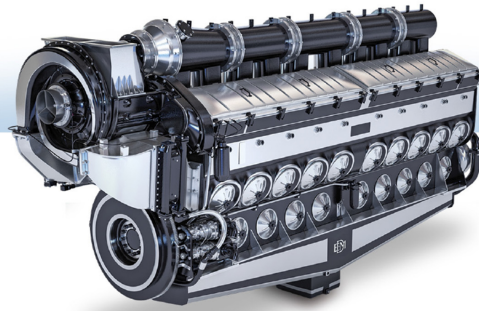


Marine Power Unit Model: ME20G7C-T2



Service Parts Catalog



Issued Date: June
2015 Revision: First
Edition

If you need Parts please feel free to contact
me at hydrofc@gmail.com or phone
775-378-2175, Skype Mike Finazzi, whats
app 017753782175

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Revision: First Edition
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How To Use This Catalog

This catalog is divided into: Table of Contents, General Information, Alphabetical Index, Several Sections - Assemblies, and Part Number Index. The proper use, in the correct sequence permits easy identification of the replacement part and its ordering reference.

TABLE OF CONTENTS

The Table of Contents is a listing of all the Assemblies in numerical sequence. Under the general headings of each Assembly are detailed - section and page number on which they appear. For example:

SECTION 99. ENGINE EQUIPPED

Assembly 900: CRANKCASE	1-#
Assembly 901: COVER ASSEMBLY	1-##
Assembly 902: HEAD ASSEMBLY	1-###

ASSEMBLIES AND ILLUSTRATIONS

ASSEMBLY HEADINGS. The assembly page consists of four columns with the following headings:

- Reference Number** Indicates part number location in the text and corresponds to the part identification reference in the illustration. The first number of the reference number indicates the assembly sequence and the second number corresponds to the reference in the illustration.
- Part Number** Indicates number to be used for ordering the part or material. If this column is blank, see following page.
- Quantity** Lists the total quantity required for that particular assembly. The caption "AR" indicates variable quantity; additional information in the description column.
- Description** Gives a detailed description of the part by a single-word part name wherever possible, followed by a detailed part number description. Also used for part number changes, part numbers for oversize and/or undersize replacements, quantity of material to be used, optional part number that can be ordered, and/or indications that the Ref. No. is not shown on the illustration. Component parts contained within an assembly are listed by the "indented method." These items are indented to the right and appear directly beneath the assembly or sub assembly.

NOTICE: It is important to use both the part number and description that are in **BOLD** type when placing your order to assure accurate order entry into EMD's Parts Order Entry computer system. In the following Example; Asm- Ref. No. n-2 should be ordered as 00000002, HEAD.

Assembly n: Example

Asm - Ref.No.	Part Number	Qty.	Description
n-1	00000001	1	HEAD ASSEMBLY
-2	00000002	1	HEAD
-3	00000003	1	SUPPORT
-4	00000004	1	STUD

LOCOMOTIVE ILLUSTRATIONS

In order to simplify the identification of the illustration to the assembly, the illustration page is either positioned on the left side (even page) of the catalog binder spine, or, when sufficient space permits, on the same page as the assembly text information.

All illustrations are intended to be used as a visual guide for locating a replacement part, and the illustration used may not always be an exact representation of your particular equipment.

ALPHABETICAL INDEX

The Alphabetical Index, following the Table of Contents, is a listing of the noun description used to identify a replacement part. Each description is referenced to the section number and page number in which it appears. For example:

Alphabetical Index

BRACKET.. Crab bolt 1-#
GAUGE ASSEMBLY.. Oil level - Dipstick 1-##
INSERT.. Lower liner 1-###

PART NUMBER INDEX

The Part Number Index is located in the back of the catalog. (Part numbers in the Description Column do not appear in the Part Number Index.) This Index is a listing of every part number shown in this catalog and is sequenced by the section number — page number. This Index is used to find the description or quantity required for an item when only the part number is known. For example:

Part Number Index

Part Number	Asm - Ref. No.	Page
00000001	900-1	1-#
00000002	901-1	1-##
00000003	902-1	1-###

Items not identified by a part number in the parts list may possibly be ordered by specifying on the purchase order the following: Document Number (shown on page 2 of the Title Page), Section-Page Number, Reference Number, complete Description of the part and the Assembly Part Number of which this item is a component.

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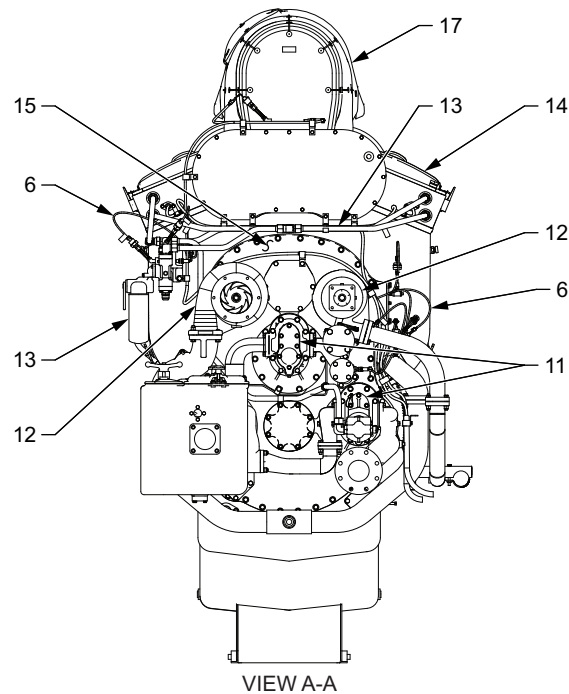
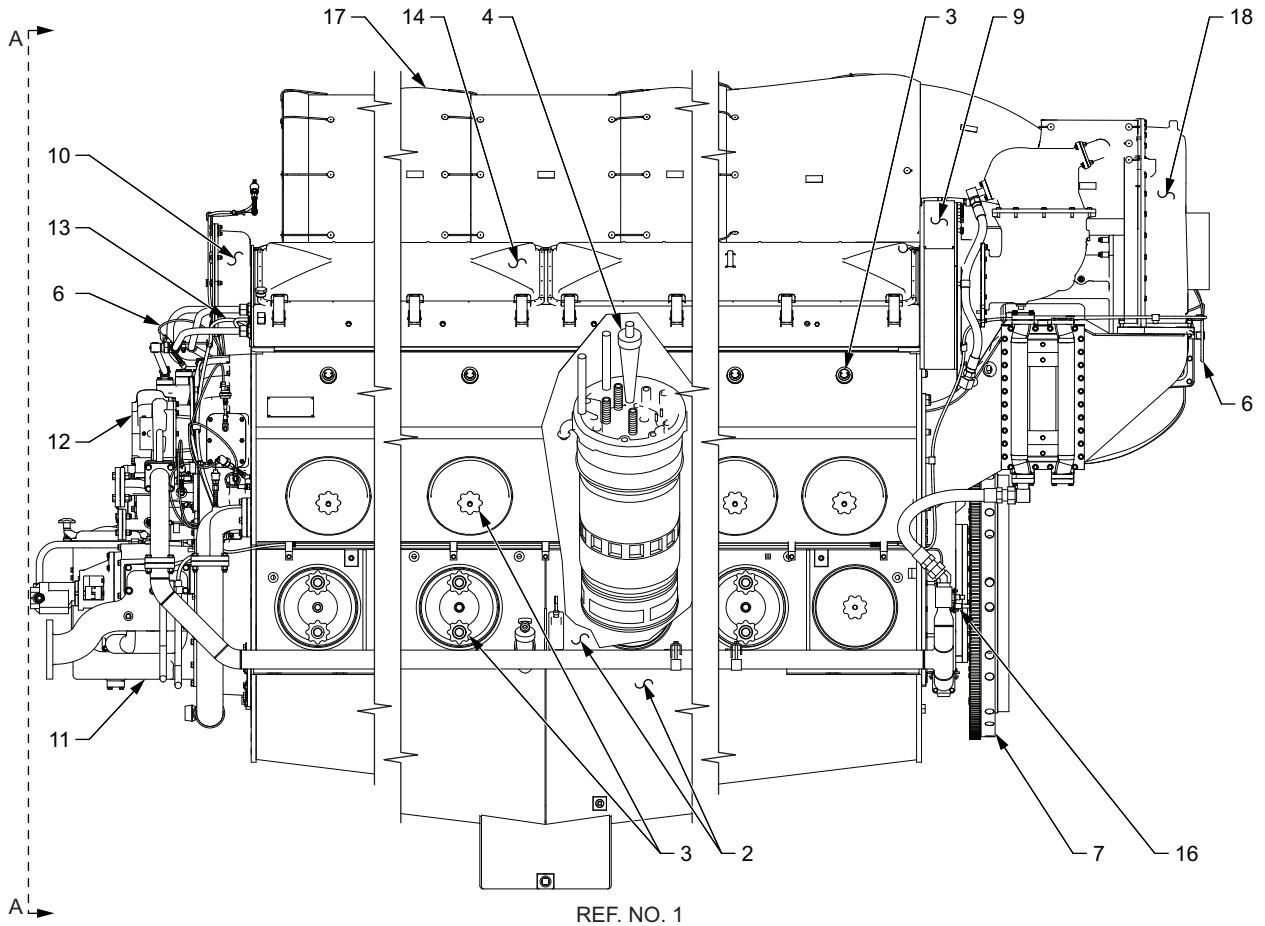
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20-710G7C-T2 ENGINE EQUIPPED

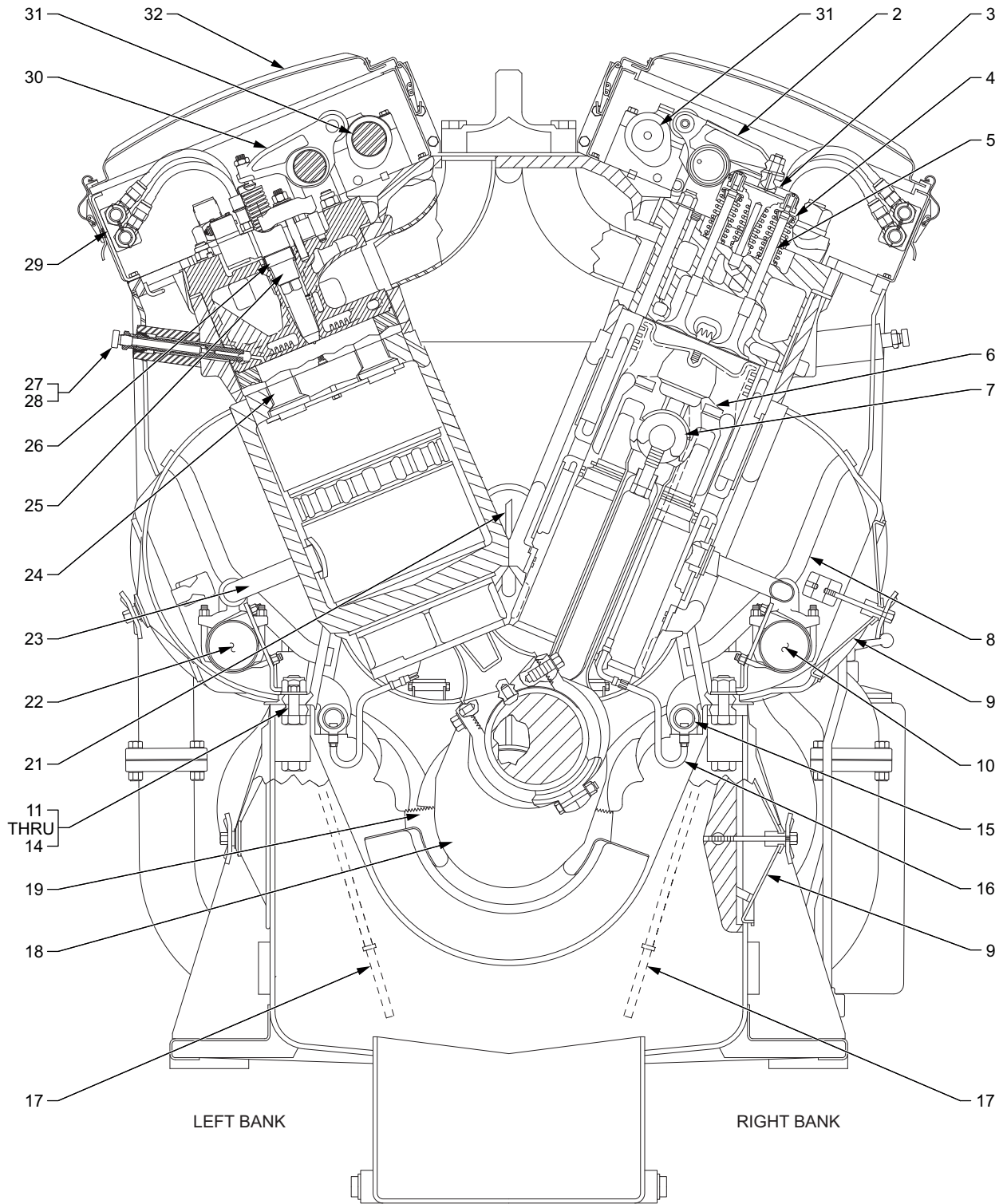


EN55555



Reference	Description
1	ENGINE EQUIPPED - See page 1-7
2	CRANKCASE AND OIL PAN ASSEMBLY - See page 1-8 and page 1-9
3	HANDHOLE COVERS AND CYLINDER TEST VALVE - See page 1-12 thru page 1-14
4	POWER ASSEMBLY - See page 1-15
5	ROCKER ARMS AND VALVE BRIDGES (not shown) - See page 1-19 thru page 1-21
6	EMDEC SENSORS APPLICATION - See page 1-23 and page 1-24
7	CRANKSHAFT AND BOLT-ON EQUIPMENT - See page 1-26 thru page 1-29
8	STARTER MOTOR (not shown) - See page 1-33 thru page 1-36
9	CAMSHAFT EQUIPMENT - See page 1-42 thru page 1-45
10	CAMSHAFT COUNTERWEIGHT HOUSING - See page 1-46
11	LUBE OIL SYSTEM AND PUMPS - See page 1-49 thru page 1-63
12	COOLING SYSTEM AND PUMPS - See page 1-65 thru page 1-70
13	FUEL FILTER, MANIFOLD AND INJECTOR FUEL LINES - See page 1-75 thru page 1-79
14	CYLINDER HEAD COVERS AND SUPPORT FRAMES - See page 1-81
15	ACCESSORY DRIVE HOUSING - See page 1-86
16	ENGINE TIMING TARGETS - See page 1-87
17	EXHAUST CHAMBERS AND HEAT INSULATION - See page 1-91 and page 1-92
18	TURBOCHARGER - See page 1-93

Assembly 1: ENGINE CROSS-SECTION



REF. NO. 1

EN55489

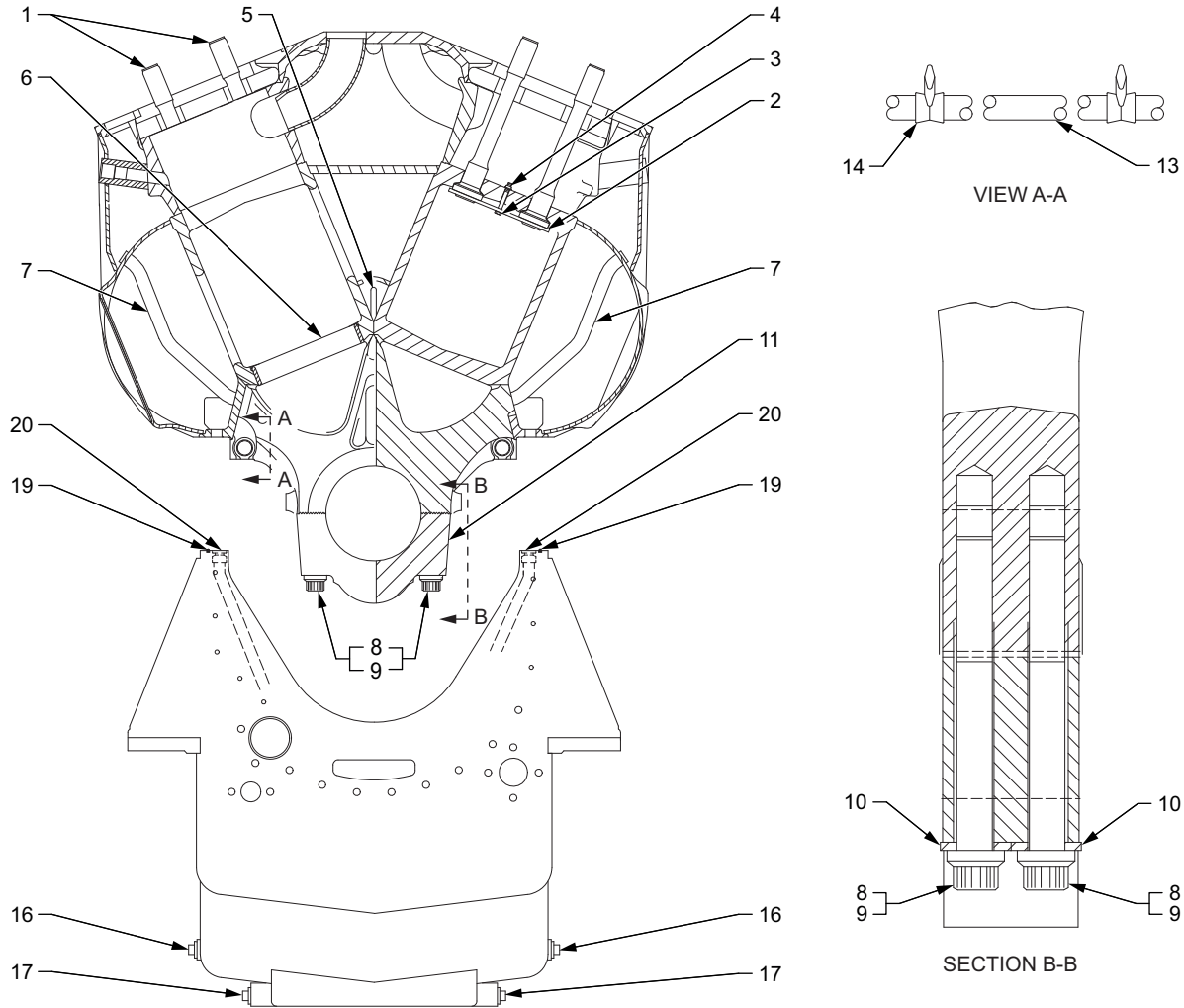
A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
1-1	40139066	1	ENGINE EQUIPPED.. L20-710G7C-T2
-2	9546232	40	ARM ASSEMBLY.. Rocker - Exhaust valve - See page 1-21
-2	40122134	40	ARM ASSEMBLY.. UTEX - Rocker - Exhaust valve (Optional to 9546232)
-3	40145929	40	BRIDGE.. Exhaust valve - See page 1-19
-3	40145929UX	40	BRIDGE.. UTEX - Exhaust valve (Optional to 40145929)
-4	40074041	80	SPRING.. Exhaust valve
-5	40070997	80	VALVE.. Exhaust
-6	40102453	20	WASHER.. Thrust - Piston carrier
-7	40078951	20	PIN.. Piston - Rocking
-8	8346155	4	TUBE.. Breather
-9	9314870	35	COVER ASSEMBLY.. Handhole - See page 1-12
-9	40151199	5	COVER ASSEMBLY.. Handhole - Safety - See page 1-13 (not shown)
-10	8433304	1	MANIFOLD ASSEMBLY.. Water - Right bank - See page 1-65
-11	272511	44	BOLT.. Hex head 1-14 x 2-3/4 - Crankcase to oil pan
-12	272512	4	BOLT.. Hex head 1-14 x 9 - Crankcase to oil pan
-13	131019	48	WASHER.. Flat 1 inch
-14	8032724	48	NUT.. Hex lock 1-14
-15	8360715	2	TUBE.. Piston cooling manifold 1-1/2 O.D.
-16	40046561	20	TUBE ASSEMBLY.. Piston cooling
-17	8374643	2	GAUGE ASSEMBLY.. Oil level - Dipstick
-18	40152856	1	CRANKSHAFT.. Engine - A.B.S. approved - See page 1-26
-19	40150996	1	CAP.. Main bearing - Location 1 - See page 1-26
-19	40152733	1	CAP.. Main bearing - Location 2 - See page 1-26
-19	40150992	8	CAP.. Main bearing - Location 3, 4, 5, 8, 9, 10, 11 and 12 - See page 1-26
-19	40150997	2	CAP.. Main bearing - Location 6 & 7 - See page 1-26
-20	9543944	9	BEARING.. Main - Upper - See page 1-26 (not shown)
-20	9543882	9	BEARING.. Main - Lower - See page 1-26 (not shown)
-21	9541517	12	TUBE.. Lube oil - Crankshaft and main bearings
-22	8433303	1	MANIFOLD ASSEMBLY.. Water - Left bank - See page 1-67
-23	9093027	20	TUBE ASSEMBLY.. Water inlet - 1-1/4 inch O.D.
-23	40072989	20	TUBE ASSEMBLY.. Water inlet - Flexible (optional to 9093027 tube - not shown)
-24	40028826	48	BOLT.. Crab - See page 1-18
-25	40120514	20	INJECTOR ASSEMBLY.. Fuel - EUI - Tier 2
-25	40120515	20	INJECTOR ASSEMBLY.. UTEX - Fuel (Optional to 40120514)
-26	40047327	20	RING.. Adapter - Fuel injector
-27	40035242	20	VALVE ASSEMBLY.. Cylinder test - See page 1-14
-28	40017341	20	SEAL.. Valve nut
-29	40067212	1	MANIFOLD ASSEMBLY.. Fuel line - Right bank - See page 1-77
-30	40055411	20	ARM ASSEMBLY.. Rocker - Injector - See page 1-21
-30	40122133	20	ARM ASSEMBLY.. UTEX - Rocker - Injector (Optional to 40055411)
-31	40138761	2	CAMSHAFT ASSEMBLY.. Engine - See page 1-42
-32	9581469	4	COVER ASSEMBLY.. Cylinder head - See page 1-84

M5528

Assembly 2: CRANKCASE AND OIL PAN ASSEMBLY

Crankcase And Oil Pan Assembly



EN56665

A minimum order quantity may apply. Please contact Customer Service to confirm.

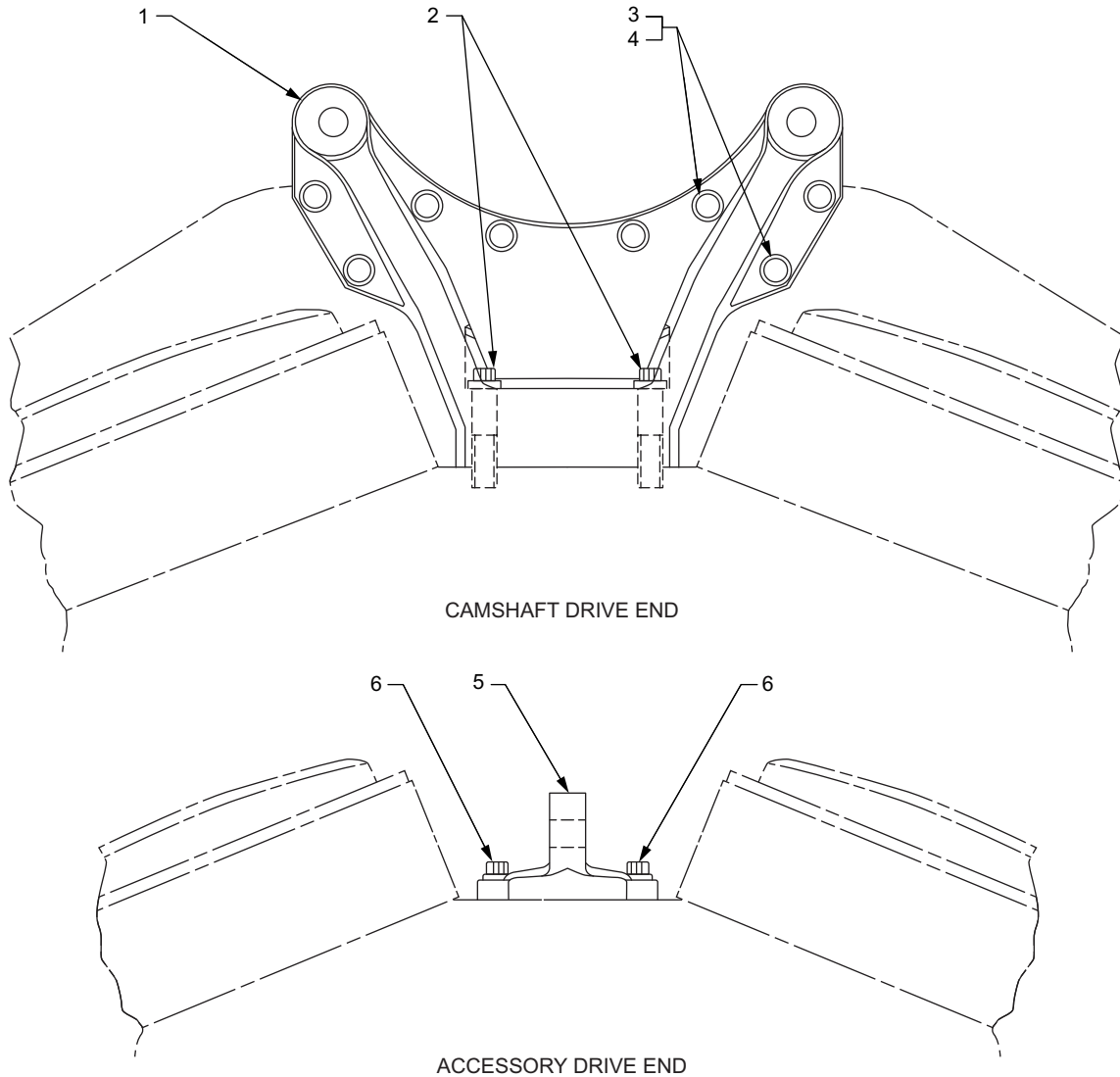
Asm - Ref.No.	Part Number	Qty.	Description
2-1	40028826	48	BOLT.. Cylinder head crab - See page 1-18
-2	8133575	24	BRACKET.. Crab bolt
-3	8348556	24	BOLT.. Hex head 3/8-24 x 3
-4	8089200	24	NUT.. Spline 3/8-24
-5	9541517	12	TUBE.. Lube oil - Crankshaft and main bearings
			<i>(Continued)</i>

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
2-6	9319169	20	INSERT.. Lower liner
-7	8346155	4	TUBE.. Breather
-8	40056030	40	BOLT.. 12 point 1-1/4 - 12 x 10 - Main bearing
-9	40085897	4	BOLT.. 12 point 1-1/4 - 12 x 10 - Main bearing - Location 11
-10	8412532	44	WASHER.. Special - Lower main bearing bolt
-11	40150996	12	CAP.. Main bearing - See page 1-26
-12	8433263	2	SLEEVE.. Water manifold (not shown)
-13	8360715	2	TUBE.. Piston cooling manifold 1-1/2 O.D.
-14	8140865	20	BRACKET.. Piston cooling manifold - One piece - Not drilled or tapped
-15	8445780	20	BRACKET.. Piston cooling manifold - Two piece - Machined and tapped (optional) (not shown)
-16	8173319	2	PLUG.. Pipe 1 MPT - Square head
-17	106642	3	PLUG.. Pipe 1-1/4 MPT - Square head
-18	8348620		PLUG.. Pipe 1/2 MPT - Square head (not shown)
-19	8360920	2	SEAL.. O-ring - Crankcase to oil pan
-20	8198078	4	SEAL.. O-ring - Air box drain
-21	8159199	2	FLANGE.. Piston cooling tube - Camshaft drive end (not shown)
-22	40048969	2	GASKET.. Flange mounting (not shown)
-23	40130520	4	BOLT.. Hex head 3/8-24 x 7/8 - Special - Flange mounting (not shown)
-24	8374643	2	GAUGE.. Oil level - Dipstick (not shown)
-25	8071849	2	SEAL.. Oil level gauge (not shown)

40152730A, 40151882A

Anchor Shackle Base Application



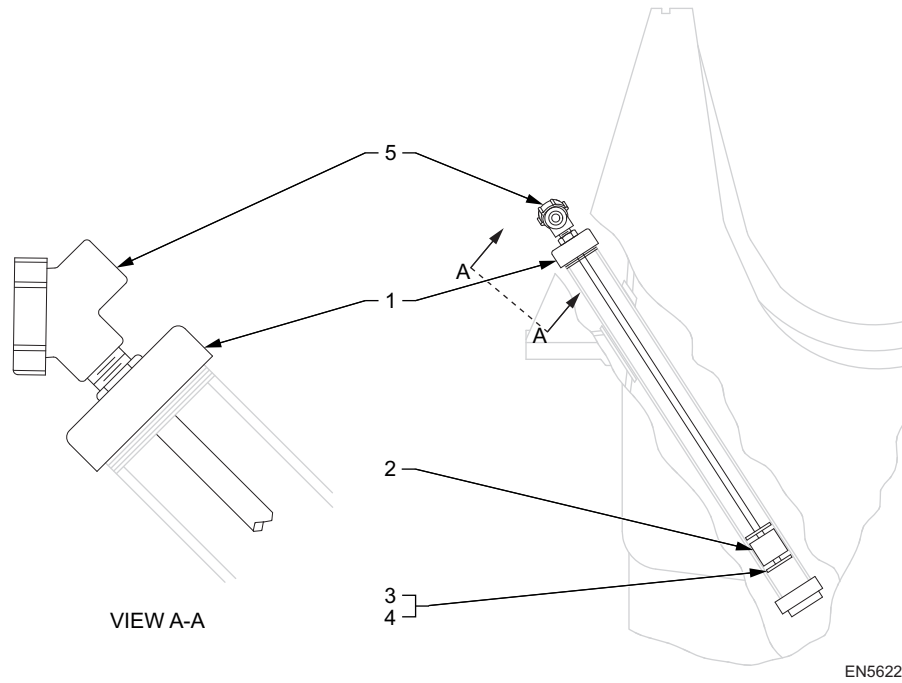
EN32080

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
2-1	9557707	1	SUPPORT.. Anchor shackle - Bolts to crankcase and camshaft drive housing - Removed after engine installation
-2	9096320	4	BOLT.. 12 point 1-14 x 4-1/2
-3	426447	8	BOLT.. Hex head 5/8-11 x 1-1/4
-4	6101233	8	WASHER.. Flat 5/8
-5	8344365	1	BASE.. Anchor shackle
-6	9096428	4	BOLT.. 12 point - 1-14 x 2
-7	8307731	AR	LUBRICANT.. Thread - 70 pounds (not shown)

9544301C, M5528, 9549632

Lube Oil Level Switch



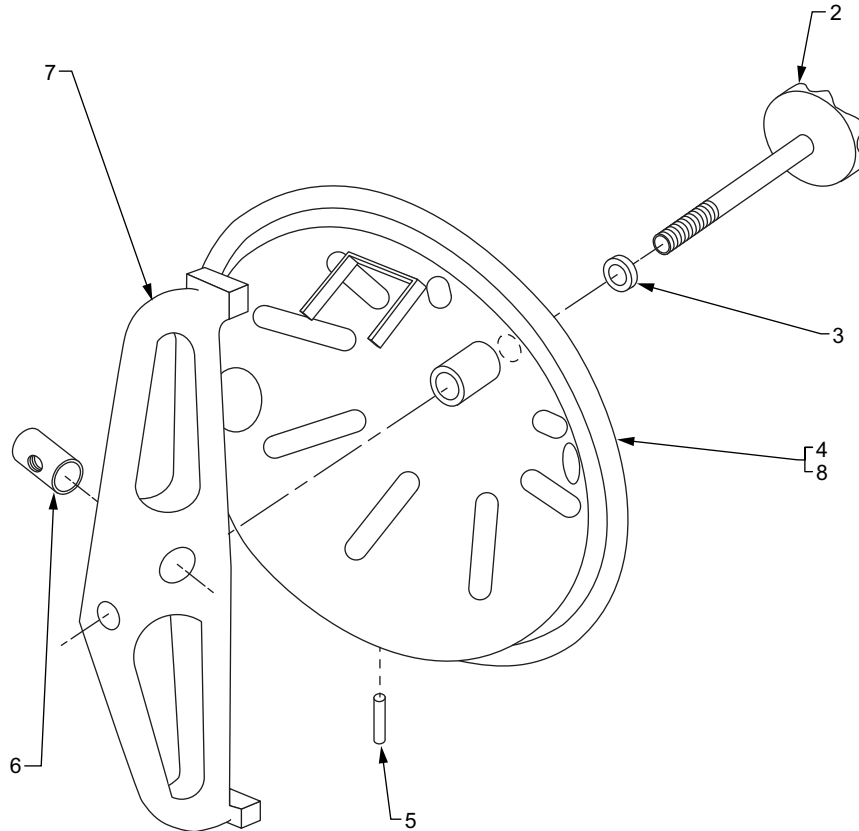
A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
2-1	8464151	1	SWITCH ASSEMBLY.. Lube oil level - Contacts normally open
-2	9552598	1	FLOAT ASSEMBLY.. Lube oil level switch
-3	9571449	1	SPACER.. Lube oil level switch float
-4	9571448	2	COLLAR.. Spacer (not shown)
-5	8446535	1	ELBOW.. 1/2 capped

8468704

Assembly 3: HANDHOLE COVERS AND CYLINDER TEST VALVE

Handhole Cover Assembly



REF. NO. 1

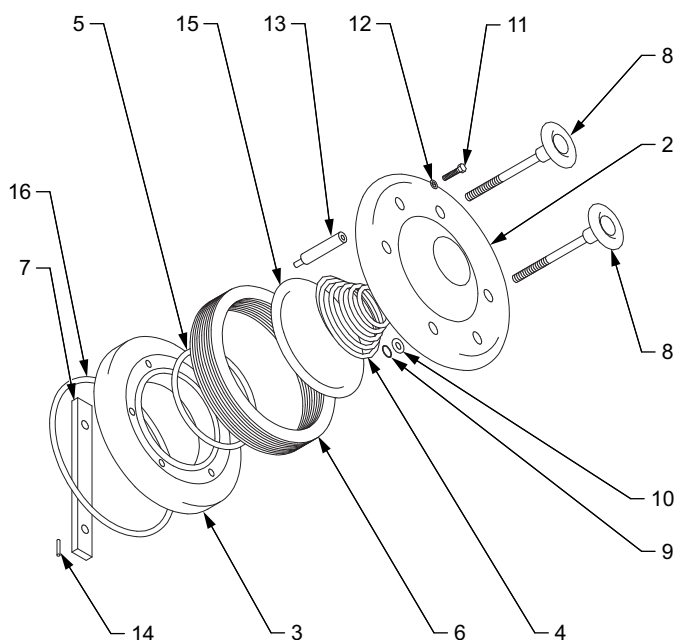
LU30708

Quantities of 34 per Engine.

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
3-1	9314870	1	COVER ASSEMBLY.. Handhole (30 required per engine)
-2	8262322	1	HANDWHEEL ASSEMBLY.. Cover - Includes stem
-3	8247063	1	GASKET.. Handwheel
-4	9314871	1	COVER.. Handhole
-5	273337	1	PIN.. Retaining - 1/8 dia. x 5/8 inch long
-6	8262316	1	PIN.. Crossbar to handwheel stem
-7	9314872	1	CROSSBAR ASSEMBLY.. Cover <i>Note: Ref. No. 8 is not a component of the Cover Assembly.</i>
-8	8291349	AR	GASKET.. Handhole cover (One gasket per handhole cover)

Safety Handhole Cover Assembly



REF. NO. 1

EN31637

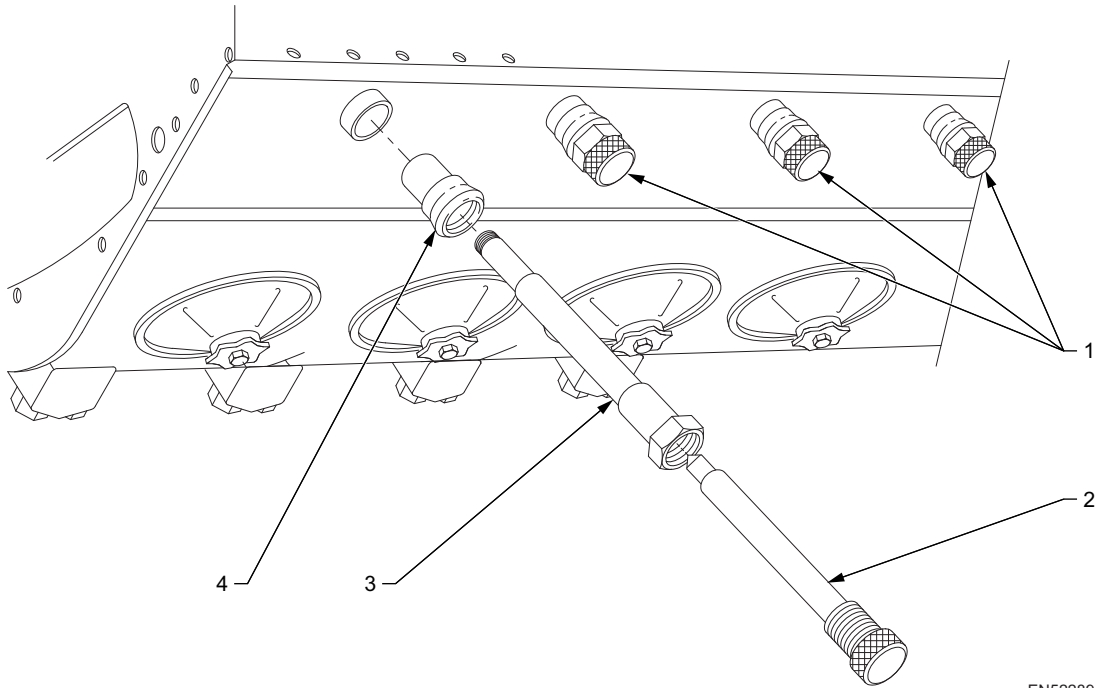
Quantity of 5 per Engine.

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
3-1	40151199	1	COVER ASSEMBLY.. Handhole - Safety
-2	40026181	1	COVER.. Handhole - Safety
-3	9558966	1	SEAT.. Handhole cover valve
-4	9558967	1	SPRING.. Handhole cover
-5	9095844	1	SEAL.. O-ring - Valve seat
-6	9080829	1	ARRESTOR.. Flame - Handhole cover
-7	9558968	1	BAR.. Clamping
-8	9558969	2	HANDWHEEL ASSEMBLY.. Handhole cover - Includes bolt
-9	9095821	2	SEAL.. O-ring - Handwheel
-10	40010899	2	WASHER.. Seal
-11	40010898	4	SCREW.. Hex head
-12	40010897	4	WASHER.. Lock
-13	40010896	4	BOLT.. Guide
-14	40010895	2	PIN.. Cotter
-15	40010894	1	PLATE.. Valve
			<i>Note: Ref. No. 16 is not a component of the Cover Assembly.</i>
-16	8291349	AR	GASKET.. Handhole cover (One gasket per handhole cover)

40151200

Cylinder Test Valve



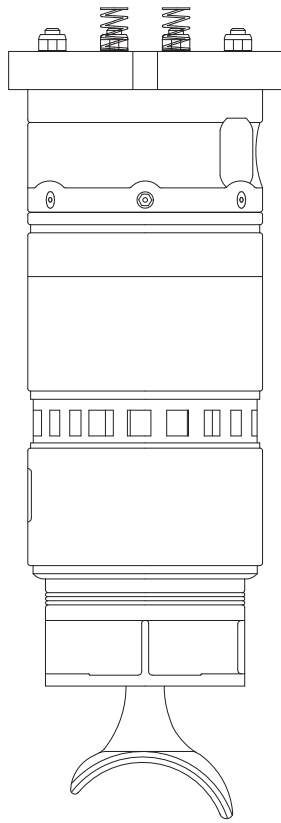
EN52289

Quantities shown are for one Cylinder.

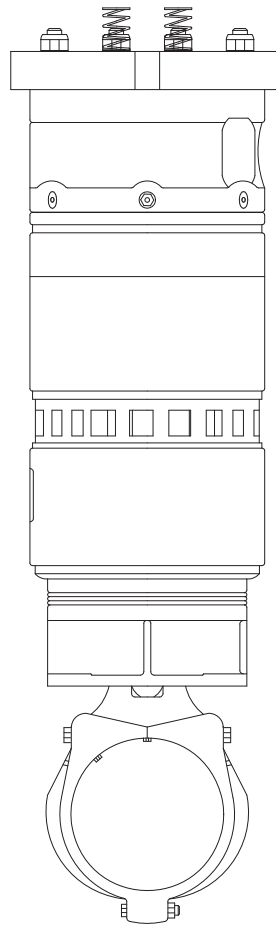
A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
3-1	40035242	1	VALVE ASSEMBLY.. Cylinder test
-2	8024846	1	VALVE.. Needle
-3	40090523	1	BODY.. Valve
-4	40017341	1	SEAL.. Cylinder test valve
-5	40036607	AR	KIT.. Cylinder test valve - Includes Ref. Nos. 2, 3 and 4 (not shown)

Assembly 4: POWER ASSEMBLY



REF. NO. 1

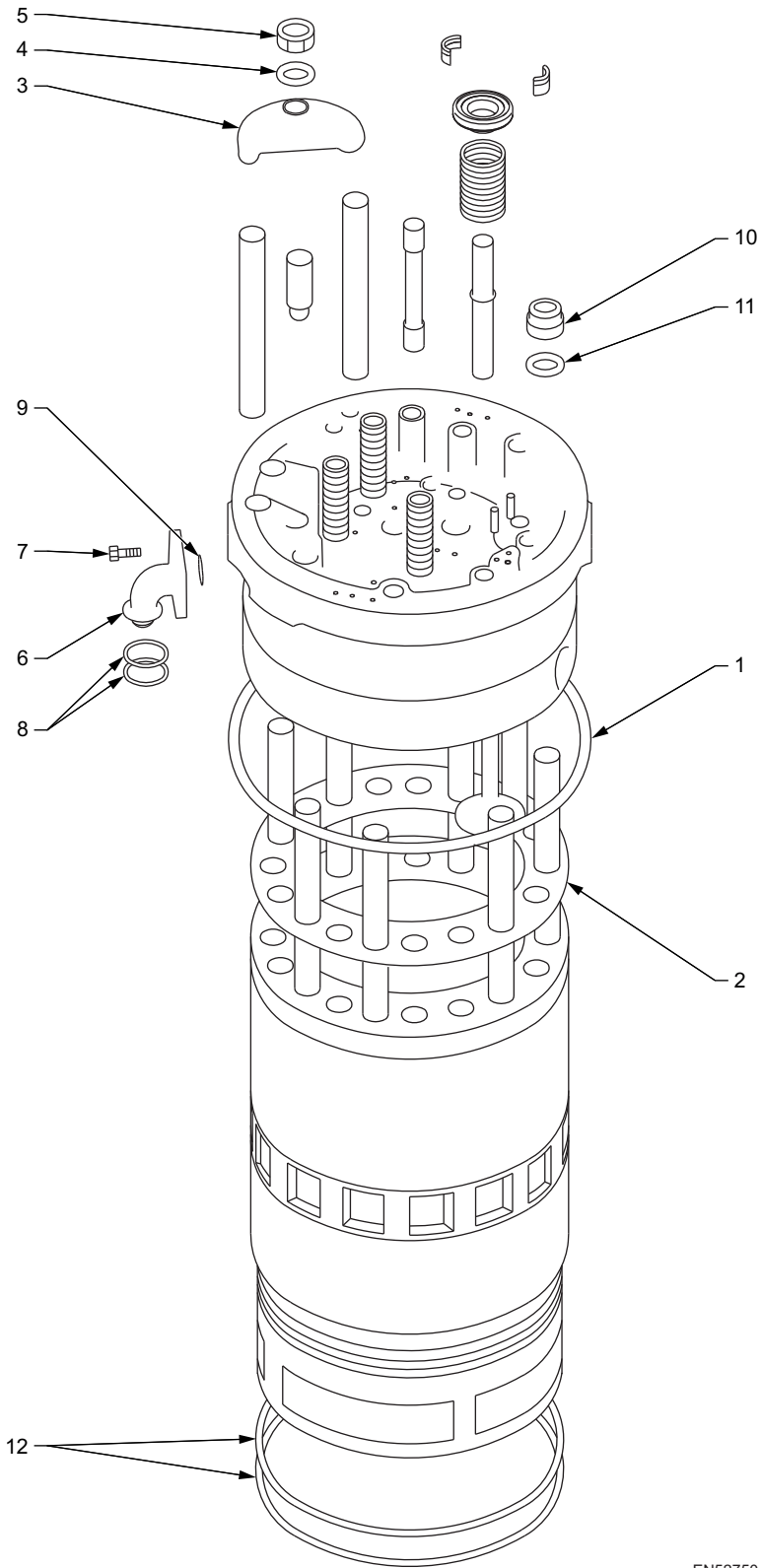


REF. NO. 2

EN52749

Asm - Ref. No.	Part Number	Qty.	Description
4-1	40143313	10	POWER ASSEMBLY.. Blade rod - Expendable kit
-1	40143317	10	POWER ASSEMBLY.. UTEX - Blade rod (Optional to 40143313)
-2	40143312	10	POWER ASSEMBLY.. Fork rod - Expendable kit
-2	40143315	10	POWER ASSEMBLY.. UTEX - Fork rod (Optional to 40143312)
-3	8354118	10	BEARING.. Connecting rod - Upper sleeve (not shown)
-3	8354119	10	BEARING.. Connecting rod - Upper sleeve 0.031 undersize (not shown)
-3	8354120	10	BEARING.. Connecting rod - Upper sleeve 0.062 undersize (not shown)
-4	8136114	10	BEARING.. Connecting rod - Lower sleeve (not shown)
-4	8137807	10	BEARING.. Connecting rod - Lower sleeve 0.031 undersize (not shown)
-4	8137808	10	BEARING.. Connecting rod - Lower sleeve 0.062 undersize (not shown)

Cylinder Head And Liner



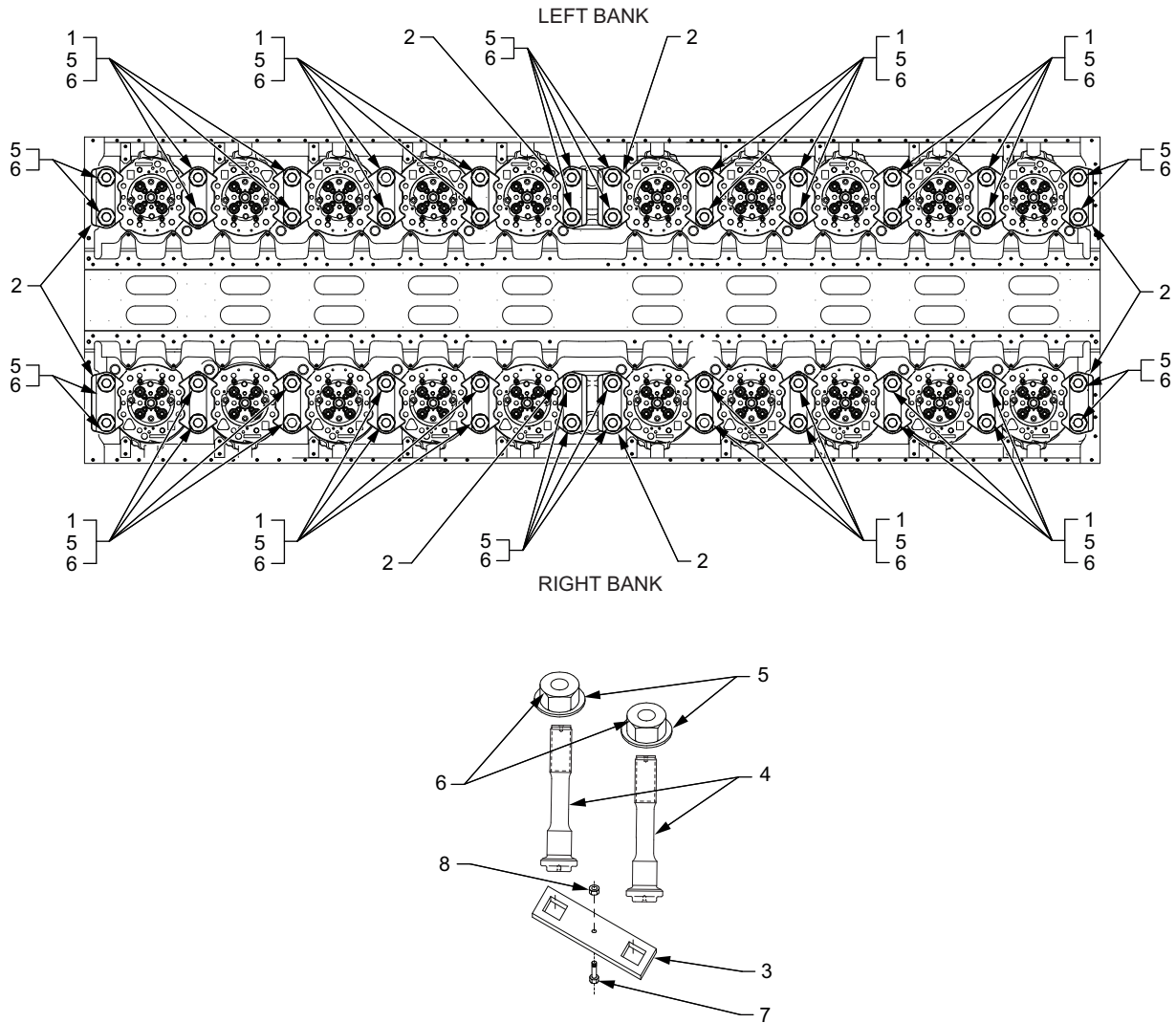
EN52750

Quantities shown are for one Cylinder.

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
4-1	9581924	1	RING.. Cylinder head seat
-1	40001262	1	RING.. 0.038 oversize - Cylinder head (Optional)
-2	40099569	1	GASKET ASSEMBLY.. Head to liner - With integrated grommet seals
-3	9092979	1	CRAB.. Fuel injector
-4	8044832	1	WASHER.. Spherical 5/8 - Injector
-5	103030	1	NUT.. Spherical 5/8-18
-6	8414444	1	ELBOW.. Water outlet
-7	217911	2	SCREW.. Socket head 3/8-16 x 7/8
-8	9317972	2	SEAL.. O-ring - Water outlet elbow to crankcase
-9	8305815	1	SEAL.. O-ring - Cylinder head to water outlet elbow
-10	8060089	8	NUT.. Hex lock 3/4-16
-11	8140912	8	WASHER.. Special 3/4
-12	9316850	2	SEAL.. O-ring - Liner
-13	40048968	1	GASKET.. Piston cooling tube to lube oil manifold (not shown)
-14	40040025	1	GASKET.. Water inlet tube to water manifold (not shown)

Assembly 5: CYLINDER HEAD CRABS



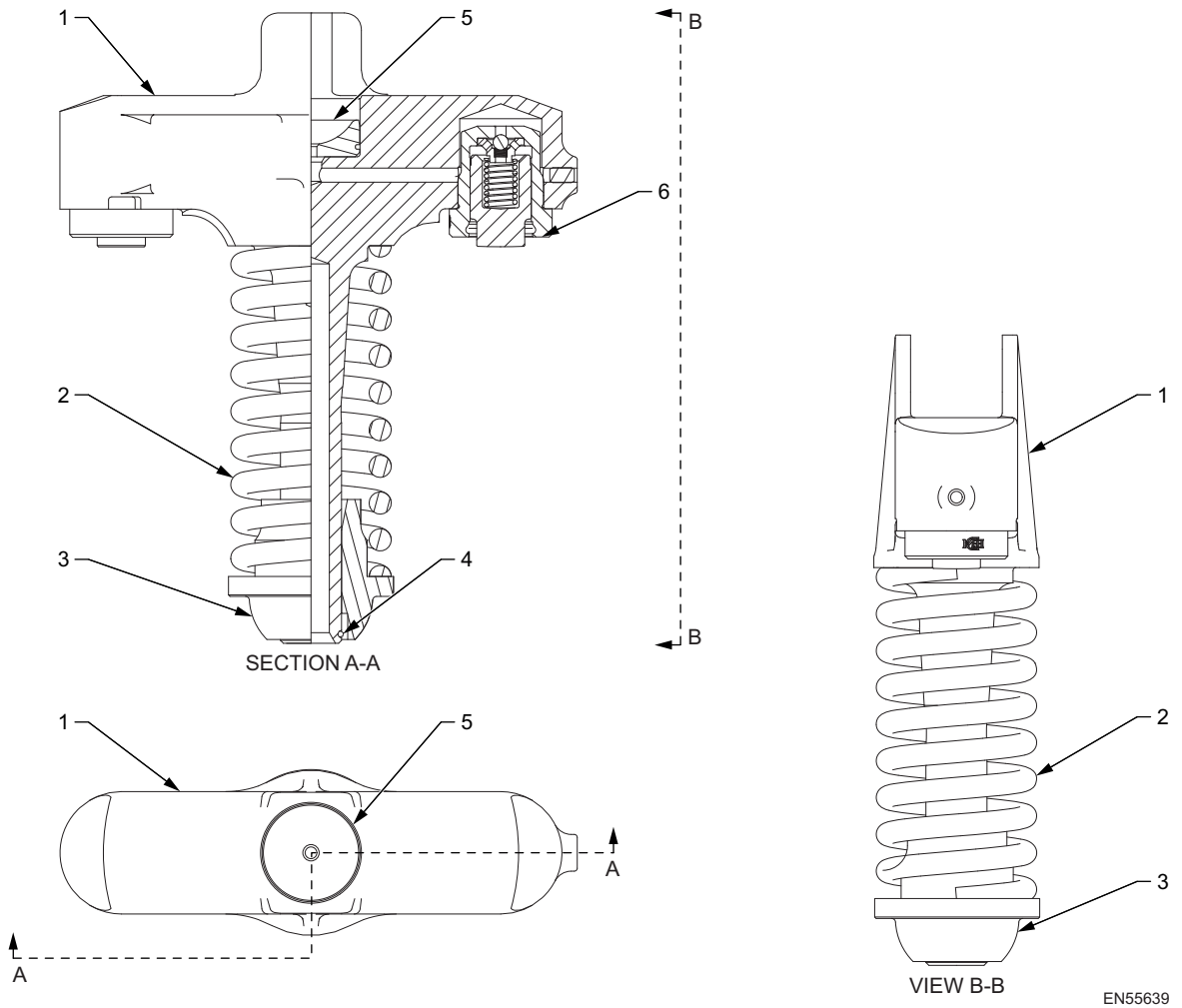
EN55509

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
5-1	40028824	16	CRAB.. Cylinder head - Intermediate
-2	9544715	8	CRAB.. Cylinder head - End and center
-3	8133575	24	BRACKET.. Crab bolt
-4	40028826	48	BOLT.. Crab 16-3/4 inch length
-5	9319172	48	WASHER.. Special - Crab bolt
-6	9571494	48	NUT.. Crab bolt
-7	8348556	24	BOLT.. Hex head 3/8-24 x 3
-8	8089200	24	NUT.. Spline 3/8-24

Assembly 6: EXHAUST VALVE BRIDGE AND ROCKER ARMS

Exhaust Valve Bridge and Hydraulic Adjuster



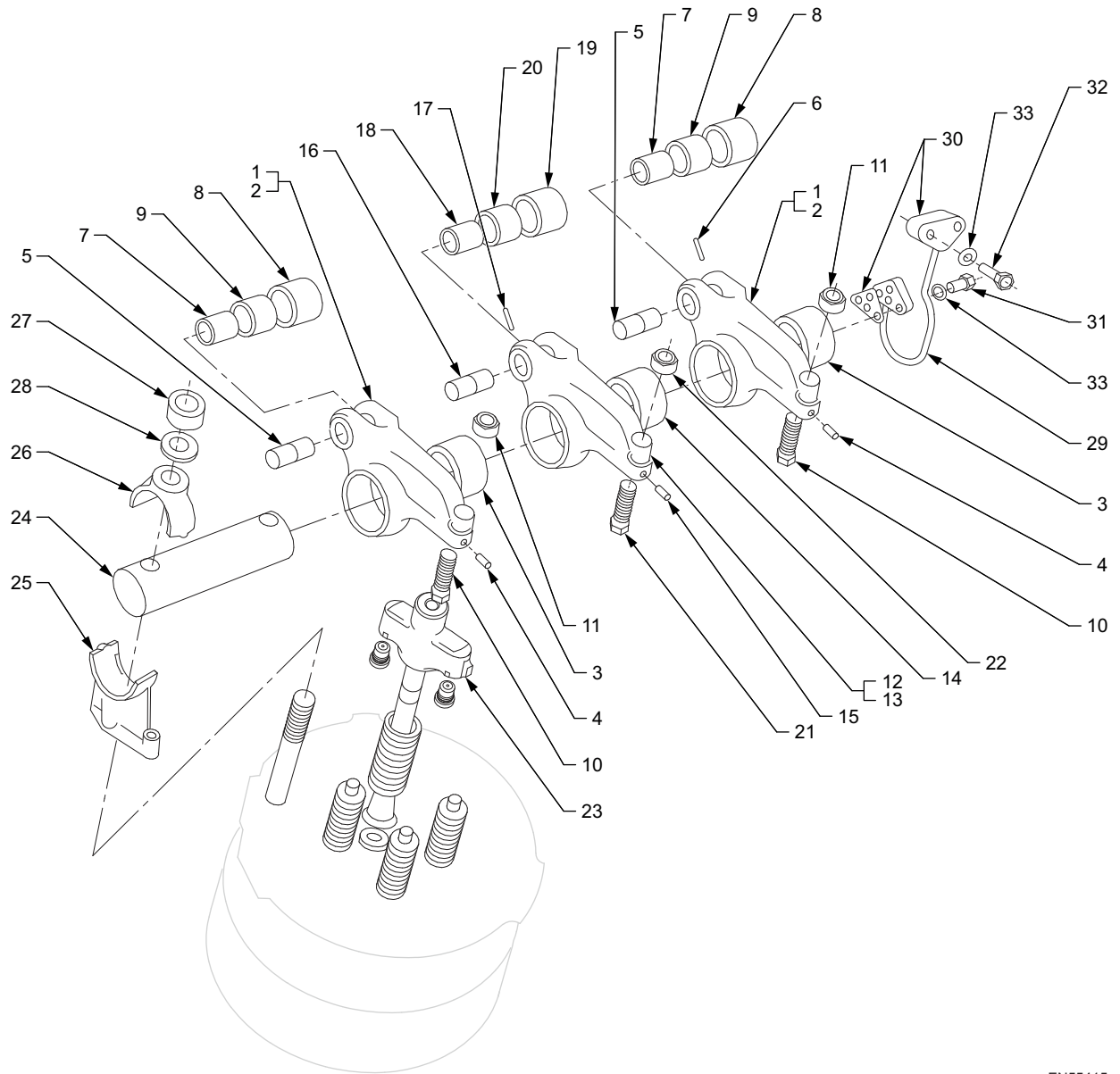
Quantities shown are for one Cylinder.

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
6-1	40145929	2	BRIDGE ASSEMBLY.. Exhaust valve
-1	40145929UX	2	BRIDGE ASSEMBLY.. UTEX - Exhaust valve (Optional to 40145929)
-2	8068791	2	SPRING.. Bridge
-3	40140140	2	SEAT.. Spring
-4	8028136	2	RING.. Locking
-5	8052307	2	BUTTON.. Bridge
-6	40145726	4	ADJUSTER ASSEMBLY.. Hydraulic - Valve bridge

40055412C

Exhaust Valve Rocker Arm



EN55415

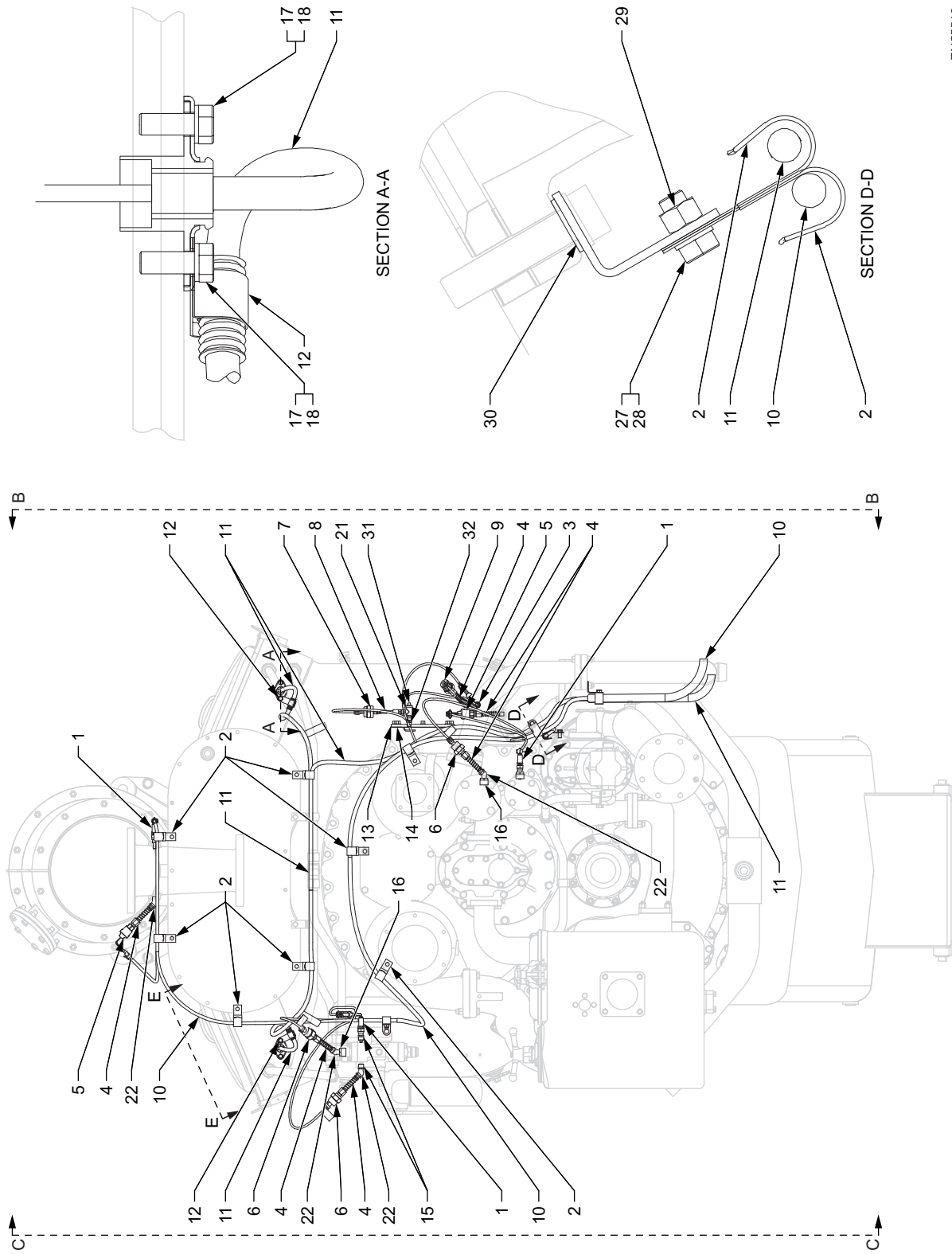
Quantities shown are for one Cylinder.

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
6-1	9546232	2	ARM ASSEMBLY.. Rocker - Exhaust valve
-1	40122134	2	ARM ASSEMBLY.. UTEX - Rocker - Exhaust valve (Optional to 9546232)
-2	9546231	2	ARM.. Rocker - Exhaust valve
-2	40122135	2	ARM.. UTEX - Rocker - Exhaust valve (Optional to 9546231)
-3	9571921	2	BUSHING.. Arm
-4	141126	2	PIN.. Dowel 15/32 x 1/4
-5	8146111	2	PIN.. Cam follower
-6	442919	2	PIN.. Groove 1/8 x 7/8
-7	9563714	2	RACE.. Inner
-8	9571597	2	ROLLER ASSEMBLY.. Cam follower
-9	9571598	2	BUSHING.. Roller
-10	8052327	2	SCREW.. Adjusting - 2-1/8 inch length
-11	8028723	2	NUT.. Hex jam 5/8-18
-12	40055411	1	ARM ASSEMBLY.. Rocker - Injector
-12	40122133	1	ARM ASSEMBLY.. UTEX - Rocker - Injector (Optional to 40055411)
-13	9546229	1	ARM.. Rocker - Injector
-13	40122132	1	ARM.. UTEX - Rocker - Injector (Optional to 9546229)
-14	9571921	1	BUSHING.. Arm
-15	141126	1	PIN.. Dowel 5/32 x 1/4
-16	8146111	1	PIN.. Cam follower
-17	442919	1	PIN.. Groove 1/8 x 7/8
-18	9563714	1	RACE.. Inner
-19	9571597	1	ROLLER ASSEMBLY.. Cam follower
-20	9571598	1	BUSHING.. Roller
-21	8052327	1	SCREW.. Adjusting - 2-1/8 inch length
-22	8028723	1	NUT.. Hex jam 5/8-18
-23	40145929	40	BRIDGE.. Exhaust valve - See page 1-19
-23	40145929UX	40	BRIDGE.. UTEX - Exhaust valve (Optional to 40145929)
-24	8028460	1	SHAFT.. Rocker arm
-24	40114167	1	SHAFT.. UTEX - Rocker arm (Optional to 8028460)
-25	9090607	2	SUPPORT.. Shaft
-25	40099875	2	SUPPORT.. Shaft (Optional to 9090607)
-26	9090608	2	CAP.. Support
-26	40099876	2	CAP.. Support (Optional to 9090608)
-27	8487866	2	NUT.. Hex 1-14
-28	8421965	2	WASHER.. Special
-29	8039842	1	LINE ASSEMBLY.. Lube oil - 1/4 inch O.D. - Includes flanges
-30	8029167	1	GASKET.. Lube oil line
-31	181311	2	BOLT.. Hex head 1/4-28 x 5/8 - Oil line to rocker arm shaft
-32	179795	2	BOLT.. Hex head 1/4-20 x 3/4 - Oil line to camshaft bearing
-33	103319	2	WASHER.. Lock 1/4

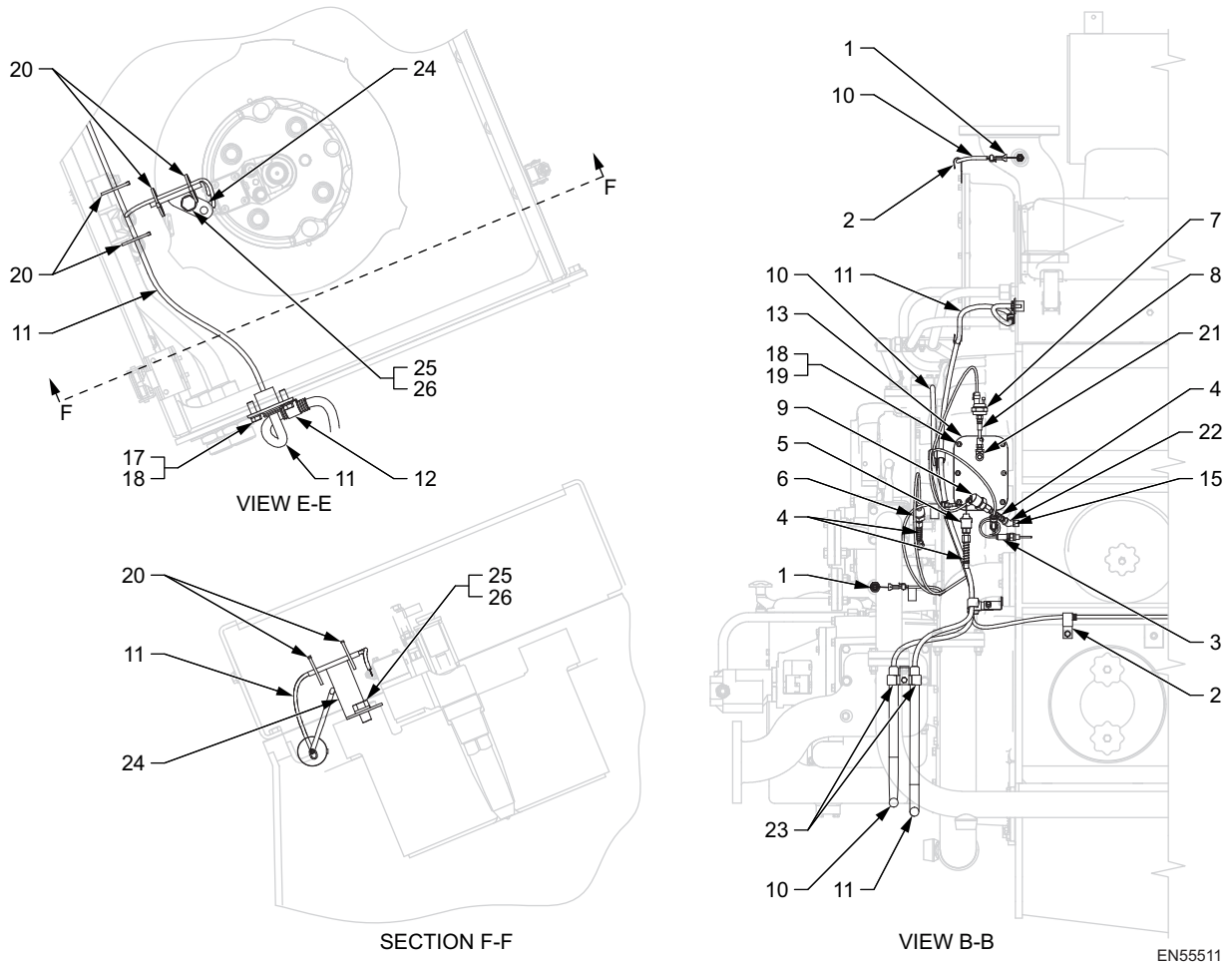
40055412C, 40055413A, 40134675

Assembly 7: EMDEC SENSORS APPLICATION



EN55510

Sensor Application (continued)

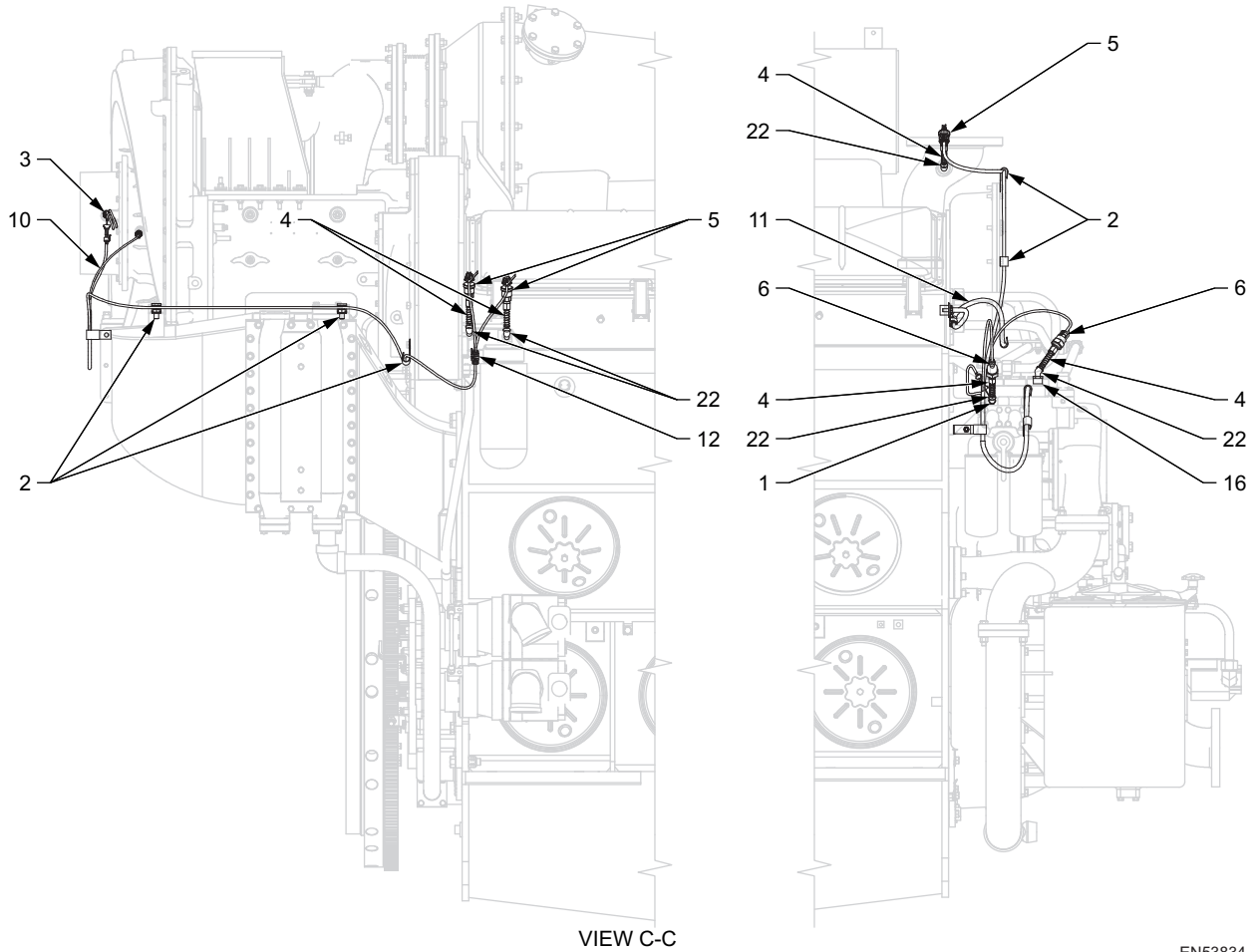


EN55511

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
7-1	40063567	3	SENSOR.. Temperature - Fuel coolant and lube oil
-2	40068120	34	STRAP.. Single - Flexible
-3	40086233	2	SENSOR.. Temperature - Airbox and air inlet
-4	40094857	8	HOSE ASSEMBLY.. Sensor mounting - Flexible
-5	40117782	4	SENSOR.. Pressure - Coolant and lube oil
-6	40087573	3	SENSOR.. Pressure - Fuel oil and lube oil
-7	40079154	1	SENSOR.. Pressure - Crankcase
-8	40067975	1	HOSE ASSEMBLY.. Sensor mounting - Crankcase pressure
-9	40079208	1	SENSOR.. Pressure - Air box
-10	40160554	1	WIRE HARNESS.. Sensor
-11	40159504	1	WIRE HARNESS.. Injector
-12	8911368	3	CLAMP.. Cable - 13mm
-13	40100361	1	COVER ASSEMBLY.. Crankcase sensor
-14	40040017	1	GASKET.. Cover assembly
-15	144043	3	BUSHING.. 3/8 x 1/4PT
-16	189060	3	BUSHING.. 3/4 x 1/4PT
-17	179817	4	BOLT.. Hex head 5/16-18 x 7/8
-18	6101223	12	WASHER.. Flat 5/16
-19	8032716	7	NUT.. Hex lock 5/16-24
-20	40051699	AR	TIE.. Cable

Sensor Application (continued)



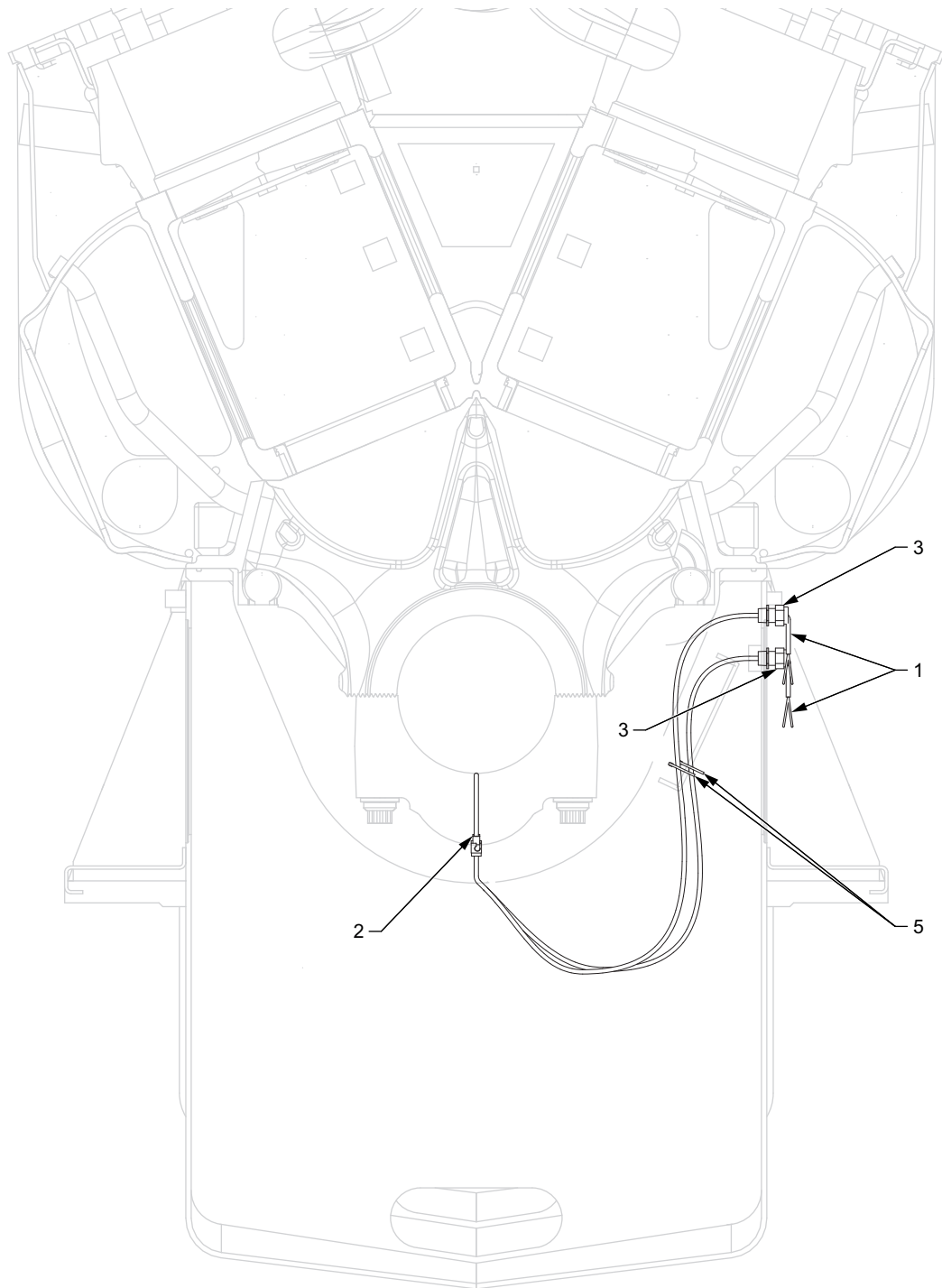
EN53834

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
7-21	105417	1	TEE.. 1/4
-22	444180	7	ELBOW.. Street - 45 degree - 1/4PT
-23	8911368	3	CLAMP.. Support
-24	40049335	20	BRACKET ASSEMBLY.. Injector
-25	179879	23	BOLT.. Hex head 1/2-13 x 3/4
-26	103323	20	WASHER.. Lock 1/2
-27	179837	16	BOLT.. Hex head 3/8-16 x 3/4
-28	6101225	17	WASHER.. Flat 3/8
-29	102635	3	NUT.. Hex lock 3/8-16
-30	6101229	8	WASHER.. 1/2 Aircraft
-31	103878	1	PLUG.. Pipe - 1/4
-32	40100359	1	CONNECTOR.. 1/4PT x 1/4PT

40140841B

Assembly 8: MAIN BEARINGS THERMOCOUPLE APPLICATION



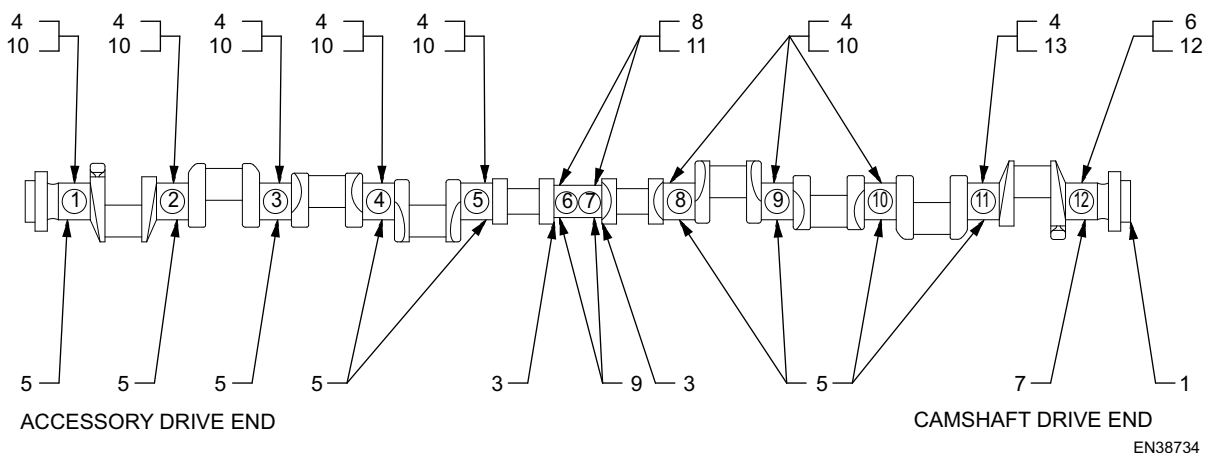
EN56710

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
8-1	40151847	1	THERMOCOUPLE.. Main bearing
-2	40152102	12	LOCK.. Thermocouple
-3	40153929	12	CONNECTOR.. Thermocouple - Stain relief
-4	40034088	1	ADHESIVE.. Treadlock - Thermocouple (not shown)
-5	40051699	1	TIE.. Cable - Thermocouple

M6641, 40152045

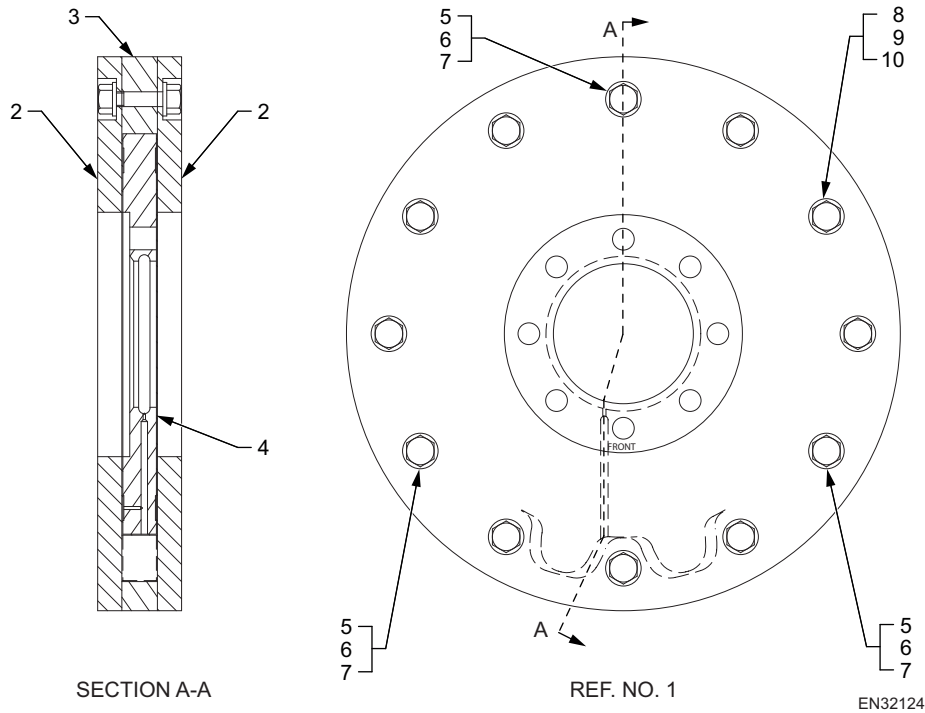
Assembly 9: CRANKSHAFT, MAIN BEARINGS AND BEARING CAPS



A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
9-1	40152856	1	CRANKSHAFT.. Engine - One Piece - A.B.S. Certified
-2	426318	10	PLUG.. Pipe - 3/8 hex socket (not shown)
-3	9544046	2	COLLAR.. Thrust - Standard thickness - Consists of two halves
-4	9543944	9	BEARING.. Main - Front and intermediate - Upper - Standard I.D.
-5	9543882	9	BEARING.. Main - Front and intermediate - Lower - Standard I.D.
-6	9543950	1	BEARING.. Main - Rear - Upper - Standard I.D.
-7	9543889	1	BEARING.. Main - Rear - Lower - Standard I.D.
-8	9543956	2	BEARING.. Main - Center - Upper - Standard I.D.
-9	9543895	2	BEARING.. Main - Center - Lower - Standard I.D. 9543896 0.031 U. S. - 9543897 0.062 U.S. - 9543898 0.093 U.S. <i>Bearing caps have a rough bore and must be line-bored at assembly. For main bearing cap bolts and washers - See page 1-9.</i>
-10	40150996	1	CAP.. Main bearing - Location 1
-11	40152733	1	CAP.. Main bearing - Location 2
-12	40150992	8	CAP.. Main bearing - Location 3, 4, 5, 8, 9, 10, 11 and 12
-13	40150997	2	CAP.. Main bearing - Location 6 & 7
-14	40084383	1	KIT.. Main Bearing - Upper - Includes Ref. Nos. 4, 6 and 8 (not shown)
-15	40084384	1	KIT.. Main Bearing - Lower - Includes Ref. Nos. 5, 7 and 9 (not shown)

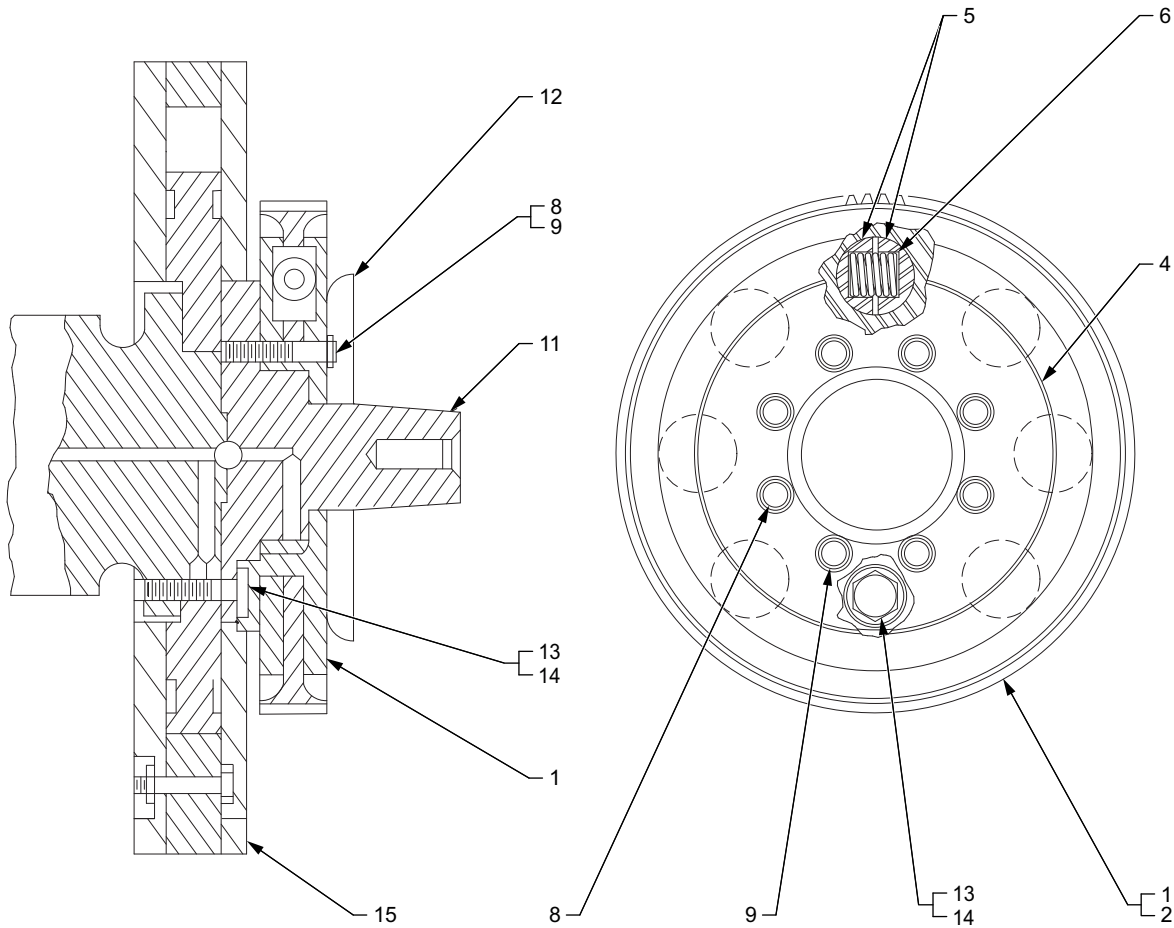
Assembly 10: GEAR DAMPER ASSEMBLY



A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
10-1	9323945	1	DAMPER ASSEMBLY.. Gear
-1	40044947	1	DAMPER ASSEMBLY.. UTEX - Gear (Optional to 9323945)
-2	9323944	2	RING.. Damper outer
-3	9323943	1	RING.. Damper intermediate
-4	9323942	1	SPIDER.. Gear damper
-5	9338722	3	BOLT.. Hex head 5/8-11 x 2.938
-6	9319830	6	WASHER.. Flat 5/8
-7	102639	3	NUT.. Hex 5/8-11
-8	271615	9	BOLT.. Hex head 3/4-10 x 3
-9	9319829	18	WASHER.. Flat 3/4
-10	220081	9	NUT.. Hex 3/4-10
-11	8168822	AR	COATING.. 1 quart - Used on all internal rubbing surfaces (not shown)
-12	223771	8	BOLT.. Hex head 7/8-14 x 3-1/4 - Damper mounting (not shown)
-13	8174659	8	WASHER.. Special -7/8 (not shown)

Assembly 11: ACCESSORY DRIVE GEAR APPLICATION



EN31664

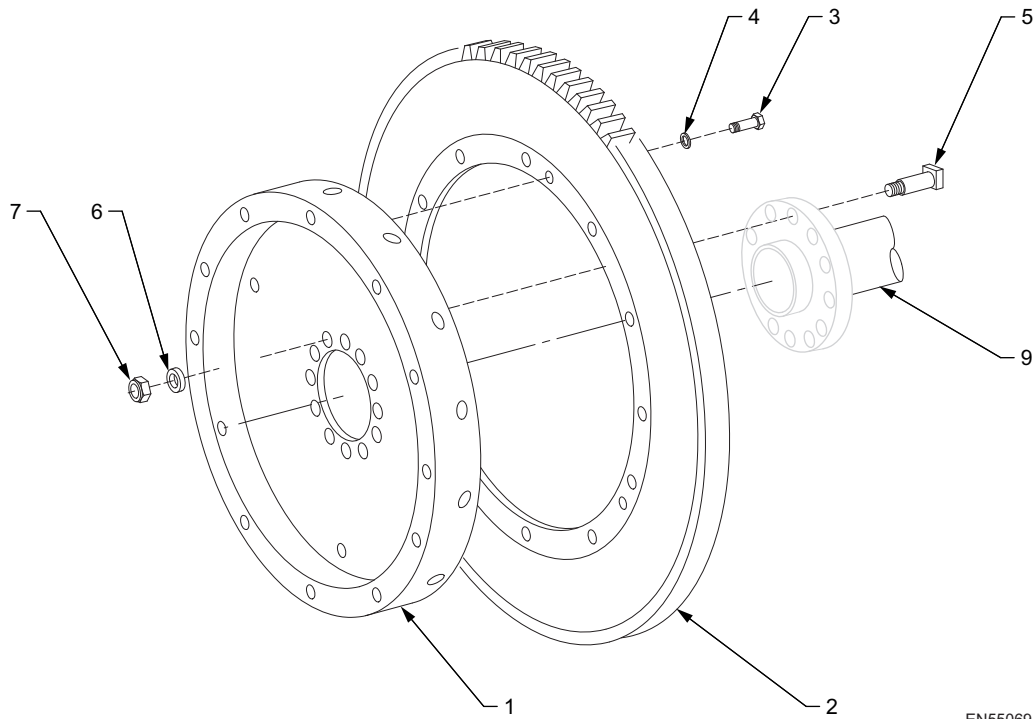
A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
11-1	40055048	1	GEAR ASSEMBLY.. Accessory drive
-2	40055049	1	GEAR.. Drive - 113 teeth - 7-1/2 inch I.D. x 15-23/32 inch O.D. Spur
-3	8483064	1	HUB.. Drive gear (not shown)
-4	8483014	1	DISC.. Front
-4	8483015	1	DISC.. Rear
-5	9091463	16	SEGMENT.. Spring
-6	8360837	8	SPRING.. Coil - Free length 1-7/8 inch
-7	8483097	2	DOWEL.. Alignment - 0.626 diameter x 1-15/16 inches long - 8483098.. 0.005 O.S. - 8483099.. 0.010 O.S. - 8483100.. 0.015 O.S. (optional) (not shown)
-8	9434253	8	BOLT.. Spline head - 12 point 5/8-11 x 3-1/4
-9	8483090	8	WASHER.. Special - 1-1/8 O.D. x 21/32 I.D. x 1/8 inch thick
-10	102639	8	NUT.. Hex 5/8-11 - For shipping and storage only (not shown)
-11	9546333	1	STUBSHAFT.. Tapered- Bolt-on
-12	8483087	1	SLINGER.. Oil
-13	223771	8	BOLT.. Hex head 7/8-14 x 3-1/4 - Stubshaft to crankshaft
-14	8174659	8	WASHER.. Special - 1-5/8 O.D. x 15/16 I.D., x 1/8 inch thick
-15	9323945	1	DAMPER ASSEMBLY.. Gear - See page 1-27
-15	40044947	1	DAMPER ASSEMBLY.. UTEX - Gear (Optional to 9323945)

40152856

Assembly 12: CRANKSHAFT COUPLINGS

Engine Coupling Disc and Ring Gear

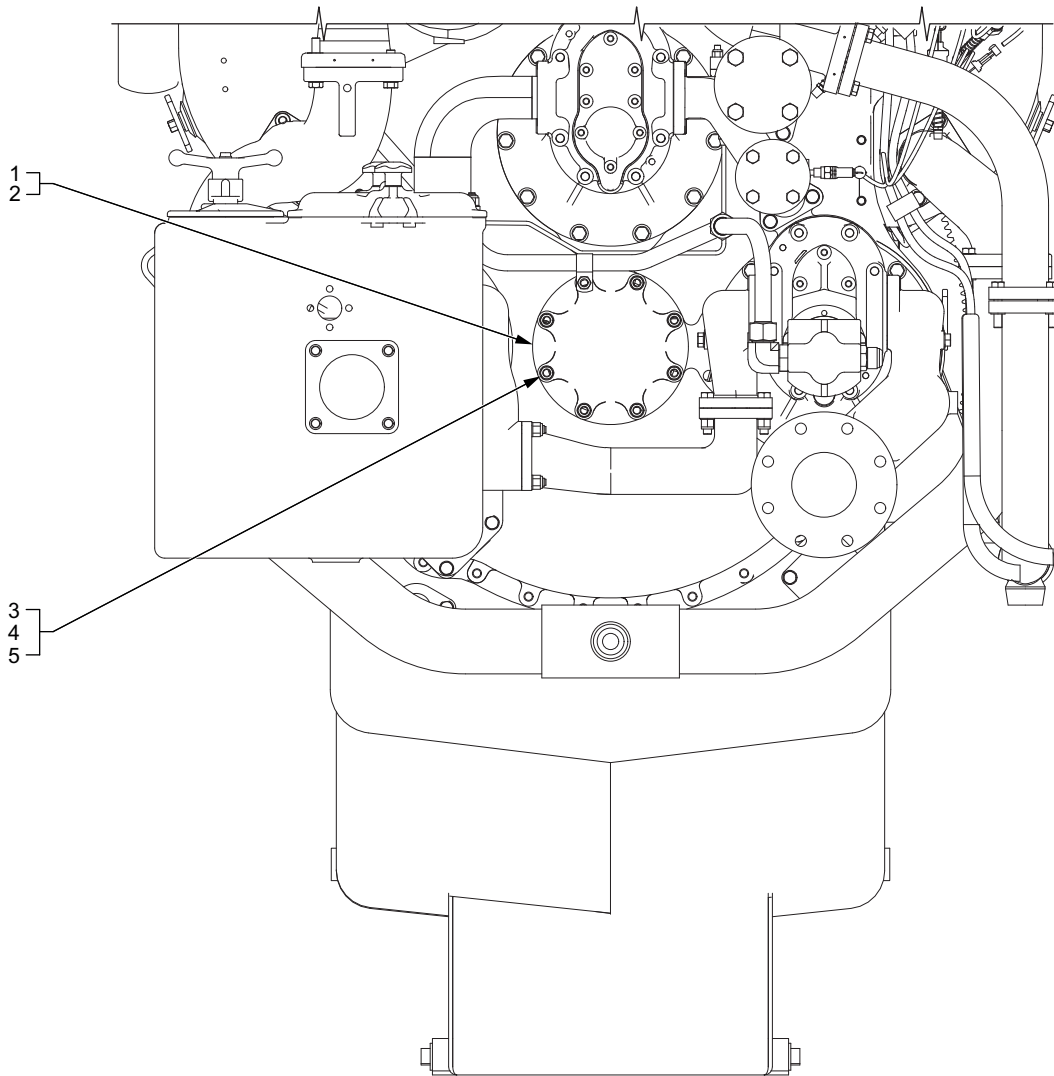


A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
12-1	8497636	1	COUPLING.. Engine - Timing mark location at 303°
-2	40114007	1	GEAR.. Ring - Starter motor
-3	181370	3	BOLT.. Hex head 3/8-24 x 1-1/4 - Ring gear to disc
-4	103321	3	WASHER.. Lock 3/8
-5	8360844	12	BOLT.. Special square head - 1-1/4-12 x 4-13/32 - Crankshaft to engine coupling
-6	8360846	12	WASHER.. Special hardened - 1-9/32 I.D. x 2-7/16 O.D. x 3/8 inch thick
-7	8360845	12	NUT.. Hex lock 1-1/4-12
-8	8377431	1	INDICATOR.. Flywheel timing
-9	40152856	1	CRANKSHAFT.. Engine - One piece A.B.S. approved - See page 1-26

40139120

Front End Accessory Hardware



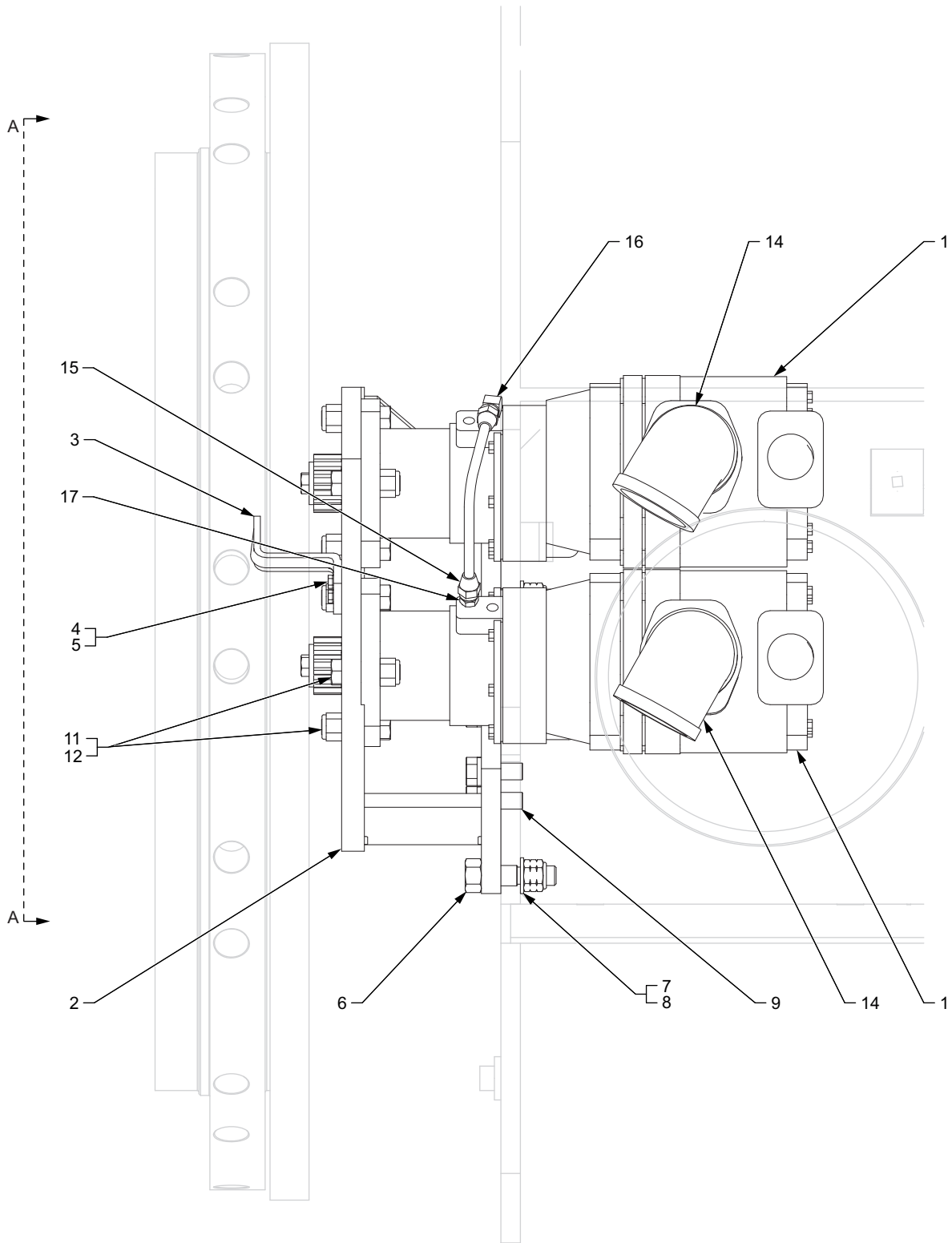
EN56718

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
12-1	8084863	1	COVER.. Accessory blind
-2	40048967	1	GASKET.. Cover
-3	9335012	8	NUT.. Hex lock 1/2-20
-4	6101229	8	WASHER.. Flat 1/2
-5	8084871	8	STUD.. Accessory cover mounting - Part of accessory housing

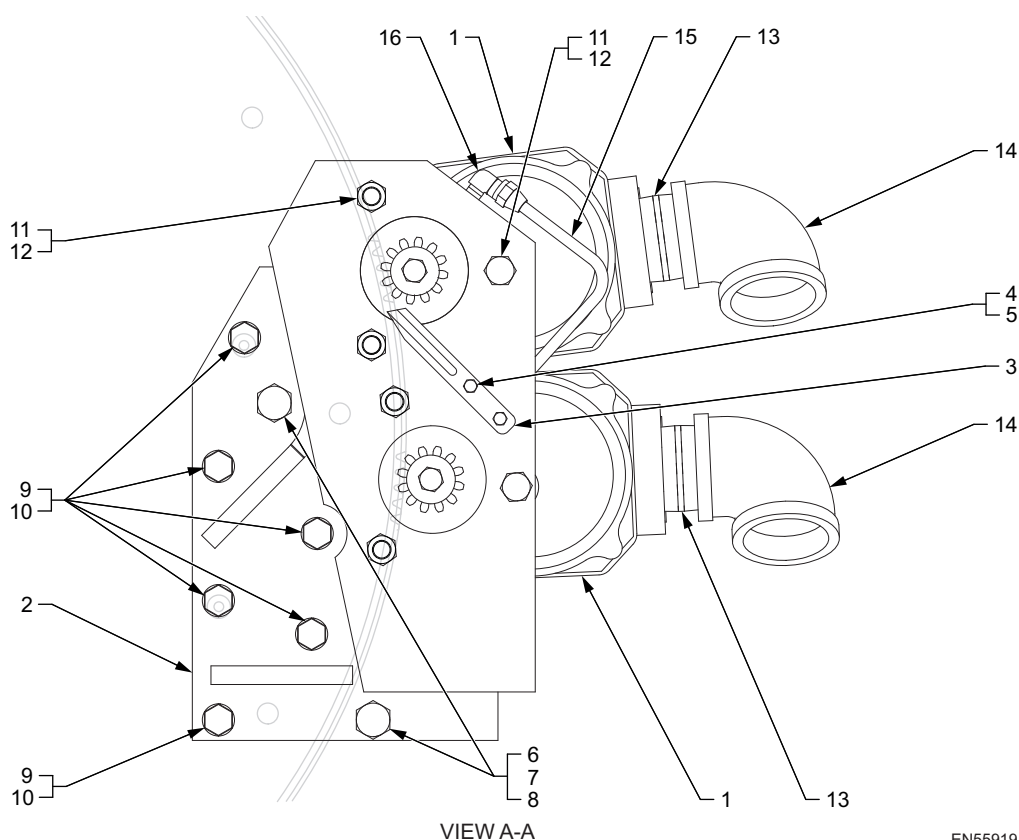
Assembly 13: AIR STARTER MOTOR APPLICATION

Dual Air Start Motor Mounting



EN53842

Dual Air Start Motor Mounting (Continued)



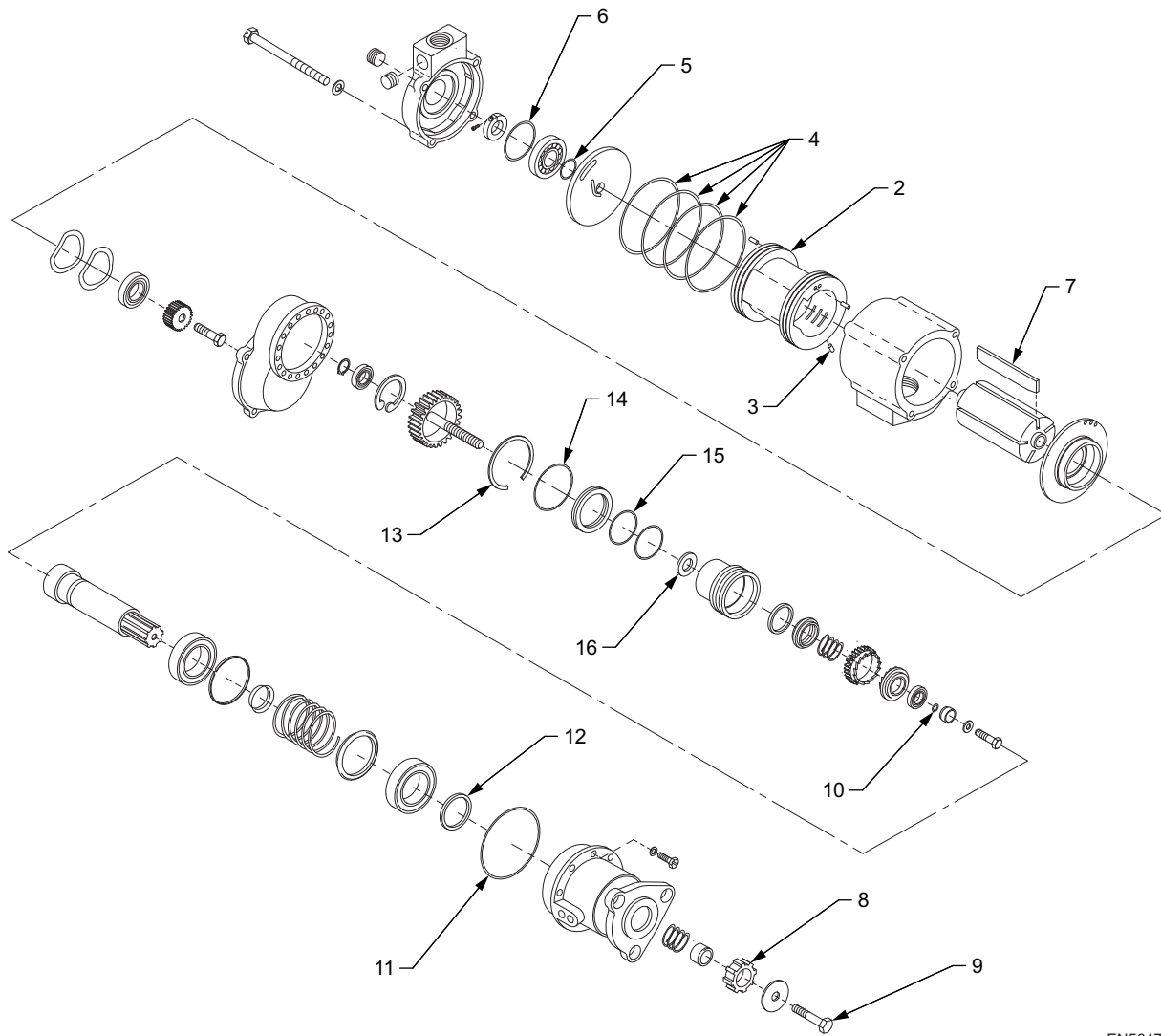
EN55919

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
13-1	9542965	2	MOTOR ASSEMBLY.. Starter - L20-710G7C-T2 - See page 1-35
-2	8358874	1	BRACKET ASSEMBLY.. Motor mounting
-3	8377431	1	INDICATOR.. Flywheel timing
-4	179793	2	BOLT.. Hex head 1/4-20 x 5/8 - Indicator mounting
-5	103319	2	WASHER.. Lock 1/4
-6	8249889	2	BOLT.. Shoulder hex head 3/4-16 x 2-7/8 - Torque to 280 ft./lbs.
-7	8140912	2	WASHER.. Special 3/4 - Hardened
-8	8060089	2	NUT.. Hex lock 3/4-16
-9	271585	6	BOLT.. Hex head 5/8-18 x 1-3/4 - Bracket mounting
-10	103325	6	WASHER.. Lock 5/8
-11	271588	6	BOLT.. Hex head 5/8-18 x 2-1/4 - Motor mounting
-12	8032721	6	NUT.. Hex lock 5/8-18
-13	8060979	2	NIPPLE.. Short - 2-1/2
-14	191034	2	ELBOW.. 90° - 2-1/2 NPT
-15	9543464	1	TUBE ASSEMBLY.. Air - Includes fittings
-16	118755	1	ELBOW.. 90° - 3/8 tube x 1/4 NPT - Brass
-17	118750	1	CONNECTOR.. 3/8T x 1/4PT

40139119

L20-710G7C-T2 Starter Motor Assembly

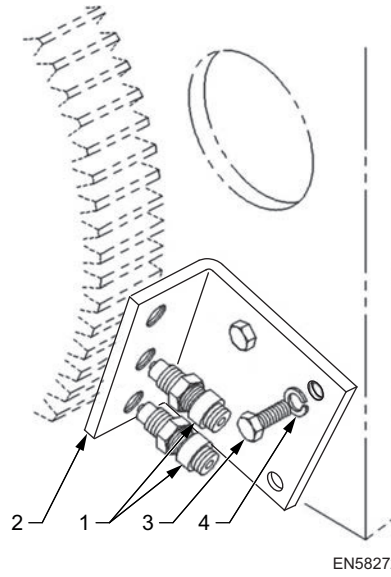


EN56470

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
13-1	9542965	1	MOTOR ASSEMBLY.. Starter - Low pressure air (not shown assembled)
-2	40013995	1	KIT.. Air start motor cylinder
-3	9566395	1	PIN.. Cylinder alignment
-4	9566379	4	SEAL.. O-ring - Air start motor cylinder
-5	9566378	1	SEAL.. O-ring - Air start motor rotor shaft
-6	9566377	1	SEAL.. O-ring - Air start motor rear bearing
-7	9522907	1	KIT.. Air start motor rotor vane - Includes set of 5 vanes
-8	9566374	1	PINION.. Air start motor drive
-9	9566375	1	SCREW.. Retaining - Drive pinion
-10	9566373	1	SEAL.. O-ring - Air start motor drive gear screw
-11	9566372	1	SEAL.. O-ring - Air start motor housing
-12	9566371	1	SEAL.. Air start motor drive housing bearing
-13	9566396	1	RETAINER.. Bulkhead
-14	9566370	1	SEAL.. Air start motor bulkhead - Outer
-15	9566369	1	SEAL.. Air start motor bulkhead - Inner
-16	9566367	1	SEAL.. Air start motor piston
-17	9566397	1	KIT.. Air start motor repair - Includes Ref. Nos. 3, 4, 5, 6, 7, 11, 13, 14, 15, and 16 (not shown)

Magnetic Pick-Up Application



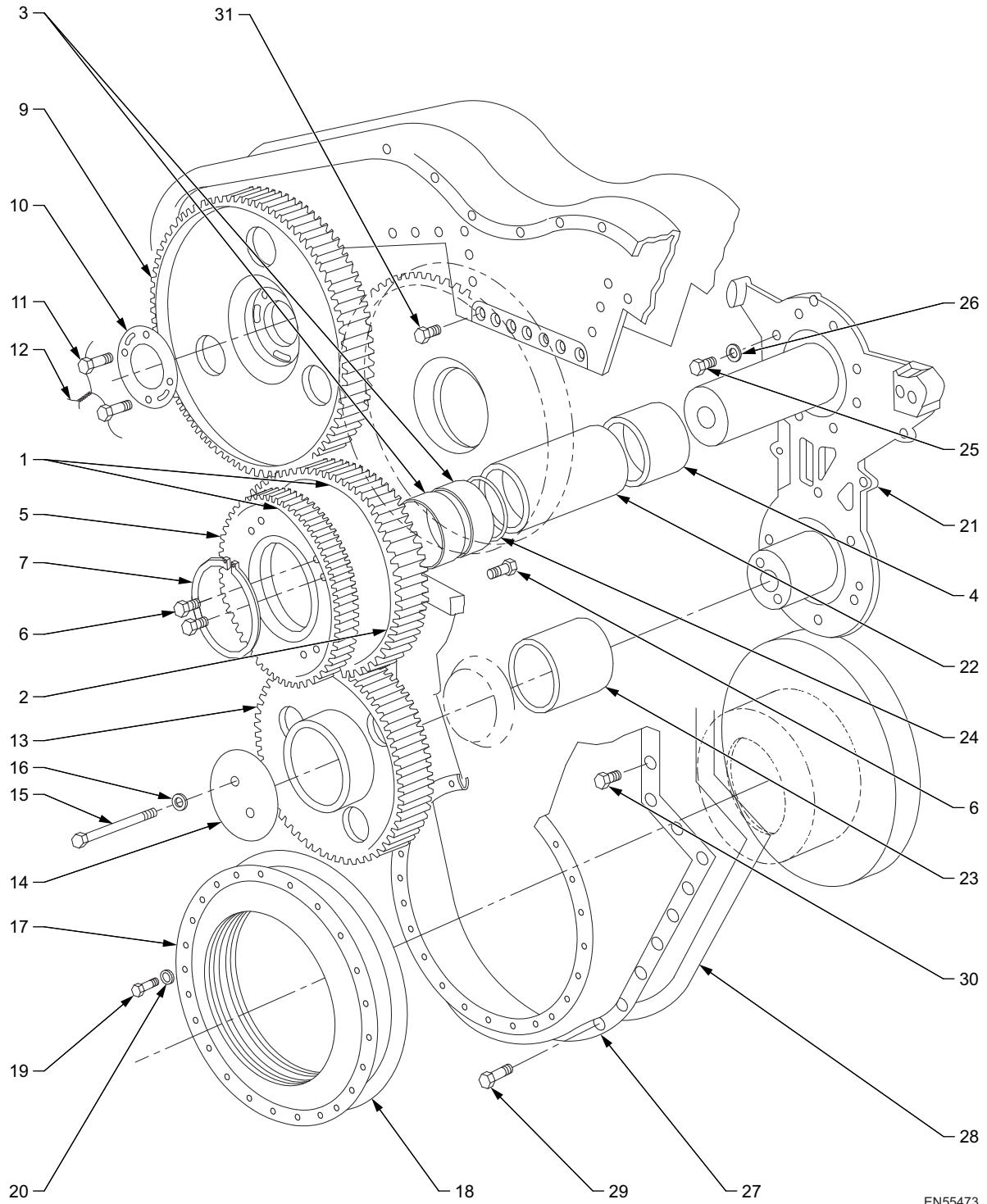
A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
13-1	8270383	2	PICKUP.. Magnetic
-2	40020780	1	BRACKET.. Pickup
-3	179818	2	BOLT.. Hex head 5/16 -18 x 1
-4	103320	2	WASHER.. Lock 5/16 <i>The following items are shipped loose</i>
-5	8270133	2	PLUG.. 2PT (not shown)
-6	8175600	2	CLAMP.. Cable (not shown)

M5562-40010892, M6781

Assembly 14: CRANKSHAFT DRIVE GEAR TRAIN

Crankshaft Drive Gear Train and Housing Application



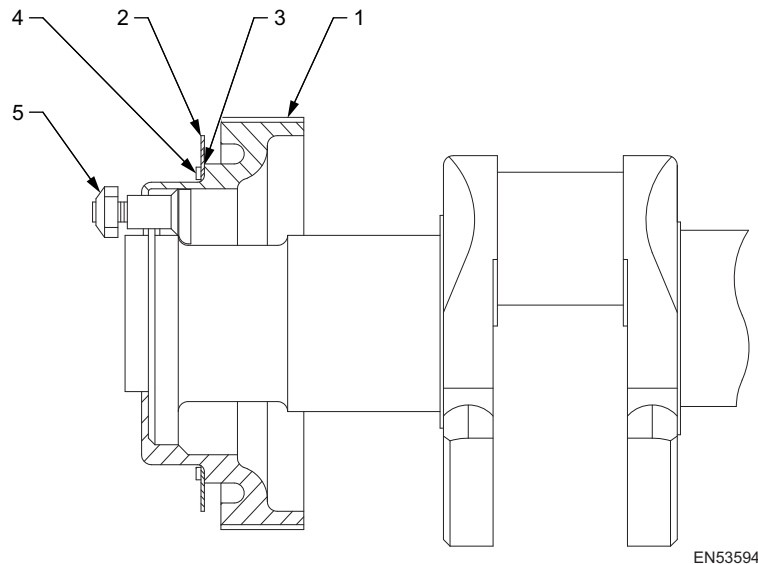
EN55473

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
14-1	40001044	1	CLUTCH ASSEMBLY.. Turbocharger drive (not shown assembled) - See page 1-41
-1	40013863	1	CLUTCH ASSEMBLY.. UTEX - Turbocharger drive (Optional to 40001044)
-2	40001038	1	GEAR ASSEMBLY.. Upper idler <i>Replacement bearings must be precision bored after assembly.</i>
-3	8407341	2	BEARING.. Idler gear - Hub
-4	8261101	1	BEARING.. Idler gear
-5	40001040	1	GEAR.. Turbocharger drive
-6	9584413	16	BOLT.. Drilled hex head 5/8-18 x 1-1/2
-7	9414864	1	RING.. Snap
-8	8116738	AR	WIRE.. Lock - 3/64 diameter x 500 feet long
-9	8069019	2	GEAR.. Camshaft drive
-10	8266455	4	PLATE.. Retainer - Dowel
-11	8028335	8	BOLT.. Drilled hex head 1/2-20 x 2-1/8
-12	8116738	AR	WIRE.. Lock - 3/64 diameter x 500 feet
-13	9543203	1	GEAR.. Lower idler
-14	9544010	1	PLATE.. Thrust
-15	40130529	2	BOLT.. Hex head 7/8-14 x 7 - Special
-16	9334204	2	WASHER.. Special 15/16 I.D. x 2-1/8 O.D. x 1/4 inch thick
-17	8175731	1	RETAINER.. Gear train oil
-18	9570645	1	GASKET.. Gear train oil retainer
-19	181370	24	BOLT.. Hex head 3/8-24 x 1-1/4
-20	6101225	24	WASHER.. Flat 3/8
-21	9543887	1	STUBSHAFT ASSEMBLY.. Idler gear <i>Replacement bearings must be applied with a heat shrink press fit.</i>
-22	8261195	1	BEARING.. Sleeve - Upper
-23	8418334	1	BEARING.. Sleeve - Lower
-24	8294874	1	SEAL.. O-ring - Idler gear stubshaft
-25	40130528	18	BOLT.. Hex head 1/2-20 x 1-1/2 - Stubshaft mounting - Special
-26	8260114	18	WASHER.. Special 1/2
-27	9544069	1	HOUSING ASSEMBLY.. Camshaft drive
-28	40040014	1	GASKET.. Camshaft drive housing
-29	40110048	11	BOLT.. Hex head 1/2-20 x 1-3/4 - Special
-30	40130527	28	BOLT.. Hex head 1/2-20 x 1-1/4 - Special
-31	40130525	7	BOLT.. Hex head 1/2-20 x 1 - Special

40139070D, 40138847, 40141399A

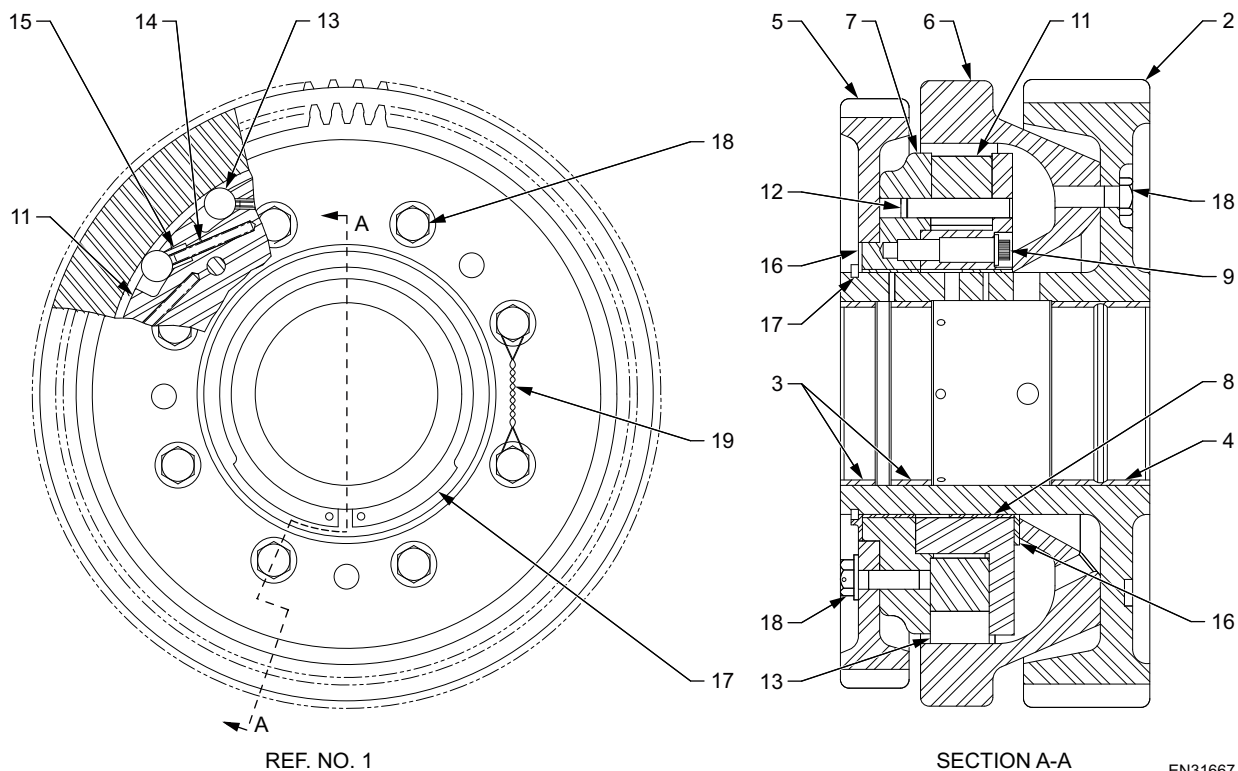
Crankshaft Gear Application



A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
14-1	40105384	1	GEAR.. Crankshaft - 79 teeth
-2	8031949	1	SLINGER.. Oil - Crankshaft
-3	8035526	AR	SHIM.. Oil slinger - .010 inch thick (Optional)
-3	8035527	AR	SHIM.. Oil slinger - .020 inch thick (Optional)
-3	8035528	AR	SHIM.. Oil slinger - .030 inch thick (Optional)
-4	40130519	8	BOLT.. Hex head 5/16-24 x 3/4 - Special
-5		AR	COUPLING DISC TO CRANKSHAFT HARDWARE.. - See page 1-29

Turbocharger Clutch Drive Gear Assembly

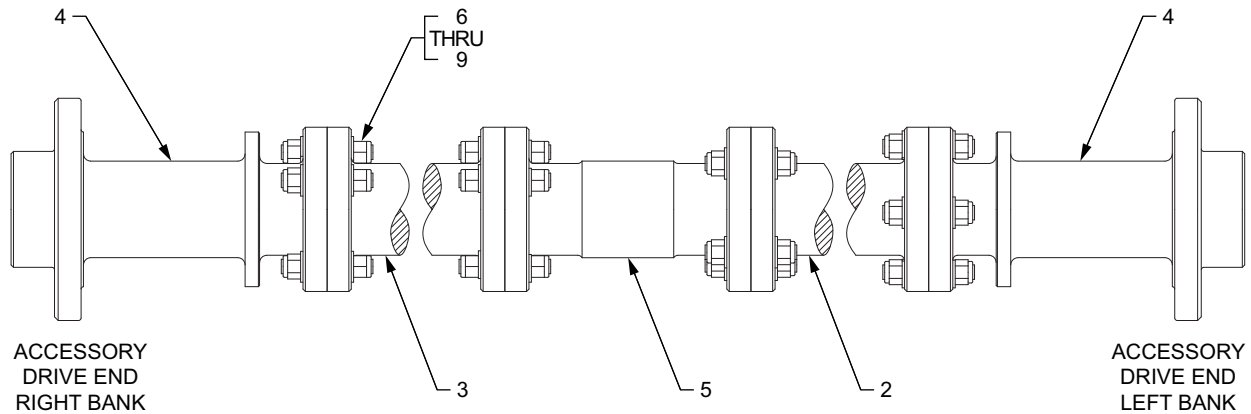


A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
14-1	40001044	1	CLUTCH ASSEMBLY.. Turbocharger drive
-1	40013863	1	CLUTCH ASSEMBLY.. UTEX - Turbocharger drive (Optional to 40001044)
-2	40001038	1	GEAR ASSEMBLY.. Upper idler
-3	8407341	2	BEARING.. Hub
-4	8261101	1	BEARING.. Gear <i>Replacement bearings must be precision bored after assembly.</i>
-5	40001040	1	GEAR.. Turbocharger drive
-6	40001039	1	SUPPORT.. Clutch drive
-7	40001043	1	DOWELING ASSEMBLY.. Clutch
-8	9534826	2	BEARING.. Clutch <i>Replacement bearings must be precision bored after assembly.</i>
-9	9534825	8	BOLT.. 12 point 3/8-24 x 2-1/4
-10	8329276	1	DOWEL.. Pin - 0.3127 dia. x 5/8 inch long 8375066.. 0.005 O.S. - 8375067.. 0.010 O.S. 8375068.. 0.015 O.S. (not shown)
-11	9534857	1	PLATE.. Cam
-11	9582915	1	PLATE.. UTEX - Cam (Optional to 9534857)
-12	40001555	8	PIN.. Dowel 0.4377 dia. x 2-1/2 inches long 40001556.. 0.002 O.S. - 40001557.. 0.004 O.S. 40001558.. 0.006 O.S. - 40001559.. 0.008 O.S. 40001560.. 0.010 O.S.
-13	8477363	16	ROLLER.. Clutch
-14	9535617	16	SPRING.. Coil
-15	9536638	16	CUP.. Spring
-16	9534855	2	RING.. Retaining
-17	9414864	1	RING.. Snap
-18	9584413	16	BOLT.. Drilled hex head 5/8-18 x 1-1/2
-19	8116738	AR	WIRE.. Lock - 3/64 diameter x 500 feet

Assembly 15: CAMSHAFT AND CAMSHAFT COUNTERWEIGHTS

Camshaft Assembly



REF. NO. 1

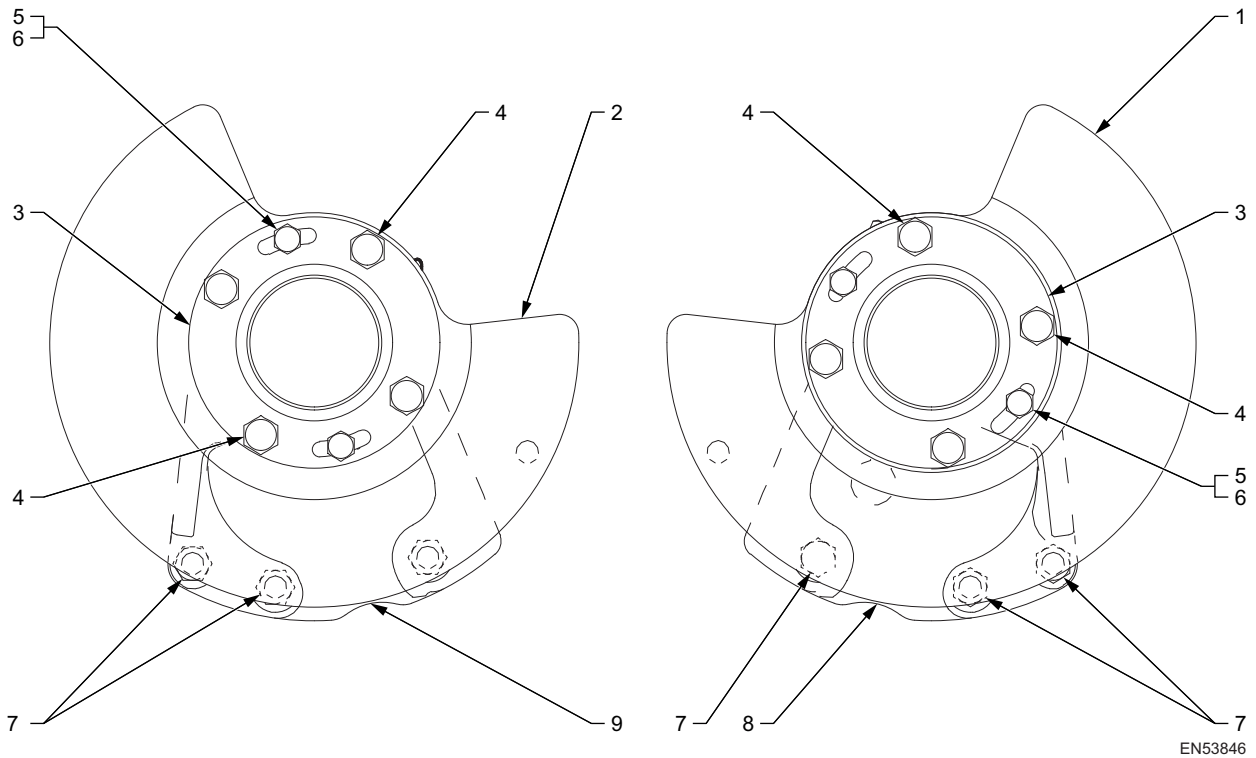
EN53844

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
15-1	40138761	2	CAMSHAFT ASSEMBLY.. Engine
-2	40138987	2	SEGMENT.. Camshaft
-3	40138989	2	SEGMENT.. Camshaft
-4	8028482	4	STUBSHAFT.. Camshaft
-5	8028637	2	SPACER.. Camshaft segment
-6	8034673	24	STUD.. Segment 3/8-24 x 2-3/8 - 1/2 inch shoulder
-7	8034672	8	STUD.. Locating 3/8-24 x 2-3/8 - 7/16 inch shoulder
-8	8032717	64	NUT.. Hex lock 3/8-24
-9	8035950	64	WASHER.. Special

40138847

Camshaft Counterweight Application - Accessory End



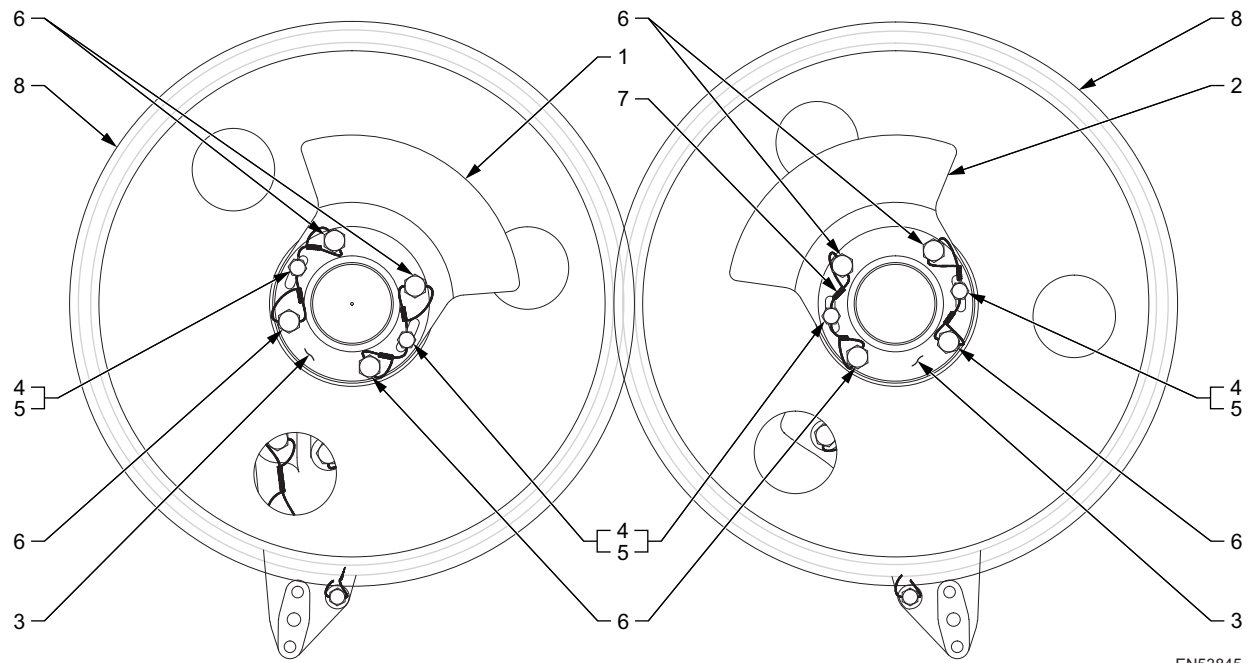
EN53846

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
15-1	40002480	1	COUNTERWEIGHT.. Camshaft - Left bank - Front
-2	40054024	1	COUNTERWEIGHT.. Camshaft - Right bank - Front
-3	8266455	2	PLATE.. Retainer
-4	455013	8	BOLT.. Hex head 1/2-20 x 1-3/8
-5	8028739	4	DOWEL.. Threaded .5000 diameter x 1-5/16 long 8082389.. 0.5050 O.S. - 8082388.. 0.5100 O.S. - 8082381.. 0.5150 O.S.
-6	181333	4	BOLT.. Hex head 5/16-24 x 5/8
-7	186690	6	BOLT.. Hex head 1/2-20 x 1-3/4
-8	9544054	1	BRACKET ASSEMBLY.. Bearing - Left bank
-9	9544050	1	BRACKET ASSEMBLY.. Bearing - Right bank
-10	8116738	AR	WIRE.. Lock - 3/64 diameter x 500 feet (not shown)

40138847

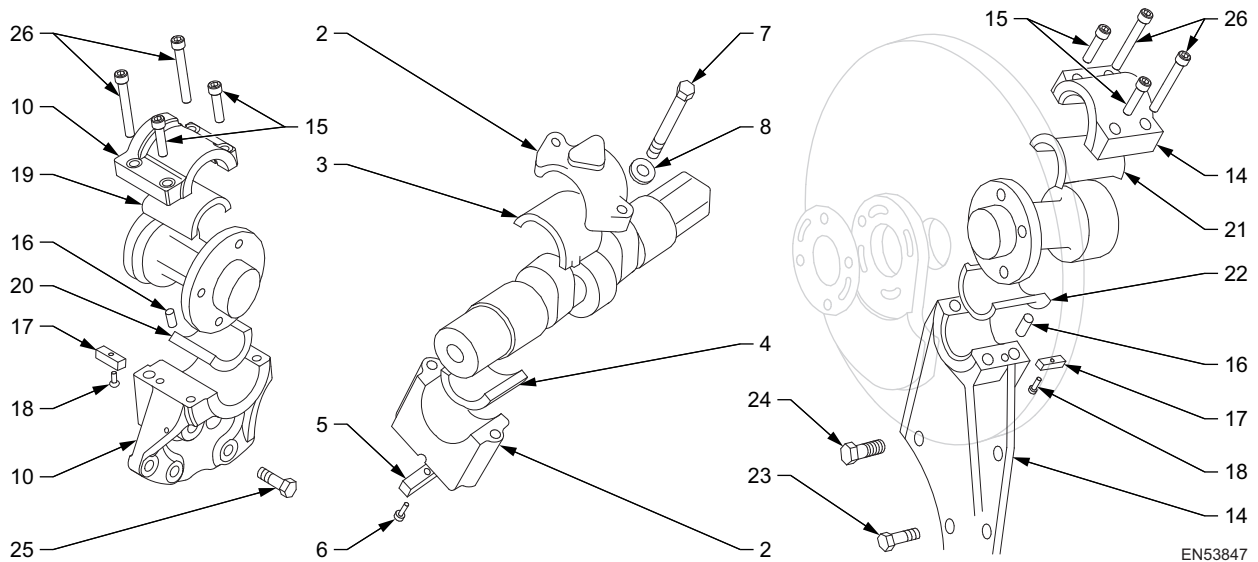
Camshaft Counterweight Application - Camshaft Drive End



A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
15-1	40030661	1	COUNTERWEIGHT.. Camshaft - Camshaft drive end - Left bank
-2	40030662	1	COUNTERWEIGHT.. Camshaft - Camshaft drive end - Right bank
-3	8266455	2	PLATE.. Retainer
-4	8028738	4	DOWEL.. Threaded - 1/2 x 2-1/16 inches long 8082379.. 0.005 O.S. - 8082380.. 0.010 O.S. 8045884.. 0.015 O.S.
-5	8286669	4	BOLT.. Drilled hex head 5/16-24 x 5/8
-6	8028335	8	BOLT.. Drilled hex head 1/2-20 x 2-1/8
-7	8116738	AR	WIRE.. Lock - 3/64 diameter x 500 feet
-8	8069019	2	GEAR.. Camshaft drive - See page 1-39

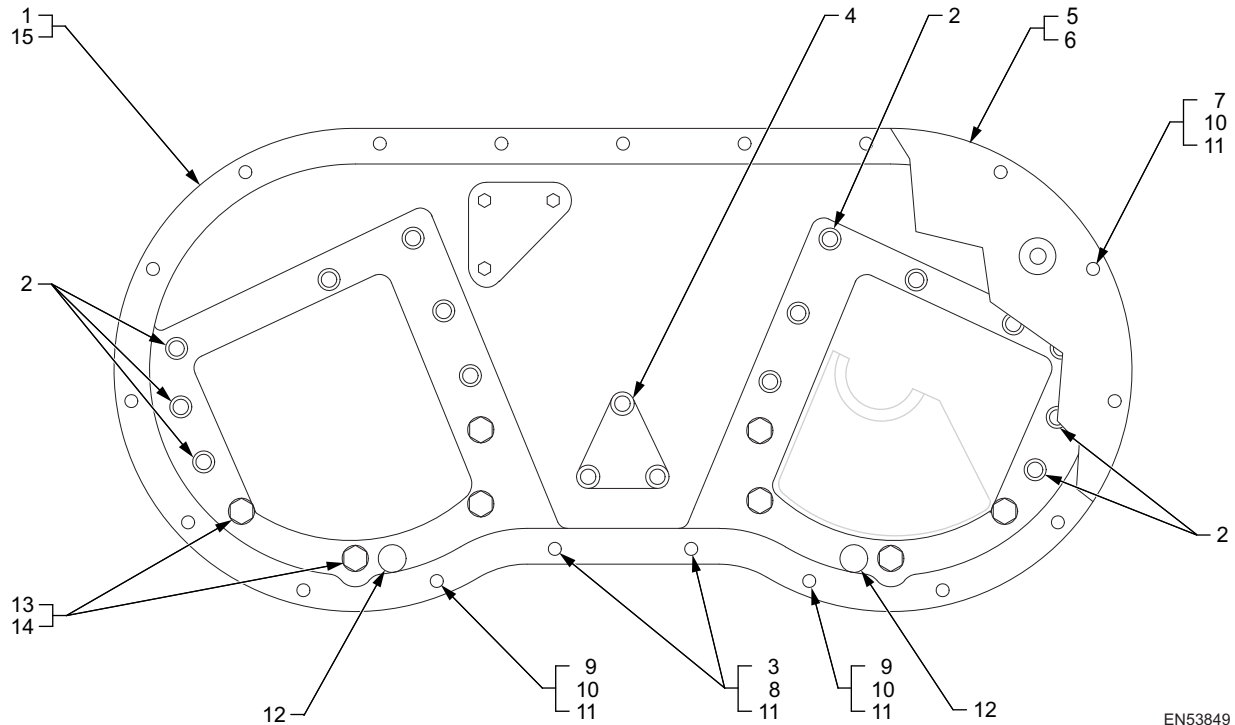
Assembly 16: CAMSHAFT BEARING BRACKETS



A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
16-1	9542904	20	BLOCK ASSEMBLY.. Camshaft bearing - Drilled cap (not shown)
-2	9542905	20	BLOCK ASSEMBLY.. Camshaft bearing - Plain cap
-3	8071176	40	BEARING.. Shell - Upper
-4	8071176	40	BEARING.. Shell - Lower
-5	8045976	40	KEY.. Block to crankcase
-6	110534	40	SCREW.. Slotted flat head 10-24 x 7/8
-7	188146	80	BOLT.. Hex head 3/8-24 x 4-5/8
-8	8373316	80	WASHER.. Special -3/8
-9	9544054	1	BRACKET ASSEMBLY.. Bearing - Left bank - Accessory drive end (not shown)
-10	9544050	1	BRACKET ASSEMBLY.. Bearing - Right bank - Accessory drive end
-11	40014818	1	BRACKET ASSEMBLY.. Bearing - Left bank - Camshaft drive end (not shown)
-12	8266361	4	BOLT.. Hex head 5/8-11 x 3 - Special (not shown)
-13	8497575	4	WASHER.. Special 5/8 (not shown)
-14	9543494	1	BRACKET ASSEMBLY.. Bearing - Right bank - Camshaft drive end <i>The following components, Ref. Nos. 15 thru 22, are components of the above 4 Bearing Bracket Assemblies, Ref. Nos. 9, 10, 11 and 14 except as noted below</i>
-15	138294	2	SCREW.. Slotted hex head 1/2-13 x 2 - Not a component of Ref. No. 11
-16	8029147	2	DOWEL.. Locating 5/16 x 9/16
-17	8044728	1	KEY.. Bracket to crankcase
-18	110534	1	SCREW.. Flat head 10-24 x 7/8 - Slotted
-19	8237900	1	BEARING.. Shell - Upper - Accessory drive end - Applied to Ref. Nos. 9 and 10
-20	8237900	1	BEARING.. Shell - Lower - Accessory drive end - Applied to Ref. Nos. 9 and 10
-21	8253825	1	BEARING.. Shell - Upper - Camshaft drive end - Applied to Ref. Nos. 11 and 14
-22	8253825	1	BEARING.. Shell - Lower - Camshaft drive end - Applied to Ref. Nos. 11 and 14
-23	8028312	6	BOLT.. Drilled hex head 3/8-24 x 1 - Bracket to crankcase
-24	8028329	3	BOLT.. Drilled hex head 1/2-20 x 1-1/4
-25	186690	6	BOLT.. Hex head 1/2-20 x 1-3/4
-26	187697	6	SCREW.. Slotted hex head 1/2-20 x 4-3/4

Assembly 17: CAMSHAFT COUNTERWEIGHT HOUSING Accessory End



EN53849

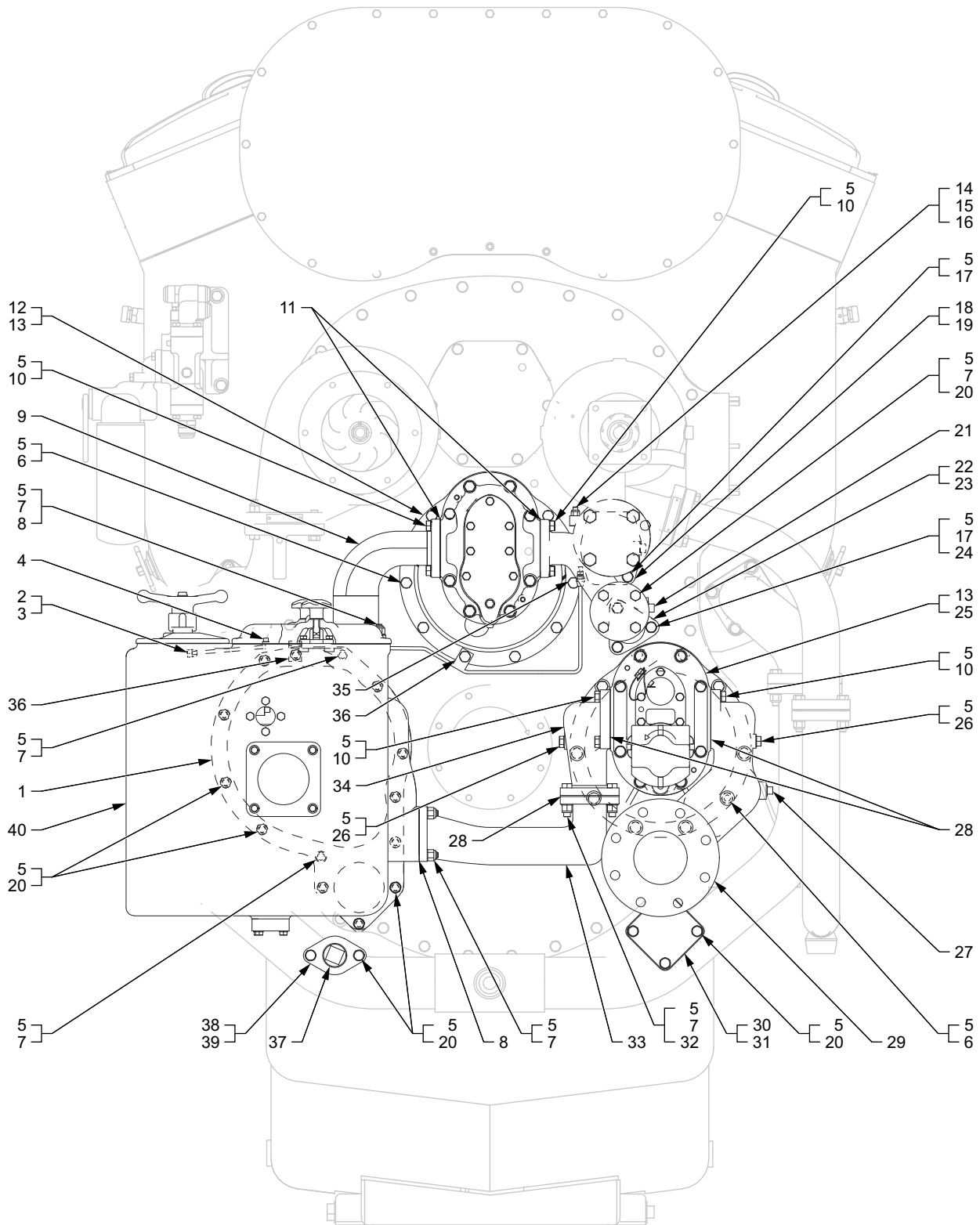
A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
17-1	9546162	1	HOUSING ASSEMBLY.. Camshaft counterweight
-2	8084755	19	NUT.. Spline 3/8-24 x 7/32
-3	8084754	2	NUT.. Spline 3/8-24 x 3/8
-4	8085119	1	ANCHOR.. Spring
-5	40144389	1	COVER.. Counterweight housing
-6	40040029	1	GASKET.. Cover to housing
-7	181374	15	BOLT.. Hex head 3/8-24 x 1-1/2
-8	181365	2	BOLT.. Hex head 3/8-24 x 1-1/8
-9	181377	2	BOLT.. Hex head 3/8-24 x 1-3/4
-10	8032717	15	NUT.. Lock 3/8-24
-11	6101225	36	WASHER.. Flat 3/8
-12	9529807	2	SEAL.. Oil - Housing drain to crankcase
-13	181431	8	BOLT.. Hex head 1/2-20 x 1-1/2
-14	6101229	8	WASHER.. Flat 1/2
-15	40039283	2	GASKET..

40139070, 40051208A, 40134513

Assembly 18: LUBE OIL SYSTEM

Lube Oil Strainer, Pressure Pump and Scavenging Pump



ACCESSORY DRIVE END

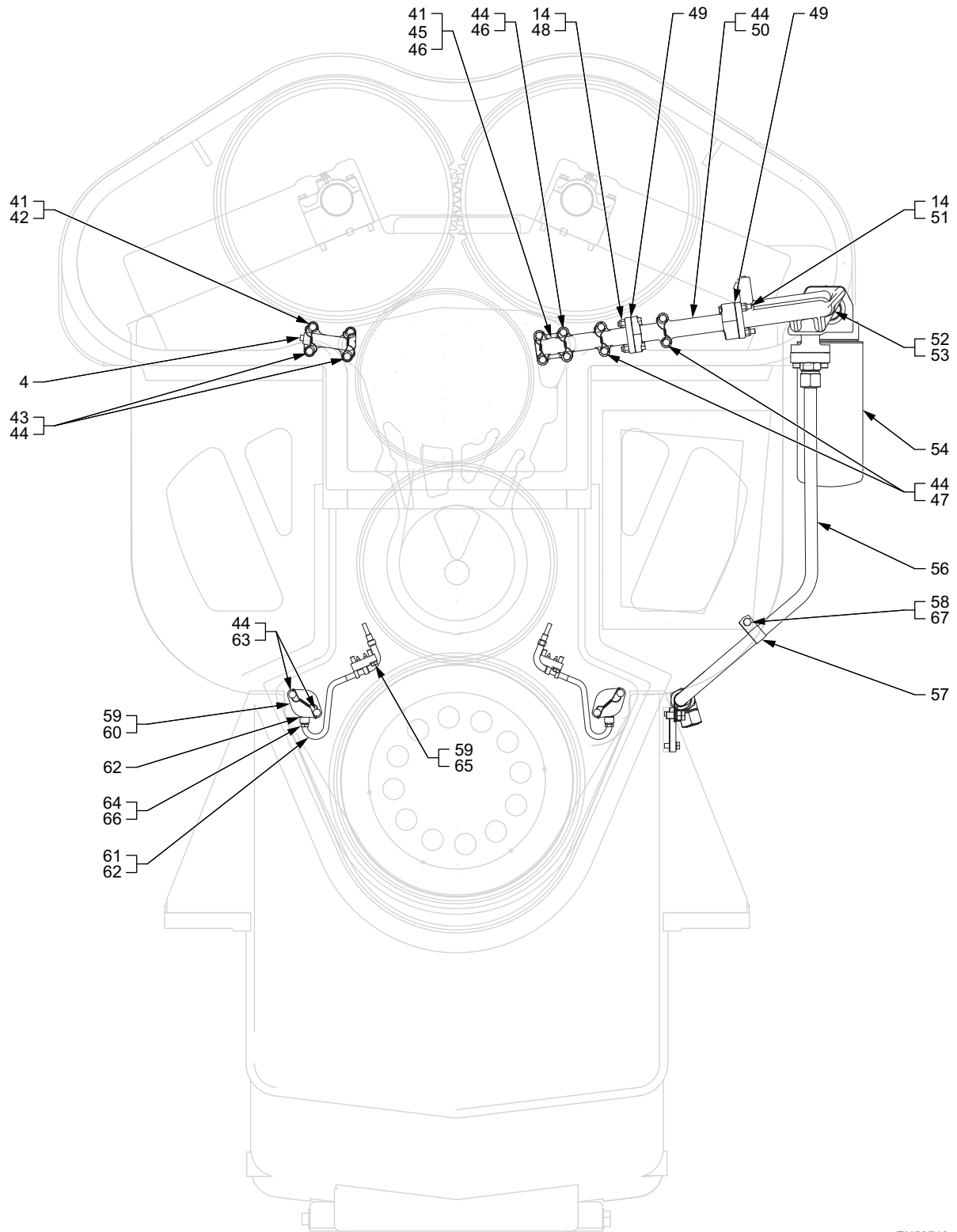
EN53851

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
18-1	40039273	1	GASKET.. Strainer mounting
-2	8423492	1	TUBE ASSEMBLY.. Strainer
-3	118753	1	ELBOW.. 1/4T x 1/8 PT - Brass
-4	103878	2	PLUG.. Pipe - 1/4 - Lube oil strainer
-5	6101229	134	WASHER.. Flat 1/2
-6	181432	20	BOLT.. Hex head 1/2-20 x 1-5/8
-7	8032719	30	NUT.. Lock 1/2-20
-8	40039265	3	GASKET.. Elbow and pipe to strainer
-9	8360557	1	ELBOW.. Strainer to pressure and piston cooling pump
-10	179885	25	BOLT.. Hex head 1/2-13 x 1-1/2
-11	40039266	2	GASKET.. Elbow to front and rear ports of pressure pump
-12	40152648	1	PUMP ASSEMBLY.. Pressure and piston cooling - See page 1-61
-13	40040023	2	GASKET.. Scavenging and pressure pump mounting
-14	8032717	16	NUT.. Lock 3/8-24
-15	40048663	1	COVER .. Lube oil line
-16	9570732	1	GASKET.. Cover
-17	181433	7	BOLT.. Hex head 1/2-20 x 1-3/4
-18	8373604	1	ELBOW.. Pressure and piston cooling pump
-19	40039268	1	GASKET.. Elbow to accessory drive housing
-20	181435	22	BOLT.. Hex head 1/2-20 x 2
-21	113177	2	PLUG.. Pipe 3/4 MPT
-22	8372922	1	ELBOW.. Piston cooling
-23	40039267	1	GASKET.. Elbow to accessory drive housing
-24	8082586	1	SEAL.. O-ring
-25	9559523	1	PUMP ASSEMBLY.. Lube oil scavenging and fuel oil - See page 1-59
-26	190270	7	BOLT.. Hex head 1/2-13 x 4-1/4
-27	103880	1	PLUG.. 1/2 Pipe
-28	40039270	3	GASKET.. Scavenging pump elbow
-29	9579941	1	PIPE.. Connecting - Scavenging pump
-30	8420216	1	FLANGE.. Blind
-31	3323820	1	GASKET.. Blind flange
-32	181436	8	BOLT.. Hex head 1/2-20 x 2-1/4
-33	9579937	1	PIPE.. Strainer to scavenging pump elbow
-34	9579943	1	ELBOW.. Scavenging pump
-35	118748	1	CONNECTOR.. 1/4T x 1/8 PT - Brass
-36	8085799	2	CLAMP.. Tube
-37	106643	1	PLUG.. 1-1/2 Pipe
-38	8409542	1	FLANGE..
-39	8409541	1	GASKET.. Flange
-40	8435910	1	STRAINER ASSEMBLY .. Lube oil - See page 1-57

40134675B

Camshaft Drive End Lube Oil Lines And Piston Cooling Tubes



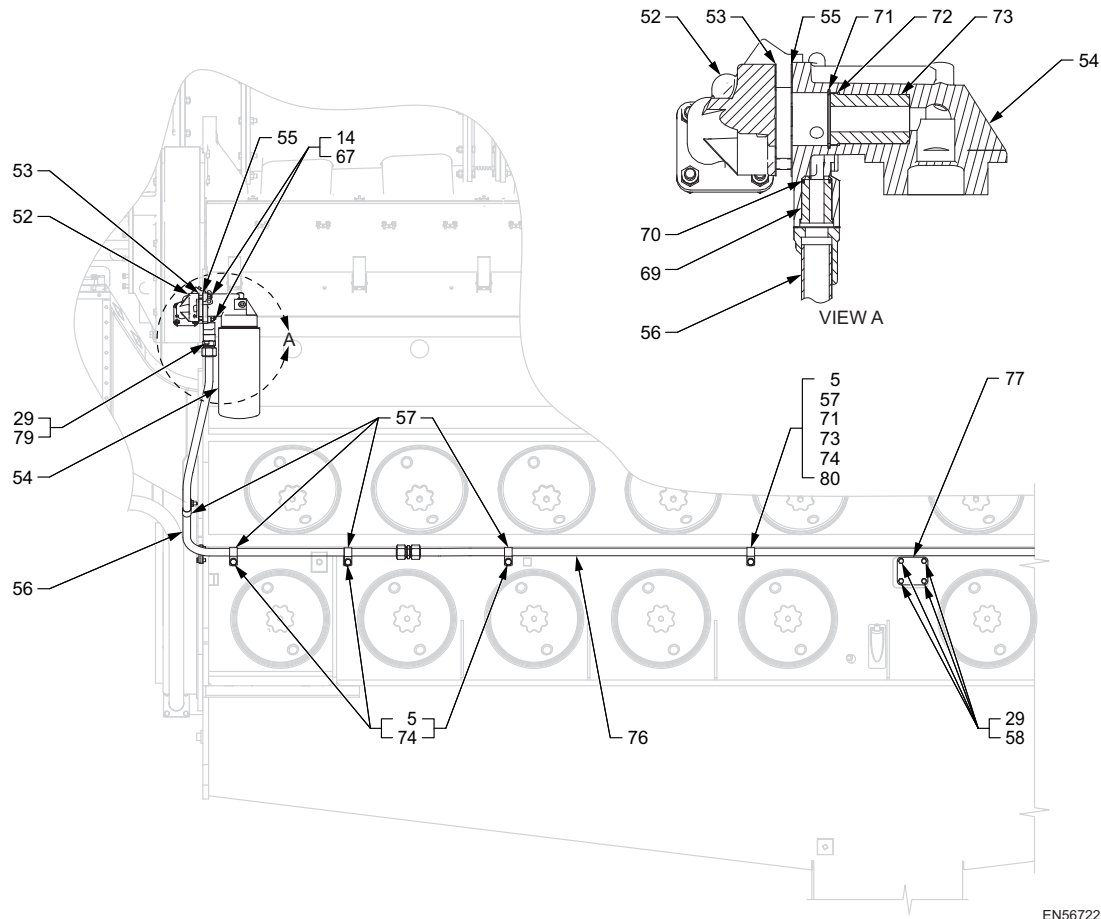
EN56719

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
18-41	40048963	3	GASKET.. Oil line mounting
-42	8117605	1	LINE.. Lube oil
-43	8167141	4	BOLT.. Drilled hex head 3/8-24 x 1-5/8
-44	8116738	AR	WIRE.. Lock - 3/64 diameter x 500 feet
-45	8288093	1	MANIFOLD.. Lube oil - End
-46	40048964	1	GASKET.. Manifold mounting
-47	8288257	8	BOLT.. Drilled hex head 3/8-24 x3-1/2
-48	181376	4	BOLT.. Hex head 3/8-24 x 1-5/8
-49	40048965	2	GASKET.. Manifold to manifold
-50	40084417	1	MANIFOLD.. Lube oil - Center
-51	181380	3	BOLT.. Hex head 3/8-24 x 2-1/4
-52	8366329	1	MANIFOLD ASSEMBLY.. Adapter - Turbo filter
-53	40034636	1	GASKET.. Manifold mounting
-54	40053397	1	FILTER ASSEMBLY .. Lube oil - Turbocharger
-55	40048966	1	GASKET.. Turbo oil filter mounting - Edge molded
-56	40153363	1	TUBE ASSEMBLY.. Lube oil filter - Turbocharger
-57	8342993	5	CLAMP.. Tube
-58	179839	4	BOLT.. Hex head 3/8-16 x 3/4
-59	8159199	2	FLANGE.. Piston cooling tube - Camshaft drive end
-60	40048969	2	GASKET.. Manifold flange
-61	40046561	20	TUBE ASSEMBLY.. Piston cooling
-62	40048968	20	GASKET.. Tube to manifold
-63	8028314	4	BOLT.. Drilled hex head 3/8-24 x 7/8
-64	181339	40	BOLT.. Hex head 5/16-24 x 1
-65	179819	40	BOLT.. Hex head 5/16-18 x 1-1/8
-66	103320	80	WASHER.. Lock 5/16
-67	6101225	9	WASHER.. Flat 3/8

40134675B

Turbocharger - Soakback Lube Oil System



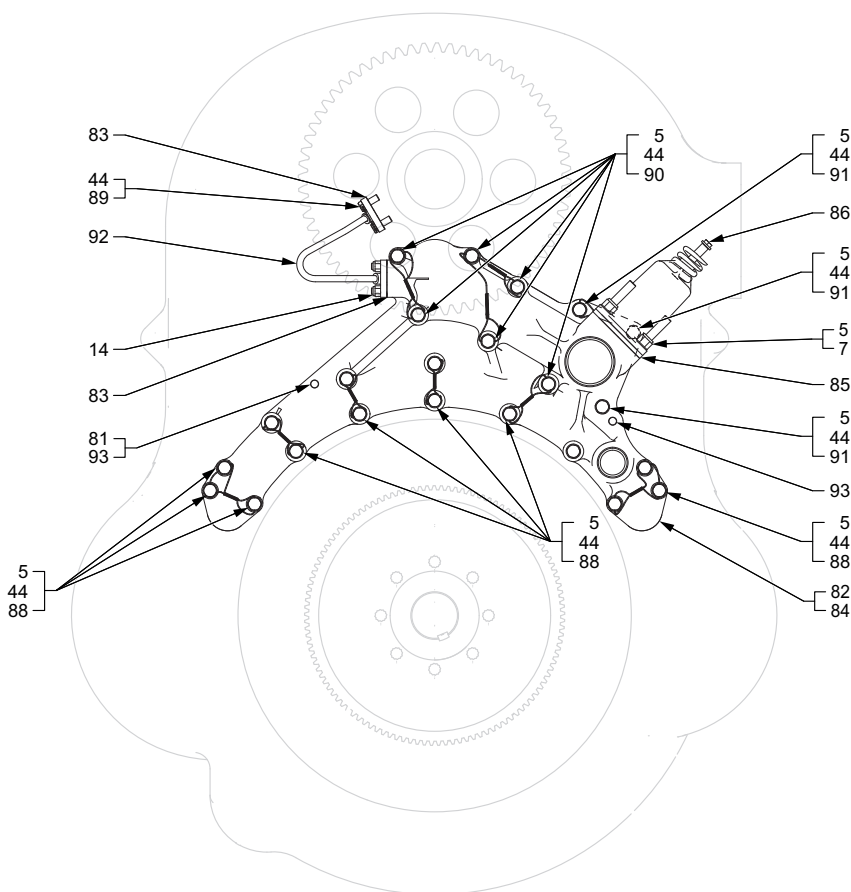
EN56722

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
18-68	8029167	20	GASKET.. Lube oil line (not shown)
-69	8366533	1	VALVE.. Check - Filter supply
-70	8366436	1	SEAL.. O-ring - Filter supply check valve
-71	9413378	1	RING.. Retainer
-72	8366577	1	VALVE.. Check - Filter discharge
-73	8280352	1	SEAL.. O-ring - Filter discharge check valve
-74	179880	4	BOLT.. Hex head 1/2-13 x 7/8
-75	8128986	1	WASHER.. Lock 3/8 (not shown)
-76	40153557	1	TUBE ASSEMBLY..
-77	8399163	1	FLANGE.. Soakback filter - Turbocharger
-78	40058862	1	CONNECTOR.. 16FS x 16FS
-79	138244	2	SCREW.. Hex socket head 3/8-16 x 1-1/2
-80	8085062	2	DOWEL.. Special - Manifold locating
-81	186310	1	BOLT.. Hex head 3/8-24 x 3-1/2
-82	40072091	1	MANIFOLD ASSEMBLY.. Lube oil
-83	8029165	2	GASKET.. Oil line
-84	8167060	1	GASKET.. Manifold to crankcase
-85	40085273	1	PLATE.. Manifold oil relief valve mounting
-86	40069721	1	VALVE ASSEMBLY.. Manifold relief
-87	8082587	1	SEAL.. O-ring - Main bearing oil tube
-88	8088763	14	BOLT.. Hex head 1/2-20 x 2-1/4 - Special

40134675B

Lube Oil Manifold



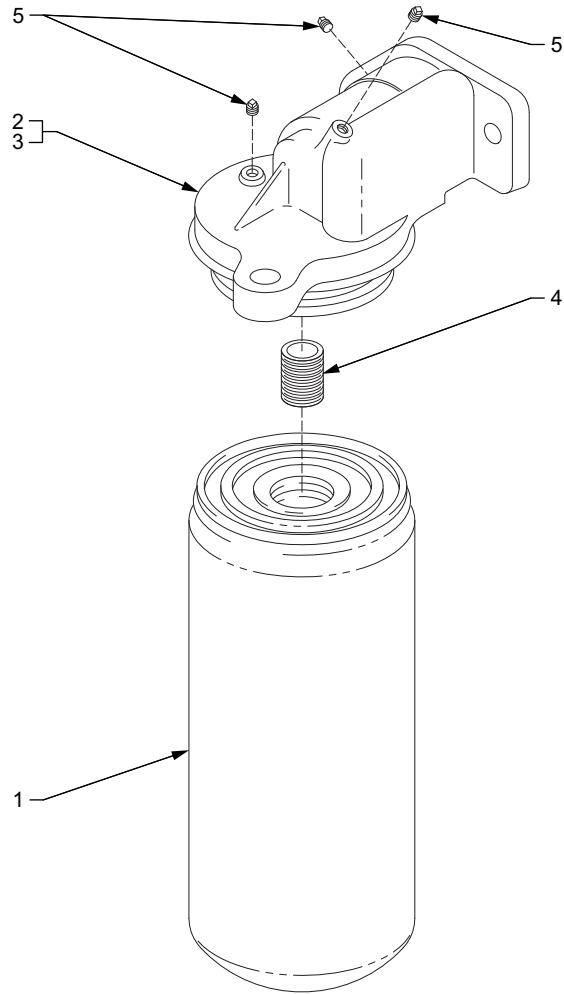
EN56725

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
18-89	8028312	2	BOLT.. Drilled hex head 3/8-24 x 1
-90	8088764	6	BOLT.. Hex head 1/2-20 x 3-1/4 - Special
-91	8028329	3	BOLT.. Drilled hex head 1/2-20 x 1-1/4
-92	8166331	1	LINE.. Oil - Manifold to governor drive gear stubshaft
-93	8085063	2	RING.. Snap - Dowel
-94	186310	1	BOLT.. Hex head 3/8-24 x 3-1/2 (not shown)
-95	8422067	1	FLANGE.. Lube oil pressure elbow (not shown)
-96	9570818	1	GASKET.. Flange to elbow (not shown)
-97	8409156	1	FLANGE.. Piston cooling elbow (not shown)
-98	9570813	1	GASKET.. Flange to elbow (not shown)
-99	8032721	4	NUT.. Hex lock 5/8-18 (not shown)
-100	6101233	4	WASHER.. Flat 5/8 (not shown)
-101	271589	4	BOLT.. Hex head 5/8-18 x 2-1/2 (not shown)
-102	40069710	1	FLANGE.. Lube oil filter tube assembly (not shown)
-103	40057291	1	CONNECTOR.. 16FS x 12ORB (not shown)
-104	10630186	1	ELBOW.. 16FS (not shown)
-105	40073986	1	CAP.. 16FS (not shown)
-106	103319	40	WASHER.. 16FS (not shown)
-107	179795	40	BOLT.. Hex head 1/4-20 x 3/4 - Oil line to camshaft bearing (not shown)
-108	8085799	2	CLAMP.. Tube (not shown)
-109	40034623	1	GASKET.. Soakback filter mounting (not shown)

40134675B

Turbocharger Lube Oil Filter



EN56435

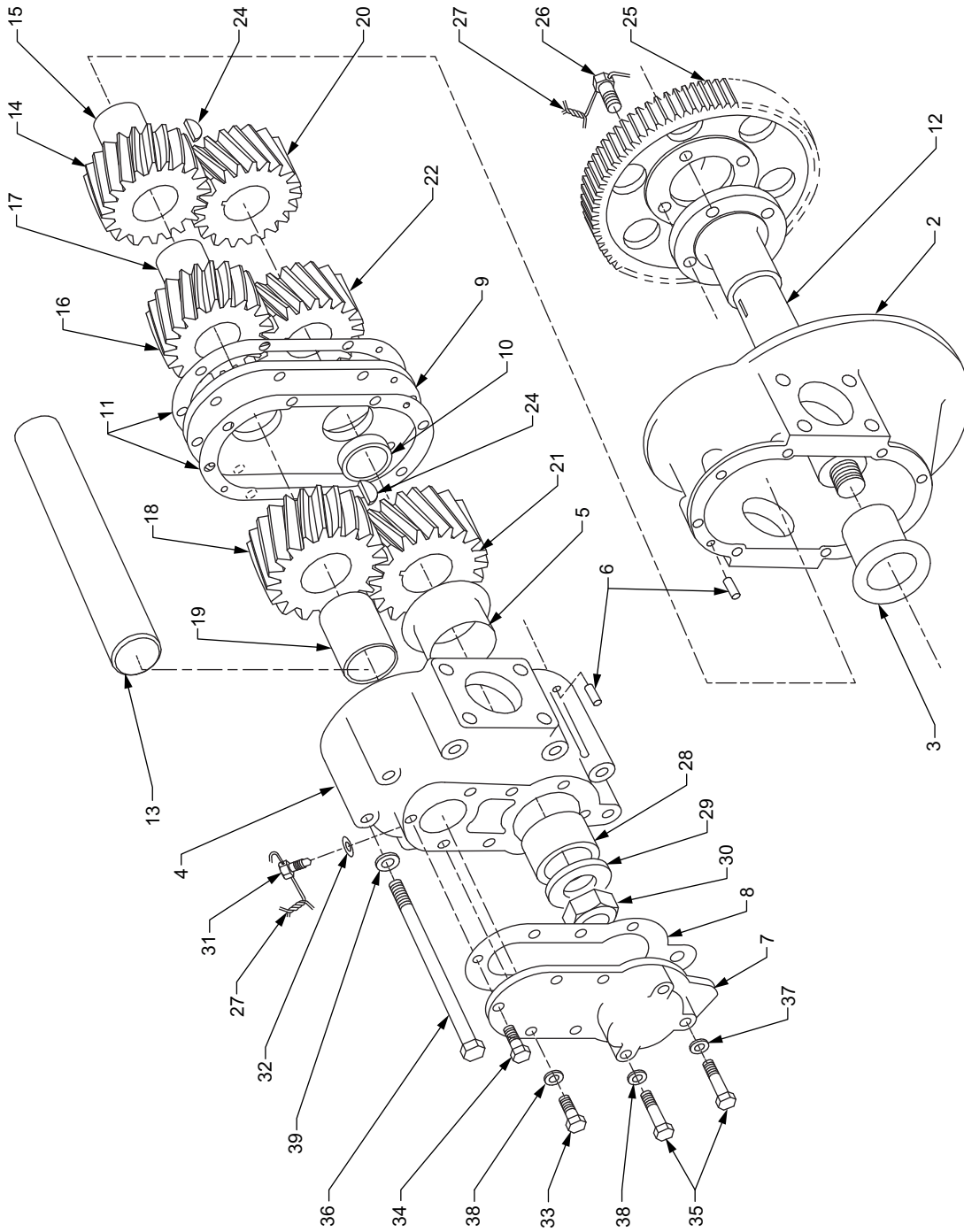
A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
18-1	40035123	1	FILTER.. Turbocharger lube oil
-2	40053420	1	COVER ASSEMBLY.. Turbocharger lube oil filter
-3	40053396	1	COVER.. Filter
-4	40035126	1	BUSHING.. 1-1/2 inches
-5	40058279	4	PLUG.. Pipe - 1/4PT

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
19-1	8435910	1	STRAINER ASSEMBLY.. Lube oil
-2	40024940	1	GASKET.. Strainer
-3	8478924	1	SEAL.. O-ring - Strainer to housing
-4	8308586	1	STRAINER ASSEMBLY.. Scavenging lube oil
-5	8308587	1	SCREEN.. Strainer - Perforated metal
-6	40050384	1	GASKET.. Valve body - 3 inch diameter
-7	6101225	4	WASHER.. Flat 3/8
-8	8320144	2	STRAINER ASSEMBLY.. Piston cooling and main bearing lube oil
-9	8320143	2	SCREEN ASSEMBLY.. Strainer
-10	8085182	2	SEAL.. O-ring - Lube oil strainer
-11	40039282	1	GASKET.. Strainer cover
-12	6101223	4	WASHER.. Flat 5/16
-13	179816	8	BOLT.. Hex head 5/16-18 x 3/4
-14	9314922	1	VALVE ASSEMBLY.. Strainer drain
-15	9315446	1	SEAL.. O-ring - Strainer
-16	179845	4	BOLT.. Hex head 3/8-16 x 1-3/4
-17	9314918	1	GASKET.. Valve seat to bottom of strainer
-18	9314919	1	SEAT.. Strainer valve
-19	9580741	AR	KIT.. Gasket - Strainer element (not shown)
-20	40052426	AR	KIT.. Gasket - Strainer assembly (not shown)

Assembly 20: LUBE OIL AND PRESSURE PUMP

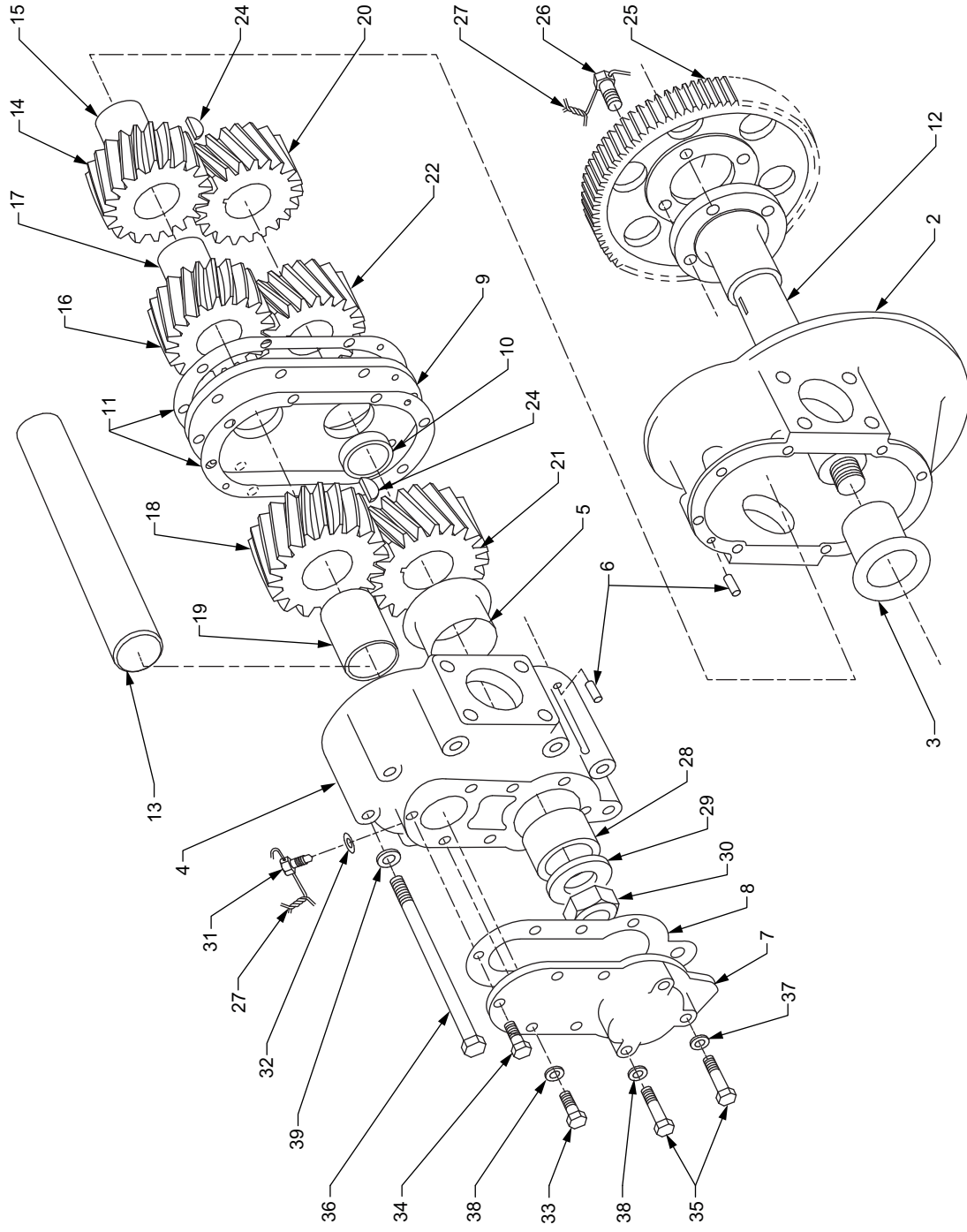


EN33592

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
20-1	9559523	1	PUMP ASSEMBLY.. Piston cooling and pressure
-2	9559521	1	BODY.. Pump - Rear
-3	9559522	1	BUSHING.. Body
-4	9559520	1	BODY.. Pump - Front
-5	9568234	1	BUSHING.. Body
-6	8029144	2	PIN.. Dowel 3/8 x 1-1/4
-7	8360537	1	COVER.. Pump
-8	8360543	1	GASKET.. Pump cover
-9	9568235	1	SPACER.. Pump body
-10	9568231	1	COLLAR.. Drive shaft to spacer
-11	8360539	2	GASKET.. Pump spacer to body
-12	9559471	1	SHAFT.. Pump drive
-13	8360541	1	SHAFT.. Pump idler
-14	9559478	1	GEAR ASSEMBLY.. Pump driven - Rear
-15	40076288	1	BUSHING.. Gear
-16	9559462	1	GEAR ASSEMBLY.. Pump driven - Middle
-17	40076288	1	BUSHING.. Gear
-18	40076289	1	GEAR ASSEMBLY.. Pump driven - Front
-19	40076289	1	BUSHING.. Gear
-20	9559469	1	GEAR.. Pump drive - Rear
-21	9569135	1	GEAR.. Pump drive - Front
-22	9559468	1	GEAR.. Pump drive - Center
-23	456713	2	PIN.. Roll - Front drive gear to center drive gear (not shown)
-24	117982	2	KEY.. Woodruff - Front and rear drive gears
-25	8035625	1	GEAR.. Spur - 80 tooth - Pump drive
-26	8028329	3	BOLT.. Drilled hex head 1/2-20 x 1-1/4
-27	8116738	AR	WIRE.. Lock - 3/64 diameter x 500 feet
-28	8360542	1	SLEEVE.. Drive shaft
-29	8384840	1	WASHER.. Thrust
-30	8358553	1	NUT.. Hex lock 1-1/8-12
-31	8029495	1	BOLT.. Special hex head 1/2-13 x 1-1/8
-32	8029494	1	WASHER.. Copper - 1/2
-33	8041206	1	BOLT.. Drilled hex head 3/8-16 x 1-1/2
-34	179843	4	BOLT.. Hex head 3/8-16 x 1-1/2
-35	179848	3	BOLT.. Hex head 3/8-16 x 2-1/4
-36	190270	8	BOLT.. Hex head 1/2-13 x4-1/4
-37	8029142	1	WASHER.. Copper 3/8
-38	6101225	7	WASHER.. Flat 3/8
-39	6101229	8	WASHER.. Flat 1/2
-40	9580728	1	KIT.. Gasket - Piston cooling pump (not shown)

Assembly 21: PISTON COOLING AND PRESSURE PUMP

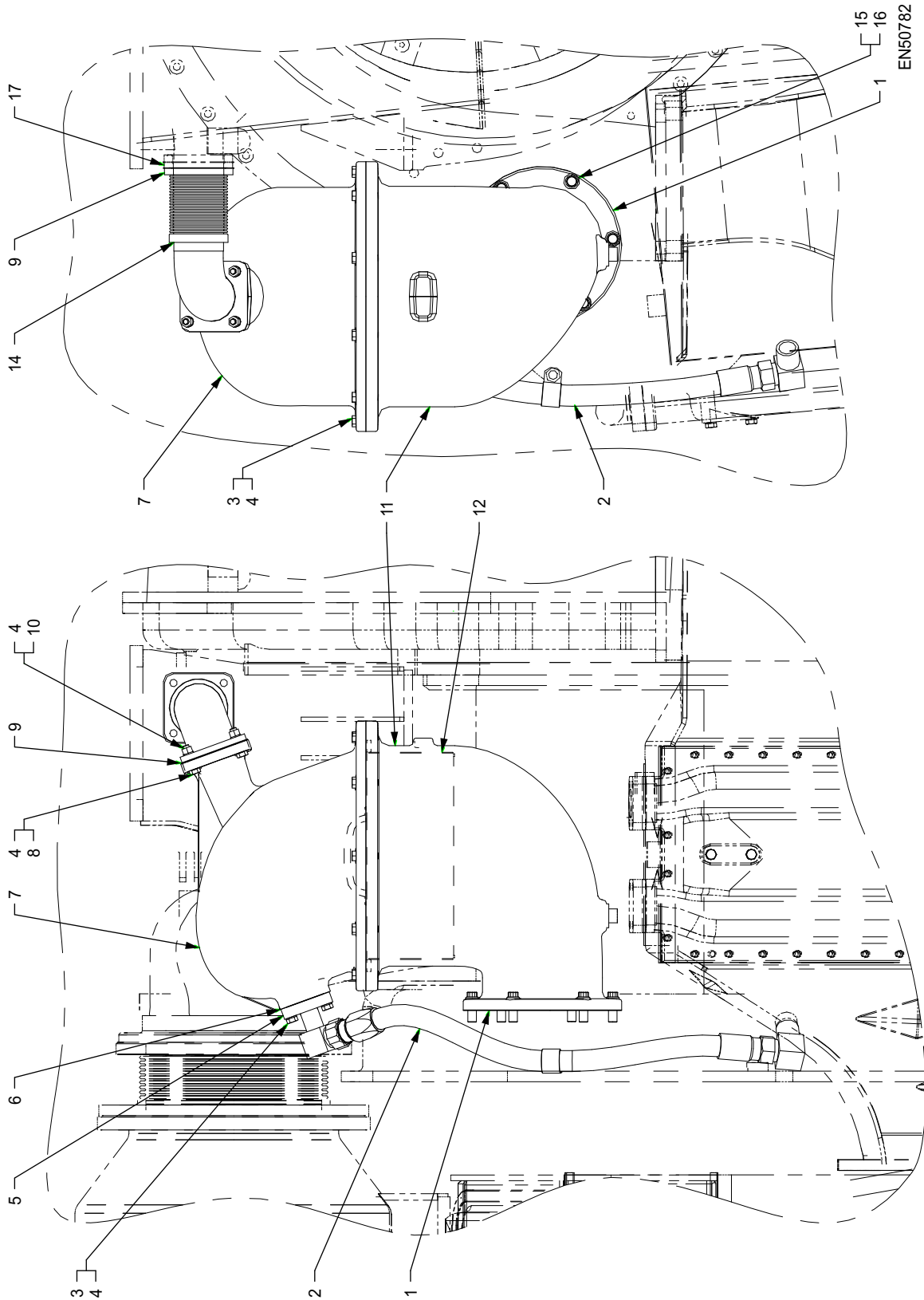


EN33592

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
21-1	40152648	1	PUMP ASSEMBLY.. Piston cooling and pressure
-2	9559521	1	BODY.. Pump - Rear
-3	9559522	1	BUSHING.. Body
-4	9559520	1	BODY.. Pump - Front
-5	9568234	1	BUSHING.. Body
-6	8029144	2	PIN.. Dowel 3/8 x 1-1/4
-7	8360537	1	COVER.. Pump
-8	8360543	1	GASKET.. Pump cover
-9	9568235	1	SPACER.. Pump body
-10	9568231	1	COLLAR.. Drive shaft to spacer
-11	8360539	1	GASKET.. Pump spacer to body
-12	9559471	1	SHAFT.. Pump drive
-13	8360541	1	SHAFT.. Pump idler
-14	9559478	1	GEAR ASSEMBLY.. Pump driven - Rear
-15	40076288	1	BUSHING.. Gear
-16	9559462	1	GEAR ASSEMBLY.. Pump driven - Middle
-17	40076288	1	BUSHING.. Gear
-18	40076289	1	GEAR ASSEMBLY.. Pump driven - Front
-19	40076289	1	BUSHING.. Gear
-20	9559469	1	GEAR.. Pump drive - Rear
-21	9569135	1	GEAR.. Pump drive - Front
-22	9559468	1	GEAR.. Pump drive - Center
-23	456713	2	PIN.. Roll - Front drive gear to center drive gear (not shown)
-24	117982	2	KEY.. Woodruff - Front and rear drive gears
-25	40055117	1	GEAR.. Spur - Pump drive - 80 Tooth
-26	8028329	4	BOLT.. Drilled hex head 1/2-20 x 1-1/4
-27	8116738	AR	WIRE.. Lock - 3/64 diameter x 500 feet
-28	8360542	1	SLEEVE.. Drive shaft
-29	40055773	1	WASHER.. Special
-30	40055762	1	NUT.. Hex lock 1-1/8-12
-31	8029495	1	BOLT.. Special hex head 1/2-13 x 1-1/8
-32	8029494	1	WASHER.. Flat 1/2 - Copper
-33	8041206	1	BOLT.. Drilled hex head 3/8-16 x 1-1/2
-34	179843	4	BOLT.. Hex head 3/8-16 x 1-1/2
-35	179848	3	BOLT.. Hex head 3/8-16 x 2-1/4
-36	190270	8	BOLT.. Hex head 1/2-13 x4-1/4
-37	8029142	1	WASHER.. Flat 3/8 - Copper
-38	6101225	7	WASHER.. Flat 3/8
-39	6101229	8	WASHER.. Flat 1/2
-40	9580728	1	KIT.. Gasket - Piston cooling pump (not shown)

Assembly 22: SEPARATOR AND EJECTOR



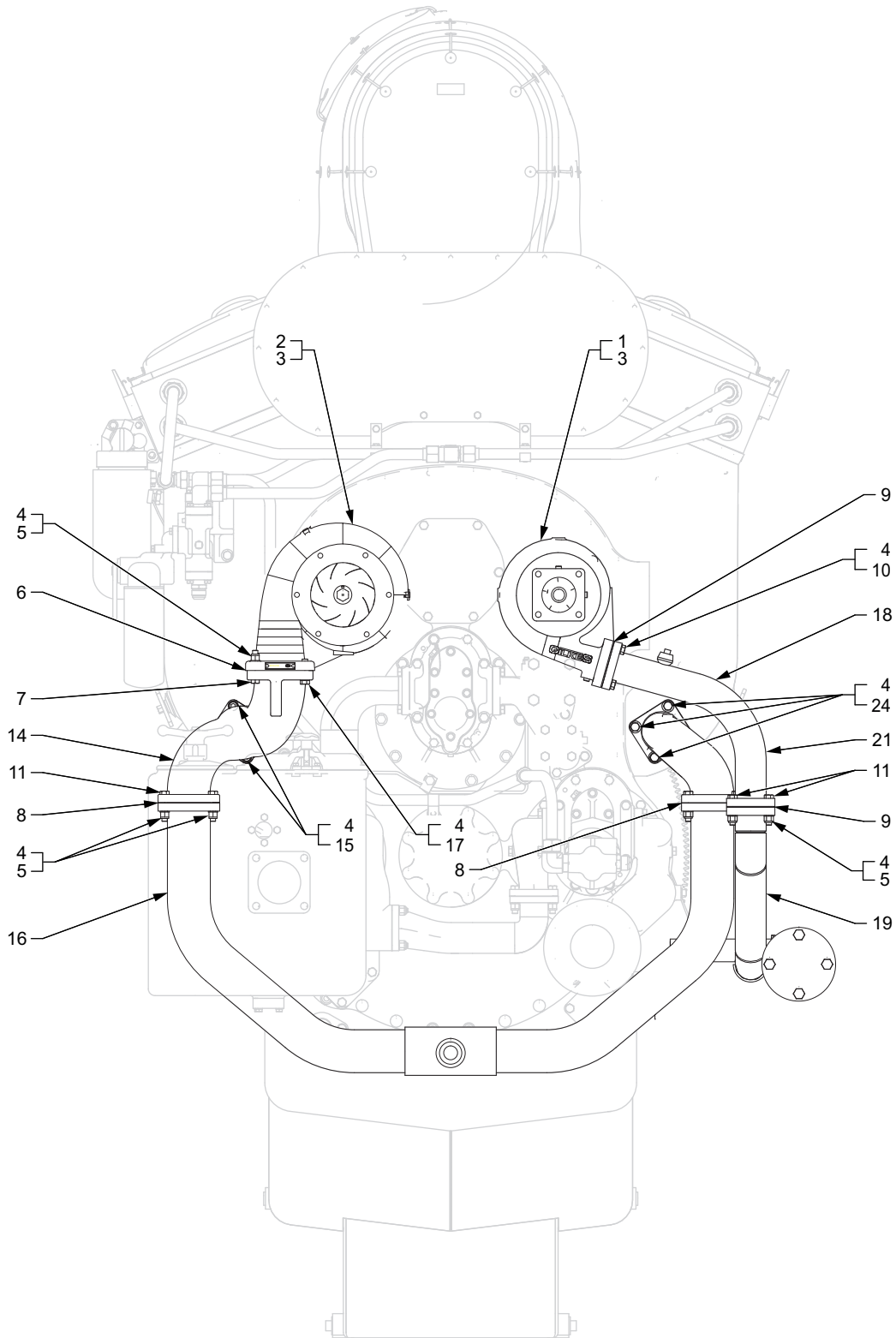
A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
22-1	40086269	1	GASKET.. Oil separator mounting
-2	40105434	1	HOSE ASSEMBLY.. 7/8 I.D. x 1-1/4 O.D. x 29-1/2 inch length - Includes connectors on both ends
-3	180124	14	BOLT.. Hex head 3/8-16 x 1-1/4
-4	6101225	22	WASHER.. Flat 3/8
-5	40109530	1	NOZZLE ASSEMBLY.. Oil separator 5-hole 2-13/16 inch length
-5	40109534	1	NOZZLE ASSEMBLY.. 1-hole (Optional) (not shown)
-5	40109532	1	NOZZLE ASSEMBLY.. 3-hole (Optional) (not shown)
-5	40105439	1	NOZZLE ASSEMBLY.. 7-hole (Optional) (not shown)
-5	40109528	1	NOZZLE ASSEMBLY.. 9-hole (Optional) (not shown)
-6	40105414	1	GASKET.. Nozzle assembly mounting
-7	40105417	1	EJECTOR CAP.. Oil separator - 15-3/4 inch diameter
-8	180126	4	BOLT.. Hex head 3/8-16 x 1-1/2
-9	40039277	2	GASKET.. Elbow
-10	120377	4	NUT.. Hex 3/8-16
-11	40105415	1	HOUSING.. Oil separator
-12	40105419	1	FILTER ASSEMBLY.. Oil separator - 3.4 density
-13	40105422	2	GASKET.. Oil separator filter (not shown)
-14	40094238	1	FLEXIBLE ELBOW ASSEMBLY.. Oil separator and ejector
-15	8460229	6	BOLT.. Socket head 1/2-13 x 1-1/4
-16	6101229	6	WASHER.. Flat 1/2
-17	40060965	1	TUBE ASSEMBLY.. 2-3/8 inch O.D. - Eductor - Outer

40105413C, 40144401

Assembly 23: COOLING SYSTEM

Water Pumps and Piping Application



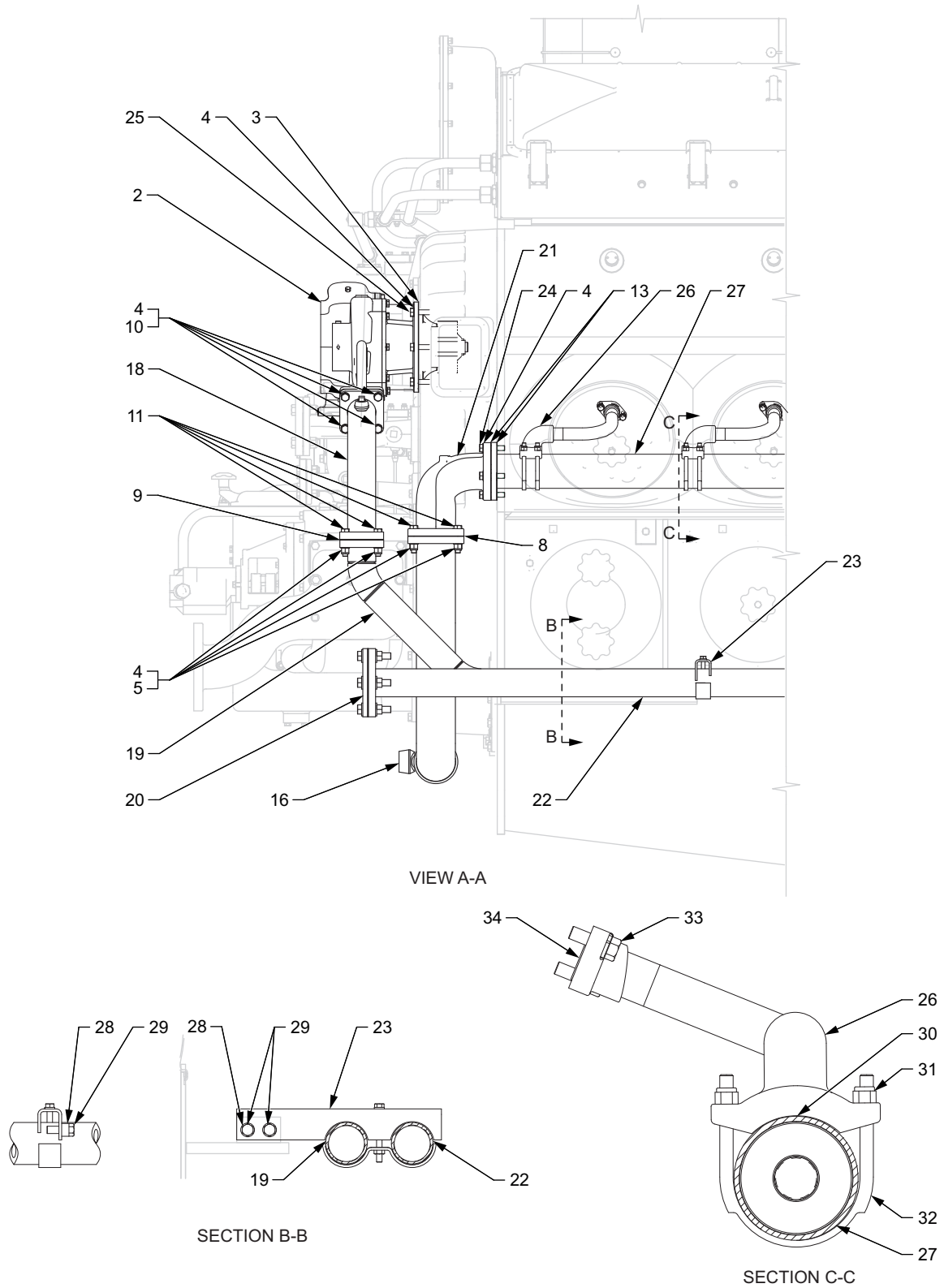
EN56689

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
23-1	40124368	1	PUMP ASSEMBLY.. Water - Left bank
-1	40124368UX	1	PUMP ASSEMBLY.. UTEX - Water - Left bank (Optional to 40124368)
-2	40106158	1	PUMP ASSEMBLY.. Water - Right bank - See page 1-73
-3	40040028	2	GASKET.. Water pump mounting
-4	6101229	48	WASHER.. Flat 1/2
-5	8032719	18	NUT.. Lock 1/2-20
-6	40061175	1	SEAL.. O-ring - Water pump outlet - Right bank
-7	181441	2	BOLT.. Hex head 1/2-20 x 2-3/4
-8	40060011	2	GASKET.. Elbows to water drain pipe
-9	40010852	2	GASKET.. Water pump outlet pipe - Left bank
-10	179887	4	BOLT.. Hex head 1/2-13 x 1-3/4 - Elbow mounting
-11	181440	16	BOLT.. Hex head 1/2-20 x 2-1/2
-12	8433304	1	MANIFOLD ASSEMBLY.. Water - Right bank
-13	40040019	4	GASKET.. Flange
-14	40059428	1	ELBOW.. Water pump outlet and manifold inlet
-15	138312	4	SCREW.. Hex socket head cap 1/2-20 x 2-1/4
-16	9542564	1	PIPE ASSEMBLY.. Water pump elbow to manifold elbow
-17	179889	2	BOLT.. Hex head 1/2-13 x 2 - Elbow mounting
-18	40163140	1	PIPE ASSEMBLY.. Water pump outlet - Left bank
-19	40163090	1	PIPE ASSEMBLY.. Aftercooler supply

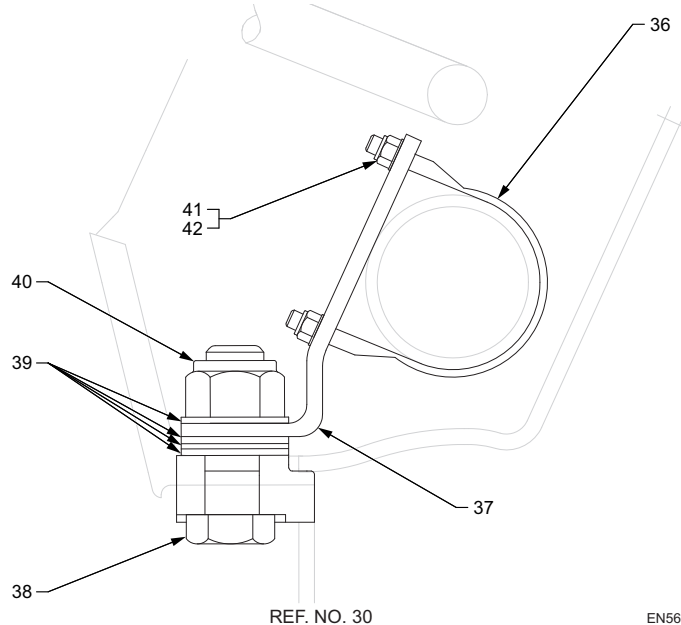
40163054

Water Pumps and Piping Application (continued)



EN56690

Water Pumps and Piping Application (continued)

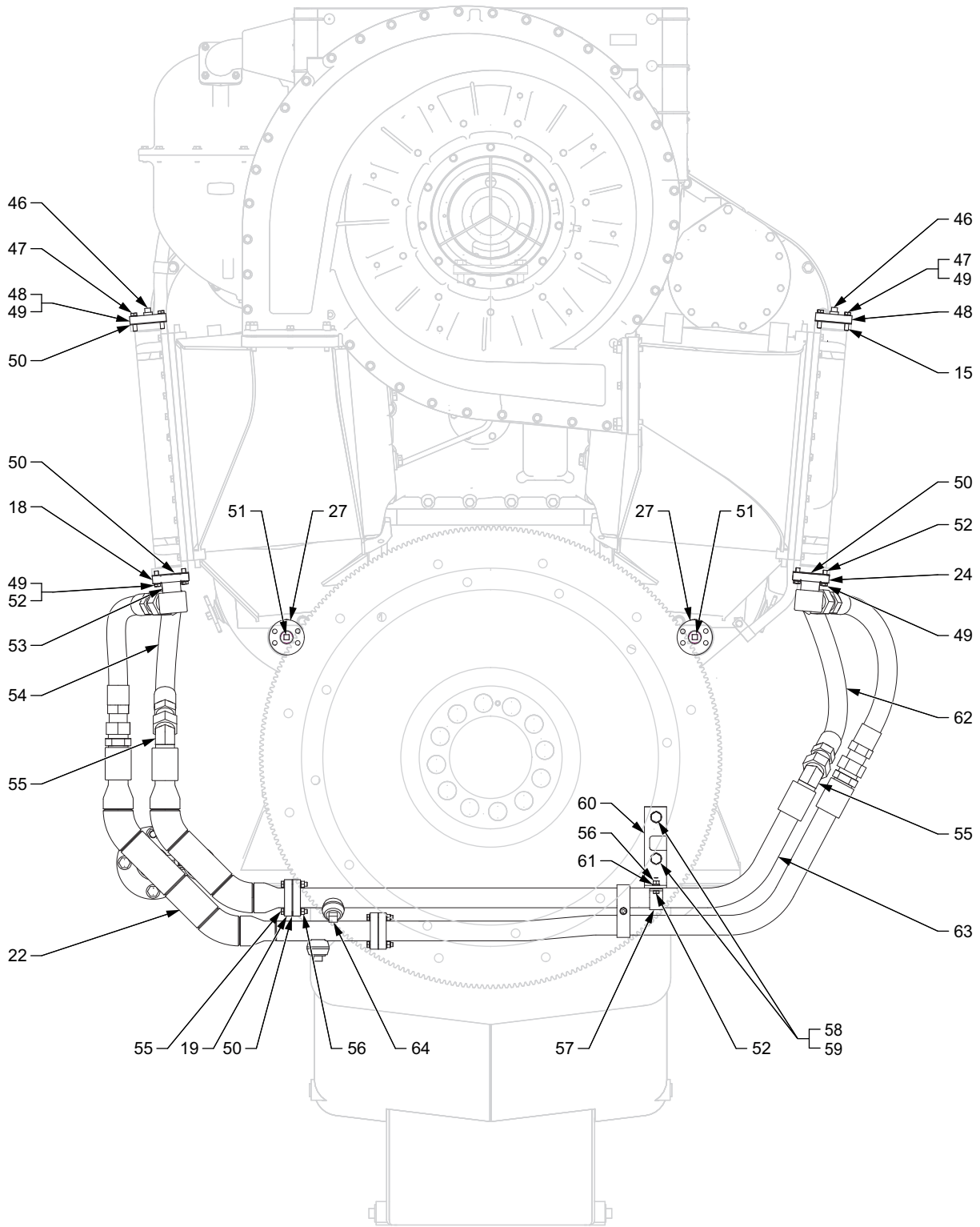


A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
23-20	40153798	1	PLATE.. Cover
-21	40059510	2	ELBOW.. Water manifold inlet
-22	40163087	1	PIPE.. Aftercooler outlet pipe
-23	40154242	4	CLAMP ASSEMBLY.. Aftercooler supply
-24	181436	8	BOLT.. Hex head 1/2-20 x 2-1/4
-25	181432	12	BOLT.. Hex head 1/2-20 x 1-5/8
-26	9093027	20	TUBE ASSEMBLY.. Water inlet 1-1/4 inch O.D.
-27	8433303	1	MANIFOLD ASSEMBLY.. Water - Left bank
-28	40028615	20	SPACER.. Clamp
-29	455014	8	BOLT.. Hex head 1/2-20
-30	40040025	20	GASKET.. Manifold to water inlet tube
-31	8032717	80	NUT.. Lock 3/8-24
-32	8347343	40	STRAP.. Saddle
-33	8226964	40	BOLT ASSEMBLY.. Hex head 3/8-16 x 1-1/8 - Includes lockwasher
-34	8305815	20	SEAL.. Liner to water inlet tube
-35	9326240	1	KIT.. Water manifold support bracket - To reduce vibration of water manifold assemblies
-36	8347343	2	STRAP.. Saddle
-37	9312008	2	BRACKET.. Support
-38	273046	2	BOLT.. Hex head 1-14 x 3-1/2
-39	131019	8	WASHER.. Flat 1 inch
-40	273046	2	NUT.. Lock 1-14
-41	8032717	4	NUT.. Lock 3/8-24
-42	103341	4	WASHER.. Flat 3/8
-43	9581263	AR	COMPOUND.. Thread - 8-1/2 oz. (not shown)
-44	40113151	1	KIT.. Water pump application - Left bank - Includes (1) Ref. No. 3, (8) Ref. No. 4, (2) Ref. No. 9, (4) Ref. No. 10, and (4) Ref. No. 11 (not shown)
-45	40113152	1	KIT.. Water pump application - Right bank - Includes (1) Ref. No. 3, (14) Ref. No. 4, (10) Ref. No. 5, (1) Ref. No. 6, (2) Ref. No. 7, (8) Ref. No. 11, (2) Ref. No. 13, and (8) Ref. No. 24 (not shown)

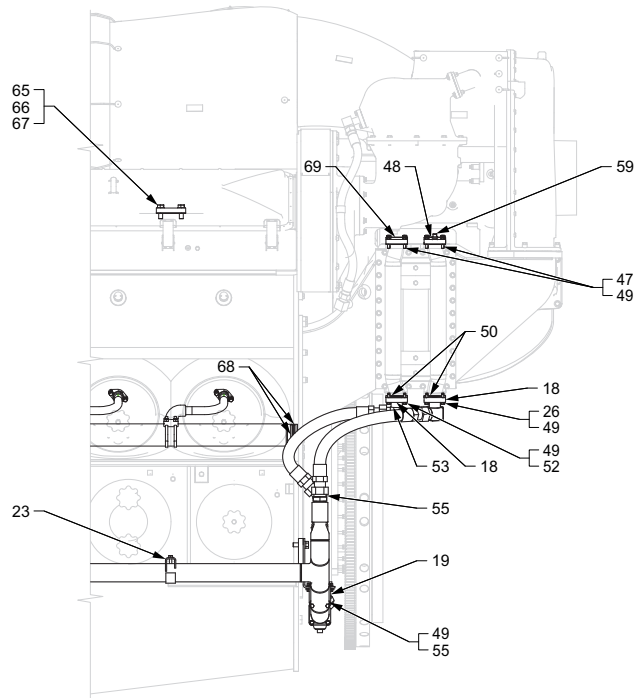
40163054

Aftercooler Piping



EN56699

Aftercooler Piping (continued)

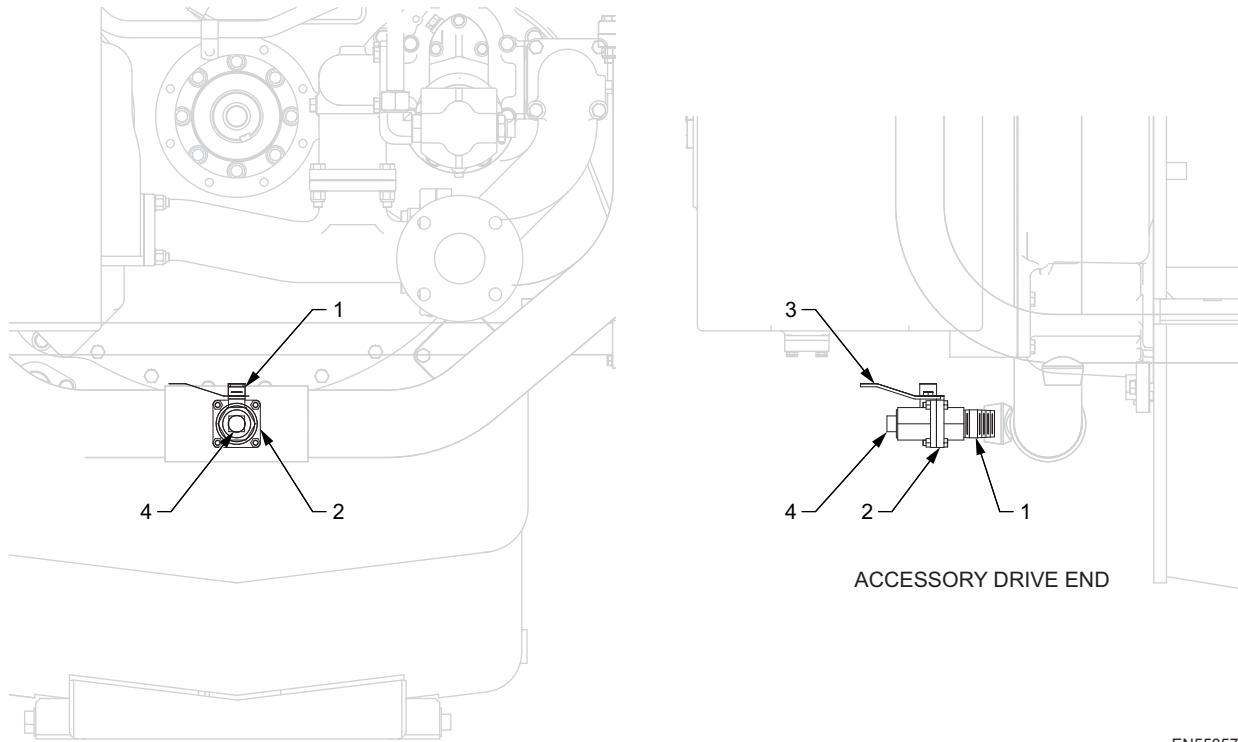


EN56705

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
23-46	179843	16	BOLT.. Hex head 3/8-16 x 1-1/2
-47	103880	2	PLUG.. Pipe 1/2
-48	40151263	2	FLANGE..
-49	6101225	40	WASHER.. Flat 1/4
-50	40056939	9	GASKET.. Aftercooler piping
-51	40115576	2	PLUG.. Pipe - 1PT - Dry seal
-52	179841	18	BOLT.. Hex head 3/8-16 x 1-1/4 - Motor mounting
-53	40002720	4	PIPE.. 1-1/2T x 1-1/2PT
-54	40105282	1	HOSE ASSEMBLY.. Aftercooler supply - Left bank
-55	179848	4	BOLT.. Hex head 3/8-16 x 2-1/4
-56	102635	6	NUT.. Hex 3/8-16
-57	8081715	1	CLAMP.. Aftercooler piping
-58	271587	2	BOLT.. Hex head 5/8-18 x 2
-59	103325	2	WASHER.. Lock 5/8
-60	40144641	1	BRACKET.. Aftercooler piping
-61	120382	2	WASHER.. Lock 3/8
-62	40111955	1	HOSE ASSEMBLY.. Aftercooler supply - Right bank
-63	40154266	1	PIPE ASSEMBLY.. Aftercooler supply - Right bank
-64	103870	1	PLUG.. 1PT
-65	40057071	1	FLANGE.. Blind - Steel
-66	271746	4	BOLT.. Hex head 5/8-18 x 1-3/4 - Flange mounting
-67	6101233	6	WASHER.. Flat 5/8
-68	8433272	4	SEAL.. Water manifold
-69	40054408	2	FLANGE.. Blind
-70	40034629	1	GASKET.. Flange (not shown)
-71	40128803	1	SPACER.. Aftercooler piping
-72	40067536	2	ELBOW.. 1-1/2T x 1-1/2PT - 45H

Water Drain Application



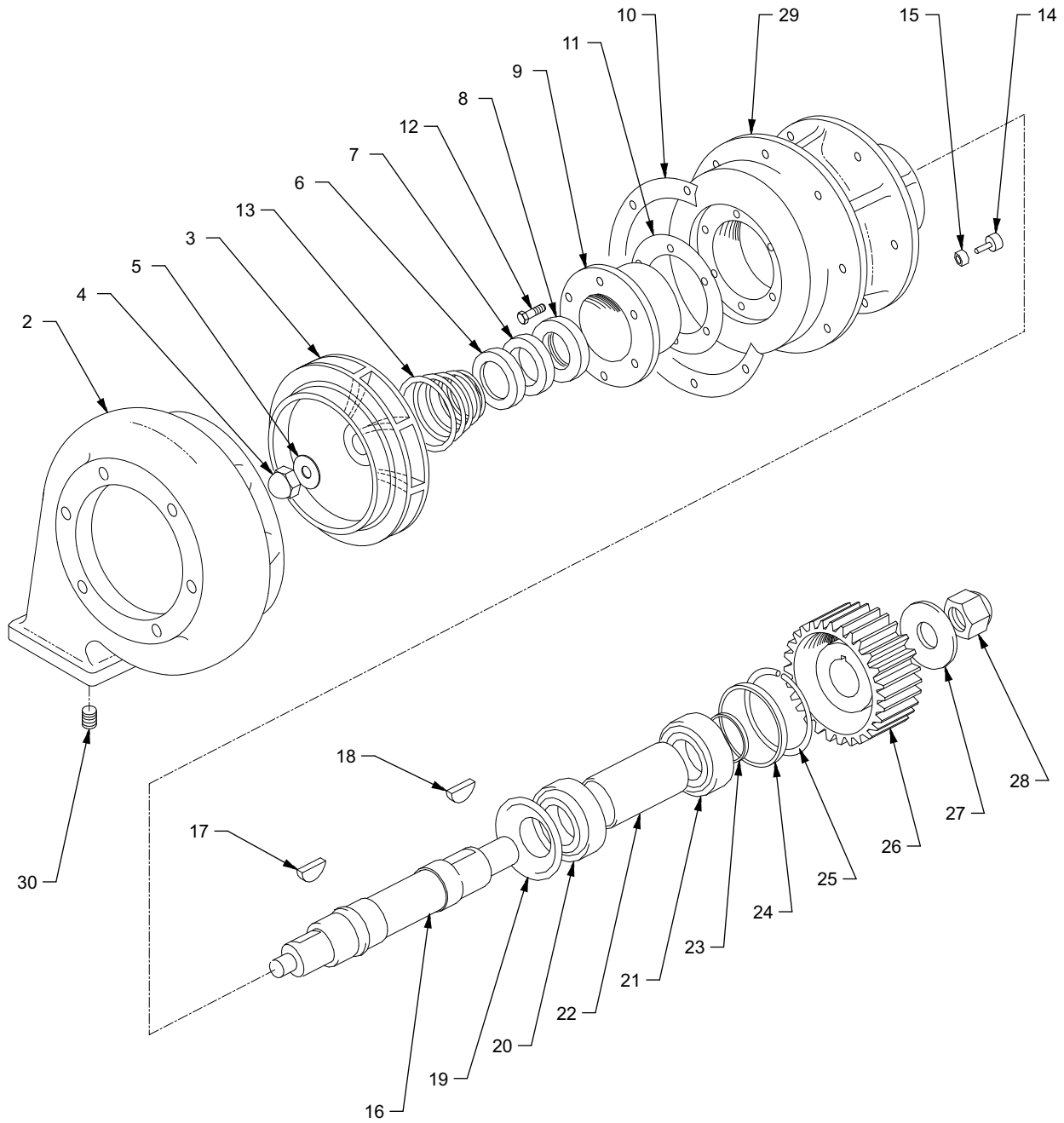
EN55057

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
23-1	8060976	1	NIPPLE.. Short 1-1/4PT
-2	8354227	1	VALVE.. Ball cock - Water drain - 1-1/4 FPT
-3	40050525	1	HANDLE.. Valve
-4	106642	1	PLUG.. Pipe 1-1/4PT
-5	40057871	AR	KIT.. Valve repair - For 8354227 valve (not shown)

40135313

Assembly 24: WATER PUMP Right Bank Water Pump Assembly



REF. NO. 1

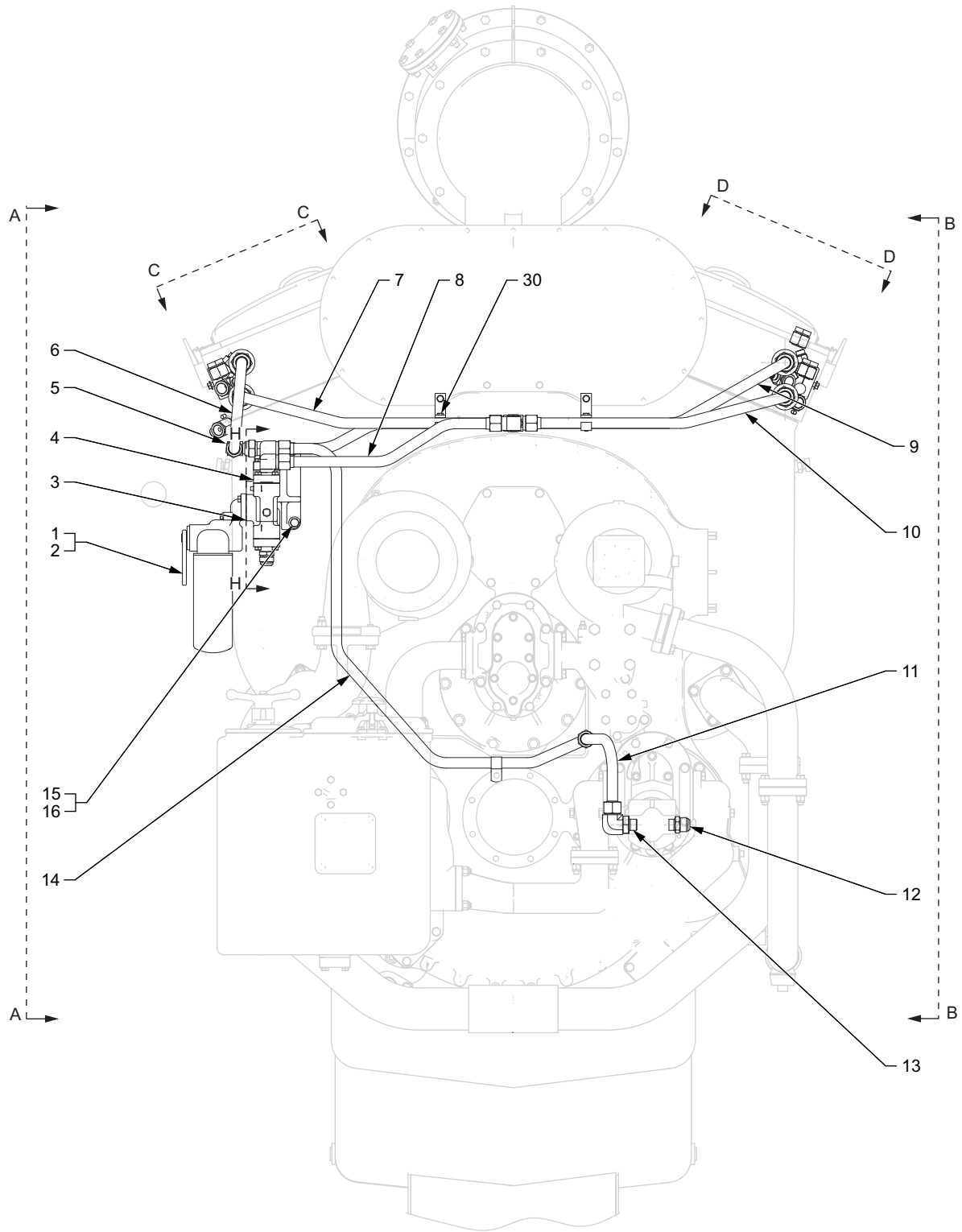
EN38489

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
24-1	40106158	1	PUMP ASSEMBLY.. Water - Right bank
-2	40086580	1	HOUSING ASSEMBLY.. Water pump impeller
-3	9567554	1	IMPELLER.. Water pump
-4	8028724	1	NUT.. Hex lock 5/8-18
-5	8028730	1	WASHER.. Flat 5/8
-6	9529473	1	RETAINER.. Water pump seal - Brass
-7	9526863	1	SEAL.. Water pump - Outer
-8	9529199	1	SEAL.. Water pump - Inner
-9	8052224	1	BUSHING.. Water pump stationary
-10	9544525	1	GASKET.. Water pump housing to support
-11	9570647	1	GASKET.. Water pump support to bushing
-12	9543448	6	BOLT.. Hex head 5/16-18 x 7/8 - Nylock
-13	8055346	1	SPRING.. Water pump seal retainer
-14	179883	8	BOLT.. Hex head 1/2-13 x 1-1/4
-15	103323	8	WASHER.. Lock 1/2
-16	9544533	1	SHAFT.. Water pump drive
-17	108626	1	KEY.. Woodruff - Shaft to impeller
-18	108627	1	KEY.. Woodruff - Shaft to drive gear
-19	9544528	1	SLINGER.. Water pump
-20	40068942	1	BEARING.. Ball - Water pump impeller end
-21	40068943	1	BEARING.. Ball - Water pump drive gear end
-22	9544530	1	TUBING.. 2-1/8 O.D. - Right bank water pump
-23	9544529	1	TUBING.. 2-1/4 O.D. - Right bank water pump
-24	9544531	1	RING.. Retaining
-25	9544532	1	RING.. Snap
-26	40052453	1	GEAR.. Water pump drive
-27	8042977	1	WASHER.. Special
-28	8032724	1	NUT.. Hex lock 1-14
-29	9544523	1	HOUSING ASSEMBLY.. Water pump support
-30	8348618	1	PLUG.. Pipe
-31	8366747	AR	COMPOUND.. Water pump sealing - 12 ounce tube - Applied to bearing bore of Ref. No. 28 - For sealing outer race of Ref. No. 20 (not shown)
-32	40132533	1	KIT.. Water pump seal - Includes (1) Ref. No. 6, (1) Ref. No. 7, (1) Ref. No. 8, (1) Ref. No. 9, (1) Ref. No. 10, (1) Ref. No. 11, and (6) Ref. No. 12 (not shown)
-33	40113153	1	KIT.. Water pump rebuild - Includes (1) Ref. No. 4, (1) Ref. No. 6, (1) Ref. No. 7, (1) Ref. No. 8, (1) Ref. No. 9, (1) Ref. No. 10, (1) Ref. No. 11, (6) Ref. No. 12 (1) Ref. No. 16, (1) Ref. No. 20, (1) Ref. No. 21, (1) Ref. No. 28, and (8) Nut - 8032719 (not shown)

40106158B

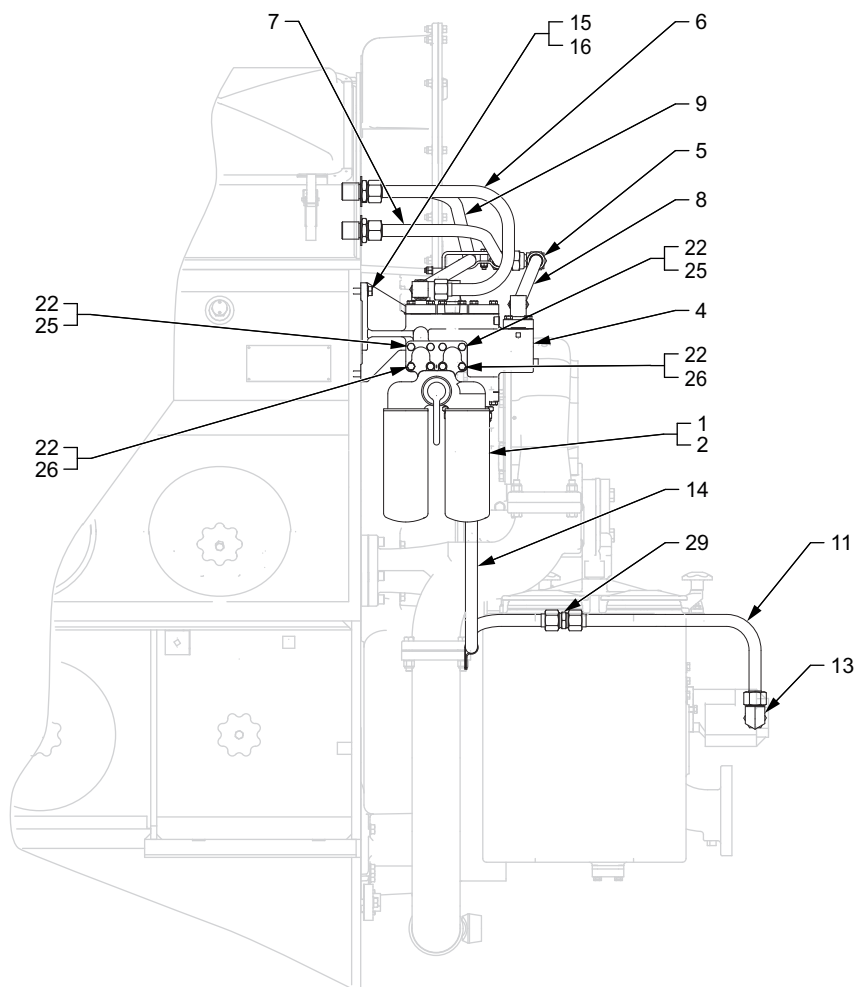
Assembly 25: FUEL OIL PIPING



ACCESSORY DRIVE END

EN55943

Fuel Oil Piping (continued)



VIEW A-A

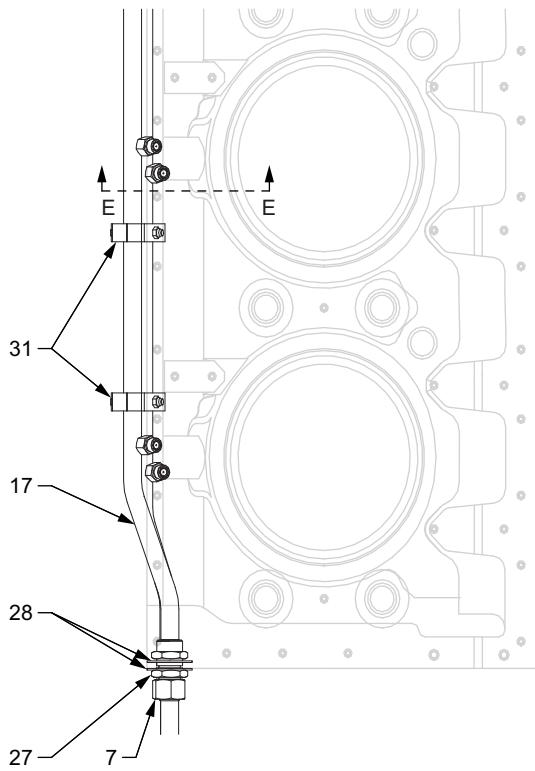
EN53329

A minimum order quantity may apply. Please contact Customer Service to confirm.

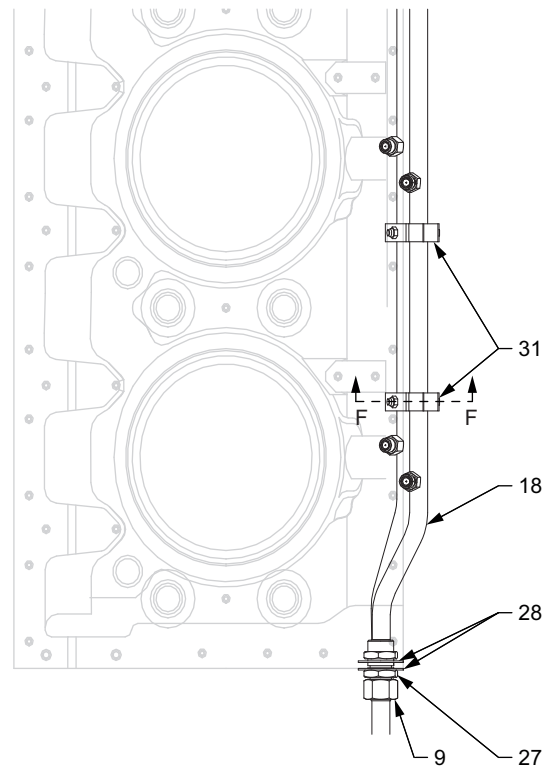
Asm - Ref. No.	Part Number	Qty.	Description
25-1	40086560	1	FILTER ASSEMBLY.. Fuel oil
-2	40052587	2	FILTER.. Fuel - Spin-on
-3	40024937	7	GASKET.. Fuel filter
-4	40127797	1	MANIFOLD AND VALVE ASSEMBLY.. Fuel - See page 1-79
-5	9410285	2	ELBOW.. 1-5/16-12 - Swivel
-6	40086511	1	TUBE ASSEMBLY.. 1 inch O.D. x approx. 2 feet
-7	40099670	1	TUBE ASSEMBLY.. 1 inch O.D. x approx. 2-1/2 feet
-8	40099672	1	TUBE ASSEMBLY.. 1 inch O.D. x approx. 2-1/2 feet
-9	40099669	1	TUBE ASSEMBLY.. 1 inch O.D. x approx. 2-1/2 feet
-10	40099671	1	TUBE ASSEMBLY.. 1 inch O.D. x approx. 2-1/2 feet
-11	40134452	1	TUBE ASSEMBLY.. 1 inch O.D. x approx. 2 feet
-12	40086700	1	CONNECTOR.. 1 HYD x 1-1/16 S
-13	40058619	1	ELBOW.. 12 ORB x 16 FS
-14	40101230	1	TUBE ASSEMBLY.. 1 inch O.D. x approx. 2 feet
-15	40130527	3	BOLT.. Hex head 1/2-20 x 1-1/4 - Special
-16	6101229	3	WASHER.. Flat 1/2
			(Continued)

40134513A

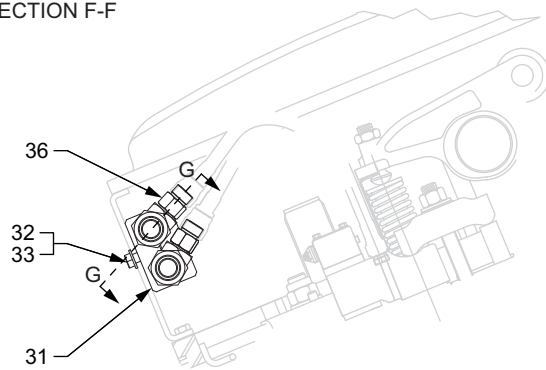
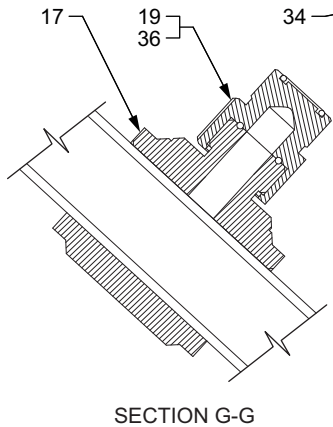
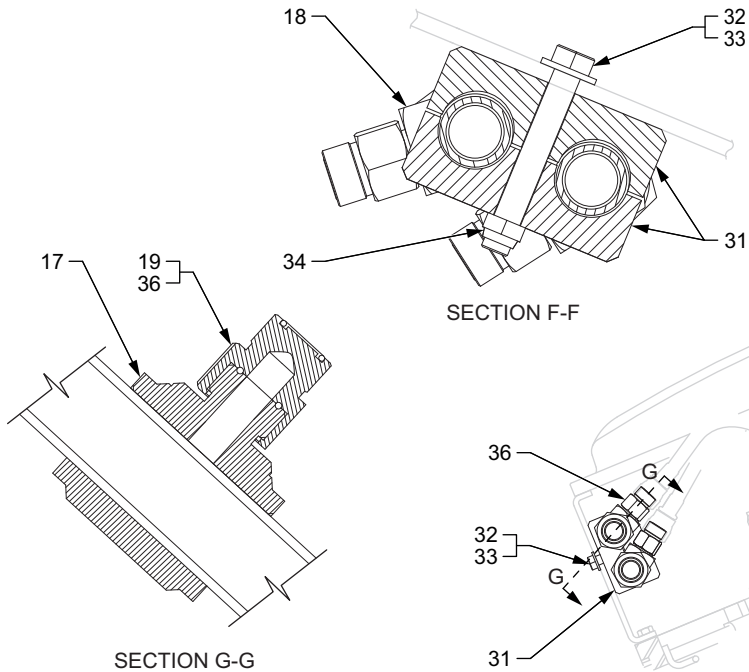
Fuel Oil Piping (continued)



VIEW C-C

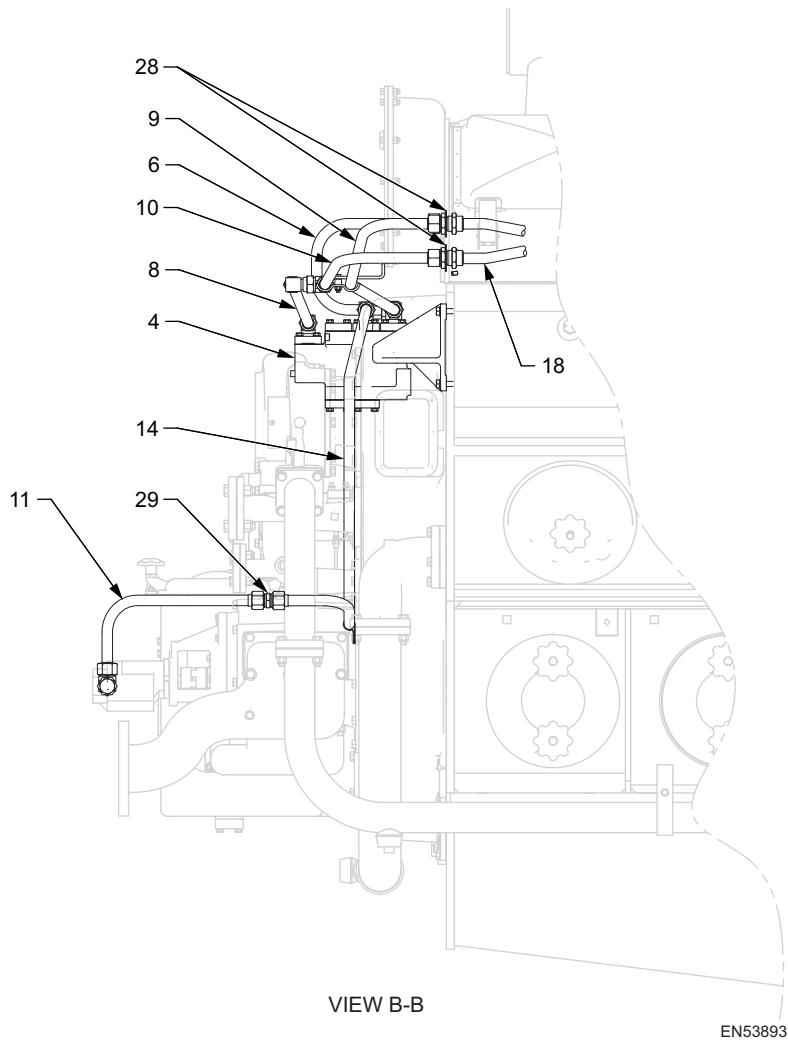


VIEW D-D



EN55934

Fuel Oil Piping (continued)

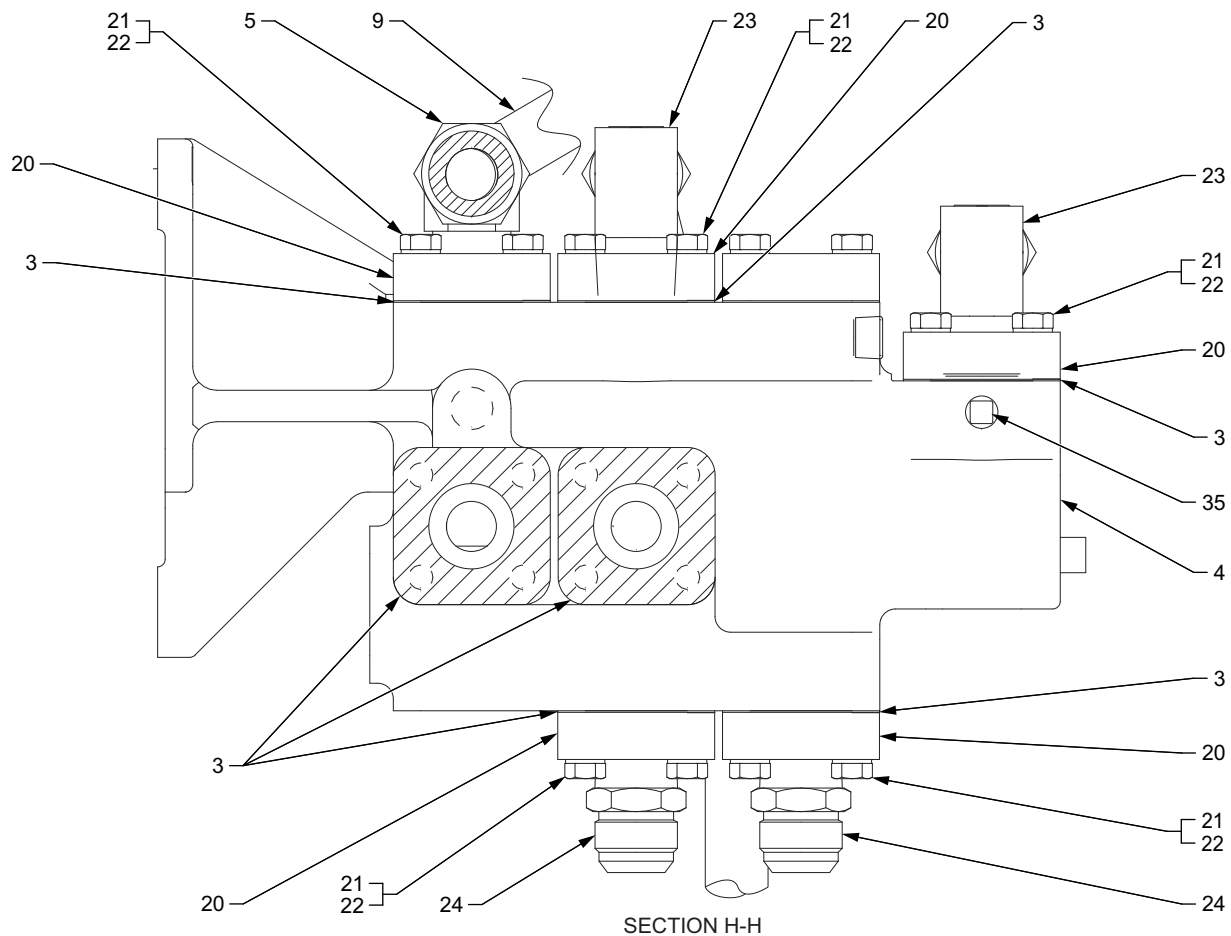


A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
25-17	40067212	1	MANIFOLD ASSEMBLY.. Fuel line - Right bank
-18	40067214	1	MANIFOLD ASSEMBLY.. Fuel line - Left bank
-19	40061536	40	SEAL.. O-ring

40134513A

Fuel Oil Piping (continued)



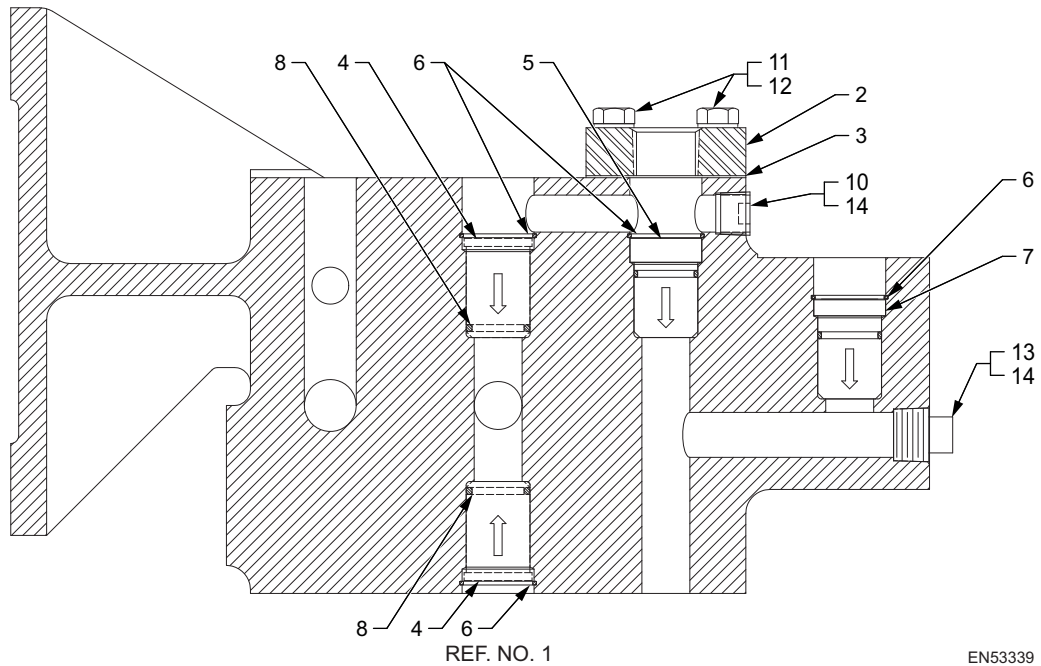
EN55935

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
25-20	40086434	5	FLANGE..
-21	179841	20	BOLT.. Hex head 3/8-16 x 1-1/4
-22	6101225	32	WASHER.. Flat 3/8
-23	9402869	2	ELBOW.. 1HYD x 1PT
-24	9402713	2	CONNECTOR.. 1HYD
-25	179849	4	BOLT.. Hex head 3/8-16 x 2-1/2
-26	179839	4	BOLT.. Hex head 3/8-16 x 1
-27	40060010	4	CONNECTOR.. 16FS - 16FSBH
-28	40056198	8	WASHER.. Flat 1-7/16
-29	9402791	1	UNION.. 1 HYD
-30	180083	2	BOLT.. Hex head 5/16-18 x 1-1/2
-31	40055059	40	CLAMP.. Manifold - Fuel line
-32	179850	20	BOLT.. Hex head 3/8-16 x 2-3/4
-33	103341	20	WASHER.. Flat 3/8
-34	9416513	20	NUT.. Hex lock 3/8-16
-35	103878	1	PLUG.. Pipe 1/4 PT - Square socket
-36	40087372	40	RESTRICTOR.. Fuel - Threaded

40134513

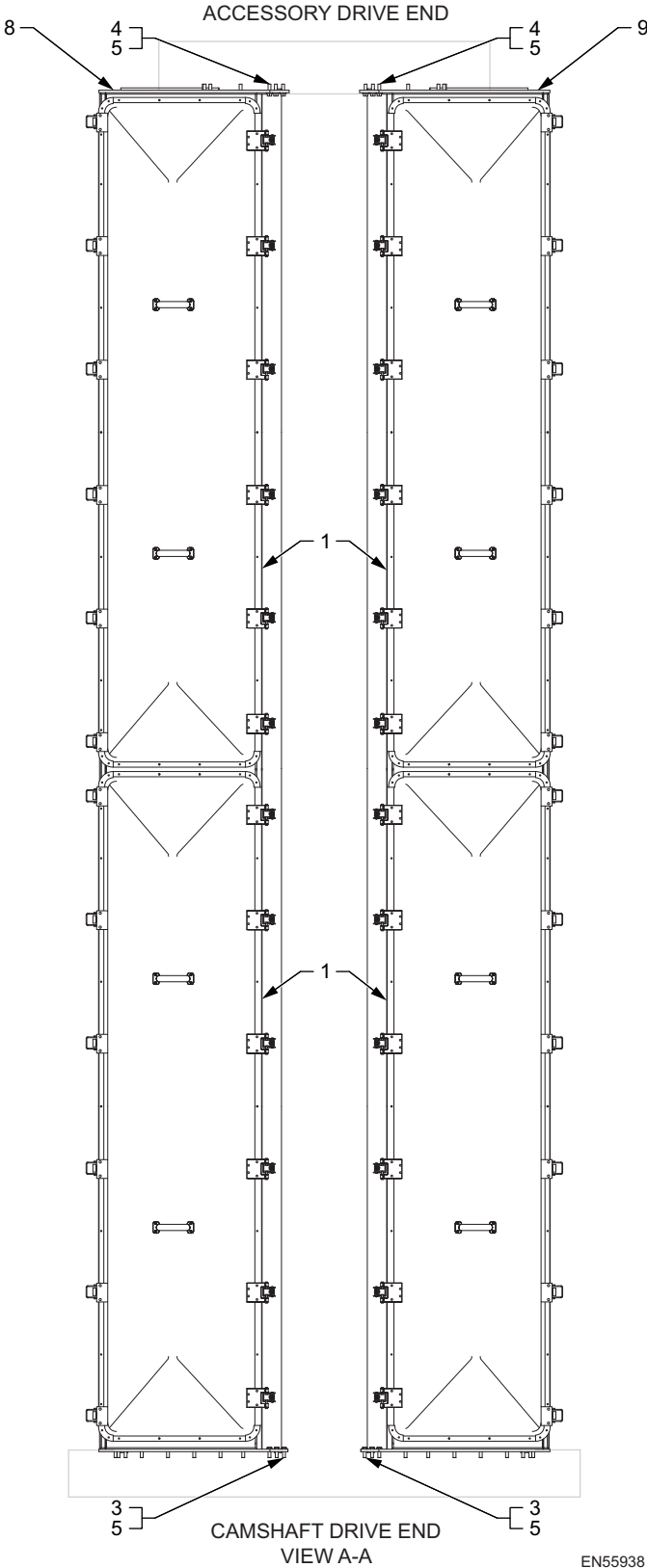
Fuel Filter Manifold



A minimum order quantity may apply. Please contact Customer Service to confirm.

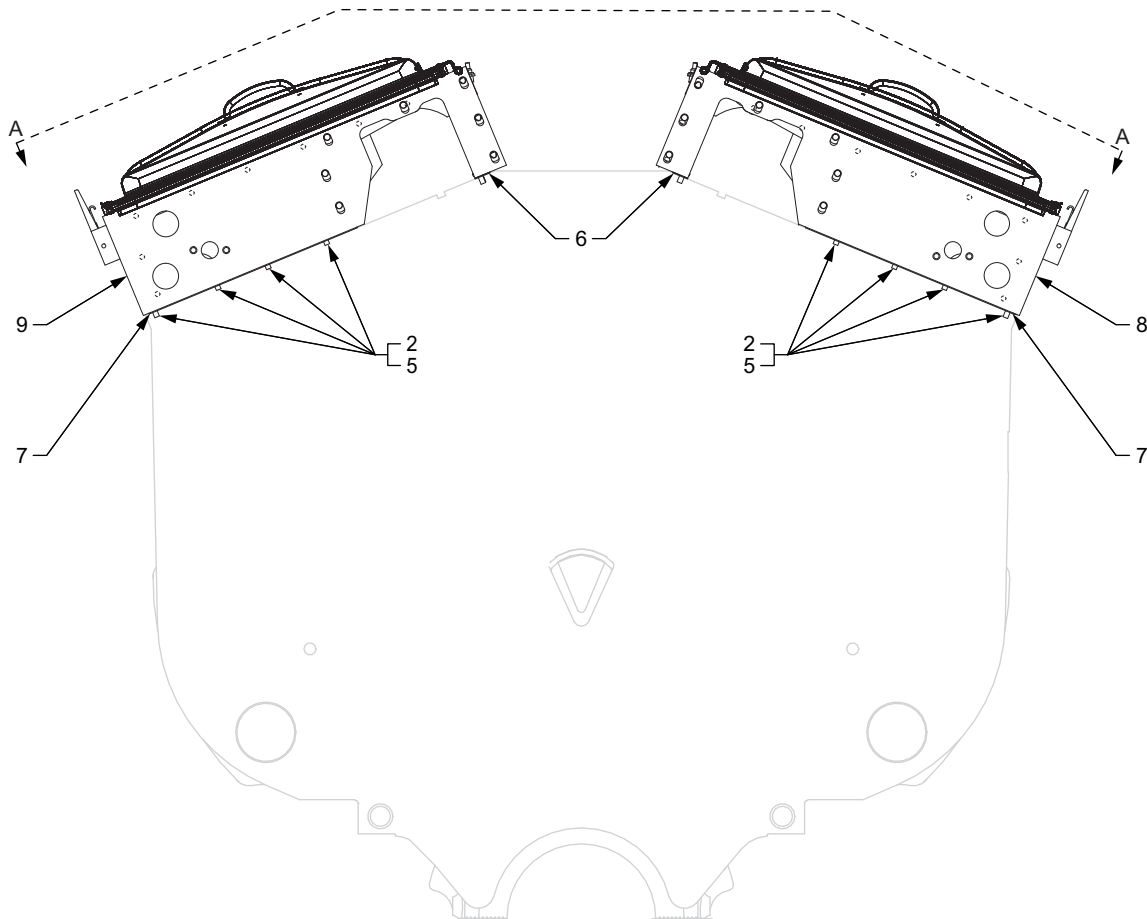
Asm - Ref.No.	Part Number	Qty.	Description
25-1	40127797	1	MANIFOLD ASSEMBLY.. Fuel - Includes integral mounting bracket
-2	8417792	1	FLANGE.. Blind
-3	40024937	1	GASKET.. Fuel manifold flange
-4	8429687	2	VALVE.. Check - 10 P.S.I.
-5	40087095	1	VALVE.. Relief
-6	9413377	4	RING.. Retaining - Check valve
-7	40127799	1	VALVE.. Relief
-8	8388642	2	SEAL.. O-ring - Fuel manifold
-9	103878	1	PLUG.. Pipe 1/4 PT - Square socket
-10	8348619	1	PLUG.. Pipe 3/8 PT - Square socket
-11	179841	4	BOLT.. Hex head 3/8-16 x 1-1/4
-12	6101225	4	WASHER.. Flat 3/8
-13	103880	1	PLUG.. Pipe - 1/2PT
-14	8458795	AR	SEALANT.. Thread - 1 liter - Applied to male threads

Assembly 26: CYLINDER HEAD COVER AND SUPPORT FRAME



EN55938

Cylinder Head And Support Frame (Continued)



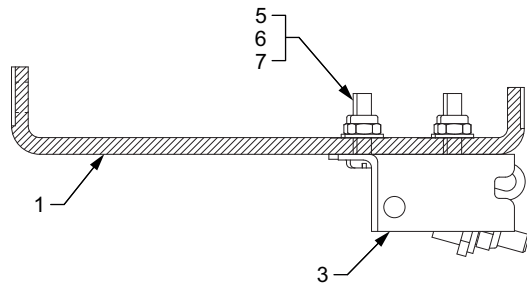
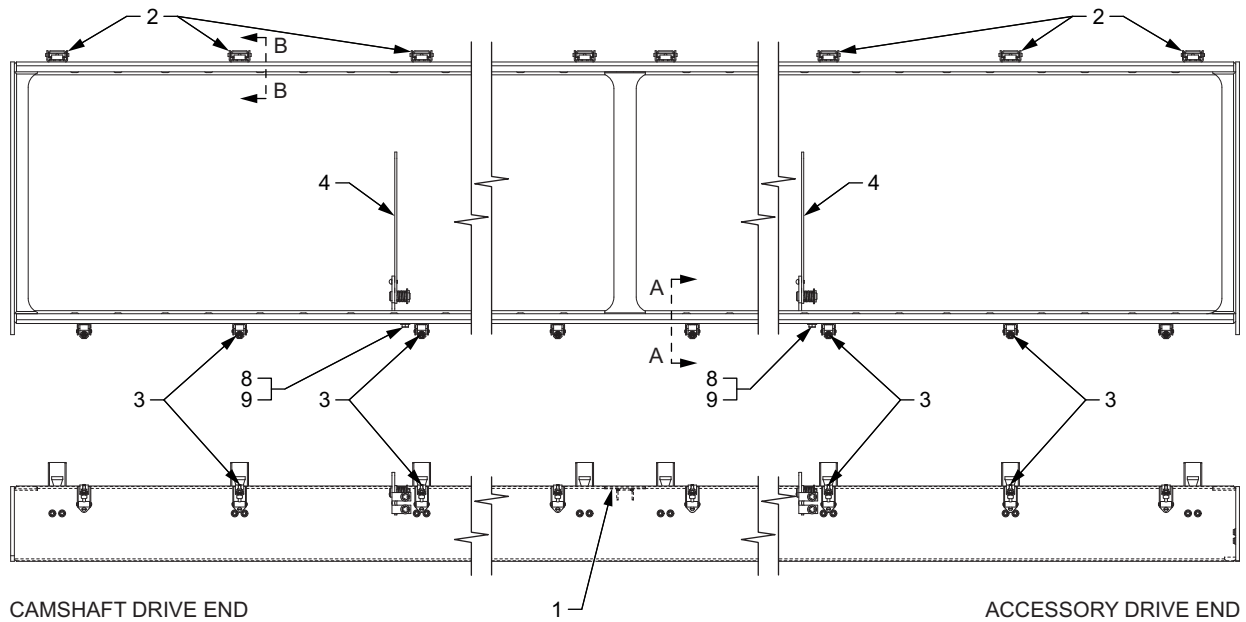
EN55937

A minimum order quantity may apply. Please contact Customer Service to confirm.

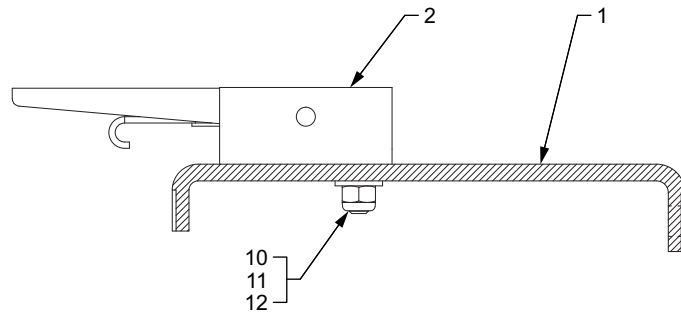
Asm - Ref. No.	Part Number	Qty.	Description
26-1	9581469	4	COVER ASSEMBLY.. Cylinder head - Includes seal - See page 1-84
-2	454911	182	BOLT.. Hex head 3/8-24 x 3/4 - Frame to crankcase
-3	181365	22	BOLT.. Hex head 3/8-24 x 1-1/8 - Frame to camshaft drive housing
-4	181370	14	BOLT.. Hex head 3/8-24 x 1-1/4 - Frame to overspeed trip housing
-5	9509486	218	WASHER.. Hardened - Special 3/8
-6	9570624	2	GASKET.. Cylinder head cover frame - Inner
-7	9570634	2	GASKET.. Cylinder head cover frame - Outer
-8	40151959	1	FRAME ASSEMBLY.. Cover - Left bank - See page 1-82
-9	40151960	1	FRAME ASSEMBLY.. Cover - Right bank - See page 1-83
-10	8425724	AR	GREASE.. Silicon - Cover seal to frame - 8 ounce tube (not shown)
-11	40036181	2	GASKET.. Cylinder head frame to camshaft drive housing (Optional to gasket 40040014 when only the head frame portion is to be replaced) - See page 1-88 (not shown)
-12	40003963	1	KIT.. Gasket - Cylinder head cover and support frame (not shown)

40063351A, 40153967

Left Bank Support Frame Assembly



SECTION A-A



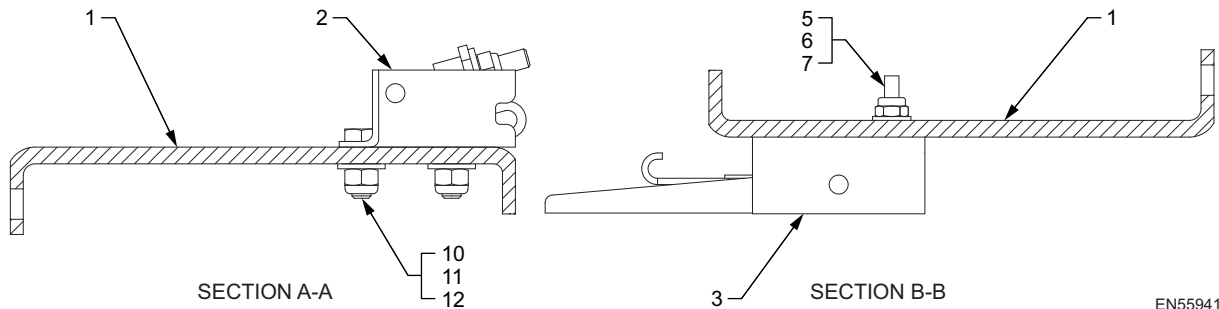
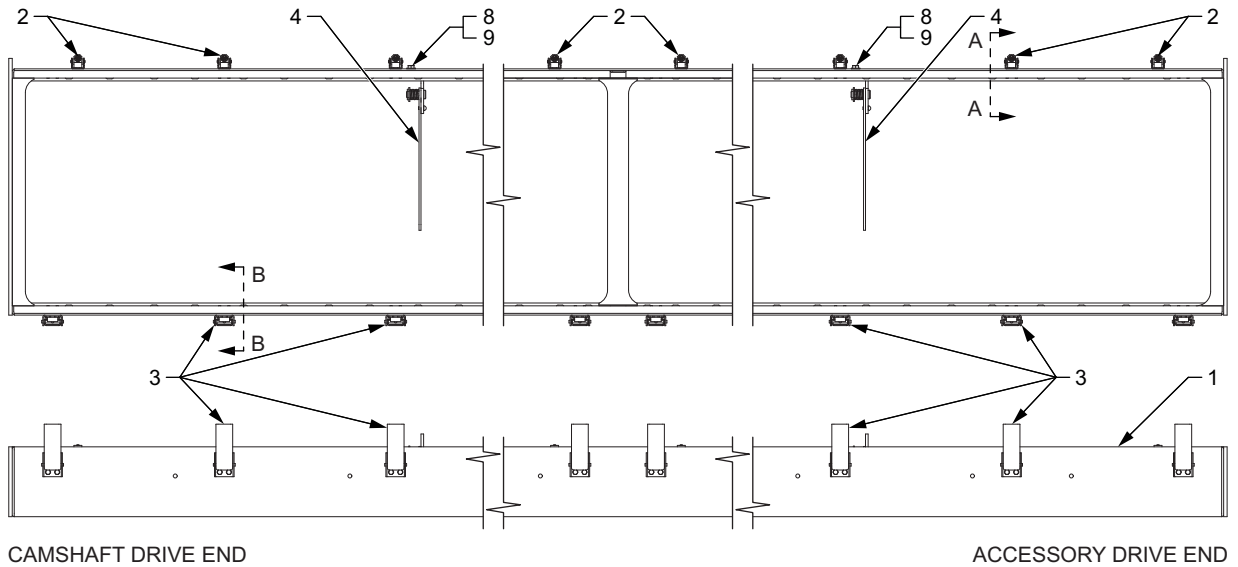
SECTION B-B

EN55940

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
26-1	40151959	1	FRAME ASSEMBLY.. Cover - Left bank
-2	8498896	12	LATCH ASSEMBLY.. Outside
-3	9580814	12	LATCH ASSEMBLY.. Inside - See page 1-85
-4	40050462	2	SUPPORT ASSEMBLY.. Top deck cover latch - See page 1-85
-5	436591	24	SCREW.. Slotted pan head 10-32 x 7/8
-6	8032813	24	NUT.. Hex lock 10-32
-7	446186	24	WASHER.. Flat No. 10
-8	181361	4	BOLT.. Hex head 3/8-24 x 7/8
-9	116103	4	WASHER.. Flat 3/8
-10	181313	24	BOLT.. Hex head 1/4-28 x 3/4
-11	8032715	24	NUT.. Hex lock 1/4-28
-12	116102	24	WASHER.. Flat 1/4

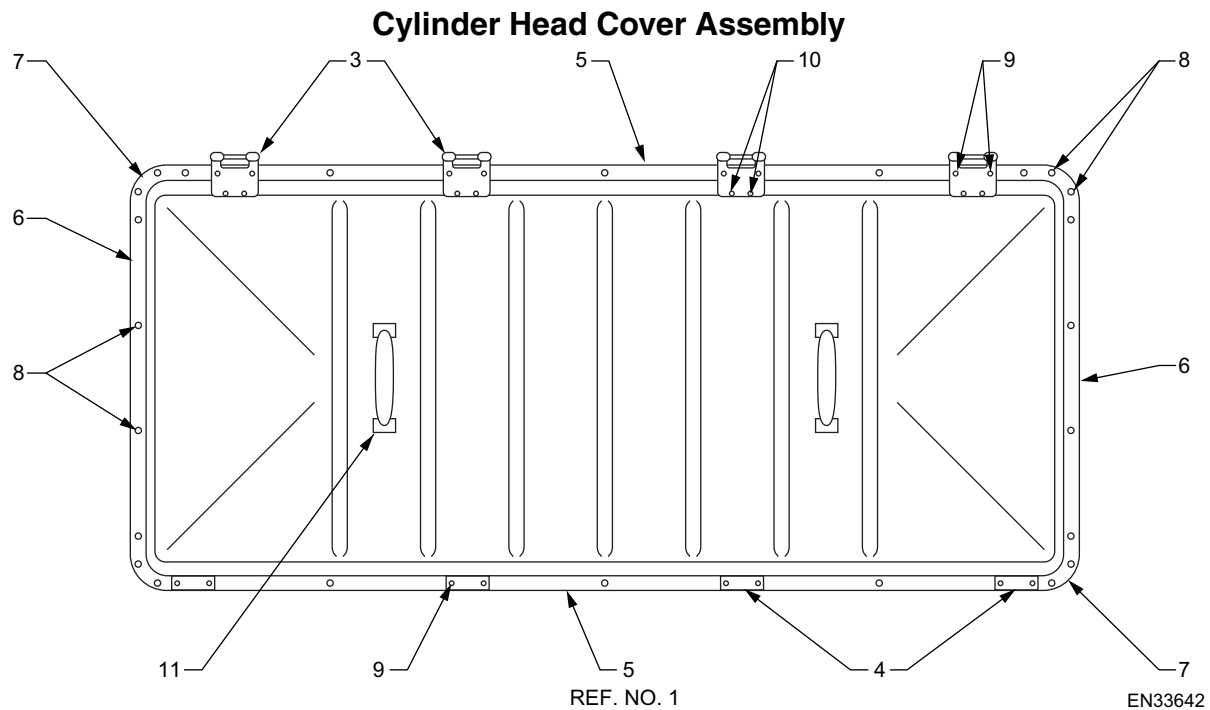
Right Bank Support Frame Assembly



EN55941

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
26-1	40151960	1	FRAME ASSEMBLY.. Cover - Right bank
-2	9580814	12	LATCH ASSEMBLY.. Inside - See page 1-85
-3	8498896	12	LATCH ASSEMBLY.. Outside
-4	40050462	2	SUPPORT ASSEMBLY.. Top deck cover latch - See page 1-85
-5	436591	24	SCREW.. Slotted pan head 10-32 x 7/8
-6	8032813	24	NUT.. Hex lock 10-32
-7	446186	24	WASHER.. Flat No. 10
-8	181361	4	BOLT.. Hex head 3/8-24 x 7/8
-9	116103	4	WASHER.. Flat 3/8
-10	181313	24	BOLT.. Hex head 1/4-28 x 3/4
-11	8032715	24	NUT.. Hex lock 1/4-28
-12	116102	24	WASHER.. Flat 1/4

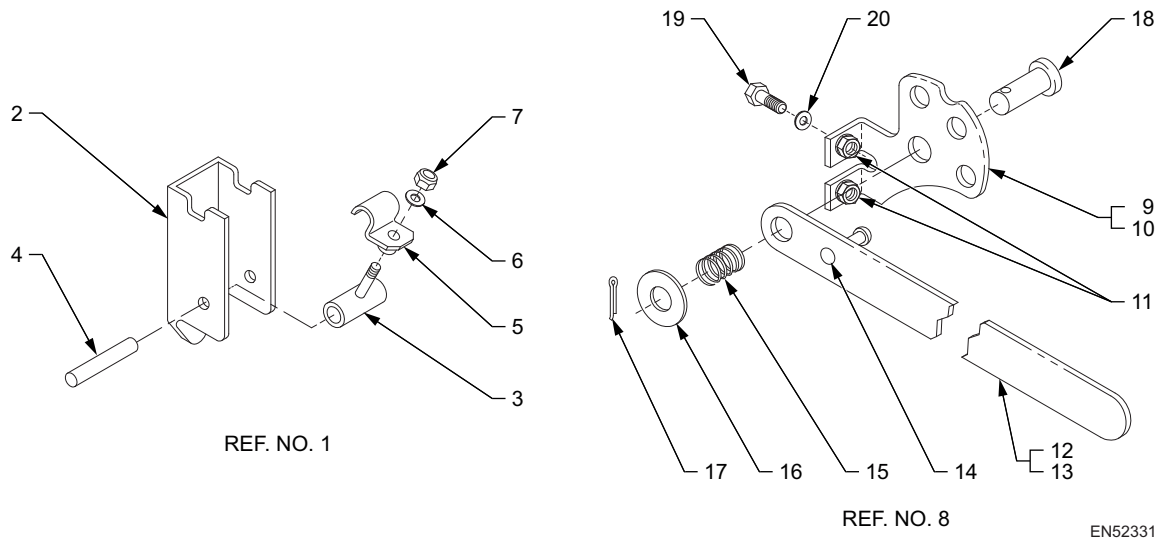


A minimum order quantity may apply. Please contact Customer Service to confirm.

Note: There are four (4) Cylinder Head Covers per Engine.

Asm - Ref.No.	Part Number	Qty.	Description
26-1	9581469	1	COVER ASSEMBLY.. Cylinder head - Includes seal
-2	9579968	1	COVER ASSEMBLY..
-3	9544762	6	HINGE.. Cover - Includes pin
-4	40152744	6	HOOK.. Clamp
-5	9547406	2	RETAINER.. Cover seal - Side
-6	9544761	2	RETAINER.. Cover seal - End
-7	9535491	4	CORNER.. Cover seal
-8	9440189	28	RIVET.. Flat head 1/8 x 1/2
-9	9440188	24	RIVET.. Flat head 1/8 x 5/8
-10	101890	32	RIVET.. Round head 3/16 x 3/8
-11	8031902	2	HANDLE.. Cover
-12	40003962	1	SEAL.. Cylinder head cover (not shown)
-13	9531766	AR	COMPOUND.. Sealing - 10.5 ounce tube - Cover seals to retainers

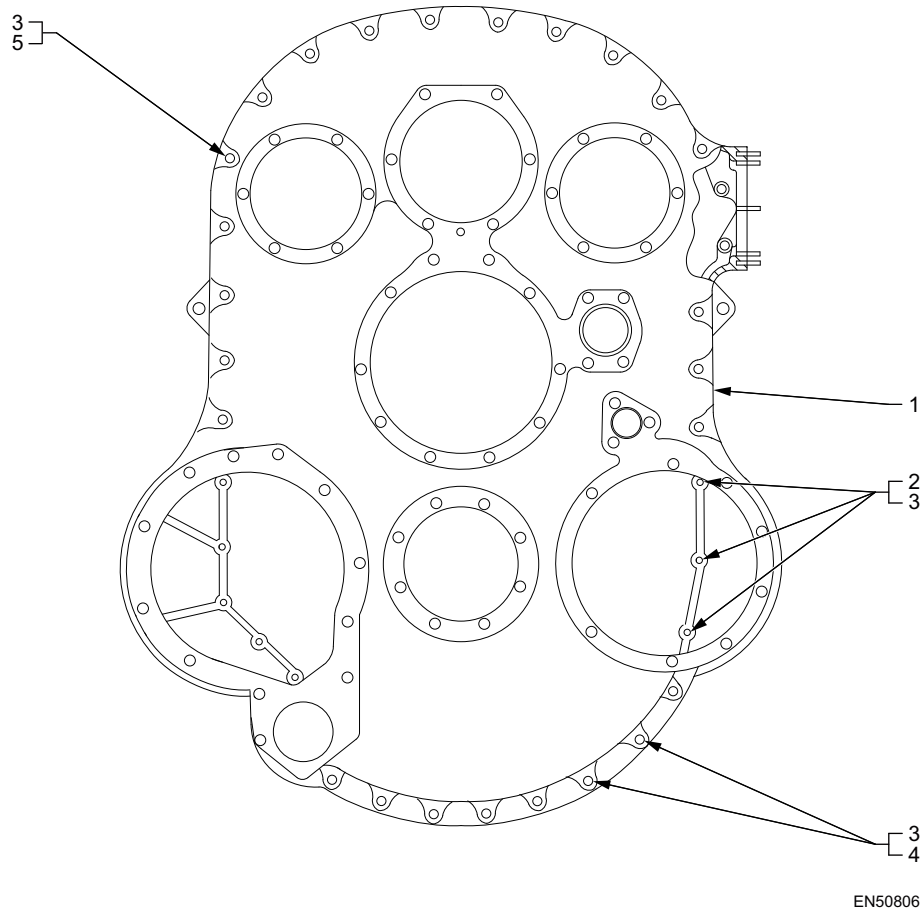
Cylinder Head Cover And Support



A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
26-1	9580814	1	LATCH ASSEMBLY.. Outside - Camshaft drive end
-2	9544965	1	BRACKET.. Mounting
-3	9094559	1	HINGE.. Latch
-4	8172822	1	PIN.. 7/32 x 1.160
-5	9094541	1	LATCH.. Clamping
-6	103339	1	WASHER.. Flat 1/4
-7	9416509	1	NUT.. Hex lock 1/4-20
-8	40050462	1	SUPPORT ASSEMBLY.. Cylinder head cover (not shown assembled)
-9	40050461	1	BRACKET ASSEMBLY.. Mounting
-10	40050460	1	BRACKET .. Cover support
-11	8209300	2	NUT.. Spline 3/8-24
-12	40044200	1	ARM ASSEMBLY.. Cover support
-13	9576726	1	ARM.. Support
-14	40044201	1	PIN.. 1/4 Button
-15	8202272	1	SPRING.. Coil
-16	103345	1	WASHER.. Flat 5/8
-17	103385	1	PIN.. Cotter 1/8 x 1
-18	114788	1	PIN.. Clevis
-19	181361	4	BOLT.. Hex head 3/8-24 x 7/8
-20	116103	4	WASHER.. Flat 3/8

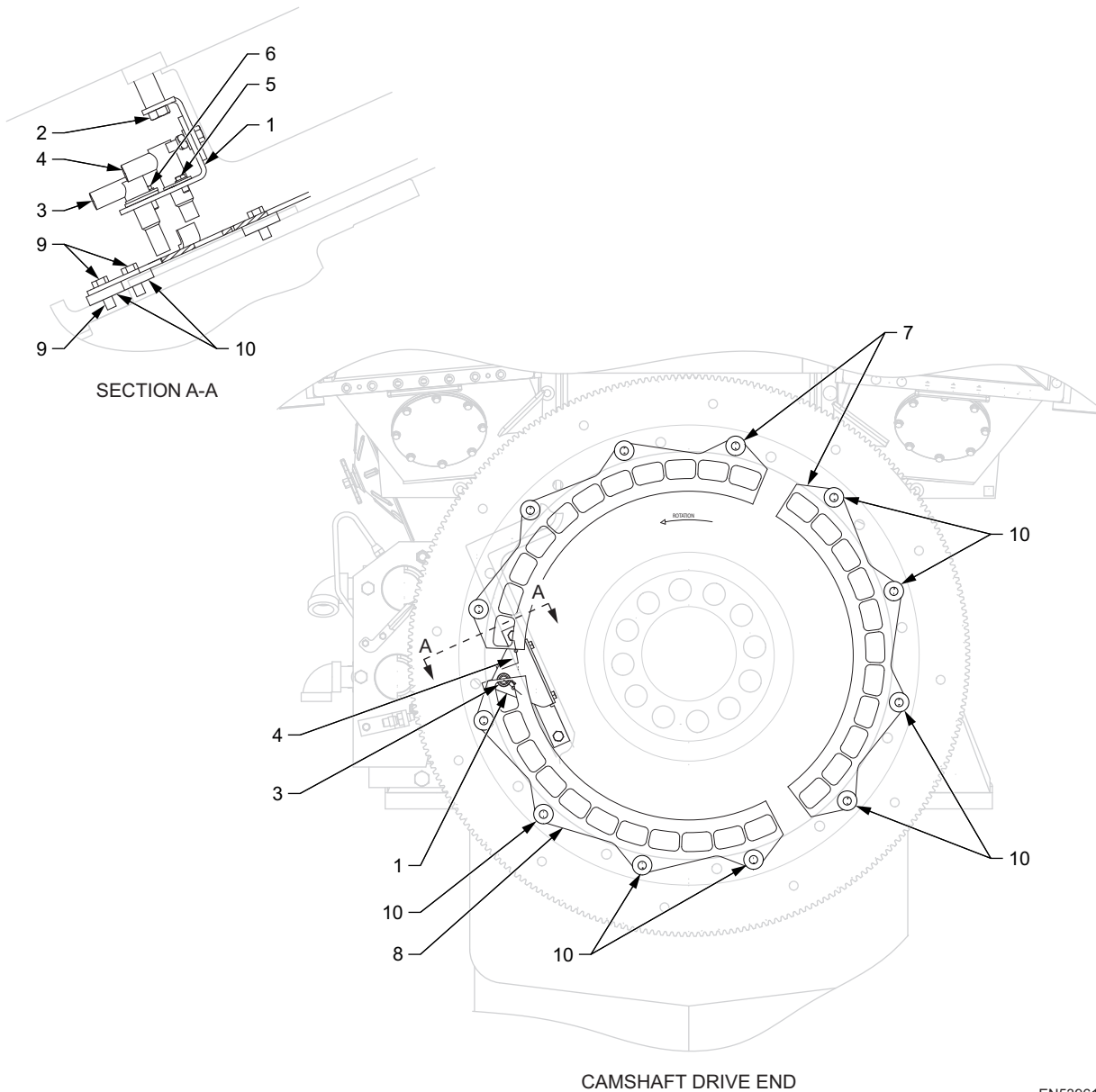
Assembly 27: ACCESSORY DRIVE HOUSING ASSEMBLY



A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
27-1	40040015	1	GASKET.. Accessory drive housing to crankcase
-2	181433	16	BOLT.. Hex head 1/2-20 x 1-3/4
-3	6101229	43	WASHER.. Flat 1/2
-4	40110047	10	BOLT.. Hex head 1/2-20 x 2 - Special
-5	181446	17	BOLT.. Hex head 1/2-20 x 4

Assembly 28: ENGINE TIMING TARGETS Target Application



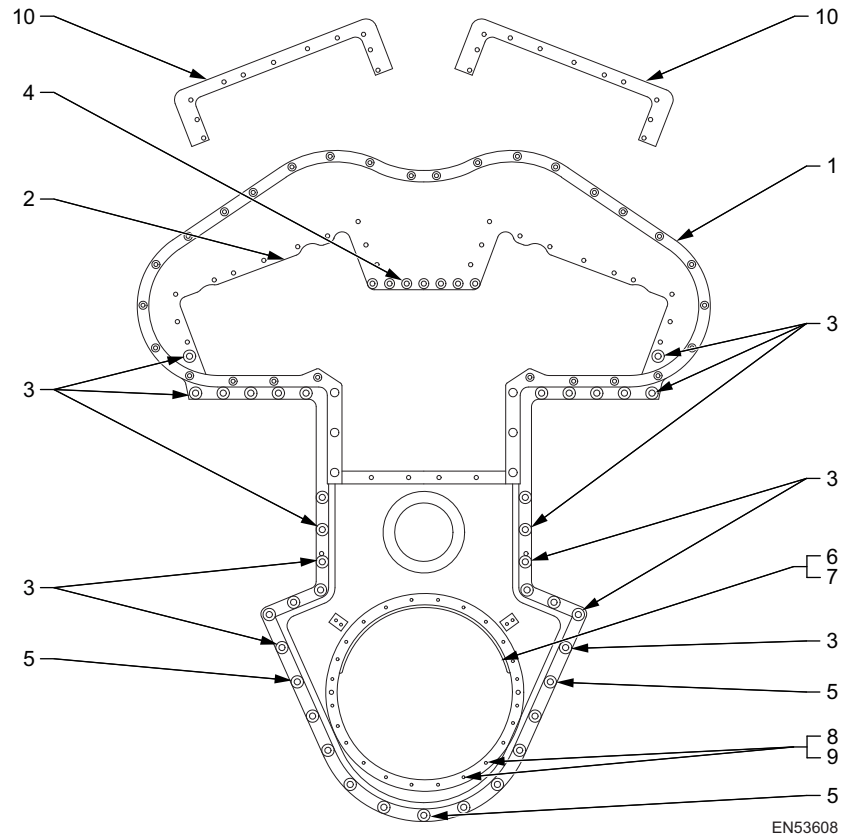
EN53961

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
28-1	40129415	1	BRACKET ASSEMBLY.. Sensor - Timing and synchronous reference - TRS/SRS
-2	181443	2	BOLT.. Hex head 1/2-20 x 3-1/4 - Bracket mounting
-3	8929388	1	SENSOR ASSEMBLY.. Timing reference - TRS
-4	8929387	1	SENSOR ASSEMBLY.. Synchronous reference - SRS
-5	9420156	1	SCREW.. Hex head washer 1/4-20 x 1/2 - Sensor mounting - Tapping
-6	9419874	1	SCREW.. Hex head washer 1/4-20 x 3/4 - Sensor mounting - Tapping
-7	40051297	2	TARGET.. TRS
-8	40145341	1	TARGET ASSEMBLY.. TRS/SRS - Target mounting
-9	179839	12	BOLT.. Hex head 3/8-16 x 1
-10	40129312	12	SPACER.. Timing target

40129311A

Assembly 29: CAMSHAFT DRIVE HOUSING AND COVER

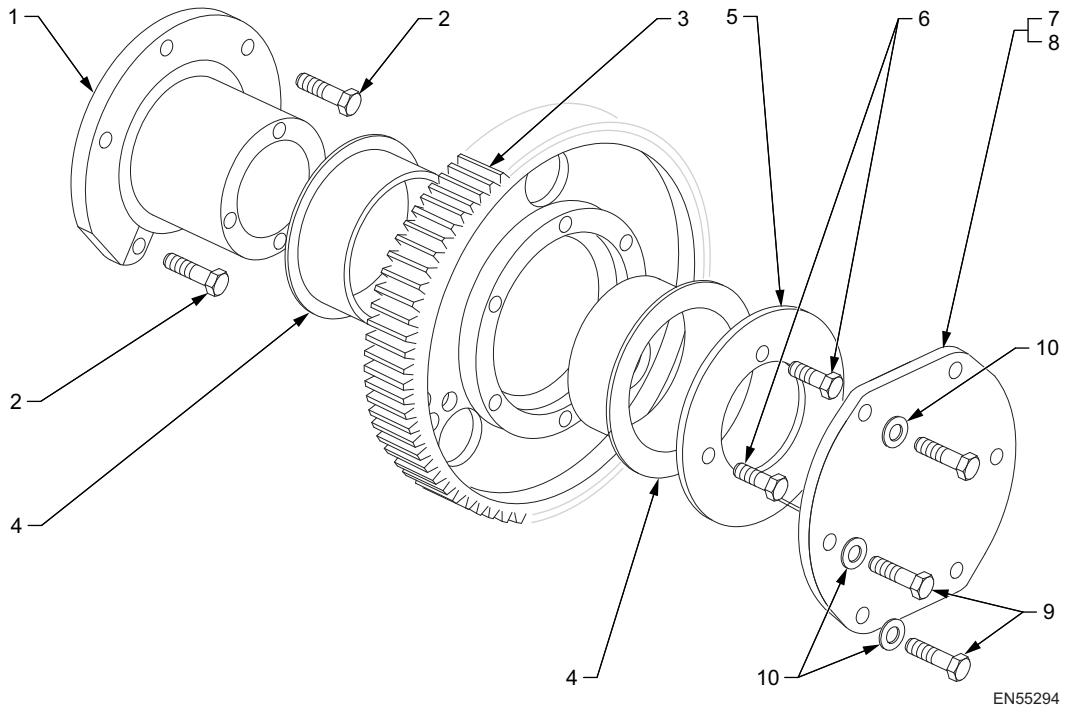


A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
29-1	9544069	1	HOUSING ASSEMBLY.. Camshaft drive
-2	40040014	1	GASKET.. Camshaft drive housing to crankcase
-3	40130527	28	BOLT.. Hex head 1/2-20 x 1-1/4 - Special
-4	40130525	7	BOLT.. Hex head 1/2-20 x 1 - Special
-5	40110048	11	BOLT.. Hex head 1/2-20 x 1-3/4 - Special
-6	8175731	1	RETAINER.. Oil seal
-7	9570645	1	GASKET.. Housing oil seal retainer
-8	181370	24	BOLT.. Hex head 3/8-24 x 1-1/4
-9	6101225	24	WASHER.. Flat 3/8
-10	40036181	2	GASKET.. Cylinder head frame to camshaft drive housing - Optional to 40040014 gasket when only the head frame portion is to be replaced

40139070D

Assembly 30: GOVERNOR DRIVE GEAR Governor Drive Gear Application

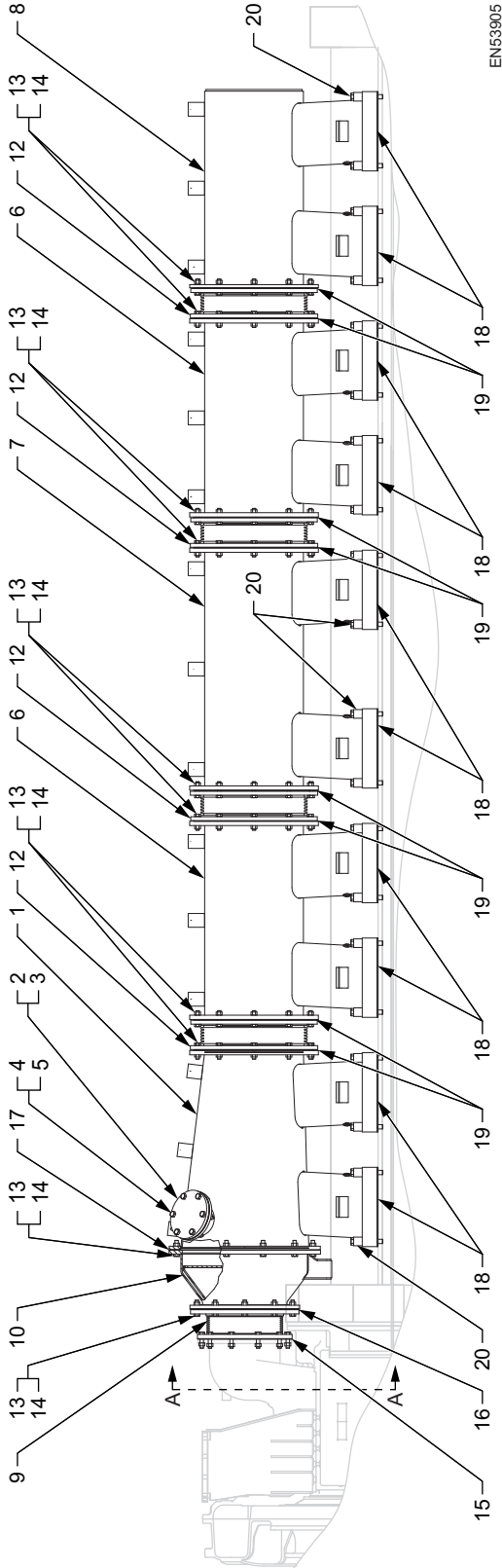


A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
30-1	8084468	1	STUBSHAFT.. Governor drive gear
-2	40130526	5	BOLT.. Hex head 1/2-20 x 1-1/8 - Special
-3	40059888	1	GEAR ASSEMBLY.. Governor drive - 113
-4	8039671	2	BUSHING.. Drive gear - 6-1/8 O.D.
-5	8028188	1	RETAINER.. Plate
-6	40130520	4	BOLT.. Hex head 3/8-24 x 7/8 - Special
-7	40051209	1	COVER.. Governor drive
-8	40040024	1	GASKET.. Governor drive cover
-9	181433	6	BOLT.. Hex head 1/2-20 x 1-3/4 - Governor drive cover mounting
-10	6101229	6	WASHER.. Flat - 1/2 <i>NOTE: With EUI application, 8041930 Gear Assembly is used to drive water pumps only.</i>

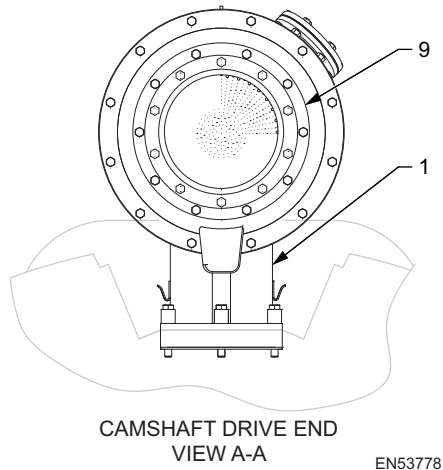
40139070D

Assembly 31: EXHAUST CHAMBER



EN53905

Exhaust Chamber (continued)

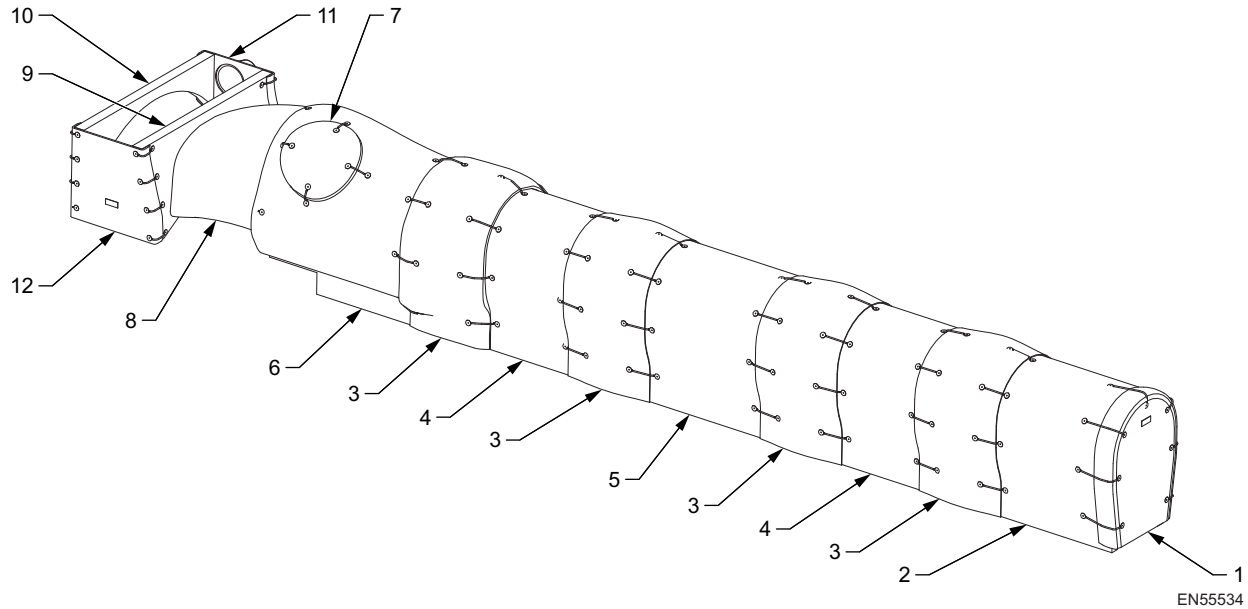


A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
31-1	40129063	1	CHAMBER ASSEMBLY.. Exhaust - Rear
-2	9571663	1	GASKET.. Cover flange to manifold flange
-3	9316673	1	FLANGE.. Cover
-4	8287827	6	BOLT.. Hex head 1/2-20 x 2 - Flange cover mounting
-5	9338626	6	NUT.. Special 1/2-20
-6	40138918	2	CHAMBER ASSEMBLY.. Exhaust - Intermediate
-7	40139103	1	CHAMBER ASSEMBLY.. Exhaust - Center
-8	40129060	1	CHAMBER ASSEMBLY.. Exhaust - Front
-9	8408987	1	JOINT ASSEMBLY.. Adapter to turbocharger
-10	40155140	1	SCREEN ASSEMBLY.. Turbo - Adapter
-11	40050063	1	SCREEN.. Starburst (not shown)
-12	8408985	4	JOINT ASSEMBLY.. Expansion
-13	8287827	112	BOLT.. Hex head 1/2-20 x 2 - Expansion joint and adapter mounting See Pointer for torque
-14	9338626	112	NUT.. Special 1/2-20
-15	40026939	1	GASKET.. Expansion joint to turbocharger
-16	40026938	1	GASKET.. Adapter and screen assembly to expansion joint
-17	40026936	1	GASKET.. Chamber to adapter
-18	40055466	10	GASKET.. Exhaust manifold leg mounting
-19	40026937	8	GASKET.. Expansion joint to chamber
-20	40055467	60	BOLT AND SPACER ASSEMBLY.. Hex head 5/8-18 x 3-1/4 Chamber to crankcase mounting
-21	8278929	AR	COMPOUND.. Thread - High temperature - 1 quart

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Assembly 32: EXHAUST INSULATION APPLICATION

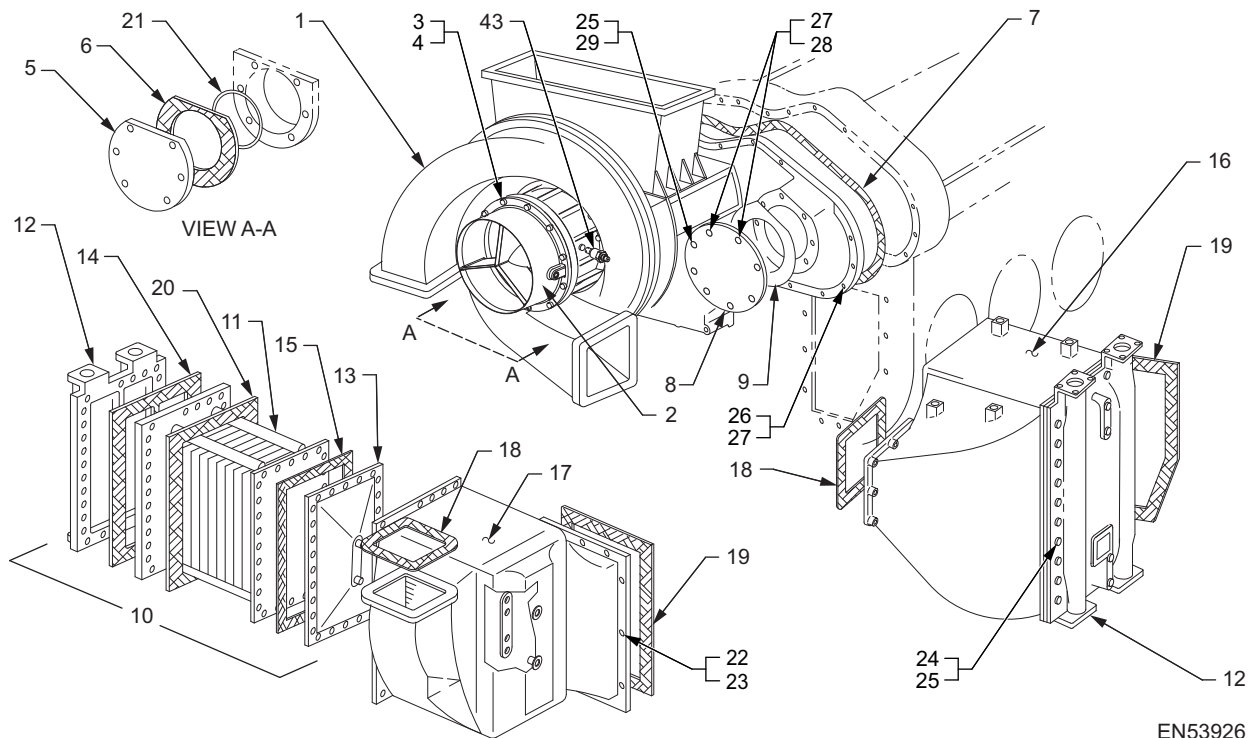


A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
32-1	40148325	1	INSULATION.. Exhaust chamber - Front end
-2	40148322	1	INSULATION.. Exhaust chamber - Front
-3	40148323	4	INSULATION.. Exhaust chamber - Intermediate
-4	40148320	2	INSULATION.. Exhaust chamber - Center intermediate
-5	40148321	1	INSULATION.. Exhaust chamber - Center
-6	40148324	1	INSULATION.. Exhaust chamber - Rear
-7	40148326	1	INSULATION.. Exhaust chamber - Inspection cover
-8	40148327	1	INSULATION.. Screen assembly - Turbo adapter
-9	40148329	1	INSULATION.. Exhaust stack - Front
-10	40148330	1	INSULATION.. Exhaust stack - Rear
-11	40148328	1	INSULATION.. Exhaust stack - Left side
-12	40148331	1	INSULATION.. Exhaust stack - Right side

40148319A

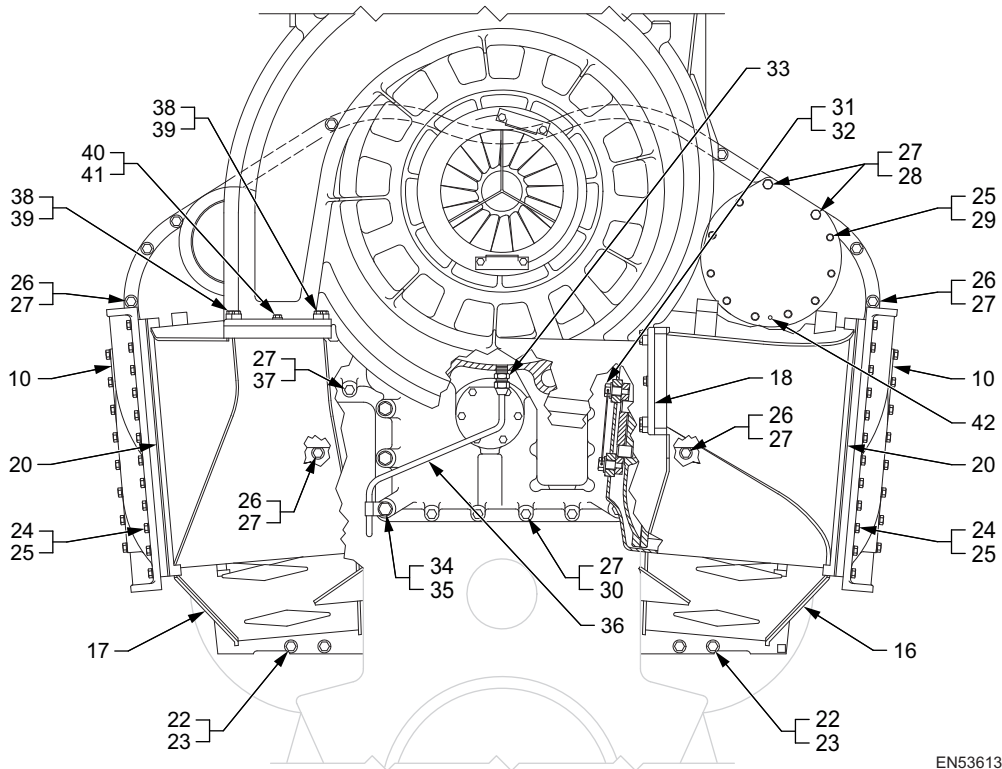
Assembly 33: TURBOCHARGER APPLICATION



A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
33-1	40144401	1	TURBOCHARGER ASSEMBLY.. Engine 17.1:1 L20-710G7C-T2
-2	40052831	1	DUCT.. Air inlet
-3	186619	11	BOLT.. Hex head 3/8-18 x 1-1/8
-4	6101225	11	WASHER.. Flat 3/8
-5	8261198	1	COVER.. Engine stubshaft
-6	40040020	1	GASKET.. Engine stubshaft cover
-7	40040027	1	GASKET.. Turbocharger mounting
-8	8271725	1	PLATE.. Blind
-9	40040021	1	GASKET.. Blind plate to turbocharger
-10	40113591	2	AFTERCOOLER ASSEMBLY.. Turbocharger
-10	40107446	2	AFTERCOOLER ASSEMBLY.. UTEX - Turbocharger (Optional to 40113591)
-11	40020886	2	CORE ASSEMBLY.. Aftercooler
-12	40054406	2	HEADER.. Aftercooler core
-13	40020883	2	TANK.. Return
-14	40046695	2	GASKET.. Header to core
-15	40040016	2	GASKET.. Tank to core
-16	9546655	1	DUCT.. Heat exchanger - Right bank
-17	9546222	1	DUCT.. Heat exchanger - Left bank
-18	40034637	2	GASKET.. Air duct to turbocharger
-19	40028613	2	GASKET.. Air duct to engine
-20	40040012	2	GASKET.. Air duct to aftercooler
-21	8294874	1	SEAL.. O-ring - Stubshaft

Turbocharger Application (continued)



A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
33-22	181433	20	BOLT.. Hex head 1/2-20 x 1-3/4 - Air duct to engine
-23	40028615	20	SPACER.. Clamp
-24	186485	48	BOLT.. Hex head 3/8-24 x 1-3/4 Aftercooler to air duct
-25	6101225	57	WASHER.. Flat 3/8
-26	181429	27	BOLT.. Hex head 1/2-20 x 1-1/4 - Turbocharger mounting
-27	6101229	35	WASHER.. Flat 1/2
-28	186338	2	BOLT.. Hex head 1/2-20 x 5 - Blind plate mounting
-29	179841	9	BOLT.. Hex head 3/8-16 x 1-1/4 - Blind plate mounting
-30	186342	4	BOLT.. Hex head 1/2-20 x 6 - Turbocharger mounting
-31	8400470	4	BOLT.. Drilled hex head 5/8-18 x 1-5/8 - Air duct to support pad
-32	8282178	4	WASHER.. Special 5/8
-33	8027428	1	CONNECTOR.. 1/2 tube x 1/2PT - Brass
-34	8140912	6	WASHER.. Special 3/4
-35	8261288	6	BOLT.. Hex head 3/4-16 x 11-5/16 - Turbocharger mounting
-36	9535569	1	TUBE ASSEMBLY.. Drain
-37	181431	2	BOLT.. Hex head 1/2-20 x 1-1/2 - Turbocharger mounting
-38	454934	12	BOLT.. Hex head 7/16-14 x 2-1/2 - Air duct to turbocharger mounting
-39	40028614	12	SPACER.. Turbocharger - Steel - .750 O.D. x .479 I.D.
-40	9418045	4	BOLT.. Hex head 7/16-14 x 1-7/8 - Air duct to turbocharger mounting
-41	8460239	4	WASHER.. Flat 3/4
-42	103877	1	PLUG.. Pipe 1/8 PT - Square socket
-43	40038643	1	SENSOR.. Turbocharger speed
-44	9575135	1	KIT.. Gasket - Turbocharger changeout

40141399A

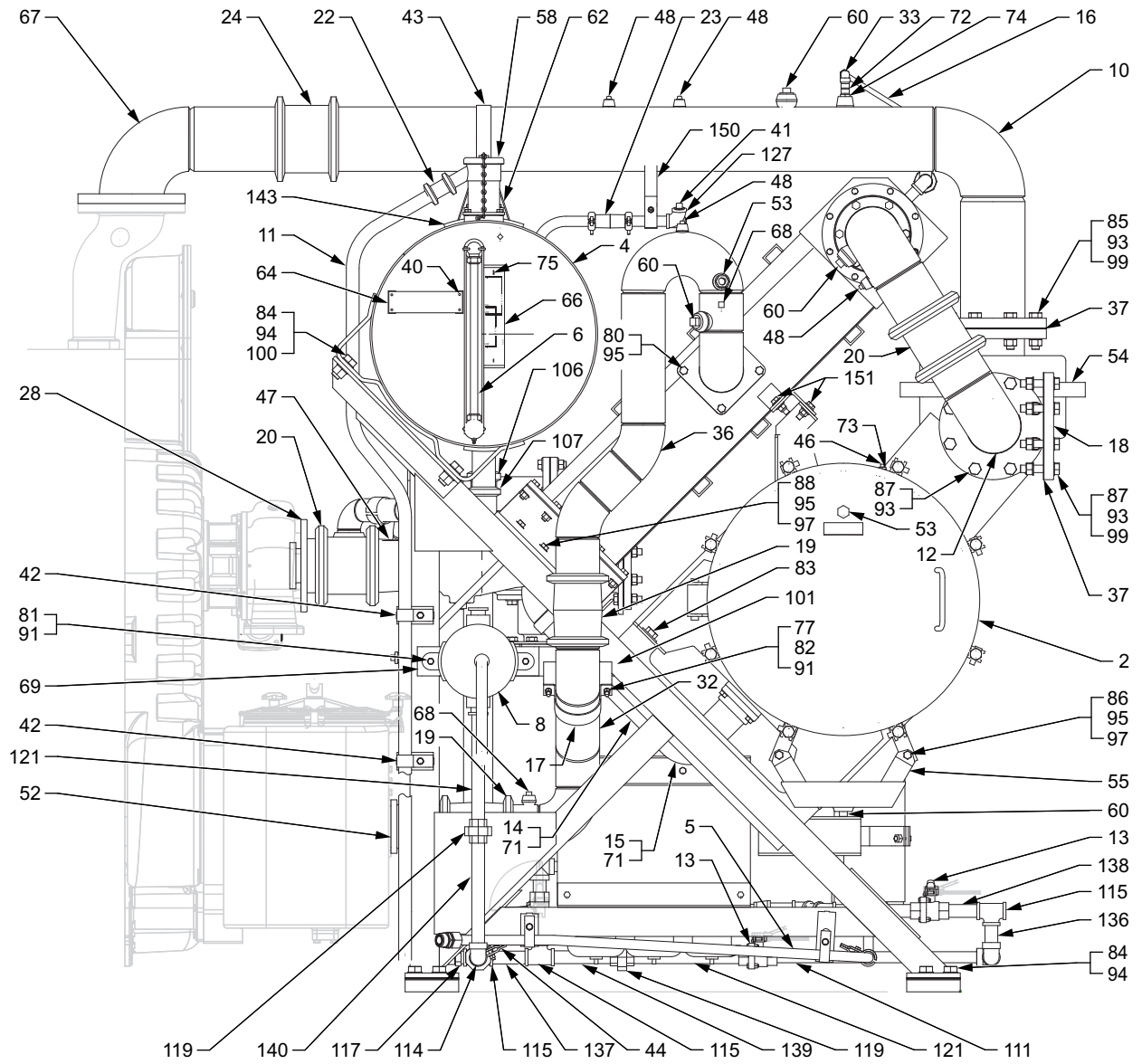
Assembly 34: ENGINE GASKET KIT INDEX

Asm - Ref.No.	Part Number	Qty.	Description
34-1	40036607	AR	KIT.. Cylinder test valve - See page 1-14 (not shown)
-2	40084383	1	KIT.. Main Bearing - Upper - See page 1-26 (not shown)
-3	40084384	1	KIT.. Main Bearing - Lower - See page 1-26 (not shown)
-4	40013995	1	KIT.. Air start motor cylinder - See page 1-35 (not shown)
-5	9522907	1	KIT.. Air start motor rotor vane - See page 1-35 (not shown)
-6	9566397	1	KIT.. Air start motor repair - See page 1-35 (not shown)
-7	9580741	AR	KIT.. Gasket - Strainer element - See page 1-57 (not shown)
-8	40052426	AR	KIT.. Gasket - Strainer assembly - See page 1-57 (not shown)
-9	9326240	1	KIT.. Water manifold support bracket - See page 1-67 (not shown)
-10	40113151	1	KIT.. Water pump application - Left bank - See page 1-67 (not shown)
-11	40113152	1	KIT.. Water pump application - Right bank - See page 1-67 (not shown)
-12	40057871	1	KIT.. Valve repair - See page 1-70 (not shown)
-13	40132533	1	KIT.. Water pump seal - See page 1-73 (not shown)
-14	40113153	1	KIT.. Water pump rebuild - See page 1-73 (not shown)
-15	40003963	1	KIT.. Gasket - Cylinder head cover and support frame - See page 1-81 (not shown)
-16	9575135	1	KIT.. Gasket - Turbocharger change out - See page 1-94 (not shown)

SECTION 2. ACCESSORY RACK

Assembly 35: ACCESSORY RACK SLAC APPLICATION	2-2
Accessory Rack Slac Application (continued).....	2-4
Accessory Rack Slac Application (continued).....	2-5
Accessory Rack Slac Application (continued).....	2-6
Accessory Rack Slac Application (continued).....	2-8
Oil Fill Piping Provision.....	2-10

Assembly 35: ACCESSORY RACK SLAC APPLICATION

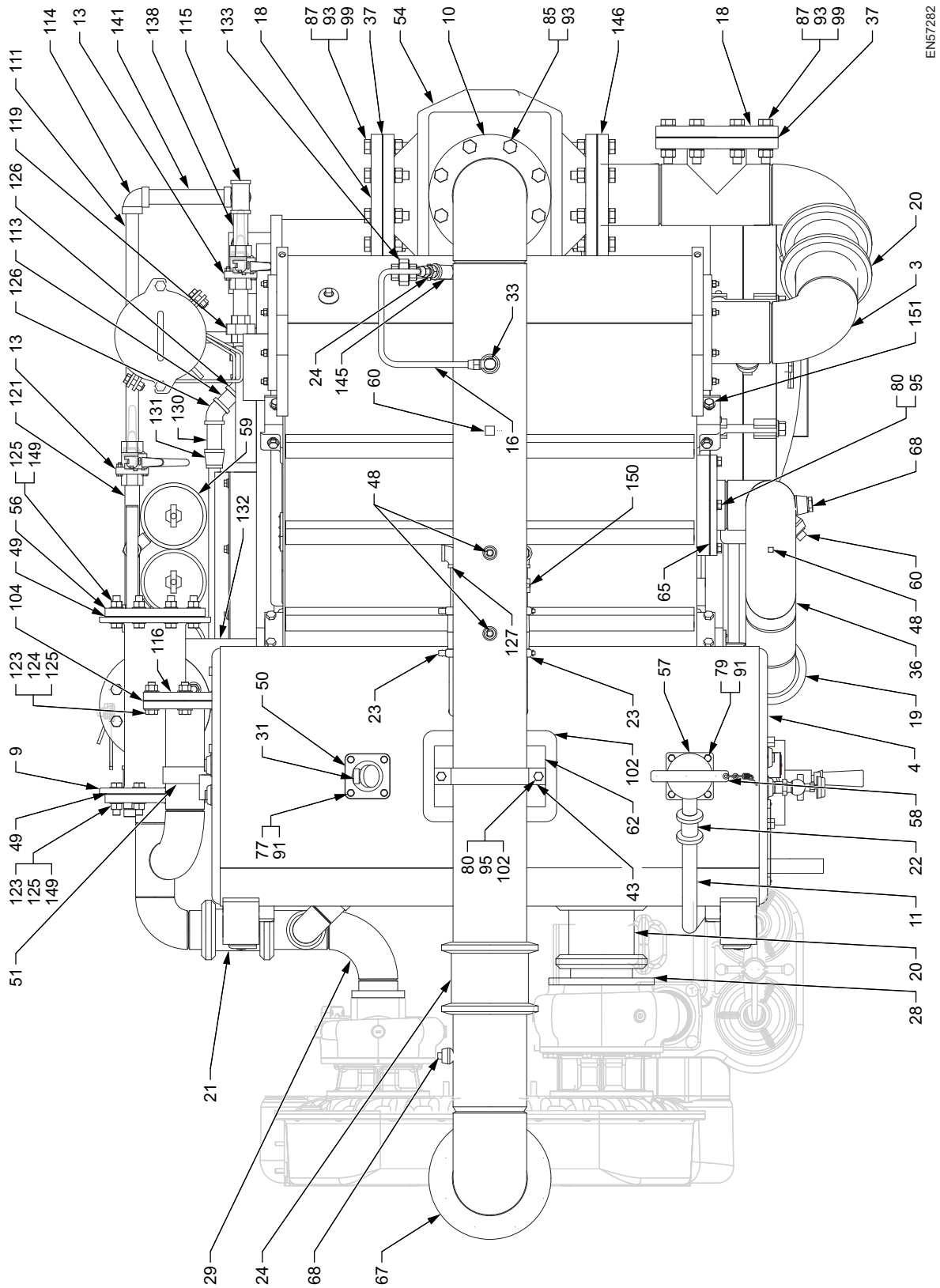


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A minimum order quantity may apply. Please contact Customer Service to confirm.

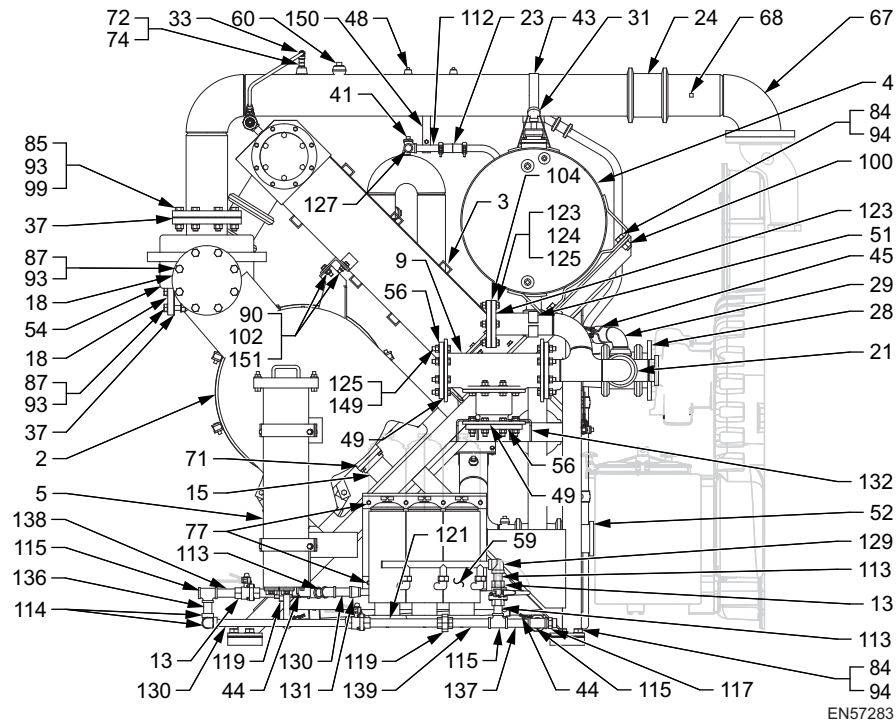
Asm - Ref. No.	Part Number	Qty.	Description
35-1	40148500	1	RACK ASM..
-2	9571306	1	FILTER ASSEMBLY.. Lube oil - See page 3-3
-3	40152989	1	COOLER ASSEMBLY.. Lube oil - See page 3-2
-4	40151857	1	TANK ASSEMBLY.. Water
-5	40152820	1	SOAK BACK FILTER APL..
-6	8157497	1	GAUGE ASSEMBLY.. Water level - Sightglass - See page 4-3
-7	9552644	1	OIL FILL PIPING PROVISION..
-8	9335073	1	PUMP ASSEMBLY.. Hand - Fuel priming
-9	9566855	1	VALVE.. AMOT - 170°
-10	40151855	1	PIPE ASSEMBLY..
-11	9568400	1	PIPE.. Fresh water overflow
-12	40153415	1	PIPE ASSEMBLY..
-13	8351609	3	VALVE.. Cutout - 1PT - Fuel strainer piping
-14	40016086	1	TUBE ASSEMBLY.. Lube oil filter to cooler
-15	40016087	1	TUBE ASSEMBLY.. Rack
-16	40063802	1	TUBE ASSEMBLY.. 1/2 inch O.D. x Approx. 22 inches - Includes (2) nuts
-17	8230815	1	CLAMP.. Pipe
-18	8446537	2	FLANGE.. static valve
-19	8252895	2	COUPLING ASSEMBLY.. Flexible - 4 inch
-20	9559099	2	COUPLING.. Flexible - 5 inch
-21	8471160	1	COUPLING.. Flexible - 3 inch
-22	8470340	1	COUPLING ASSEMBLY.. Flexible - 1 inch
-23	8470605	3	COUPLING .. Flexible -3/4 inch-Water tank
-24	8393725	1	COUPLING ASSEMBLY.. Flexible - 6 inch
-25	8189601	4	PAD
-26	8148262	4	PAD .. Tapping
-27	40015877	1	SHIM.. #20GA (not shown at this angle)
-28	40152317	1	PIPE ASSEMBLY..
-29	40152701	1	PIPE ASSEMBLY .. Water pump inlet
-30	8293437	1	VENTURI .. Water Inlet
-31	8446535	1	ELBOW.. Capped - 1/2
-32	40152532	1	PIPE ASSEMBLY.. Lube oil cooler
-33	8040352	1	ELBOW.. 1/2T x 1/2 FPT - Brass
-34	8040319	1	CONNECTOR.. 1/2T x 3/4PT - Brass
-35	40152768	1	PIPE ASSEMBLY.. (not shown)
-36	40152531	1	PIPE ASSEMBLY..
-37	8394067	4	GASKET.. Flange - Thermostatic valve
-38	8424925	1	GASKET.. Filler neck to water tank
-39	8461809	1	GASKET.. Level switch to water tank
-40	145372	4	SCREW.. Drive - Round head No.4 x 1/4
-41	103869	1	PLUG.. Pipe - 3/4PT
-42	8108117	2	CLAMP.. Conduit
-43	8393293	1	CLAMP.. Pipe - Thermo valve inlet
-44	8108217	3	CLAMP ASSEMBLY.. Pipe
-45	8184111	1	CLAMP AND HANGER ASSEMBLY.. Pipe
-46	103878	1	PLUG.. Pipe 1/4 PT - Square socket
-47	40165295	1	TEE.. Water Inlet
-48	103879	4	GASKET.. Pipe 3/8PT
-49	40055191	3	GASKET.. Flange - 4W
-50	8461358	1	SWITCH ASSEMBLY.. Level - Low water

Accessory Rack Slac Application (continued)



EN57282

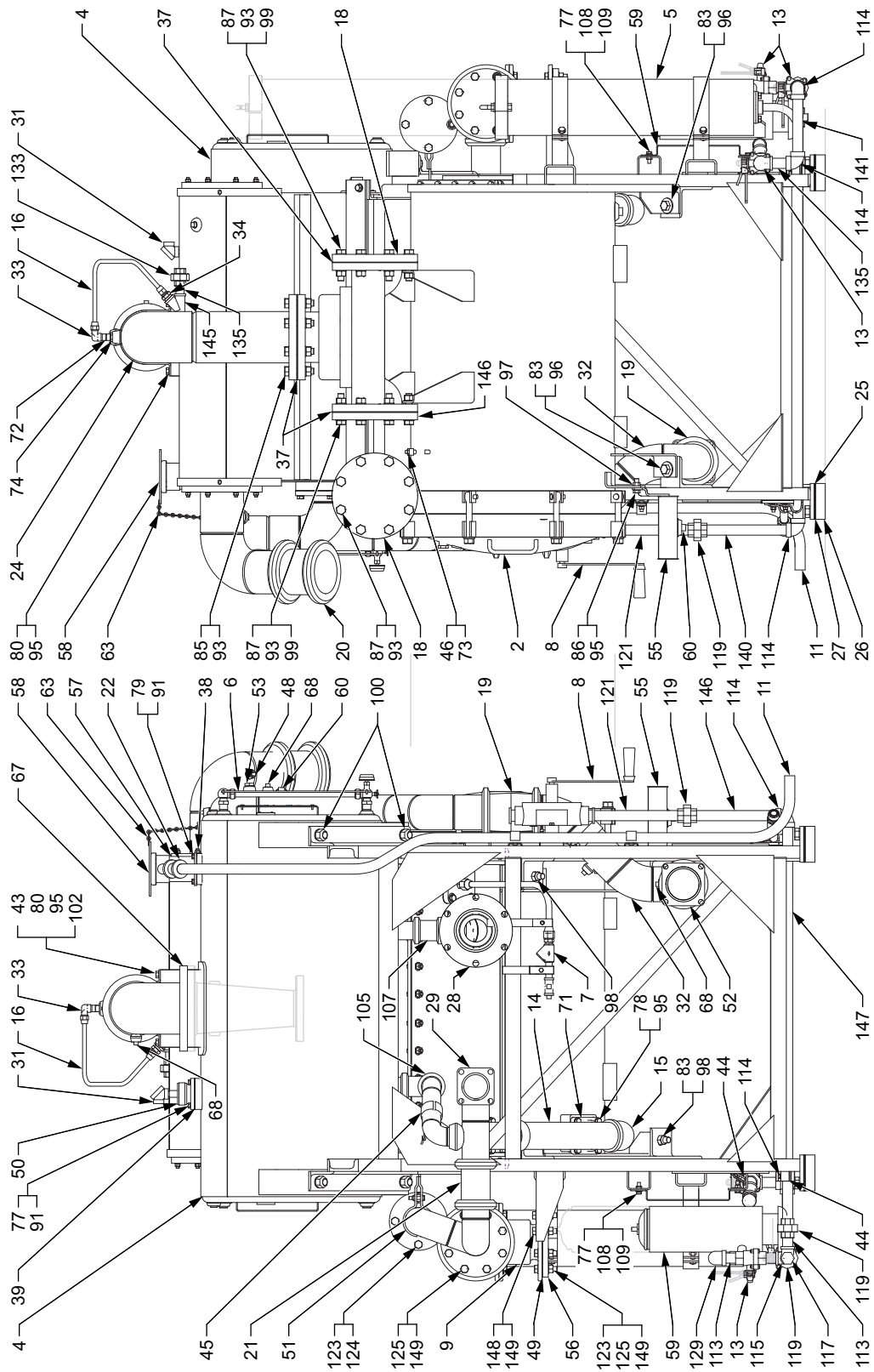
Accessory Rack Slac Application (continued)



A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
35-51	9314341	1	CLAMP ASSEMBLY.. Pipe - Includes hanger
-52	40152801	1	PIPE ASSEMBLY.. Lube oil cooler
-53	9327526	2	GAUGE.. Sight-Lube oil filter 3/4-14 NPT
-54	9566855	1	VALVE.. AMOT - 170°
-55	8423098	1	PAN ASSEMBLY.. Drip
-56	40152641	2	FLANGE.. Blind
-57	9323491	1	NECK ASSEMBLY.. Water tank filler
-58	9323490	1	CAP ASSEMBLY.. Pressure - 3 Prong - 7 PSI
-59	40145890	1	STRAINER ASSEMBLY.. Fuel - Water separator
-60	103870	4	PLUG.. Pipe - 1PT
-61	8423095	1	ANGLE.. .
-62	9567328	1	SUPPORT.. .
-63	8292432	1	CHAIN.. Filler cap
-64	8365793	1	NAMEPLATE.. Caution
-65	8366140	1	GASKET.. Cover plate
-66	8423365	1	NAMEPLATE.. Water level instruction
-67	8423977	1	PIPE ASSEMBLY..
-68	103868	6	PLUG.. Pipe - 1/2PT
-69	9337056	1	PLUG.. Hand pump
-70	8458795	AR	SEALANT.. Thread - 1 liter
-71	9557674	2	SEAL.. O-ring - Flange to lube oil cooler and filter
-72	8078802	1	VENTURI.. Water inlet
-73	144045	1	BUSHING.. 1/2 x 1/4PT
-74	144034	1	BUSHING.. Reducing - 3/4 x 1/2PT
-75	171732	2	BUSHING.. R10-32 x 1/2

Accessory Rack Slac Application (continued)

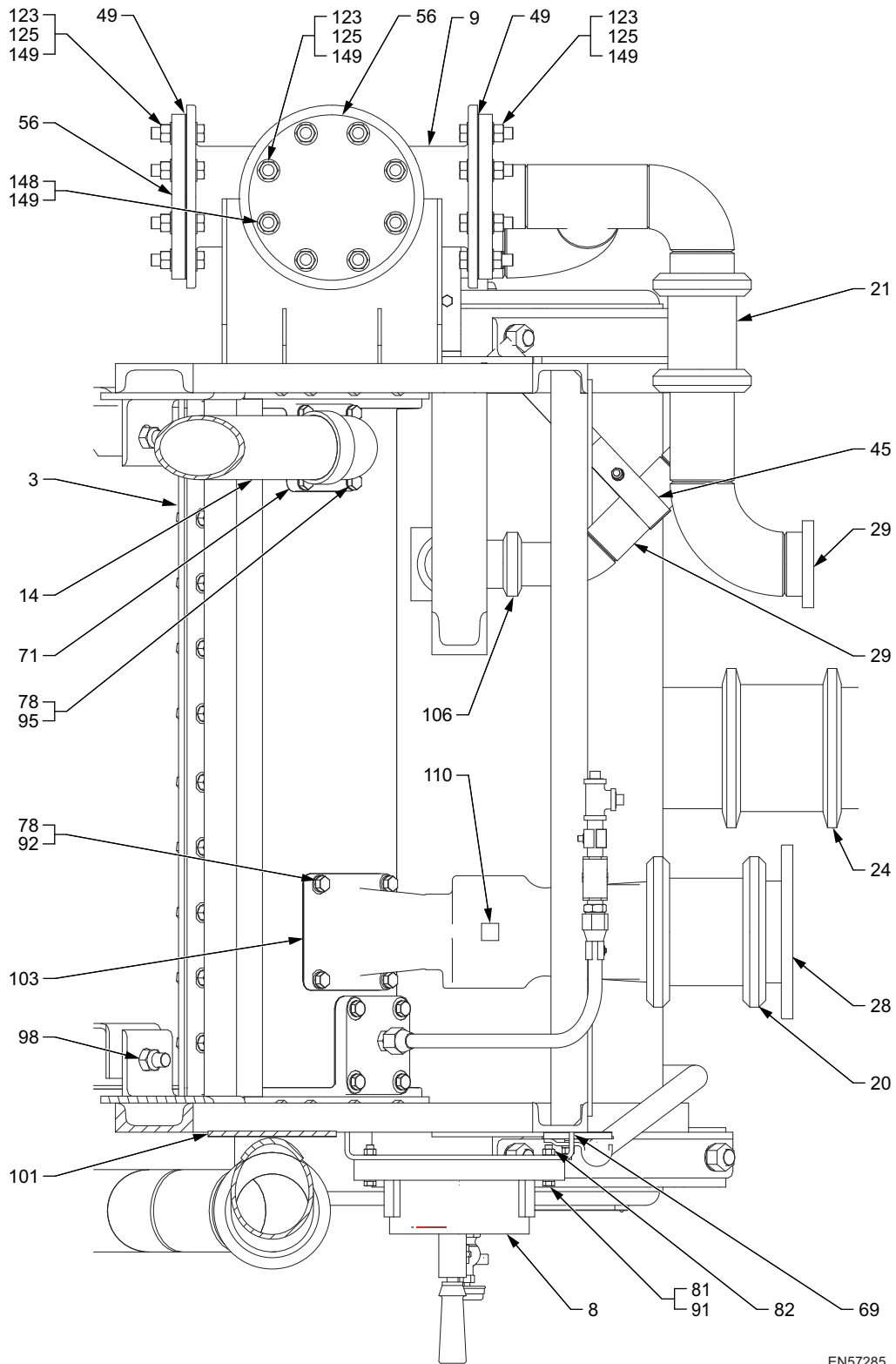


EN57284

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
35-77	179841	12	BOLT.. Hex head 3/8-16 x 1-1/4 - Level switch mounting
-78	179884	12	BOLT.. Hex head 1/2-13 x 1-3/8
-79	179837	4	BOLT.. Hex head 3/8-16 x 3/4 - Filler neck mounting
-80	179883	6	BOLT.. Hex head 1/2-13 x 1-1/4
-81	179847	2	BOLT.. Hex head 3/8-16 x 2
-82	102635	4	BOLT.. Hex 3/8-16
-83	271612	4	BOLT.. Hex head 3/4-10 x 2-1/4
-84	271656	12	BOLT.. Hex head 7/8-9 x 2 - Rack mounting
-85	271616	8	BOLT.. Hex head 3/4-10 x 3-1/4
-86	179885	2	BOLT.. Hex head 1/2-13 x 1-1/2
-87	271617	24	BOLT.. Hex head 3/4-10 x 3-1/2
-88	179889	8	BOLT.. Hex head 1/2-13 x 2
-89		0	Omitted.. .
-90	120396	8	WASHER.. Flat 1/2
-91	6101225	12	WASHER.. Flat 3/8
-92	120384	4	WASHER.. Lock 1/2
-93	8401884	64	WASHER.. Flat 3/4
-94	8396616	16	WASHER.. 7/8
-95	6101229	28	WASHER.. Flat 1/2
-96	106268	4	WASHER.. Flat 3/4
-97	102637	10	NUT.. Hex 1/2-13
-98	9416541	4	NUT.. 3/4-10 SLFLKG
-99	220081	32	NUT.. Hex 3/4-10
-100	220082	4	NUT.. Hex 7/8-9
-101	9501712	1	BRACKET.. Piping
-102	9416536	6	NUT.. Lock 1/2-13
-103	40152355	1	GASKET.. Water tee inlet
-104	9570860	1	GASKET.. 3-1/2 inch I.D. x 7-1/2 inch OD
-105	IND0501	AR	ALLOY.. Brazing
-106	40152536	1	ELBOW.. Flexible - 2 inch
-107	8474757	1	COUPLING ASSEMBLY.. Flexible - 2 inch
-108	120394	6	WASHER.. Flat 3/8
-109	120382	4	WASHER.. SPR Lock 3/8
-110	106642	1	PLUG.. 1-1/4PT
-111	8113208	1	PIPE
-112	8154242	2	NIPPLE.. 3/4 x 6
-113	8119862	4	NIPPLE.. 1 x 2-1/2
-114	119100	3	ELBOW.. 1PT
-115	115237	3	TEE.. 1PT
-116	40152707	1	FLANGE.. Blind
-117	10633513	1	CONNECTOR.. 1PT x 1 ORFS
-118	IND0510	AR	BRAZING FLUX.. Low Temp
-119	8044156	4	UNION.. 1PT
-120	8035146	2	NUT.. Self Lock 3/8-16
-121	8119857	2	NIPPLE.. 1-12
-122			Omitted.. .
-123	271564	24	BOLT.. Hex head 5/8-11 x 2-1/2 - Flange mounting
-124	103345	56	WASHER.. Flat 5/8
-125	102639	28	NUT.. Hex 5/8-11

Accessory Rack Slac Application (continued)

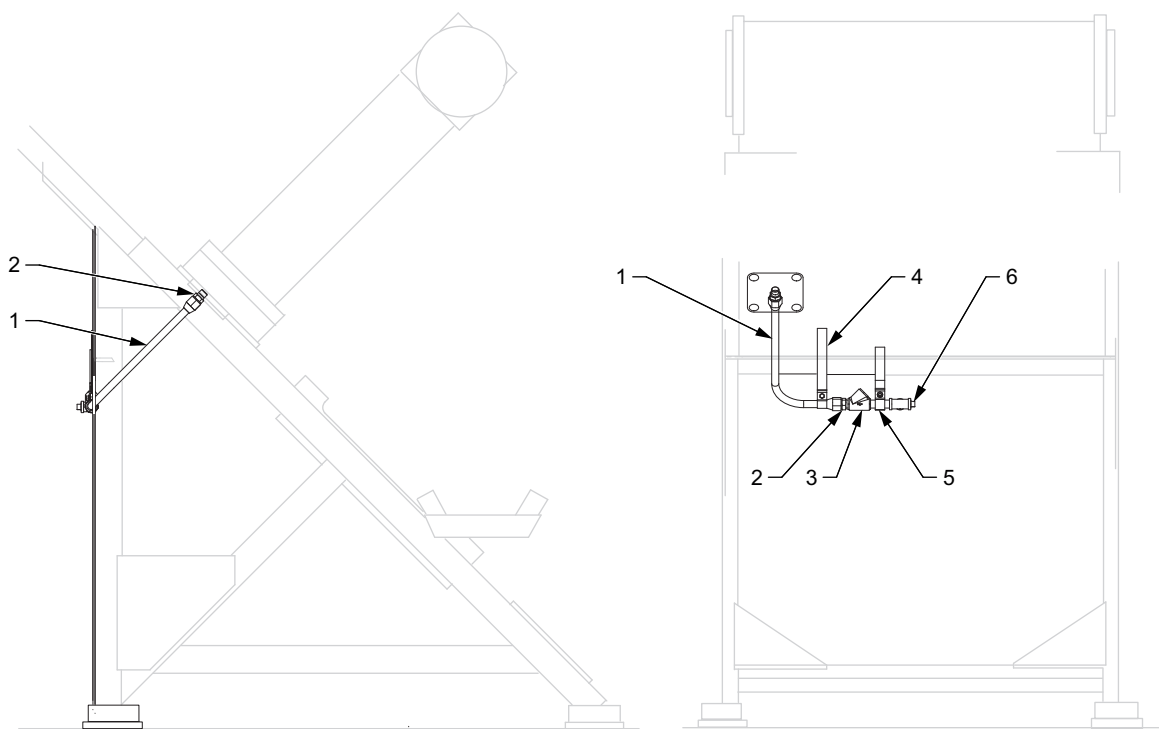


EN57285

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
35-126	119096	2	ELBOW.. 1PT x 45°
-127	119099	3	ELBOW.. 3/4PT
-129	217986	1	ELBOW.. 1 x 3/4PT
-130	219352	2	NIPPLE.. 1 x 3-1/2
-131	144094	1	COUPLING.. 1PT x 3/4PT
-132	40164036	1	BRACKET ASM.. .
-133	8044155	1	UNION.. 3/4PT
-135	8060974	1	NIPPLE.. 3/4 Short
-136	8080329	1	NIPPLE.. 1 x 3
-137	8090338	1	NIPPLE.. 1 x 4-1/2
-138	8125085	2	NIPPLE.. 1 x 4
-139	8113209	1	NIPPLE.. 1 x 7
-140	8125860	1	NIPPLE.. 1-11 1/2
-141	8149228	1	NIPPLE.. 1 x 8
-142	8413738	1	ANGLE.. .
-143	40153159	1	PAD
-144	40153416	1	PIPE.. 3/4
-145	218840	1	BRANCH.. Y - 3/4PT
-146	40151931	1	FLANGE.. 5W
-147	40164067	1	PIPE..
-148	271565	4	BOLT.. Hex head 5/8-11 x 2-3/4
-149	6101233	48	WASHER.. Flat 5/8
-150	8108214	1	CLAMP ASSEMBLY.. Pipe
-151	179887	4	BOLT.. Hex head 1/2-13 x 1-3/4

Oil Fill Piping Provision



EN57246

A minimum order quantity may apply. Please contact Customer Service to confirm.

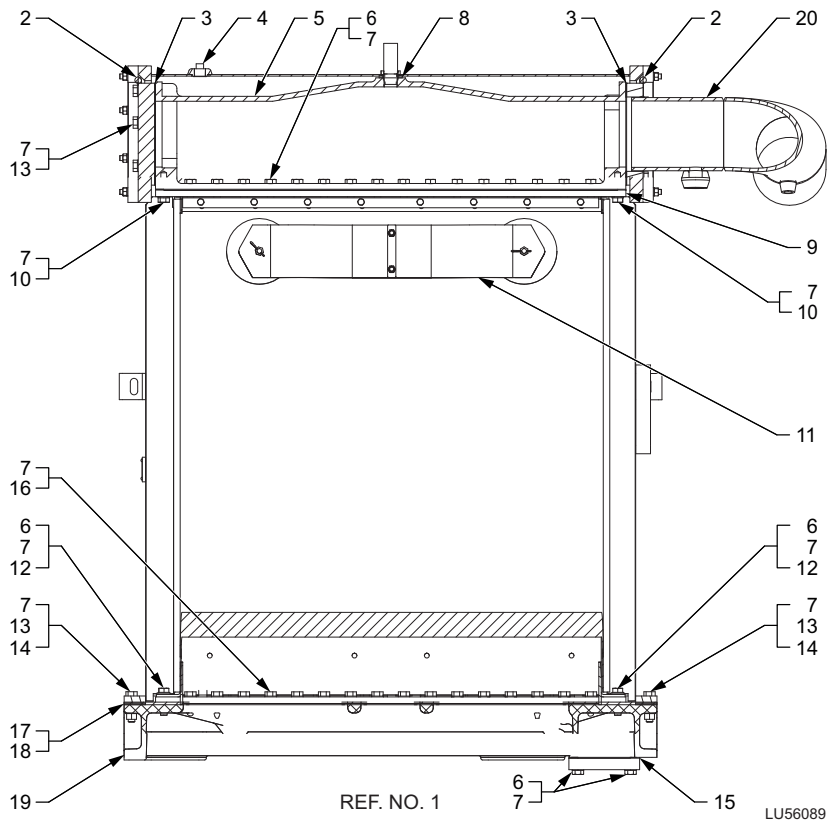
Asm - Ref.No.	Part Number	Qty.	Description
35-1	9546194	1	TUBE ASSEMBLY .. 3/4 inch O.D. x 20 inch length
-2	110287	2	CONNECTOR .. 3/4T x 1/2PT - Brass plated
-3	9522457	1	PIPE ASSEMBLY
-3A	8088947	1	NIPPLE .. 1/2 x 3
-3B	8024212	1	VALVE .. Check - Swing 1/2 inch
-3C	138105	1	TEE .. 1/2PT
-3D	103880	1	VALVE .. Check - Swing 1/2 inch
-4	8108211	1	CLAMP ASSEMBLY .. Tube
-4A	8081620	1	CLAMP
-4B	8081623	1	CLAMP
-4C	109084	1	NUT .. Hex 1/4-20
-4D	179796	1	BOLT .. Hex head 1/4-20 x 7/8
-4E	103319	1	NUT .. Lock 1/4
-5	8108197	1	CLAMP ASSEMBLY .. Conduit
-6	103880	1	PLUG .. Pipe 1/2

9552644

SECTION 3. LUBE OIL SYSTEM

Assembly 36: LUBE OIL COOLER	3-2
Assembly 37: LUBE OIL FILTER.....	3-3
Assembly 38: SOAKBACK LUBE OIL FILTER	3-4

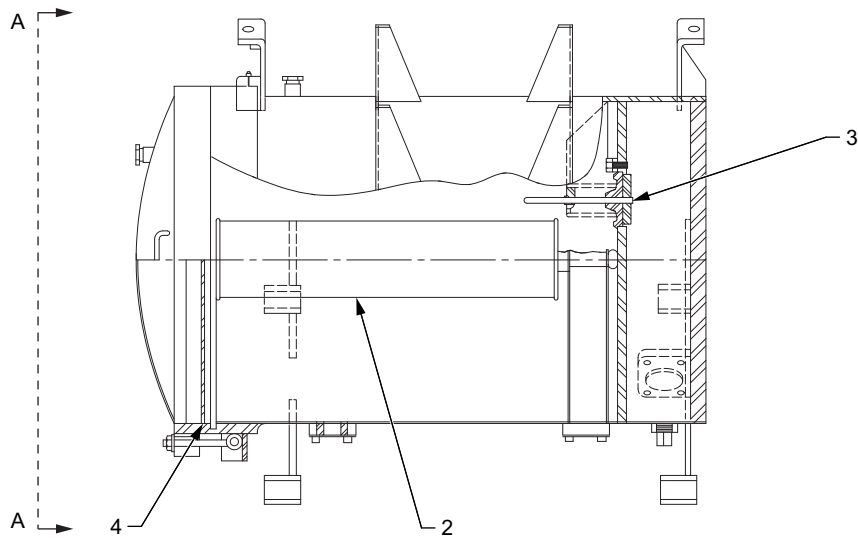
Assembly 36: LUBE OIL COOLER



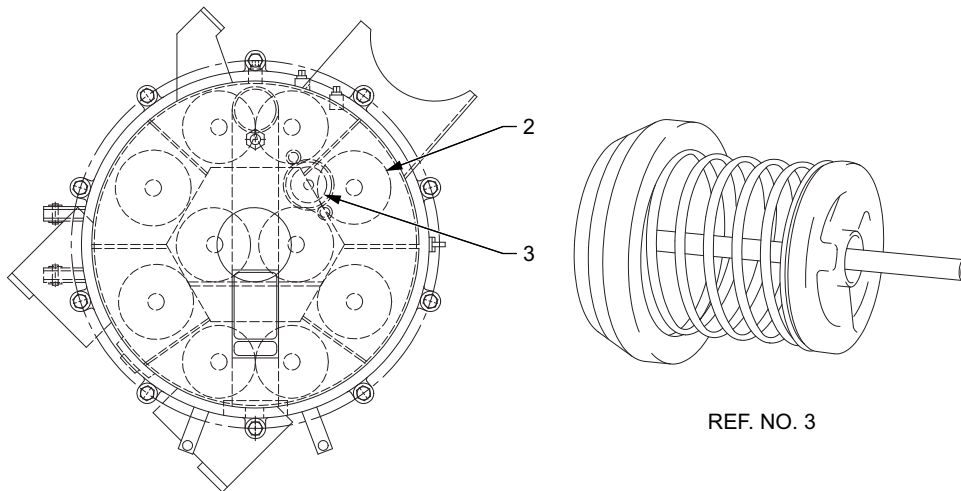
A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
36-1	40152989	1	COOLER ASSEMBLY.. Lube oil
-2	8417454	2	SEAL.. O-ring
-3	103868	1	PLUG.. 1/2PT
-4	40017863	2	GASKET.. Top header to pipe flange
-5	8414815	1	HEADER.. Lube oil cooler - Top
-6	180179	38	BOLT.. Hex head 1/2-13 x 1-3/4
-7	6101229	130	WASHER.. Flat 1/2
-8	8250627	1	GASKET.. Top header to tank at pipe nipple - 1-1/8 I.D. x 1-3/4 O.D. x 3/16 inch
-9	40063471	1	CORE.. Lube oil cooler - Mechanical bonded - See note below
-10	180176	10	BOLT.. Hex head 1/2-13 x 1-3/8
-11	40062646	1	VALVE ASSEMBLY.. Baffle and relief
-12	120396	5	WASHER.. Flat 1/2
-13	180181	42	BOLT.. Hex head 1/2-13 x 2
-14	102637	44	NUT.. Hex 1/2-13
-15	40152257	1	GASKET.. Water outlet
-16	180175	40	BOLT.. Hex head 1/2-13 x 1-1/4
-17	9570894	2	GASKET.. Header to core
-18	9570895	1	GASKET.. Bottom header to tank
-19	40151926	1	HEADER.. Lube oil cooler - Bottom - Dual water inlet
-20	40152990	1	PIPE ASSEMBLY.. Water inlet For repair of Mechanical Bonded Core, use Tapered Phenolic Plugs, 9531516. A maximum of 2% of the total number of tubes on one core can be plugged without adversely affecting performance.

Assembly 37: LUBE OIL FILTER



REF. NO. 1



REF. NO. 3

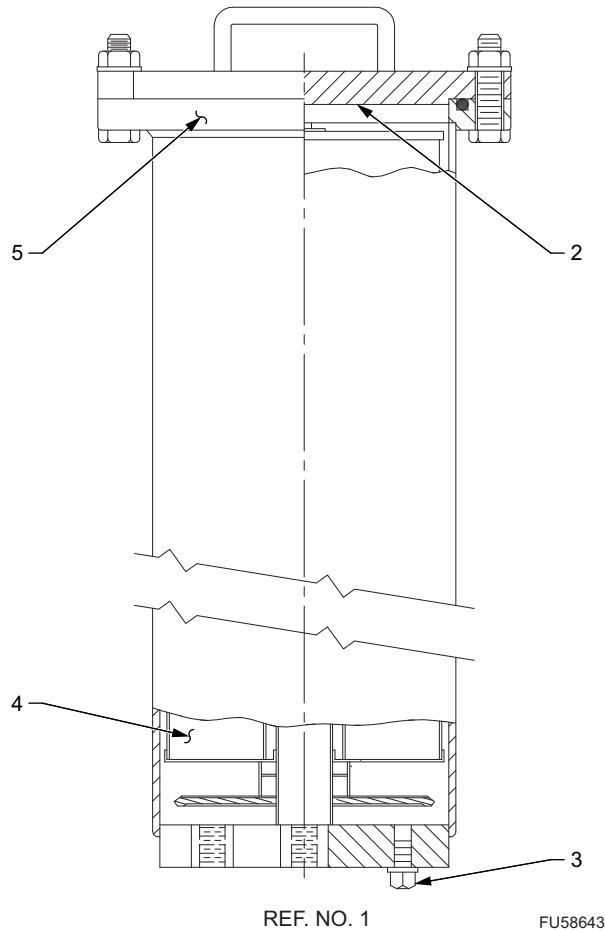
VIEW A-A

LU56242

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
37-1	9571306	1	FILTER ASSEMBLY.. Lube oil
-2	8345482	10	ELEMENT.. Lube oil filter - 90 day
-3	9536955	1	VALVE ASSEMBLY.. Bypass relief
-3A	9536951	1	POPPET.. Valve (not shown)
-3B	8317190	1	SPRING.. Relief valve (not shown)
-3C	103723	1	PIN.. Dowel - 3/16 x 7/8 (not shown)
-3D	9536953	1	RETAINER.. Spring (not shown)
-4	40000705	1	SEAL.. O-ring - Lube oil filter cover

Assembly 38: SOAKBACK LUBE OIL FILTER



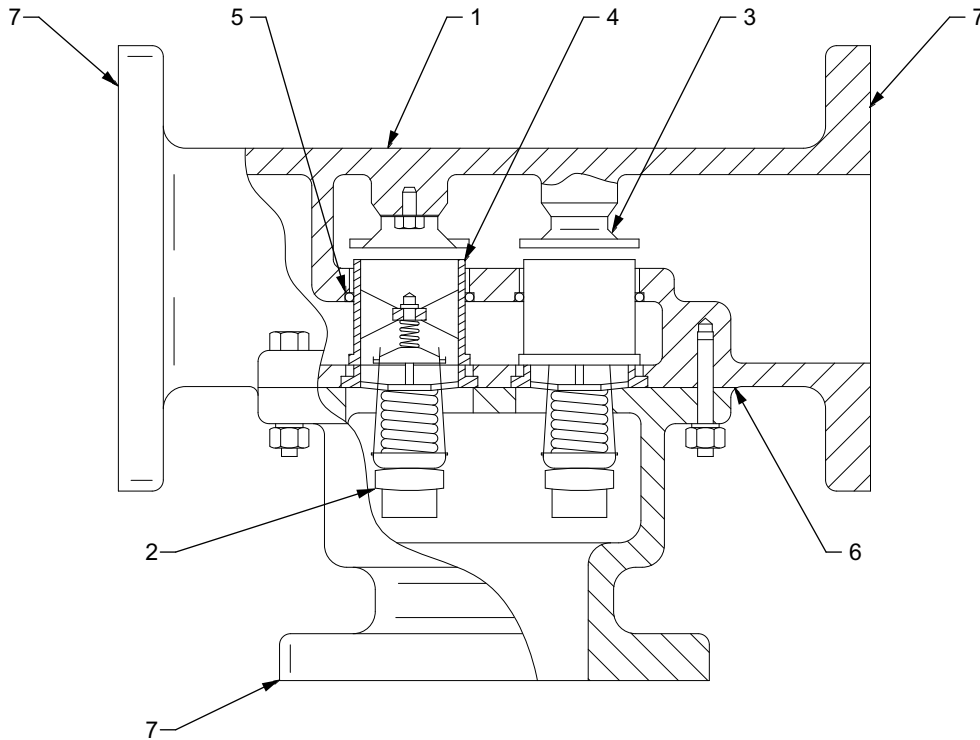
A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
38-1	8379120	1	FILTER ASSEMBLY.. Lube oil - Soakback
-2	8359422	1	COVER ASSEMBLY.. Filter
-3	143981	1	PLUG.. Drain - 1/2 MPT - Squared head
-4	8345482	1	ELEMENT.. Lube oil filter
-5	8358905	1	SEAL.. O-ring - Lube oil filter cover
-6	8306502	2	GASKET.. Inlet and outlet (not shown)

SECTION 4. COOLING SYSTEM

Assembly 39: THERMOSTATIC VALVE	4-2
Assembly 40: WATER TANK LEVEL SIGHTGLASS GAUGE	4-3

Assembly 39: THERMOSTATIC VALVE

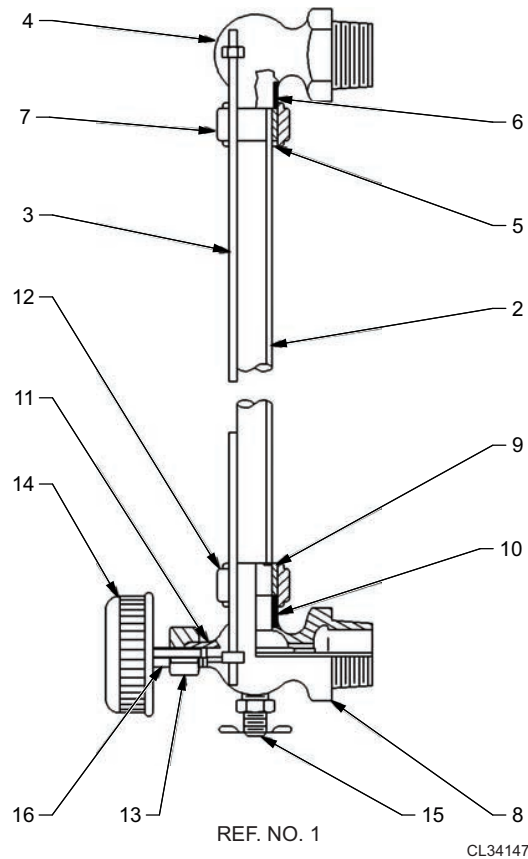


EN35477

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
39-1	9566853	1	VALVE ASSEMBLY.. Thermostatic - 195°F
-2	8394826	9	ELEMENT ASSEMBLY.. Thermostatic
-3	8345868	9	SEAT.. Bypass - Valve element
-4	8309543	9	SLEEVE.. Element - O-ring
-5	8309544	9	SEAL.. O-ring - 2-1/2 O.D. x 2-1/4 I.D.
-6	8468855	1	GASKET.. Cover - Thermo valve housing
-7	8394067	4	GASKET.. Flange - Thermostatic valve

Assembly 40: WATER TANK LEVEL SIGHTGLASS GAUGE



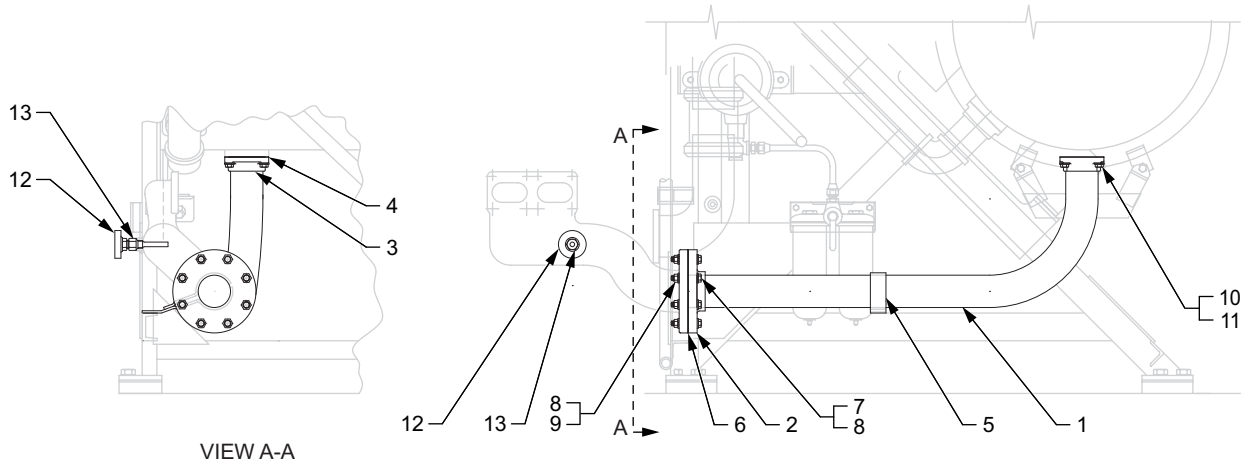
A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
40-1		1	GAUGE ASSEMBLY.. Water level - Sightglass <i>Water level Sightglass Gauge, 8157497, is not available. It is replaced by the following component parts.</i>
-2	8157495	1	GLASS.. Water gauge tube - 3/4 O.D. x 17 inches long
-3	8157496	2	ROD.. Water gauge guard - Brass - 3/16 O.D. x 19-1/4 inches long
-4	8118872	1	BODY ASSEMBLY.. Upper water gauge - 3/4 MPT
-5	8120768	1	WASHER.. Fiber gasket - 15/16 O.D. x 49/64 I.D. x 1/32 inch thick
-6	40010387	1	WASHER.. Viton - 15/16 O.D. x 3/4 I.D. x 13/32 inch thick
-7	8202271	1	NUT.. Gauge glass
-8	8118871	1	BODY ASSEMBLY.. Lower water gauge - 3/4 MPT
-9	8120768	1	WASHER.. Fiber gasket
-10	40010387	1	WASHER.. Viton
-11	8120767	1	PACKING.. Valve stem
-12	8202271	1	NUT.. Gauge glass
-13	8202270	1	NUT.. Valve stem
-14	8153702	1	HANDLE.. Valve stem
-15	114981	1	COCK.. Drain - 1/8 MPT - Brass
-16	8446503	1	STEM.. Valve - Brass <i>Note: Ref. Nos. 11, 13 and 14 are also included in Body Assembly 8118872, but are not shown here.</i>

SECTION 5. SHIP LOOSE ITEMS

Assembly 41: ACCESSORY RACK MOUNTING APPLICATION.....	5-2
Assembly 42: ENGINE WATER OUTLET PIPING.....	5-4
Assembly 43: AIR START PIPING.....	5-5
Air Start Pipe.....	5-6
Air Start Pipe.....	5-7
Assembly 44: AIR START MAGNET VALVE.....	5-8
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Assembly 48: ENGINE AIR FILTER APPLICATION.....	5-13
Assembly 49: FUEL PRIME PUMP APPLICATION.....	5-14
Fuel Prime Pump Application.....	5-15
Assembly 50: SOAKBACK PUMP APPLICATION.....	5-16
Soakback Oil Pump Assembly.....	5-17
Assembly 51: EXHAUST OUTLET ADAPTER APPLICATION.....	5-18
Assembly 52: ACCESSORY RACK SHIPPED LOOSE ITEMS.....	5-19
Assembly 53: MISCELLANEOUS SHIP LOOSE.....	5-20

Assembly 41: ACCESSORY RACK MOUNTING APPLICATION



The following Ship Loose items are not illustrated.

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
41-0	40056162	1	PUMP FILTER APPLICATION KIT..
-1	40056163	1	TUBE..
-2	40063692	1	FLANGE..
-3	8038896	1	FLANGE-3..
-4	9570679	1	GASKET..
-5	8108107	1	CLAMP ASSEMBLY..
-6	40063769	1	GASKET..
-7	271566	1	BOLT.. 5/8 - 11 Hex
-8	6101233	8	WASHER.. 5/8 Aircraft
-9	102639	16	NUT.. 5/8 - 11 Hex
-10	6101229	8	WASHER.. 1/2 Aircraft
-11	179883	4	BOLT.. 1/2 - 13 Hex
-12	9086874	4	GAUGE.. Temperature
-13	9086873	1	THERMOMETER WELL..
-14	9336743	1	PIPE ASSEMBLY..
-15	40155267	1	PIPE ASSEMBLY..
-16	40155269	1	PIPE ASSEMBLY..
-17	40147633	1	TUBE ASSEMBLY..
-18	40147634	1	TUBE ASSEMBLY..
-19	40149636	1	TUBE ASSEMBLY..
-20	40155704	1	TUBE ASSEMBLY..
-21	40153043	1	TUBE ASSEMBLY..
-22	40086026	1	PIPING APPLICATION.. Water Out
-23	40058862	1	CONNECTOR.. 16 FS - 16 FS
-24	9402791	1	UNION.. 1 Hyd
-25	40141123	1	CAP.. 1 Hyd

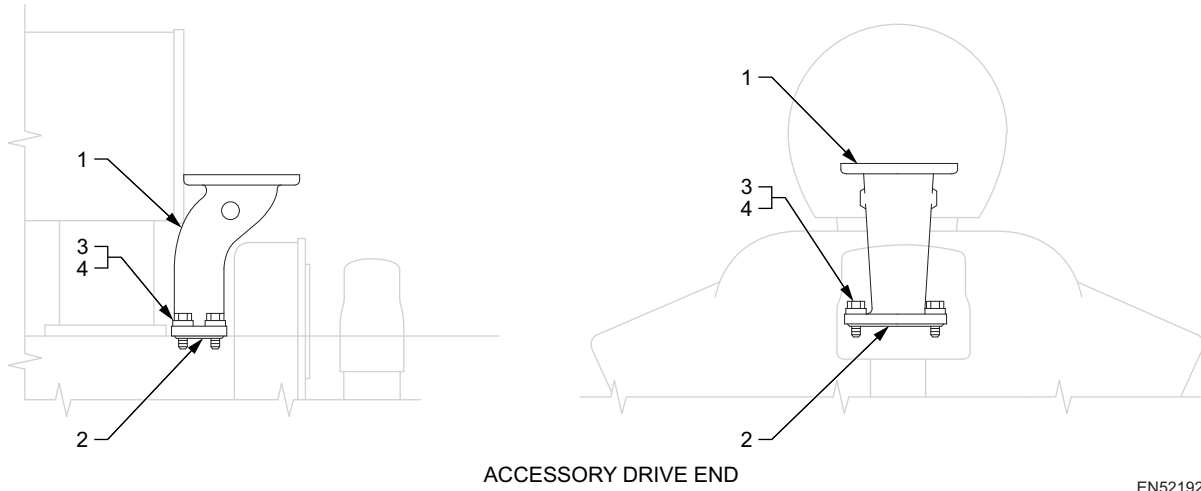
The following Ship Loose items are not illustrated.

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
41-26	119100	1	ELBOW.. 1 Pt
-27	8467205	1	COUPLING.. Elbow 2 1/2 Flex
-28	40082498	1	GASKET.. 2 1/2
-29	40055191	1	GASKET.. 4 W
-30	10631035	1	ELBOW.. 15 FS - 16 SW
-31	40058619	1	ELBOW.. 16 FS - 12 ORB
-32	9402869	1	ELBOW.. 1 Hyd - 1 Pt
-33	8254278	3	CLAMP ASSEMBLY..
-34	8440680	2	CLAMP ASSEMBLY..
-35	8108214	2	CLAMP ASSEMBLY..
-36	8302610	1	CLAMP ASSEMBLY..
-37	8060975	1	NIPPLE.. 1 Short
-38	103879	1	PLUG.. 3/8 Pt
-39	103878	1	PLUG.. 1/4 Pt
-40	8394067	1	GASKET..
-41	9570678	1	GASKET..
-42	9570679	1	GASKET..
-43	9570839	1	GASKET..
-44	9570976	1	GASKET..
-45	271616	8	BOLT.. 3/4 - 10 Hex
-46	179883	2	BOLT.. 1/2 - 13 Hex
-47	180177	10	BOLT.. 1/2 - 13 Hex
-48	181431	4	BOLT.. 1/2 - 20 Hex
-49	220081	8	NUT.. 3/4 - 10 Hex
-50	120384	10	WASHER.. 1/2 Spacer Lock
-51	6101229	6	WASHER.. 1/2 Aircraft 6
-52	8401884	16	WASHER.. 1/2 Aircraft 16

M6906

Assembly 42: ENGINE WATER OUTLET PIPING



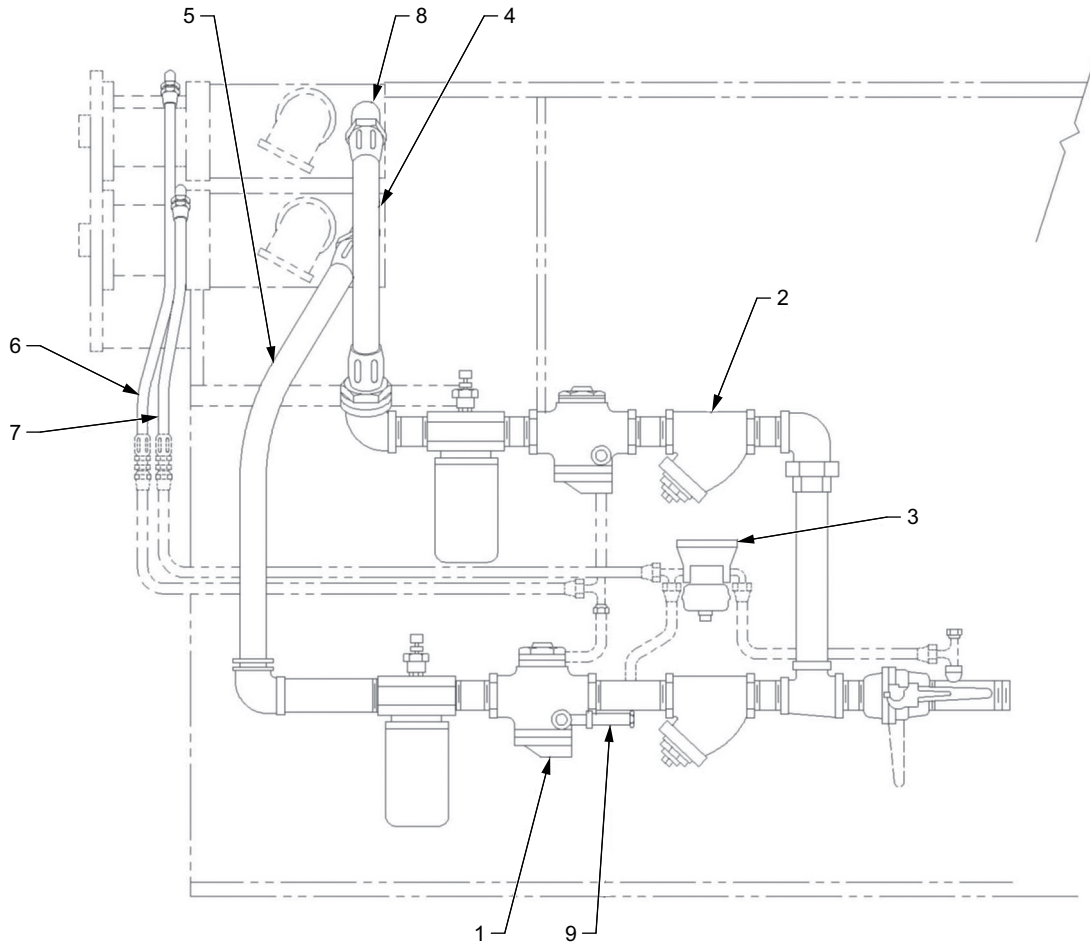
The following components are Ship Loose items.

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
42-1	40085325	1	ADAPTER.. Engine water outlet
-2	9570676	1	GASKET.. Water outlet adapter - Lower
-3	272563	4	BOLT.. Hex head 1-14 x 2-1/4
-4	103348	4	WASHER.. Lock - 1 inch
-5	103878	1	PLUG.. 1/4 PT (not shown)

40105663, 40086026

Assembly 43: AIR START PIPING



EN33670

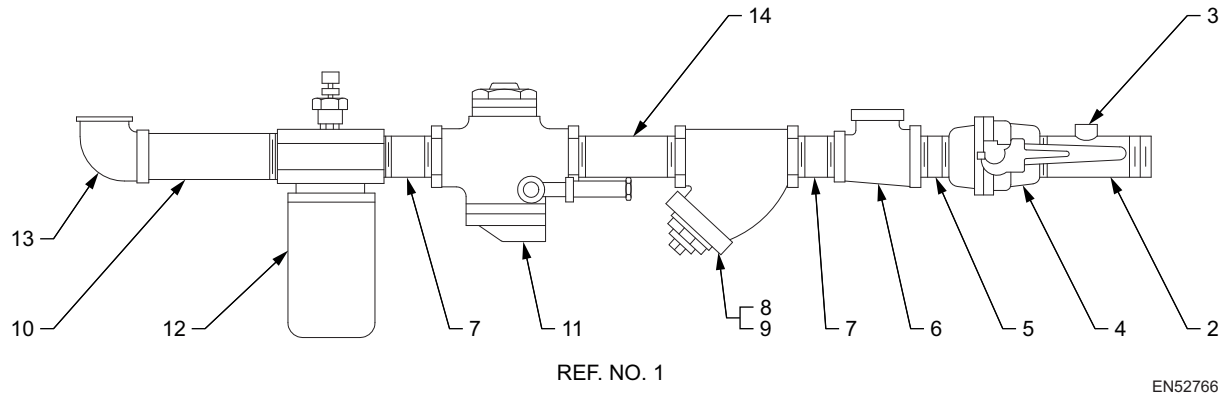
The following ship loose items are applicable to one Engine.

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
43-1	9543181	1	PIPE ASSEMBLY.. Air start - See page 5-6
-2	9543182	1	PIPE ASSEMBLY.. Air start - See page 5-7
-3	9097490	1	VALVE ASSEMBLY.. Magnet - Air start - See page 5-8
-4	9543205	1	HOSE ASSEMBLY.. Air start - 1-3/4 O.D. x 22 inches - Includes connectors
-5	9543204	1	HOSE ASSEMBLY.. Air start - 1-3/4 O.D. x 32 inches - Includes connectors
-6	9518931	1	HOSE ASSEMBLY.. Air start - 5/8 O.D. x 27 inches - Includes connectors
-7	9518930	1	HOSE ASSEMBLY.. Air start - 5/8 O.D. x 21 inches - Includes connectors
-8	9402832	2	ELBOW.. Starter motor - 1-1/2 MPT x 45 degrees
-9	8394052	1	VALVE.. Relief check - 1/4

M6617, 40031001

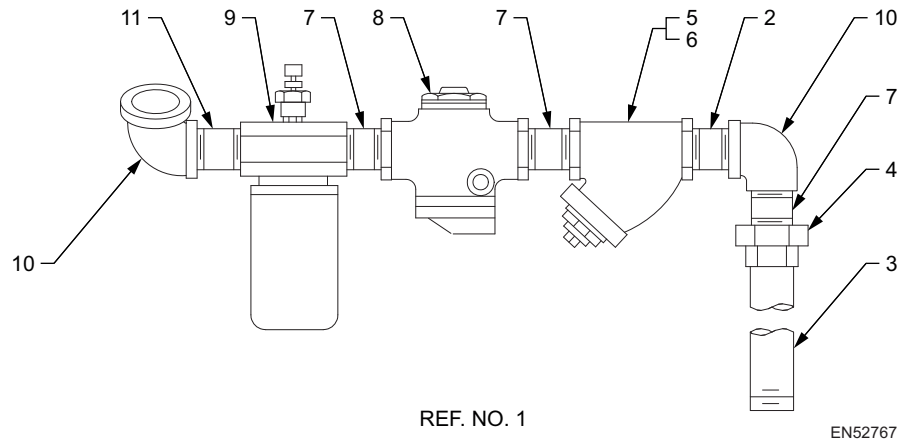
Air Start Pipe



A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
43-1	9543181	1	PIPE ASSEMBLY.. Air start
-2	9543180	1	PIPE.. 2 inch
-3	8152176	1	OUTLET.. Pipe - 3/8PT
-4	8375934	1	VALVE.. Ball cock - 2 PT
-5	8060978	1	NIPPLE.. Pipe - Short - 2 PT
-6	218636	1	TEE.. 1-1/2 PT x 1-1/2 PT x 2 PT
-7	219377	2	NIPPLE.. Pipe - 1-1/2 MPT x 3
-8	8427179	1	STRAINER ASSEMBLY.. Air - 1-1/2 FPT
-9	9090643	1	ELEMENT.. Strainer
-10	40039864	1	NIPPLE.. Pipe - 1-1/2 MPT x 7
-11	8393335	1	VALVE ASSEMBLY.. Air start - Two way - 1-1/2 FPT - See page 5-9
-12	40034371	1	LUBRICATOR ASSEMBLY.. Oil fog
-13	187558	1	ELBOW.. 1-1/2 PT x 90 degrees
-14	216342	1	NIPPLE.. Pipe - 1-1/2 MPT x 5
-15	9561810	1	KIT.. Repair - For 8393335 air start valve (not shown)
-16	40037659	1	KIT.. Repair - For 40034371 lubricator (not shown)

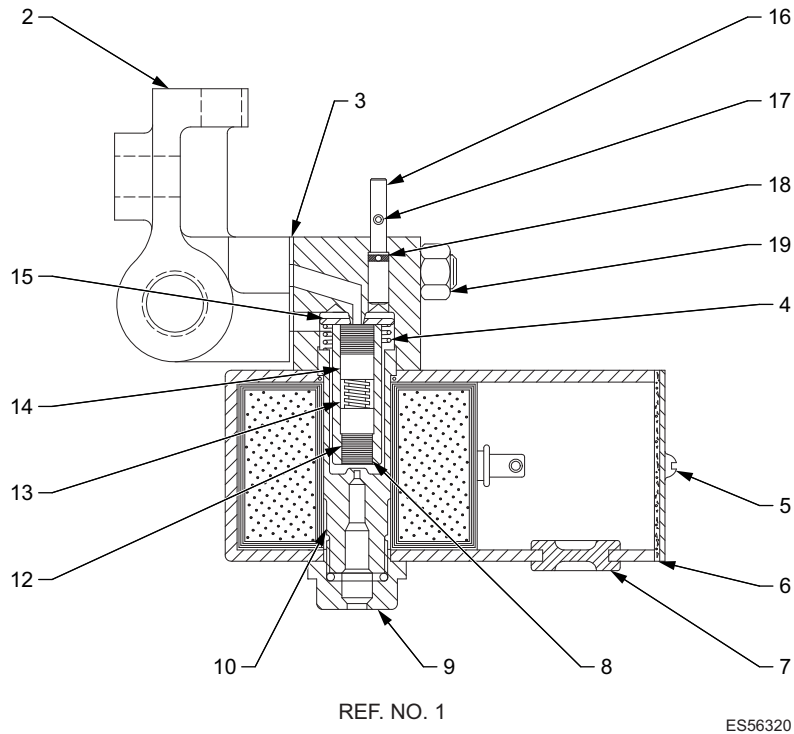
Air Start Pipe



A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
43-1	9543182	1	PIPE ASSEMBLY.. Air start
-2	8149549	1	NIPPLE.. Pipe - 1-1/2PT x 3
-3	8149580	1	NIPPLE.. Pipe - 1-1/2PT x 12
-4	8062515	1	UNION.. 1-1/2 PT
-5	8427179	1	STRAINER ASSEMBLY.. Air - 1-1/2 FPT
-6	9090643	1	ELEMENT.. Strainer
-7	8060977	3	NIPPLE.. Pipe - Short - 1-1/2PT
-8	8393335	1	VALVE ASSEMBLY.. Air start - Two way - 1-1/2 FPT - See page 5-9
-9	40034371	1	LUBRICATOR ASSEMBLY.. Oil fog
-10	187558	1	ELBOW.. 1-1/2 PT x 90 degrees

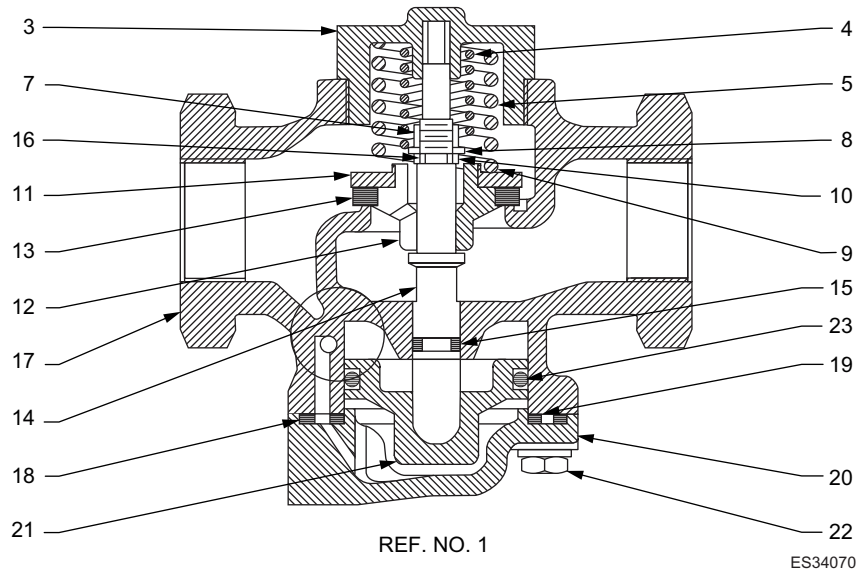
Assembly 44: AIR START MAGNET VALVE



A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
44-1	9097490	1	VALVE ASSEMBLY.. Magnet - Air start - Normally closed - 24/48 VDC
-2	8401614	1	BRACKET.. Valve mounting
-3	8252302	1	GASKET.. Magnet valve to bracket
-4	8288488	1	SPRING.. Plunger
-5	10532215	2	SCREW.. Cover plate
-6	8293030	1	GASKET.. Cover plate
-7	8251649	1	GROMMET.. Rubber
-8	8390672	1	CASE.. Coil
-9	8362482	1	NUT ASSEMBLY.. Hex 3/8-18 - Exhaust - Includes seal
-10	8350383	1	POLE.. Coil
-11	8250983	1	PLUNGER ASSEMBLY.. Valve (not shown)
-12	8251091	1	SEAT.. Plunger
-13	8293034	1	SPACER.. Plunger (not shown)
-14	8293029	1	BODY.. Plunger
-15	8293036	1	CAP.. Plunger
-16	8350917	1	PLUNGER.. Override
-17	10532211	1	PIN.. Roll
-18	8294630	1	SEAL.. O-ring - .114 inch I.D.
-19	102635	2	NUT.. Hex 3/8-16
-20	8447977	1	KIT ASSEMBLY.. Repair - For 9097490 valve - Includes Ref. No. 15 (Qty. 2) and Ref. No. 16 (Qty. 1) (not shown)

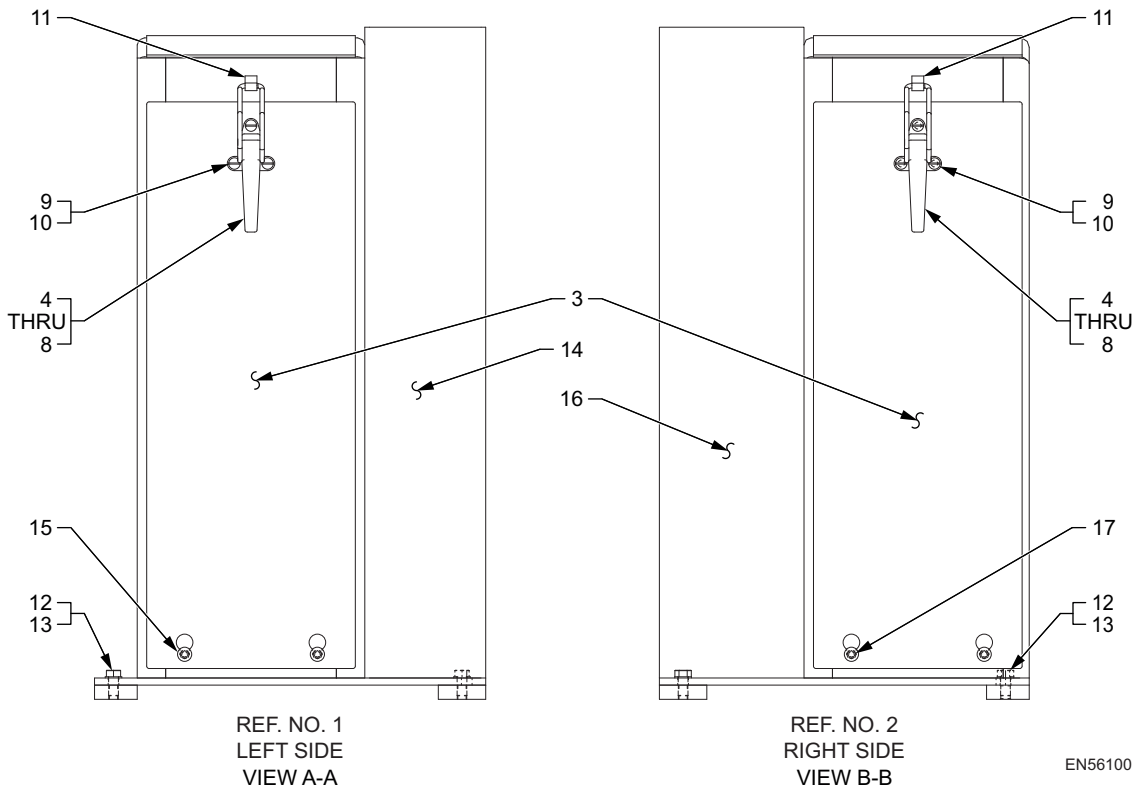
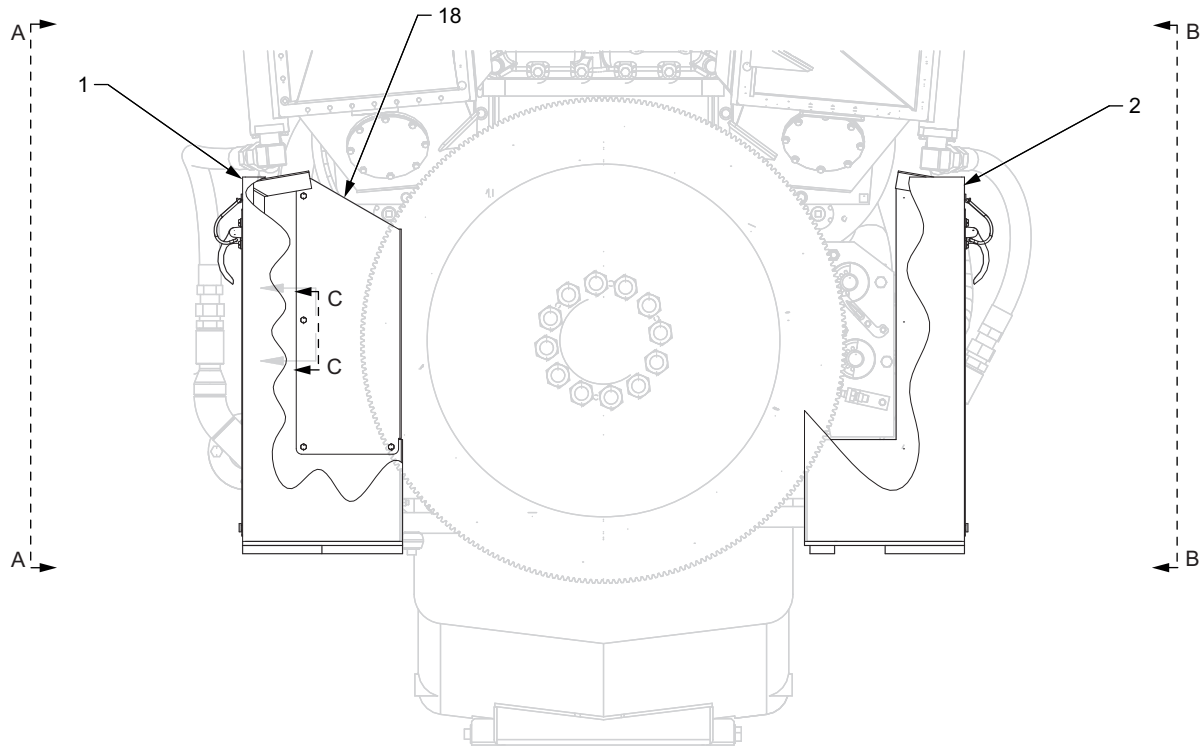
Assembly 45: AIR START VALVE

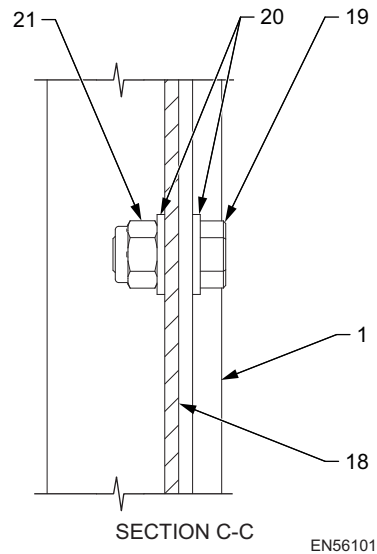


A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
45-1	8393335	1	VALVE ASSEMBLY.. Air start - Two way - 1-1/2 FPT
-2	8420277	1	KIT.. Modification - Air start valve (not shown)
-3	8420862	1	CAP.. Spring
-4	8420861	1	SPRING.. Secondary
-5	8420863	1	SPRING.. Main
-6	8420853	1	STEM ASSEMBLY.. Air start valve (not shown)
-7	8420855	1	NUT.. Valve seat
-8	8420856	1	FOLLOWER.. Secondary seat
-9	8420857	1	RETAINER.. Secondary seat
-10	8420858	1	SEAT.. Secondary - Viton
-11	8420859	1	FOLLOWER.. Main seat
-12	8420860	1	RETAINER.. Main seat
-13	8401571	1	SEAT.. Main - Viton
-14	8420854	1	STEM.. Valve
-15	8156983	1	SEAL.. Stem - Rubber
-16	8242194	1	SEAL.. Stem - Secondary retainer
-17	8401563	1	BODY.. Valve
-18	8401574	1	SEAL.. Actuating cap - Outer
-19	8401587	1	SEAL.. Actuating cap - Inner
-20	8401567	1	CAP.. Actuating
-21	8401566	1	PISTON.. Actuating
-22	431922	4	SCREW.. 5/16 -18 - Includes lockwasher
-23	8401573	1	SEAL.. Actuating piston head
-24	112578	1	PLUG.. Pipe 1/4 MPT - Brass (not shown)
-25	9561810	1	KIT.. Repair - Air start valve - Includes Ref. Nos. 10, 13, 15, 16, 18, 19 and 23 (not shown)

Assembly 46: FLYWHEEL GUARD





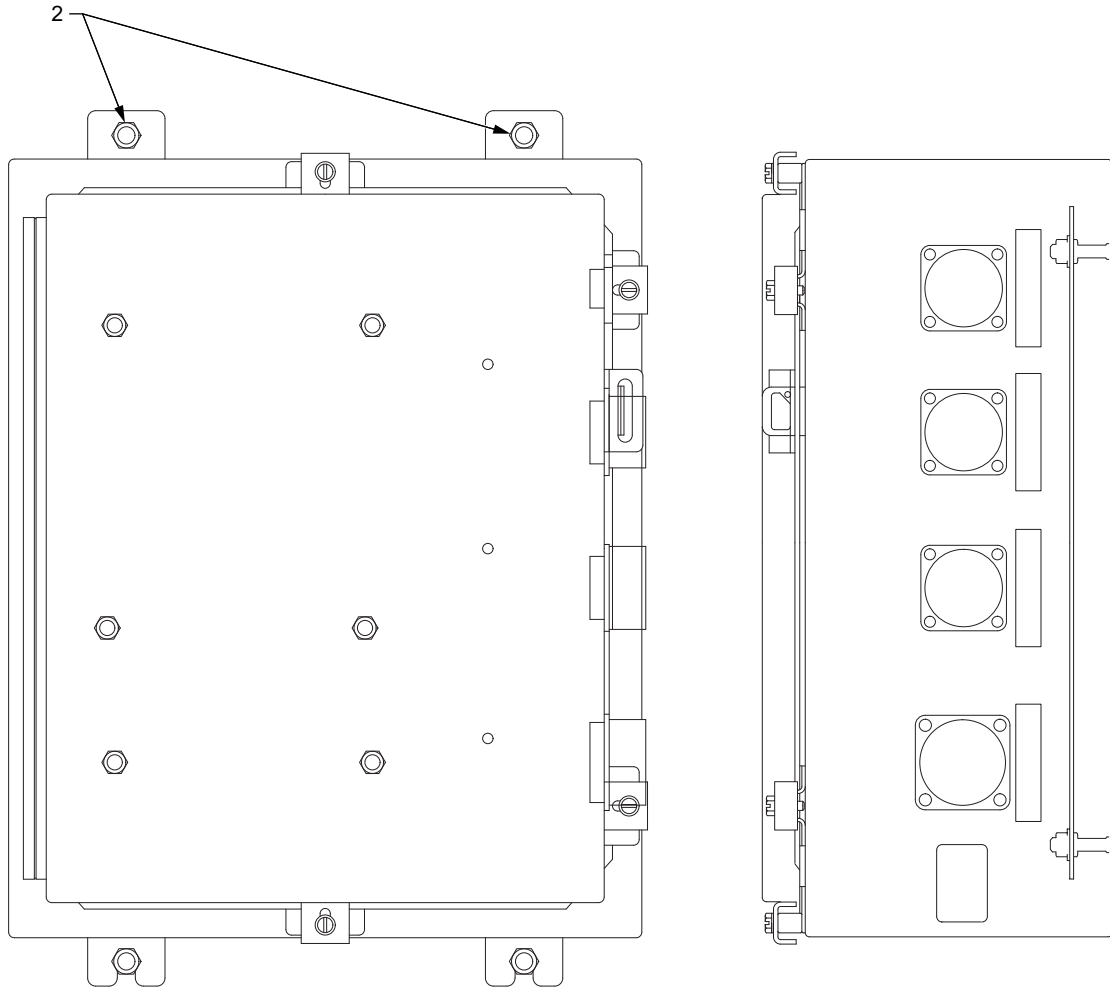
The following components, Ref. Nos. 1 and 2, are Ship Loose items.

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
46-1	40153975	1	GUARD ASSEMBLY.. Flywheel - Left side
-2	40153976	1	GUARD ASSEMBLY.. Flywheel - Right side <i>The following components Ref. Nos. 3 thru 13, are applicable to both guard assemblies.</i>
-3	40149645	1	COVER ASSEMBLY.. Flywheel guard
-4	8082592	1	LATCH ASSEMBLY.. Flywheel cover
-5	8082473	1	HANDLE.. Latch
-6	8082632	1	BRACKET.. Handle
-7	8082406	1	SPRING.. Latch
-8	453673	1	PIN.. Roll - 3/8 x 1-3/8
-9	113860	3	SCREW.. Round head 5/16-18 x 5/8 - Latch to cover
-10	8035145	3	NUT.. Lock 5/16
-11	8084037	1	HOOK.. Cover retaining - "J" shaped
-12	179881	4	BOLT.. Hex head 1/2-13 x 1
-13	6101229	4	WASHER.. Flat 1/2
-14	40153986	1	FRAME ASSEMBLY.. Flywheel guard - Applied to 40153975 only
-15	8166026	1	BUTTON.. Cover mounting
-16	40153987	1	FRAME ASSEMBLY.. Flywheel guard - Applied to 40153976 only
-17	8166026	1	BUTTON.. Cover mounting
-18	40156117	1	PLATE.. Flywheel guard - Left side
-19	179816	4	BOLT.. Hex head 5/16-18 x 3/4
-20	40069319	8	WASHER.. Flat 5/16
-21	8035145	4	NUT.. Lock 5/16-18

M6611, 40153978A

Assembly 47: EMDEC MOUNTING BOX



REF. NO. 1

EN54372

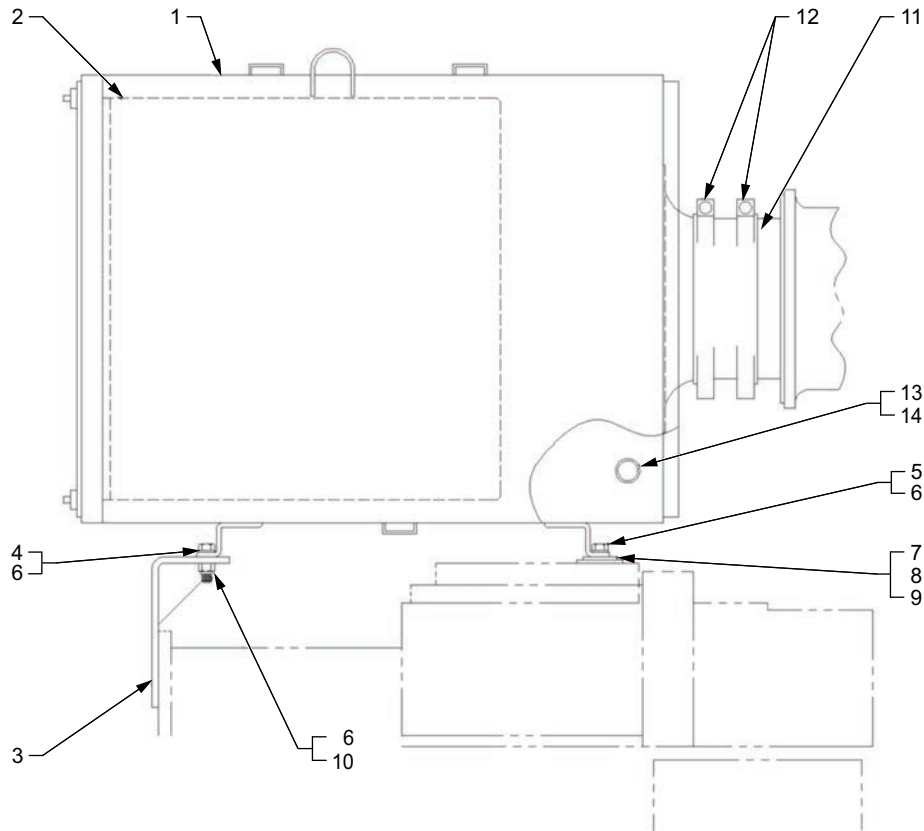
The following components Ref. Nos. 3 thru 4 are Ship Loose items.

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
47-1	40140840	1	BOX.. Mounting - EMDE C
-2	23512308	8	BOLT.. Shoulder - 5/16-18
-3	40098551	1	PLUG.. 48 contact - EMDEC mounting box (not shown)
-4	40098553	1	PLUG.. 4 contact - EMDEC mounting box (not shown)

M6567

Assembly 48: ENGINE AIR FILTER APPLICATION



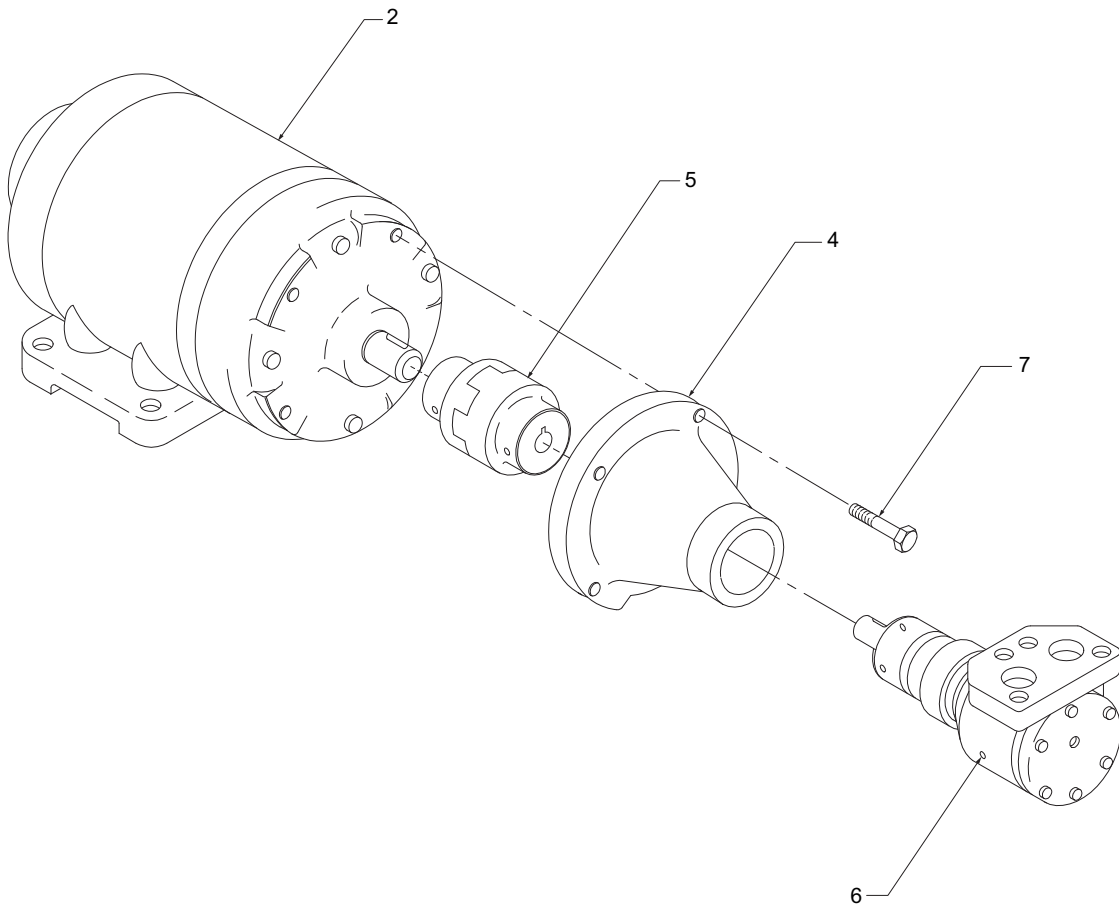
The following components Ref. Nos. 3 thru 4 are Ship Loose items.

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
48-1	40060642	1	HOUSING.. Engine air filter
-2	8470903	5	ELEMENT.. Engine air filter - Fiberglass bag
-3	9581999	2	BRACKET ASSEMBLY.. Filter housing support
-4	179885	4	BOLT.. Hex head 1/2-13 x 1-1/2
-5	179887	4	BOLT.. Hex head 1/2-13 x 1-3/4
-6	6101229	12	WASHER.. Flat 1/2
-7	8479047	2	SHIM.. Support bracket - 11 ga.
-8	8479048	2	SHIM.. Support bracket - 16 ga.
-9	8479049	2	SHIM.. Support bracket - 20 ga.
-10	8032745	4	NUT.. Lock 1/2-13 - Non-metallic insert
-10	9416517	4	NUT.. Lock 1/2-13 - All metal (Optional)
-11	40059003	1	DUCT.. Engine air filter
-12	40059004	2	CLAMP.. Hose - T-bolt
-13	9331510	1	INDICATOR.. Restriction - 1/8-27 MPT
-14	9537542	1	CONNECTOR.. Restriction indicator

M5928-40060651

Assembly 49: FUEL PRIME PUMP APPLICATION



REF. NO. 1

LU34044

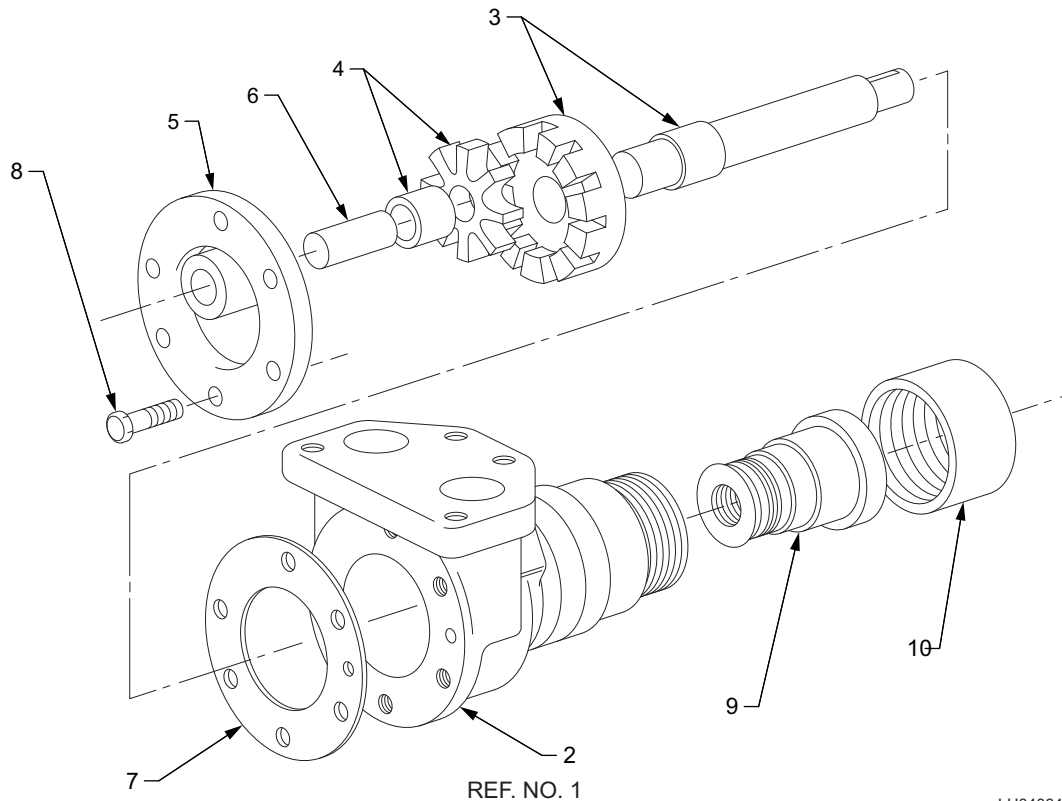
The following ship loose items Ref. Nos 1 and 9 thru 13 are applicable to one Engine.

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
49-1	8455819	1	PUMP AND MOTOR ASSEMBLY.. Soakback
-2	9331110	1	MOTOR ASSEMBLY.. Soakback pump - 3/4 H.P. - 60 Hz/115 VAC - 1800 RPM
-3	9320848	1	PUMP ASSEMBLY.. Soakback - Includes bracket and coupling (not shown assembled)
-4		1	BRACKET.. Soakback pump mounting
-5	8452127	1	COUPLING ASSEMBLY.. Pump to motor - Includes set screw
-6	8460815	1	PUMP ASSEMBLY.. Soakback - 3 GPM at 1800 RPM - See page 5-15
-7	179839	4	BOLT.. Hex head 3/8-16 x 1 - Bracket mounting
-8	454565	1	PIN.. Motor shaft drive (not shown)
-9	40034626	2	GASKET.. Soakback pump inlet/outlet - Edge molded seal (not shown)
-10	6101225	4	WASHER.. Flat 3/8 (not shown)
-11	179847	4	BOLT.. (not shown)
-12	8441007	1	BLOCK.. Fuel (not shown)

M5354

Fuel Prime Pump Application

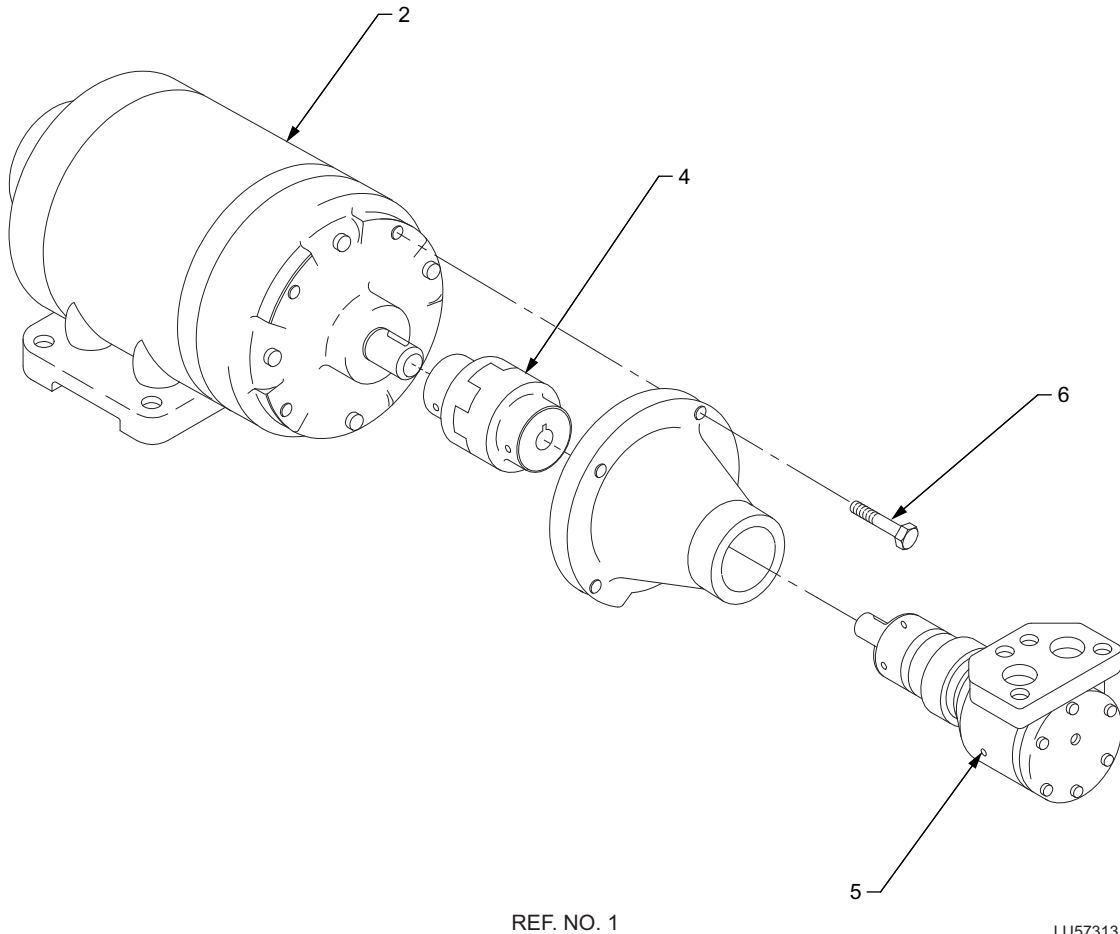


LU34084

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
49-1	8460815	1	PUMP ASSEMBLY.. Soakback - 3 GPM at 1800 RPM
-2	40000936	1	CASING ASSEMBLY.. Soakback pump - Includes bushing
-3	9523983	1	ROTOR ASSEMBLY.. Soakback pump - Includes shaft
-4		1	IDLER ASSEMBLY.. Soakback pump - Includes bushing
-5		1	HEAD ASSEMBLY.. Soakback pump - Includes idler pin
-6		1	PIN.. Idler
-7	8031501	1	KIT.. Gasket - Soakback pump head - Includes one (1) Gasket 0.003 inch thick and four (4) Gaskets 0.001 inch thick
-8	181311	6	BOLT.. Hex head 1/4-28 x 5/8
-9	8228321	1	SEAL.. Oil - Soakback pump mechanical
-10	8278579	1	NUT.. Soakback pump packing
-11		1	RING.. Snap (not shown)
-12		1	GASKET.. Pump (not shown)
-13		1	CAP.. Pump (not shown)

Assembly 50: SOAKBACK PUMP APPLICATION

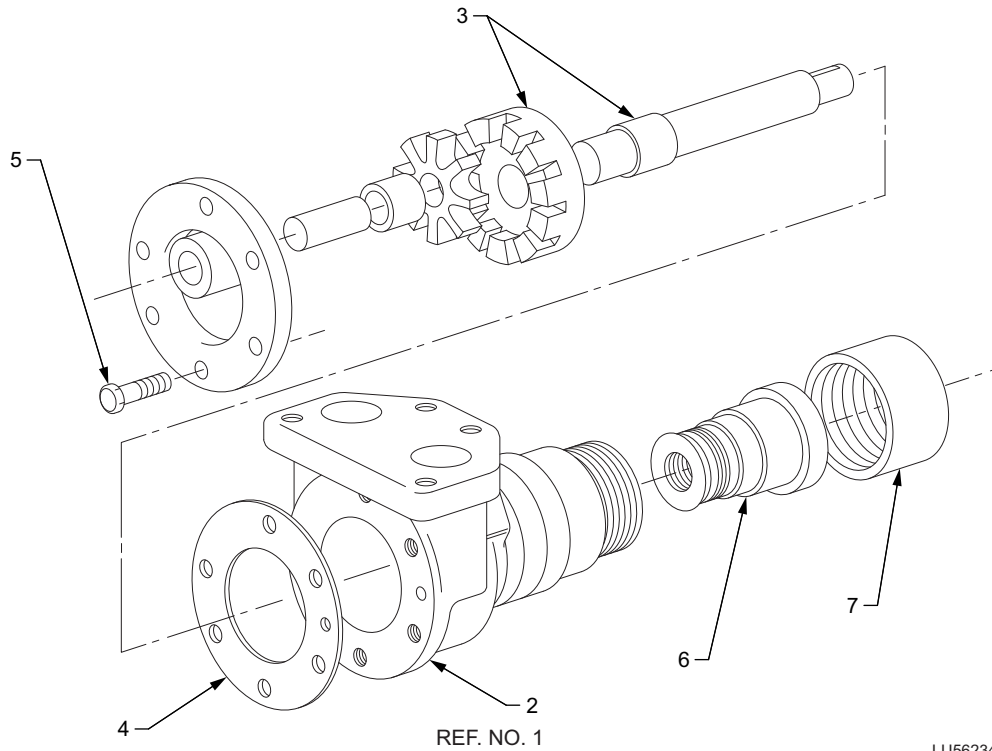


*The following ship loose items Ref. No. 1 and Ref. Nos. 9 thru 13 are applicable to one Engine.
A minimum order quantity may apply. Please contact Customer Service to confirm.*

Asm - Ref. No.	Part Number	Qty.	Description
50-1	8455818	1	PUMP AND MOTOR ASSEMBLY.. Soakback
-2	9321020	1	MOTOR ASSEMBLY.. Soakback pump - 3/4 H.P. - 230/460 VAC - 1800 RPM
-3	9320848	1	PUMP ASSEMBLY.. Soakback - Includes bracket and coupling (not shown assembled)
-4	8452127	1	COUPLING ASSEMBLY.. Pump to motor - Includes set screw
-5	8460815	1	PUMP ASSEMBLY.. Soakback - 3 GPM at 1800 RPM - See page 5-17
-6	179839	4	BOLT.. Hex head 3/8-16 x 1 - Bracket mounting
-7	454565	1	PIN.. Motor shaft drive (not shown)
-8	8441843	2	FLANGE.. Diamond shape - 3/4PT (not shown)
-9	40034626	2	GASKET.. Soakback pump inlet/outlet - Edge molded seal (not shown)
-10	40050222	1	SWITCH.. Soakback pump - Low pressure alarm - 1 to 75 PSI range (not shown)
-11	179841	4	BOLT.. Hex head 3/8-16 x 1-1/4 - Motor mounting (not shown)
-12	6101225	4	WASHER.. Flat 3/8 (not shown)
-13	9521844	1	VALVE.. Relief - Check 1 (not shown)
-14	8280951	1	STRAINER.. Lube oil - Hand pump (not shown)

M6776-9563478C

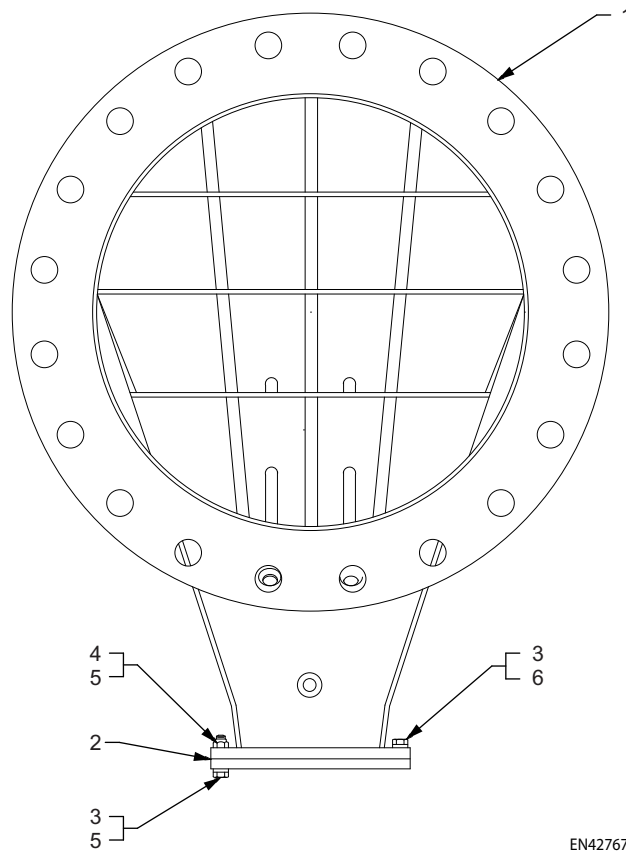
Soakback Oil Pump Assembly



A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
50-1	8460815	1	PUMP ASSEMBLY.. Soakback - 3 GPM at 1800 RPM
-2	40000936	1	CASING ASSEMBLY.. Soakback pump - Includes bushing
-3	9523983	1	ROTOR ASSEMBLY.. Soakback pump - Includes shaft
-4	8031501	1	KIT.. Gasket - Soakback pump head - Includes one (1) Gasket 0.003 inch thick and four (4) Gaskets 0.001 inch thick
-5	181311	6	BOLT.. Hex head 1/4-28 x 5/8
-6	8228321	1	SEAL.. Oil - Soakback pump mechanical
-7	8278579	1	NUT.. Soakback pump packing

Assembly 51: EXHAUST OUTLET ADAPTER APPLICATION



The following ship loose items are applicable to one Engine.

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
51-1	9580413	1	ADAPTER ASSEMBLY.. Exhaust outlet
-2	9570083	1	GASKET.. Engine exhaust adapter mounting - 37 x 10-1/4 inches
-3	9570138	3	SPACER.. 1-1/16 O.D.
-4	9338626	16	NUT.. Hex 1/2-20 - Special
-5	8260114	32	WASHER.. Special - Basket bolt - 1-1/16 O.D.
-6	8259128	19	BOLT.. Hex head 1/2-20 x 2-15/16 - Exhaust adapter mounting

M6628-9570139

Assembly 52: ACCESSORY RACK SHIPPED LOOSE ITEMS

The following Ship Loose items are not illustrated.

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref. No.	Part Number	Qty.	Description
52-1	8032761	8	NUT.. Self Lock 1/2-13
-2	102637	8	NUT.. Hex 1/2-13
-3	120384	8	WASHER.. Lock 1/2
-4	6101229	8	WASHER.. Aircraft 1/2
-5	180194	8	BOLT.. Hex head 1/2-13 x 4

M6703

Assembly 53: MISCELLANEOUS SHIP LOOSE

The following components are Ship Loose items and are not illustrated.

A minimum order quantity may apply. Please contact Customer Service to confirm.

Asm - Ref.No.	Part Number	Qty.	Description
53-1	40040320	1	SWITCH.. Vacuum
-2	8383236	1	PLATE.. Orifice
-3	8383230	1	PLATE.. Orifice

M6463, M6912

Part Number	Asm - Ref. No.	Page	Part Number	Asm - Ref. No.	Page	Part Number	Asm - Ref. No.	Page	Part Number	Asm - Ref. No.	Page
Part Number Index			106643	18-37	1-49	179837	7-27	1-24	181370	12-3	1-29
			108626	24-17	1-73		36-79	2-7		14-19	1-39
			108627	24-18	1-73	179839	18-58	1-51		26-4	1-81
IND0501	36-105	2-7	109084	36-4	2-10		25-26	1-78		29-8	1-88
IND0510	36-118	2-7	110287	36-2	2-10		28-9	1-87	181374	17-7	1-46
101890	26-10	1-84	110534	16-6	1-45		50-7	5-14	181376	18-48	1-51
102635	7-29	1-24		16-18	1-45	179841	51-6	5-16	181377	17-9	1-46
	23-56	1-69	112578	46-24	5-9		23-52	1-69	181380	18-51	1-51
	36-82	2-7	113177	18-21	1-49		25-11	1-79	181429	33-26	1-94
	45-19	5-8	113860	47-9	5-11		25-21	1-78	181431	17-13	1-46
102637	36-97	2-7	114788	26-18	1-85		33-29	1-94		33-37	1-94
	37-14	3-2	114981	41-15	4-3		36-77	2-7		42-48	5-3
	53-2	5-19	115237	36-115	2-7		51-11	5-16	181432	18-6	1-49
102639	10-7	1-27	116102	26-12	1-82	179843	20-34	1-59		23-25	1-67
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	36-125	2-7	116103	26-9	1-82		23-46	1-69		27-2	1-86
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	13-5	1-33		21-24	1-61	179848	20-35	1-59	181436	18-32	1-49
	18-106	1-53	118748	18-35	1-49		21-35	1-61		23-24	1-67
	36-4	2-10	118750	13-17	1-33		23-55	1-69	181440	23-11	1-65
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103321	12-4	1-29	119096	36-126	2-9	179879	7-25	1-24	181446	27-5	1-86
103323	7-26	1-24	119099	36-127	2-9	179880	18-74	1-52	186310	18-81	1-52
	24-15	1-73	119100	36-114	2-7	179881	47-12	5-11		18-94	1-53
103325	13-10	1-33		42-26	5-3	179883	24-14	1-73	186338	33-28	1-94
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103385	26-17	1-85	120396	36-90	2-7	179887	23-10	1-65	187697	16-26	1-45
103723	38-3	3-3		37-12	3-2		36-151	2-9	188146	16-7	1-45
103868	36-68	2-5	131019	1-13	1-7		49-5	5-13	189060	7-16	1-23
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103869	36-41	2-3	138105	36-3	2-10		36-88	2-7		20-36	1-59
103870	23-64	1-69	138244	18-79	1-52	180083	25-30	1-78		21-36	1-61
	36-60	2-5	138294	16-15	1-45	180124	22-3	1-63	191034	13-14	1-33
103877	33-42	1-94	138312	23-15	1-65	180126	22-8	1-63	216342	44-14	5-6
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	36-46	2-3	144043	7-15	1-23	180181	37-13	3-2	219352	36-130	2-9
	42-39	5-3	144045	36-73	2-5	180194	53-5	5-19	219377	44-7	5-6
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103879	36-48	2-3	145372	36-40	2-3		50-8	5-15		36-99	2-7
	42-38	5-3	171732	36-75	2-5		51-5	5-17		42-49	5-3
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	23-47	1-69	179795	6-32	1-21			1-83	223771	10-12	1-27
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	36-6	2-10	179816	19-13	1-57	181361	26-8	1-82	271565	36-148	2-9
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106642	2-17	1-9	179818	13-3	1-36	181365	17-8	1-46	271587	23-58	1-69
	23-4	1-70	179819	18-65	1-51		26-3	1-81	271588	13-11	1-33
	36-110	2-7									

Part Number	Asm - Ref. No.	Page	Part Number	Asm - Ref. No.	Page	Part Number	Asm - Ref. No.	Page	Part Number	Asm - Ref. No.	Page
271589	18-101	1-53		25-16	1-75		23-31	1-67	8082473	47-5	5-11
271612	36-83	2-7		27-3	1-86		23-41	1-67	8082586	18-24	1-49
271615	10-8	1-27		30-10	1-89	8032719	18-7	1-49	8082587	18-87	1-52
271616	36-85	2-7		33-27	1-94		23-5	1-65	8082592	47-4	5-11
	42-45	5-3		36-95	2-7	8032721	13-12	1-33	8082632	47-6	5-11
271617	36-87	2-7		37-7	3-2		18-99	1-53	8084037	47-11	5-11
271656	36-84	2-7		42-10	5-2	8032724	1-14	1-7	8084468	30-1	1-89
271746	23-66	1-69		42-51	5-3		24-28	1-73	8084754	17-3	1-46
272511	1-11	1-7		47-13	5-11	8032745	49-10	5-13	8084755	17-2	1-46
272512	1-12	1-7		49-6	5-13	8032761	53-1	5-19	8084863	12-1	1-30
272563	43-3	5-4		53-4	5-19	8032813	26-6	1-82	8084871	12-5	1-30
273046	23-38	1-67	6101233	2-4	1-10			1-83	8085062	18-80	1-52
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273337	3-5	1-12		23-67	1-69	8034673	15-6	1-42	8085119	17-4	1-46
426318	9-2	1-26		36-149	2-9	8035145	47-10	5-11	8085182	19-10	1-57
426447	2-3	1-10		42-8	5-2		47-21	5-11	8085799	18-36	1-49
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