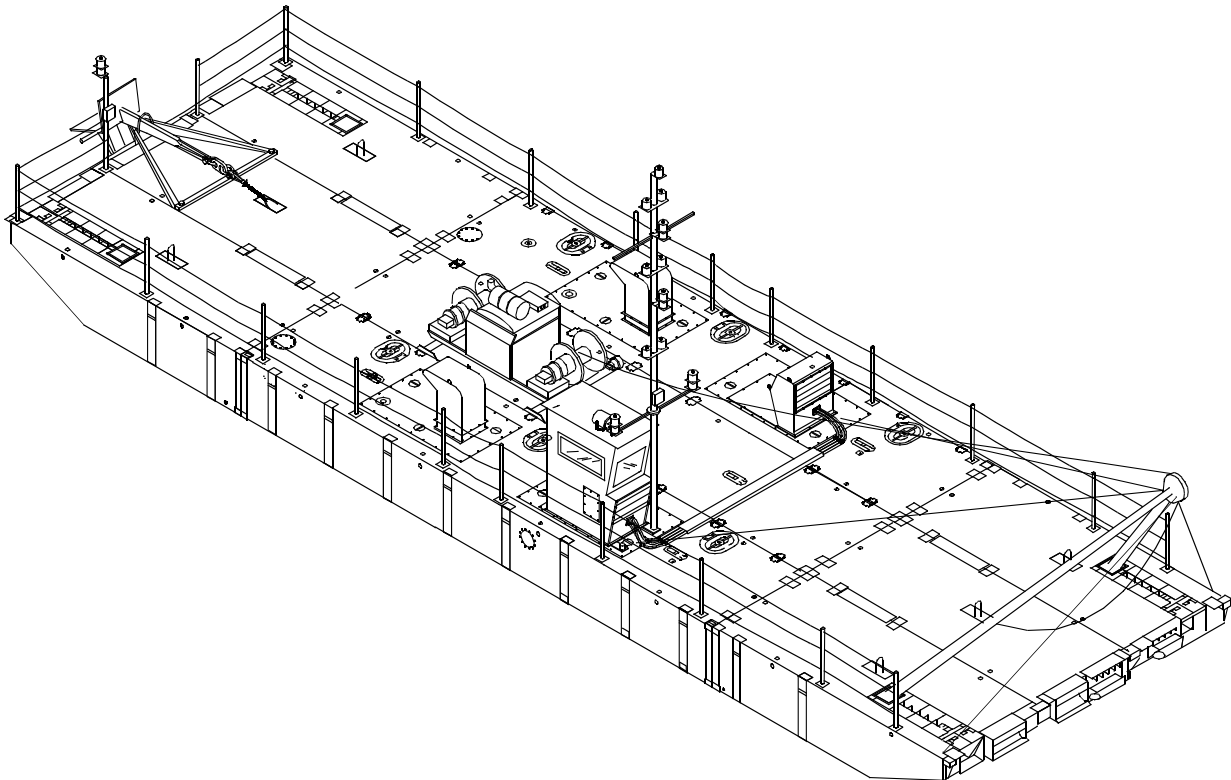


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TECHNICAL MANUAL

REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL) FOR

WARPING TUG WT1 NSN 1945-01-473-2285



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TECHNICAL MANUAL

**REPAIR PARTS AND SPECIAL TOOL LIST (RPSTL)
FOR
MODULAR CAUSEWAY SYSTEM (MCS)
WARPING TUG (WT)
WT1
NSN 1945-01-398-3856**

Current as of 12 June 2003

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**UNIT, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE
WARPING TUG (WT)
REPAIR PARTS AND SPECIAL TOOL LIST (RPSTL)**

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 for performance of organizational maintenance of the Warping Tug. 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 the 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. **Specials 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 the common tool sets and/or Class VII are not listed.
3. **Cross-Reference Indexes Work Packages.** There are (enter applicable number) cross-reference indexes work packages in this RPSTL: (The National Stock Number (NSN) Index work package, the Part Number (PN) Index work package, and the Reference Designator 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. The Reference Designator 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.

<u>Source Code</u>	<u>Maintenance Code</u>	<u>Recoverability Code</u>
<u>xx</u>	<u>xx</u>	<u>xx</u>
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 the failed item.

HOW TO LOCATE REPAIR PARTS

1. When NSNs or PNs 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 PN Is Known.

First. If you have the PN and not the NSN, look in the PART NUMBER column of the PN 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.

NOTE: Include 4 only if the RPSTL has a reference designator index work package.

4. When Reference Designator Is Known.

First. If you know the reference designator, look in the REFERENCE DESIGNATOR column of the reference designator index work package. Note the figure and item number.

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

ABBREVIATIONS

<u>Abbreviation</u>	<u>Explanation</u>
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NOTE: Include uncommon abbreviations used in the RPSTL. List/define those not found in MIL-STD-12.

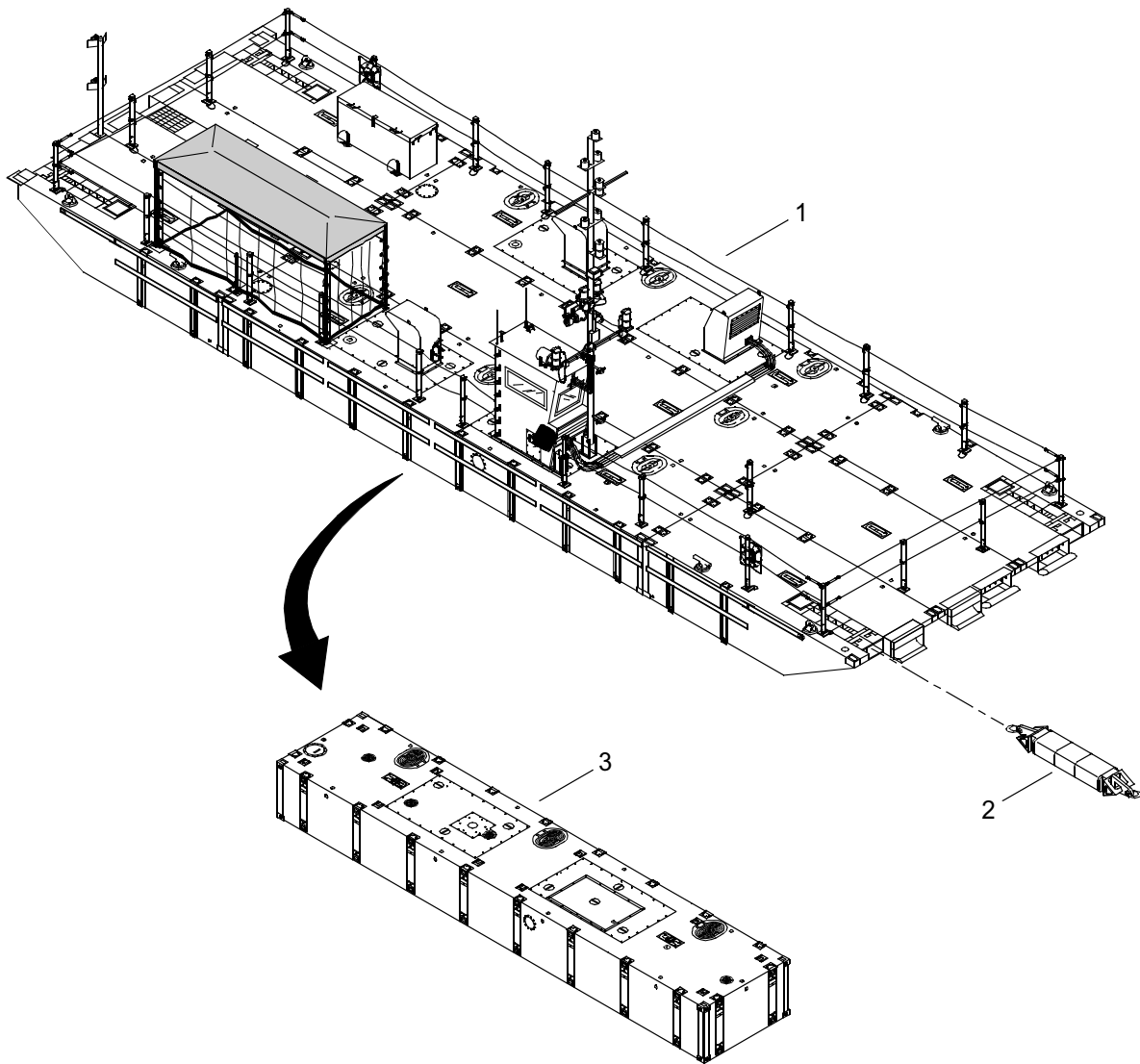


Figure 1. Propulsion Module

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 01						
FIG. 1 PROPULSION MODULE						
1	XDODD		34712	E19203	POWERED SECTION	1
2	PAOLL	2040010923081	34712	E02783	.FLEXOR COUPLING,PON	1
3	XDODD		34712	E28403	.PROPULSION MODULE	1
END OF FIGURE						

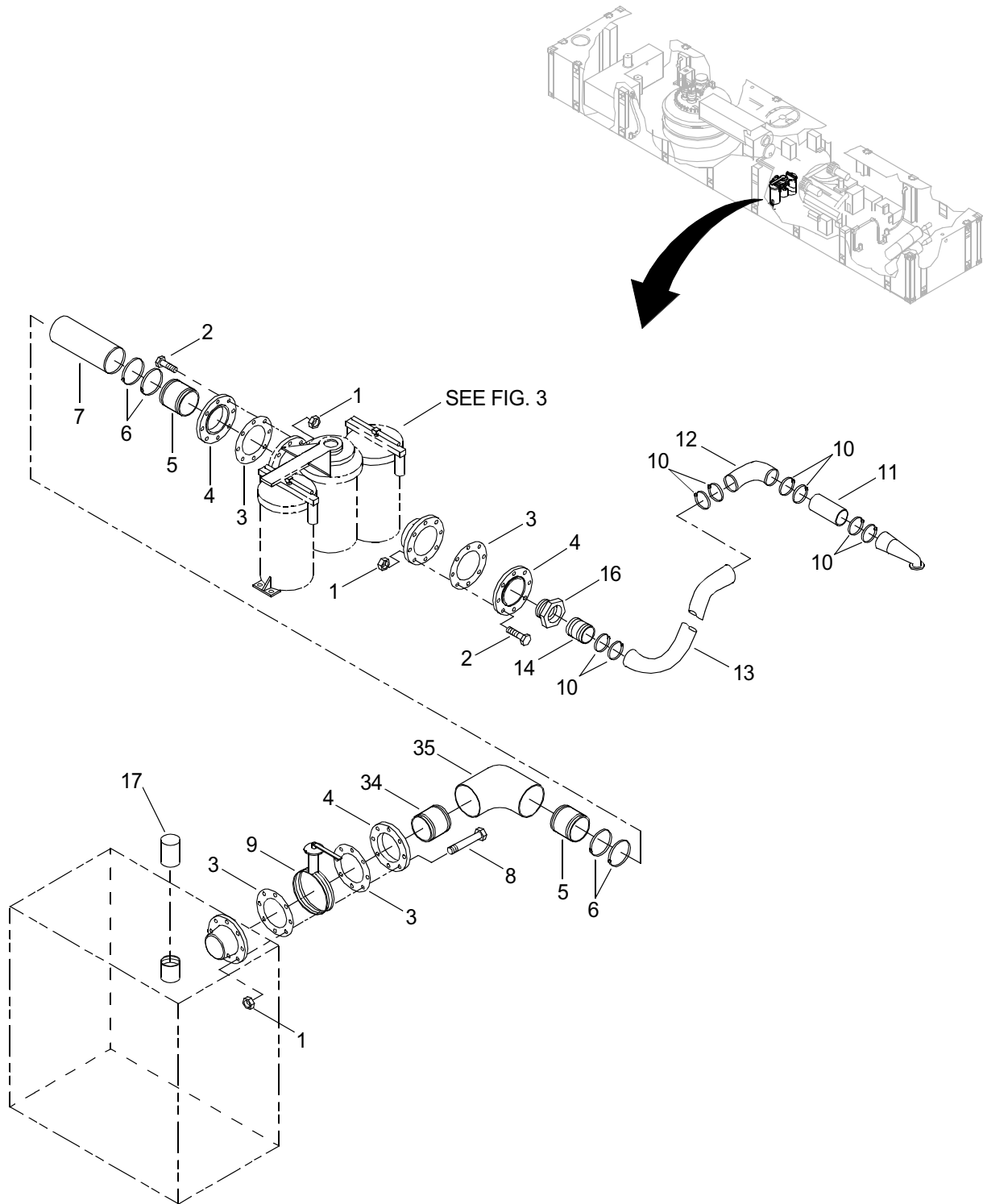


Figure 2. Engine Cooling Installation (Sheet 1 of 2)

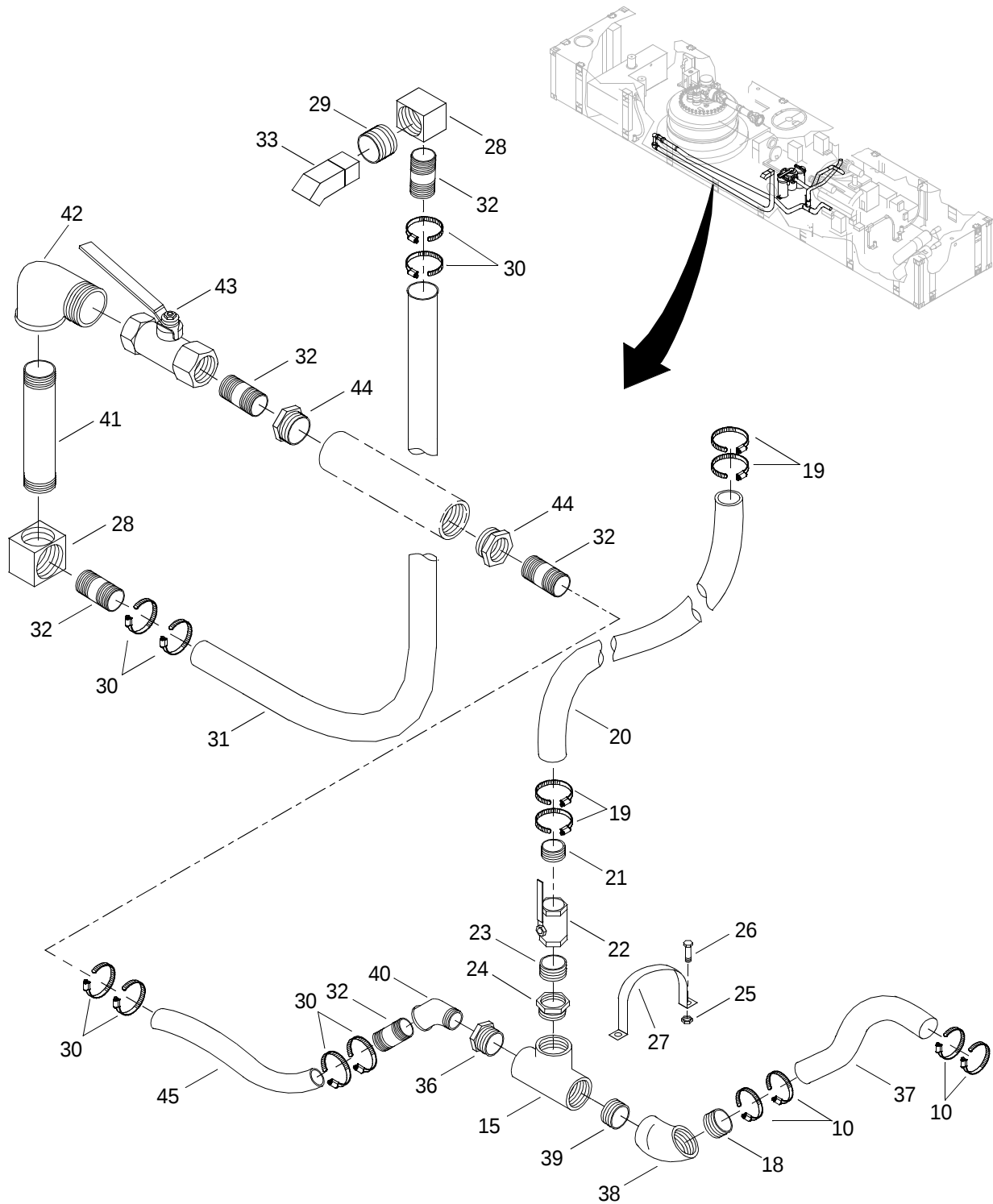


Figure 2. Engine Cooling System Installation (Sheet 2 of 2)

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 01						
FIG. 2 ENGINE COOLING SYSTEM INSTALLATION						
1	XDOZZ		34712	0002434	NUT HEX	24
2	XDOZZ		34712	0002386	CAPSCREW, HEX HEAD	16
3	XDOZZ		34712	E09151	GASKET	4
4	XDOZZ		34712	E09538	FLANGE, THREADED	3
5	XDOZZ		72661	STC-40	NIPPLE, COMBINATION	2
6	XDOZZ		72661	HAS-72	CLAMP, HOSE	4
7	XDOZZ		34712	E09818-1	HOSE	1
8	XDOZZ		34712	0002379	CAPSCREW, HEX HEAD	8
9	XDOZZ		95976	3245259	VALVE, BUTTERFLY	1
10	XDOZZ		72661	HAS-48	CLAMP, HOSE	12
11	XDOZZ		34712	E09858-2	HOSE	1
12	XDOZZ		34712	E23768	ELBOW	1
13	XDOZZ		34712	E09858-3	HOSE	1
14	XDOZZ		34712	E09841	NIPPLE, PIPE	1
15	XDOZZ		34712	E09971	TEE	1
16	XDOZZ		34712	0006153	BUSHING	1
17	XDOZZ		34712	E11308	ANODE	1
18	PAOZA	4730010185813	72661	STC-30	ADAPTER, STRAIGHT, PI	1
19	XDOZZ		72661	HAS-36	CLAMP, HOSE	4
20	XDOZZ		34712	E23848-1	HOSE	1
21	PAOZZ	4730010260035	72661	STC-25	ADAPTER, STRAIGHT, PI	1
22	XDOZZ		34712	E09528	VALVE, BALL	1
23	PAOZZ	4730012828485	39428	4549K671	NIPPLE, PIPE	1
24	XDOZZ		34712	E09931	BUSHING	1
25	XDOZZ		34712	0006037	NUT, HEX	2
26	XDOZZ		34712	0002492	CAPSCREW, HEX HEAD	2
27	XDOZZ		34712	E23781	SUPPORT, CLAMP	1
28	XDOZZ		39428	4638K137	ELBOW, FEMALE	2

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
29	XDOZZ	4730006218357	39428	4549K651	NIPPLE, CLOSE	2
30	XDOZZ		72661	HAS-32	CLAMP, HOSE	8
31	XDOZZ		34712	E13208-7	HOSE	1
32	PAOZZ		72661	STC-20	ADAPTER,STRAIGHT,PI	4
33	XDOZZ		39428	4638K237	ELBOW, FEMALE	1
34	XDOZZ		1EU68	040-4376	NIPPLE, PIPE	1
35	XDOZZ		34712	E26291	ELBOW, FEMALE	1
36	XDOZZ		34712	E26261	BUSHING.....	1
37	XDOZZ		34712	E09998-2	HOSE.....	1
38	XDOZZ		1EU68	50-03291	ELBOW, FEMALE	1
39	XDOZZ	4820011639982	1EU68	40-04214	NIPPLE, CLOSE	1
40	XDOZZ		1EU68	50-03314	ELBOW, STREET	1
41	XDOZZ		39428	4549K663	NIPPLE	1
42	XDOZZ		39428	4638K227	ELBOW, STREET	1
43	PAOZZ		81337	6-1-6200-44	VALVE,BALL	1
44	XDOZZ		1EU68	020-3536	BUSHING, REDUCER	2
45	XDOZZ		34712	E13208-6	HOSE.....	1
END OF FIGURE						

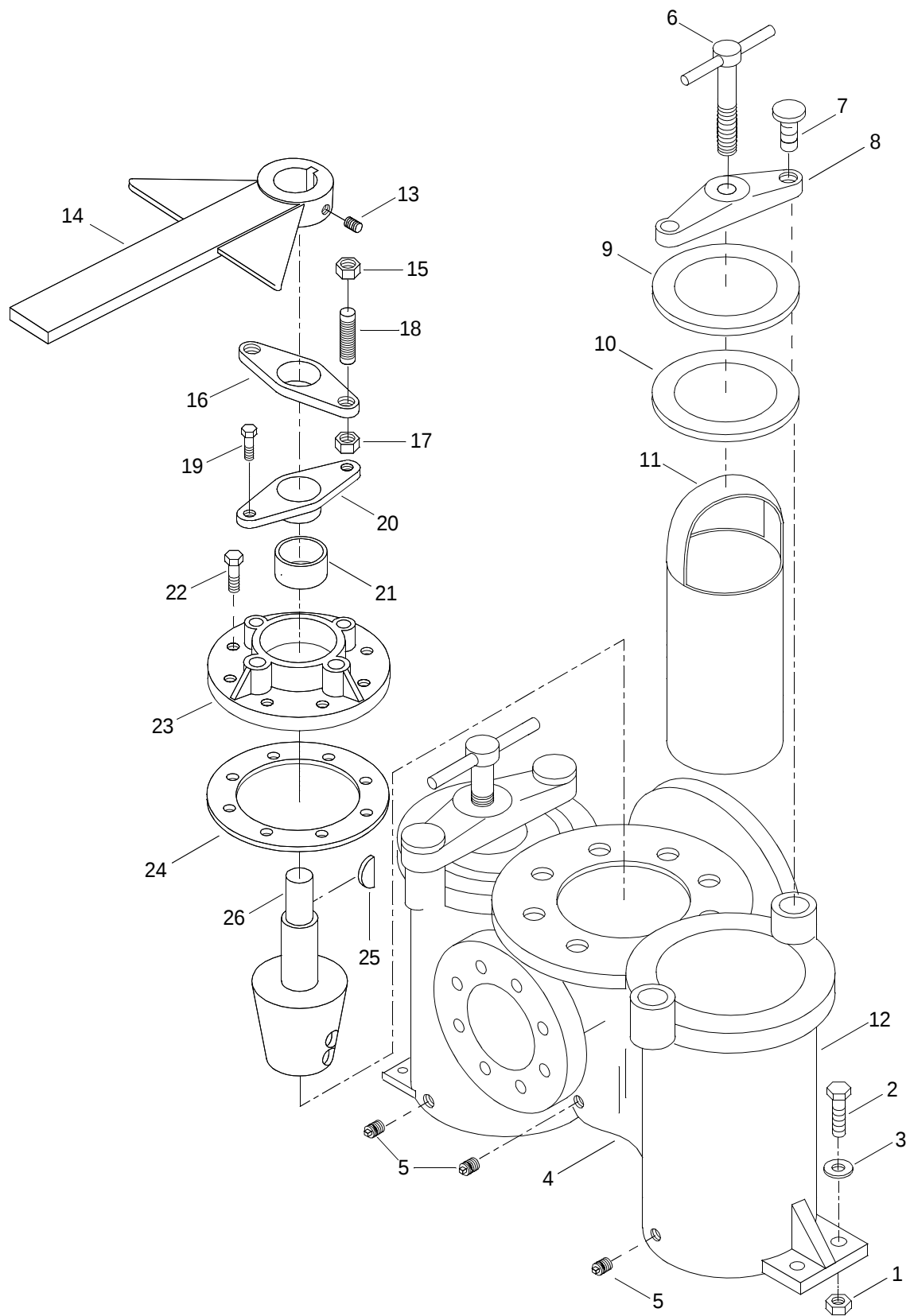


Figure 3. Duplex Strainer Assembly

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 01						
FIG. 3 DUPLEX STRAINER ASSEMBLY						
1	XDOZZ		34712	0002759	NUT, HEX.	4
2	XDOZZ		34712	0003487	CAPSCREW, HEX HEAD	4
3	XDOZZ		34712	0005979	FLAT WASHER	4
4	XDOFF		34294	72-48F	STRAINER, DUPLEX.	1
5	XDOZZ		34294	72-48F-12	.PLUG	5
6	XDOZZ		34294	72-48F-17	.HANDLE, YOKE	2
7	XDOZZ		34294	72-48F-16	.STUD	4
8	XDOZZ		34294	72-48F-15	.YOKE	2
9	XDOZZ		34294	72-48F-6	.COVER	2
10	XDOZZ		34294	72-48F-7	.GASKET	2
11	XDOZZ		34294	72-48F-9	.BASKET	2
12	XDOZZ		34294	72-48F-8	.HOUSING, VALVE.	1
13	XDFZZ		34294	72-48F-29	.SCREW, SET	1
14	XDOZZ		34294	72-48F-1	.HANDLE, VALVE.	1
15	XDFZZ		34294	72-48F-2	.NUT, HEX	2
16	XDOZZ		34294	72-48F-3	.FLANGE, LOCKING	1
17	XDOZZ		34294	72-48F-4	.NUT, HEX	2
18	XDFZZ		34294	72-48F-5	.STUD	2
19	XDFZZ		34294	72-48F-20	.SCREW, CAP	2
20	XDFZZ		34294	72-48F-21	.GLAND	1
21	XDFZZ		34294	72-48F-22	.PACKING	1
22	XDFZZ		34294	72-48F-30	.SCREW, CAP	8
23	XDFZZ		34294	72-48F-23	.COVER, VALVE	1
24	XDFZZ		34294	72-48F-24	.GASKET	1
25	XDFZZ		34294	72-48F-28	.KEY.	1
26	XDOZZ		34294	72-48F-19	.PLUG ASSEMBLY	1
END OF FIGURE						

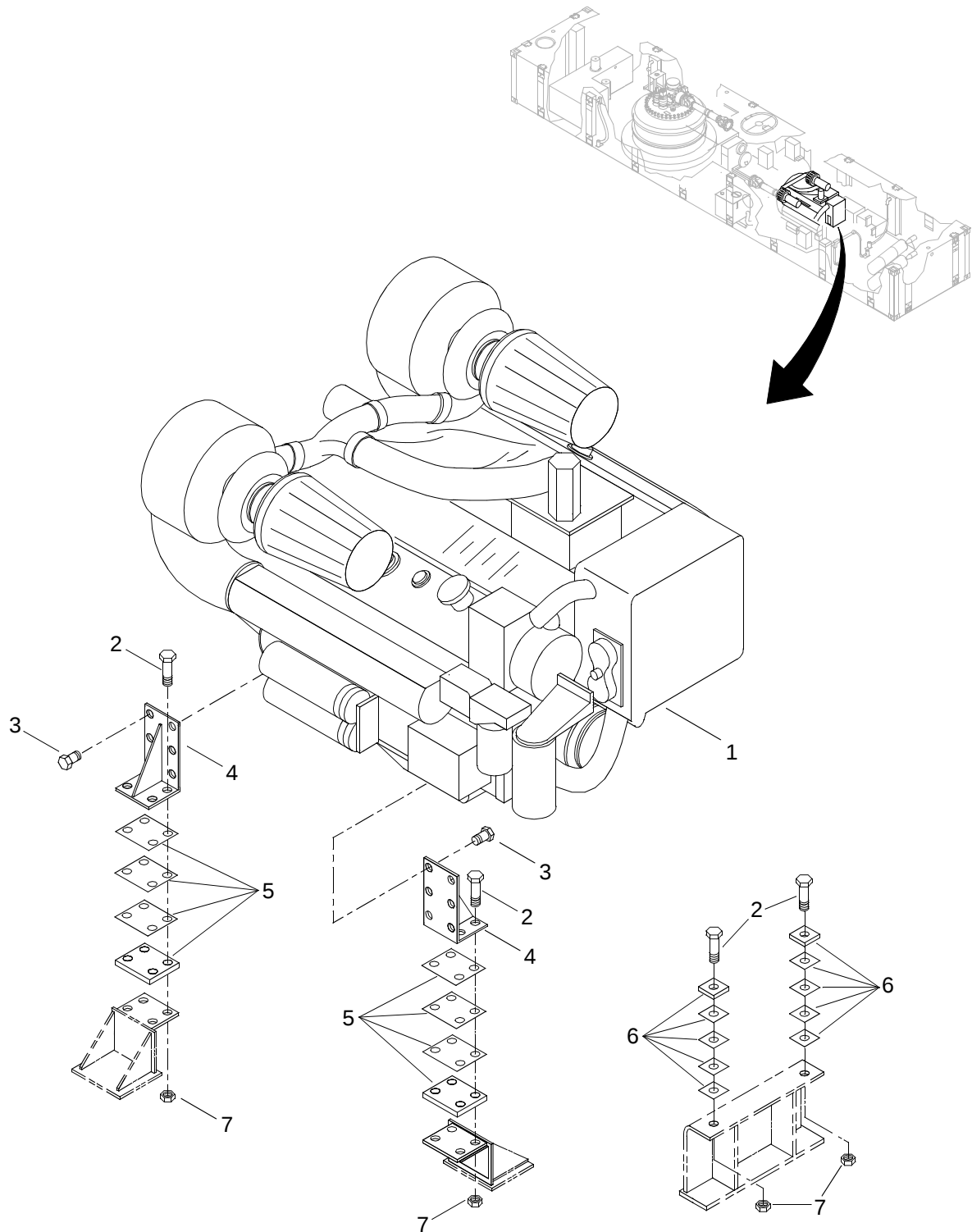


Figure 4. Diesel Engine

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 01						
FIG. 4 DIESEL ENGINE						
1	PBFDD		6N512	8082-7404	ENGINE ASSY.....	1
2	XDFZZ		34712	0002387	CAPSCREW, HEX HEAD	20
3	XDFZZ		34712	0002390	CAPSCREW, HEX HEAD	20
4	XDFZZ		34712	E11792	BRACKET, FLYWHL HSG	2
5	XDFZZ		34712	E11961	SHIM SET	2
6	XDFZZ		34712	E11971	SHIM SET	6
7	XDFZZ		34712	0002641	NUT, HEX.....	22
END OF FIGURE						

1
2 Thru 41

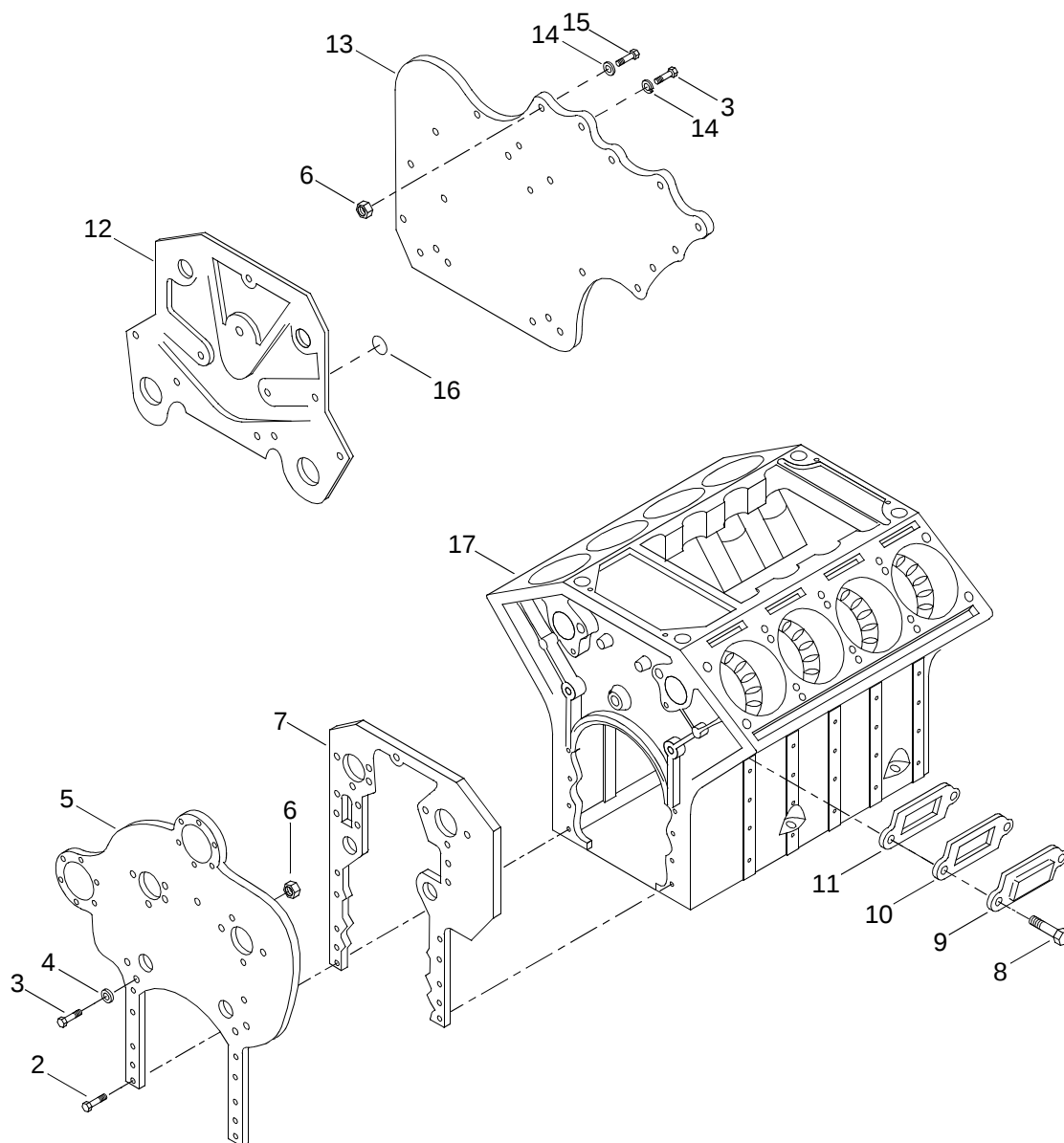


Figure 5. Cylinder Block Assembly (Sheet 1 of 4)

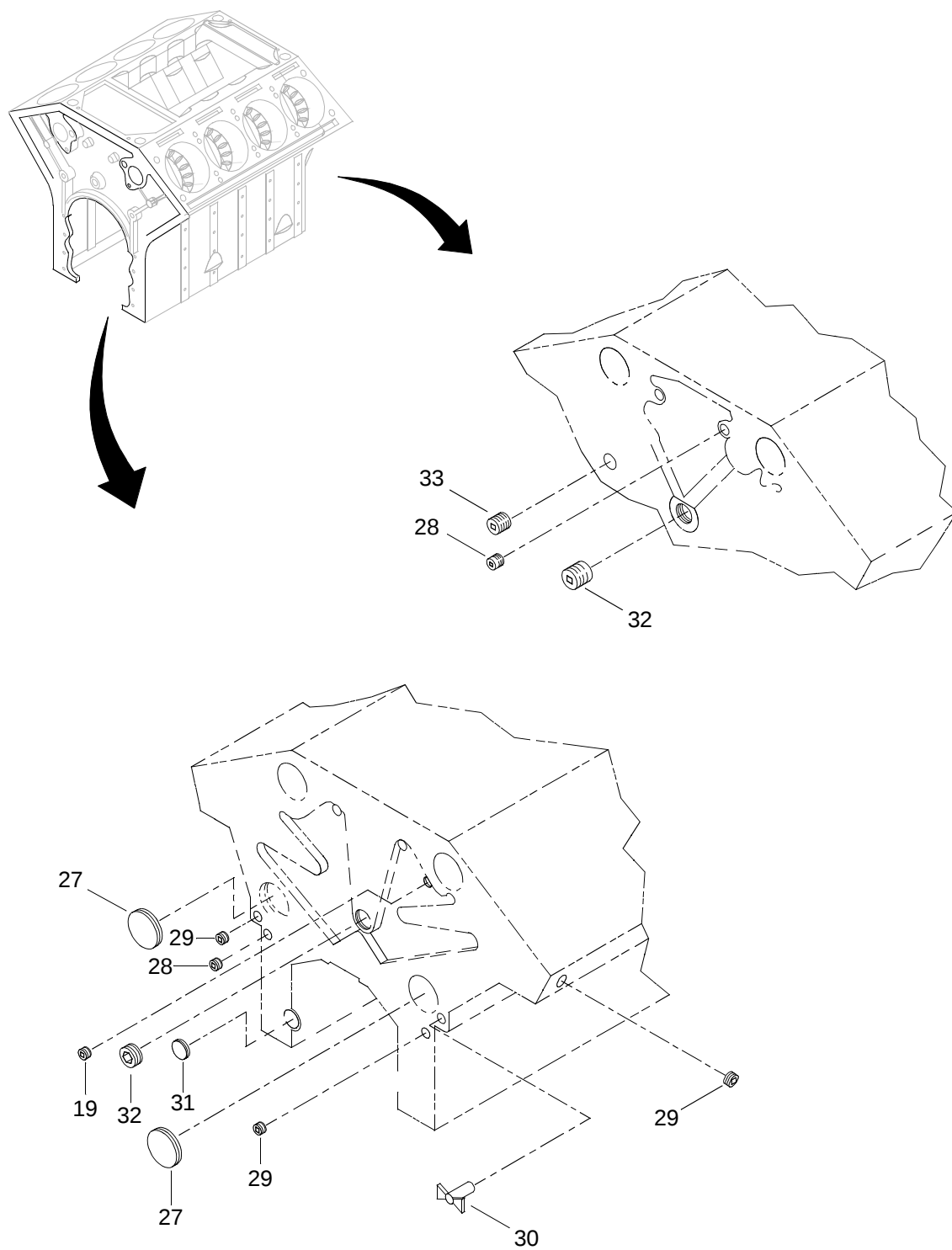


Figure 5. Cylinder Block Assembly (Sheet 3 of 4)