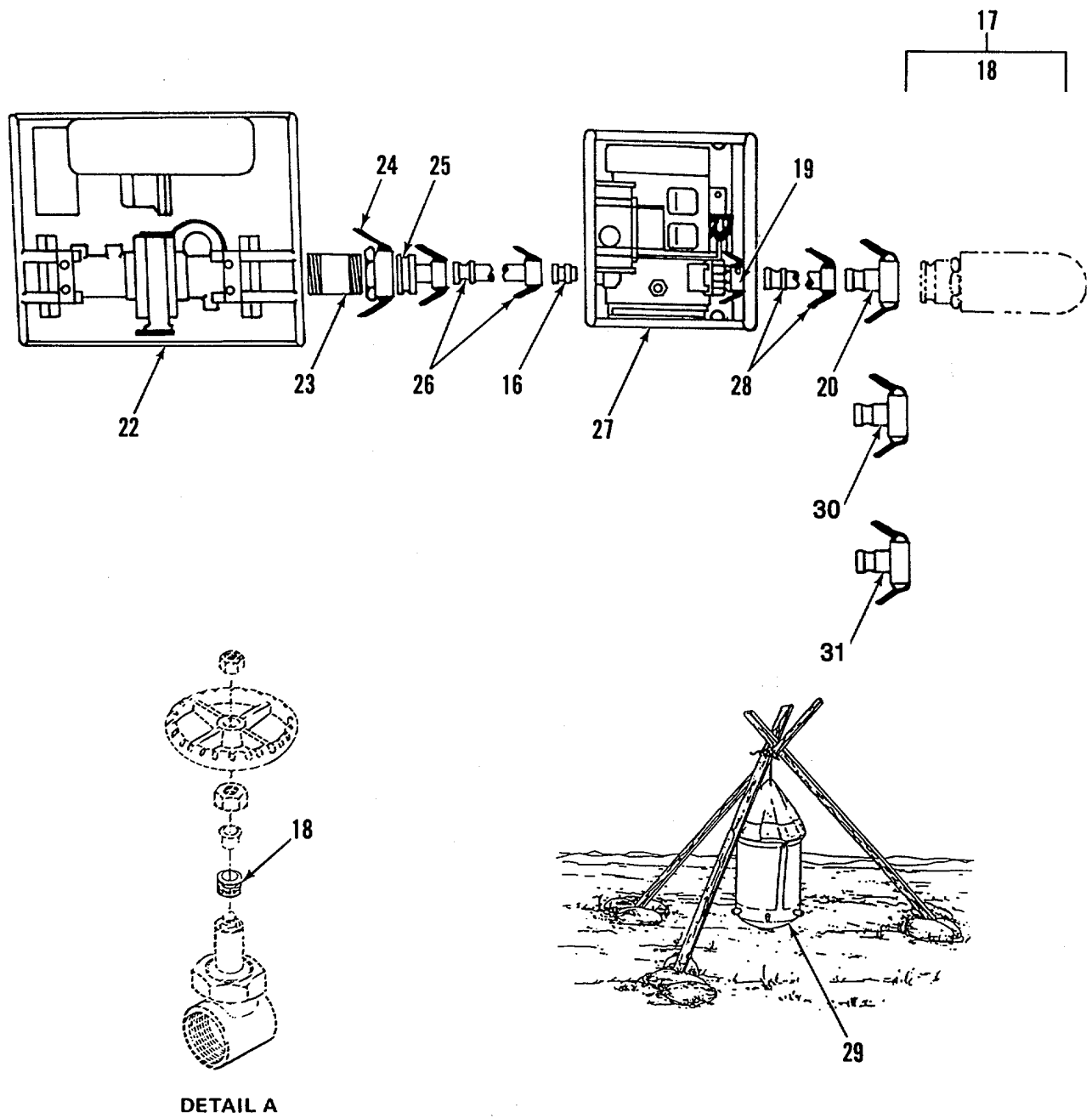


Figure 6. Distribution Point (Sheet 2 of 2)

SECTION II		TM10-4320-317-23P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
GROUP 04 DISTRIBUTION POINT					
FIG. 6 DISTRIBUTION POINT					
1	PDOOD	97403	13225E9091	DISTRIBUTION POINT .....	1
2	XBOOO	97403	13225E9140	STAND ASSEMBLY,DIST .....	4
3	XBOZZ	96906	MS87006-33	HOOK,CHAIN,S .....	3
4	PAOZZ	81348	RRC271	CHAIN,WELDLESS .....	3
5	PAOZZ	96906	MS20392-3C35	PIN,STRAIGHT,HEADED .....	2
6	PAOZZ	96906	MS24665-134	PIN,COTTER .....	2
7	XBOZZ	97403	13225E9146	LEG CLEVIS .....	2
8	XBOZZ	97403	13225E9145	LEG,PIVOT .....	1
9	XBOZZ	81718	190-GW	NOZZLE,WATER DISTRI .....	4
10	XBOZZ	81718	25W 1 1/2IN	SWING JOINT,PIPE .....	4
11	XBOZZ	96906	MS49002-9	COUPLING HALF,QUICK .....	4
12	XBOZZ	96906	MS27029-11	LUG,QUICK DISCONN .....	4
13	XBOZZ	9H113	77-B-2X2	VALVE,ANGLE .....	4
14	PAOZZ	97403	13225E9136-2	HOSE ASSEMBLY,NONME .....	14
15	XBOZZ	9H113	319K-2	WYE,QUICK DISCONN .....	6
16	XBOZZ	96906	MS27022-11	COUPLING HALF,QUICK .....	6
17	PAOOZ	82666	B120-2IN	VALVE,GATE .....	4
18	PAOZZ	82666	5819900 13-18-8	RETAINER,PACKING .....	1
19	XBOZZ	96906	MS27026-11	COUPLING HALF,QUICK .....	6
20	XBOZZ	96906	MS49000-17	REDUCER,QUICK DISCO .....	4
21	XBOZZ	96906	MS27022-17	COUPLING HALF,QUICK .....	2
22	PDOFF	31922	1955-3	HYPOCHLORINATION UN .....	2
23	XBOZZ	96906	MS51953-270	NIPPLE,PIPE .....	2
24	XBOZZ	96906	MS27024-17	COUPLING HALF,QUICK .....	2
25	XBOZZ	96906	MS49000-19	REDUCER,QUICK DISCO .....	4
26	PAOZZ	97403	13225E9136-1	HOSE ASSEMBLY,NONME .....	2
27	PDOOO	97403	2-125-50-G	PUMP UNIT,CENTRIFUG .....	2
28	PAOZZ	81348	ZZH561AA2020240	HOSE ASSEMBLY,NONME .....	2
29	PAOZZ	97403	13200E6480	BAG,WATER STERILIZI .....	2
30	PAOZZ	96906	MS49000-5	REDUCER,QUICK DISCO .....	2
31	PAOZZ	96906	MS49000-11	REDUCER,QUICK DISCO .....	2

END OF FIGURE

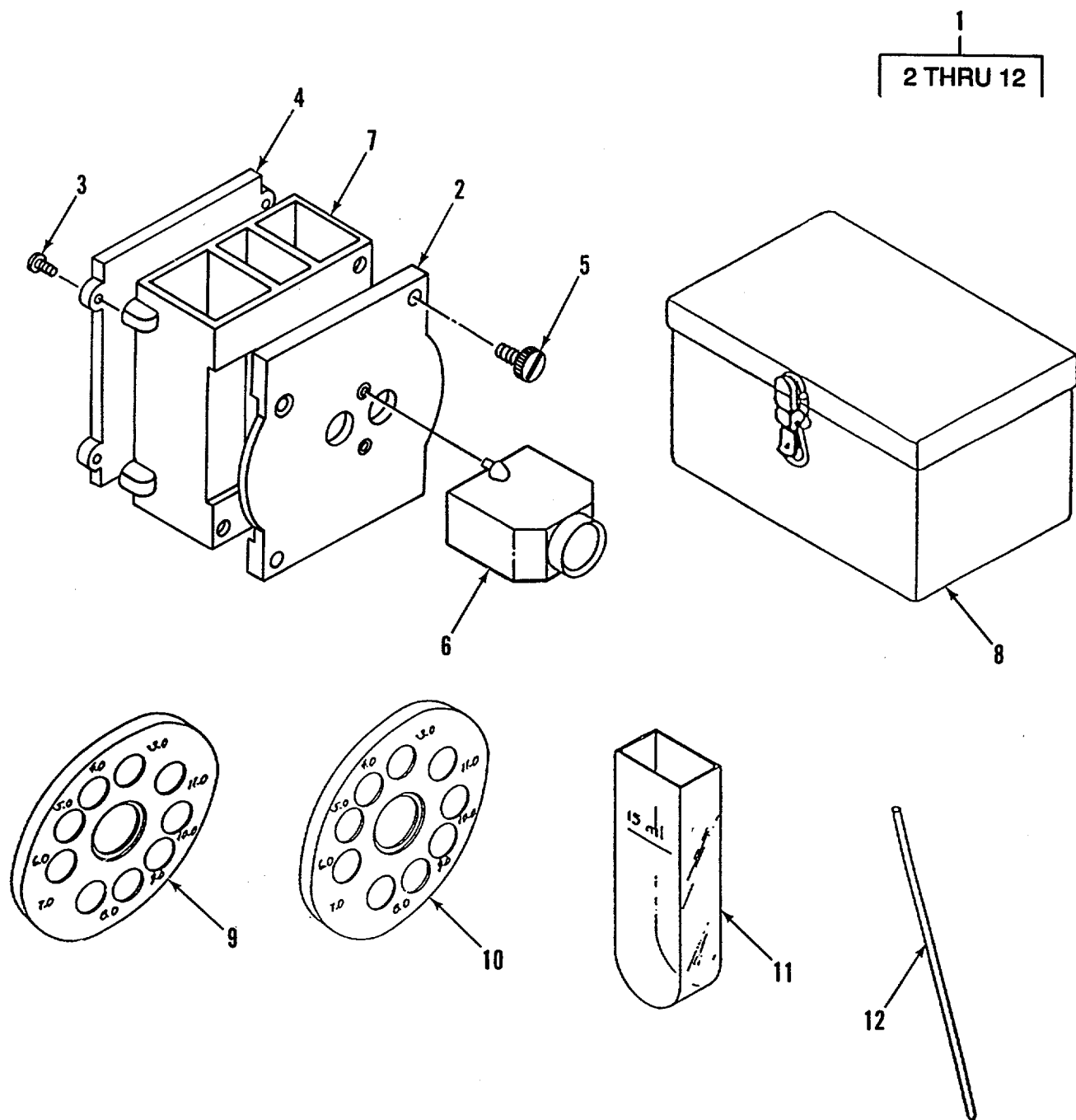


Figure 7. Color Comparator and Case

SECTION II		TM10-4320-317-23P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
GROUP 04 DISTRIBUTION POINT					
FIG. 7 COLOR COMPARATOR AND CASE					
1	PAOOF	97403	13200E7400	COMPARATOR,COLOR .....	2
2	XBOZZ	97403	13200E7416	COVER,COLOR COMPARA .....	1
3	XBOZZ	97403	13200E7400-6	SCREW,MACHINE .....	4
4	XBOZZ	97403	13200E7401	COVER,COLOR COMPARA .....	1
5	XBOZZ	97403	13200E7417	THUMBSCREW .....	2
6	XBOZZ	97403	13200E7402	EYEPIECE,COMPARATOR .....	1
7	XBOZZ	97403	13200E7415	HOUSING,LIGHT .....	1
8	XBOZZ	97403	13216E9016	CASE,COLOR COMPARAT .....	1
9	PAOZZ	53390	5532-01-6	DISK,COLOR STANDARD .....	1
10	PAOZZ	53390	5531-01-8	DISK,COLOR STANDARD .....	1
11	PAOZZ	53390	ROD5524	ROD,STIRRING,LABORA .....	1

END OF FIGURE

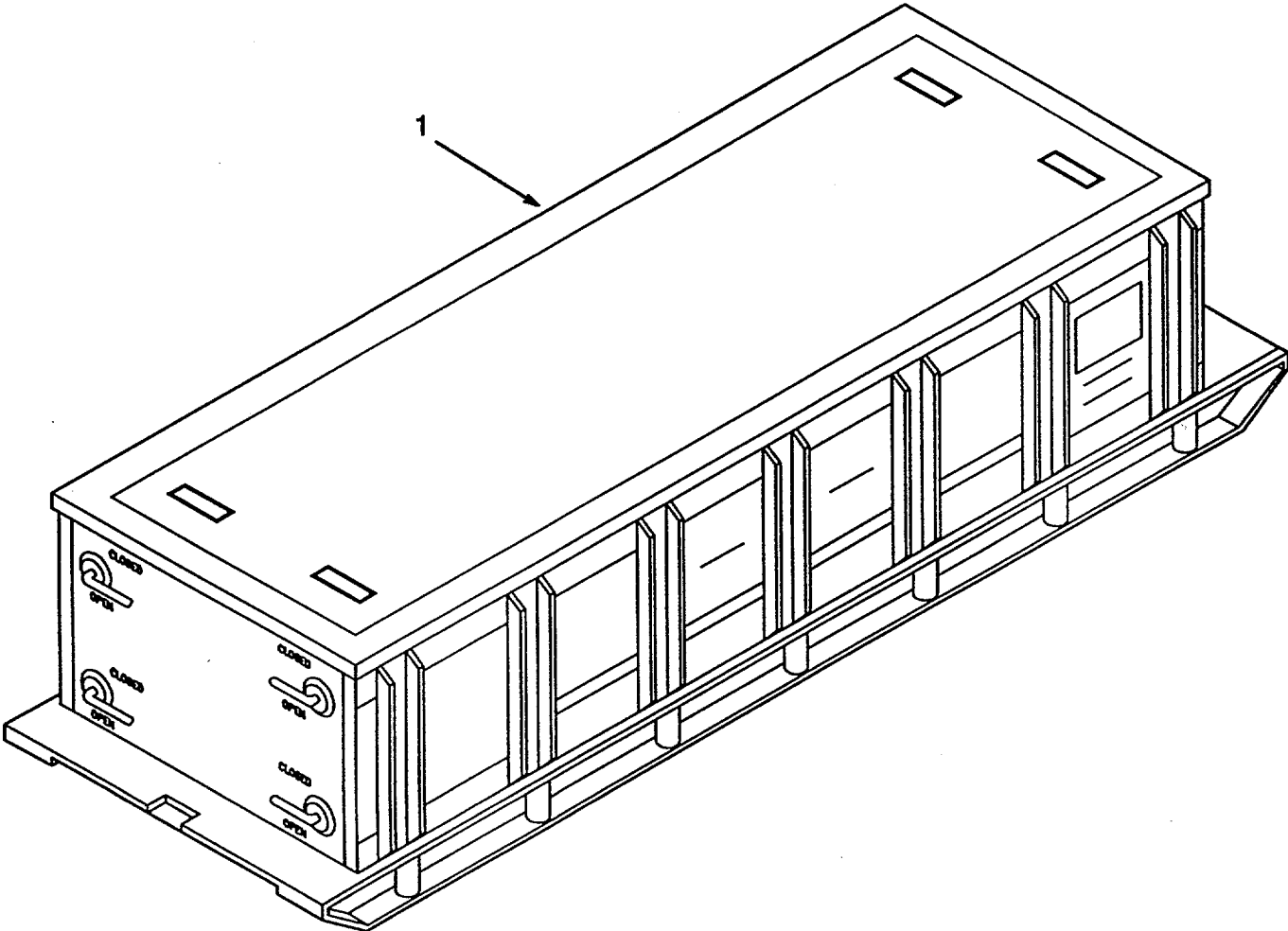


Figure 8. Water Chest Tank

SECTION II		TM10-4320-317-23P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
				GROUP 05 CHEST, WATER TANK-50 K	
				FIG. 8 WATER CHEST TANK	
1	PDOFO	90598	22000-601	STORAGE CHEST,TANK .....	1
END OF FIGURE					



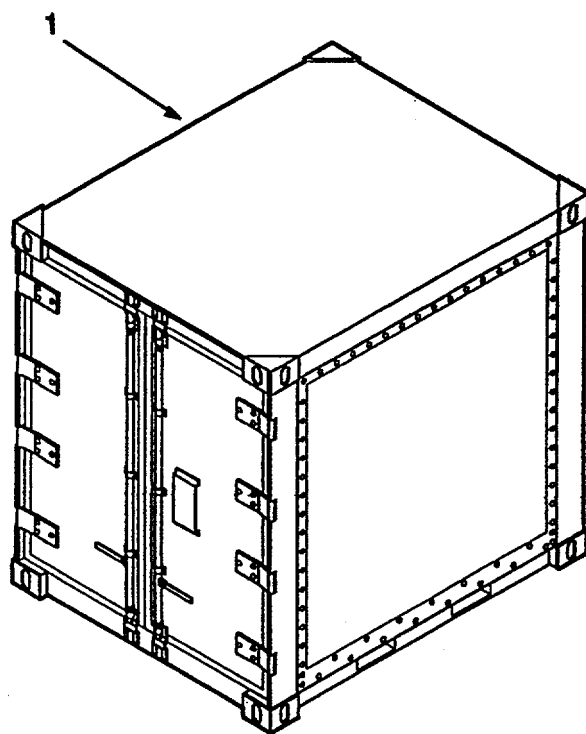


Figure 9. Tricon

SECTION II		TM10-4320-317-23P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	CAGEC	PART NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
				GROUP 06 TRICON	
				FIG. 9 TRICON	
1	PDOOO	80091	PD8145-1563I-87-16 TRICON BULK	CONTAINER BULK TRIC .....	1

END OF FIGURE

## SECTION IV

TM10-4320-317-23P

## CROSS-REFERENCE INDEXES

NATIONAL STOCK NUMBER INDEX					
STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
4820-00-052-4650	2	16	4720-01-365-9098	4	12
4030-00-064-6730	1	16	5330-01-381-9650	1	24
5310-00-080-6004	5	12		2	6
4010-00-228-9933	6	4		3	15
4030-00-243-4440	1	11		4	3
4030-00-282-2512	1	17		5	4
4820-00-413-0220	1	32		5	7
5310-00-440-5357	1	48	3835-01-382-9134	2	11
4820-00-541-5198	1	28	5330-01-383-3341	2	9
4320-00-542-3347	6	27	4730-01-384-9332	1	23
5350-00-584-4654	3	11		5	3
5310-00-637-9541	5	13		5	6
4810-00-704-2624	1	57	5110-01-390-6334	3	10
4020-00-763-5599	1	14	6640-01-409-2736	7	12
5310-00-763-8920	5	10	6630-01-410-6721	7	11
5305-00-808-0864	5	11	5310-01-421-0463	3	36
4820-00-810-4250	6	17	5330-01-421-4954	3	22
5315-00-812-1236	6	5	5306-01-421-6965	3	35
5315-00-839-5820	6	6	4820-01-422-5712	4	9
6630-00-926-1288	7	9	5310-01-422-8638	3	34
4730-00-951-3295	6	30	5330-01-424-4584	1	54
4730-00-951-3297	6	31			
6630-01-115-5281	7	10			
4610-01-117-8271	6	29			
4320-01-128-4244	4	1			
4320-01-128-4245	5	1			
432(-01-128-4246	6	1			
4720-01-138-8986	6	14			
5330-01-141-1864	5	15			
4720-01-163-4684	6	28			
4720-01-163-4686	1	3			
4720-01-163-5088	6	26			
4820-01-201-7298	1	21			
	4	14			
4030-01-206-5035	1	9			
4610-01-250-3724	6	22			
5360-01-262-1338	5	20			
5330-01-262-1340	5	27			
4820-01-262-1342	5	33			
5360-01-267-5954	1	47			
5310-01-267-5960	1	51			
4820-01-267-5976	1	52			
4720-01-279-7772	4	11			
8145-01-287-3294	9	1			
4010-01-295-3091	1	15			
4320-01-314-8844	4	17			
6630-01-336-9215	7	1			
4730-01-340-2282	2	3			
4720-01-346-7216	1	6			
5430-01-350-7529	8	1			

## SECTION IV

TM10-4320-317-23P

## CROSS-REFERENCE INDEXES

CAGEC	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
19099	A300-01-001		3	13
79154	B-A55-000-Z-00		4	8
82666	B120-2IN	4820-00-810-4250	6	17
79154	C-020-483-A-EO		3	27
79154	C-020-484-A-EO		3	23
79154	C-040-483-A-EO		3	29
79154	C-040-484-A-EO		3	25
79154	C-060-480-A-EO		3	21
79154	C-060-482-A-EO		3	20
79154	C-060-483-A-EO		3	30
79154	C-Q60-484-A-EO		3	26
79154	C-060-791-A-EB	4730-01-384-9332	1	23
			2	12
			3	14
			4	2
			5	6
79154	C-060-791-AEB	4730-01-384-9332	5	3
86184	C0966G		1	53
86184	C0973C	5310-01-267-5960	1	51
86184	C1534B	5360-01-267-5954	1	47
86184	C7240K		1	46
62503	D-9027-A		2	19
62503	D-9028-A		1	12
			3	37
62503	D-9038-1		2	14
62503	D-9048-1		1	43
62503	D-9048-2		1	41
62503	D-9048-3		1	42
06565	EMERYCLOSEKOTE	5350-00-584-4654	3	11
79154	G-060-077-OEO	5330-01-381-9650	1	24
			2	6
			3	15
			4	3
			5	4
			5	7
79154	G-080-077-OEO	5330-01-383-3341	2	9
75535	G-210-1/2IN	4030-00-064-6730	1	16
81348	GGG-W-641 TYIICL 2 STYLE A 1-1/4		3	6
81348	GGG-W-641 TYIICL 2 STYLE A 11/16		3	32
81348	GGG-W-641 TYIICL 2 STYLE A 9/16		3	31
79154	H-020-792-P-06		1	61
			2	15
			3	18
			4	4
			5	5
75535	H-21-B-4IN		1	13
75535	HG-223 3/4 X 18 INCH		1	18

## CROSS-REFERENCE INDEXES

CAGEC	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
79154	K-060-700-0-E		4	7
79154	K-060-700-0-1A	4820-01-422-5712	4	9
75206	K-20/20		3	17
96906	MS14305-3J		1	35
96906	MS14315-8X		1	26
96906	MS16842-7	4030-00-243-4440	1	11
96906	MS20392-3C35	5315-00-812-1236	6	5
96906	MS24665-134	5315-00-839-5820	6	6
96906	MS27020-17		5	9
96906	MS27022-11		6	16
96906	MS27022-17		6	21
96906	MS27023-17		5	35
96906	MS27024-17		6	24
96906	MS27024-19		1	4
96906	MS27026-11		6	19
96906	MS27027-17		5	14
96906	MS27029-11		6	12
96906	MS27183-14	5310-00-080-6004	5	12
96906	MS35338-46		1	40
		5310-00-637-9541	5	13
96906	MS49000-11	4730-00-951-3297	6	31
96906	MS49000-17		6	20
96906	MS49000-19		6	25
96906	MS49000-5	4730-00-951-3295	6	30
96906	MS49002-9		6	11
96906	MS51845-3		1	34
96906	MS51846-39		1	27
96906	MS51846-45		1	31
960A9	MS51846-48		1	38
96906	MS51846-52		1	33
96906	MS51953-270		6	23
96906	MS51967-20	5310-00-763-8920	5	10
96906	MS51971-3		1	39
96906	MS87006-33		6	3
96906	MS90728-71	5305-00-808-0864	5	11
81349	M10388-A-02-AI-1 -C-6A		5	8
81349	M10388-A-08-AK-4 -C-6A		1	22
			4	15
81349	M10388-A-18-AK-1 -C		4	10
81349	M10388-A05AK1A		1	60
81349	M10388-A05AK1C		2	13
81349	M10388-AO7AK1A6A		1	5
81349	M10388-AO8AK1C6A		2	18
81349	M10388-A30EB1A6C		5	2
81349	M53027-0200	4720-01-365-9098	4	12
81349	M53027-5000	4720-01-346-7216	1	6
81349	M53029-20		5	37
97403	PD-82099		1	7

## CROSS-REFERENCE INDEXES

CAGEC	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
80091	PD8145-15631-87- 16 TRICON BULK	8145-01-287-3294	9	1
79154	P22325214E	5330-01-421-4954	3	22
79154	P23125214E		3	28
79154	P23825214E		3	24
79154	P25425214E		3	19
53390	ROD5524	6640-01-409-2736	7	12
81348	RRC271	4010-00-228-9933	6	4
5V588	SERIES 637-1 1/2 TON		1	19
12168	T-580 1IN	4820-00-052-4650	2	16
81349	TR605	4020-00-763-5599	1	14
79154	V-060-700-0-EM		4	6
79154	V-060-710-P-E3		4	16
86184	V1692C		1	55
86184	V5075B		1	56
86184	V5138C	5310-00-440-5357	1	48
86184	V5519D		1	49
86184	V6868D	4810-00-704-2624	1	57
81348	WWC633-10-B		2	17
81348	WWC633-15-B	4730-01-340-2282	2	3
81348	ZZH561AA2020240	4720-01-163-4684	6	28
81348	ZZH561AA2060120	4720-01-163-4686	1	3
43786	00136	5110-01-390-6334	3	10
86184	00851G	5330-01-424-4584	1	54
ODUKO	122750	5310-01-422-8638	3	34
974(3	13200E6480	4610-01-117-8271	6	29
97403	13200E7400	6630-01-336-9215	7	1
97403	13200E7400-6		7	3
97403	13200E7401		7	4
97403	13200E7402		7	6
97403	13200E7415		7	7
97403	13200E7416		7	2
97403	13200E7417		7	5
97403	13216E9016		7	8
97403	13220E1069-1	5330-01-141-1864	5	15
97403	13225E9088	4320-01-128-4244	4	1
97403	13225E9088-6		4	5
97403	13225E9088-7	4720-01-279-7772	4	11
97403	13225E9089	4320-01-128-4245	5	1
97403	13225E9090		1	1
97403	13225E9090-13		1	25
97403	13225E9091	4320-01-128-4246	6	1
97403	13225E9136-1	4720-01-163-5088	6	26
97403	13225E9136-2	4720-01-138-8986	6	14
97403	13225E9136-3		5	36
97403	13225E9140		6	2
97403	13225E9145		6	8
97403	13225E9146		6	7
97403	13225E9188	4030-01-206-5035	1	9
97403	13225E9189		1	8

## CROSS-REFERENCE INDEXES

CAGEC	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
97403	13225E9190		1	2
97403	13225E9196		1	20
			4	13
97403	13225E9198		2	2
97403	13226E1570		1	10
97403	13226E1576		1	59
97403	13226E1577		2	1
97403	13226E1579		2	7
97403	13226E1580		2	4
97403	13226E1581		3	1
97403	13226E1581-15		3	16
97403	13228E9872	3835-01-382-9134	2	11
ODUKO	151250	5310-01-421-0463	3	36
ODUKO	151950		3	33
ODUKO	153450	5306-01-421-6965	3	35
53390	1789-01-7	6630-01-410-6721	7	11
81718	190-GW		6	9
31922	1955-3	4610-01-250-3724	6	22
97403	2-125-50-G	4320-00-542-3347	6	27
34494	20M-3/4-200PSI	4820-01-201-7298	1	21
			4	14
96508	2050-91		3	9
87373	2101-6-6B		1	29
90598	22000-601	5430-01-350-7529	8	1
41592	235RF-0200		5	16
41592	235RF-0201MB		5	34
41592	235RF-0202 MB		5	26
41592	235RF-0203MS		5	28
41592	235RF-0204 3R		5	18
41592	235RF-02052N		5	17
41592	235RF-0206 2I		5	21
41592	235RF-0207 2I		5	19
41592	235RF-02082P		5	22
41592	235RF-02092G	5330-01-262-1340	5	27
41592	235RF-0210MD		5	31
41592	235RF-0212MD		5	30
41592	235RF-0215MR	4820-01-262-1342	5	33
41592	235RF-02162S	5360-01-262-1338	5	20
41592	235RF-0217MR		5	29
41592	235RF-02182S		5	32
41592	235RF-02192S		5	23
41592	235RF-02202N		5	24
41592	235RF-02212W		5	25
81718	25W 1 1/2IN		6	10
90598	25116-100		2	10A
54921	30-01018		3	8
52572	310B		3	2
9H113	319K-2		6	15
39428	3440T213	4010-01-295-3091	1	15
72992	3564	4030-00-282-2512	1	17
79154	50A8X6		2	10

## CROSS-REFERENCE INDEXES

CAGEC	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
39428	5068K22		1	36
53390	5531-01-8	6630-01-115-5281	7	10
53390	5532-01-6	6630-00-926-1288	7	9
5Z572	5649BL		3	5
82666	5819900 13-18-8		6	18
62503	6X6SP	4320-01-314-8844	4	17
29891	60870		3	12
52572	63-266		3	4
86184	6781118C		1	45
03914	69-490		3	3
72219	70-102	4820-00-541-5198	1	28
03914	70-865		3	7
86184	71943-04H	4820-00-413-0220	1	32
86184	7362013A		1	30
86184	7362023K		1	37
9H113	77-B-2X2		6	13
79154	78AX6		2	5
79154	78AX8		2	8
86184	79911E		1	58
86184	87893E	4820-01-267-5976	1	52
86184	8937901A		1	50
86184	90-01-2526C		1	44



## CROSS-REFERENCE INDEXES

FIGURE AND ITEM NUMBER INDEX				
FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
1	1		97403	13225E9090
1	2		97403	13225E9190
1	3	4720-01-163-4686	81348	ZZH561AA2060120
1	4		96906	MS27024-19
1	5		81349	M10388-AO7AK1A6A
1	6	4720-01-346-7216	81349	M53027-5000
1	7		97403	PD-82099
1	8		97403	13225E9189
1	9	4030-01-206-5035	97403	13225E9188
1	10		97403	13226E1570
1	11	4030-00-243-4440	96906	MS16842-7
1	12		62503	D-9028-A
1	13		75535	H-21-B-4IN
1	14	4020-00-763-5599	81349	TR605
1	15	4010-01-295-3091	39428	3440T213
1	16	4030-00-064-6730	75535	G-210-1/2IN
1	17	4030-00-282-2512	72992	3564
1	18		75535	HG-223 3/4 X 18 INCH
1	19	5V588		SERIES 637-1 1/2 TON
1	20		97403	13225E9196
1	21	4820-01-201-7298	34494	20M-3/4-200PSI
1	22		81349	M10388-A-08-AK-4 -C-6A
1	23	4730-01-384-9332	79154	C-060-791-A-EB
1	24	5330-01-381-9650	79154	G-060-077-OEO
1	25		97403	13225E9090-13
1	26		96906	MS14315-8X
1	27		96906	MS51846-39
1	28	4820-00-541-5198	72219	70-102
1	29		87373	2101-6-6B
1	30		86184	7362013A
1	31		96906	MS51846-45
1	32	4820-00-413-0220	86184	71943-04H
1	33		96906	MS51846-52
1	34		96906	MS51845-3
1	35		96906	MS14305-3J
1	36		39428	5068K22
1	37		86184	7362023K
1	38		96069	MS51846-48
1	39		96906	MS51971-3
1	40		96906	MS35338-46
1	41		62503	D-9048-2
1	42		62503	D-9048-3
1	43		62503	D-9048-1
1	44		86184	90-01-2526C
1	45		86184	6781118C
1	46		86184	C7240K
1	47	5360-01-267-5954	86184	C1534B
1	48	5310-00-440-5357	86184	V5138C

## CROSS-REFERENCE INDEXES

FIGURE AND ITEM NUMBER INDEX				
FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
1	49		86184	V5519D
1	50		86184	8937901A
1	51	5310-01-267-5960	86184	C0973C
1	52	4820-01-267-5976	86184	87893E
1	53		86184	C0966G
1	54	5330-01-424-4584	86184	00851G
1	55		86184	V1692C
1	56		86184	V5075B
1	57	4810-00-704-2624	86184	V6868D
1	58		86184	79911E
1	59		97403	13226E1576
1	60		81349	M10388-AO5AK1A
1	61			79154 H-020-792-P-06
2	1		97403	13226E1577
2	2		97403	13225E9198
2	3	4730-01-340-2282	81348	WWC633-15-B
2	4			97403 13226E1580
2	5			79154 78AX6
2	6	5330-01-381-9650	79154	G-060-077-OEO
2	7		97403	13226E1579
2	8		79154	78AX8
2	9	5330-01-383-3341	79154	G-080-077-OEO
2	10			79154 50A8X6
2	10A			90598 25116-100
2	11	3835-01-382-9134	97403	13228E9872
2	12			79154 C-060-791-A-EB
2	13			81349 M10388-A05AK1C
2	14			62503 D-9038-1
2	15		79154	H-020-792-P-06
2	16	4820-00-052-4650	12168	T-580 11N
2	17		81348	WWC633-10-B
2	18		81349	M10388-A08AKIC6A
2	19		62503	D-9027-A
3	1		97403	13226E1581
3	2		52572	310B
3	3		03914	69-490
3	4			52572 63-266
3	5			5Z572 5649BL
3	6			81348 GGG-W-641 TYIICL 2 STYLE A 1-1/4
3	7		03914	70-865
3	8			54921 30-01018
3	9		96508	2050-91
3	10	5110-01-390-6334	43786	00136
3	11	5350-00-584-4654	06565	EMERYCLOSEKOTE
3	12		29891	60870
3	13		19099	A300-01-001
3	14			79154 C-060-791-A-EB
3	15	5330-01-381-9650	79154	G-060-077-OEO
3	16			97403 13226E1581-15
3	17		75206	K-20/20

## CROSS-REFERENCE INDEXES

FIGURE AND ITEM NUMBER INDEX				
FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
1	1		97403	13225E9090
3	18		79154	H-020-792-P-06
3	19		79154	P25425214E
3	20		79154	C-060-482-A-EO
3	21		79154	C-060-480-A-EO
3	22	5330-01-421-4954	79154	P22325214E
3	23		79154	C-020-484-A-EO
3	24		79154	P23825214E
3	25		79154	C-040-484-A-EO
3	26		79154	C-060-484-A-EO
3	27		79154	C-020-483-A-EO
3	28		79154	P23125214E
3	29		79154	C-040-483-A-EO
3	30		79154	C-060-483-A-EO
3	31		81348	GGG-W-641 TYIICL 2 STYLE A 9/16
3	32		81348	GGG-W-641 TYIICL 2 STYLE A 11/16
3	33		ODUKO	151950
3	34	5310-01-422-8638	ODUKO	122750
3	35	5306-01-421-6965	ODUKO	153450
3	36	5310-01-421-0463	ODUKO	151250
3	37		62503	D-9028-A
4	1	4320-01-128-4244	97403	13225E9088
4	2		79154	C-060-791-A-EB
4	3	5330-01-381-9650	79154	G-060-077-OEO
4	4		79154	H-020-792-P-06
4	5		97403	13225E9088-6
4	6		79154	V-060-700-0-EM
4	7		79154	K-060-700-0-E
4	8		79154	B-A55-000-Z-00
4	9	4820-01-422-5712	79154	K-060-700-0-1A
4	10		81349	M10388-A-18-AK-1 -C
4	11	4720-01-279-7772	97403	13225E9088-7
4	12	4720-01-365-9098	81349	M53027-0200
4	13		97403	13225E9196
4	14	4820-01-201-7298	34494	20M-3/4-200PSI
4	15		81349	M10388-A-08-AK-4 -C-6A
4	16		79154	V-060-710-P-E3
4	17	4320-01-314-8844	62503	6X6SP
5	1	4320-01-128-4245	97403	13225E9089
5	2		81349	M10388-A30EBIA6C
5	3	4730-01-384-9332	79154	C-060-791-AEB
5	4	5330-01-381-9650	79154	G-060-077-OEO
5	5		79154	H-020-792-P-06
5	6	4730-01-384-9332	79154	C-060-791-A-EB
5	7	5330-01-381-9650	79154	G-060-077-OEO
5	8		81349	M10388-A-02-AI-1 -C-6A
5	9		96906	MS27020-17

## CROSS-REFERENCE INDEXES

FIGURE AND ITEM NUMBER INDEX				
FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
5	10	5310-00-763-8920	96906	MS51967-20
5	11	5305-00-808-0864	96906	MS90728-71
5	12	5310-00-080-6004	96906	MS27183-14
5	13	5310-00-637-9541	96906	MS35338-46
5	14		96906	MS27027-17
5	15	5330-01-141-1864	97403	13220E1069-1
5	16		41592	235RF-0200
5	17		41592	235RF-02052N
5	18		41592	235RF-0204 3R
5	19		41592	235RF-0207 2I
5	20	5360-01-262-1338	41592	235RF-02162S
5	21		41592	235RF-0206 2I
5	22		41592	235RF-02082P
5	23		41592	235RF-02192S
5	24		41592	235RF-02202N
5	25		41592	235RF-02212W
5	26		41592	235RF-0202 MB
5	27	5330-01-262-1340	41592	235RF-02092G
5	28		41592	235RF-0203MS
5	29		41592	235RF-0217MR
5	30		41592	235RF-0212MD
5	31		41592	235RF-0210MD
5	32		41592	235RF-02182S
5	33	4820-01-262-1342	41592	235RF-0215MR
5	34		41592	235RF-0201MB
5	35		96906	MS27023-17
5	36		97403	13225E9136-3
5	37		81349	M53029-20
6	1	4320-01-128-4246	97403	13225E9091
6	2		97403	13225E9140
6	3		96906	MS87006-33
6	4	4010-00-228-9933	81348	RRC271
6	5	5315-00-812-1236	96906	MS20392-3C35
6	6	5315-00-839-5820	96906	MS24665-134
6	7		97403	13225E9146
6	8		97403	13225E9145
6	9		81718	190-CW
6	10		81718	25W 1 1/2IN
6	11		96906	MS49002-9
6	12		96906	MS27029-11
6	13		9H113	77-B-2X2
6	14	4720-01-138-8986	97403	13225E9136-2
6	15		9H113	319K-2
6	16		96906	MS27022-11
6	17	4820-00-810-4250	82666	B120-2IN
6	18		82666	5819900 13-18-8
6	19		96906	MS27026-11
6	20		96906	MS49000-17
6	21		96906	MS27022-17
6	22	4610-01-250-3724	31922	1955-3
6	23		96906	MS51953-270

## CROSS-REFERENCE INDEXES

FIG.	ITEM	FIGURE AND ITEM NUMBER INDEX		PART NUMBER
		STOCK NUMBER	CAGEC	
6	24		96906	MS27024-17
6	25		96906	MS49000-19
6	26	4720-01-163-5088	97403	13225E9136-1
6	27	4320-00-542-3347	97403	2-125-50-G
6	28	4720-01-163-4684	81348	ZZH561AA2020240
6	29	4610-01-117-8271	97403	13200E6480
6	30	4730-00-951-3295	96906	MS49000-5
6	31	4730-00-951-3297	96906	MS49000-11
7	1	6630-01-336-9215	97403	13200E7400
7	2		97403	13200E7416
7	3		97403	13200E7400-6
7	4		97403	13200E7401
7	5		97403	13200E7417
7	6		97403	13200E7402
7	7		97403	13200E7415
7	8		97403	13216E9016
7	9	6630-00-926-1288	53390	5532-01-6
7	10	6630-01-115-5281	53390	5531-01-8
7	11	6630-01-410-6721	53390	1789-01-7
7	12	6640-01-409-2736	53390	ROD5524
8	1	5430-01-350-7529	90598	22000-601
9	1	8145-01-287-3294	80091	PD8145-1563I-87- 16 TRICON BULK

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

Official:

DENNIS J. REIMER  
*General, United States Army*  
*Chief of Staff*

JOEL B. HUDSON  
*Administrative Assistant to the*  
*Secretary of the Army*  
01994

DISTRIBUTION:

To be distributed in accordance with DA Form 12-25-E, block no. 6264, requirements for TM 10-4320-317-23P.

***These are the instructions for sending an electronic 2028***

The following format must be used if submitting an electronic 2028. The subject line must be exactly the same and all fields must be included; however only the following fields are mandatory: 1, 3, 4, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17, and 27.


From: "Whomever" <whomever@avma27.army.mil>  
To: mpmT%avma28@st-louis-emh7.army.mil

Subject: DA Form 2028

1. **From:** Joe Smith
2. **Unit:** home
3. **Address:** 4300 Park
4. **City:** Hometown
5. **St:** MO
6. **Zip:** 77777
7. **Date Sent:** 19-OCT-93
8. **Pub no:** 55-2840-229-23
9. **Pub Title:** TM
10. **Publication Date:** 04-JUL-85
11. **Change Number:** 7
12. **Submitter Rank:** MSG
13. **Submitter FName:** Joe
14. **Submitter MName:** T
15. **Submitter LName:** Smith
16. **Submitter Phone:** 123-123-1234
17. **Problem:** 1
18. **Page:** 2
19. **Paragraph:** 3
20. **Line:** 4
21. **NSN:** 5
22. **Reference:** 6
23. **Figure:** 7
24. **Table:** 8
25. **Item:** 9
26. **Total:** 123
27. **Text:**

This is the text for the problem below line 27.

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

 <p>THEN...JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL.</p>				<b>SOMETHING WRONG WITH PUBLICATION</b>	
				FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)	
				DATE SENT	
PUBLICATION NUMBER			PUBLICATION DATE		PUBLICATION TITLE
<b>BE EXACT PIN-POINT WHERE IT IS</b>				<b>IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT.</b>	
PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.		
				PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER	
				SIGN HERE	



## 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 decigram = .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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