

P6140

For Models: L6140A, L6140AL,
L6140AL2, & M6140AL

PARTS CATALOG

Marine Generators | Marine Diesel Engines | Land-Based Generators



LUGGER





— CALIFORNIA —
Proposition 65 Warning:

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

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PARTS CATALOG

for Models L6140A, L6140AL, L6140AL2, & M6140AL

Please read thoroughly before attempting to use this manual:

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Proprietary Information

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INTRODUCTION

MODEL DESIGNATION

MODEL NUMBERS

Model numbers give the unit's application, block model, aspiration and RPM:

L - M

L - Lugger propulsion engine

M - Northern Lights marine generator set

6140

Base engine model series

A, AL, AL2

A
Indicates turbocharged and aftercooled - standard profile.

AL
Indicates turbocharged and aftercooled - Low profile.

AL2
Indicates turbocharged with separate circuit after-cooling - low profile.

L6140A

Lugger propulsion engine turbocharged and aftercooled.

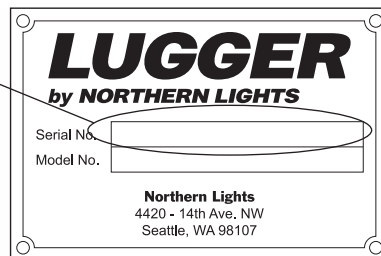
M6140A

Northern Lights marine diesel generator set.

SERIAL NUMBERS

LUGGER: Your Lugger propulsion engine has the serial number plate on the flywheel housing.

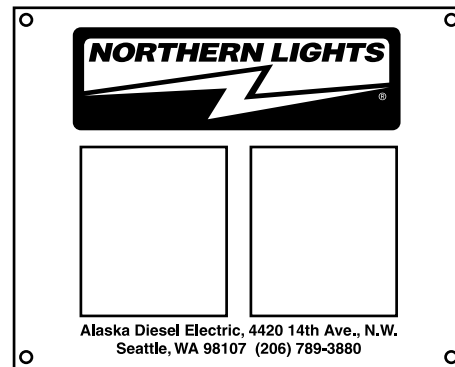
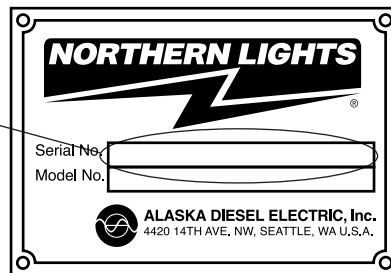
Lugger Serial Number



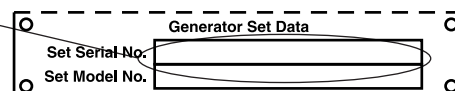
NORTHERN LIGHTS: Every Northern Lights generator set has two data plates and two serial numbers, which may cause some confusion. One serial number is for the generator end, and it is found on the Generator End Data Plate. The other serial number, found with the **Generator Set Data Plate**, should be used when ordering parts.

Serial Numbers for Northern Lights are eight digits. e.g. 1234-5678.

Generator Set Serial Number



Generator End Serial Number



READING A PARTS PAGE

IMPORTANT:

Before selecting parts, be sure that you are choosing parts from the correct page.
 Check the model designation at the page top.
 Do not use this illustration for parts purchasing.

KEY	PART NUMBER	QTY.	DESCRIPTION	SERIALNUMBER
0	185046210	1	Alternator Assembly	-
1	185446219	1	Flywheel, complete	-
2	185446217	1	Plate, complete	-
3	185716200	1	Plate	-
4	185446218	1	Stator, complete	-
5	040126210	2	Bearing	-
6	020210010	1	Nut	-
7	027100010	1	Spring washer	-
8	026100010	1	Washer	-
9	185446220	1	Clamp	-
10	015140408	1	Screw	-
11	015140425	2	Screw	-
12	199236510	1	Collar	-

REFERENCES:

- | | |
|--|--|
| 1. Grouping section title. | 7. Quantity of parts used. |
| 2. Model designation of equipment that uses parts listed on this page. | 8. Description of each component part. |
| 3. Title and description of assembly. | 9. Serial number of unit the part fits. |
| 4. Drawing numbers that correspond to key column numbers for parts identification. | 10. Assembly or kit designated by Key 0 or ••/•. |
| 5. Key column for locating parts shown on drawing. | 11. Grouping index number. |
| 6. Part number. | 12. Page number within the grouping index. |
| | 13. Manual title. |
| | 14. Page publication date. |

NOTE: ⇒ Arrows always point toward the front of the engine.

GROUP 1 - ENGINE

CYLINDER BLOCK

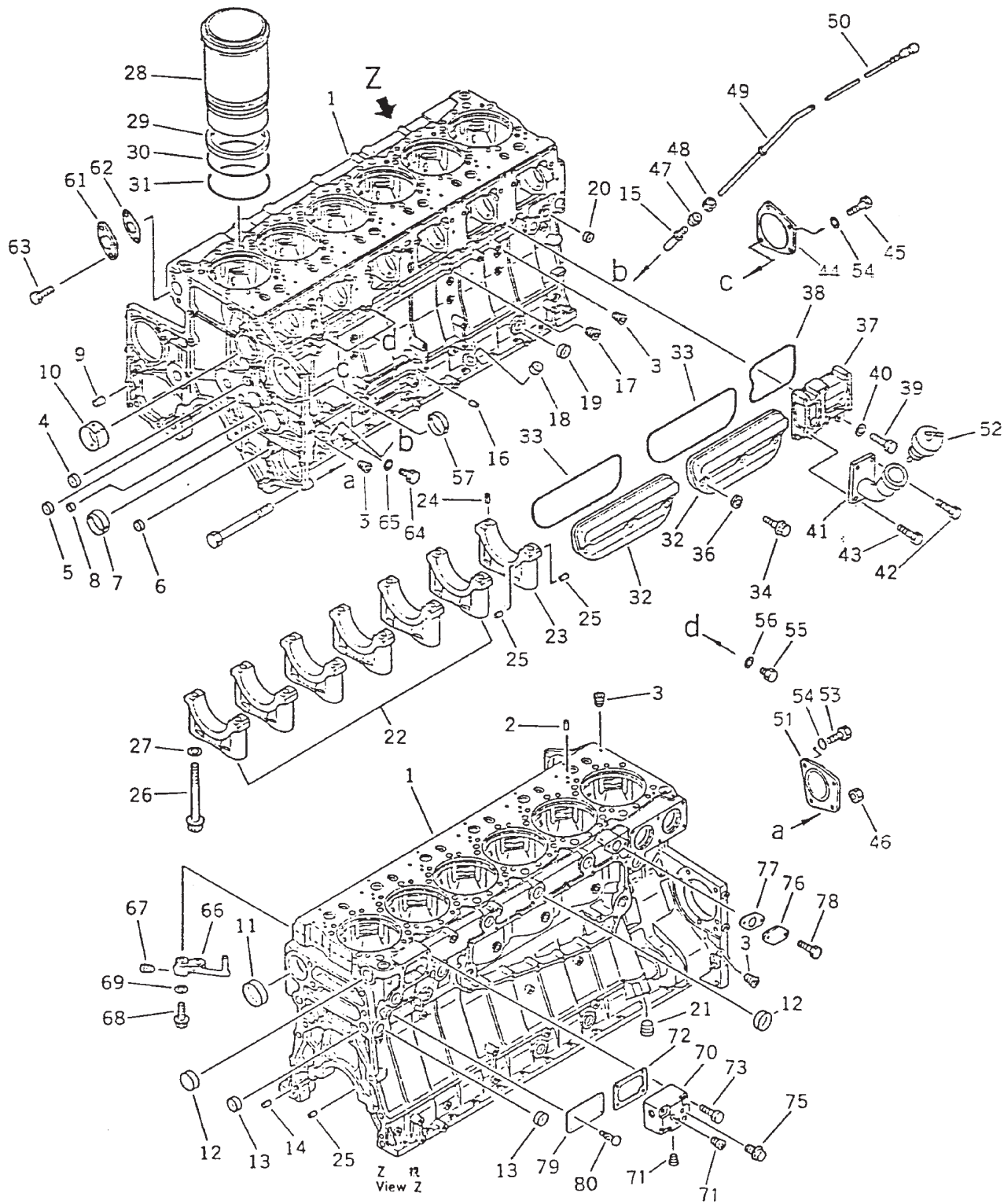


Figure 2005

GROUP 1 - ENGINE

CYLINDER BLOCK

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6211-21-1103	1	Cylinder Block Assembly (includes keys 2-27 former #6211-21-1102)	-
2	04020-00820	12	Dowel Pin	-
3	07043-70108	13	Plug	-
4	07046-42516	2	Expansion Plug 16mm	-
5	07046-41810	2	Plug	-
6	07046-11816	2	Plug	-
7	6210-21-1790	1	Bushing	-
8	07046-41008	1	Plug	-
9	6210-21-1910	3	Pin	-
10	6210-21-1490	7	Camshaft Bushing	-
11	07046-47020	1	Plug	-
12	07046-43516	7	Plug	-
13	6210-81-9210	2	Plug	-
14	6150-21-4770	2	Dowel Pin	-
15	6150-21-5910	1	Bushing	-
16	04020-01024	2	Dowel Pin	-
17	07043-00211	1	Plug	-
18	07046-42010	1	Plug	-
19	07046-42816	2	Plug	-
20	07043-00415	1	Plug	-
21	07043-71019	1	Plug	-
22	6210-21-1210	6	Main Bearing Cap, #1 - 6	-
23	6210-21-1250	1	Main Bearing Cap, #7	-
24	04020-00514	2	Dowel Pin	-
25	6210-21-1390	6	Pin	-
26	6210-21-1710	14	Bolt	-
27	01643-31845	14	Washer	-
28	6211-21-2220	6	Cylinder Liner	-
29	6210-21-2250	6	Crevice Seal	-
30	6210-21-2240	6	Center O-Ring	-
31	6210-21-2230	6	Lower O-Ring	-
32	6210-21-6410	2	Cover	-
33	6150-21-6460	2	O-Ring	-
34	6210-21-6471	6	Bolt	-
36	6150-21-6390	6	Packing	-
37	6210-21-6440	1	Cover	-
	6210-25-6440	1	Cover L6140AL2	-
38	6210-21-6452	1	O-Ring (formerly #6210-21-6451) L-M6140A & AL	-
39	12-00832	2	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
40	15-00805	2	Flat Washer M10	-
41	6210-21-6540	1	Oil Filler Neck	-
	6210-25-6540	1	Oil Filler Neck L6140AL2	-
42	12-00071	1	Capscrew, Hex Head M10 x 1.5 x 70 mm	-
43	12-00832	3	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
44	6210-21-1850	1	Cover (keel cooled units)	-
45	12-00912	1	Capscrew, Hex Head M12 x 1.75 x 25 mm	-
46	01580-11210	3	Nut	-
47	6150-21-5920	1	Collar	-
48	6150-21-5930	1	Nut	-
49	6210-21-5410	1	Dipstick Tube - Left Side	-
	27-65001	1	Dipstick Tube - Right Side (with standard oil pan - see assembly detail)	-

— Continued Next Page —

GROUP 1 - ENGINE

CYLINDER BLOCK (CONTINUED)

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
50	6210-21-5310	1	Dipstick - Left & Right Side 0-5° (with standard oil pan)	-
	36-75011	1	Dipstick - Right Side 0-5° (with modified oil pan 36-75001)	-
	36-75009	1	Dipstick - Right Side 0-7° (with modified oil pan 36-75001)	-
	36-75007	1	Dipstick - Left Side 6-7° (with standard oil pan)	-
51	6210-21-1860	1	Cover	-
52	07025-00100	1	Cap	-
53	12-00912	1	Capscrew, Hex Head M12 x 1.75 x 25 mm	-
54	01640-21223	2	Washer	-
55	07040-11409	2	Plug	-
56	07005-01412	2	Gasket	-
57	6210-21-1781	1	Bushing	-
61	6210-21-1950	1	Flange	-
62	6696-61-9920	1	Gasket	-
63	12-00912	2	Capscrew, Hex Head M12 x 1.75 x 25 mm	-
64	07040-11007	1	Plug	-
65	07005-01012	1	Gasket	-
66	6211-21-1800	6	Piston Cooling Nozzle Assembly (includes key #67) L-M6140A&AL	-
	6211-21-1900	6	Piston Cooling Nozzle Assembly (includes key #67) L6140AL2	-
67	02720-40104	1	Plug	-
68	01437-01025	6	Capscrew, 12 Point M10 x 1.5 x 25mm	-
69	01641-21016	6	Washer	-
70	6212-25-1111	1	Cover (formerly #6212-25-1110, standard profile only)	-
71	07043-00415	3	Plug, Socket Head 1/2BSPT	-
72	6210-21-1971	1	Gasket	-
73	12-00071	4	Capscrew, Hex Head M10 x 1.5 x 70 mm	-
75	287-35-11470	1	Plug	-
76	6210-21-1820	1	Plate	-
77	6210-61-6550	1	Gasket	-
78	12-00831	2	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
79	09605-01440	1	Name Plate	-
80	04418-02550	4	Screw	-

GROUP 1 - ENGINE

CRANKSHAFT

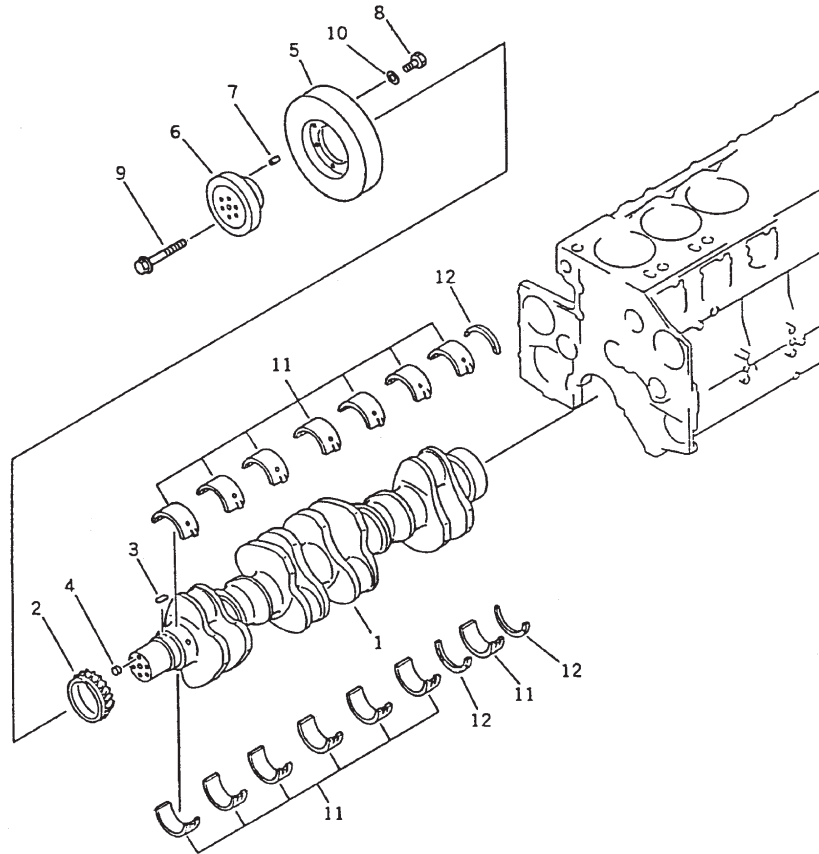


Figure 2303

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6211-31-1010	1	Crankshaft Assembly (includes keys #2 - #4)	-
2	6210-31-1120	1	Gear	-
3	6150-31-1130	1	Key	-
4	6211-31-1420	1	Pin	-
5	6211-31-8200	1	Damper Assembly (no separate spacer) Early Production	-
	6211-32-8200	1	Damper Assembly (uses separate spacer #6) Late Production (formerly 6211-31-8201)	-
6	31-65002	1	Damper Spacer	up to S/N xxxx-0583
	6210-31-1420	1	Damper Spacer	from S/N xxxx-0584
7	04020-01024	1	Dowel Pin	-
8	01010-51225	6	Capscrew, Hex Head M12 x 1.75 x 25 mm	up to S/N xxxx-0583
	01010-51230	6	Bolt	from S/N xxxx-0584
9	6210-81-8710	6	Bolt	-
10	01643-31232	6	Washer	from S/N xxxx-0584
11			MAIN BEARING ASSEMBLIES	
••	6210-21-8000	1	Main Bearing Set - Standard	-
••	6210-21-8010	7	Main Bearing Assembly - Standard	-
••	6210-29-8010	7	Main Bearing Assembly - Undersize, 0.25 mm	-
••	6210-28-8010	7	Main Bearing Assembly - Undersize, 0.50 mm	-
••	6210-27-8010	7	Main Bearing Assembly - Undersize, 0.75 mm	-
••	6210-26-8010	7	Main Bearing Assembly - Undersize, 1.00 mm	-
12			MAIN THRUST BEARING ASSEMBLIES (set of 3 bearings)	
••	6210-21-8050	1	Thrust Bearing Assembly - Standard	-
••	6210-29-8050	1	Thrust Bearing Assembly - Oversize, 0.25 mm	-
••	6210-28-8050	1	Thrust Bearing Assembly - Oversize, 0.50 mm	-
••	6210-27-8050	1	Thrust Bearing Assembly - Oversize, 0.75 mm	-
••	6210-26-8050	1	Thrust Bearing Assembly - Oversize, 1.00 mm	-

GROUP 1 - ENGINE

FLYWHEEL AND FLYWHEEL HOUSING - EARLY PRODUCTION

Propulsion Applications

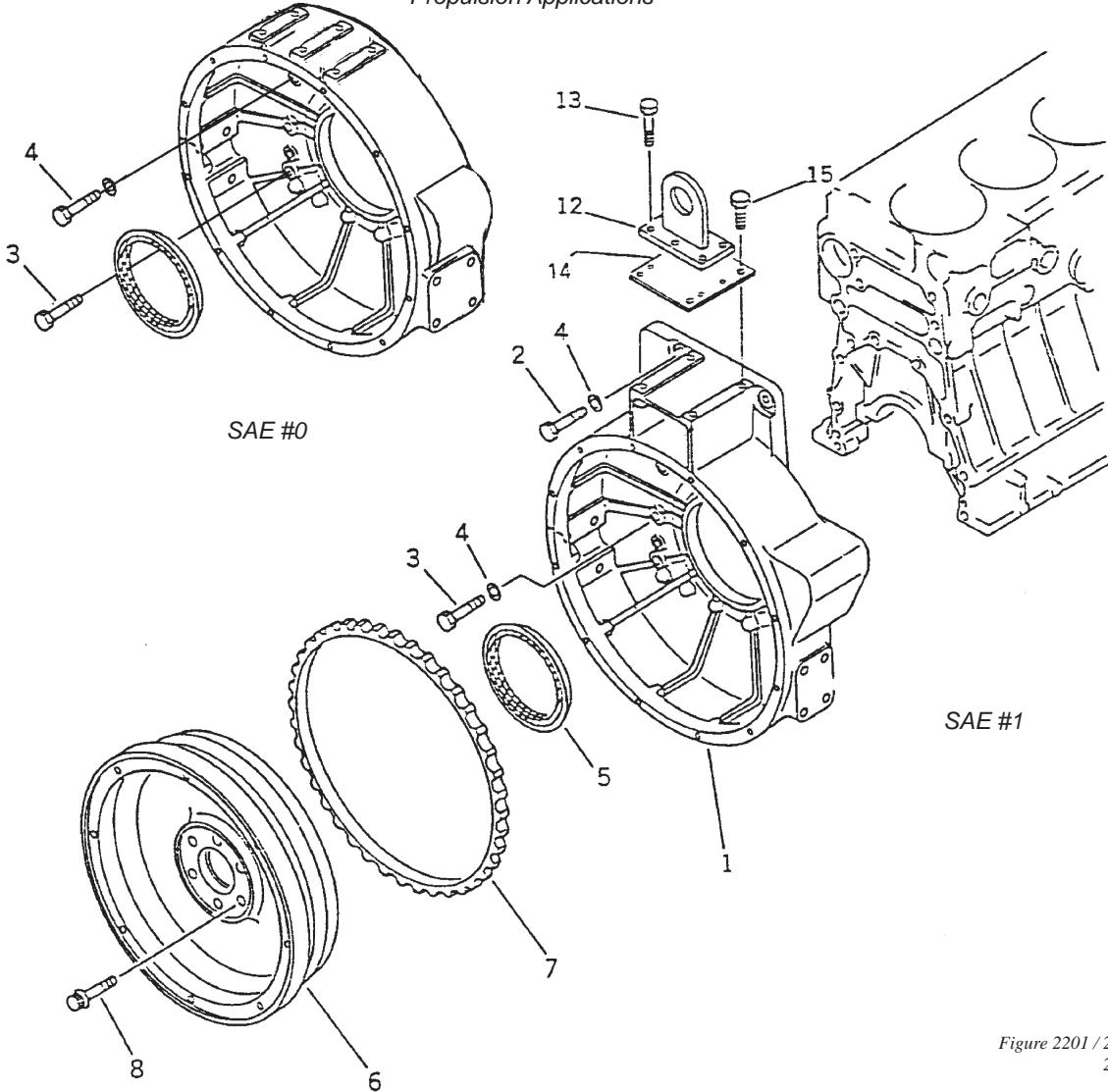


Figure 2201 / 221A02
221B02

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6210-21-4130	1	Flywheel Housing - SAE #0	
	6210-21-4120	1	Flywheel Housing - SAE #1	-
2	01010-31645	2	Bolt	-
3	01010-31660	8	Bolt for SAE #1 Housing	-
	01010-31655	8	Bolt for SAE #0 Housing	-
4	6150-31-1810	10	Washer	-
5	6150-21-4230	1	Rear Main Seal - Standard*	-
	6150-29-4230	1	Rear Main Seal - Repair*	-
6	6211-31-1502	1	Flywheel Assembly - SAE #18 (includes key #7)	-
	6211-31-1401	1	Flywheel Assembly - SAE #14 (includes key #7)	-
7	6211-31-1350	1	Ring Gear (for SAE #18 Flywheel)	-
	6150-31-1351	1	Ring Gear (for SAE #14 Flywheel)	-
8	6210-31-1360	6	Bolt - SAE #14 Flywheel	-
	6210-31-1350	6	Bolt - SAE #18 Flywheel	-
9	6120-21-3750	1	Lifting Eye - SAE #1 Flywheel Housing	-
10	12-00831	4	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
11	6210-21-3820	1	Plate	-
12	12-00953	4	Capscrew, Hex Head M12 x 1.75 x 30 mm	-
			*Can use repair sleeve #6610-29-2370 with either rear main seal.	

FLYWHEEL AND FLYWHEEL HOUSING - LATE PRODUCTION

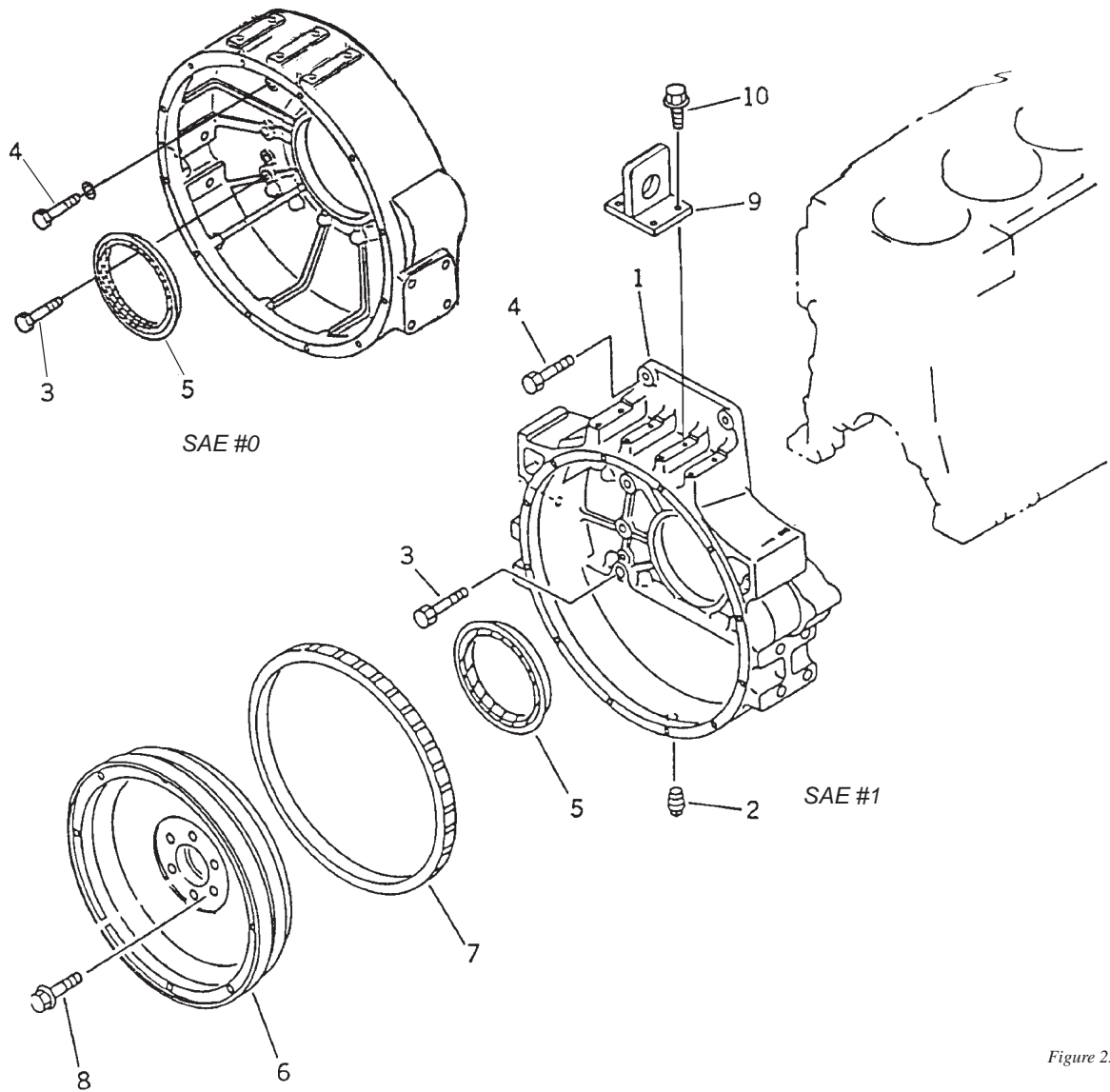


Figure 2202

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6210-21-4232	1	Flywheel Housing SAE #0 (formerly #6210-21-4230)	from S/N xxxx-0548
	6210-21-4740	1	Flywheel Housing SAE #1	"
2	07042-00617	1	Plug SAE #1 Housing	"
3	01010-31660	2	Capscrew, Hex Head M16 x 2.0 x 60mm	"
4	01010-31655	6	Capscrew, Hex Head M16 x 2.0 x 55mm (SAE #0 Housing)	"
	01010-31645	8	Capscrew, Hex Head M16 x 2.0 x 45mm (SAE #1 Housing)	"
5	6151-21-4150	1	Rear Main Seal - Standard * (formerly #6150-21-4230)	"
	6150-29-4230	1	Rear Main Seal - Repair *	"
6	6211-31-1502	1	Flywheel Assembly SAE #18 (includes key #7)	"
	6210-31-1800	1	Flywheel Assembly SAE #14 (includes key #7)	"
7	6211-31-1350	1	Ring Gear - SAE#18 Flywheel (179 teeth)	"
	6150-31-1351	1	Ring Gear - SAE#14 Flywheel (148 teeth)	"
8	6210-31-1350	6	Bolt	"
9	6210-21-4770	1	Lifting Eye - SAE#1 Flywheel Housing (Standard)	"
	00-75021	1	Lifting Eye - SAE#1 Flywheel H (low profile) formerly #00-75015	"
10	01435-01025	4	Bolt	"
*Can use Repair Sleeve #6610-29-1370 with either Rear Main Seal.				

GROUP 1 - ENGINE

PISTON AND CONNECTING ROD

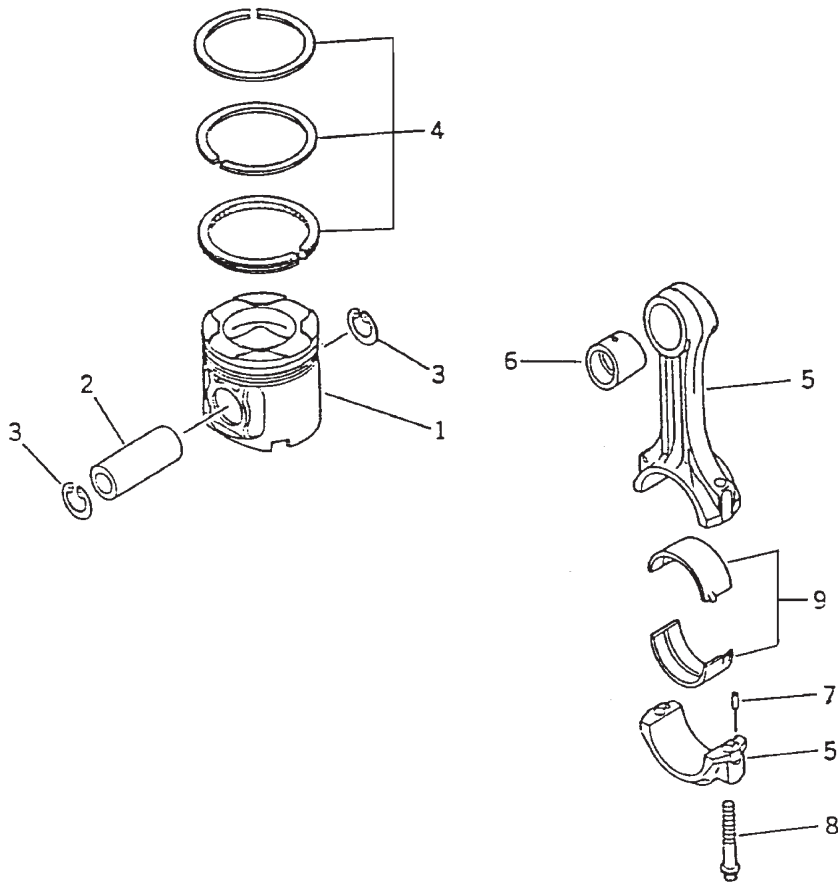


Figure 2351

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6212-31-2170	6	Piston	-
2	6211-31-2410	6	Piston Pin	-
3	04065-05220	12	Snap Ring	-
4	6211-31-2031	6	Piston Ring Set	-
5	6211-31-3100	6	Connecting Rod Assembly (includes keys #6 - #8)	-
6	6211-31-3130	6	Bushing	-
7	02400-10413	12	Dowel Pin	-
8	6210-31-3310	12	Connecting Rod Bolt	-
9			ROD BEARING ASSEMBLIES	-
••	6210-32-3040	6	Bearing Assembly - Standard (formerly 6210-31-3041 & 6210-31-3040)	-
••	6210-39-3042	6	Bearing Assembly - Undersize, 0.25 mm (formerly 6210-39-3041 & 6210-39-3040)	-
••	6210-38-3040	6	Bearing Assembly - Undersize, 0.50 mm (formerly 6210-38-3041 & 6210-38-3040)	-
••	6210-37-3040	6	Bearing Assembly - Undersize, 0.75 mm (formerly 6210-37-3041 & 6210-37-3040)	-
••	6210-36-3040	6	Bearing Assembly - Undersize, 1.00 mm (formerly 6210-36-3041 & 6210-36-3040)	-

GROUP 1 - ENGINE

CAMSHAFT

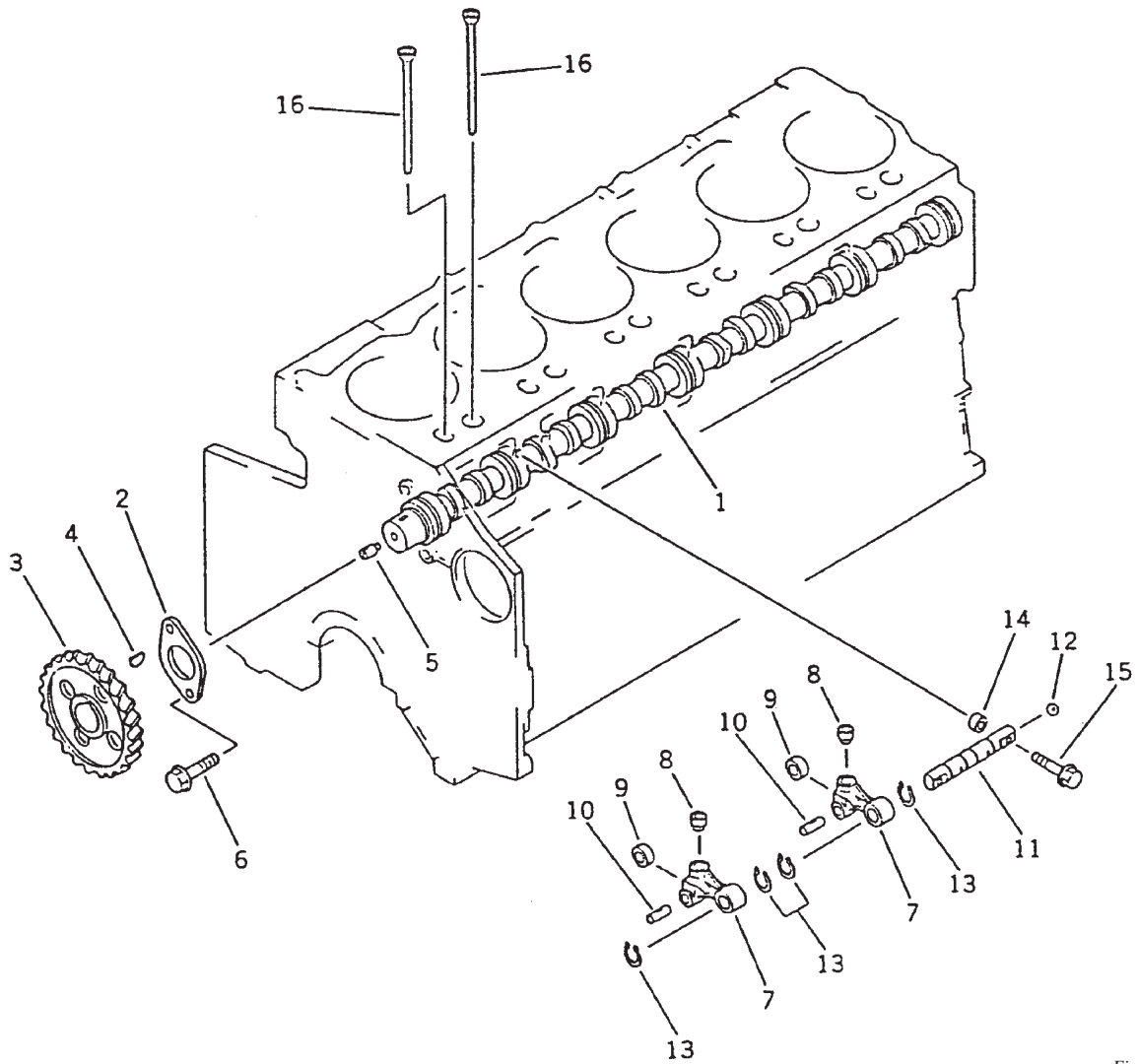


Figure 2401

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	6210-41-1011	1	Camshaft Assembly (includes keys #1 - #4)	-
1	6210-41-1111	1	Camshaft	-
2	6210-41-1130	1	Thrust Plate	-
3	6210-41-1120	1	Camshaft Gear	-
4	04010-00725	1	Key	-
5	6210-81-3510	1	Shaft	-
6	6210-81-8340	2	Bolt	-
••	6210-41-2010	6	Cam Follower Assembly (includes keys #7 - #13)	-
7	6210-41-2300	12	Lever Assembly (includes keys #8 - #10)	-
8		1	Socket	-
9		12	Cam Follower Roller	} Not available separately
10		12	Pin	
11	6210-41-2400	6	Shaft Assembly (includes key #12)	
12	6150-81-8420	6	Ball Bearing	-
13	04064-02212	24	Snap Ring	-
14	6210-41-2430	12	Dowel Ring	-
15	6210-41-2450	12	Bolt	-
16	6210-41-3120	12	Push Rod (formerly #6210-41-3110)	-

GROUP 1 - ENGINE

TIMING COVER

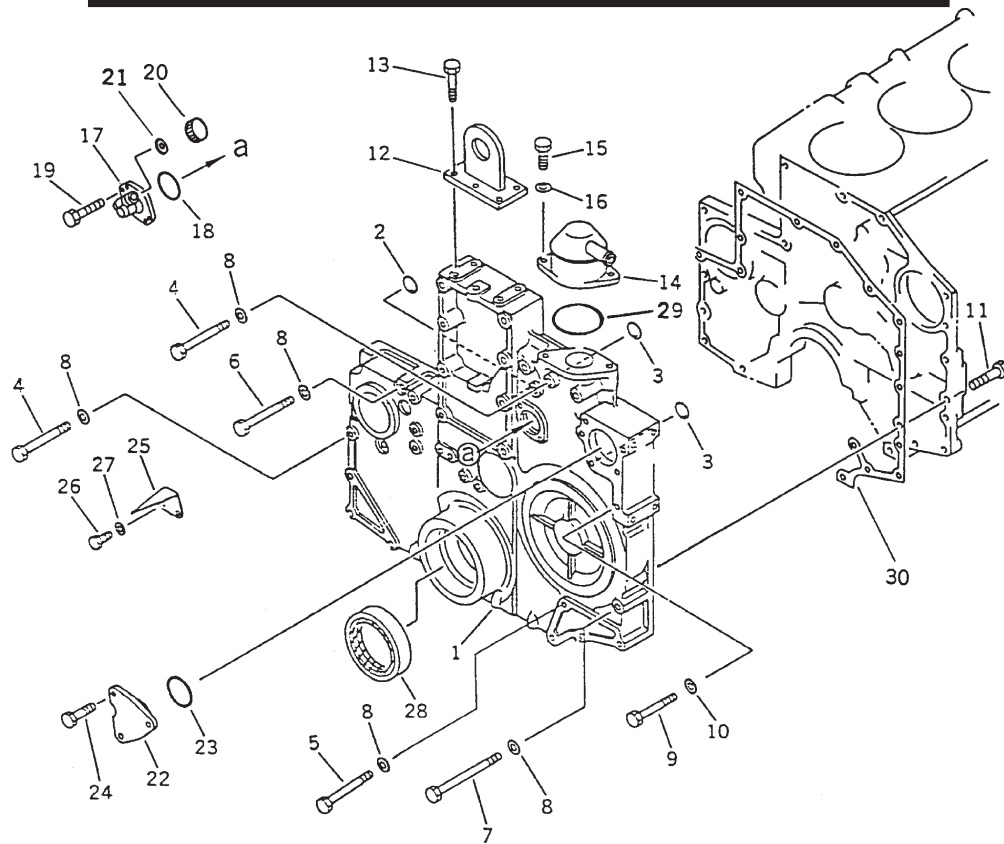


Figure 2021

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6210-21-3121	1	Timing Cover	-
2	07046-11816	2	Plug	-
3	07046-11516	2	Plug	-
4	01010-81290	3	Bolt	-
5	01011-81200	1	Bolt	-
6	01010-81280	1	Bolt	-
7	01017-51220	1	Bolt	-
8	01640-21223	6	Washer	-
9	01011-81000	3	Capscrew, Hex Head M10 x 1.5 x 100 mm	-
10	01640-21016	3	Flat Washer M10	-
11	01010-81050	2	Capscrew, Hex Head M10 x 1.5 x 50 mm	-
12	00-75019	1	Lifing Eye	-
13	01010-E1035	4	Capscrew, Hex Head M10 x1.5 x 35 mm	-
14	6210-21-8711	1	Breather (formerly #6210-21-8710) (see Crankcase Vent Filter detail in Accessories)	-
15	01010-81020	2	Capscrew, Hex Head M10 x 1.5 x 20 mm	-
16	01640-21016	2	Flat Washer M10	-
17	6210-81-4110	1	Tachometer Drive	-
18	07000-03050	1	O-ring	-
19	01010-50616	2	Bolt	-
20	6136-81-5291	1	Cap	-
21	6130-82-5270	1	Gasket	-
22	6210-21-1880	1	Cover	-
23	07000-12060	1	O-ring	-
24	01010-81020	3	Capscrew, Hex Head M10 x 1.5 x 20 mm	-
25	6210-21-3350	1	Pointer	-
26	01010-50610	2	Bolt	-
27	01640-20610	2	Washer	-
28	6150-21-3230	1	Front Seal	-
	00-04803	1	Wear Sleeve (repair type)	-
29	07000-62060	1	O-ring	-
30	6210-21-3250	1	Gasket	-

GROUP 1 - ENGINE

IDLER GEAR

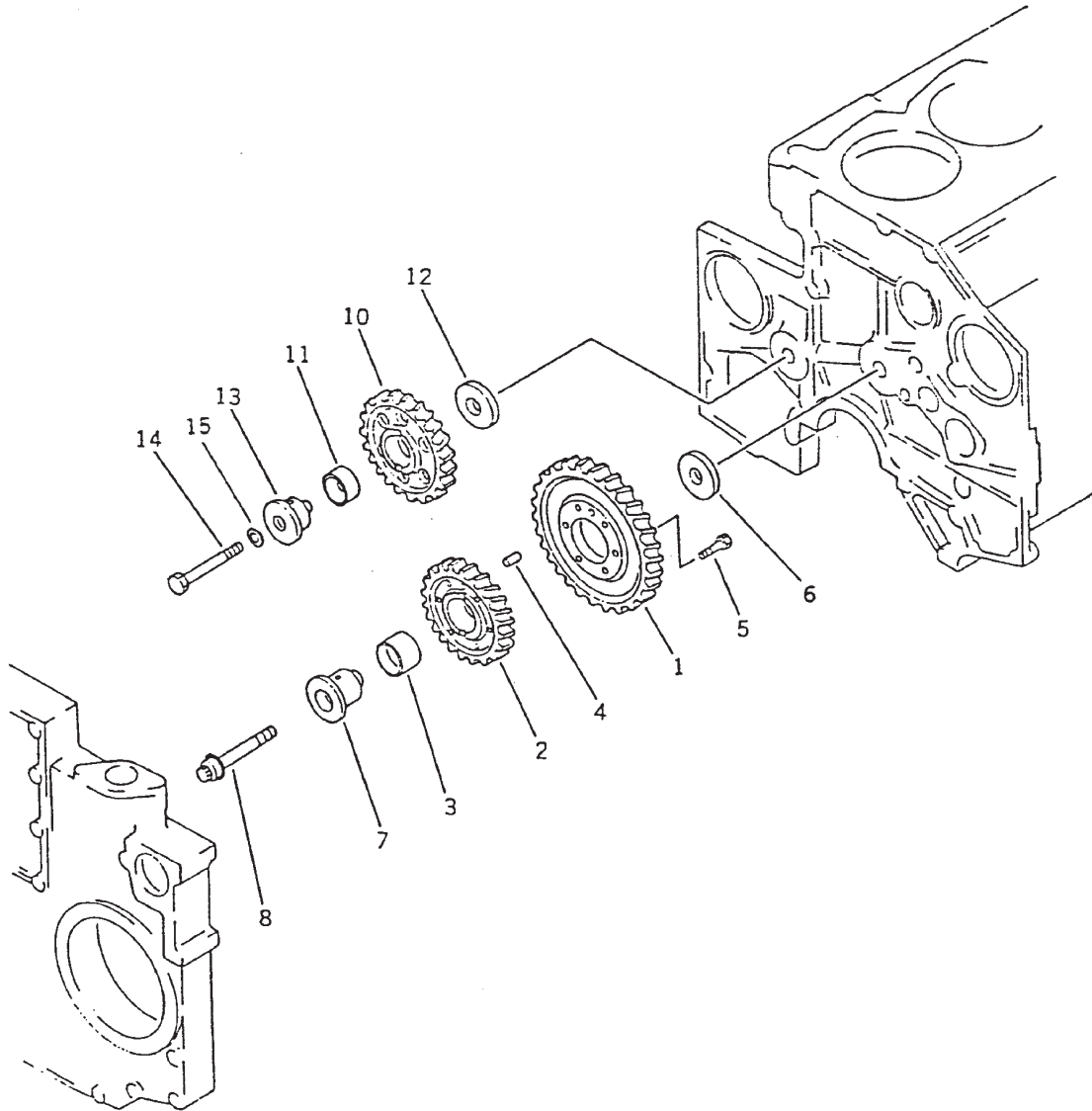


Figure 2031

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6210-31-6311	1	Idler Gear	up to s/n 18464 ↓
2	6210-31-6201	1	Idler Gear Assembly (includes key #3)	
3	6210-31-6131	1	Bushing	
4	6127-21-1260	1	Dowel Pin	
5	01010-30830	6	Bolt	
6	6210-21-2421	1	Thrust Plate	
7	6210-21-2412	1	Idler Gear Shaft	
8	6210-21-2440	1	Bolt	
10	6210-31-6101	1	Idler Gear Assembly (includes key #11)	
11	6210-31-6121	1	Bushing	
12	6210-21-2421	1	Thrust Plate	
13	6210-21-2512	1	Idler Gear Shaft	
14	01050-31880	1	Bolt	
15	01643-31845	1	Washer	

IDLER GEAR

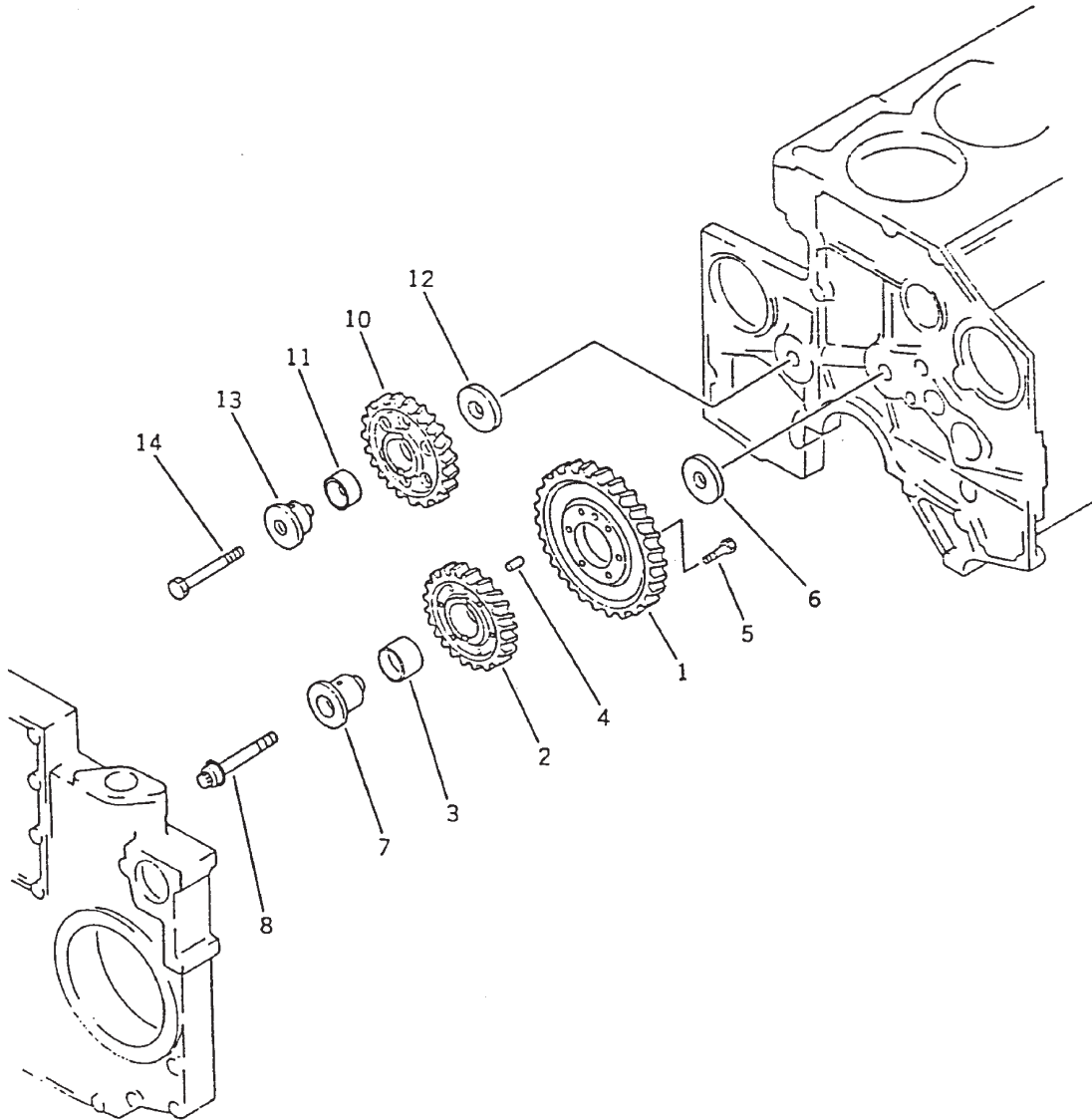


Figure 2031

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6210-31-6311	1	Idler Gear	from s/n 18465 ↓
2	6210-31-6201	1	Idler Gear Assembly (includes key #3)	
3	6210-31-6131	1	Bushing	
4	6127-21-1260	1	Dowel Pin	
5	01010-30830	6	Bolt	
6	6210-21-2421	1	Thrust Plate	
7	6210-21-2414	1	Idler Gear Shaft	
8	6210-21-2440	1	Bolt	
10	6212-31-6100	1	Idler Gear Assembly (includes key #11)	
11	6212-31-6120	1	Bushing	
12	6210-21-2422	1	Thrust Plate	
13	6212-21-2511	1	Idler Gear Shaft	
14	6212-21-2450	1	Bolt	

NOTES

LUBRICATING OIL FILTER

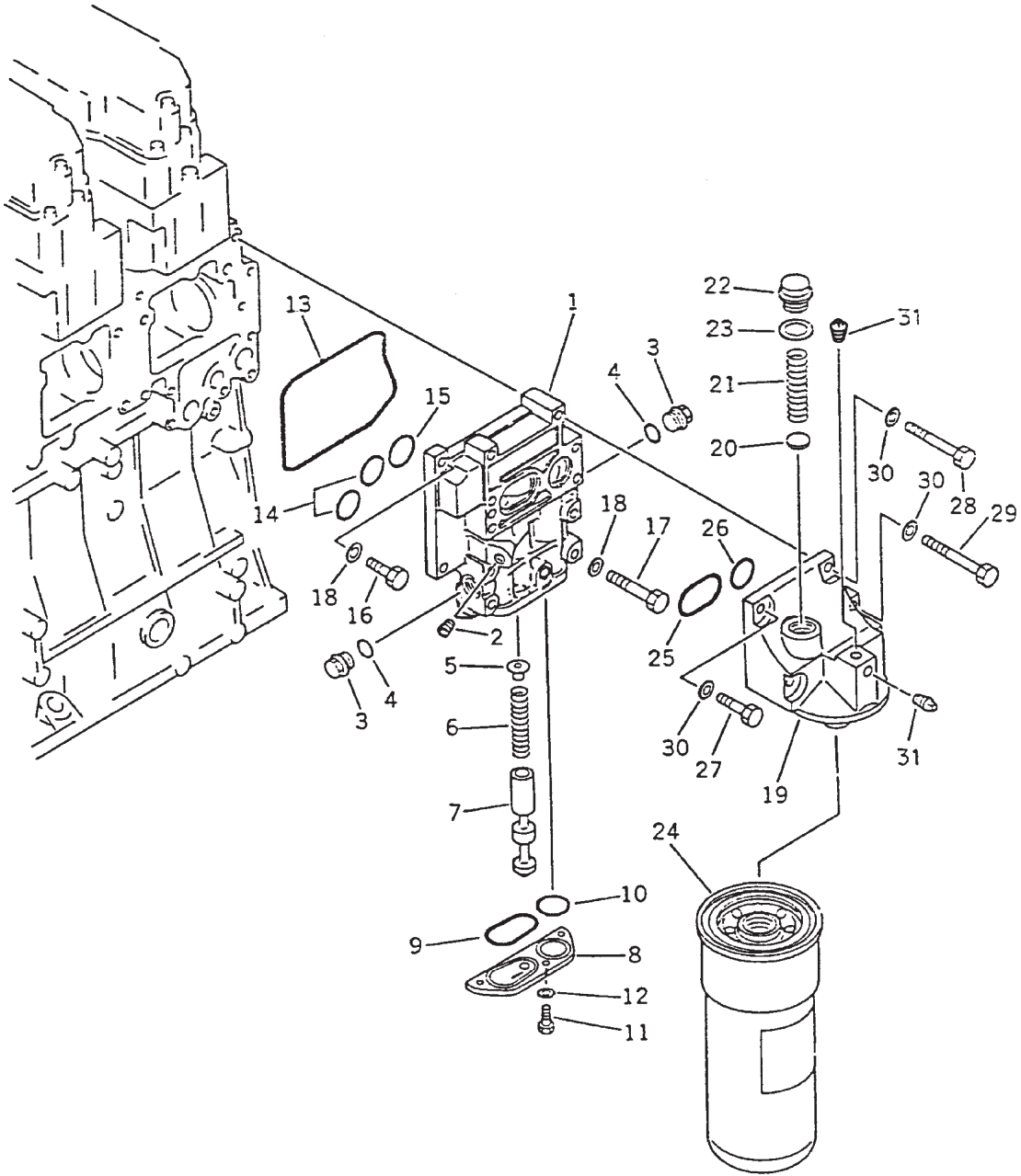


Figure 3101

GROUP 1 - ENGINE

LUBRICATING OIL FILTER

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	6211-51-5500	1	Adapter Assembly (includes keys #1 - #12)	up to S/N xxxx-0742
••	6212-55-5500	1	Adapter Assembly (includes keys #1 - #12)	from S/N xxxx-0743
1	6211-51-5510	1	Body	-
2	07043-00211	1	Plug	-
3	6210-51-5570	2	Plug	-
4	07000-62018	2	O-ring	-
5	6210-51-5590	1	Seat	-
6	6210-51-5560	1	Spring, Pressure Relief (83mm LOA)	up to S/N xxxx-0742
	6212-55-5560	1	Spring, Pressure Relief (93mm LOA)	from S/N xxxx-0743
7	6210-51-5550	1	Valve	-
8	6211-51-5520	1	Cover	-
9	6210-51-5580	1	O-ring	-
10	07000-63032	1	O-ring	-
11	01010-30816	3	Bolt	-
12	01640-20816	3	Washer	-
13	6210-21-6462	1	O-ring (formerly #6210-21-6460)	-
14	07000-63028	2	O-ring	-
15	07000-63032	1	O-ring	-
16	12-00832	2	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
17	12-00048	5	Capscrew, Hex Head M10 x 1.5 x 60 mm	-
18	15-00805	7	Flat Washer M10	-
••	6211-51-5400	1	Oil Filter Assembly (includes keys #19 - #24)	-
19	6211-51-5410	1	Bracket	-
20	6162-53-5450	1	Packing	-
21	600-211-1870	1	Spring	-
22	6162-53-5420	1	Cap	-
23	6162-53-5430	1	Packing	-
24	24-04801	1	Oil Filter	-
25	07000-73048	1	O-ring	-
26	07000-63032	1	O-ring	-
27	12-00832	1	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
28	12-00819	3	Capscrew, Hex Head M10 x 1.5 x 75 mm	-
29	01010-51085	1	Bolt	-
30	15-00805	5	Flat Washer M10	-
31	21-00050	**	Plug, Square Head 1/8 BSPT	-

**As required.

LUBRICATING OIL PUMP AND PICK-UP

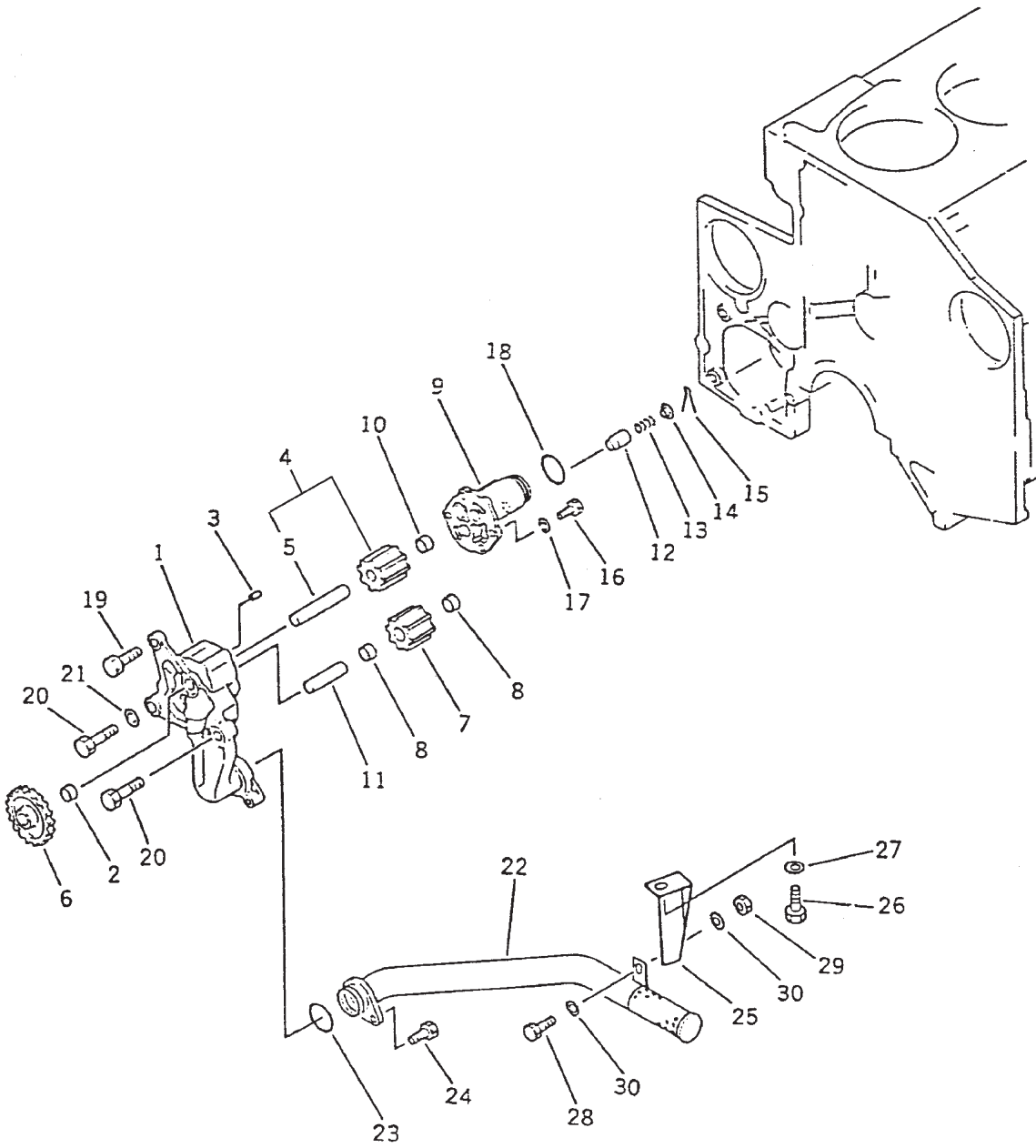


Figure 3001

GROUP 1 - ENGINE

LUBRICATING OIL PUMP AND PICK-UP

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	6212-51-1001	1	Oil Pump Assembly (includes keys #1 - #17 - formerly #6212-51-1000)	-
1	6212-51-1200	1	Body Assembly (includes keys #2 - #3)	-
2	6151-51-1420	1	Bushing	-
3	6136-52-1620	1	Pin	-
4	6212-51-1300	1	Pump Shaft & Gear Assembly (includes key #5)	-
5	6212-51-1310	1	Shaft	-
6	6212-51-1510	1	Pump Drive Gear	-
7	6212-51-1250	1	Pump Gear Assembly (includes key #8)	-
8	6151-51-1421	2	Bushing	-
9	6212-51-1100	1	Cover Assembly (includes keys #10 - #11)	-
10	6151-51-1420	1	Bushing	-
11	6212-51-1320	1	Drive Shaft	-
12	6136-52-1640	1	Valve	-
13	6136-52-1650	1	Spring	-
14	6150-51-1650	1	Retainer	-
15	04050-14035	1	Cotter Pin	-
16	01010-30825	4	Bolt	-
17	01602-00825	4	Spring Washer	-
18	07000-63038	1	O-ring	-
19	01010-31230	1	Bolt	-
20	01010-31240	2	Bolt	-
21	01643-31232	1	Washer	-
22	6210-51-6210	1	Pick-Up w/Screen	up to S/N xxxx-0547
	6210-51-6311	1	Pick-Up w/Screen	from S/N xxxx-0548
23	07000-63040	1	O-ring	-
24	12-00831	1	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
25	6210-51-6220	1	Bracket	up to S/N xxxx-0547
	6210-51-6321	1	Bracket	from S/N xxxx-0548
26	01010-31225	1	Bolt	up to S/N xxxx 0547
	01010-31230	1	Bolt	from S/N xxxx-0548
27	01640-21223	1	Washer	up to S/N xxxx-0547
	01643-51032	1	Washer	from S/N xxxx-0548
28	01010-31020	1	Bolt	-
29	01580-01008	1	Nut	-
30	15-00805	2	Flat Washer M10	-

GROUP 1 - ENGINE

OIL PAN - EARLY PRODUCTION

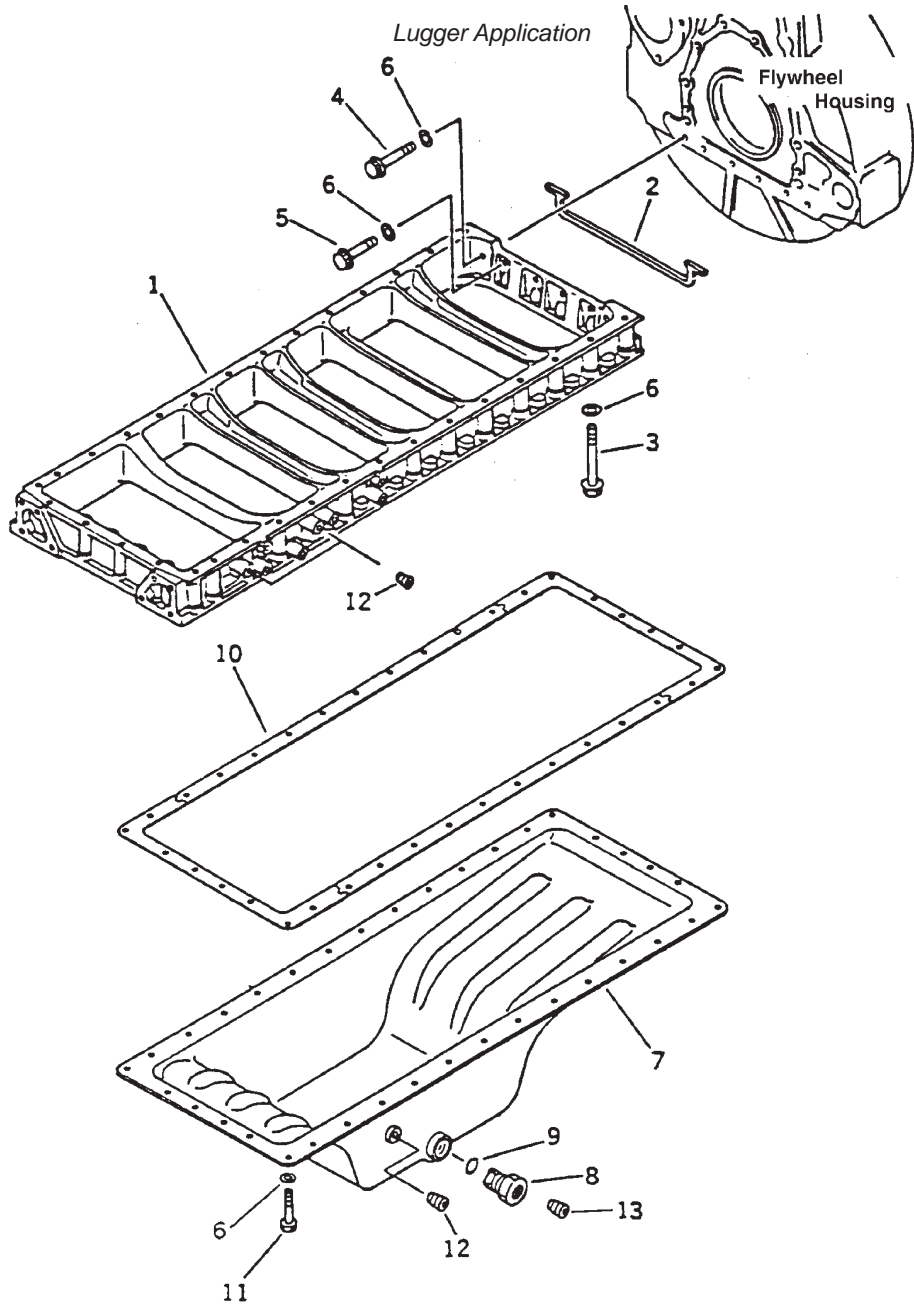


Figure 2105

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6210-21-5210	1	Frame	up to S/N xxxx-0547
2	6210-21-5280	1	Gasket	"
3	6210-81-9410	32	Bolt	"
4	6210-81-9440	2	Bolt	"
5	6210-81-9450	4	Bolt	"
6	15-00805	74	Flat Washer M10	"
7	6210-21-5120	1	Oil Pan - Standard	"
	10-75000	1	Oil Pan - with right side dipstick (not shown)	"
8	6150-21-5630	1	Drain Fitting M36 x 1.5 x 1/2 BSPT	"
9	07002-23634	1	O-ring	"
10	6210-21-5812	1	Gasket	"
11	12-00832	36	Capscrew, Hex Head M10 x 1.5 x 30 mm	"
12	07043-00211	3	Plug	"
13	07042-00415	1	Plug, Socket Head 1/2 BSPT	"

OIL PAN - LATE PRODUCTION

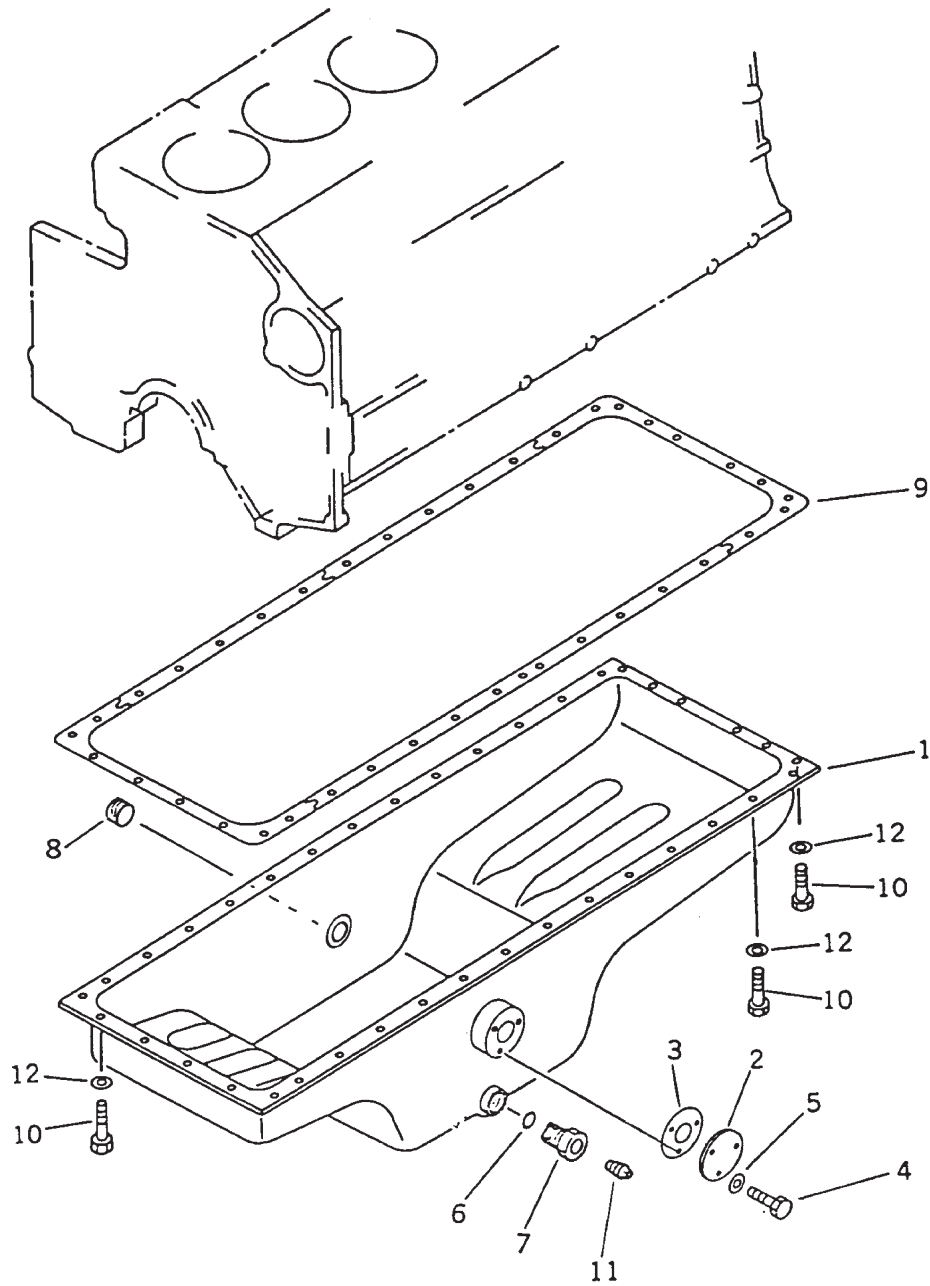
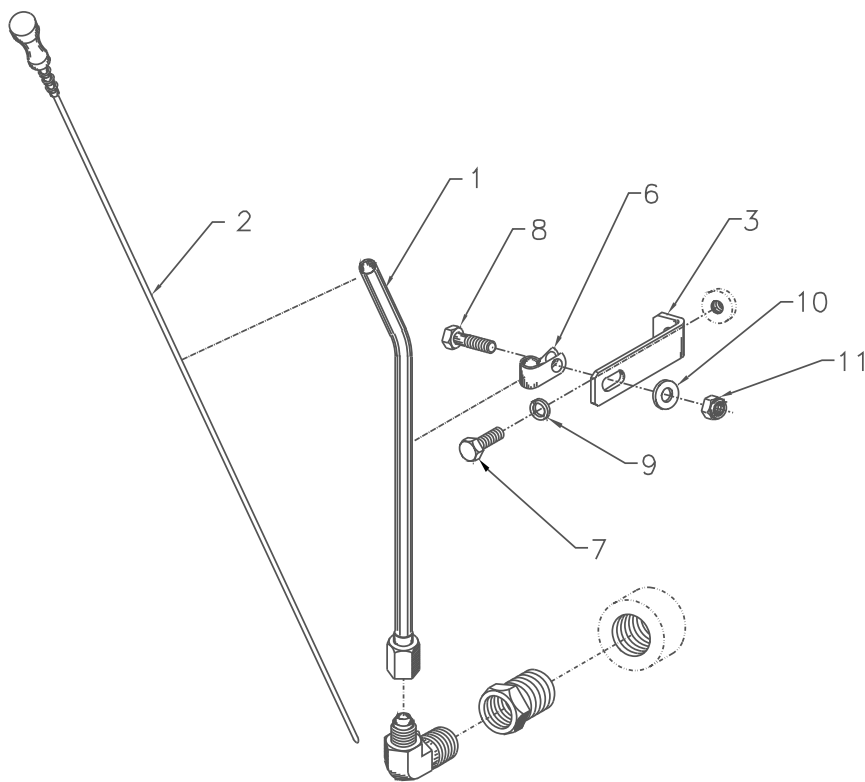


Figure 2106

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6211-21-5240	1	Oil pan (standard)	from S/N xxxx-0548
	10-75001	1	Oil pan with right side dipstick (not shown)	"
2	6136-21-5770	1	Cover Plate	"
3	6136-21-5870	1	Gasket	"
4	01010-30610	3	Bolt	"
5	01641-00608	3	Washer	"
6	07002-23634	1	O-ring	"
7	6150-21-5630	1	Drain Fitting M36 x 1.5 x 1/2 BSPT	"
8	21-51905	1	Plug, Socket Head 1" NPT	"
9	6210-21-5820	1	Gasket	"
10	12-00831	38	Capscrew, Hex Head M10 x 1.5 x 25 mm	"
11	02720-21616	1	Plug, Square Head 1/2 BSPT	"
12	15-00805	38	Flat Washer M10	"

RIGHT SIDE DIPSTICK

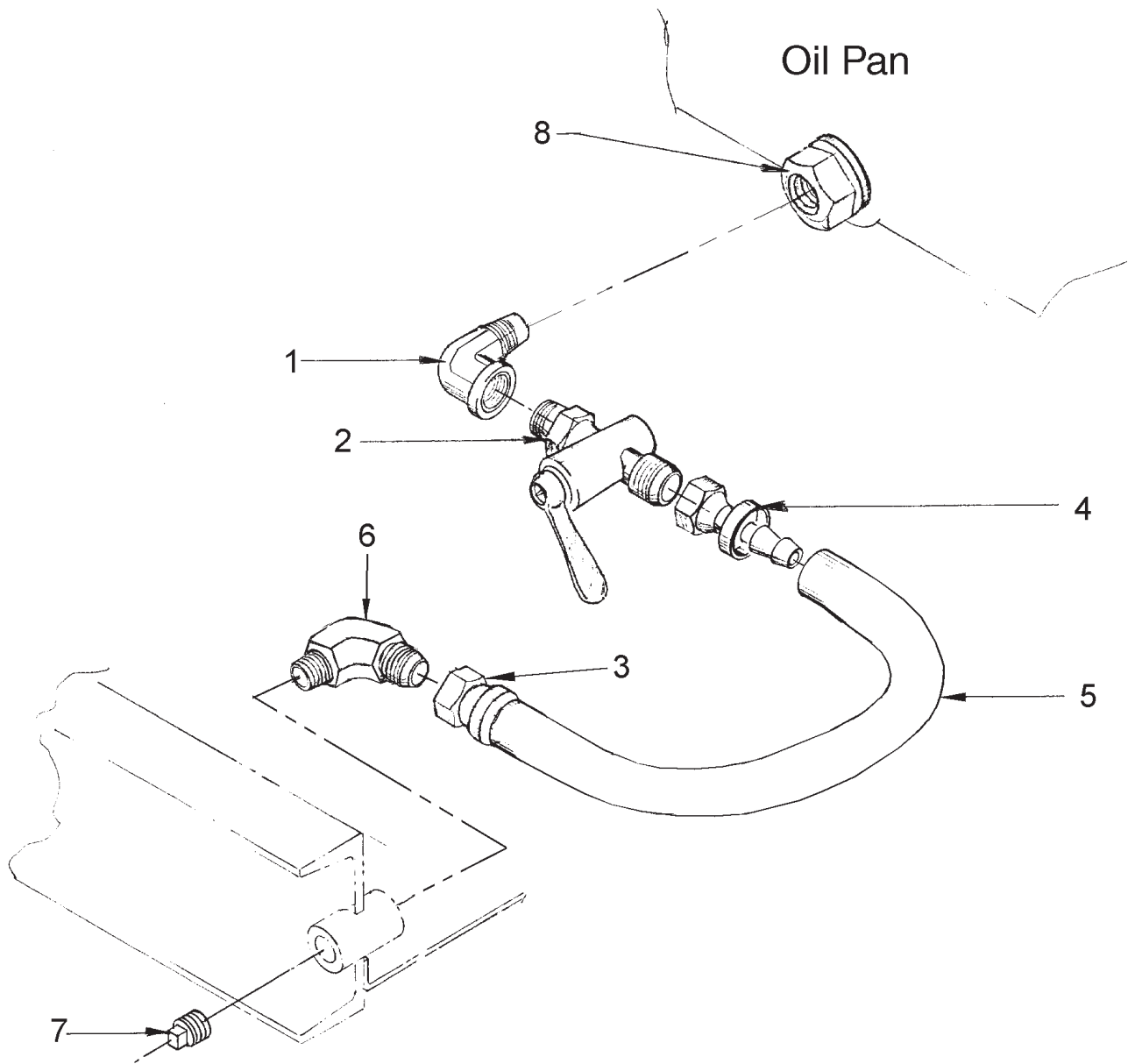


A-7228 / C-3241

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	27-65001	1	Dipstick Tube, Right Hand	-
2	36-75018	1	Dipstick	-
3	23-71105	1	Bracket	-
4	21-62512	1	Elbow, Male 90° 3/4NPT x 1/2-37T	-
5	21-73202	1	Bushing 1"NPT x 3/4NPT	-
6	19-43201	1	Adelle Clamp 1/2"ID x 3/8"	-
7	12-00805	1	Capscrew, Hex Head M10 x 1.5 x 20mm	-
8	12-00831	1	Capscrew, Hex Head M10 x 1.5 x 25mm	-
9	15-00802	1	Lock Washer, Helical M10	-
10	15-00805	1	Flat Washer M10	-
11	14-00812	1	Hex Nut, Nylock M10 x 1.5	-

OIL DRAIN

Marine Generator Set



A-6590 / B-7866

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	21-00037	1	Elbow 90° 1/2 NPT x 1/2 NPT	-
2	36-70006	1	Ball Valve, Brass 1/2 NPT	-
3	21-71040	1	Male Connector 1/2 NPT x 1/2-45T	-
4	21-71042	2	Female Swivel, 1/2 HB x 1/2-45T	-
5	18-05002	1	Hose 1/2"ID x 21"	-
6	21-01016	1	Male Elbow, 90° 1/2 NPT x 1/2-45T	-
7	21-00530	1	Plug, Hex Head 1/2 NPT	-
8	6150-21-5630	1	Drain Fitting	-

CYLINDER HEAD

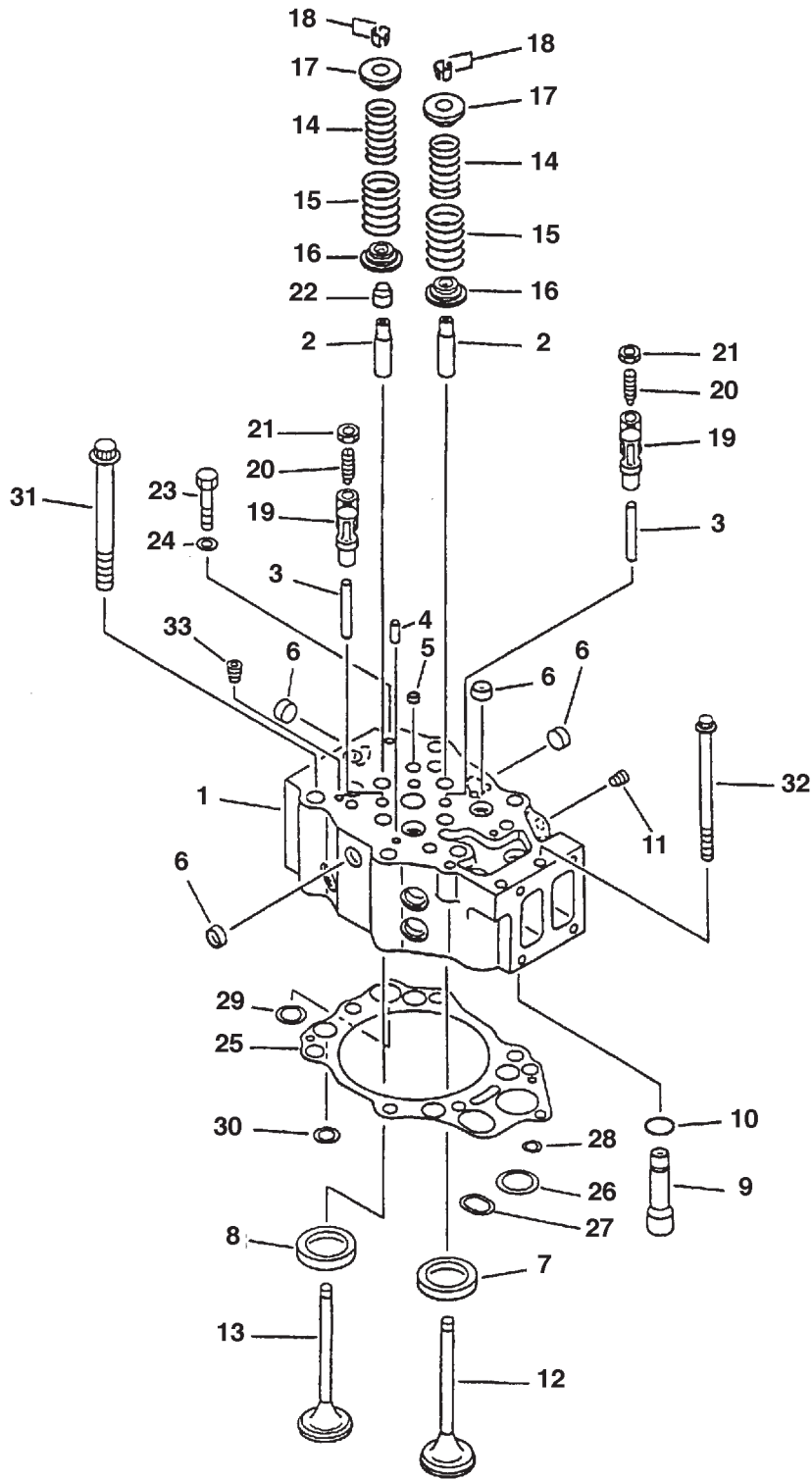


Figure 01 18

CYLINDER HEAD

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6211-11-1103	6	Cylinder Head Assembly, w/o valves (includes keys #2-#11 & #23-#24)	from S/N 17628
	6211-11-1101	6	Cylinder Head Assembly, w/o valves (includes keys #2-#11 & #23-#24) former #6211-11-1100)	S/N 17224-17627 S/N 10420-17223
2	6212-16-1440	4	Valve Guide	from S/N 17628
	6210-16-1340	4	Valve Guide	S/N 10420-17627
3	6210-11-1140	2	Crosshead Guide	from S/N 10420
4	04020-00820	2	Dowel Pin	from S/N 10420
5	07046-41810	1	Expansion Plug	from S/N 10420
6	6162-13-1150	12	Expansion Plug	from S/N 10420
7	6210-11-1330	2	Intake Seat Insert - Standard	from S/N 10420
	6210-19-1330	2	Intake Seat Insert - Oversize 0.25 mm	from S/N 10420
	6210-18-1330	2	Intake Seat Insert - Oversize 0.50 mm	from S/N 10420
	6210-17-1330	2	Intake Seat Insert - Oversize 0.75 mm	from S/N 10420
	6210-16-1330	2	Intake Seat Insert - Oversize 1.00 mm	from S/N 10420
8	6210-11-1321	2	Exhaust Seat Insert - Standard (formerly #6210-11-1320)	from S/N 16092
	6210-19-1321	2	Exhaust Seat Insert - Oversize 0.25 mm (formerly #6210-19-1320)	from S/N 16092
	6210-18-1321	2	Exhaust Seat Insert - Oversize 0.50 mm (formerly #6210-18-1320)	from S/N 16092
	6210-17-1321	2	Exhaust Seat Insert - Oversize 0.75 mm (formerly #6210-17-1320)	from S/N 16092
	6210-16-1321	2	Exhaust Seat Insert - Oversize 1.00 mm (formerly #6210-16-1320)	from S/N 16092
9	6210-11-1150	1	Pipe	from S/N 10420
10	07000-63025	1	O-Ring	from S/N 10420
11	07043-50108	1	Plug	from S/N 10420
12	6215-41-4110	2	Intake Valve	from S/N 13924
	6210-41-4110	2	Intake Valve (replaced by 2 ea. #6215-41-4110 & 1 ea. #6210-41-5620)	S/N 10420-13923
13	6215-41-4212	2	Exhaust Valve (formerly #6215-41-4210)	from S/N 17224
	6210-41-4210	2	Ex Valve (replaced by 2 ea. #6215-41-4210 & 1 ea. #6210-41-5620)	S/N 10420-13923
14	6210-41-4440	4	Valve Spring, Inner (formerly #6210-41-4410)	from S/N 14189
15	6210-41-4430	4	Valve Spring, Inner (formerly #6210-41-4420)	from S/N 14189
16	6210-41-4530	4	Spring Seat	from S/N 10420
17	6210-41-4510	4	Retainer	from S/N 10420
18	6136-41-4520	8	Cotter	
19	6210-41-5610	2	Crosshead	S/N 10420-13923
	6210-41-5620	2	Crosshead	from S/N 13924
20	6210-41-5640	1	Screw	S/N 10420-13923
	6210-41-5640	2	Screw	from S/N 13924
21	6162-43-5630	2	Nut	from S/N 17628
	6127-41-5630	2	Nut	S/N 13924-17627
22	6212-41-4540	2	Valve Seal (use with Guide #6212-16-1440)	from S/N 17628
	6210-41-4541	2	Valve Seal (use with Guide #6120-16-1340 - formerly #6210-41-4540)	up to S/N 17627
23	01010-51016	1	Bolt	S/N 17224-17627
24	07003-01015	1	Gasket	S/N 17224-17627
25	6210-17-1814	6	Head Gasket (formerly #6210-17-1812, #6210-17-1811, & #6210-17-1813)	-
26	6210-11-1820	1	Grommet	from S/N 11874
27	6210-11-1830	1	Grommet	from S/N 11874
28	6210-11-1840	1	Grommet	from S/N 11874
29	6210-11-1962	1	Grommet (formerly #6210-11-1961 & #6210-11-1850)	from S/N 11874
30	6210-11-1952	4	Grommet (formerly #6210-11-1951 & #6210-11-1860)	from S/N 16848
31	6210-11-1610	36	Head Bolt	from S/N 10420
32	6150-81-9160	6	Head Bolt	from S/N 10420
33	02720-40104	6	Plug	from S/N 17224

NOTE: Quantities for items #2 - #24 & #26 - #30 are for each Cylinder Head.

ROCKER ARM AND HOUSING

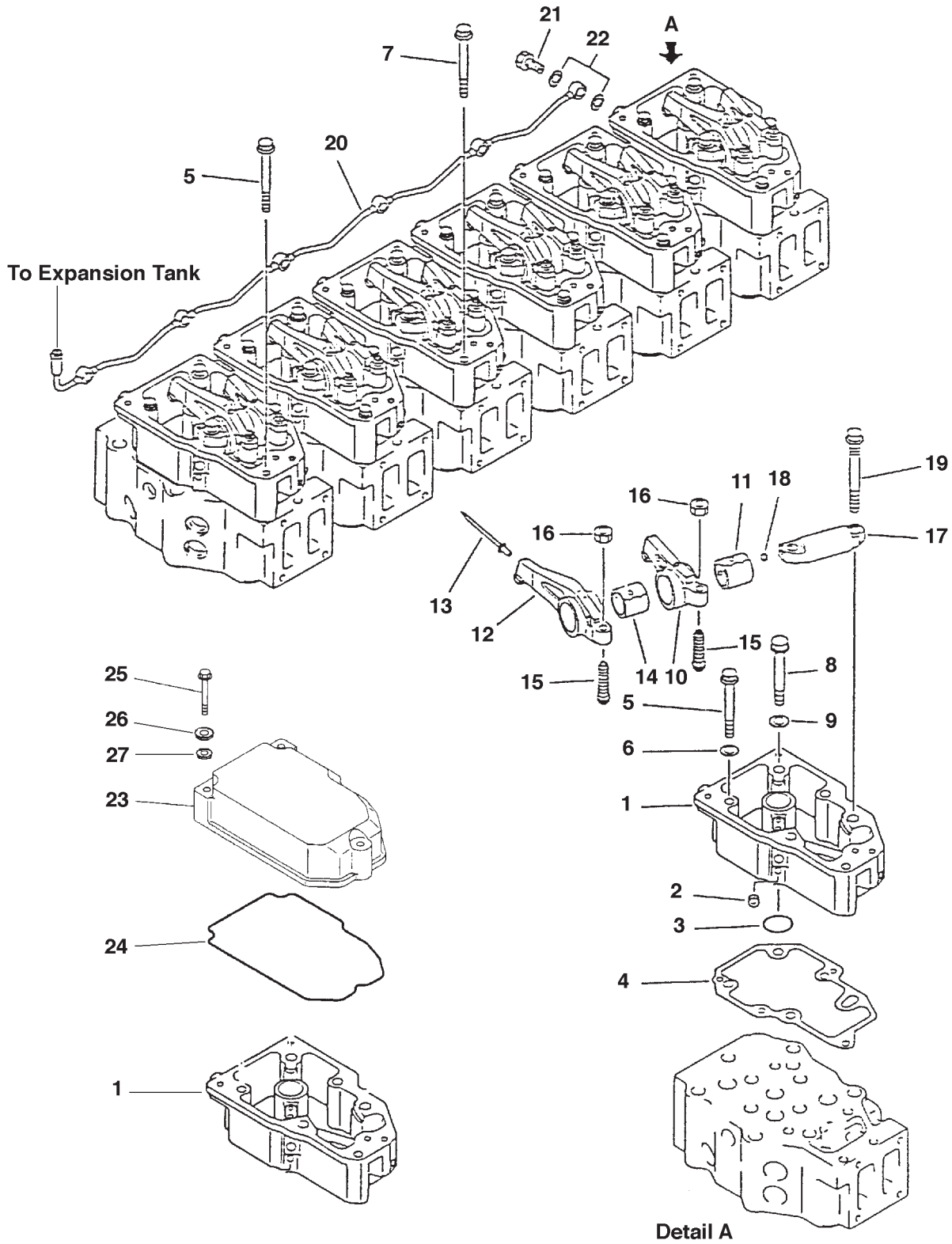


Figure 01 20

GROUP 1 - ENGINE

ROCKER ARM AND HOUSING

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6210-11-7100	6	Rocker Arm Housing	up to S/N 17627
2	07046-41008	18	Expansion Plug	-
3	6210-11-7131	6	O-ring	-
4	6210-11-7813	6	Gasket	-
5	01437-11080	17	Capscrew, 12 Point M10 x 1.5 x 80 mm	-
6	01643-51032	18	Washer	-
7	6150-81-9250	1	Capscrew, 12 Point M10 x 1.5 x 90 mm (high profile)	-
	01437-11080	1	Capscrew, 12 Point M10 x 1.5 x 80 mm (low profile)	-
8	6210-81-8330	1	Capscrew, 12 Point M12 x 1.75 x 80 mm	-
9	01643-51232	6	Washer	-
10	6215-41-5041	1	Intake Rocker Arm Assembly (includes key #11)	-
11	6210-41-5420	1	Arm Bushing	-
12	6215-41-5050	6	Exhaust Rocker Arm Assembly (includes keys #13 & #14)	-
13	6162-43-5340	1	Rivet	-
14	6210-41-5420	1	Bushing	-
15	6150-41-5540	12	Screw	-
16	01582-01008	12	Adjusting Nut	-
17	6210-41-5300	6	Rocker Arm Shaft Assembly (includes key #18)	-
18	6150-81-8420	6	Ball Bearing	-
19	6210-81-8310	12	Rocker Arm Shaft Bolt	-
20	6210-11-6540	1	Water Tube	-
21	07206-30710	6	Banjo Bolt	-
22	07005-01012	12	Gasket	-
23	6210-11-8110	6	Rocker Arm Cover	-
24	6210-11-8810	6	Gasket	-
25	01010-50865	18	Bolt	-
26	6210-11-8120	18	Washer	-
27	6210-11-8140	18	Seal Washer	-

ROCKER ARM AND HOUSING

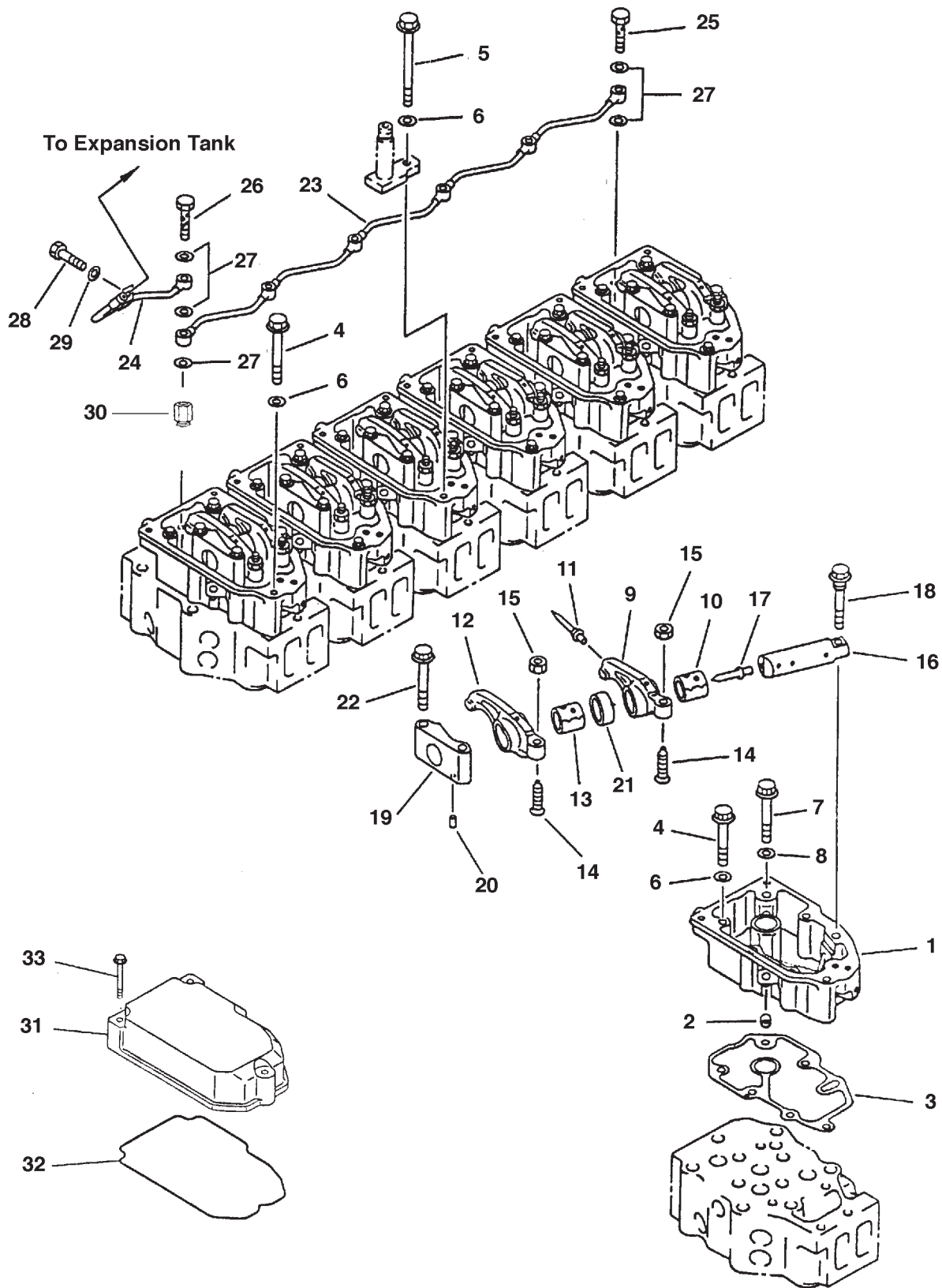


Figure 01 22

GROUP 1 - ENGINE

ROCKER ARM AND HOUSING

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6210-11-7121	6	Rocker Arm Housing	from S/N 17628
2	07046-41008	18	Expansion Plug	from S/N 10420
3	6210-11-7830	6	Gasket	from S/N 17628
4	01437-11080	17	Capscrew, 12 Point M10 x 1.5 x 80 mm	from S/N 17628
5	6150-81-9250	1	Capscrew, 12 Point M10 x 1.5 x 90 mm (high profile)	from S/N 10420
	01437-11080	1	Capscrew, 12 Point M10 x 1.5 x 80 mm (low profile)	from S/N 10420
6	01643-51032	18	Washer	from S/N 10600
7	01437-01280	5	Capscrew, 12 Point M12 x 1.75 x 80 mm	from S/N 17628
8	01643-51232	6	Washer	from S/N 11600
9	6210-41-5041	6	Intake Rocker Arm Assembly (includes key #10 & #11)	from S/N 17628
10	6210-41-5421	1	Bushing	from S/N 17628
11	6162-43-5340	1	Rivet	from S/N 17628
12	6210-41-5501	6	Exhaust Rocker Arm Assembly (includes key #13)	from S/N 17628
13	6210-41-5520	1	Bushing	from S/N 17628
14	6150-41-5540	12	Screw	from S/N 10420
15	01582-01008	12	Adjusting Nut	from S/N 10420
16	6210-41-5303	6	Rocker Arm Shaft Assembly (includes key #17)	from S/N 17628
17	6162-43-5340	1	Rivet	from S/N 17628
18	6210-81-8310	6	Bolt	from S/N 17628
19	6210-81-5530	6	Rocker Arm Shaft Support	from S/N 17628
20	04020-00514	6	Dowel Pin	from S/N 17628
21	6210-41-5440	6	Collar	from S/N 17628
22	01438-01220	12	Capscrew, 12 Point M12 x 1.75 x 120 mm	from S/N 17628
23	6210-11-6521	1	Tube, Coolant Vent	from S/N 17628
24	6210-11-6621	1	Tube, Coolant Vent	from S/N 17628
25	07206-30710	5	Banjo Bolt, M10 x 1.25 x 20 mm	from S/N 17224
26	6215-11-6560	1	Banjo Bolt, M10 x 1.25 x 35 mm	from S/N 17224
27	07003-01015	18	Sealing Washer	from S/N 17628
28	01050-31020	1	Bolt	from S/N 17224
29	01640-21016	1	Washer	from S/N 17224
30	6210-11-6570	6	Adapter, Coolant Vent Connection 1/8 BSPP x M10 x 1.25	from S/N 17628
31	6210-11-8111	6	Cover, Rocker Arm Housing	from S/N 17628
32	6210-11-8820	6	Gasket	from S/N 17628
33	01435-00855	18	Capscrew, Hex Head Flanged M8 x 1.25 x 55 mm	from S/N 17628

INTAKE MANIFOLD & AFTERCOOLER

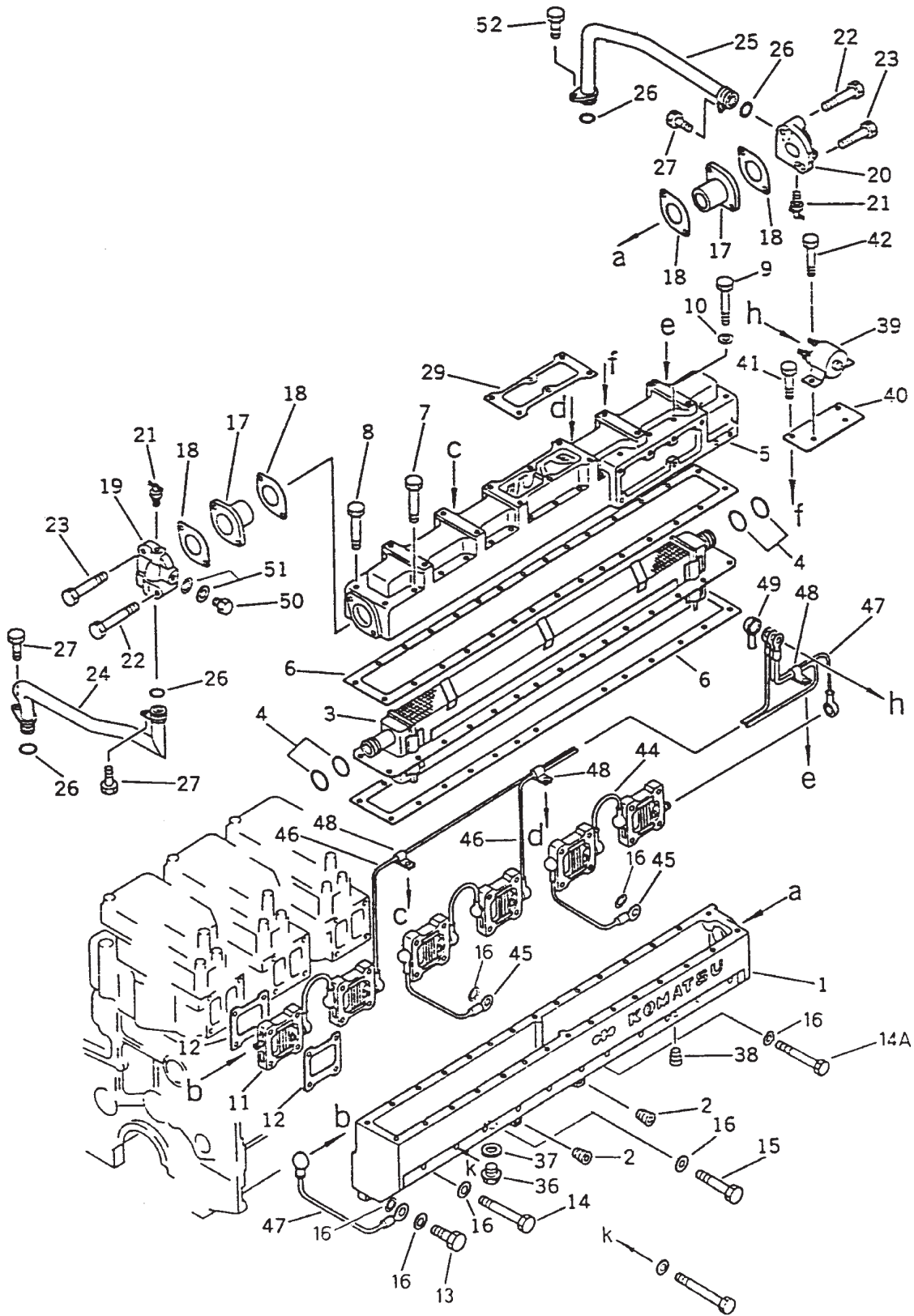


Figure 1301

GROUP 2 - INTAKE AND EXHAUST SYSTEM

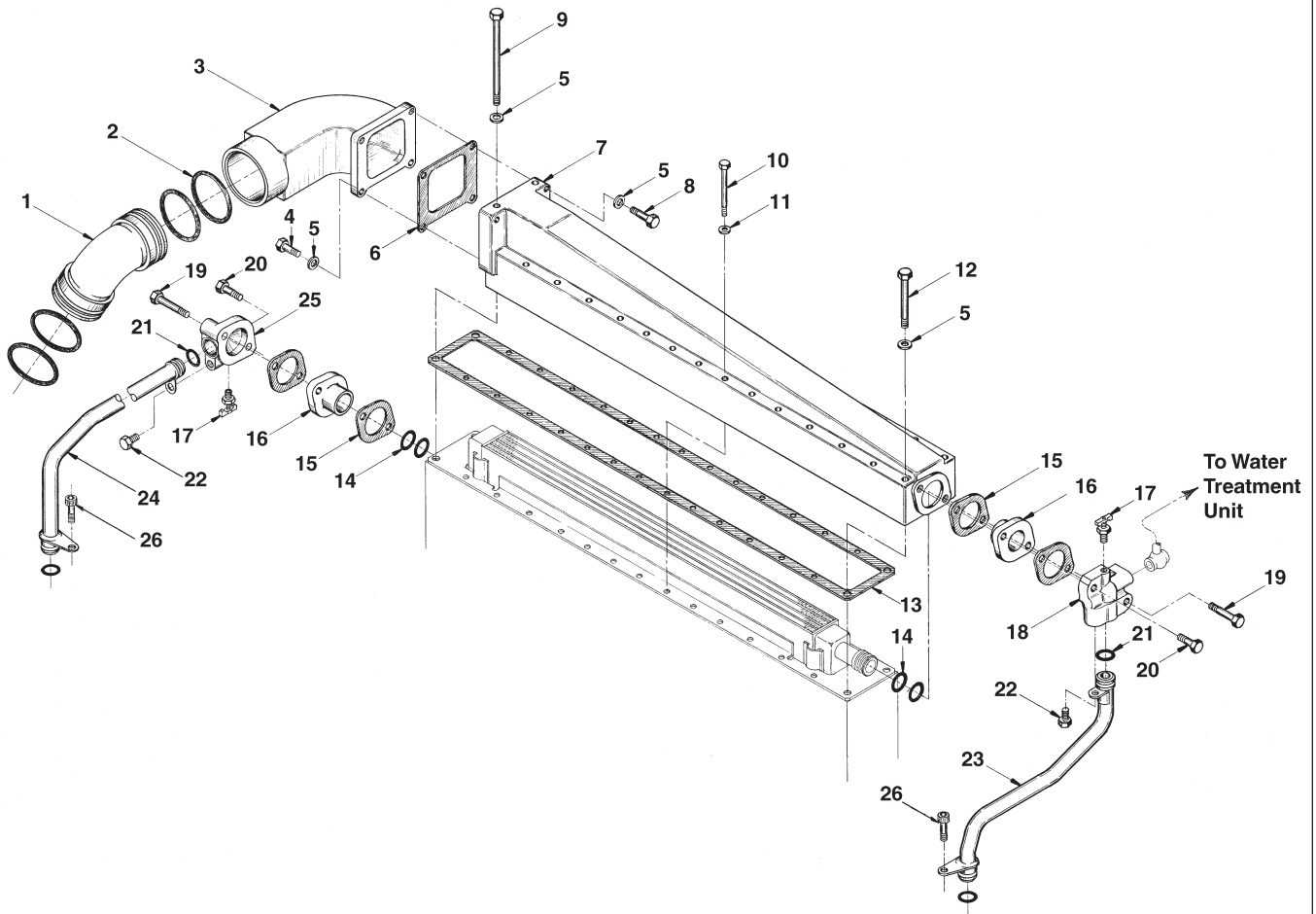
INTAKE MANIFOLD & AFTERCOOLER

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER	
1	6212-11-4130	1	Air Intake Manifold	-	
2	07043-50108	2	Plug	-	
3	6212-61-6121	1	Aftercooler Element	-	
4	6212-61-6430	4	O-Ring	-	
5	6212-11-4210	1	Aftercooler Cover (high profile only)	-	
6	6212-11-4710	2	Gasket	-	
7	01435-00890	22	Bolt	-	
8	01436-01000	4	} (high profile only)	-	
9	6132-11-4690	4		Bolt	-
10	01640-20816	4		Washer	-
11	600-815-4290	6	Preheat Element	-	
12	6210-11-4810	12	Gasket	-	
13	12-00070	10	Capscrew, Hex Head M10 x 1.5 x 100 mm	-	
14	12-00817	11	Capscrew, Hex Head M10 x 1.5 x 55 mm	-	
14A	01011-51005	1	Capscrew, Hex Head M10 x 1.5 x 105 mm	-	
15	01011-51035	1	Capscrew, Hex Head M10 x 1.5 x 135 mm	-	
16	15-00805	27	Flat Washer M10	-	
17	6212-61-6650	2	Connector	-	
18	6212-61-6660	4	Gasket	-	
19	6212-61-6620	1	Connector	-	
20	6212-61-6640	1	Connector	-	
21	21-10001	2	Drain Cock 1/8 NPT	-	
22	01010-51065	2	Bolt	-	
23	12-00812	2	Capscrew, Hex Head M10 x 1.5 x 40 mm	-	
24	6212-61-6510	1	Tube, Coolant Outlet	-	
25	6212-61-6410	1	Tube, Coolant Inlet	-	
26	07000-03025	4	O-Ring	-	
27	12-04400	2	Capscrew, Hex Head M10 x 1.5 x 16 mm	-	
29	6212-11-4720	1	Gasket (high profile only)	-	
36	07040-12414	1	Plug	-	
37	07005-02416	1	Gasket	-	
38	07042-00108	1	Plug	-	
39	22-41079	1	Pre-heat Relay 24 Volt (formerly #600-815-2690 - see electrical detail)	-	
	22-41080	1	Pre-heat Relay 12 Volt (see electrical detail)	-	
40	23-45001	1	Pre-heat Relay Bracket (high profile only)	-	
41	12-00831	2	Capscrew, Hex Head M10 x 1.5 x 25 mm	-	
42	01435-20812	2	Bolt	-	
44	6212-81-4210	3	Wire	-	
45	6212-81-4220	3	Wire	-	
46	6212-81-4230	2	Wire	-	
47	6212-81-4240	1	Wire	-	
48	08036-31210	3	Clip	-	
49	08038-06031	1	Terminal Cap	-	
50	07206-31014	1	Plug	-	
51	07005-01412	2	Gasket	-	
52	12-00091	2	Capscrew, Socket Head M10 x 1.5 x 16 mm	-	

GROUP 2 - INTAKE AND EXHAUST SYSTEM

INTAKE AND AFTER-COOLER COVER

For Models L-M6140AL



A-4814A / D-2123A

GROUP 2 - INTAKE AND EXHAUST SYSTEM

INTAKE AND AFTER-COOLER COVER

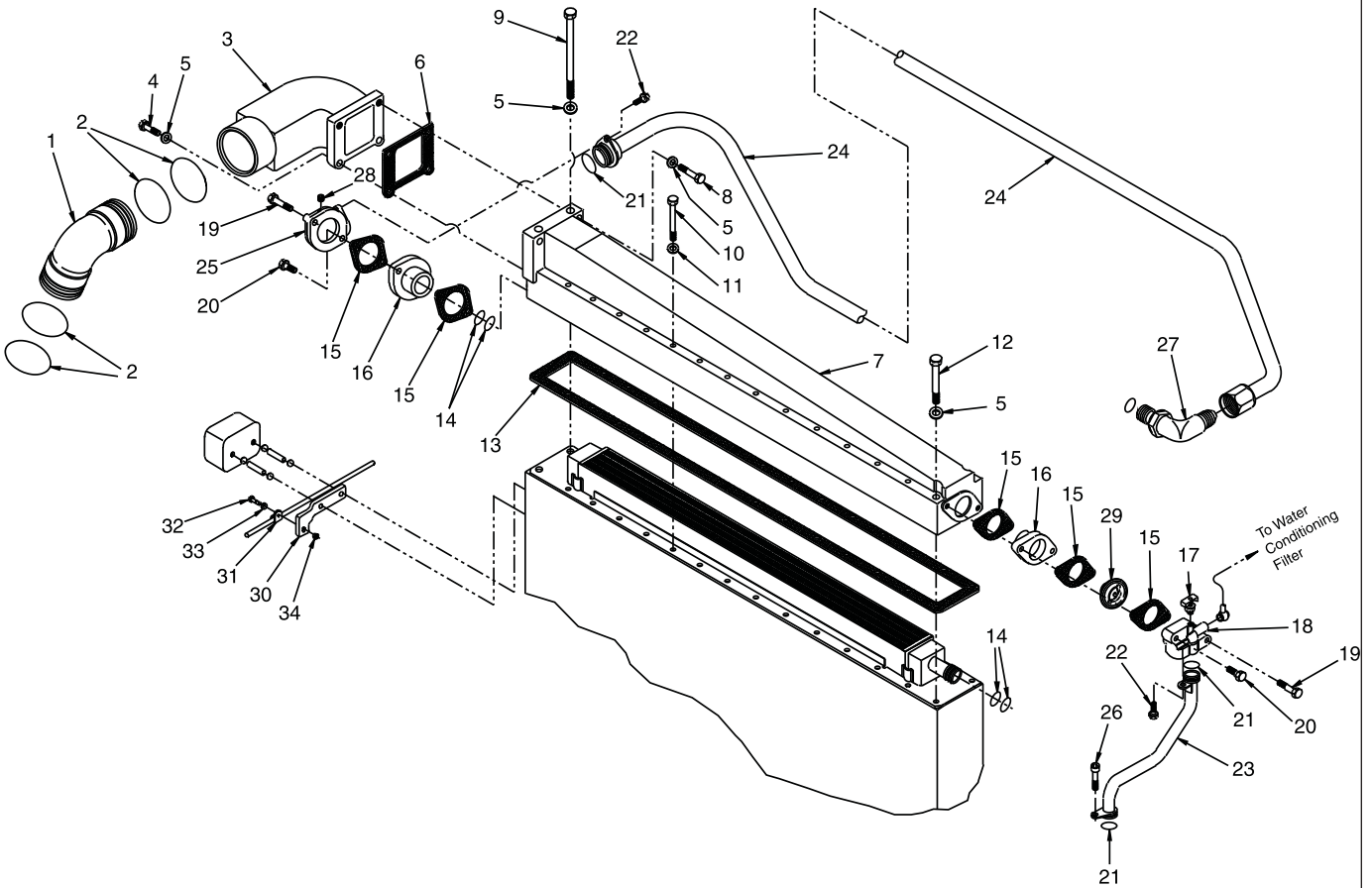
For Models L-M6140AL

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-24806	1	Air Inlet Elbow	-
2	16-25002	4	O-ring	-
3	10-25006	1	Air Inlet Connector	-
4	12-00814	2	Capscrew, Hex Head M10 x 1.5 x 35 mm	-
5	15-00805	8	Flat Washer M10	-
6	11-25000	1	Gasket	-
7	10-25007	1	Aftercooler Cover	-
8	12-00813	2	Capscrew, Hex Head M10 x 1.5 x 45 mm	-
9	12-00840	2	Capscrew, Hex Head M10 x 1.5 x 180 mm	-
10	12-00047	24	Capscrew, Hex Head M8 x 1.25 x 100 mm	-
11	15-00701	24	Flat Washer M8	-
12	12-00070	2	Capscrew, Hex Head M10 x 1.5 x 100 mm	-
13	6212-11-4710	2	Gasket	-
14	6212-61-6430	4	O-ring	-
15	6212-61-6660	4	Gasket	-
16	6212-61-6650	2	Water Connector	-
17	21-10001	2	Drain Cock 1/8 NPT	-
18	6212-61-6620	1	Connector	-
19	12-00843	2	Capscrew, Hex Head, M10 x 1.5 x 65 mm	-
20	12-00812	2	Capscrew, Hex Head, M10 x 1.5 x 40 mm	-
21	07000-03025	4	O-ring	-
22	12-04400	2	Capscrew, Hex Head, M10 x 1.5 x 15 mm	-
23	6212-61-6510	1	Tube, Coolant Outlet	-
24	6212-61-6410	1	Tube, Coolant Inlet	-
25	6212-61-6640	1	Connector	-
26	12-00091	2	Capscrew, Socket Head, M10 x 1.5 x 16 mm	-

GROUP 2 - INTAKE AND EXHAUST SYSTEM

INTAKE AND AFTERCOOLER COVER - HEAT EXCHANGED UNITS

For Models L6140AL2 - Early Production



A-7453/D-2896A

GROUP 2 - INTAKE AND EXHAUST SYSTEM

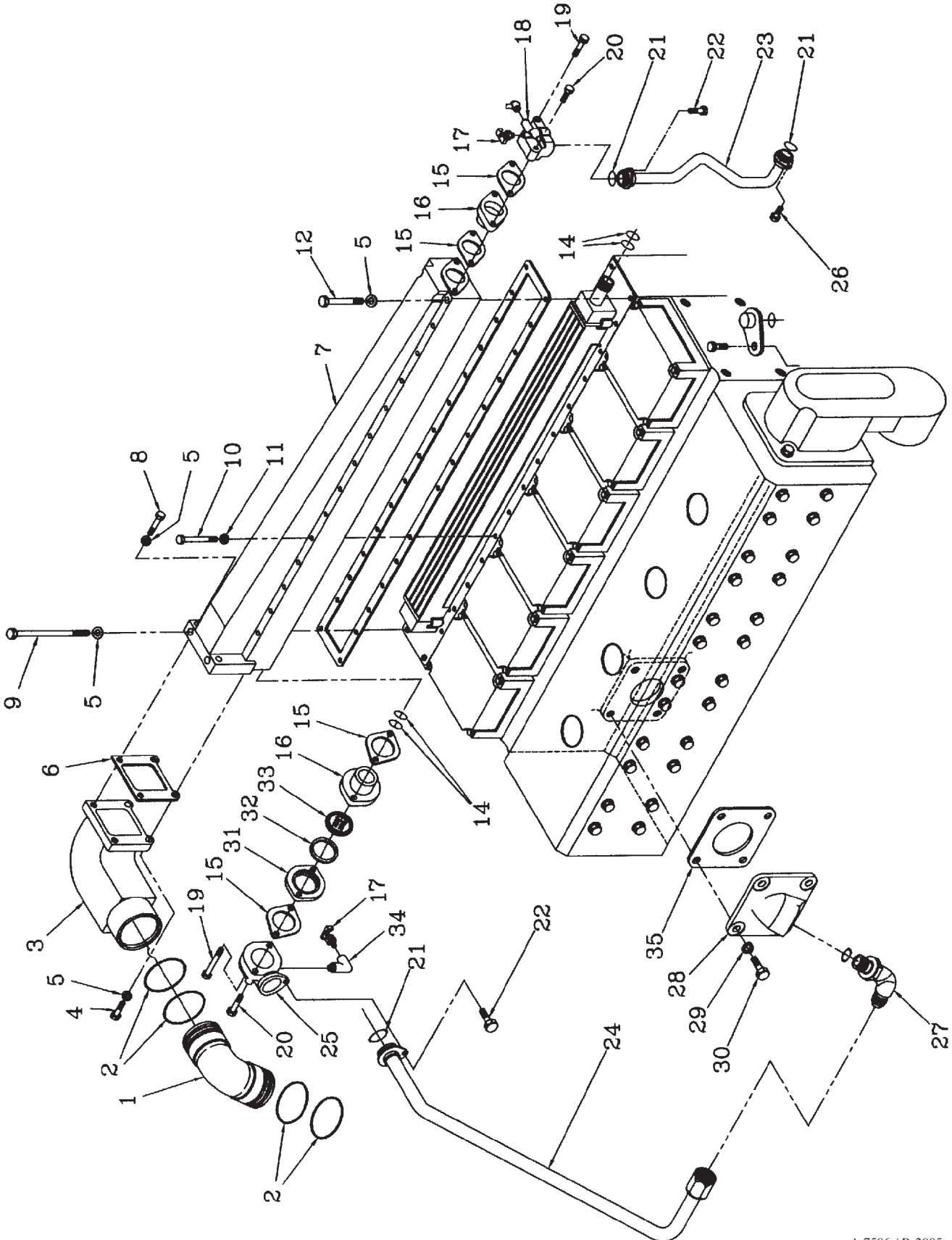
INTAKE AND AFTERCOOLER COVER - HEAT EXCHANGED UNITS

For Models L6140AL2 - Early Production

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-24806	1	Air Inlet Elbow	-
2	16-25002	4	O-ring	-
3	10-25006	1	Air Inlet Connector	-
4	12-00814	2	Capscrew, Hex Head M10 x 1.5 x 35 mm	-
5	15-00805	8	Flat Washer M10	-
6	11-25000	1	Gasket	-
7	10-25007	1	Aftercooler Cover	-
8	12-00813	2	Capscrew, Hex Head M10 x 1.5 x 45 mm	-
9	12-00840	2	Capscrew, Hex Head M10 x 1.5 x 180 mm	-
10	12-00047	24	Capscrew, Hex Head M8 x 1.25 x 100 mm	-
11	15-00701	24	Flat Washer M8	-
12	12-00070	2	Capscrew, Hex Head M10 x 1.5 x 100 mm	-
13	6212-11-4710	2	Gasket	-
14	6212-61-6430	4	O-ring	-
15	6212-61-6660	5	Gasket	-
16	6212-61-6650	2	Connector	-
17	21-10001	2	Drain Cock 1/8 NPT	-
18	10-15013	1	Connector	-
19	12-00843	2	Capscrew, Hex Head, M10 x 1.5 x 65 mm	-
20	12-00812	2	Capscrew, Hex Head, M10 x 1.5 x 40 mm	-
21	07000-03025	4	O-ring	-
22	12-04400	3	Capscrew, Hex Head, M10 x 1.5 x 16 mm	-
23	6212-61-6510	1	Tube, Coolant Outlet	-
24	27-15016	1	Tube, Coolant Inlet	-
25	6212-61-6640	1	Connector	-
26	12-00091	1	Capscrew, Socket Head, M10 x 1.5 x 16 mm	-
27	21-64902	1	Elbow, 90°	-
28	21-00050	1	Plug, 1/8 BSPT	-
29	35-10006	1	Thermostat 160°F	-
30	23-25018	1	Bracket, Turbo Oil Supply Tube Support	-
31	19-53200	1	Adelle Clamp	-
32	12-00831	1	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
33	15-00805	1	Flat Washer M10	-
34	14-00812	1	Nylock Hex Nut M10 x 1.5	-

INTAKE AND AFTERCOOLER - HEAT EXCHANGED UNITS

For Models L6140AL2 - Late Production



A-7596 / D-2905

GROUP 2 - INTAKE AND EXHAUST SYSTEM

INTAKE AND AFTERCOOLER - HEAT EXCHANGED UNITS

For Models L6140AL2 - Late Production

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-24806	1	Air Inlet Elbow	-
2	16-25002	4	O-ring	-
3	10-25006	1	Air Inlet Connector	-
4	12-00814	2	Capscrew, Hex Head M10 x 1.5 x 35 mm	-
5	15-00805	8	Flat Washer M10	-
6	11-25000	1	Gasket	-
7	10-25007	1	Aftercooler Cover	-
8	12-00813	2	Capscrew, Hex Head M10 x 1.5 x 45 mm	-
9	12-00840	2	Capscrew, Hex Head M10 x 1.5 x 180 mm	-
10	12-00047	24	Capscrew, Hex Head M8 x 1.25 x 100 mm	-
11	15-00701	24	Flat Washer M8	-
12	12-00070	2	Capscrew, Hex Head M10 x 1.5 x 100 mm	-
13	6212-11-4710	2	Aftercooler Gasket	-
14	6212-61-6430	4	O-ring	-
15	6212-61-6660	4	Gasket	-
16	6212-61-6650	2	Connector	-
17	21-10001	2	Drain Cock 1/8 NPT	-
18	6212-61-6620	1	Connector	-
19	12-00843	2	Capscrew, Hex Head, M10 x 1.5 x 65 mm	-
20	12-00812	2	Capscrew, Hex Head, M10 x 1.5 x 40 mm	-
21	07000-03025	4	O-ring	-
22	12-04400	3	Capscrew, Hex Head, M10 x 1.5 x 16 mm	-
23	27-15025	1	Tube, Coolant Outlet	-
24	27-15026	1	Tube, Coolant Inlet	-
25	6212-61-6640	1	Connector	-
26	12-00091	1	Capscrew, Socket Head, M10 x 1.5 x 16 mm	-
27	21-64902	1	Elbow, 90°	-
28	31-15007	1	Adapter	-
29	15-00804	4	Wave Washer M10	-
30	12-00831	2	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
31	28-15005	1	Spacer	-
32	11-10015	1	Seal	-
33	35-10006	1	Thermostat 160°F	-
34	21-04801	**	Elbow 90°	-
35	6210-21-1971	1	Gasket	-
36	12-00088	2	Capscrew, Hex Head M10 x 1.5 x 95 mm	-
37	21-32502	2	Spacer, Relay Bracket Mounting	-

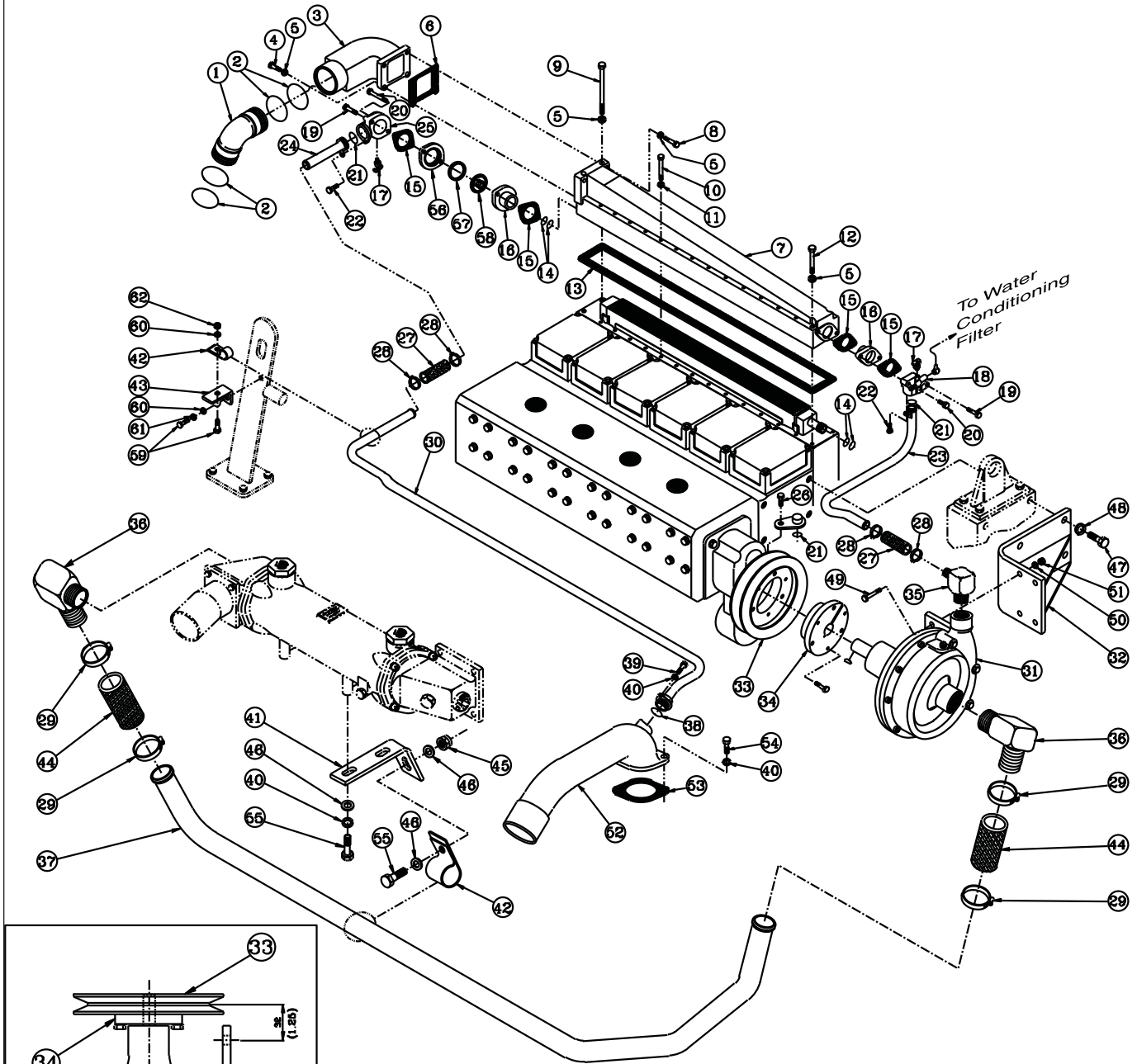
} See Electrical System

**As required

GROUP 2 - INTAKE AND EXHAUST SYSTEM

INTAKE, AFTERCOOLER AND PUMP - KEEL COOLED UNITS

For Model L6140AL2



NOTE:
 #37 Tube illustrates current configuration and supercedes early production high position plumbing parts.

PULLEY LOCATION

A-7325 / D-2898

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-24806	1	Air Inlet Elbow	-
2	16-25002	4	O-ring	-
3	10-25006	1	Air Inlet Connector	-
4	12-00814	2	Capscrew, Hex Head M10 x 1.5 x 35 mm	-
5	15-00805	8	Flat Washer M10	-
6	11-25000	1	Gasket	-

GROUP 2 - INTAKE AND EXHAUST SYSTEM

INTAKE, AFTERCOOLER AND PUMP - KEEL COOLED UNITS

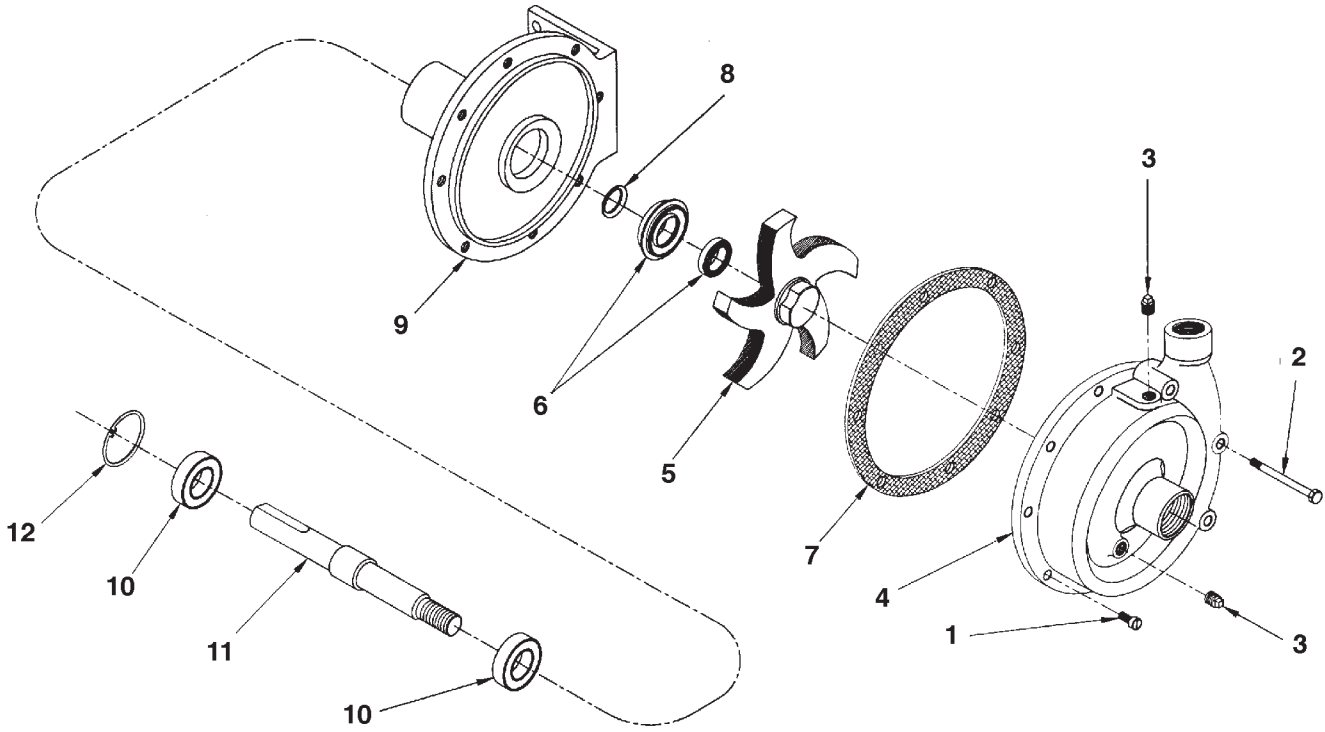
For Model L6140AL2

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
7	10-25007	1	Aftercooler Cover	-
8	12-00813	2	Capscrew, Hex Head M10 x 1.5 x 45 mm	-
9	12-00840	2	Capscrew, Hex Head M10 x 1.5 x 180 mm	-
10	12-00047	24	Capscrew, Hex Head M8 x 1.25 x 100 mm	-
11	15-00701	24	Flat Washer M8	-
12	12-00070	2	Capscrew, Hex Head M10 x 1.5 x 100 mm	-
13	6212-11-4710	2	Gasket	-
14	6212-61-6430	4	O-ring	-
15	6212-61-6661	4	Gasket	-
16	6212-61-6650	2	Connector	-
17	21-10001	2	Drain Cock 1/8 NPT	-
18	6212-61-6620	1	Connector	-
19	12-00843	2	Capscrew, Hex Head, M10 x 1.5 x 65 mm	-
20	12-00812	2	Capscrew, Hex Head, M10 x 1.5 x 40 mm	-
21	07000-03025	4	O-ring	-
22	12-04400	3	Capscrew, Hex Head, M10 x 1.5 x 16 mm	-
23	27-15020	1	Tube, Coolant Inlet	-
24	27-25008	1	Tube, Coolant Outlet	-
25	6212-61-6640	1	Connector	-
26	6210-21-1940	1	Cover, Coolant Port	-
27	18-12801	2	Hose 1" ID x 2-1/4"	-
28	19-00016	4	Hose Clamp #16	-
29	19-00020	4	Hose Clamp #20	-
30	27-15021	1	Tube, Coolant Return	-
31	25-25002	1	Aftercooler Pump (Oberdorfer - see parts detail)	-
	25-25001	1	Aftercooler Pump (Jabsco - see parts detail)*	-
32	23-15011	1	Bracket, Pump Mtg. (Oberdorfer pump)	-
	23-15010	1	Bracket, Pump Mtg. (Jabsco pump)*	-
33	34-25001	1	Pulley	-
34	34-16102	1	Bushing Assembly	-
35	21-15020	1	Elbow, 90° 1"NPT x 1"HB	-
36	21-15021	2	Elbow, 90° 1-1/4NPT x 1-1/4"HB	-
37	27-15031	1	Tube, Aftercooler Pump Inlet	-
38	16-15010	1	O-ring	-
39	12-00822	1	Capscrew, M10 x 1.5 x 14 mm	-
40	15-00802	6	Lock Washer, Helical M10	-
41	23-15015	1	Bracket, Tube Support	-
42	19-41900	1	Adelle Clamp	-
43	23-18101	1	Bracket, Tube Support	-
44	18-11902	2	Hose, 1-1/4"ID x 3-1/2"	-
45	14-00812	1	Nylock Nut M10 x 1.5	-
46	15-00805	3	Flat Washer M10	-
47	12-00953	4	Capscrew, Hex Head, M12 x 1.75 x 30 mm	-
48	15-00912	4	Lock Washer Helical M12	-
49	12-00713	4	Capscrew, Hex Head, M8 x 1.25 x 35 mm	-
50	15-00201	4	Stud Washer 5/16	-
51	14-04802	4	Nylock Hex Nut M8 x 1.25	-
52	10-15000	1	Connector	-
53	6210-61-6441	1	Gasket	-
54	12-00831	2	Capscrew, Hex Head, M10 x 1.5 x 25 mm	-
55	12-00805	3	Capscrew, Hex Head, M10 x 1.5 x 20 mm	-
56	28-15005	1	Plate, Spacer	-
57	11-10015	1	Thermostat Seal Ring	-
58	35-10006	1	Thermostat, 160° F	-
59	12-01131	2	Capscrew, Hex Head M6 x 1.0 x 20 mm	-
60	15-00011	3	Flat Washer 1/4"	-
61	15-01131	1	Lock Washer, M6 Helical	-
62	14-04803	1	Hex Nut, Nylock M6 x 1.0	-

*NOTE: Complete Pump Assembly no longer available. Use 25-25002 Pump and 23-15011 Bracket if replacement is required.

AFTERCOOLER PUMP

Jabsco

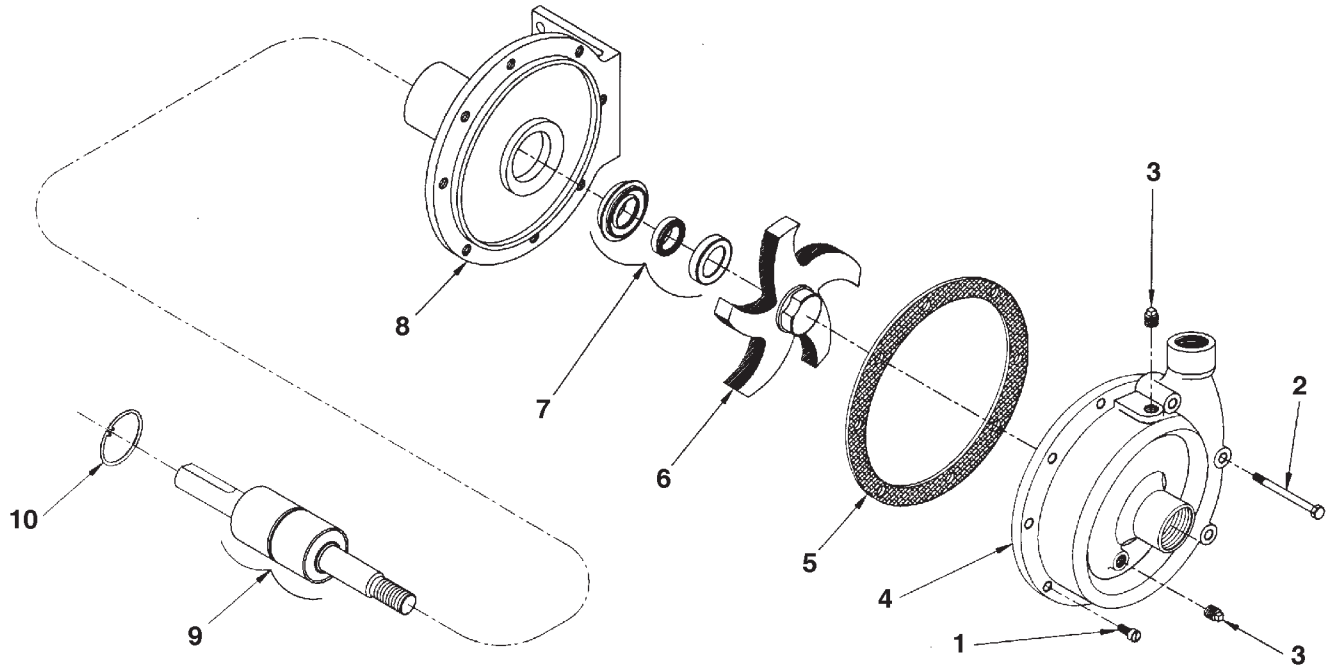


A-7663 / B-5197

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	25-25003	5	Screw	-
2	25-25004	3	Screw	-
3	21-00012	2	Plug, Hex Head Brass 1/8NPT	-
4	25-25005	1	Housing	-
5	25-25006	1	Impeller 3-3/4" OD	-
6	25-25007	1	Seal Assembly	-
7	25-25008	1	Gasket	-
8	25-25009	1	Slinger	-
9	25-25010	1	Housing	-
10	25-25011	2	Bearing	-
11	25-25012	1	Shaft	-
12	25-25013	1	Snap Ring	-
<p>NOTE: Pump Assembly no longer available. Use for service spares only. Use Pump 25-25002 & related hardware if replacement is required (see Intake, Aftercooler & Pump)</p>				

AFTERCOOLER PUMP

Oberdorfer



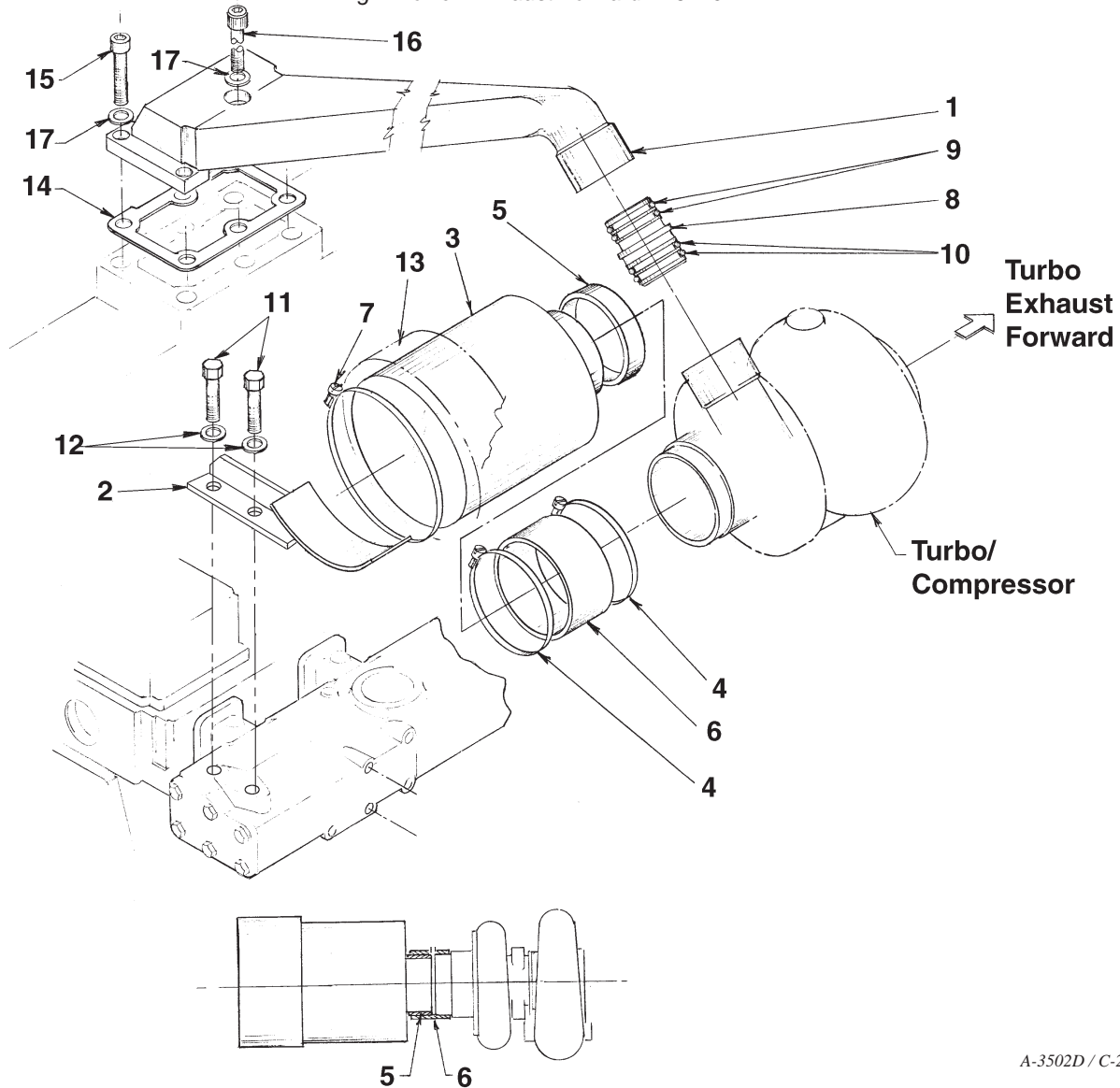
A-7664 / B-5196

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	25-25002	1	Aftercooler Pump Assembly (includes all keys)	-
1	25-25014	5	Screw	-
2	25-25015	3	Screw	-
3	21-00012	2	Plug, Hex Head Brass 1/8 NPT	-
4	25-25016	1	Housing	-
5	25-25017	1	Gasket	-
6	25-25018	1	Impeller	-
7	25-25019	1	Seal Assembly	-
8	25-25020	1	Housing	-
9	25-25021	1	Shaft & Bearing Assembly	-
10	25-25022	1	Snap Ring	-

GROUP 2 - INTAKE AND EXHAUST SYSTEM

AIR FILTER AND INTAKE

High Profile - Exhaust Forward - L6140A



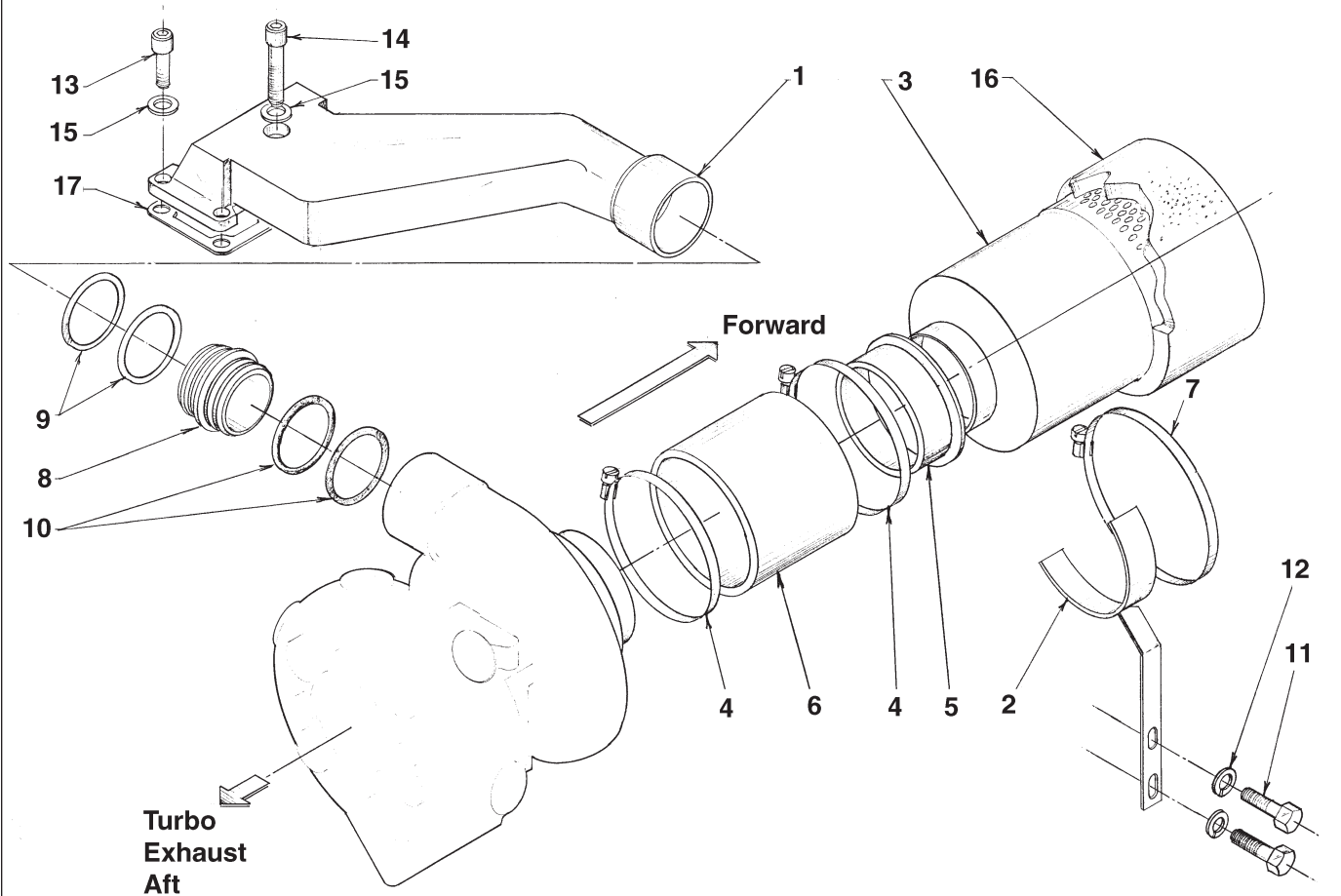
A-3502D / C-2160

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-25005	1	Air Inlet Connector	-
2	23-25000	1	Bracket	-
3	24-25001	1	Housing	-
4	19-00096	2	Hose Clamp #96	-
5	24-25003	1	Rubber Bushing, 5-1/2" ID x 6" OD	-
6	24-25004	1	Rubber Connector 6" ID x 3" LG	-
7	19-00128	1	Hose Clamp #128	-
8	10-25002	1	Connector	-
9	02895-67075	2	O-ring	-
10	16-25002	2	O-ring	-
11	12-00805	2	Capscrew Hex Head M10 x 1.5 x 20 mm	-
12	15-00802	2	Lock Washer, M10	-
13	24-25002	1	Element	-
14	6212-11-4720	1	Gasket	-
15	12-64801	5	Capscrew, Socket Head M10 x 1.5 x 35 mm	-
16	12-04805	1	Capscrew, Socket Head M10 x 1.5 x 90 mm	-
17	15-74802	6	Internal Star Washer M10	-

GROUP 2 - INTAKE AND EXHAUST SYSTEM

AIR FILTER AND INTAKE

High Profile - Exhaust Aft - L6140A



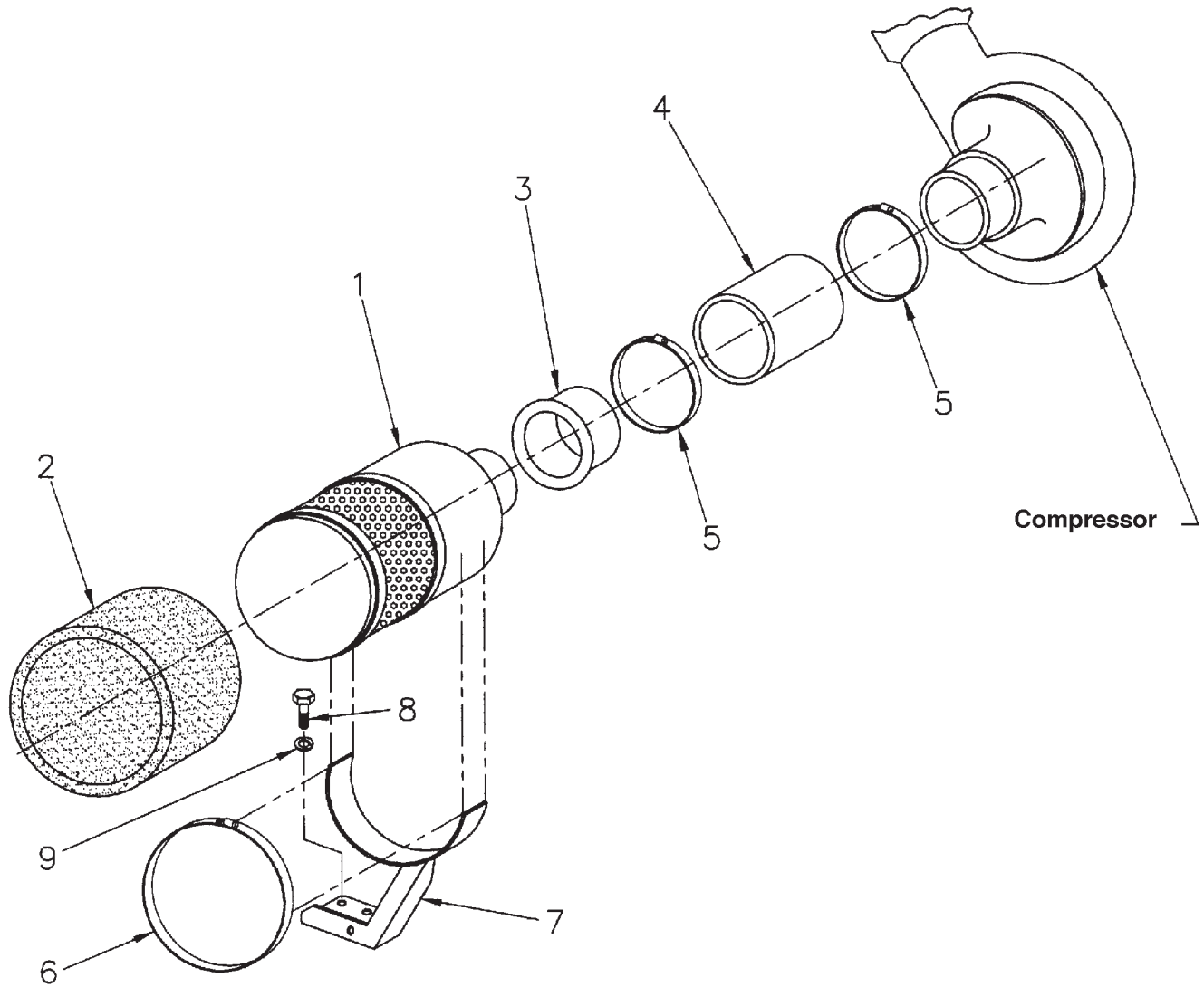
A-3612C / C-2162

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-25001	1	Air Inlet Connector	up to S/N xxxx-0526 from S/N xxxx-0526
	10-25004	1	Air Inlet Connector	
2	23-25001	1	Bracket	-
3	24-25001	1	Housing	-
4	19-00096	2	Hose Clamp #96	-
5	24-25003	1	Rubber Bushing 5 1/2" x 6"	-
6	24-25004	1	Rubber Connector 6" ID	-
7	19-00128	1	Hose Clamp #128	-
8	10-25002	1	Connector	-
9	02895-67075	2	O-ring	-
10	16-25002	2	O-ring	-
11	12-00831	2	Capscrew, Hex Head M10 x 1.50 x 25 mm	-
12	15-00805	2	Lock Washer M10	-
13	12-64801	5	Capscrew, Socket Head M10 x 1.5 x 35 mm	-
14	12-04805	1	Capscrew, Socket Head M10 x 1.5 x 90 mm	-
15	15-74802	6	Internal Star Washer M10	-
16	24-25002	1	Element	-
17	6212-11-4720	1	Gasket	-

GROUP 2 - INTAKE AND EXHAUST SYSTEM

AIR FILTER AND MOUNTING

Low Profile - L-M6140AL & AL2



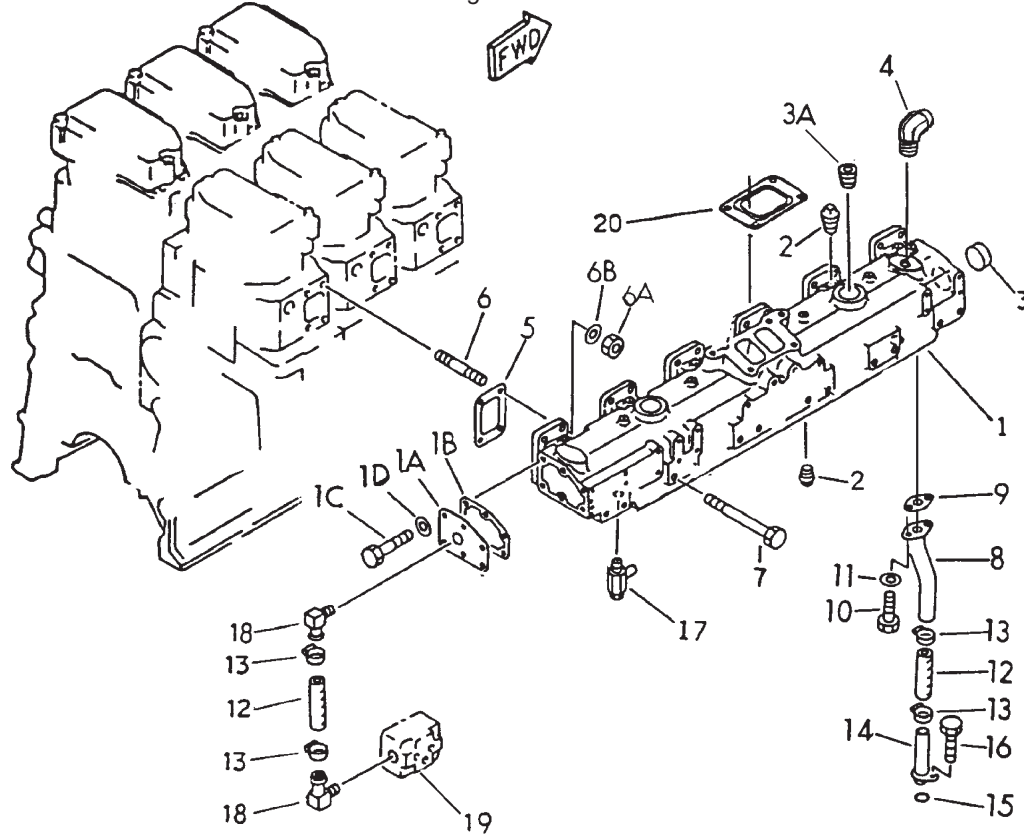
A-5185A/ C-3391 fig02 10

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	24-25001	1	Housing	-
2	24-25002	1	Element	-
3	24-25003	1	Bushing 5-1/2"ID x 6"OD	-
4	24-25004	1	Connector 6"ID x 3"	-
5	19-00096	2	Hose Clamp #96	-
6	19-00128	1	Hose Clamp #128	-
7	23-25003	1	Bracket SAE #1 Housing	-
	23-25015	1	Bracket SAE #0 Housing	-
8	12-00831	2	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
9	15-00802	2	Lock Washer, Helical M10	-

GROUP 2 - INTAKE AND EXHAUST SYSTEM

EXHAUST MANIFOLD (EARLY PRODUCTION)

High Profile - L6140A

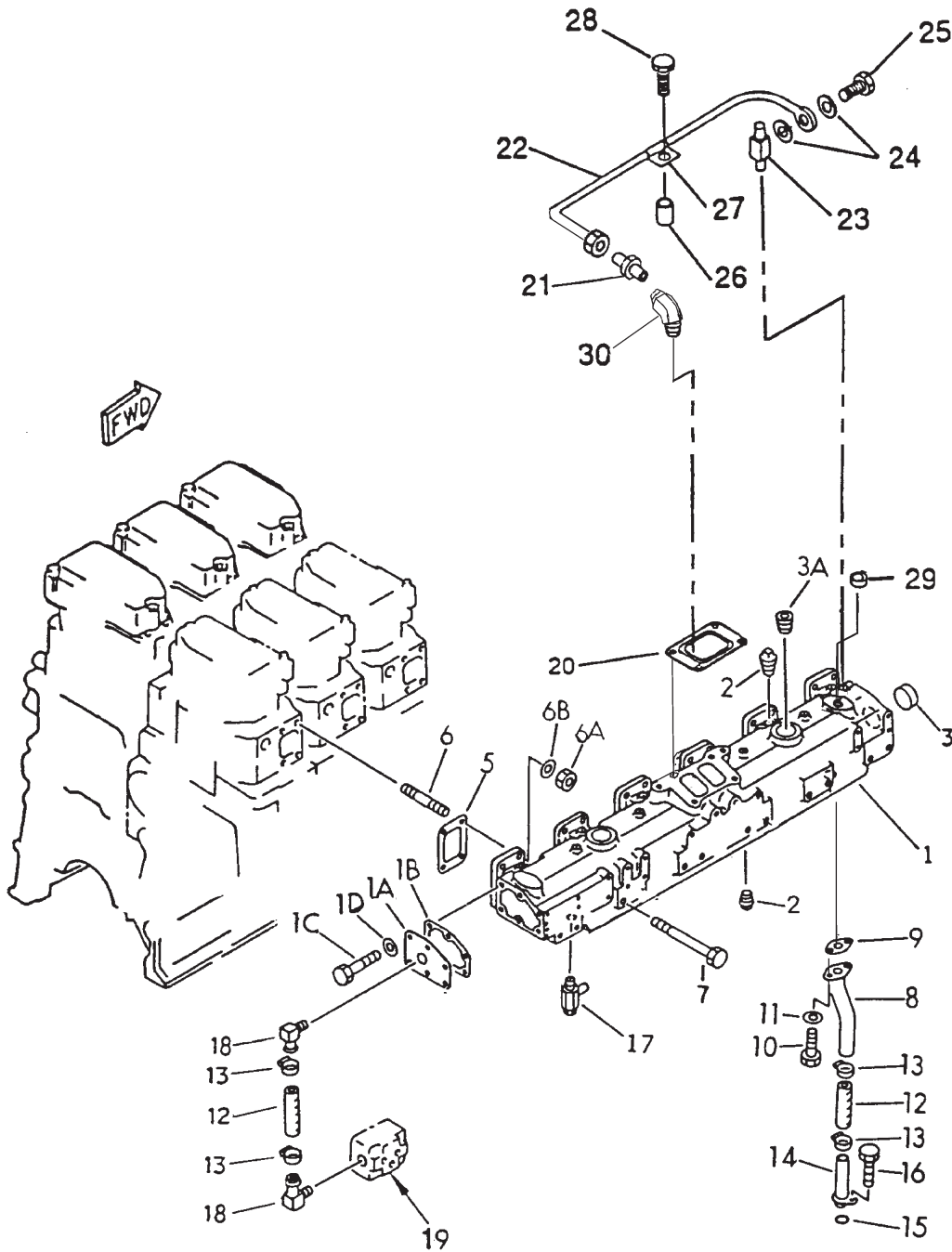


A-3504 / Figure 1501

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6212-15-5211	1	Exhaust Manifold	Up to S/N xxxx-0616
1A	6212-15-5220	1	Plate	"
1B	6212-15-5230	1	Gasket	"
1C	01010-61025	6	Bolt	"
1D	01640-21016	6	Washer	"
2	6151-15-5970	6	Plug	"
3	07046-45016	1	Plug	"
3A	07043-41222	10	Plug	"
4	6136-61-8640	1	Male Elbow 45° 1/8 BSPT x 3/8 HB	"
5	6210-11-5881	6	Gasket	"
6	01140-61035	12	Stud	"
6A	6212-15-5410	12	Nut	"
6B	01643-31032	12	Washer	"
7	6164-61-7170	12	Bolt	"
8	6212-65-6130	1	Tube	"
9	6130-61-6810	1	Gasket	"
10	12-00711	2	Capscrew, Hex Head M8 x 1.25 x 20 mm	"
11	01640-20816	2	Washer	"
12	6631-64-8860	2	Hose	"
13	07181-10489	4	Clamp	"
14	6212-65-6120	1	Tube	"
15	07000-03025	1	O-Ring	"
16	12-00805	1	Capscrew, Hex Head M10 x 1.5 x 20 mm	"
17	07730-50004	1	Valve	"
18	6715-64-7240	1	Elbow	"
19	6212-25-1110	1	Cover	"
20	11-34804	1	Gasket	"

EXHAUST MANIFOLD (LATE PRODUCTION)

High Profile - L6140A



GROUP 2 - INTAKE AND EXHAUST SYSTEM

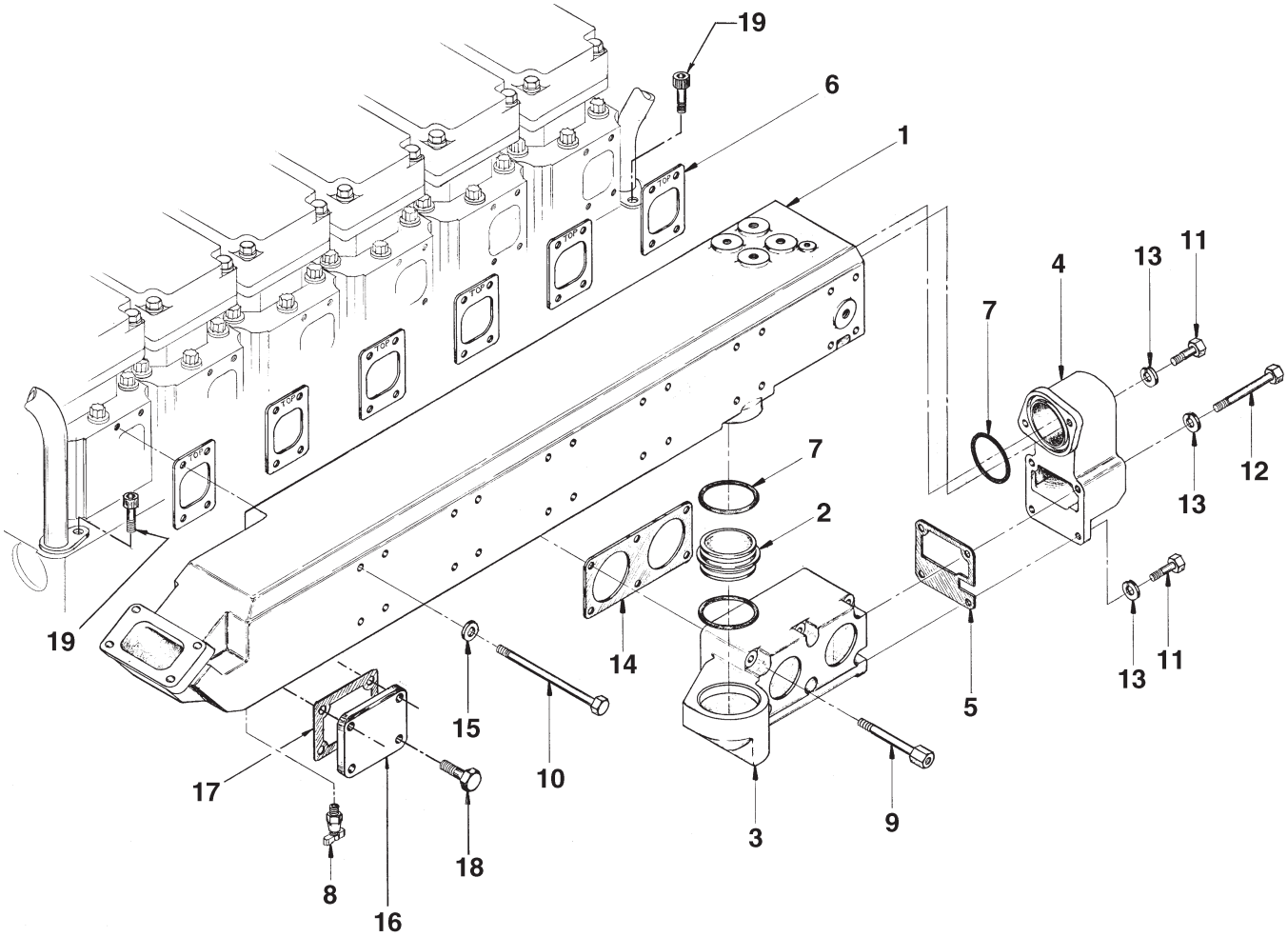
EXHAUST MANIFOLD (LATE PRODUCTION)

High Profile - L6140A

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6212-15-5214	1	Exhaust Manifold (formerly #6212-15-5212 & 6212-15-5213)	from S/N xxxx-0617
1A	6212-15-5221	1	Plate	“
1B	6212-15-5230	1	Gasket	“
1C	01010-61025	6	Capscrew, Hex Head M10 x 1.5 x 25 mm	“
1D	15-00805	6	Flat Washer M10	“
2	6151-15-5971	6	Plug, Hex Head Steel 1/4BSPT	“
3	07046-45016	1	Expansion Plug 50 mm	“
3A	07043-01222	9	Plug	“
5	6210-11-5881	6	Gasket (formerly #6210-11-5880)	“
6	01140-61035	12	Stud M10 x 1.5 x M10 x 1.25 x 35 mm (50mm LOA)	“
6A	6212-15-5410	12	Hex Nut M10 x 1.25 S/S	“
6B	01643-31032	12	Washer	“
7	6164-61-7170	12	Capscrew, Hex Head M10 x 1.5 x 200 mm	“
8	6212-65-6131	1	Tube	“
9	6132-11-4820	1	Gasket	“
10	01435-00820	2	Bolt	“
11	01640-20816	2	Washer	“
12	6132-61-6851	2	Hose (formerly #6132-61-6850)	“
13	07281-10489	4	Hose Clamp	“
14	6212-65-6121	1	Tube	“
15	16-11001	1	O-ring	“
16	12-00805	1	Capscrew, Hex Head M10 x 1.5 x 20 mm	“
17	07730-50004	1	Valve	“
18	6212-65-6140	2	Elbow	“
19	6212-25-1111	1	Cover	“
20	11-34804	1	Gasket	“
21	07213-50710	1	Nipple	“
22	27-15011	1	Tube Assembly	“
23	21-15009	1	Connector	“
24	07005-01012	2	Gasket	“
25	07206-30710	1	Joint Bolt	“
26	21T-72-14930	1	Spacer	“
27	6162-53-8620	1	Clip (formerly #6130-85-4520)	“
28	01435-00820	1	Bolt	“
29	07046-42816	1	Plug	“
30	21-04801	1	Street Elbow, 90° Steel 1/8 NPT	“

EXHAUST MANIFOLD

Low Profile - L-M6140AL & AL2



A-4795A / C-2486B

GROUP 2 - INTAKE AND EXHAUST SYSTEM

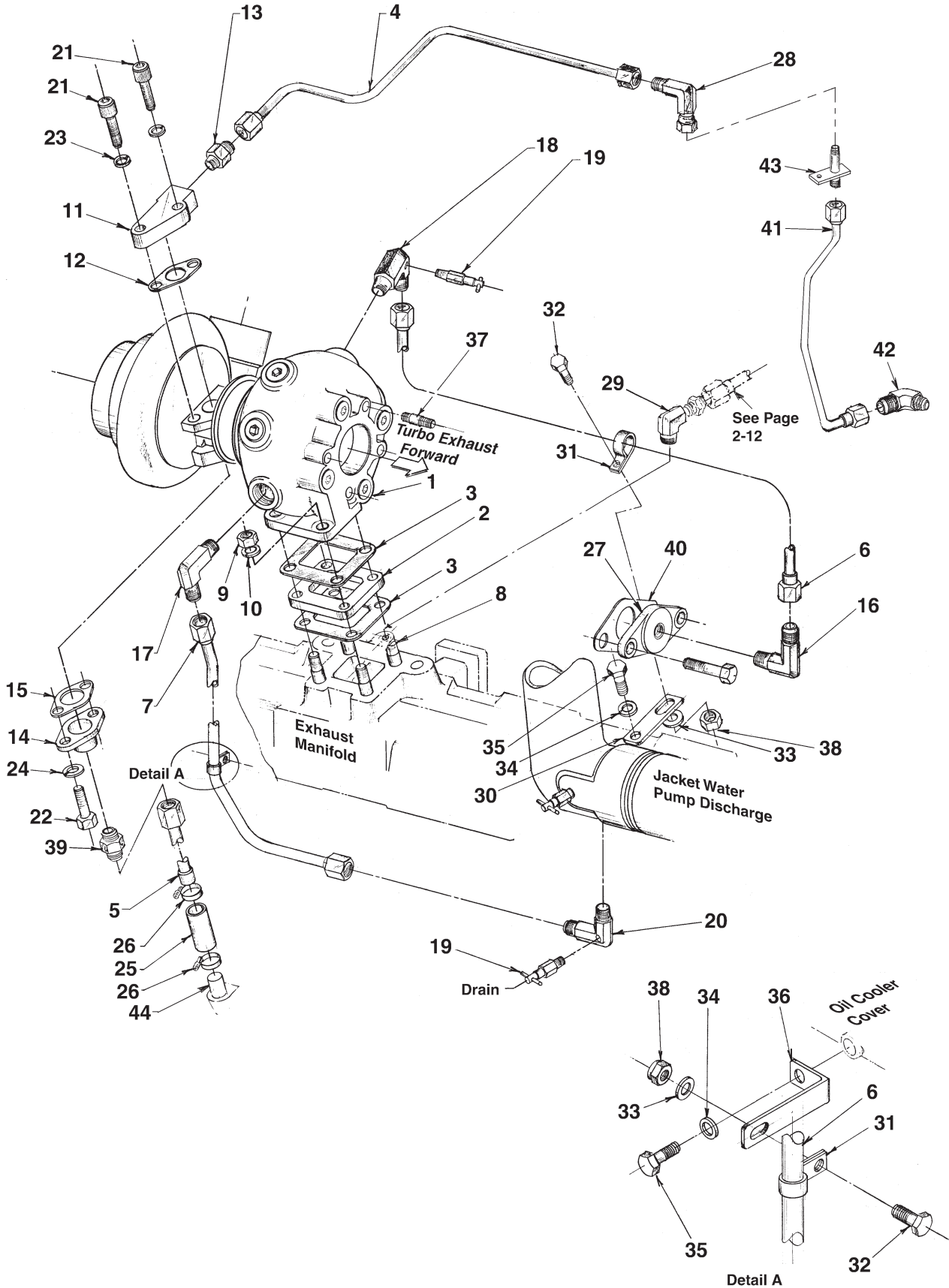
EXHAUST MANIFOLD

Low Profile - L-M6140AL & AL2

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-35001	1	Exhaust Manifold (see parts detail)	-
2	27-15006	1	Coolant Connector	-
3	20-15002	1	Thermostat Housing Spacer	-
4	10-15007	1	Coolant Connector	-
5	11-15002	1	Gasket	-
6	6210-11-5881	6	Gasket	-
7	16-15002	3	O-ring	-
8	21-10002	2	Drain Cock, 1/4 NPT	-
9	12-15000	6	Tapped Bolt, M10 x 1.5	-
10	12-00844	24	Capscrew, Hex Head M10 x 1.5 x 205 mm	-
11	12-00831	4	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
12	12-00088	2	Capscrew, Hex Head M10 x 1.5 x 95 mm	-
13	15-00802	6	Lock Washer M10	-
14	6210-61-6421	1	Gasket	-
15	15-00805	24	Flat Washer M10	-
16	28-15003	1	Cover Plate (6140AL)	-
	31-15007	1	Adapter Plate (6140AL2 - see Intake & Aftercooler - Late Production)	-
17	6210-21-1971	1	Gasket	-
18	12-00832	4	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
19	12-00091	2	Capscrew, Socket Head M10 x 1.5 x 16 mm	-
20	17-15001	5	Expansion Plug 1-7/8 (for exhaust manifold - not shown)	-
21	21-00530	**	Hex Plug 1/2 NPT (not shown)	-
22	21-31003	**	Hex Plug 3/8 NPT (not shown)	-

TURBOCHARGER & MOUNTING

High Profile - Exhaust Forward - L6140A



A-3503J / D-1965

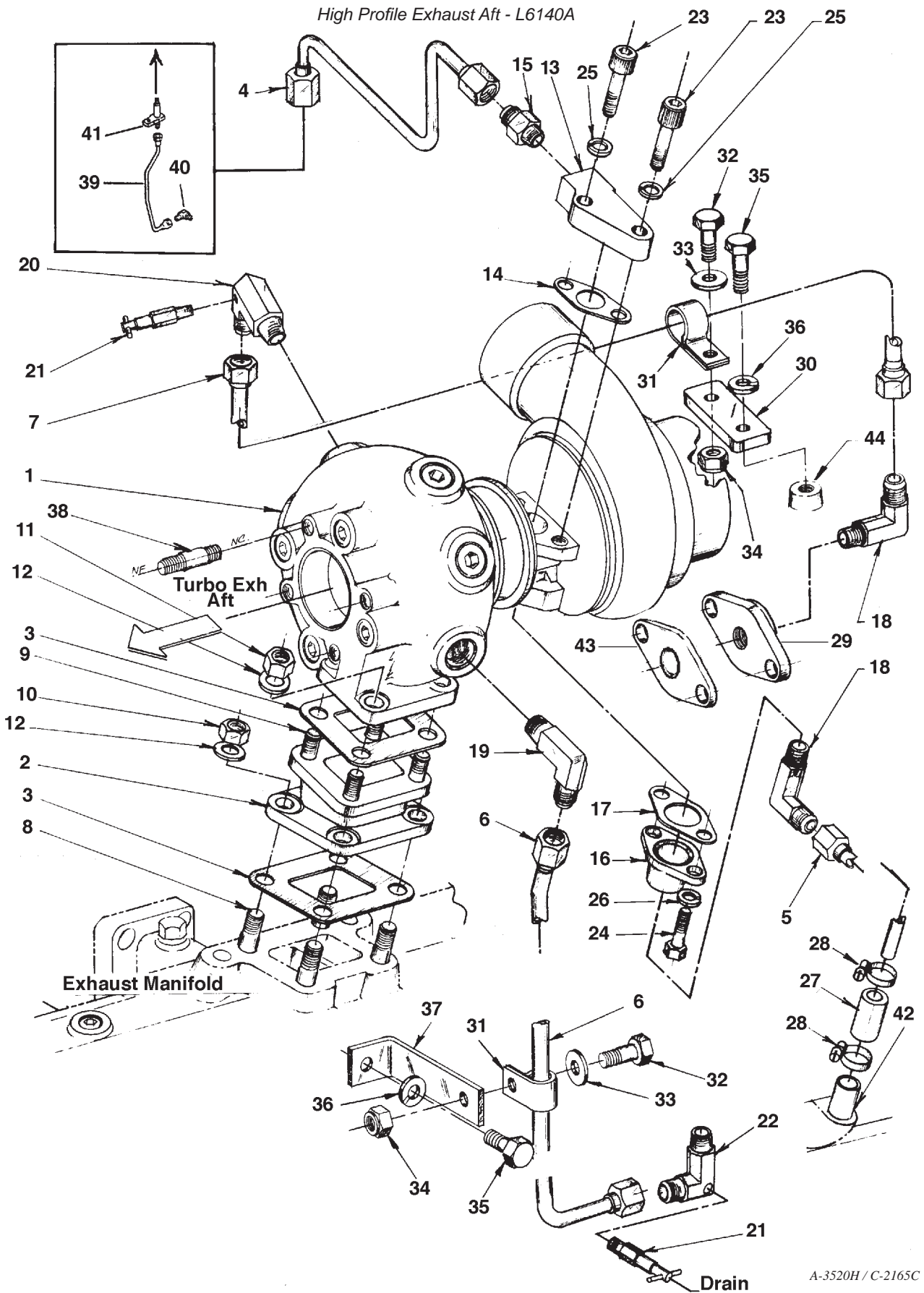
GROUP 2 - INTAKE AND EXHAUST SYSTEM

TURBOCHARGER & MOUNTING

High Profile - Exhaust Forward - L6140A

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	30-35000	1	Turbocharger (see parts detail)	-
2	21-35000	1	Spacer	-
3	11-34804	2	Gasket	-
4	27-05001	1	Turbo Oil Supply Tube Assembly	-
5	27-05002	1	Turbo Oil Return Tube Assembly	up to S/N 20508
	27-05007	1	Turbo Oil Return Tube Assembly	from S/N 20509
6	27-15001	1	Tube Assembly, Coolant Return	-
7	27-15002	1	Tube Assembly, Coolant Supply	-
8	13-85001	4	Stud M10 x 1.5 x 45 mm	-
9	14-00817	4	Nut M10 x 1.5 Stainless Steel	-
10	15-00300	4	Flat Washer M10	-
11	31-31047	1	Oil Feed Adapter	-
12	11-31014	1	Oil Inlet Gasket	-
13	21-52800	1	Male Connector 3/8 NPT x 3/8 - 37T	-
14	31-74800	1	Oil Return Adapter	-
15	11-31013	1	Oil Return Adapter Gasket	-
16	21-05406	1	Male Elbow, 90° Steel 1/2 NPT x 3/4 - 37T	-
17	21-64801	1	Male Elbow, 90° Steel 3/4 NPT x 3/4 - 37T	-
18	21-15001	1	Male Elbow, 90° Steel 3/4 NPT x 3/4 - 37T Tapped 1/8 NPT	-
19	21-10001	2	Drain Cock 1/8 NPT	-
20	21-15002	1	Male Elbow, 90° Steel 1/2 NPT x 3/4 - 37T Tapped 1/8 NPT	-
21	12-00314	2	Capscrew, Hex Head 3/8 - 16 x 1-3/4"	-
22	12-00312	2	Capscrew, Hex Head 3/8 - 16 x 1"	-
23	15-00302	2	Lock Washer 3/8"	-
24	15-00302	2	Lock Washer 3/8"	-
25	18-05000	1	Hose 7/8 ID x 2-3/4"	-
26	19-00012	2	Hose Clamps #12	-
27	00-15001	1	Flange	-
28	21-52213	1	Elbow, 90° Swivel Nut 3/8 - 37T	-
29	21-04801	1	Street Elbow, 90° Steel 1/8 NPT	-
30	23-05002	1	Bracket, Turbo Water Tube Support	-
31	19-41900	2	Adelle Clamp, 3/4"	-
32	12-00831	2	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
33	15-00805	2	Flat Washer M10	-
34	15-00802	2	Lock Washer, Helical M10	-
35	12-00805	2	Capscrew, Hex Head M10 x 1.5 x 20 mm	-
36	23-35005	1	Bracket, Turbo Water Tube Support (formerly #23-05003)	-
37	13-00335	4	Stud, 3/8 - 16 x 3/8 - 24 x 1-1/4" (1-3/4"LOA)	-
38	14-00812	2	Hex Nut, Nylock M10 x 1.5	-
39	21-35002	1	Male Connector 1/2 NPT x 3/4 - 37T	-
40	6696-61-9920	1	Gasket	-
41	6211-51-8120	1	Tube Assy, Turbo Oil Supply	up to S/N 16648
	6211-51-8210	1	Tube Assy, Turbo Oil Supply	from S/N 16649
42	07217-60813	1	Elbow	up to S/N 16648
	07206-31014	1	Banjo Bolt	from S/N 16649
43	6211-51-8131	1	Connector	up to S/N 16648
	6212-55-8131	1	Connector	from S/N 1669
44	6151-51-8130	1	Oil Return	up to S/N 16648
45	07005-01412	2	Sealing Washer	from S/N 16649

TURBOCHARGER & MOUNTING



GROUP 2 - INTAKE AND EXHAUST SYSTEM

TURBOCHARGER & MOUNTING

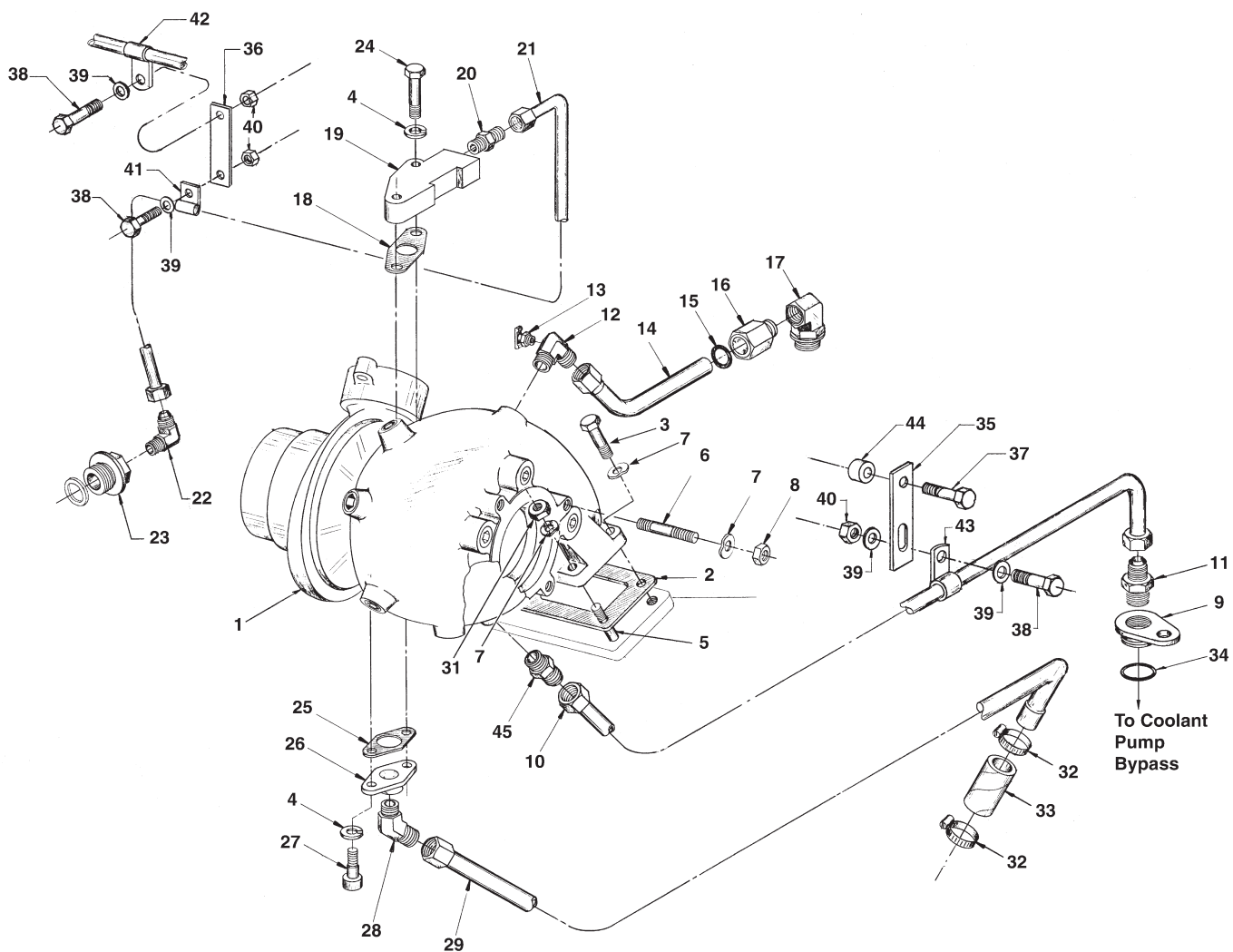
High Profile Exhaust Aft - L6140A

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	30-35000	1	Turbocharger (see parts detail)	-
2	21-35001	1	Spacer	-
3	11-34804	2	Gasket	-
4	27-05003	1	Turbo Oil Supply Tube Assembly	-
5	27-05004	1	Turbo Oil Return Tube Assembly	up to S/N 20508
	27-05006	1	Turbo Oil Return Tube Assembly	from S/N 20509
6	27-15004	1	Tube Assembly, Coolant Supply	-
7	27-15003	1	Tube Assembly, Coolant Return	-
8	13-05001	4	Stud M10 x 1.5 x 25 mm	-
9	13-00336	4	Stud 3/8-16 x 3/8 - 24 x 2"	-
10	14-00818	4	Nut M10 x 1.5 S/S	-
11	14-00321	4	Nut 3/8 - 24	-
12	15-00300	8	Flat Washer, Special	-
13	31-31047	1	Oil Feed Adapter	-
14	11-31014	1	Oil Inlet Gasket	-
15	21-52800	1	Male Connector, Steel 3/8NPT x 3/8-37T	-
16	31-74800	1	Oil Return Adapter	-
17	11-31013	1	Oil Return Adapter Gasket	-
18	21-05406	2	Male Elbow, 90° Steel 1/2 NPT x 3/4 - 37T	-
19	21-64801	1	Male Elbow, 90° Steel 3/4 NPT x 3/4 - 37T	-
20	21-15001	1	Male Elbow, 90° Steel 3/4 NPT x 3/4 - 37T (tapped 1/8 NPT)	-
21	21-10001	2	Drain Cock 1/8 NPT	-
22	21-15002	1	Male Elbow, 90° 1/2 NPT x 3/4 - 37T (tapped 1/8 NPT)	-
23	12-00314	2	Capscrew, Hex Head 3/8 - 16 x 1-3/4"	-
24	12-00312	2	Capscrew, Hex Head 3/8 - 16 x 1"	-
25	15-00302	2	Lock Washer 3/8"	-
26	15-00302	2	Lock Washer 3/8"	-
27	18-05000	1	Hose 7/8 ID x 2-3/4"	-
28	19-00012	2	Hose Clamps #12	-
29	00-15001	1	Flange	-
30	23-05002	1	Bracket	-
31	19-41900	2	Adelle Clamp, 3/4"	-
32	12-00831	2	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
33	15-00805	2	Flat Washer M10	-
34	14-00812	2	Hex Nut M10 x 1.5	-
35	12-00805	2	Capscrew, Hex Head M10 x 1.5 x 20 mm	-
36	15-00802	2	Lock Washer Helical M10	-
37	23-35005	1	Bracket	-
38	13-00335	4	Stud, 3/8 - 16 x 3/8 - 24 x 1-1/4" (1-3/4"LOA)	-
39	6211-51-8120	1	Tube Assy, Turbo Oil Supply	up to S/N 16648
	6211-51-8210	1	Tube Assy, Turbo Oil Supply	from S/N 16649
40	07217-60813	1	Elbow	up to S/N 16648
	07206-31014	1	Banjo Bolt	from S/N 16649
41	6211-51-8131	1	Connector	up to S/N 16648
	6212-55-8131	1	Connector	from S/N 16649
42	6151-51-8130	1	Oil Return	up to S/N 16648
43	6696-61-9920	1	Gasket	-
44	07005-01412	2	Sealing Washer	from S/N 16649

GROUP 2 - INTAKE AND EXHAUST SYSTEM

TURBOCHARGER & MOUNTING

Low Profile L-M6140AL Pre-emissions Certified



A-6573, A-4811 / D-2120C

GROUP 2 - INTAKE AND EXHAUST SYSTEM

TURBOCHARGER & MOUNTING

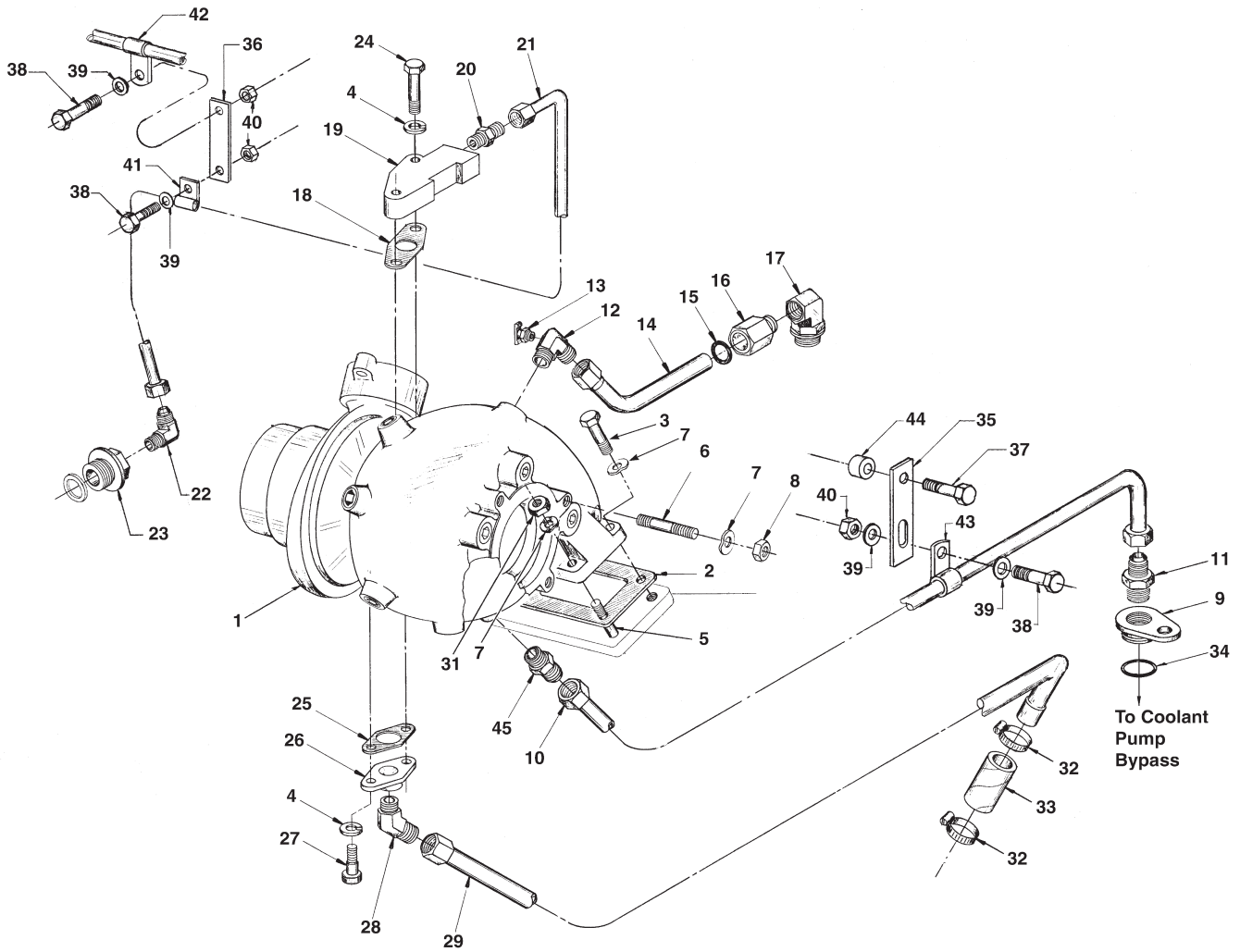
Low Profile - L-M6140AL Pre-emissions Certified

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	30-35000	1	Turbocharger (Propulsion) to 600HP	-
	30-35004	1	Turbocharger (Generator Set)	-
2	11-34804	1	Gasket	-
3	12-00814	**	Capscrew, Hex Head, M10 x 1.5 x 35 mm	-
4	15-00302	4	Lock Washer 3/8	-
5	13-00814	**	Stud, M10 x 1.5 x 30 mm	-
6	13-00335	4	Stud, 3/8 -16 x 3/8 -24 x 1 -1/4" (1 -3/4" LOA)	-
7	15-00804	8	Wave Washer, M10	-
8	14-05001	4	Hex Nut, Stainless Steel 3/8 -24	-
9	31-15001	1	Adaptor	-
10	27-15017	1	Tube Assembly (Propulsion)	-
	27-15012	1	Tube Assembly (Generator Set)	-
11	21-12803	2	Male Connector 3/4 NPT x 3/4 -37T	-
12	21-15001	1	Male Elbow 90° Steel 3/4 NPT x 3/4 -37T, tapped 1/8 NPT	-
13	21-10001	1	Vent Cock, 1/8 NPT	-
14	27-15018	1	Tube Assembly	-
15	16-01000	1	O-ring	-
16	R41285	1	Fitting	-
17	21-03459	1	Female Elbow 90° Steel 7/8 -14 O-Ring x 1/2 NPT	-
18	11-31014	1	Gasket	-
19	31-31047	1	Adapter	-
20	21-52800	1	Male Connection, Steel 3/8 NPT x 3/8 -37T	-
21	27-35017	1	Tube Assembly	-
22	21-00015	1	Male Elbow 90° Steel 1/4 NPT x 3/8 -37T	-
23	21-00130	1	Bushing M20 x 1.5 x 1/4 NPT	-
24	12-00315	2	Capscrew, Hex Head 3/8 - 16 x 1 -3/4"	-
25	11-31013	1	Gasket	-
26	31-74800	1	Adapter	-
27	12-20312	2	Capscrew Socket Head 3/8 -16 x 1"	-
28	21-14807	1	Male Elbow 45° Steel 1/2 NPT x 3/4 -37T	-
29	27-35018	1	Tube Assembly (Propulsion)	-
	27-35028	1	Tube Assembly (Generator Set)	-
31	14-00817	**	Hex Nut, Stainless Steel M10 x 1.5	-
32	19-00012	2	Hose Clamp #12	-
33	18-05000	1	Hose 7/8 ID x 2 -3/4"	-
34	16-11001	1	O-ring	-
35	23-15004	1	Bracket (Propulsion)	-
	23-15009	1	Bracket (Generator Set)	-
36	23-25004	1	Bracket	-
37	12-00832	1	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
38	12-00831	3	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
39	15-00805	6	Flat Washer M10	-
40	14-00812	3	Nylock Hex Nut M10 x 1.5	-
41	19-53200	1	Adelle Clamp	-
42	19-00000	1	Adelle Clamp	-
43	19-14900	1	Adelle Clamp	-
44	6110-23-6490	1	Spacer	-
45	21-12803	1	Male Connector, Steel 3/4 NPT x 3/4 -37T	-
46	00-26801	1	Clamp Dog (not shown)	-
47	12-00312	1	Capscrew, Hex Head 3/8 -16 x 1" (not shown)	-
48	15-00302	1	Lock Washer, Helical 3/8 (not shown)	-
			**As required.	

GROUP 2 - INTAKE AND EXHAUST SYSTEM

TURBOCHARGER & MOUNTING

Low Profile - L6140AL & AL2 { High Output - Keel Cooled - Early Production
Medium / Continuous Duty
Pre-Emissions Certified



A-7989, A-7333, A-4811 / D-2120C

GROUP 2 - INTAKE AND EXHAUST SYSTEM

TURBOCHARGER & MOUNTING

Low Profile - L6140AL & AL2 { High Output - Keel Cooled - Early Production
Medium / Continuous Duty

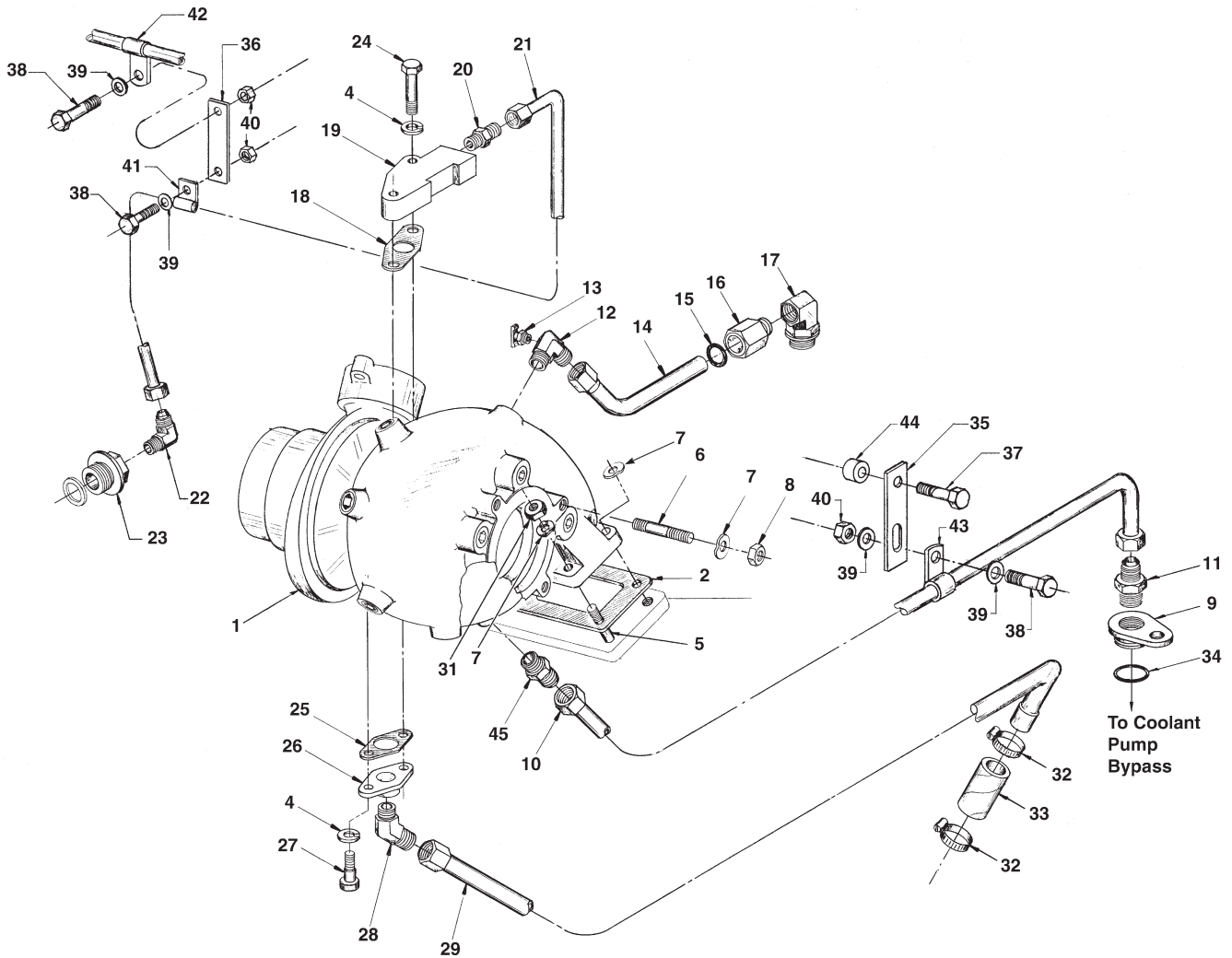
Pre-Emissions Certified

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	30-35007	1	Turbocharger (L6140AL2 700 hp)	-
	30-35003	1	Turbocharger (L6140AL to 630 hp & AL2 Continuous/ Med. Duty)	-
2	11-34804	1	Gasket	-
3	12-00814	**	Capscrew, Hex Head M10 x 1.5 x 35 mm	-
4	15-00802	4	Lock Washer M10	-
5	13-00814	4	Stud, M10 x 1.5 x 30 mm (42mm LOA)	-
6	13-00814	4	Stud, M10 x 1.5 x 30 mm (42mm LOA)	-
7	15-00804	8	Wave Washer, M10	-
8	14-00817	4	Hex Nut, Stainless Steel M10 x 1.5	-
9	31-15001	1	Adapter	-
10	27-15017	1	Tube Assembly (L6140AL)	-
	27-15032	1	Tube Assembly (L6140AL2)*	-
11	21-12803	1	Male Connector 3/4 NPT x 3/4 -37T	-
12	21-35003	1	Male Elbow 90° Steel 5/8 Port x 3/4 -37T, Tapped 1/8 NPT	-
13	21-10001	1	Vent Cock, 1/8 NPT	-
14	27-15018	1	Tube Assembly	-
15	16-01000	1	O-ring	-
16	R41285	1	Fitting	-
17	21-03459	1	Female Elbow 90° Steel 7/8 -14 O-ring x 1/2 NPT	-
18	11-31014	1	Gasket	-
19	31-31047	1	Adapter	-
20	21-52800	1	Male Connection, Steel 3/8 NPT x 3/8 -37T	-
21	27-35017	1	Tube Assembly	-
22	21-00015	1	Male Elbow 90° Steel 1/4 NPT x 3/8 -37T	-
23	21-00130	1	Bushing M20 x 1.5 x 1/4 NPT	-
24	12-00812	2	Capscrew, Hex Head M10 x 1.5 x 40 mm	-
25	11-31013	1	Gasket	-
26	31-74800	1	Adapter	-
27	12-00831	2	Capscrew Hex Head M10 x 1.5 x 25 mm	-
28	21-14807	1	Male Elbow 45° Steel 1/2 NPT x 3/4 -37T	-
29	27-35018	1	Tube Assembly	-
31	14-00817	4	Hex Nut, Stainless Steel M10 x 1.5	-
32	19-00012	2	Hose Clamp #12	-
33	18-05000	1	Hose 7/8 ID x 2 -3/4"	-
34	16-11001	1	O-ring	-
35	23-15004	1	Bracket	-
36	23-25004	1	Bracket	-
37	12-00832	1	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
38	12-00831	3	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
39	15-00805	6	Flat Washer M10	-
40	14-00812	3	Nylock Hex Nut M10 x 1.5	-
41	19-53200	1	Adelle Clamp	-
42	19-00000	1	Adelle Clamp	-
43	19-14900	1	Adelle Clamp	-
44	6110-23-6490	1	Spacer	-
45	21-62000	1	Male Connector, Steel 3/4 -37T x 5/8 Port	-
			*NOTE: L6140AL2 High Output Keel Cooled engines now use the Tube Assembly common to Heat Exchanged units. See Turbocharger & Mounting Assembly for L6140AL2 (Late Production).	
			**As required	

GROUP 2 - INTAKE AND EXHAUST SYSTEM

TURBOCHARGER & MOUNTING

Low Profile - L6140AL2 Continuous Duty (500 Hp)
Emissions Certified



A-7989, A-7333, A-4811 / D-2120Ca

GROUP 2 - INTAKE AND EXHAUST SYSTEM

TURBOCHARGER & MOUNTING

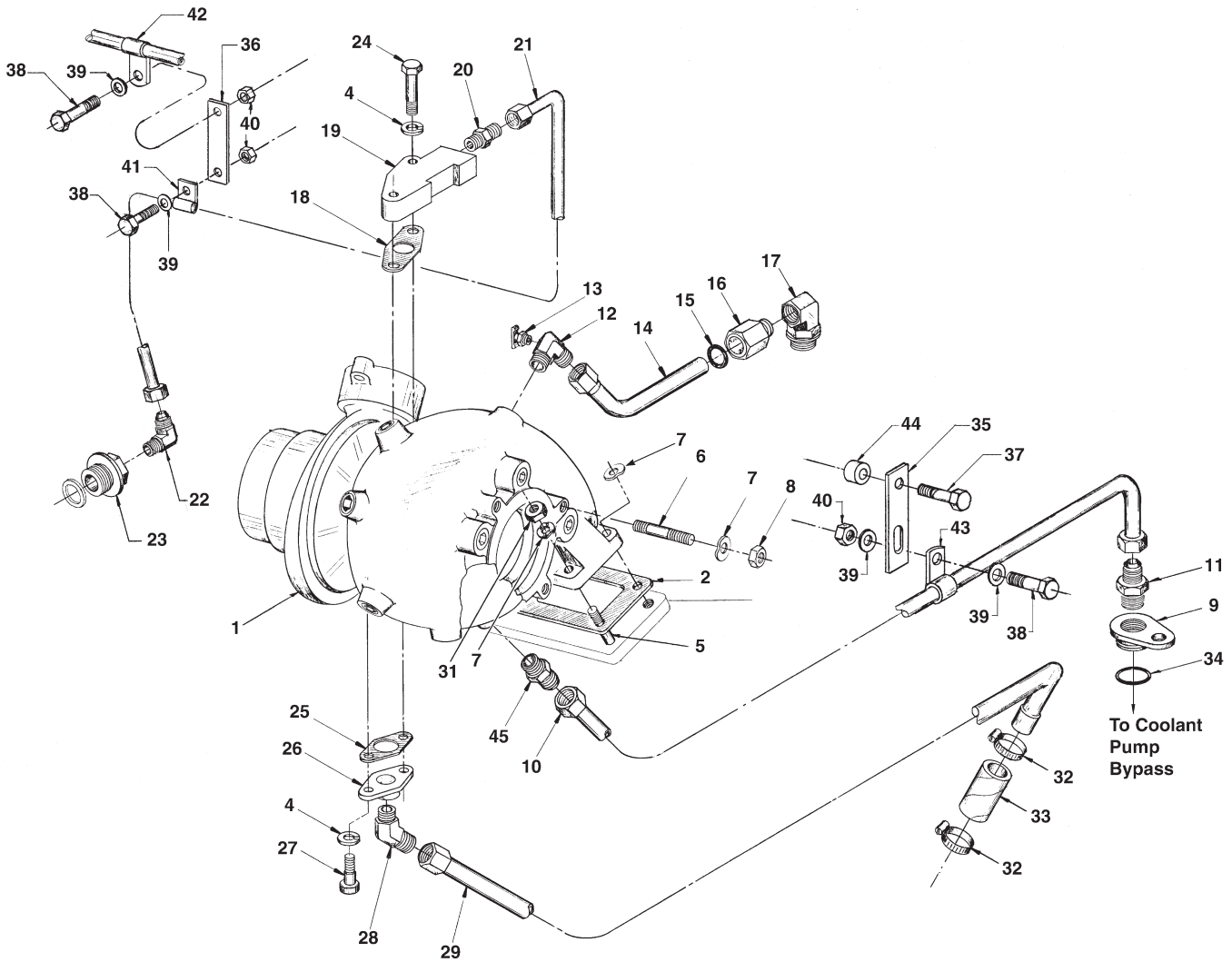
*Low Profile - L6140AL2 Continuous Duty (500 Hp)
Emissions Certified*

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	30-35004	1	Turbocharger	-
2	11-34804	1	Gasket	-
4	15-00302	4	Lock Washer 3/8	-
5	13-00814	**	Stud, M10 x 1.5 x 30 mm	-
6	13-00335	4	Stud, 3/8 -16 x 3/8 -24 x 1 -1/4" (1 -3/4" LOA)	-
7	15-00804	8	Wave Washer, M10	-
8	14-05001	4	Hex Nut, Stainless Steel 3/8 -24	-
9	31-15001	1	Adapter	-
10	27-15032	1	Tube Assembly (Propulsion)	-
	27-15012	1	Tube Assembly (Generator Set, Pre-IMO)	-
11	21-12803	2	Male Connector 3/4 NPT x 3/4 -37T	-
12	21-15001	1	Male Elbow 90° Steel 5/8 Port x 3/4 -37T, Tapped 1/8 NPT	-
13	21-10001	1	Vent Cock, 1/8 NPT	-
14	27-15018	1	Tube Assembly	-
15	16-01000	1	O-ring	-
16	R41285	1	Fitting	-
17	21-03459	1	Female Elbow 90° Steel 7/8 -14 O-ring x 1/2 NPT	-
18	11-31014	1	Gasket	-
19	31-31047	1	Adapter	-
20	21-52800	1	Male Connection, Steel 3/8 NPT x 3/8 -37T	-
21	27-35017	1	Tube Assembly	-
22	21-00015	1	Male Elbow 90° Steel 1/4 NPT x 3/8 -37T	-
23	21-00130	1	Bushing M20 x 1.5 x 1/4 NPT	-
24	12-00315	2	Capscrew, Hex Head M10 x 1.5 x 40 mm	-
25	11-31013	1	Gasket	-
26	31-74800	1	Adapter	-
27	12-20312	2	Capscrew, Socket Head 3/8 -16 x 1"	-
28	21-14807	1	Male Elbow 45° Steel 1/2 NPT x 3/4 -37T	-
29	27-35028	1	Tube Assembly	-
31	14-00817	**	Hex Nut, Stainless Steel M10 x 1.5	-
32	19-00012	2	Hose Clamp #12	-
33	18-05000	1	Hose 7/8 ID x 2 -3/4"	-
34	16-11001	1	O-ring	-
35	23-15004	1	Bracket (Propulsion)	-
	23-15009	1	Bracket (Generator Set)	-
36	23-25004	1	Bracket	-
37	12-00832	1	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
38	12-00831	3	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
39	15-00805	6	Flat Washer M10	-
40	14-00812	3	Nylock Hex Nut M10 x 1.5	-
41	19-53200	1	Adelle Clamp	-
42	19-00000	1	Adelle Clamp	-
43	19-14900	1	Adelle Clamp	-
44	6110-23-6490	1	Spacer	-
45	21-12803	1	Male Connector, Steel 3/4 NPT x 3/4 -37T	-
46	00-26801	1	Clamp Dog*	-
47	12-00312	1	Capscrew, Hex Head 3/8 -16 x 1" *	-
48	15-00302	1	Lock Washer, Helical 3/8*	-
			*For Retaining Intake Tube at Turbo Air Outlet.	
			**As required	

GROUP 2 - INTAKE AND EXHAUST SYSTEM

TURBOCHARGER & MOUNTING

Low Profile - L6140AL2 Medium Duty (600 Hp)
Emissions Certified



A-7989, A-7333, A-4811 / D-2120C

GROUP 2 - INTAKE AND EXHAUST SYSTEM

TURBOCHARGER & MOUNTING

*Low Profile - L6140AL2 Medium Duty (600 Hp)
Emissions Certified*

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	30-35003	1	Turbocharger	-
2	11-34804	1	Gasket	-
4	15-00802	4	Lock Washer M10	-
5	13-00814	4	Stud, M10 x 1.5 x 30 mm (42 mm LOA)	-
6	13-00814	4	Stud, M10 x 1.5 x 30 mm (42 mm LOA)	-
7	15-00804	8	Wave Washer, M10	-
8	14-00817	4	Hex Nut, Stainless Steel M10 x 1.5	-
9	31-15001	1	Adapter	-
10	27-15032	1	Tube Assembly	-
11	21-12803	1	Male Connector 3/4 NPT x 3/4 -37T	-
12	21-35003	1	Male Elbow 90° Steel 5/8 Port x 3/4 -37T, Tapped 1/8 NPT	-
13	21-10001	1	Vent Cock, 1/8 NPT	-
14	27-15018	1	Tube Assembly	-
15	16-01000	1	O-ring	-
16	R41285	1	Fitting	-
17	21-03459	1	Female Elbow 90° Steel 7/8 -14 O-ring x 1/2 NPT	-
18	11-31014	1	Gasket	-
19	31-31047	1	Adapter	-
20	21-52800	1	Male Connection, Steel 3/8 NPT x 3/8 -37T	-
21	27-35017	1	Tube Assembly	-
22	21-00015	1	Male Elbow 90° Steel 1/4 NPT x 3/8 -37T	-
23	21-00130	1	Bushing M20 x 1.5 x 1/4 NPT	-
24	12-00812	2	Capscrew, Hex Head M10 x 1.5 x 40 mm	-
25	11-31013	1	Gasket	-
26	31-74800	1	Adapter	-
27	12-00831	2	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
28	21-14807	1	Male Elbow 45° Steel 1/2 NPT x 3/4 -37T	-
29	27-35034	1	Tube Assembly	-
31	14-00817	**	Hex Nut, Stainless Steel M10 x 1.5	-
32	19-00012	2	Hose Clamp #12	-
33	18-05000	1	Hose 7/8 ID x 2 -3/4"	-
34	16-11001	1	O-ring	-
35	23-15004	1	Bracket	-
36	23-25004	1	Bracket	-
37	12-00832	1	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
38	12-00831	3	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
39	15-00805	6	Flat Washer M10	-
40	14-00812	3	Nylock Hex Nut M10 x 1.5	-
41	19-53200	1	Adelle Clamp	-
42	19-00000	1	Adelle Clamp	-
43	19-14900	1	Adelle Clamp	-
44	6110-23-6490	1	Spacer	-
45	21-62000	1	Male Connector, Steel 3/4 NPT x 5/8 Port	-
46	00-26801	2	Clamp*	-
47	12-00831	2	Capscrew, Hex Head M10 x 1.5 x 25 mm*	-
48	15-00804	2	Wave Washer M10*	-

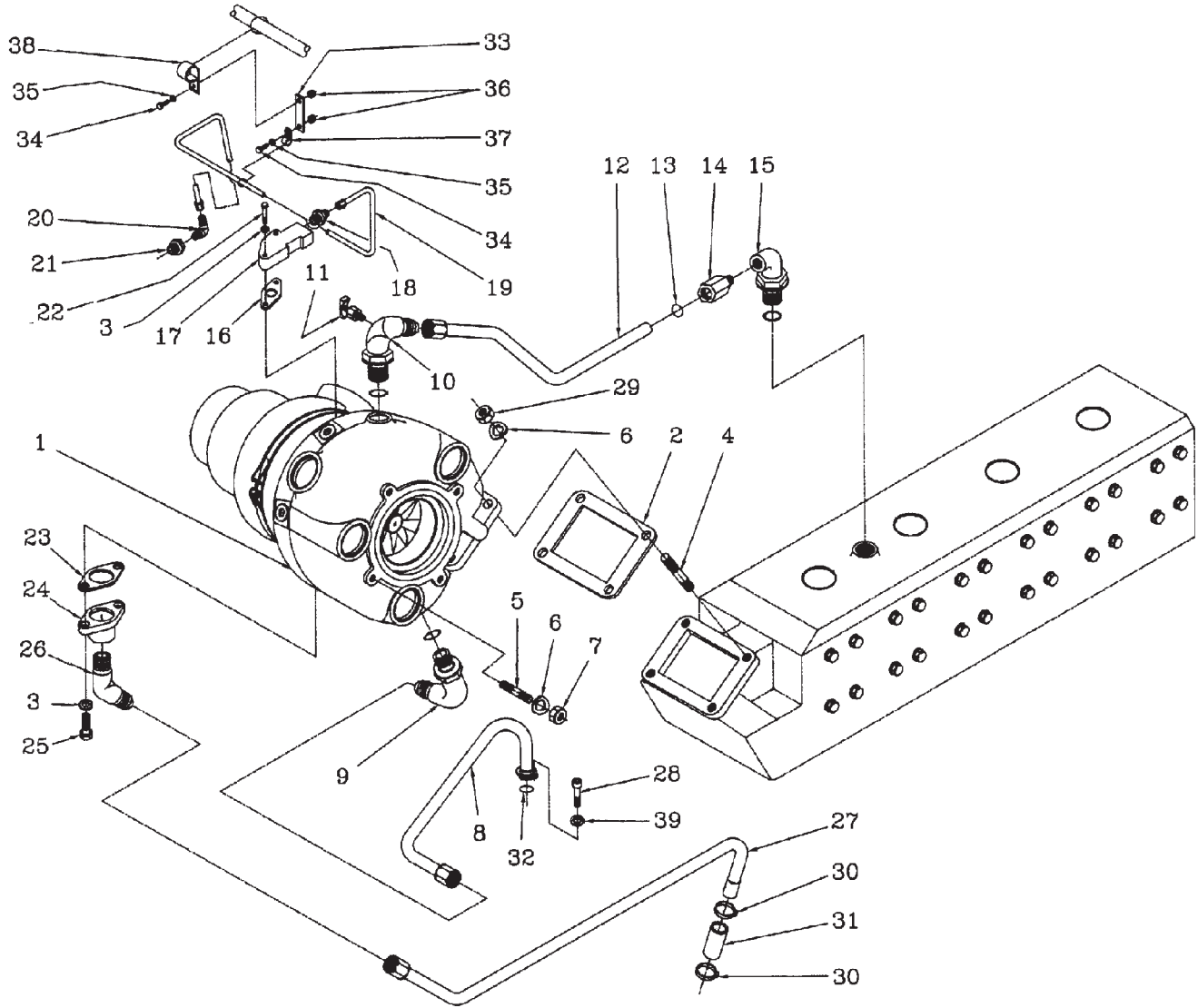
*For Retaining Intake Tube at Turbo Air Outlet.

**As required

GROUP 2 - INTAKE AND EXHAUST SYSTEM

TURBOCHARGER & MOUNTING

L6140AL2 - 700 HP High Output



A-7553 / D-2900 fig02 22

GROUP 2 - INTAKE AND EXHAUST SYSTEM

TURBOCHARGER & MOUNTING

L6140AL2 - 700 HP High Output

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	30-35007	1	Turbocharger	-
2	11-34804	1	Gasket	-
3	15-00802	4	Lock Washer, M10	-
4	13-00814	4	Stud, M10 x 1.5 x 30 mm (42 mm LOA)	-
5	13-00814	4	Stud, M10 x 1.5 x 30 mm (42 mm LOA)	-
6	15-00804	8	Wave Washer, M10	-
7	14-00817	4	Hex Nut, Stainless Steel M10 x 1.5	-
8	27-15024	1	Tube Assembly	-
9	21-62600	1	Male Elbow, 90° Steel 5/8 port x 3/4 - 37T	-
10	21-35003	1	Male Elbow, 90° Steel 5/8 port x 3/4 - 37T Tapped 1/8 NPT	-
11	21-10001	1	Vent Cock, 1/8 NPT	-
12	27-15018	1	Tube Assembly	-
13	16-01000	1	O-ring	-
14	R41285	1	Adapter	-
15	21-03459	1	Female Elbow 90° Steel 7/8 - 14 O-ring x 1/2 NPT	-
16	11-31014	1	Gasket	-
17	31-31047	1	Adapter	-
18	21-52800	1	Male Connection, Steel 3/8 NPT x 3/8 - 37T	-
19	27-35017	1	Tube Assembly	-
20	21-00015	1	Male Elbow 90° Steel 1/4 NPT x 3/8 - 37T	-
21	21-00130	1	Adapter 1/4NPT x M20 x 1.5	-
22	12-00812	2	Capscrew, Hex Head M10 x 1.5 x 40 mm	-
23	11-31013	1	Gasket	-
24	31-74800	1	Adapter	-
25	12-00831	2	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
26	21-14807	1	Male Elbow, 45° Steel 1/2 NPT x 3/4 - 37T	-
27	27-35018	1	Tube Assembly	-
28	12-00091	1	Capscrew, Socket Head M10 x 1.5 x 16 mm	-
29	14-00817	4	Hex Nut M10 x 1.5 S/S (17mm head)	-
30	19-00012	2	Hose Clamp #12	-
31	18-05000	1	Hose, 7/8 ID x 2 -3/4"	-
32	07000-13032	1	O-ring	-
33	23-15004	1	Bracket	-
34	12-00831	2	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
35	15-00805	4	Flat Washer M10	-
36	14-00812	2	Nylock Hex Nut M10 x 1.5	-
37	19-53200	1	Adelle Clamp 1/2" ID x 3/8"	-
38	19-00000	1	Adelle Clamp 7/8" ID x 3/8"	-
39	15-00803	1	Lock Washer M10	-
40	00-26801	2	Clip *	-
41	12-00831	2	Capscrew, Hex Head M10 x 1.5 x 25 mm *	-
42	15-00804	2	Wave Washer M10 *	-

* For retaining Intake Tube at Turbo air outlet.

TURBOCHARGER ASSEMBLY

L6140A & AL

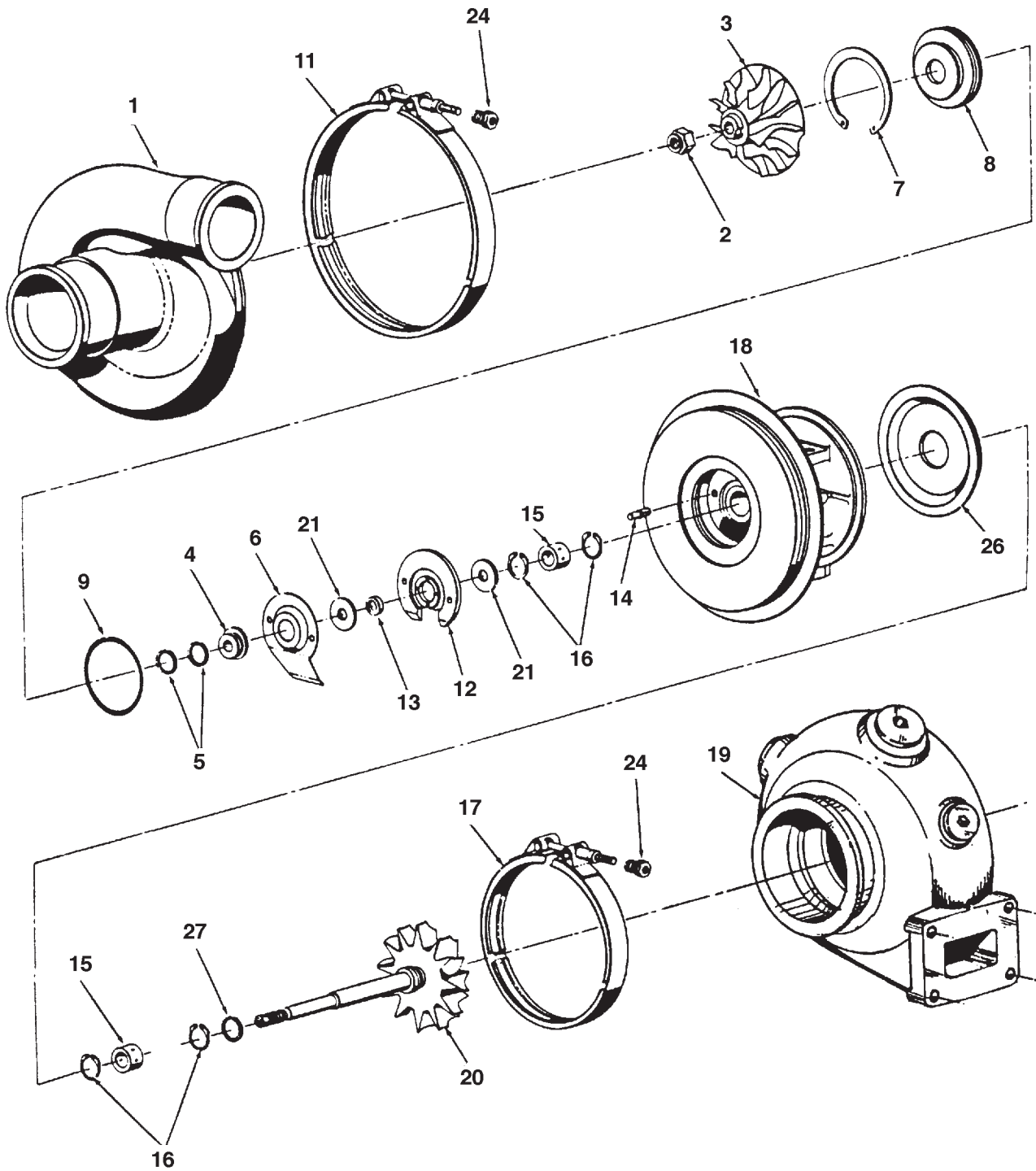


fig02 26

GROUP 2 - INTAKE AND EXHAUST SYSTEM

TURBOCHARGER ASSEMBLY

L6140A & AL

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	30-35000	1	Turbocharger (includes all keys) (ID Tag #193463)	-
••	30-05009	1	Center Section Assembly (includes keys #2 - #9, #12 - #16, #18, #20 - #21 & #26 - #27)	-
•	30-00025	1	Repair Kit	-
1	30-05001	1	Compressor Cover	-
2	30-05002	1	Lock Nut	-
3	30-05003	1	Compressor Wheel	-
4	30-00001	1	Flinger Sleeve	-
5	30-00002	1	Piston Ring	-
6	30-00003	1	Oil Deflector	-
7	30-00004	1	Snap Ring	-
8	30-00005	1	Compressor Insert	-
9	30-00006	1	O-ring	-
11	30-00007	1	V-Clamp	-
12	30-05004	1	Thrust Bearing Assembly	-
13	30-00008	1	Spacer Sleeve	-
14	30-00009	1	Pin	-
15	30-00010	2	Bearing	-
16	30-00011	4	Snap Ring	-
17	30-00012	1	V-Clamp	-
18	30-00013	1	Bearing Housing Assembly	-
19	30-05005	1	Turbine Housing Assembly	-
20	30-04807	1	Shaft & Turbine Wheel Assembly (formerly #30-05006)	-
21	30-00014	2	Thrust Ring	-
22	30-05007	1	Self Tapping Screw*	-
23	30-00015	1	Name Plate*	-
24	30-00016	2	Clamp Nut	-
26	30-00017	1	Turbine Backplate	-
27	30-00018	1	Piston Ring	-
28	30-05008	4	Plug*	-
29	30-00019	5	Plug*	-

*Not shown

TURBOCHARGER ASSEMBLY

L6140AL & AL2

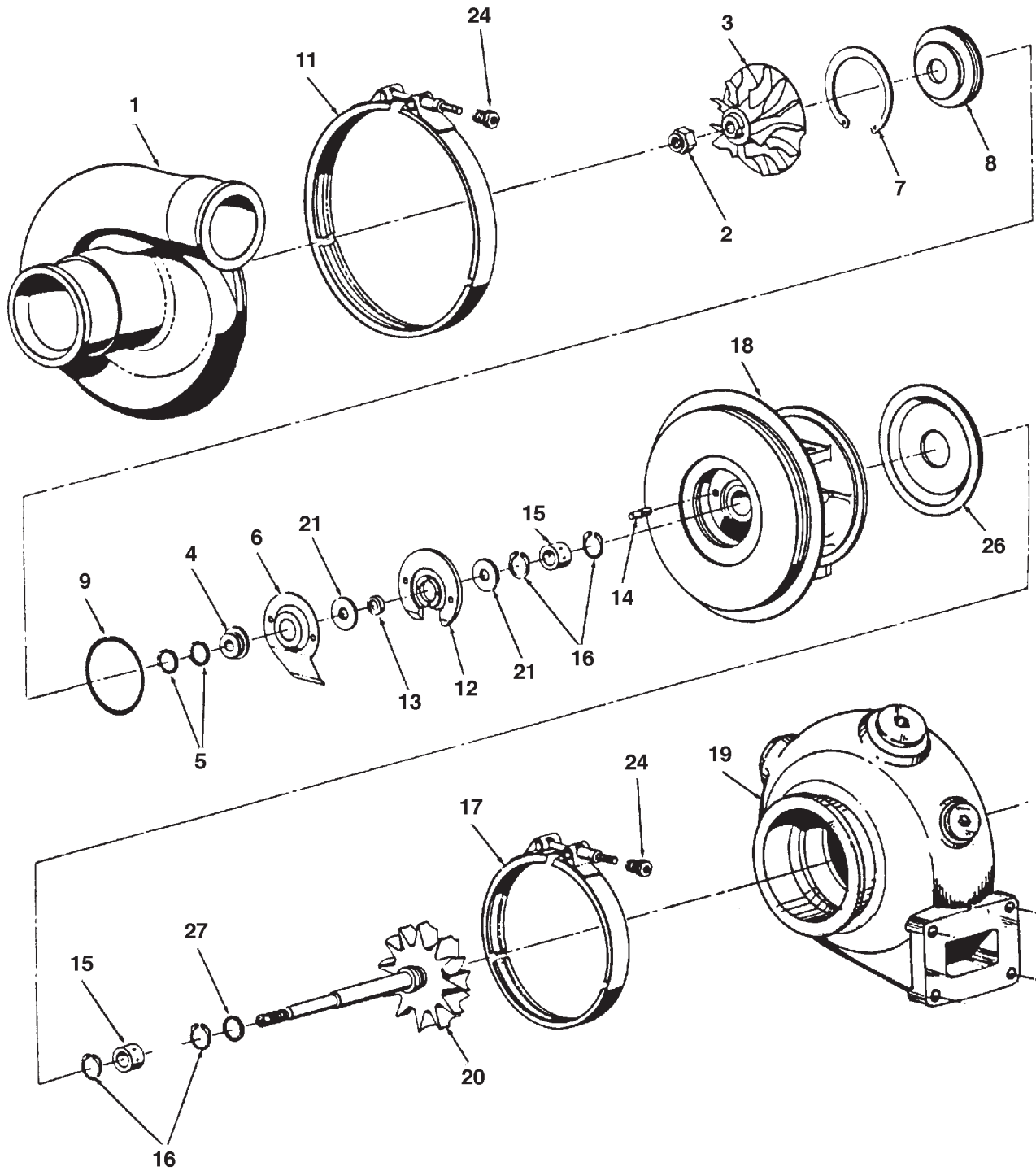


fig 02 26

GROUP 2 - INTAKE AND EXHAUST SYSTEM

TURBOCHARGER ASSEMBLY

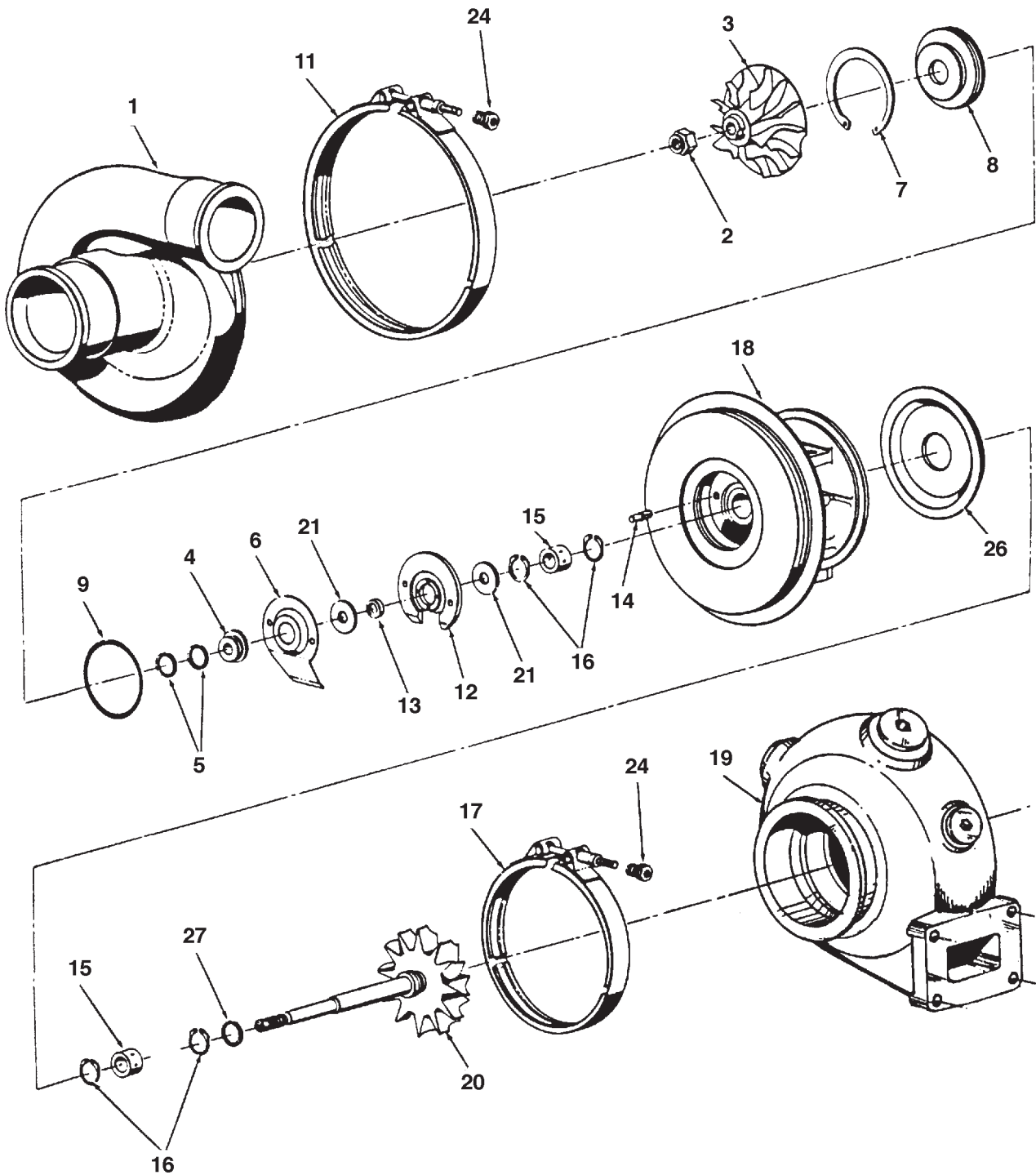
L6140AL & AL2

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	30-35003	1	Turbocharger L6140AL (includes all keys) (ID Tag #314078)	-
••	30-35007	1	Turbocharger L6140AL2 (includes all keys) (ID Tag #312451)	-
••	30-05028	1	Center Section Assembly (includes keys #2 - #10, #12 - #16, #18, #20 - #21 & #26 - #27 - for Turbo 30-35003)	-
••	30-05032	1	Center Section Assembly (includes keys #2 - #10, #12 - #16, #18, #20 - #21, & #26 - #27 - for Turbo 30-35007)	-
•	30-05027	1	Repair Kit	-
1	30-05011	1	Compressor Cover (for Turbo 30-35003)	-
	30-05031	1	Compressor Cover (for Turbo 30-35007)	-
2	30-05002	1	Lock Nut	-
3	30-05013	1	Compressor Wheel (for Turbo 30-35003)	-
	30-05029	1	Compressor Wheel (for Turbo 30-35007)	-
4	30-05012	1	Flinger Sleeve	-
5	30-05719	1	Piston Ring (formerly #30-05014)	-
6	30-00003	1	Oil Deflector	-
7	30-00004	1	Snap Ring	-
8	30-00005	1	Compressor Insert	-
9	30-05015	1	O-ring	-
10	30-05010	1	Speed Control Washer*	-
11	30-05016	1	V-Clamp	-
12	30-05017	1	Thrust Bearing Assembly	-
13	30-00008	1	Spacer Sleeve	-
14	30-00009	1	Pin	-
15	30-05018	2	Bearing	-
16	30-05019	4	Snap Ring	-
17	30-00012	1	V-Clamp	-
18	30-05020	1	Bearing Housing Assembly	-
19	30-05021	1	Turbine Housing Assembly	-
20	30-05022	1	Shaft & Turbine Wheel Assembly	-
21	30-00014	2	Thrust Ring	-
22	30-05007	1	Self Tapping Screw*	-
23	30-05023	1	Name Plate*	-
24	30-05024	2	Clamp Nut	-
26	30-05025	1	Turbine Backplate	-
27	30-05026	1	Piston Ring	-
28	30-05008	4	Plug*	-
29	30-00019	5	Plug*	-

*Not shown

TURBOCHARGER ASSEMBLY

M6140



GROUP 2 - INTAKE AND EXHAUST SYSTEM

TURBOCHARGER ASSEMBLY

M6140

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	30-35004	1	Turbocharger (includes all keys)	-
••	30-05009	1	Center Section Assembly (includes keys #2 - #8, #12 - #16, #18, #20 - #21 & #26 - #27)	-
•	30-00025	1	Repair Kit	-
1	30-05001	1	Compressor Cover	-
2	30-05002	1	Lock Nut	-
3	30-05003	1	Compressor Wheel	-
4	30-00001	1	Flinger Sleeve	-
5	30-00002	1	Piston Ring	-
6	30-00003	1	Oil Deflector	-
7	30-00004	1	Snap Ring	-
8	30-00005	1	Compressor Insert	-
9	30-00006	1	O-ring	-
11	30-00007	1	V-Clamp	-
12	30-04805	1	Thrust Bearing Assembly	-
13	30-00008	1	Spacer Sleeve	-
14	30-00009	1	Pin	-
15	30-00010	2	Bearing	-
16	30-00011	4	Snap Ring	-
17	30-00012	1	V-Clamp	-
18	30-00013	1	Bearing Housing Assembly	-
19	30-04806	1	Turbine Housing Assembly	-
20	30-04807	1	Shaft & Turbine Wheel Assembly (formerly #30-05006)	-
21	30-00014	2	Thrust Ring	-
22	30-05007	1	Self Tapping Screw*	-
23	30-00015	1	Name Plate*	-
24	30-00016	2	Clamp Nut	-
26	30-00017	1	Turbine Backplate	-
27	30-00018	1	Piston Ring	-
28	30-04808	**	Plug*	-
29	30-00019	**	Plug*	-

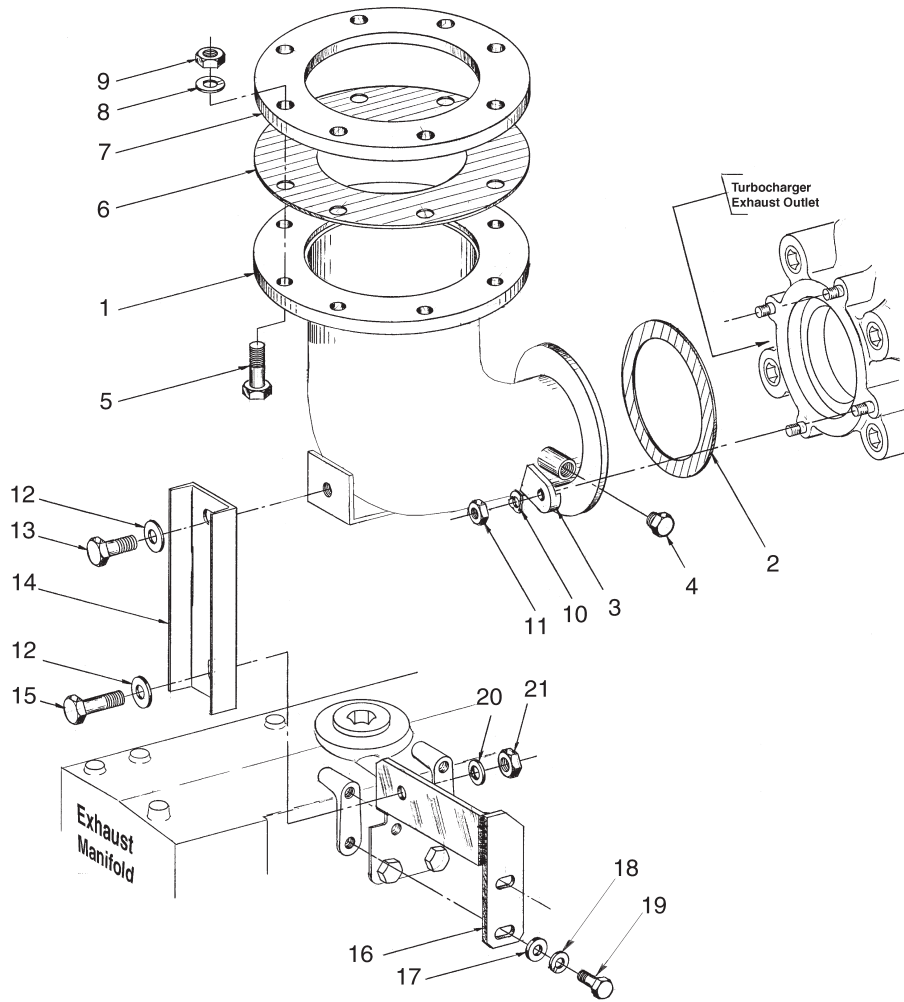
*Not shown.

**As required.

GROUP 2 - INTAKE AND EXHAUST SYSTEM

DRY EXHAUST ELBOW 6"

Exhaust Aft - L6140A High Profile



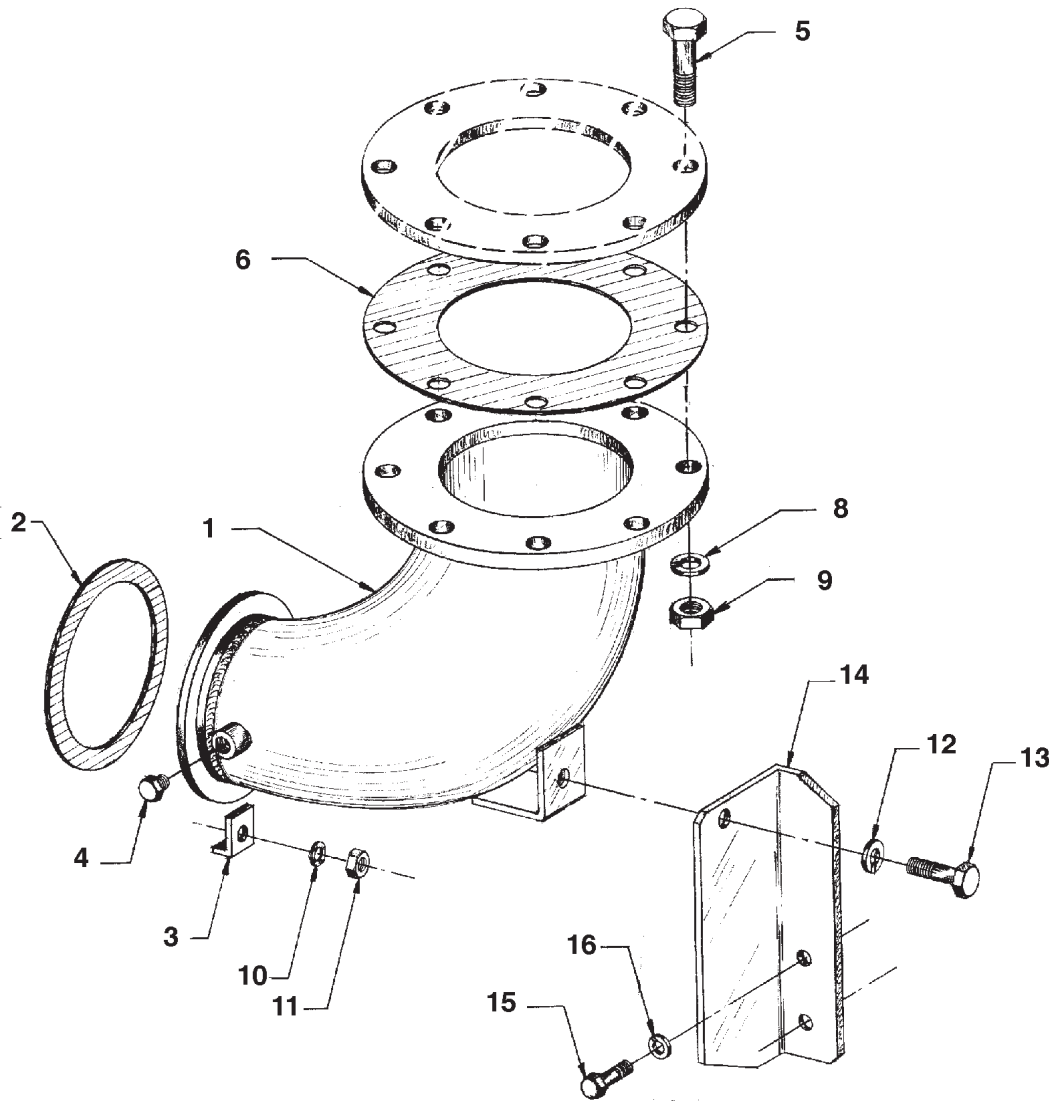
A-4817 / D-2122A

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	27-35021	1	Dry Exhaust Elbow 6" (formerly #27-35008)	-
2	11-34808	1	Gasket	-
3	00-30005	4	Clamp	-
4	21-31624	2	Plug, 1/4 NPT	-
5	12-00916	8	Capscrew Hex Head 5/8 - 11 x 2"	-
6	11-31097	1	Gasket	-
7	28-34802	1	Companion Flange	-
8	15-00902	8	Lock Washer 5/8	-
9	14-00911	8	Hex Nut 5/8-11	-
10	15-00804	4	Wave Washer, M10	-
11	14-05001	4	Hex Nut Stainless Steel 3/8 - 24	-
12	15-00501	2	Flat Washer, 1/2	-
13	12-00512	1	Capscrew, Hex Head 1/2 - 13 x 1"	-
14	23-35007	1	Bracket, Exhaust Elbow Support	-
15	12-00513	1	Capscrew Hex Head 1/2 - 13 x 1-1/4"	-
16	23-35006	1	Bracket, Exhaust Elbow Support	-
17	15-00805	2	Flat Washer M10	-
18	15-00802	2	Lock Washer M10	-
19	12-00832	2	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
20	15-00502	1	Lock Washer 1/2	-
21	14-00511	1	Hex Nut, 1/2 - 13	-

GROUP 2 - INTAKE AND EXHAUST SYSTEM

DRY EXHAUST ELBOW 6"

Exhaust Forward - L6140A High Profile



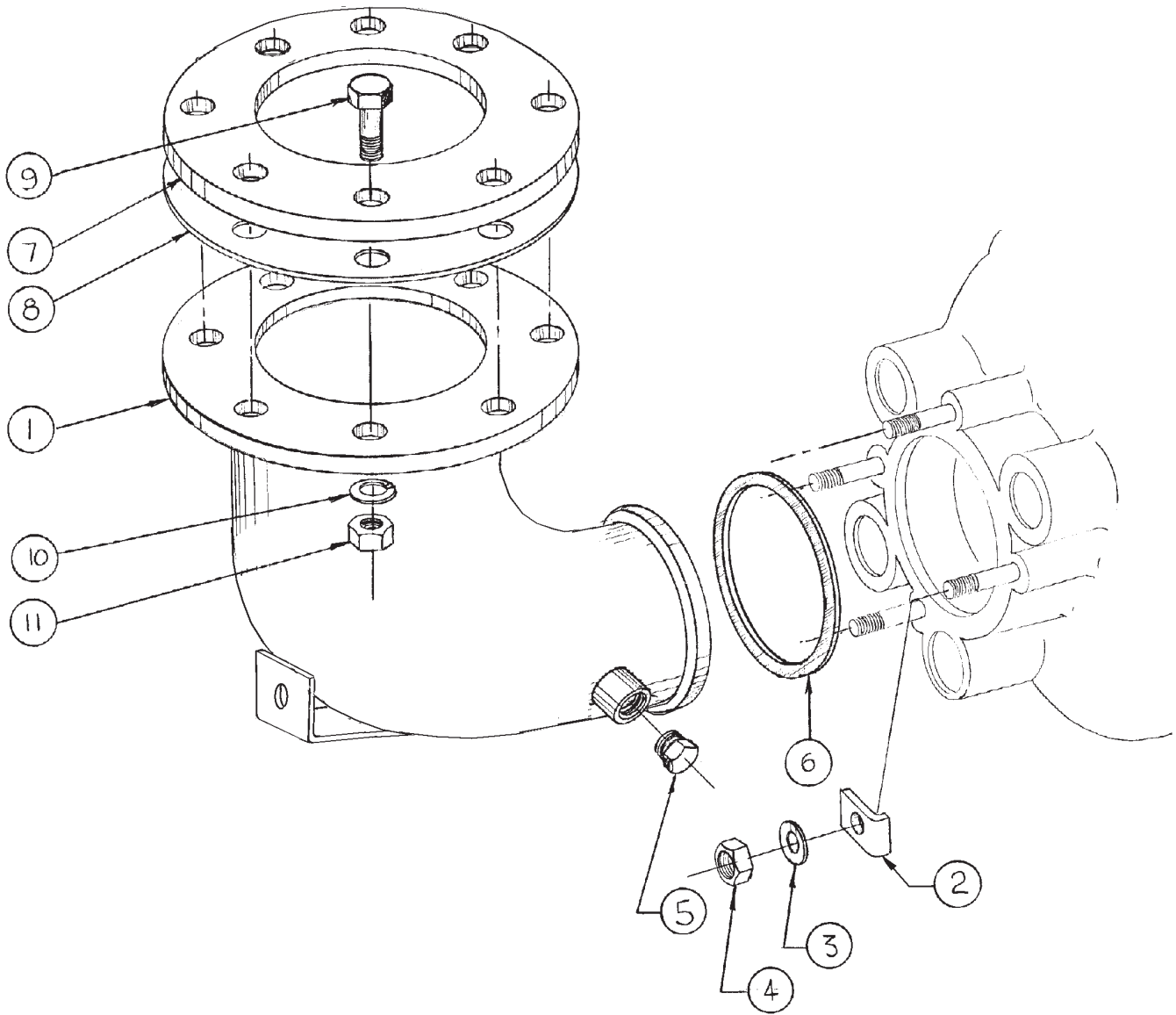
A-6055 / C-2842 fig 02.33

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	27-35021	1	Dry Exhaust Elbow 6"	-
2	11-34808	1	Gasket	-
3	00-30005	4	Clip	-
4	21-31624	1	Plug, 1/4 NPT	-
5	12-01217	8	Capscrew Hex Head 3/4-10 x 2-1/2	-
6	11-31097	1	Gasket	-
8	15-01202	8	Lock Washer 3/4	-
9	14-01211	8	Hex Nut 3/4-10	-
10	15-00804	4	Wave Washer, M10	-
11	14-05001	4	Hex Nut Stainless Steel 3/8 - 24	-
12	15-00502	1	Lock Washer, Helical 1/2	-
13	12-00512	1	Capscrew, Hex Head 1/2 - 13 x 1"	-
14	23-35002	1	Bracket	-
15	12-00805	2	Capscrew Hex Head M10 x 1.5 x 20mm	-
16	15-00802	2	Lock Washer, Helical M10	-

GROUP 2 - INTAKE AND EXHAUST SYSTEM

DRY EXHAUST ELBOW 6"

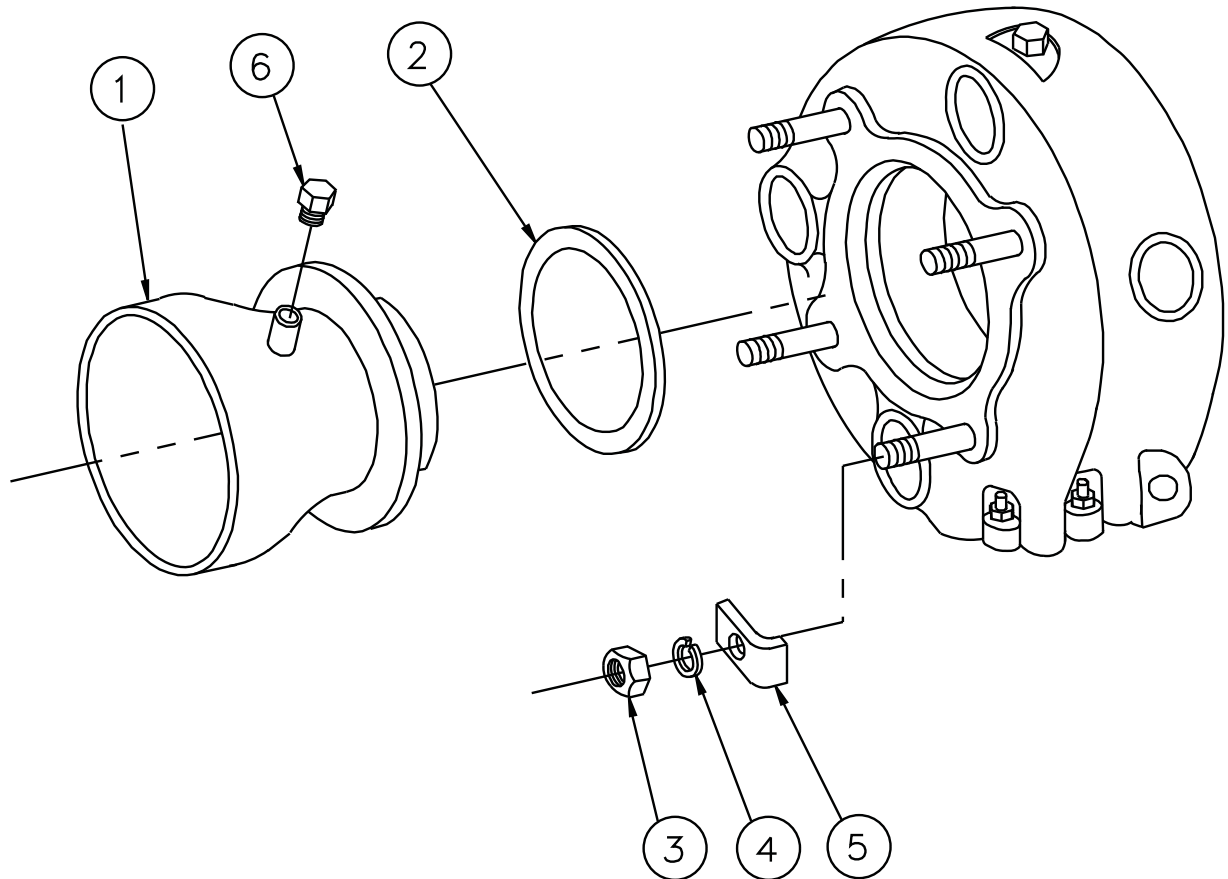
Low Profile



A-5148 / B-4035A

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	27-35021	1	Dry Exhaust Elbow 6"	-
2	00-30005	4	Clamp	-
3	15-00302	4	Lock Washer 3/8	-
4	14-00321	4	Nut, 3/8 - 24	-
5	21-31624	1	Plug, 1/4 NPT	-
6	11-34808	1	Gasket	-
7	28-34802	1	6" Companion Flange	-
8	11-31097	1	Gasket	-
9	12-01217	8	Capscrew Hex Head 3/4-10 x 2-1/2"	-
10	15-01202	8	Lock Washer 3/4	-
11	14-01211	8	Hex Nut 3/4-10	-

TURBO OUTLET ADAPTER



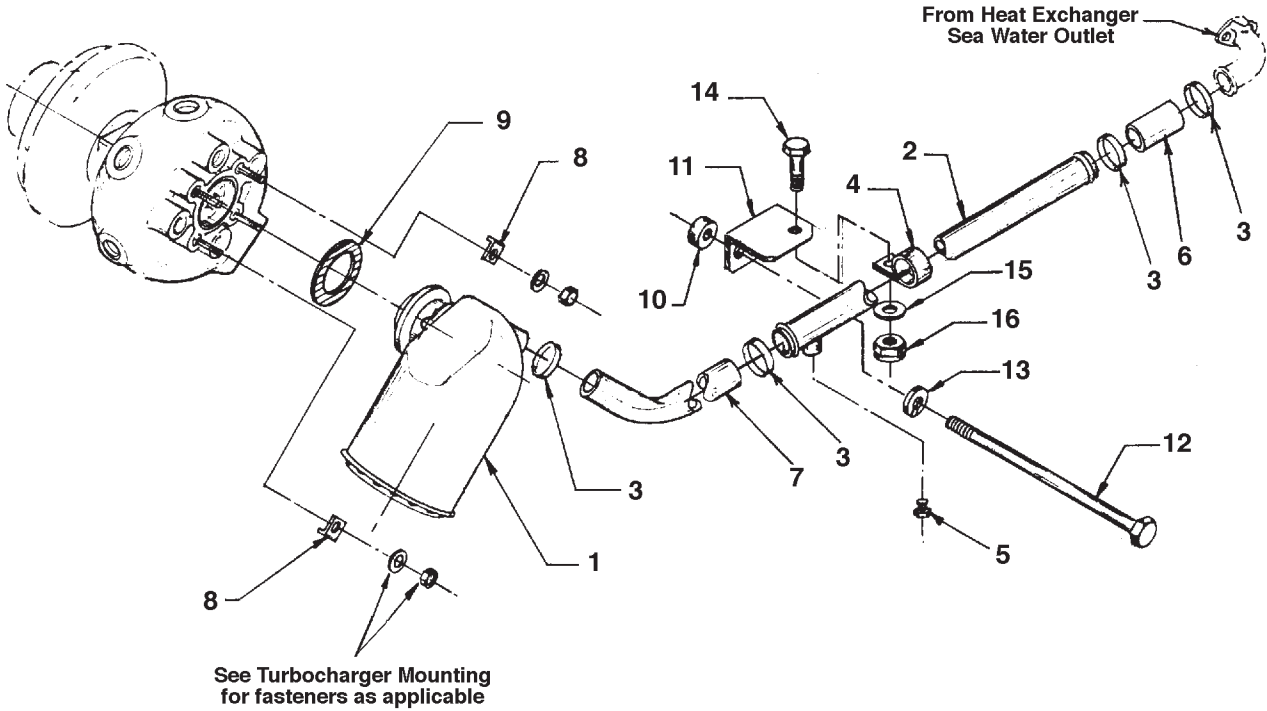
A-4109 / B-7786

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	27-35006	1	Adapter, Exhaust Outlet 6"	-
	27-34829	1	Adapter, Exhaust Outlet 5"	-
2	11-34808	1	Gasket	-
3	14-00321	4	Hex Nut 3/8-24	-
4	15-00302	4	Lock Washer, Helical 3/8	-
5	00-30005	4	Clip	-
6	21-31624	1	Plug	-
			Note: #11-35001 is old style gasket, used on elbows and outlets without piloted flange.	

GROUP 2 - INTAKE AND EXHAUST SYSTEM

WET EXHAUST ELBOW 8" & 10"

Low Profile

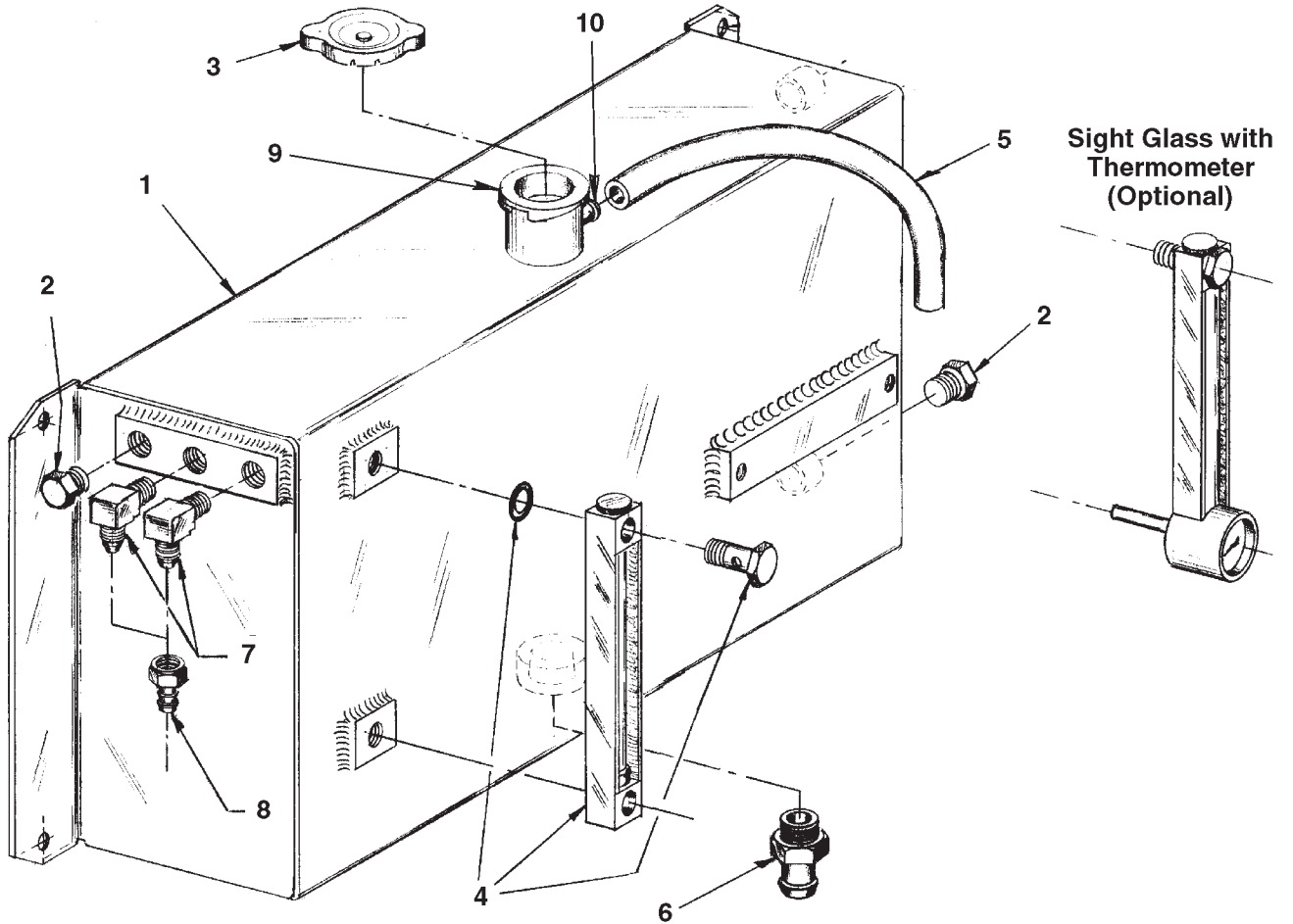


A-9487, A-9488, A-7630, A-4963A / B-3935A

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	27-35032	1	Wet Exhaust Elbow 10" (0° - 15° Rotation Limit)	-
	27-35009	1	Wet Exhaust Elbow 8" (0° - 15° Rotation Limit)	-
	27-35036	1	Wet Exhaust Elbow 10" (15° - 75° Rotation Limit)	-
	27-36802	1	Wet Exhaust Elbow 8" (15° - 75° Rotation Limit)	-
2	27-05005	1	Tube, Raw Water Discharge	-
3	19-00036	4	Hose Clamp #36	-
4	19-60000	1	Adelle Clamp	-
5	21-31003	1	Plug	-
6	18-11026	1	Hose, 2" ID x 4"	-
7	41-01109	**	Hose, 2" ID	-
8	00-30005	4	Clamp	-
9	11-34808	1	Gasket	-
10	21-44801	2	Spacer	-
11	23-15006	1	Bracket, Raw Water Discharge Tube Support	-
12	12-00841	2	Capscrew Hex Head M10 x 1.5 x 220 mm	-
13	15-00802	2	Lock Washer M10	-
14	12-00832	1	Capscrew Hex Head M10 x 1.5 x 30 mm	-
15	15-00805	1	Flat Washer M10	-
16	14-00812	1	Nylock Hex Nut M10 x 1.5	-
			**As required	

GROUP 3 - COOLING SYSTEM

REMOTE EXPANSION TANK



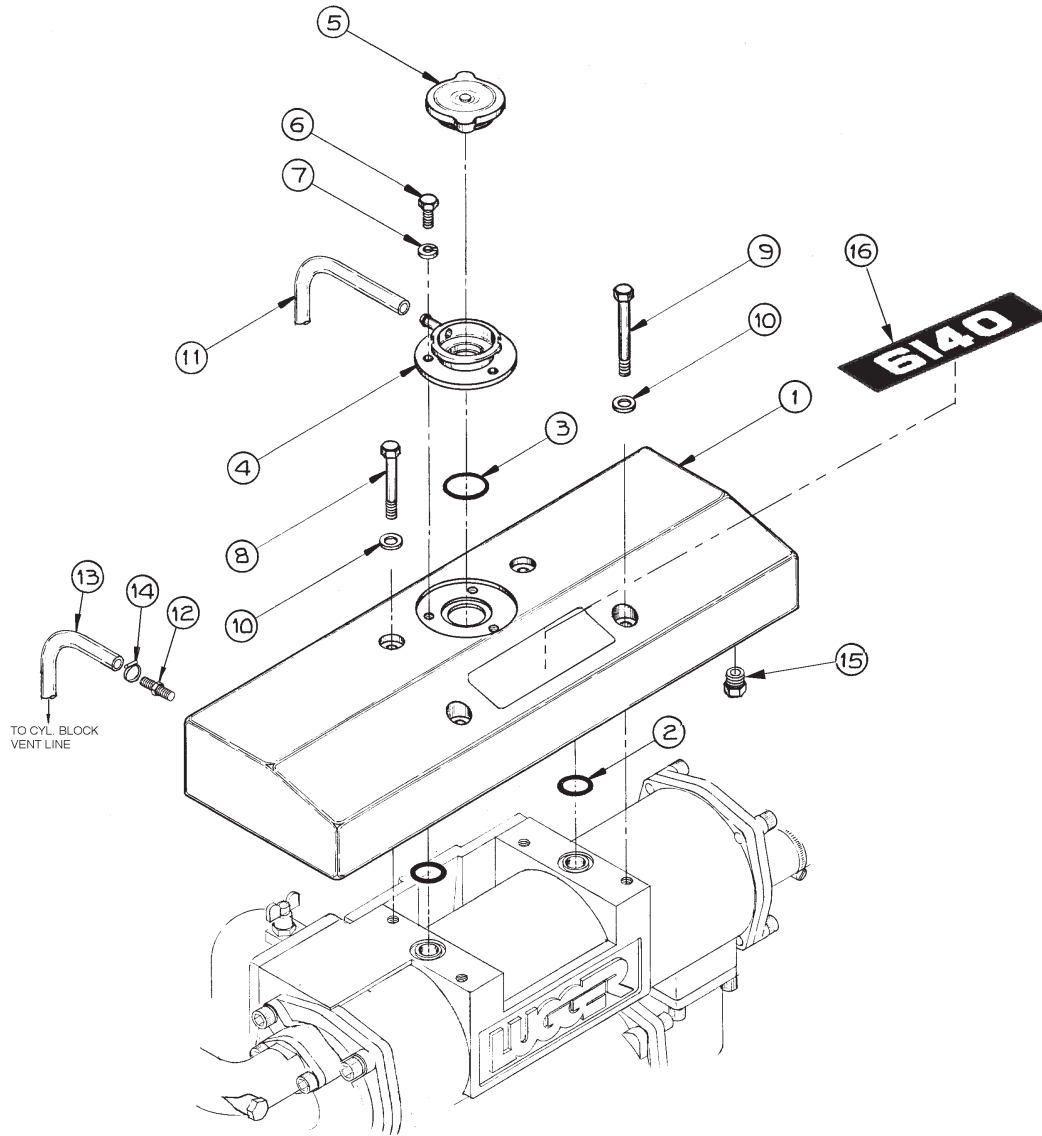
Install Neck with RC640 Loctite

A-3521D / B-3365C

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-15002	1	Expansion Tank Assembly (includes all keys)	-
2	21-31624	3	Plug 1/4 NPT	-
3	21-12013	1	Radiator Cap, 7 lbs. (formerly #21-12007)	-
4	37-75001	1	Sight Glass 7"	-
	37-75002	1	Thermometer Sight Glass. 7" (optional)	-
5	18-00130	1	Hose 1/4 x 30" PVC	-
6	21-00129	1	Male Connector, Brass 1/2 NPT x 3/4 H.B.	-
7	21-71044	2	Male Elbow 90° Brass 1/4 NPT x 1/4-45T*	-
8	21-71045	2	Female Swivel, Brass 1/4 HB x 1/4-45T*	-
9	20-12207	1	Filler Neck	-
10	21-51091	1	Male Connector, Brass 1/8 NPT x 5/16" Hose Barb	-
<p>*NOTE: Formerly used bushings and hose barb elbows. Parts shown are direct replacements.</p>				

GROUP 3 - COOLING SYSTEM

EXPANSION TANK - LOW PROFILE



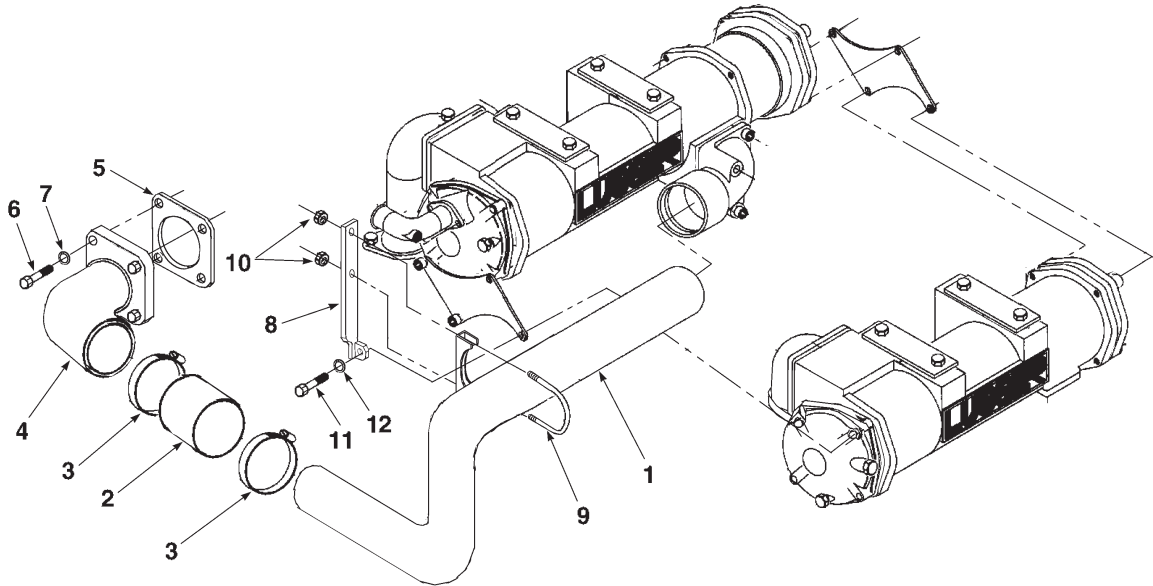
A-4839A / C-2504B

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-15008	1	Expansion Tank (includes key 15)	-
2	16-15006	2	O-ring	-
3	16-00003	1	O-ring (expansion tank with recess)	-
	16-14804	1	O-ring (expansion tank with groove)	-
4	10-14811	1	Filler Neck	-
	31-14801	1	(use as Adapter for Remote Tank Connection)	-
5	21-10007	1	Filler Cap, 7 lbs.	-
6	12-00055	3	Capscrew, Hex Head M8 x 1.25 x 20 mm	-
7	15-00702	3	Lock Washer, M8	-
8	12-00070	2	Capscrew, Hex Head M10 x 1.5 x 100 mm	-
9	12-00050	2	Capscrew, Hex Head M10 x 1.5 x 85 mm	-
10	15-00805	4	Flat Washer, M10	-
11	18-14804	1	Hose 3/8" ID x 42" Polyvinyl	-
12	21-51044	1	Male Connector, Brass 1/4 NPT x 1/4 HB	-
13	41-01011	6	Hose 1/4" ID Push-on	-
14	19-00004	2	Hose Clamp #4	-
15	21-19703	**	Plug, Socket Head 3/4 O-ring Port (**As required)	-
16	00-05002	**	Nameplate '6140' (**As required)	-
17	17-15000	4	Expansion Plug (not shown)	-

GROUP 3 - COOLING SYSTEM

COOLANT PUMP INLET / HEAT EXCHANGER RETURN

Without Gear Oil Cooler - L6140AL2



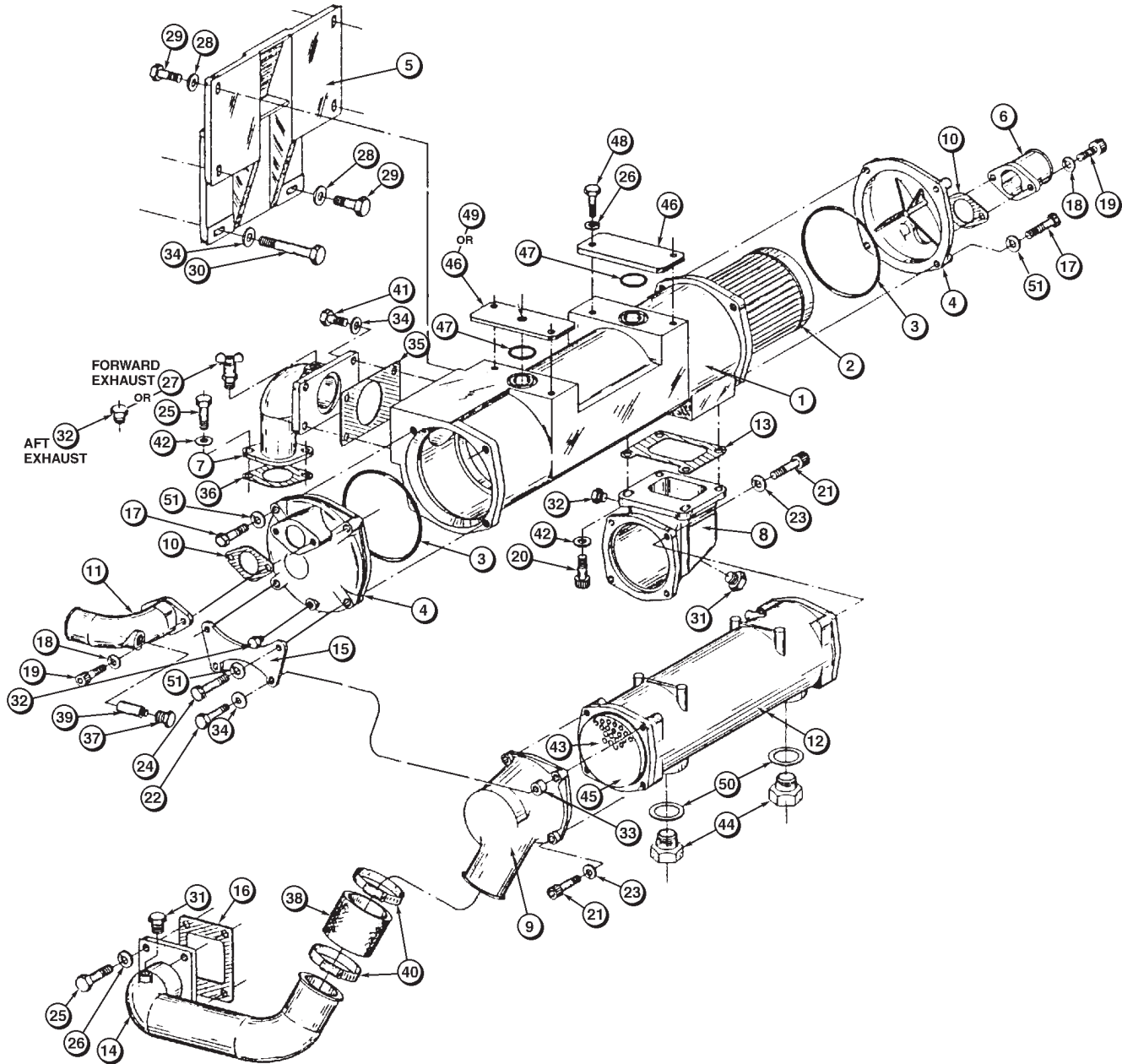
A-7576 / D-2903pumpinlet

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	27-15029	1	Tube	-
2	18-75001	1	Hose 2-7/8"ID x 3-1/2"	-
3	19-00048	2	Hose Clamp #48	-
4	27-15028	1	Elbow	-
5	11-15005	1	Gasket	-
6	12-00832	4	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
7	15-00802	4	Lock Washer, Helical M10	-
8	23-62518	1	Bracket	-
9	19-15002	1	Clamp	-
10	14-00302	2	Lock Nut, Flanged 3/8-16	-
11	12-00812	1	Capscrew, Hex Head M10 x 1.5 x 40 mm	-
12	15-00805	1	Flat Washer M10	-

GROUP 3 - COOLING SYSTEM

HEAT EXCHANGER & OIL COOLER

L6140A & AL



A-4895, A-3979C / D-2016B

GROUP 3 - COOLING SYSTEM

HEAT EXCHANGER & OIL COOLER

L6140A & AL

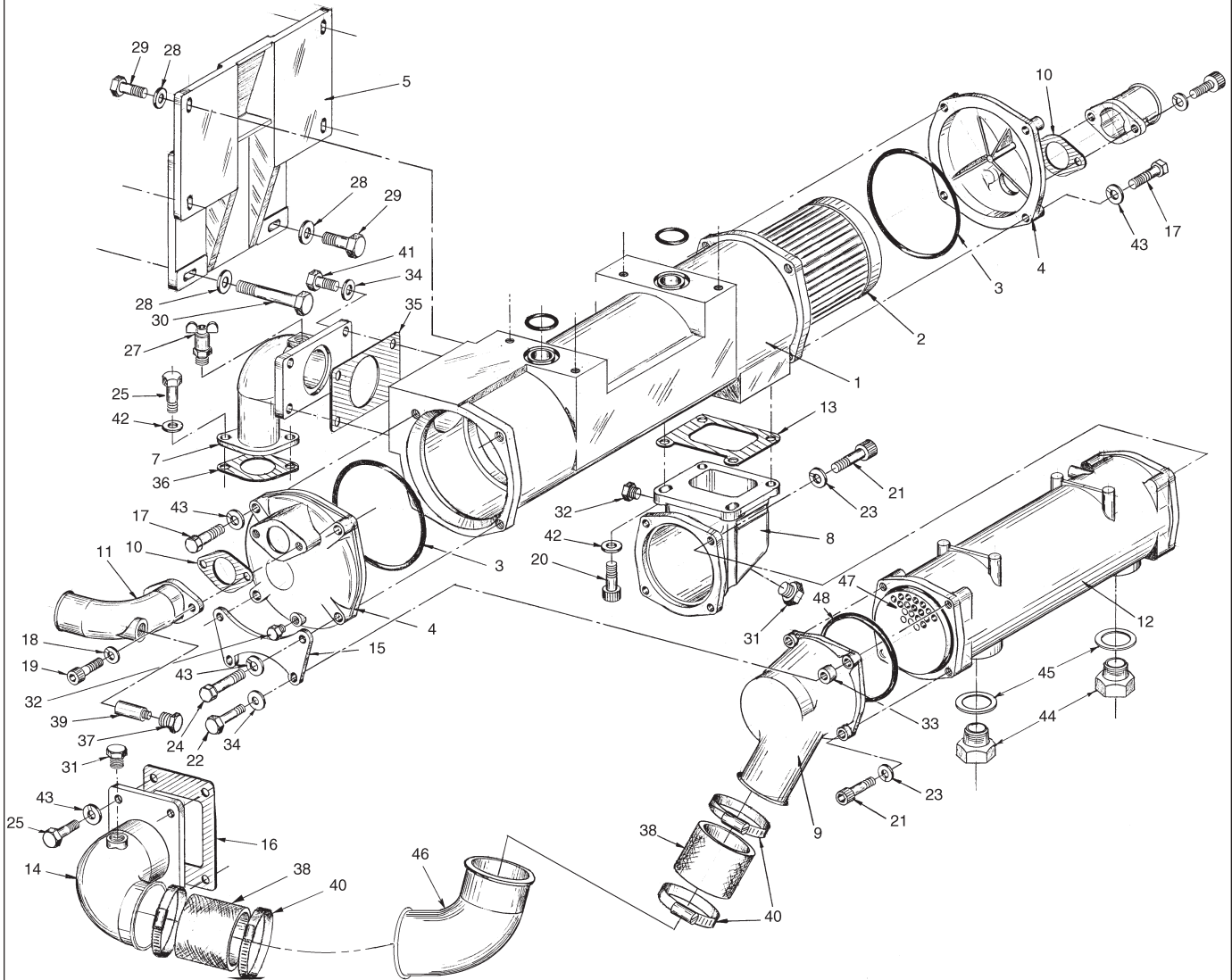
KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-15004	1	Heat Exchanger Housing	-
2	20-15000	1	Heat Exchanger Element	-
3	16-14802	2	O-ring	-
4	20-14814	2	End Cover	-
5	23-15000	1	Bracket, Heat Exchanger Support	-
6	21-15004	1	Connector, Raw Water Inlet (with belt drive raw water pump)	-
	21-15013	1	Connector, Raw Water Inlet (with gear drive raw water pump)	-
7	21-15006	1	Elbow, Coolant Inlet (standard only)	-
	21-15008	1	Elbow, Coolant Inlet (low profile only)	-
8	20-14801	1	End Cap	-
9	20-15001	1	End Cap	-
10	11-14804	2	Gasket	-
11	21-15007	1	Elbow, Raw Water Outlet	-
••	20-12802	1	Gear Oil Cooler (includes keys 12, 43-45, & 50)	-
12	10-04802	1	Gear Oil Cooler Housing	-
13	11-14806	1	Gasket	-
14	27-15005	1	Tube, Coolant Pump Inlet	-
15	23-75005	1	Bracket, Oil Cooler Support	-
16	11-15003	1	Gasket	-
17	12-00814	6	Capscrew, Hex Head M10 x 1.5 x 35 mm	-
18	15-00801	12	Lock Washer, High Collar M10 S/S	-
19	12-34805	4	Capscrew, Socket Head M10 x 1.5 x 25 mm S/S	-
20	12-34802	4	Capscrew, Socket Head M10 x 1.5 x 30 mm	-
21	12-14802	6	Capscrew, Socket Head M8 x 1.25 x 30 mm	-
22	12-00715	2	Capscrew, Hex Head M8 x 1.25 x 50 mm	-
23	15-00704	6	Lock Washer, High Collar M8	-
24	12-00812	2	Capscrew, Hex Head M10 x 1.5 x 40 mm	-
25	12-00831	6	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
26	15-00802	8	Lock Washer, M10	-
27	21-10002	1	Draincock, 1/4 NPT	-
28	15-00007	8	Flat Washer, M12	-
29	12-00953	7	Capscrew, Hex Head M12 x 1.75 x 30 mm	-
30	12-00924	1	Capscrew, Hex Head M12 x 1.75 x 100 mm	-
31	21-00530	2	Plug, 1/2 NPT	-
32	21-31624	4	Plug, 1/4 NPT	-
33	21-75015	2	Spacer	-
34	15-00701	6	Flat Washer, M8	-
35	11-15001	1	Gasket	-
36	6210-61-6441	1	Gasket	-
37	21-10000	1	Plug, 1/2 NPT x 7/16 - 14	-
38	18-75001	1	Hose, 2-7/8" ID x 3-1/2"	-
39	21-10010	1	Zinc	-
40	19-00048	2	Hose Clamp	-
41	12-00712	4	Capscrew, Hex Head M8 x 1.25 x 25 mm	-
42	15-00805	6	Flat Washer, M10	-
43	20-02802	1	Gear Oil Cooler Element	-
44	31-14802	2	Bushing, 1-1/4 BSP x 3/4 NPT	-
45	16-64801	2	O-ring	-
46	28-15001	2	Plate, O-ring Retaining (1 each on exhaust forward) Late Production	-
47	16-15006	2	O-ring - Late Production*	-
48	12-00805	4	Capscrew, Hex Head M10 x 1.5 x 20 mm Late Production*	-
49	28-15002	1	Plate, O-ring Retaining (exhaust forward) Late Production*	-
50	11-14807	2	Gasket	-
51	15-00804	8	Wave Washer M10	-

*NOTE: Keys #46 - #49 are for high profile only.

GROUP 3 - COOLING SYSTEM

HEAT EXCHANGER & OIL COOLER

L6140AL2



A-7990 / D-3570

GROUP 3 - COOLING SYSTEM

HEAT EXCHANGER & OIL COOLER

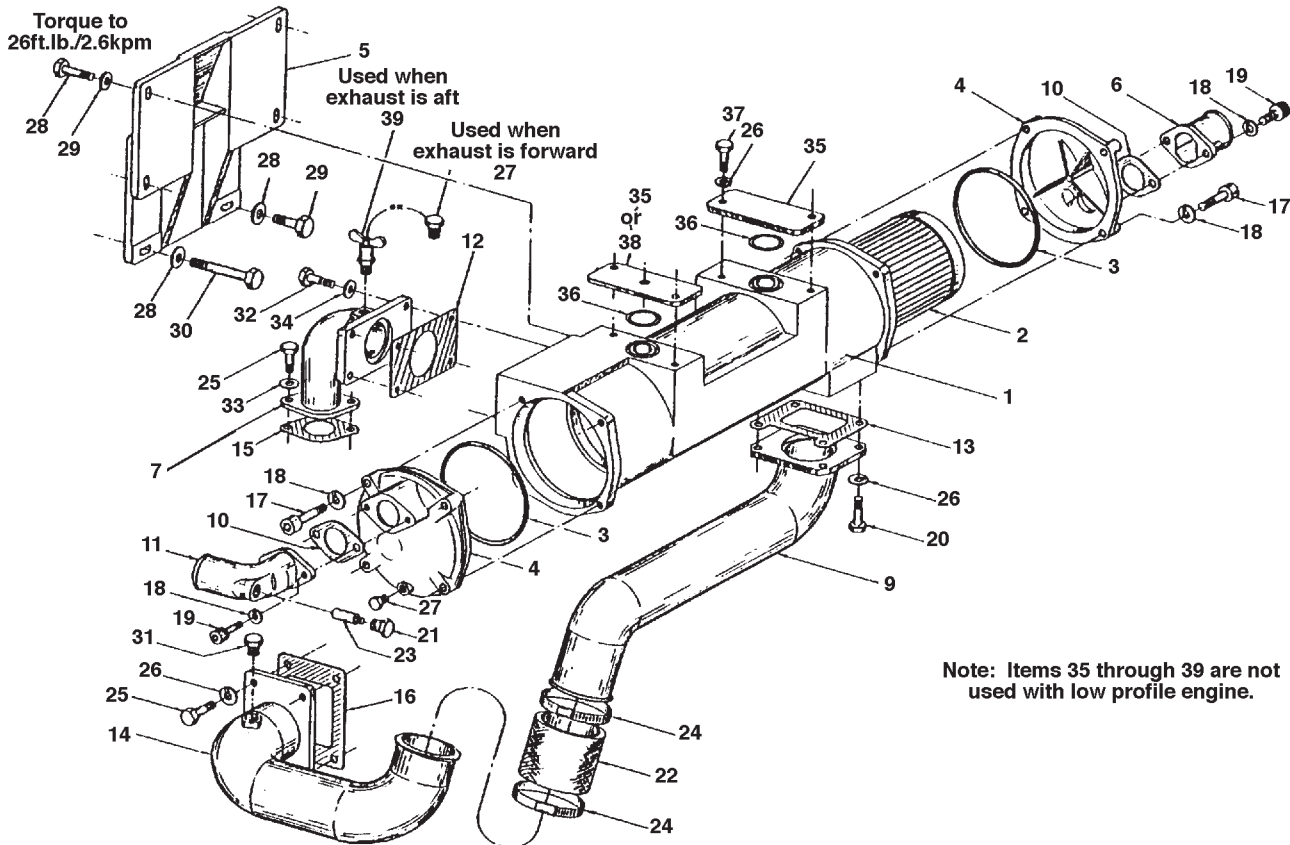
L6140AL2

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
•	20-12802	1	Gear Oil Cooler (includes keys 12, 47-49)	-
1	10-15004	1	Heat Exchanger Housing	-
2	20-15000	1	Heat Exchanger Element	-
3	16-14802	2	O-ring	-
4	20-14814	2	End Cover	-
5	23-15000	1	Bracket, Heat Exchanger Support	-
7	21-15008	1	Elbow, Coolant Inlet	-
8	20-14801	1	End Cap	-
9	20-15001	1	End Cap	-
10	11-14804	2	Gasket	-
11	21-15007	1	Elbow, Raw Water Outlet	-
12	10-04802	1	Gear Oil Cooler Housing	-
13	11-14806	1	Gasket	-
14	27-15028	1	Elbow, Coolant Inlet	-
15	23-75005	1	Bracket, Oil Cooler Support	-
16	11-15005	1	Gasket	-
17	12-00814	6	Capscrew, Hex Head M10 x 1.5 x 35 mm	-
18	15-00801	2	Lock Washer, High Collar M10 S/S	-
19	12-34805	2	Capscrew, Socket Head M10 x 1.5 x 25 mm S/S	-
20	12-34802	4	Capscrew, Socket Head M10 x 1.5 x 30 mm	-
21	12-14802	6	Capscrew, Socket Head M8 x 1.25 x 30 mm	-
22	12-00715	2	Capscrew, Hex Head M8 x 1.25 x 50 mm	-
23	15-00704	6	Lock Washer, High Collar M8	-
24	12-00812	2	Capscrew, Hex Head M10 x 1.5 x 40 mm	-
25	12-00831	6	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
26	15-00802	8	Lock Washer, M10 (not shown)	-
27	21-10002	1	Draincock, Brass 1/4 NPT	-
28	15-00007	8	Flat Washer, M12	-
29	12-00953	7	Capscrew, Hex Head M12 x 1.75 x 30 mm	-
30	12-00924	1	Capscrew, Hex Head M12 x 1.75 x 100 mm	-
31	21-00530	2	Plug, Brass 1/2 NPT	-
32	21-31624	2	Plug, Brass 1/4 NPT	-
33	21-75015	2	Spacer	-
34	15-00701	6	Flat Washer, M8	-
35	11-15001	1	Gasket	-
36	6210-61-6441	1	Gasket	-
37	21-10000	1	Plug, Brass 1/2 NPT x 7/16 - 14	-
38	18-75001	2	Hose, 2-7/8" ID x 3-1/2"	-
39	21-10010	1	Zinc	-
40	19-00048	4	Hose Clamp	-
41	12-00712	4	Capscrew, Hex Head M8 x 1.25 x 25 mm	-
42	15-00805	6	Flat Washer M10	-
43	15-00804	8	Wave Washer M10	-
44	31-14802	2	Bushing, Steel 1-1/4 BSP x 3/4 NPT	-
45	11-14807	2	Gasket	-
46	27-15030	1	Tube	-
47	20-02802	1	Element, Gear Oil Cooler	-
48	16-64801	2	O-ring	-

GROUP 3 - COOLING SYSTEM

HEAT EXCHANGER

L - M6140A & AL Without Gear Oil Cooler



A-4939A, A-4140A / D-2164A

GROUP 3 - COOLING SYSTEM

HEAT EXCHANGER

L - M6140A - AL Without Gear Oil Cooler

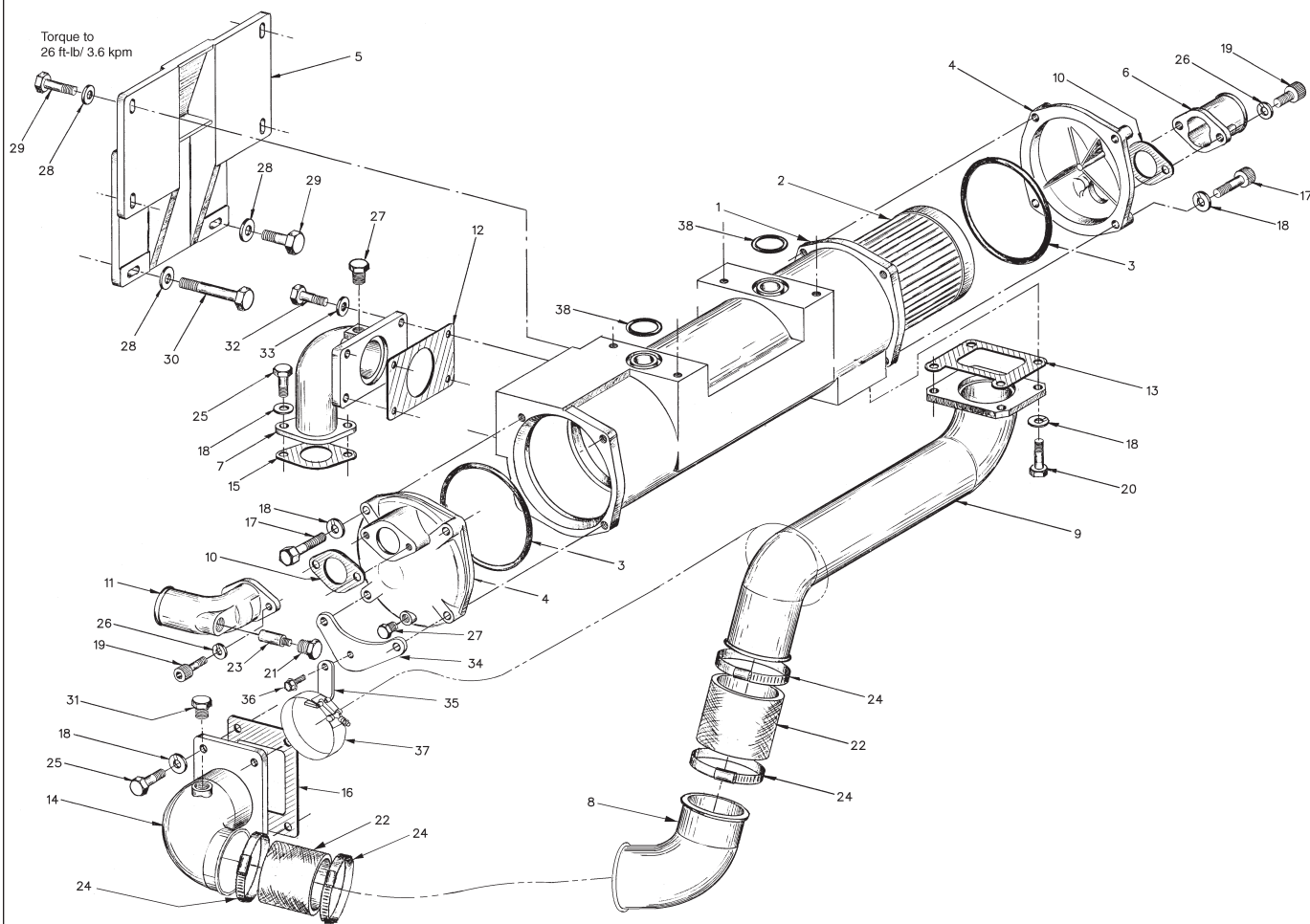
KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-15004	1	Heat Exchanger Housing	-
2	20-15000	1	Heat Exchanger Element	-
3	16-14802	2	O-Ring	-
4	20-14814	2	End Cover	-
5	23-15000	1	Bracket, Heat Exchanger Support	-
6	21-15004	1	Connector, Raw Water Inlet (belt driven raw water pump)	-
	21-15013	1	Connector, Raw Water Inlet (direct drive raw water pump)	-
7	21-15006	1	Elbow, Coolant Inlet (high profile only)	-
	21-15008	1	Elbow, Coolant Inlet (low profile only)	-
9	27-15009	1	Tube, Coolant Outlet	-
10	11-14804	2	Gasket	-
11	21-15007	1	Elbow, Raw Water Outlet	-
12	11-15001	1	Gasket	-
13	11-19701	1	Gasket	-
14	27-15028	1	Tube, Coolant Pump Inlet	-
15	6210-61-6441	1	Gasket	-
16	11-15003	1	Gasket	-
17	12-64801	8	Capscrew, Socket Head M10 x 1.5 x 35 mm	-
18	15-00801	12	Lock Washer, Hi-Collar M10	-
19	12-34805	4	Capscrew, Socket Head M10 x 1.5 x 25 mm S/S	-
20	12-00832	4	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
21	21-10000	1	Plug, Zinc 1/2 NPT x 7/16-14	-
22	18-75001	2	Hose, 2-7/8" ID x 3-1/2"	-
23	21-10010	1	Zinc	-
24	19-00048	4	Hose Clamp #48	-
25	12-00831	6	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
26	15-00802	8	Lock Washer M10	-
27	21-31624	3	Plug, 1/4 NPT	-
28	15-00007	8	Flat Washer M12	-
29	12-00953	7	Capscrew, Hex Head M12 x 1.75 x 30 mm	-
30	12-00924	1	Capscrew, Hex Head M12 x 1.75 x 30 mm	-
31	21-00530	1	Plug, Hex Head Brass 1/2 NPT	-
32	12-00712	4	Capscrew, Hex Head M8 x 1.25 x 25 mm	-
33	15-00805	4	Flat Washer M10	-
34	15-00701	4	Flat Washer M8	-
35	28-15001	2	Plate, O-ring Retaining*	-
36	16-15006	2	O-ring*	-
37	12-00805	4	Capscrew, Hex Head M10 x 1.5 x 20 mm*	-
38	28-15002	1	Plate, O-ring Retaining (1/4 NPT Hole)*	-
39	21-10002	1	Draincock, 1/4 NPT*	-

*NOTE: Keys #35 - #39 are for high profile units only.

GROUP 3 - COOLING SYSTEM

HEAT EXCHANGER

L - M6140 AL2 Medium & Continuous Duty Units Without Gear Oil Cooler



A-9278 / D-3446

GROUP 3 - COOLING SYSTEM

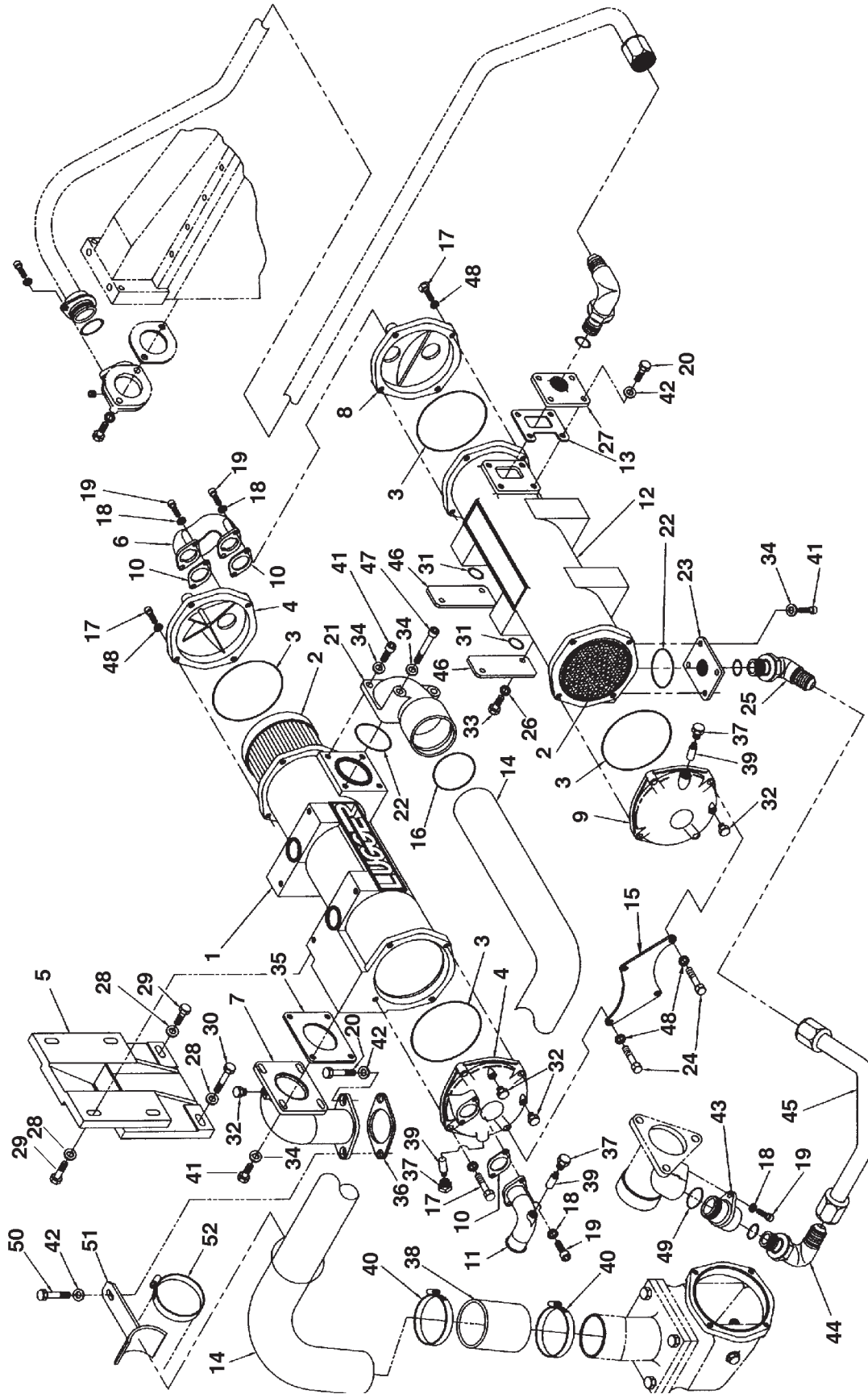
HEAT EXCHANGER

L - M6140 AL2 Medium & Continuous Duty Units Without Gear Oil Cooler

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-15004	1	Heat Exchanger Housing	-
2	20-15000	1	Heat Exchanger Element	-
3	16-14802	2	O-ring	-
4	20-14814	2	End Cover	-
5	23-15000	1	Bracket, Heat Exchanger Support	-
6	21-15013	1	Connector, Raw Water Inlet	-
7	21-15008	1	Elbow, Coolant Inlet	-
8	27-15030	1	Tube, Coolant Outlet	-
9	27-15009	1	Tube, Coolant Outlet	-
10	11-14804	2	Gasket	-
11	21-15007	1	Elbow, Raw Water Outlet	-
12	11-15001	1	Gasket	-
13	11-19701	1	Gasket	-
14	27-15028	1	Tube, Coolant Pump Inlet	-
15	6210-61-6441	1	Gasket	-
16	11-15005	1	Gasket	-
17	12-00814	8	Capscrew, Hex Head M10 x 1.5 x 35 mm	-
18	15-00804	12	Wave Washer M10	-
19	12-34805	4	Capscrew, Socket Head M10 x 1.5 x 25 mm S/S	-
20	12-00832	4	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
21	21-10000	1	Plug, Zinc 1/2 NPT x 7/16 -14	-
22	18-75001	2	Hose, 2 -7/8" ID x 3 -1/2"	-
23	21-10010	1	Zinc	-
24	19-00048	4	Hose Clamp #48	-
25	12-00831	6	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
26	15-00802	8	Lock Washer M10	-
27	21-31624	3	Plug, 1/4 NPT	-
28	15-00007	8	Flat Washer M12	-
29	12-00953	7	Capscrew, Hex Head M12 x 1.75 x 30 mm	-
30	12-00924	1	Capscrew, Hex Head M12 x 1.75 x 30 mm	-
31	21-00530	1	Plug, Hex Head Brass 1/2 NPT	-
32	12-00712	4	Capscrew, Hex Head M8 x 1.25 x 25 mm	-
33	15-00701	4	Flat Washer M8	-
34	23-15022	1	Bracket, Tube Support	-
35	23-15019	1	Bracket, Tube Support	-
36	01435-00820	1	Capscrew, Hex Head Flanged M8 x 1.25 x 20 mm	-
37	19-15003	1	T-Bolt Clamp	-
38	16-15006	2	O-ring	-

SUPER COOLER AND HEAT EXCHANGER

L6140AL2 - Early Production



A-7452 / D-2891

GROUP 3 - COOLING SYSTEM

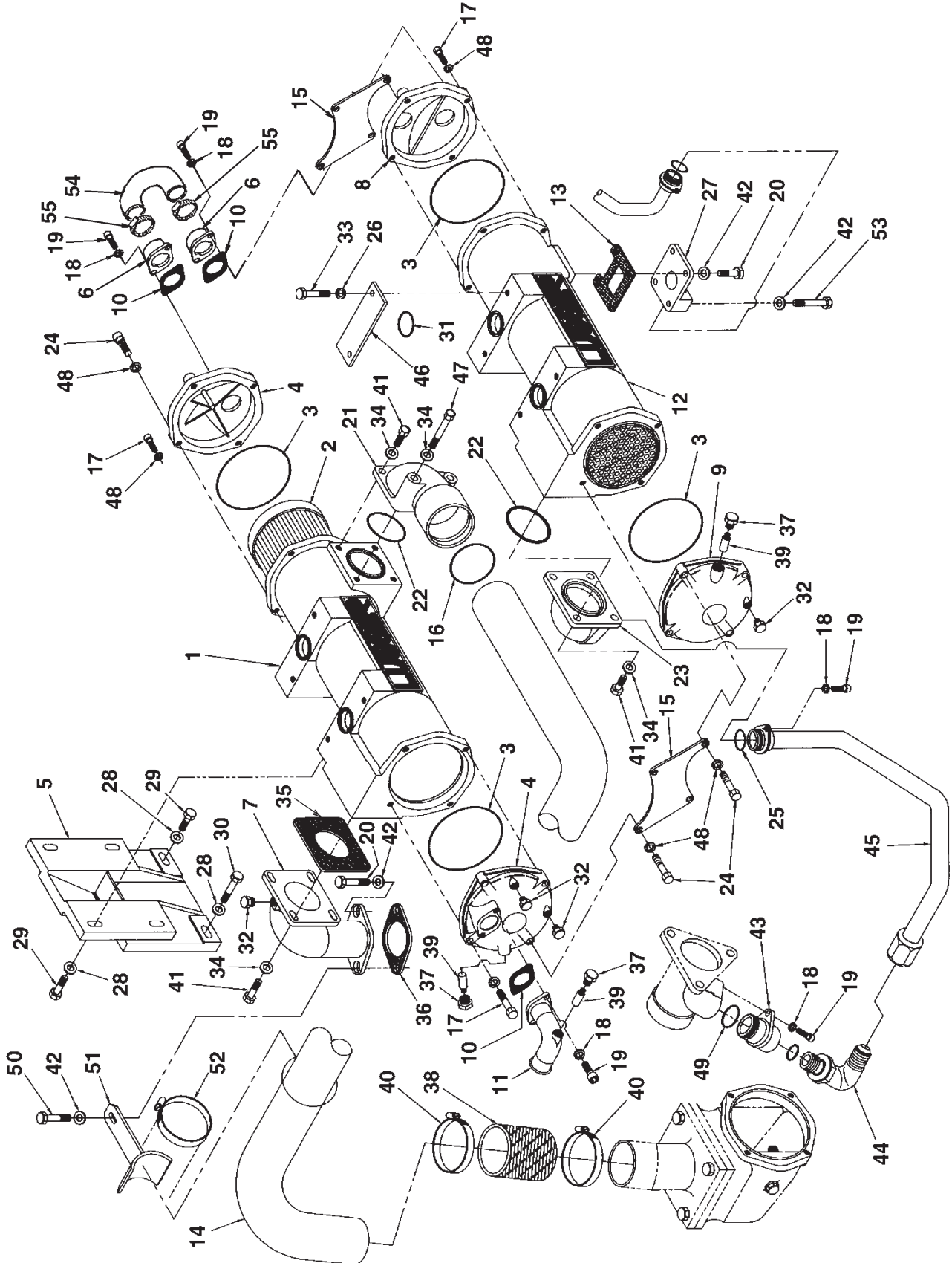
SUPER COOLER AND HEAT EXCHANGER

L6140AL2 - Early Production

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-15009	1	Housing	-
2	20-15000	2	Heat Exchanger Element	-
3	16-14802	4	O-ring	-
4	20-14814	2	End Cover	-
5	23-15000	1	Bracket, Heat Exchanger Support	-
6	21-15023	1	Connector, Raw Water Transfer	-
7	21-15008	1	Elbow, Coolant Inlet	-
8	20-15005	1	End Cover	-
9	20-15004	1	End Cover	-
10	11-14804	3	Gasket	-
11	21-15007	1	Elbow, Raw Water Outlet	-
12	10-15004	1	Housing	-
13	11-14806	1	Gasket	-
14	27-15022	1	Tube, Gear Oil Cooler Inlet	-
15	23-15012	1	Bracket, Oil Cooler Support	-
16	16-13101	1	O-ring	-
17	12-00814	12	Capscrew, Hex Head M10 x 1.5 x 35 mm	-
18	15-00801	8	Lock Washer, High Collar M10 S/S	-
19	12-34805	8	Capscrew, Socket Head M10 x 1.5 x 25 mm S/S	-
20	12-00831	3	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
21	21-15024	1	Elbow, Coolant Outlet	-
22	16-15705	2	O-ring	-
23	31-15002	1	Adapter, Super Cooler Inlet	-
24	12-00812	4	Capscrew, Hex Head M10 x 1.5 x 40 mm	-
25	21-15027	1	Elbow, 45° 1"O-R Port x 1-37T	-
26	15-00802	8	Lock Washer, Helical M10	-
27	31-15003	1	Adapter, Super Cooler Outlet	-
28	15-00007	8	Flat Washer, M12	-
29	12-00953	7	Capscrew, Hex Head M12 x 1.75 x 30 mm	-
30	12-00924	1	Capscrew, Hex Head M12 x 1.75 x 100 mm	-
31	16-15006	2	O-ring	-
32	21-31624	3	Plug, 1/4 NPT	-
33	12-00805	4	Capscrew, Hex Head M10 x 1.5 x 20 mm	-
34	15-00701	12	Flat Washer, M8	-
35	11-15001	1	Gasket	-
36	6210-61-6441	1	Gasket	-
37	21-10000	4	Zinc Plug, 1/2 NPT x 7/16 - 14	-
38	18-75001	1	Hose, 2-7/8" ID x 3-1/2"	-
39	21-10010	1	Zinc	-
40	19-00048	2	Hose Clamp #48	-
41	12-00712	10	Capscrew, Hex Head M8 x 1.25 x 25 mm	-
42	15-00805	6	Flat Washer, M10	-
43	31-15004	1	Adapter, Coolant Pump Outlet	-
44	21-64902	1	Elbow, 90° 1"O-R Port x 1-37T	-
45	27-15023	1	Tube Assembly, Super Cooler Inlet	-
46	28-15001	2	Plate, O-ring Retaining	-
47	12-00710	2	Capscrew, Hex Head M8 x 1.5 x 90 mm	-
48	15-00804	16	Wave Washer, M10	-
49	16-15008	1	O-ring	-
50	12-00832	1	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
51	23-15014	1	Bracket	-
52	19-00036	1	Hose Clamp #36	-
			*NOTE: Keys #46 - #49 are for standard only.	

SUPER COOLER AND HEAT EXCHANGER

L6140AL2 - Late Production



A-7595 / D-2903z

GROUP 3 - COOLING SYSTEM

SUPER COOLER AND HEAT EXCHANGER

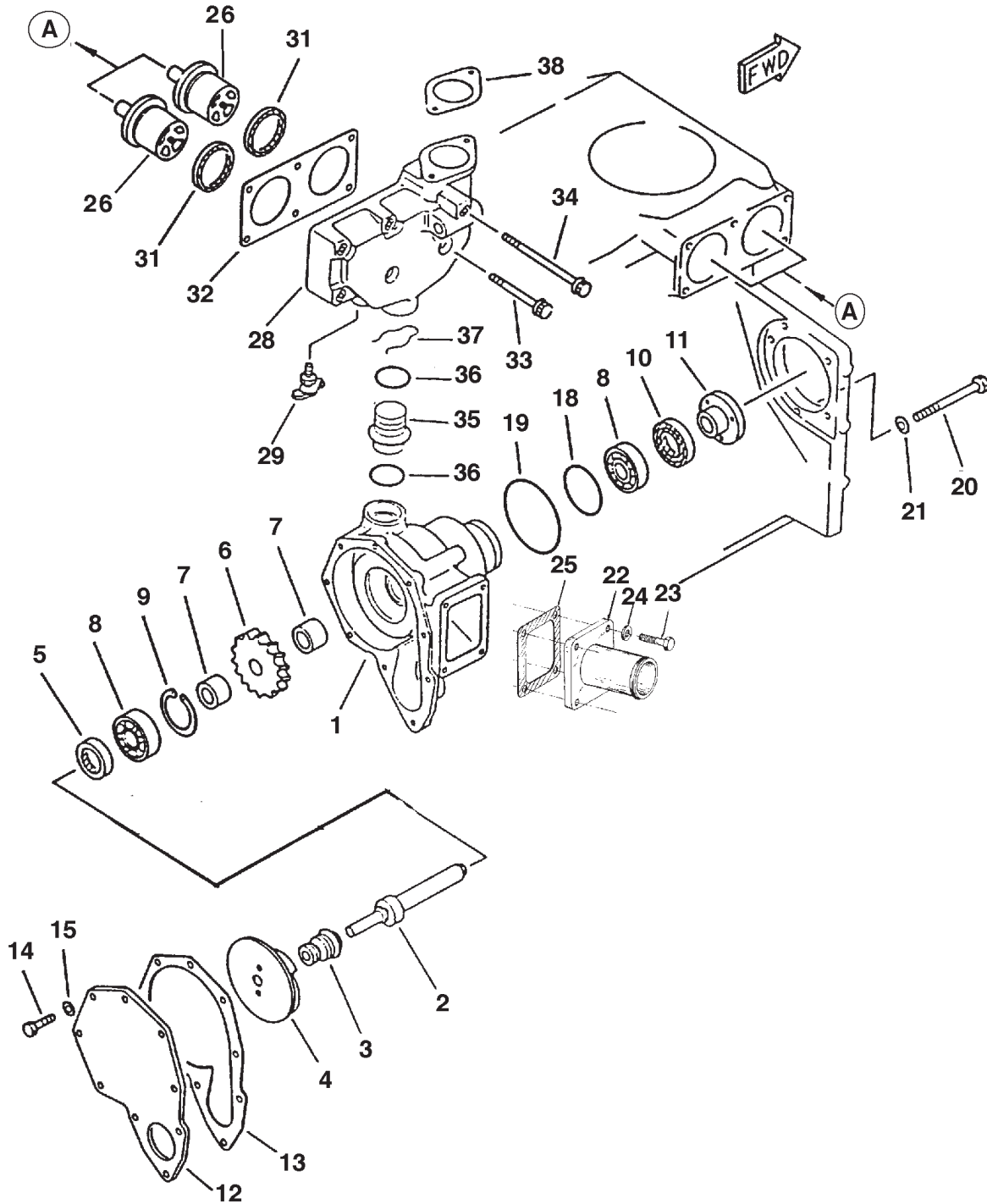
L6140AL2 - Late Production

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-15009	1	Housing	-
2	20-15000	2	Heat Exchanger Element	-
3	16-14802	4	O-ring	-
4	20-14814	2	End Cover	-
5	23-15000	1	Bracket, Heat Exchanger Support	-
6	21-15004	2	Connector, 2" HB	-
7	21-15008	1	Elbow, Coolant Inlet	-
8	20-15005	1	End Cover	-
9	20-15004	1	End Cover	-
10	11-14804	3	Gasket	-
11	21-15007	1	Elbow, Raw Water Outlet	-
12	10-15004	1	Housing	-
13	11-14806	1	Gasket	-
14	27-15022	1	Tube, Gear Oil Cooler Inlet	-
15	23-15012	2	Bracket, Supercooler Support	-
16	16-13101	1	O-ring	-
17	12-00814	8	Capscrew, Hex Head M10 x 1.5 x 35 mm	-
18	15-00801	8	Lock Washer, High Collar M10 S/S	-
19	12-34805	8	Capscrew, Socket Head M10 x 1.5 x 25 mm S/S	-
20	12-00831	4	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
21	12-15024	1	Elbow, Coolant Outlet	-
22	16-15705	2	O-ring	-
23	31-15006	1	Adapter, Super Cooler Inlet	-
24	12-00812	8	Capscrew, Hex Head M10 x 1.5 x 40 mm	-
25	16-15010	1	O-ring	-
26	15-00804	4	Wave Washer, M10	-
27	31-15005	1	Adapter, Super Cooler Outlet	-
28	15-00007	8	Flat Washer, M12	-
29	12-00953	7	Capscrew, Hex Head M12 x 1.75 x 30 mm	-
30	12-00924	1	Capscrew, Hex Head M12 x 1.75 x 100 mm	-
31	16-15006	2	O-ring	-
32	21-31624	3	Plug, 1/4 NPT	-
33	12-00805	4	Capscrew, Hex Head M10 x 1.5 x 20 mm	-
34	15-00701	12	Flat Washer, M8	-
35	11-15001	1	Gasket	-
36	6210-61-6441	1	Gasket	-
37	21-10000	4	Zinc Plug, 1/2 NPT x 7/16 - 14	-
38	18-75001	1	Hose, 2-7/8" ID x 3-1/2"	-
39	21-10010	4	Zinc	-
40	19-00048	2	Hose Clamp #48	-
41	12-00712	10	Capscrew, Hex Head M8 x 1.25 x 25 mm	-
42	15-00805	6	Flat Washer, M10	-
43	31-15004	1	Adapter, Coolant Pump Outlet	-
44	21-64902	1	Elbow, 90° 1"O-R Port x 1-37T	-
45	27-15027	1	Tube Assembly, Super Cooler Inlet	-
46	28-15001	2	Plate, O-ring Retaining	-
47	12-00710	2	Capscrew, Hex Head M8 x 1.5 x 90 mm	-
48	15-00804	16	Wave Washer M10	-
49	16-15008	1	O-ring	-
50	12-00832	1	Capscrew, Hex Head M10 x 1.5 x 30 mm (not shown)	-
51	23-15014	1	Bracket	-
52	19-00036	1	Hose Clamp #36	-
53	12-00843	2	Capscrew, Hex Head M10 x 1.5 x 65 mm	-
54	18-15004	1	Hose	-
55	19-00032	2	Hose Clamp #32	-

*NOTE: Keys #46 - #49 are for standard only.

COOLANT PUMP AND THERMOSTAT HOUSING

L-M6140 High Profile



A-4665 / B-3802 fig 03 12

GROUP 3 - COOLING SYSTEM

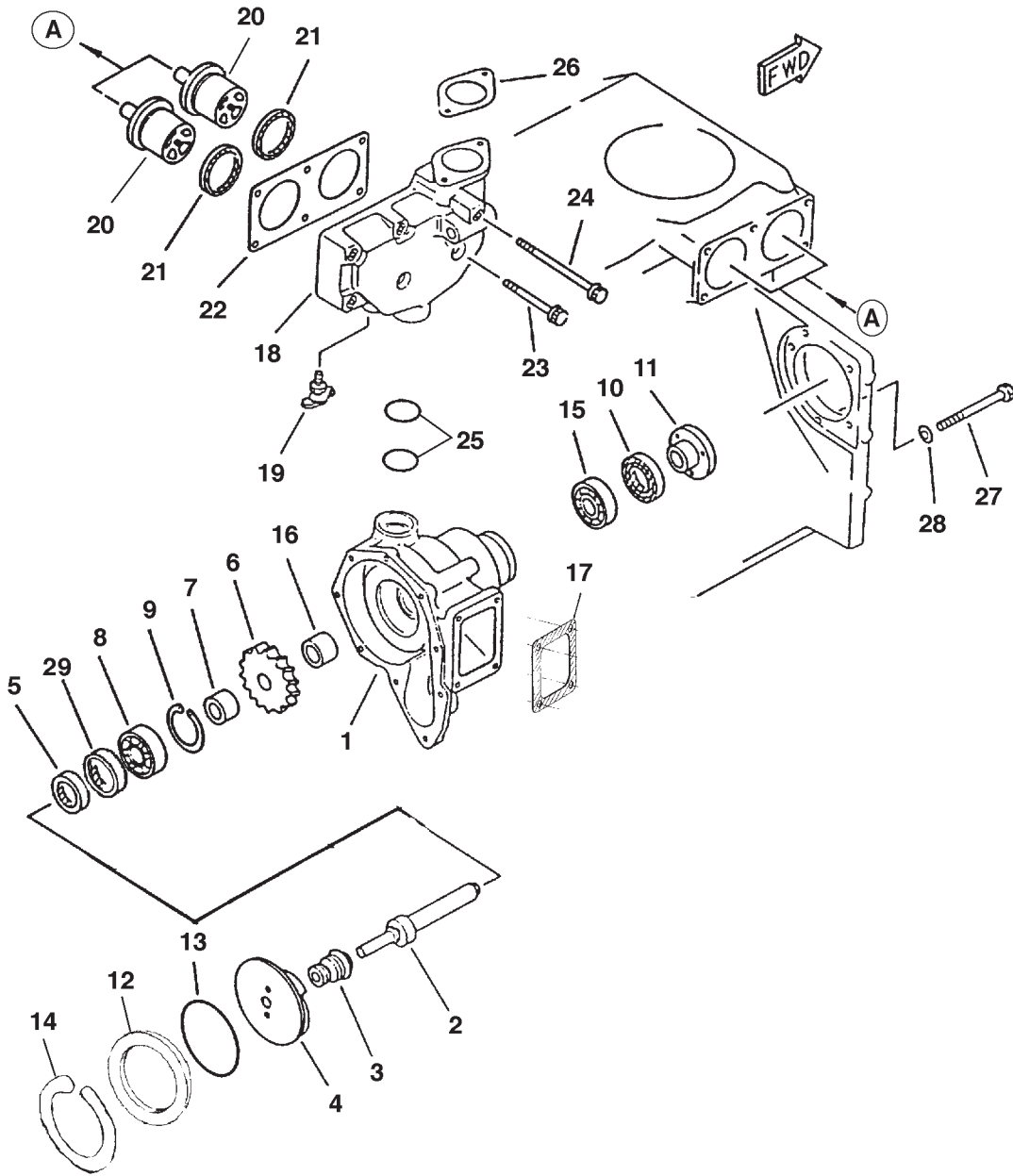
COOLANT PUMP AND THERMOSTAT HOUSING

L-M6140 High Profile

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	6211-61-1100	1	Coolant Pump Assembly (includes keys #1 - #17)	up to S/N xxxx-0616
••	6211-62-1400	1	Coolant Pump Assembly (includes keys #1 - #17)	from S/N xxxx-0617
1	6211-61-1110	1	Housing	up to S/N xxxx-0616
	6211-61-1410	1	Housing	from S/N xxxx-0617
2	6211-61-1310	1	Shaft	-
3	6150-61-1520	1	Seal	-
4	6211-61-1210	1	Impeller	up to S/N xxxx-0616
	6211-61-1420	1	Impeller	from S/N xxxx-0617
5	6210-61-1510	1	Oil Seal	-
6	6210-61-1410	1	Gear	-
7	6210-61-1360	2	Spacer	-
8	06030-06305	2	Ball Bearing	-
9	04065-06220	1	Snap Ring	-
10	6210-61-1520	1	Oil Seal	-
11	6210-61-1350	1	Sleeve	-
12	6211-61-1150	1	Cover	-
13	6211-61-1160	1	Gasket	-
14	12-00711	6	Capscrew, Hex Head M8 x 1.25 x 20 mm	-
15	01641-00812	6	Spring Washer	-
18	07000-02070	1	O-ring	-
19	07000-02115	1	O-ring	-
20	12-00051	3	Capscrew, Hex Head M10 x 1.5 x 90 mm	-
21	15-00805	3	Flat Washer, M10	-
22	31-15000	1	Coolant Inlet Connector	-
23	12-00832	4	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
24	15-00802	4	Lock Washer M10	-
25	6210-61-6231	1	Gasket	-
26	600-421-6640	2	Thermostat 180°F / 82°C	-
28	6210-61-6410	1	Thermostat Housing (high profile only-see parts detail for low profile)	-
29	07062-00000	1	Drain Cock 1/8 NPT	-
31	6710-11-6451	2	Seal	-
32	6210-61-6421	1	Gasket	-
33	01437-01065	5	Capscrew, 12 Point M10 x 1.5 x 65 mm	-
34	6210-81-8130	1	Capscrew, 12 Point M10 x 1.5 x 110 mm	-
35	6210-61-6511	1	Tube (formerly #6210-61-6510) (high profile only)	-
36	02893-05037	2	O-ring	-
37	6210-61-6520	1	Spring Clip (high profile only)	-
38	6210-61-6441	1	Gasket	-

COOLANT PUMP AND THERMOSTAT HOUSING

L6140AL2



A-4665 / Fig.3-14

GROUP 3 - COOLING SYSTEM

COOLANT PUMP AND THERMOSTAT HOUSING

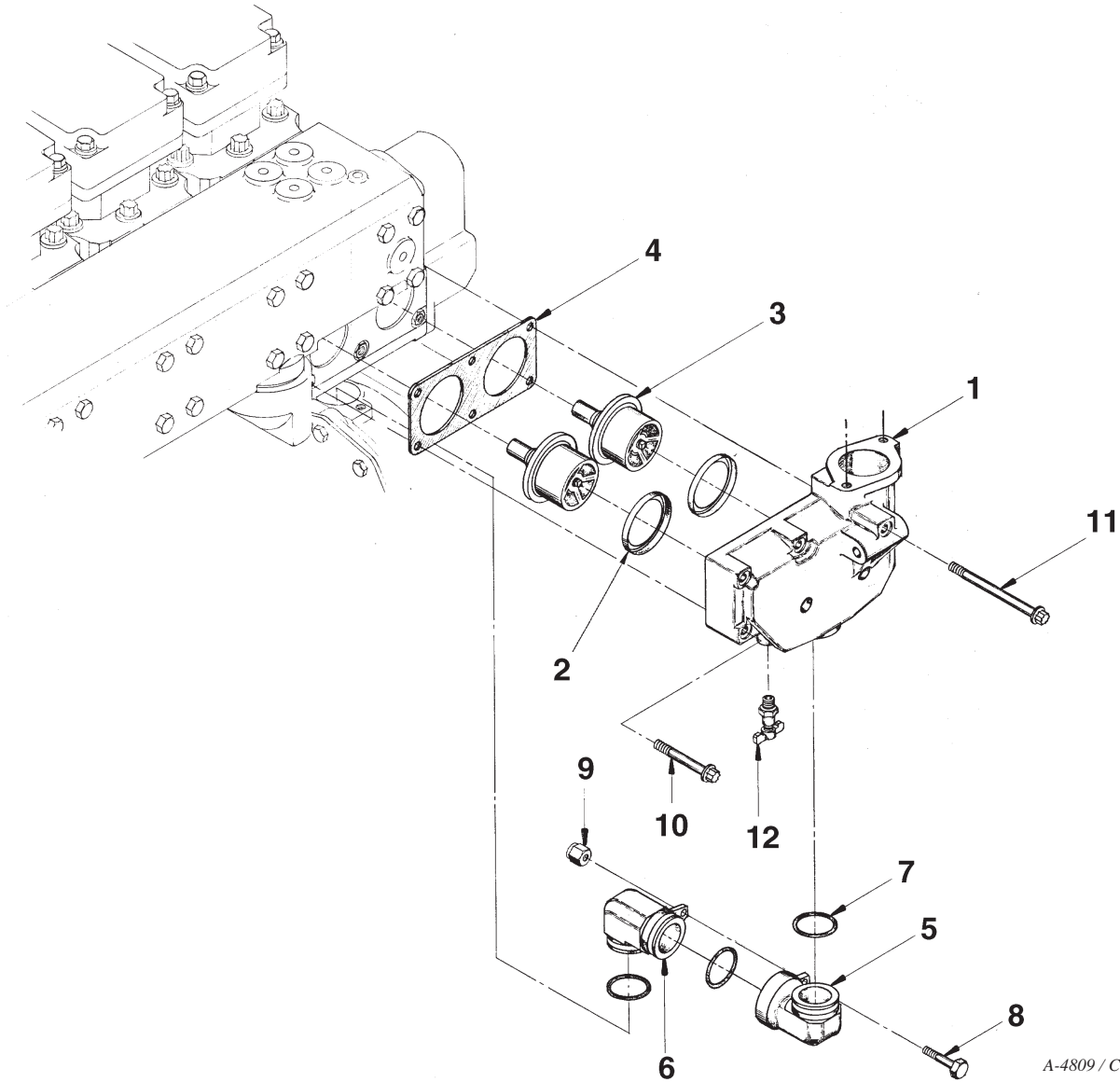
L6140AL2

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	6212-61-1303	1	Coolant Pump Assembly (includes keys #1 - #17, formerly part #s 6212-61-1301 & 6212-61-1302)	-
1	6212-61-1130	1	Housing	-
2	6212-61-1322	1	Shaft	-
3	6211-61-1521	1	Seal	-
4	6212-61-1220	1	Impeller	-
5	6120-61-1520	1	Oil Seal	-
6	6212-61-1410	1	Gear	-
7	6212-61-1370	1	Spacer	-
8	06030-06306	1	Ball Bearing	-
9	04065-07225	1	Snap Ring	-
10	6210-61-1520	1	Oil Seal	-
11	6210-61-1350	1	Sleeve	-
12	6212-61-1150	1	Cover	-
13	07000-02145	1	O-ring	-
14	6136-61-1130	1	Snap Ring	-
15	06000-06305	1	Ball Bearing	-
16	6212-61-1380	1	Spacer	-
17	11-15005	1	Gasket	-
18	20-15003	1	Thermostat Housing	-
19	07062-00000	1	Drain Cock	-
20	600-421-6650	2	Thermostat 149°F / 65°C (700 Hp)	-
	600-421-6630	2	Thermostat 170°F / 76.5°C (600 & 500 Hp)	-
21	6710-11-6451	2	Seal	-
22	6210-61-6421	1	Gasket	-
23	01437-01065	5	Capscrew, 12 Point M10 x 1.5 x 65 mm	-
24	6210-61-8130	1	Capscrew, 12 Point M10 x 1.5 x 110 mm	-
25	16-15003	2	O-ring	-
26	6210-61-6441	1	Gasket	-
27	12-00051	3	Capscrew, Hex Head M10 x 1.5 x 90 mm	-
28	15-00805	3	Flat Washer M10	-
29	6212-61-1330	1	Ring	-
30	31-15012	1	Connector, Coolant Pump Inlet (KC only)	-
31	12-00832	4	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
32	15-00802	4	Lock Washer M10	-
33	21-18301	1	Connector, 3/8 NPT x 3/4 Hose Barb	-

GROUP 3 - COOLING SYSTEM

THERMOSTAT HOUSING

Low Profile



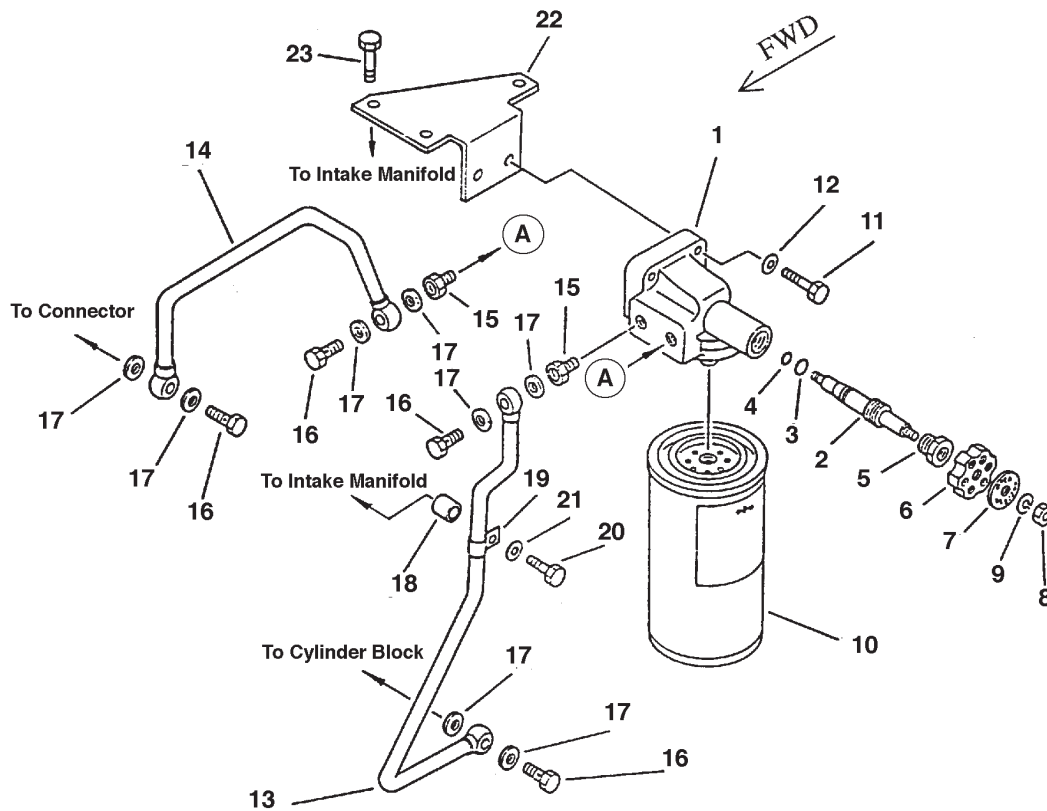
A-4809 / C-2491

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	20-15003	1	Thermostat Housing	-
2	6710-11-6451	2	Seal	-
3	600-421-6630	2	Thermostat 170°F/76.5°C (formerly #600-421-6640, 500 & 600 Hp)	-
	600-421-6650	2	Thermostat 149°F/65°C - L6140AL2, 700 Hp only	-
4	6210-61-6420	2	Gasket	-
5	27-15007	1	Bypass Elbow	-
6	27-15008	1	Bypass Elbow	-
7	16-15003	3	O-ring	-
8	12-00032	1	Capscrew, Hex Head M6 x 1.0 x 30 mm	-
9	14-04803	1	Nylock Nut, M6 x 1.0	-
10	01437-01065	5	Capscrew, 12 Pt. M10 x 1.5 x 65 mm	-
11	6210-81-8130	1	Capscrew, 12 Pt. M10 x 1.5 x 110 mm	-
12	21-10001	1	Drain Cock 1/8 NPT	-
13	23-15007	**	Support Bracket for #5	-
14	12-01121	1	Capscrew, Hex Head M6 x 1.0 x 35 mm (used with #5)	-
			} Not shown	
			** As required.	

GROUP 3 - COOLING SYSTEM

CORROSION RESISTOR AND PIPING

L-M6140 High Profile



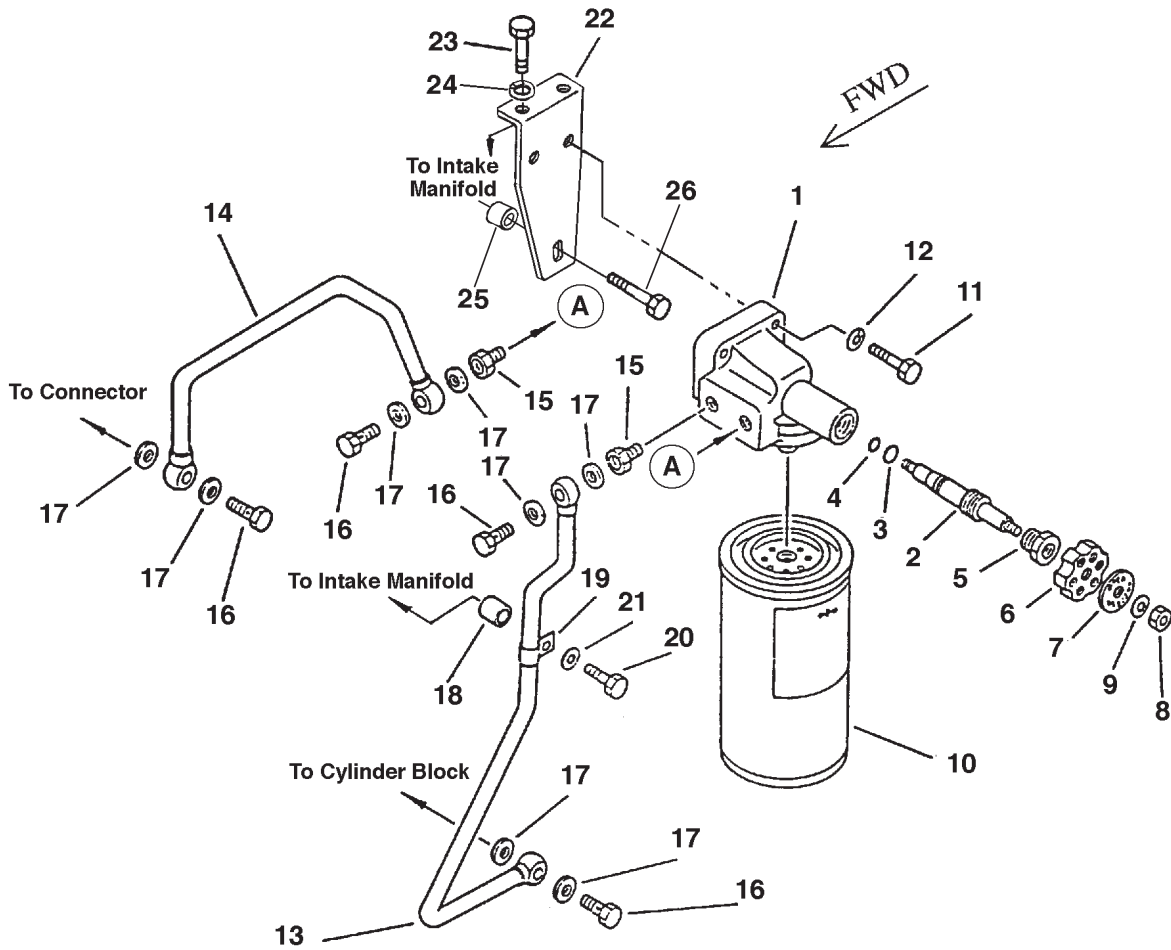
A-5060 / B-4004 fig 3-17

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	600-411-1502	1	Corrosion Resistor Assembly (includes keys #1 - #10)	-
••	600-411-1511	1	Head Assembly (includes keys #1 - #9)	-
1	600-411-1521	1	Head	-
2	600-411-1231	1	Valve	-
3	07000-01006	1	O-ring	-
4	07000-02014	1	O-ring	-
5	600-411-1250	1	Cover	-
6	600-411-1240	1	Handle	-
7	600-411-1260	1	Plate	-
8	600-411-1280	1	Nut	-
9	600-411-1290	1	Spring Washer	-
10	24-15001	1	Water Treatment Element	-
11	12-00812	2	Capscrew, Hex Head M10 x 1.5 x 40 mm (standard)	-
12	15-00805	2	Flat Washer M10	-
13	6931-61-8120	1	Tube	-
14	6931-61-8130	1	Tube	-
15	6211-61-8740	2	Nipple	-
16	07206-31014	4	Joint bolt	-
17	07005-01412	8	Gasket	-
18	6112-21-6960	1	Spacer	-
19	6991-11-5990	1	Clamp	-
20	01011-51085	1	Capscrew, Hex Head M10 x 1.5 x 185 mm	-
21	15-00805	1	Flat Washer M10	-
22	6212-61-8710	1	Bracket (standard)	-
23	12-00831	3	Capscrew, Hex Head M10 x 1.5 x 25 mm	-

GROUP 3 - COOLING SYSTEM

COOLANT TREATMENT UNIT

L - M6140AL - AL2



A-8980 / B-4004 fig 3 17cool

GROUP 3 - COOLING SYSTEM

COOLANT TREATMENT UNIT

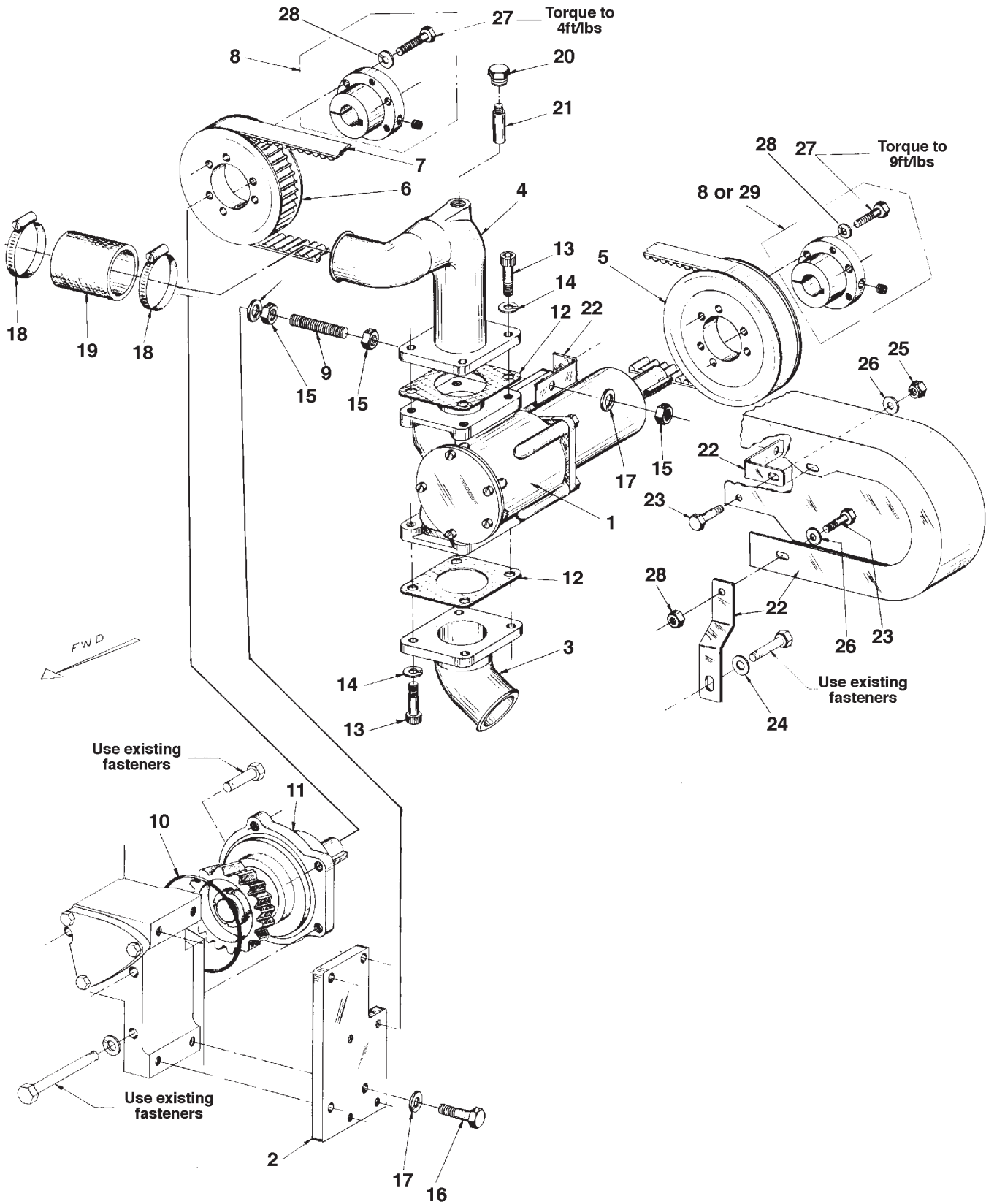
L - M6140AL - AL2

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	600-411-1502	1	Corrosion Resistor Assembly (includes keys #1 - #10)	-
••	600-411-1511	1	Head Assembly (includes keys #1 - #9)	-
1	600-411-1521	1	Head	-
2	600-411-1231	1	Valve	-
3	07000-01006	1	O-ring	-
4	07000-02014	1	O-ring	-
5	600-411-1250	1	Cover	-
6	600-411-1240	1	Handle	-
7	600-411-1260	1	Plate	-
8	600-411-1280	1	Nut	-
9	600-411-1290	1	Spring Washer	-
10	24-15001	1	Water Treatment Element	-
11	12-00832	2	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
12	15-00802	2	Lock Washer M10	-
13	6931-61-8120	1	Tube	-
14	6931-61-8130	1	Tube	-
15	6211-61-8740	2	Nipple	-
16	07206-31014	4	Joint bolt	-
17	07005-01412	8	Gasket	-
18	6112-21-6960	1	Spacer	-
19	6991-11-5990	1	Clamp	-
20	01011-51085	1	Capscrew, Hex Head M10 x 1.5 x 185 mm	-
21	15-00805	1	Flat Washer M10	-
22	23-15017	1	Bracket*	-
23	12-00701	2	Capscrew, Hex Head M8 x 1.25 x 110 mm	-
24	15-00702	2	Lock Washer M8	-
25	21-15031	1	Spacer*	-
26	12-00845	1	Capscrew, Hex Head M10 x 1.5 x 190 mm*	-

*Note: #22 and 25-26 replace former Bracket 23-15003.

RAW WATER PUMP & MOUNTING

Belt Driven



GROUP 3 - COOLING SYSTEM

RAW WATER PUMP & MOUNTING

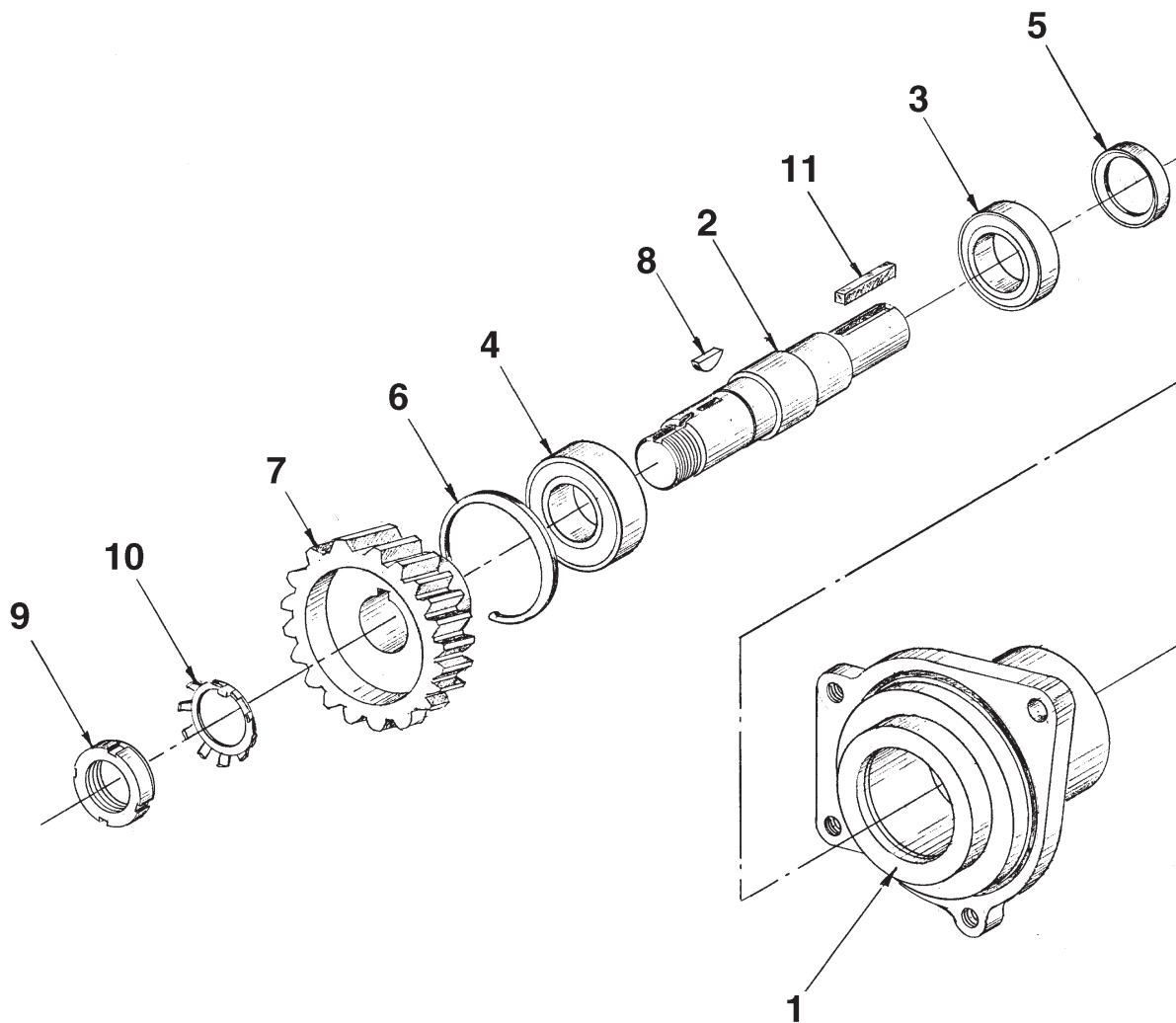
Belt Driven

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	25-15040	1	Raw Water Pump - see parts detail (includes key 29)**	-
	25-15001	1	Raw Water Pump - see parts detail (replaced by 25-15040)**	-
2	28-15000	1	Mounting Plate	-
3	21-15005	1	Connector, Pump Suction	-
4	21-15003	1	Connector, Pump Discharge	-
5	34-15000	1	Pump Sprocket	-
6	34-15001	1	Engine Sprocket	-
7	40-15000	1	Drive Belt	-
8	34-15002	2	Bushing Assembly 1" ID (includes keys #27 & #28)	-
9	13-00815	4	Support Stud	-
10	16-15001	1	O-ring	-
11	34-65023	1	Raw Water Pump Drive Assembly - see detail*	-
12	11-75001	2	Gasket, Raw Water Pump Connector	-
13	12-20312	8	Capscrew, Socket Head 3/8 x 16 x 1"	-
14	15-00322	8	Lock Washer, High Collar 3/8	-
15	14-00811	12	Hex Nut, M10 x 1.5	-
16	12-00832	4	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
17	15-00802	12	Lock Washer, Helical M10	-
18	19-00028	2	Hose Clamp #28	-
19	41-01111	3	Hose, 2" ID (Bulk - order in inches)	-
20	21-10000	1	Zinc Plug, 1/2 NPT x 7/16 - 14	-
21	21-10010	1	Zinc	-
22	00-75003	1	Belt Guard	-
23	12-00111	3	Capscrew, Hex Head 1/4 - 20 x 3/4"	-
24	15-00805	1	Flat Washer, M10	-
25	14-00112	3	Nylock Hex Nut 1/4-20	-
26	15-00111	3	Flat Washer, 1/4	-
27	12-00109	6	Capscrew, Hex Head 1/4 - 20 x 3/8"	-
28	15-00102	6	Lock Washer, Helical 1/4"	-
29	34-15003	1	Bushing Assembly 25 mm ID (includes keys #27 & #28)	-

*NOTE: See also Accessories section.

**NOTE: For identification purposes, pump covers are marked as follows:
 25-15001 - 10490-07
 25-15040 - 52270-0011

RAW WATER PUMP/ACCESSORY DRIVE ASSEMBLY



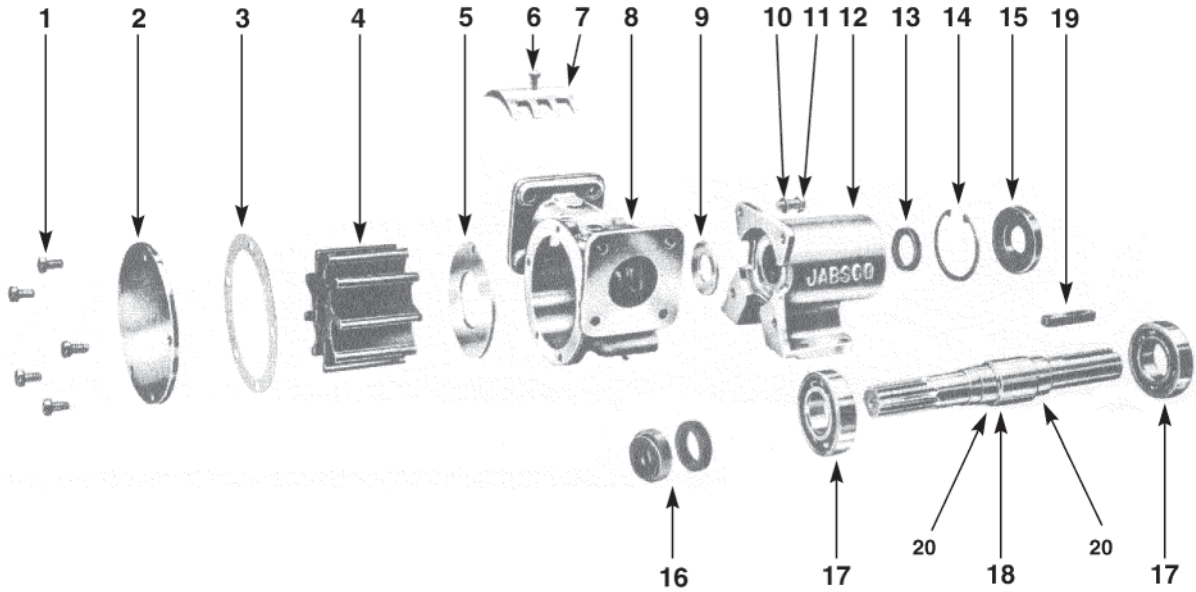
A-3978A / C-2284

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	34-65008	1	Bearing Housing	-
2	34-65009	1	Shaft	-
3	34-65010	1	Bearing	-
4	34-65011	1	Bearing	-
5	00-65000	1	Seal	-
6	00-65001	1	Snap Ring	-
7	6212-65-8120	1	Gear	-
8	04010-00722	1	Key	-
9	34-65015	1	Lock Nut 1-3/16 -18 UNEF	-
10	34-65016	1	Tab Washer	-
11	32-75001	1	Key	-

GROUP 3 - COOLING SYSTEM

RAW WATER PUMP ASSEMBLY

Belt Driven



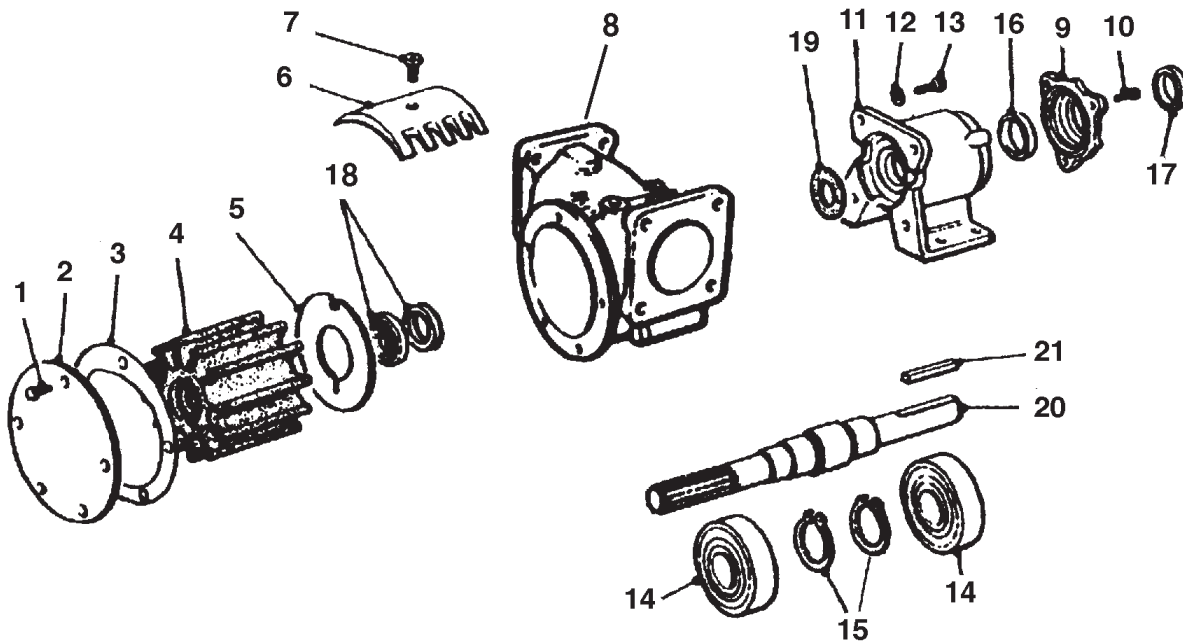
A-4098B

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	25-15001	1	Raw Water Pump (includes all keys)	-
1	25-14816	5	Cover Screw	-
2	25-14818	1	End Cover	-
3	25-14803	1	Gasket, End Cover	-
4	25-15003	1	Impeller	-
5	25-14817	1	Wear plate	-
6	25-14816	1	Cam Screw	-
7	25-15010	1	Cam	-
8	25-15011	1	Housing	-
9	25-14814	1	Slinger	-
10	15-00202	4	Lock Washer	-
11	12-00209	4	Cap screw, Hex Head, 5/16 - 18 x 3/4" Grade 5	-
12	25-15013	1	Bearing Housing	-
13	25-15014	1	Bearing Seal, Inner	-
14	25-15015	1	Snap Ring	-
15	25-14809	1	Bearing Seal, Outer	-
16	25-15017	1	Seal Assembly	-
17	25-15018	2	Bearing	-
18	25-15019	1	Shaft Assembly (includes #20, retaining rings)	-
19	25-14806	1	Key	-
20	25-15021	2	Snap Ring	-

GROUP 3 - COOLING SYSTEM

RAW WATER PUMP ASSEMBLY

Belt Driven (Replacement Type)



A-7667

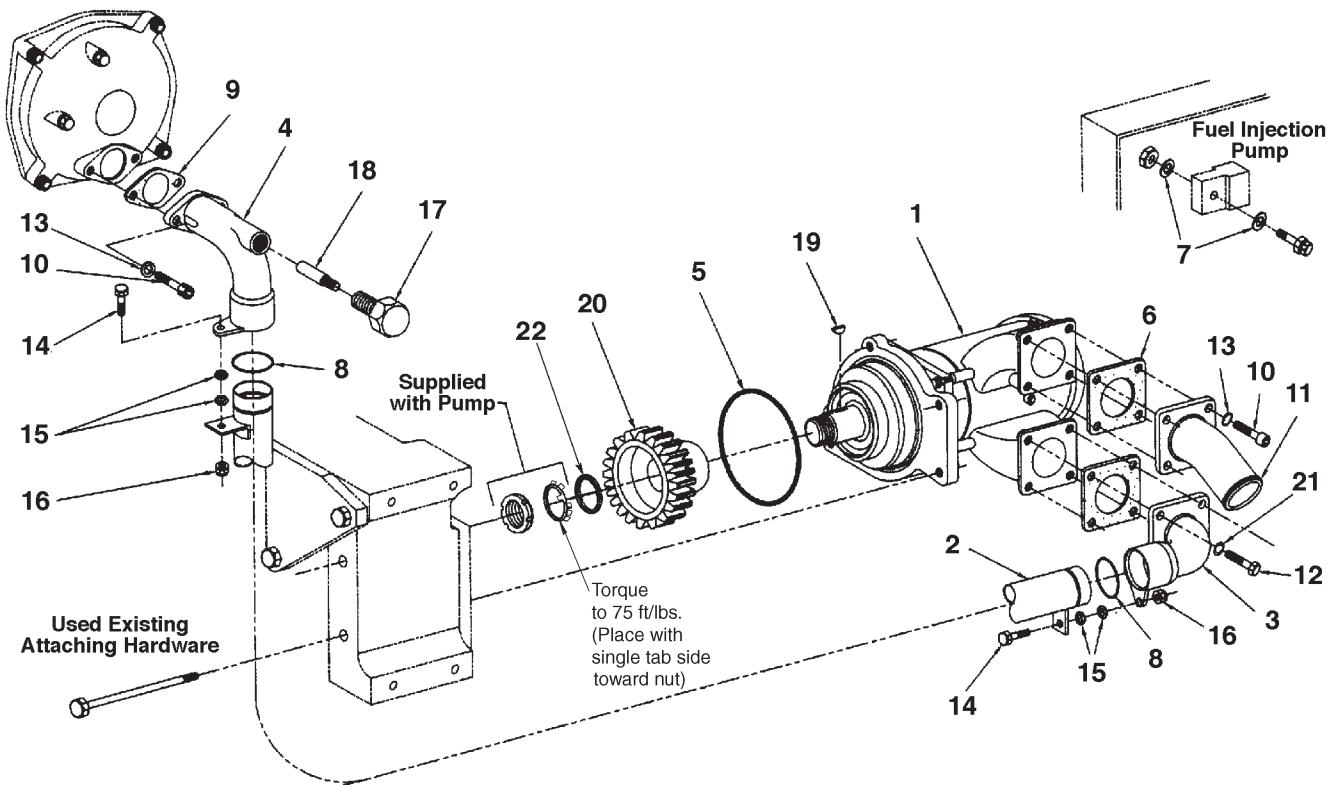
KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	25-15040	1	Raw Water Pump Assembly (includes all keys)	-
•	25-15042	1	Raw Water Pump Assembly (includes all keys #1 - #21)	-
1		5	Machine Screw	-
2	25-14818	1	Cover	-
3	25-14803	1	Gasket	-
4	25-15003	1	Impeller	-
5	25-14817	1	Wear Plate	-
6	25-15010	1	Cam	-
7	25-14816	1	Machine Screw	-
8	25-15011	1	Housing	-
9	25-15043	1	Adapter Ring	-
10		3	Capscrew	-
11	25-15044	1	Bearing Housing	-
12		4	Washer	-
13		4	Capscrew	-
14	25-15048	2	Bearing	-
15	25-15021	2	Snap Ring	-
16	25-15014	1	Bearing Seal, Inner	-
17	25-15047	1	Bearing Seal, Outer	-
18	25-15017	1	Seal Assembly	-
19	25-15049	1	Slinger	-
20	25-15046	1	Shaft	-
21	25-15051	1	Key	-
22	34-15003	1	Bushing Assembly 25 mm ID*	-

*NOTE: Bushing Assembly is required only when replacing earlier Raw Water Pump #25-15001 (1"OD shaft).

GROUP 3 - COOLING SYSTEM

RAW WATER PUMP & MOUNTING

Gear Driven



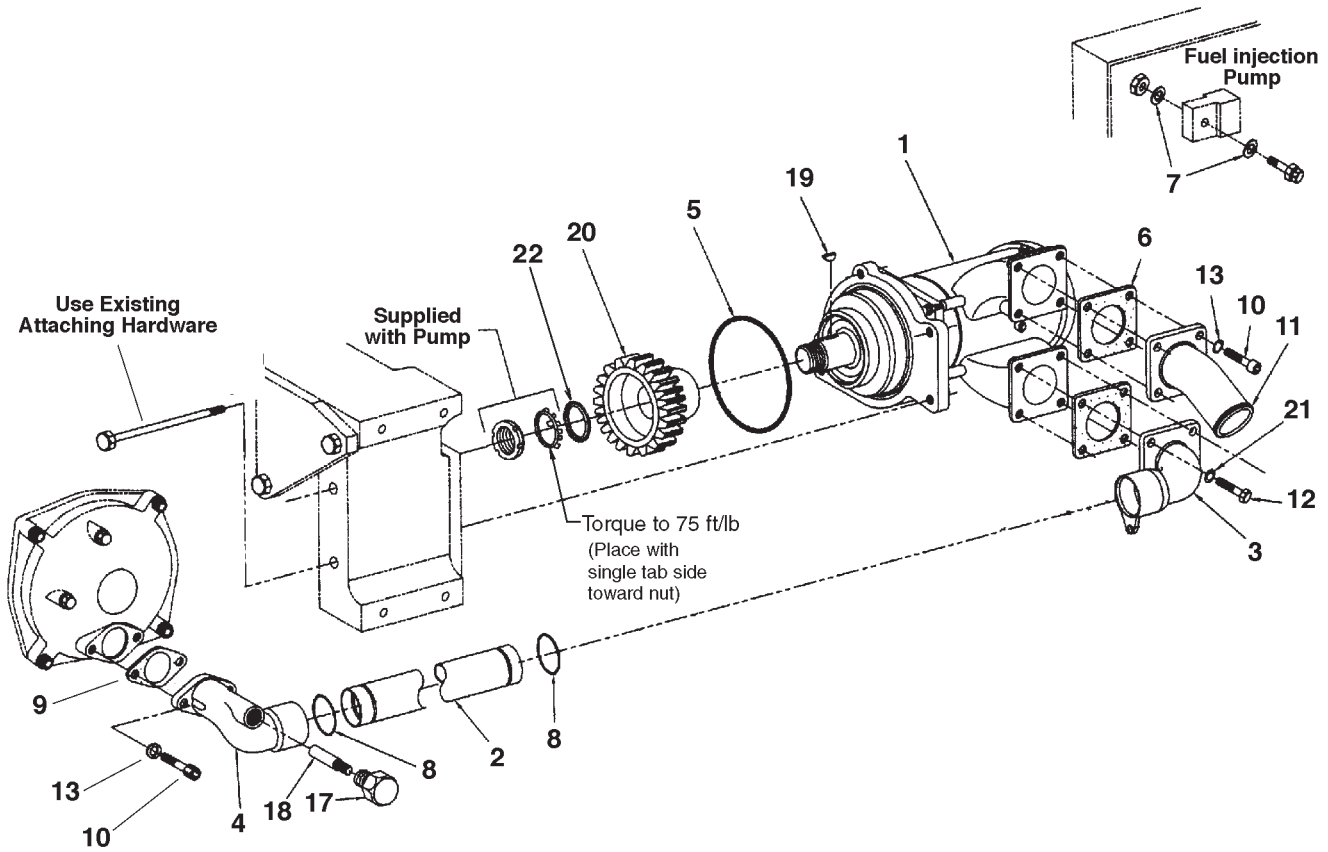
A-5955 / D-2346A fig 3 23

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	25-15022	1	Raw Water Pump (see parts detail)	-
2	27-15010	1	Tube, Raw Water Pump Discharge	-
3	21-15012	1	Connector	-
4	21-15013	1	Connector	-
5	16-15001	1	O-ring	-
6	11-75001	2	Gasket	-
7	07005-01412	2	Sealing Washer (see also Fuel System)	-
8	16-15009	2	O-ring	-
9	11-14804	1	Gasket	-
10	12-34805	6	Capscrew, Socket Head M10 x 1.5 x 25 mm S/S	-
11	21-15005	1	Connector	-
12	12-00821	4	Capscrew, Hex Head M10 x 1.5 x 20 mm S/S	-
13	15-00801	6	Lockwasher, Hi-Collar M10 S/S	-
14	12-00712	1	Capscrew, Hex Head M8 x 1.24 x 25 mm	-
15	15-00701	2	Flat Washer M8	-
16	14-04802	4	Hex Nut M8 x 1.25	-
17	21-10000	2	Zinc Plug	-
18	21-10010	1	Zinc Electrode, Brass 1/2 NPT x 7/16-14	-
19	04010-00722	1	Key	-
20	6212-65-8120	1	Gear	-
21	15-00808	4	Lock Washer, Helical M10	-
22	25-15052	1	Shim	-

GROUP 3 - COOLING SYSTEM

RAW WATER PUMP ASSEMBLY

Gear Driven L6140AL2



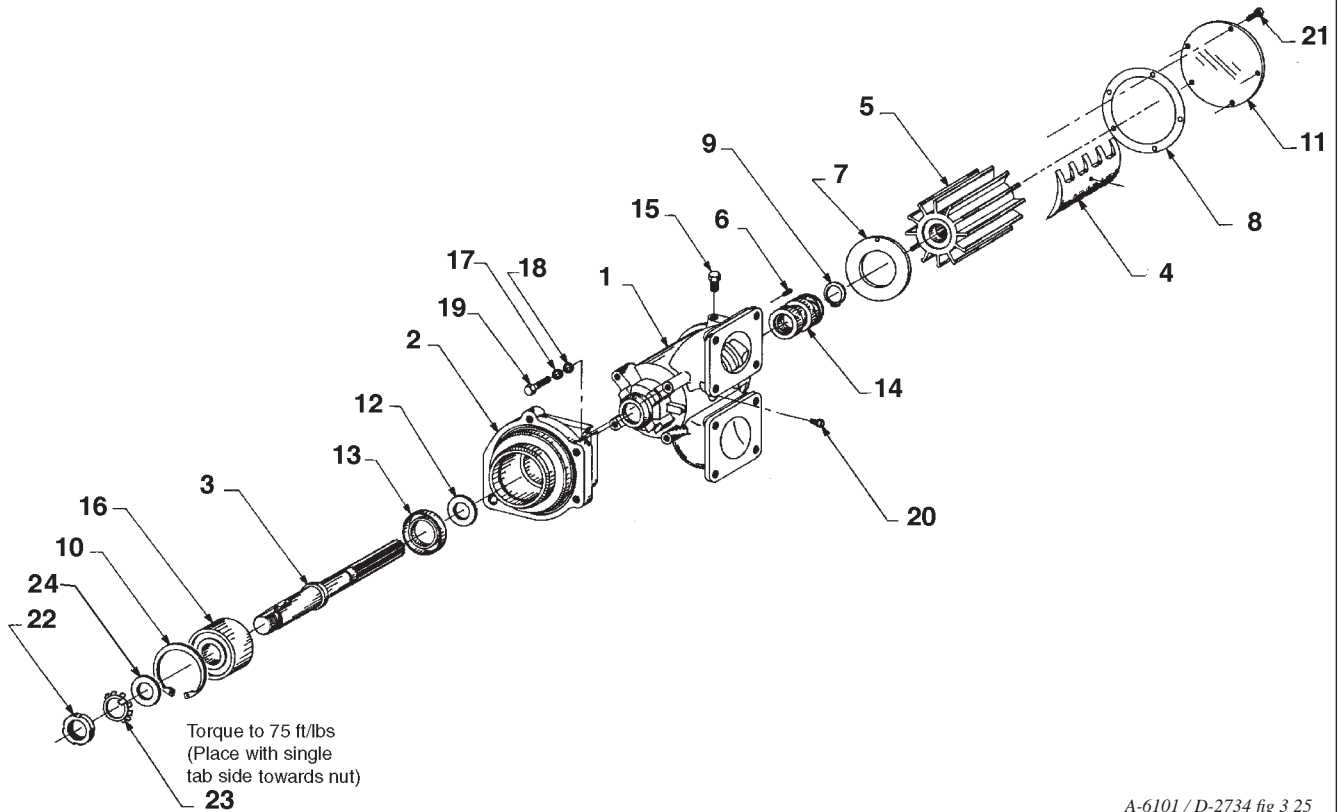
A-7454 / D-2346A fig 03 22

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	25-15022	1	Raw Water Pump (see parts detail)	-
2	27-15014	1	Tube, Raw Water Pump Discharge	-
3	21-15012	1	Connector, Pump Outlet	-
4	21-15022	1	Elbow	-
5	16-15001	1	O-ring	-
6	11-75001	2	Gasket	-
7	07005-01412	2	Sealing Washer (see also fuel system)	-
8	16-15009	2	O-ring	-
9	11-14804	1	Gasket	-
10	12-34805	6	Capscrew, Socket Head M10 x 1.5 x 25mm S/S	-
11	21-15005	1	Connector	-
12	12-00821	4	Capscrew, Hex Head M10 x 1.5 x 20mm S/S	-
13	15-00801	6	Lockwasher, Hi-Collar M10 S/S	-
17	21-10000	1	Zinc Plug	-
18	21-10010	1	Zinc Electrode	-
19	04010-00722	1	Key	-
20	6212-65-8120	1	Gear	-
21	15-00808	4	Lock Washer, Helical M10	-
22	25-15052	1	Shim	-

GROUP 3 - COOLING SYSTEM

RAW WATER PUMP & MOUNTING

Gear Driven



A-6101 / D-2734 fig 3 25

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	25-15022	1	Raw Water Pump Assembly (includes all keys)	-
1	25-15009	1	Housing	-
2	25-15023	1	Bearing Housing	-
3	25-15024	1	Shaft	-
4	25-15026	1	Cam	-
5	25-15003	1	Impeller	-
6	25-15027	1	Dowel Pin	-
7	25-15028	1	Wear Plate	-
8	25-14803	1	Gasket	-
9	25-15029	1	Snap Ring	-
10	25-15031	1	Snap Ring	-
11	25-15032	1	Cover	-
12	25-15033	1	Slinger	-
13	25-15034	1	Lip Seal	-
14	25-15036	1	Seal Assembly	-
15	21-00012	2	Plug, Hex Head 1/8NPT	-
16	25-15037	1	Bearing	-
17	15-00705	4	Lock Washer, S/S M8	-
18	15-00706	4	Flat Washer, S/S M8	-
19	12-00209	4	Capscrew, Hex Head 5/16-18 x 3/4"	-
20	25-15038	1	Cam Screw	-
21	12-00098	5	Capscrew, Hex Head S/S 1/4-20 x 1/2"	-
22	25-15039	1	Hex Nut M28 x 1.5	-
23	25-15041	1	Tab Washer	-
24	25-15052	1	Shim	-

LUBRICATING OIL COOLER

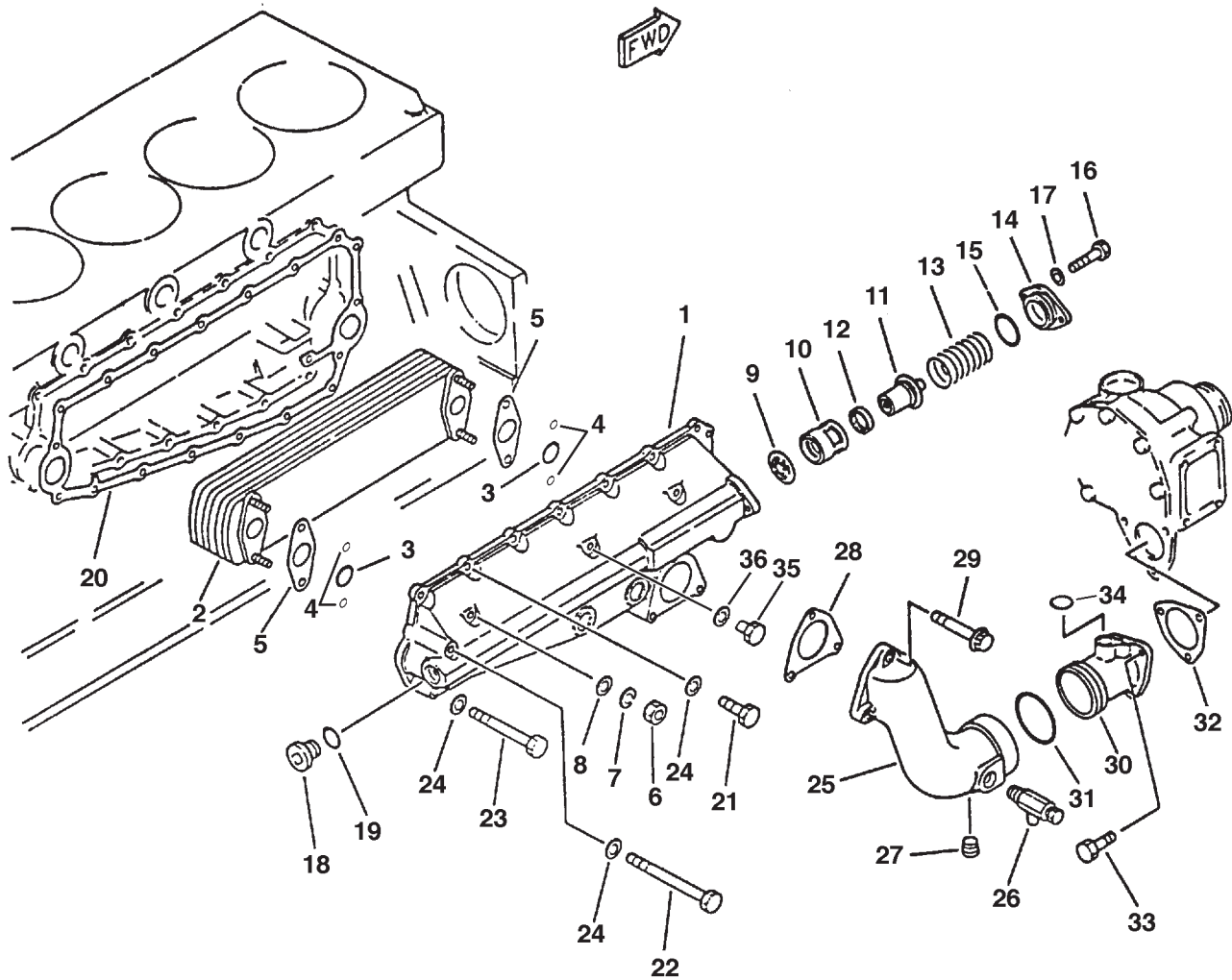


Figure 3801 03 26

GROUP 3 - COOLING SYSTEM

LUBRICATING OIL COOLER

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	6212-61-2100	1	Oil Cooler Assembly (includes keys #1 - #19)	up to S/N xxxx-0729
••	6212-65-2200	1	Oil Cooler Assembly (includes keys #1 - #19)	from S/N xxxx-0730
1	6211-61-2120	1	Cover (aluminum)	up to S/N xxxx-0729
	6211-61-2123	1	Cover (cast iron)	from S/N xxxx-0730
2	6212-61-2111	1	Element (formerly #6212-61-2110)	-
3	07000-63035	2	O-ring	up to S/N xxxx-0729
	6210-61-2520	2	O-ring	from S/N xxxx-0730
4	6150-61-2520	4	O-ring	from S/N xxxx-0730
5	6210-61-2172	2	Gasket	up to S/N xxxx-0729
6	01580-11008	4	Nut	-
7	01602-21030	4	Spring Washer	-
8	15-00805	4	Flat Washer, M10	-
9	6150-61-2151	1	Plate	-
10	6150-61-2141	1	Collar	-
11	6210-61-2620	1	Thermostat	up to S/N xxxx-0729
	6212-65-2610	1	Thermostat, 185°F/ 85°C	from S/N xxxx-0730
12	6150-61-2540	1	Seal	-
13	6210-61-2160	1	Spring	-
14	6210-61-2130	1	Cover	-
15	07000-63042	1	O-ring	-
16	01010-50825	2	Bolt	-
17	01640-20816	2	Washer	-
18	07040-13016	1	Plug	-
19	6210-61-2550	1	O-ring	-
20	6210-61-2810	1	Gasket	-
21	12-00831	13	Capscrew, Hex Head M10 x 1.5 x 25 mm	up to S/N xxxx-0729
	12-00832	12	Capscrew, Hex Head M10 x 1.5 x 30 mm	from S/N xxxx-0730
22	12-00051	1	Capscrew, Hex Head M10 x 1.5 x 90 mm	-
23	12-00048	1	Capscrew, Hex Head M10 x 1.5 x 60 mm	up to S/N xxxx-0729
	12-00048	2	Capscrew, Hex Head M10 x 1.5 x 60 mm	from S/N xxxx-0730
24	15-00805	15	Flat Washer, M10	-
25	6210-61-6320	1	Elbow	-
26	07730-50004	1	Valve	-
27	07043-00415	1	Plug	-
28	6210-61-6341	1	Gasket	-
29	6210-81-8120	3	Bolt	-
30	6212-65-6110	1	Connector (L & M)	up to S/N xxxx-0616
	6212-65-6111	1	Connector (L & M)	from S/N xxxx-0617
31	07000-05065	1	O-ring	-
32	6210-61-6331	1	Gasket	-
33	01437-01035	3	Capscrew, 12 Point M10 x 1.5 x 35 mm	-
34	07000-03025	1	O-ring (use with 6212-65-6110)	up to S/N xxxx-0616
	16-15008	1	O-ring (use with 6212-65-6111)	from S/N xxxx-0617
35	07040-11409	1	Plug	from S/N xxxx-0730
36	07005-01412	1	O-ring	from S/N xxxx-0730

LUBRICATING OIL COOLER

L6140AL2

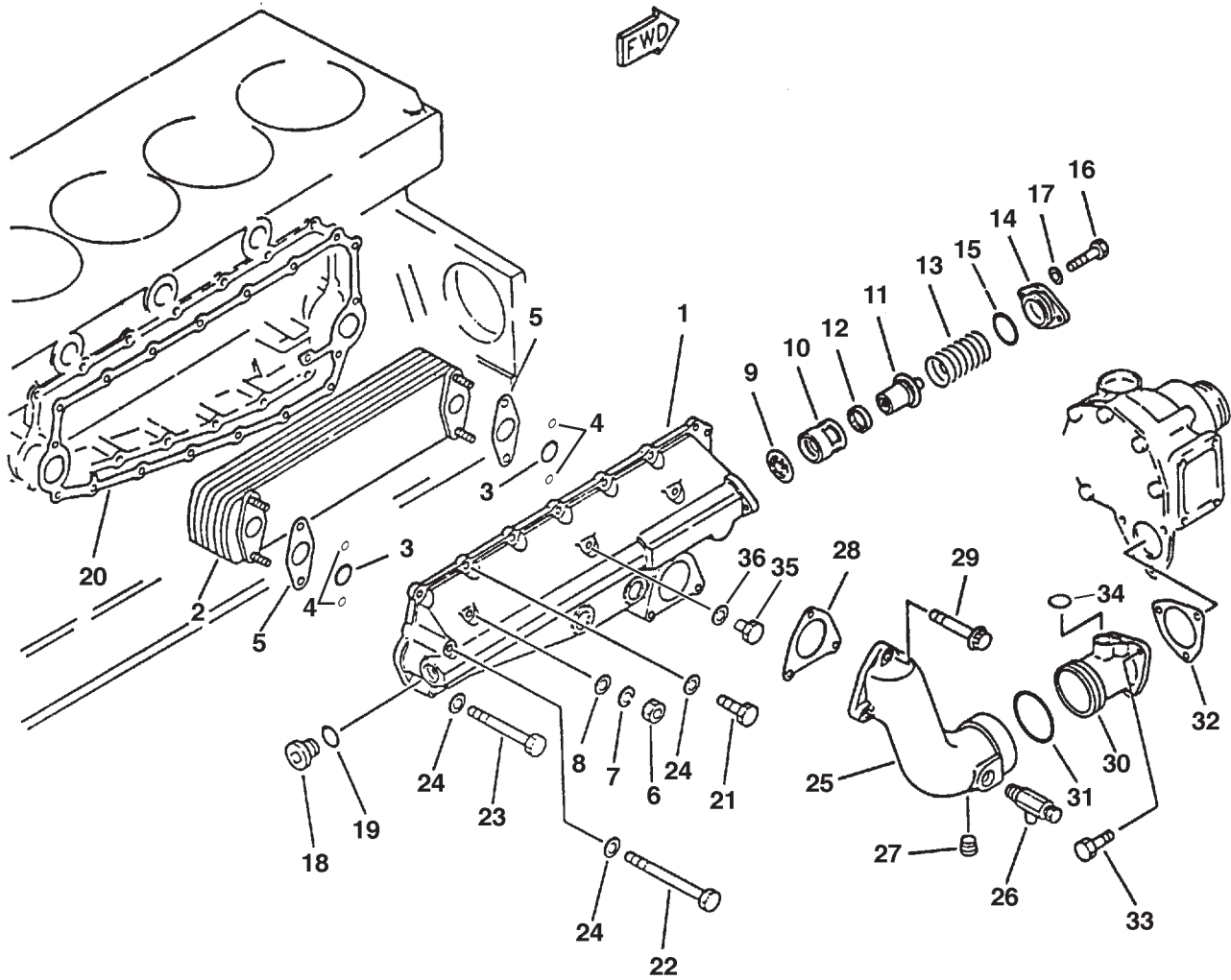


Figure 3801 fig 03 26

GROUP 3 - COOLING SYSTEM

LUBRICATING OIL COOLER

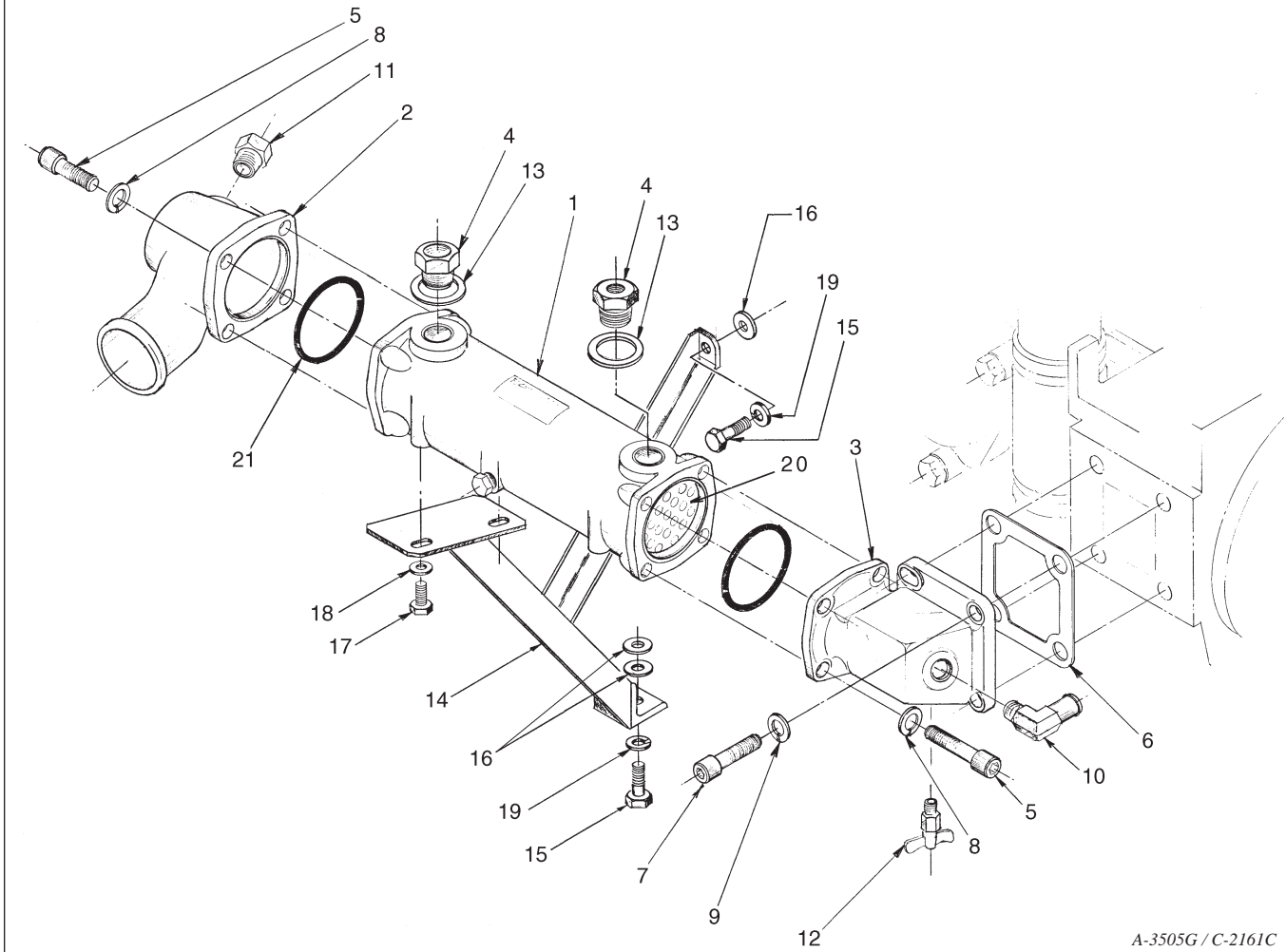
L6140AL2

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	6212-65-2300	1	Oil Cooler Assembly (includes keys #1 - #19)	-
1	6211-61-2123	1	Cover (cast iron)	-
2	6212-61-2111	1	Element	-
3	07000-63035	2	O-ring	-
5	6210-61-2172	2	Gasket	-
6	01580-11008	4	Nut	-
7	01602-21030	4	Spring Washer	-
8	01640-21016	4	Washer	-
9	6150-61-2151	1	Plate	-
10	6150-61-2141	1	Collar	-
11	6212-65-2620	1	Thermostat	-
12	6150-61-2540	1	Seal	-
13	6210-61-2160	1	Spring	-
14	6210-61-2130	1	Cover	-
15	07000-63042	1	O-ring	-
16	01010-50825	2	Capscrew, Hex Head M8 x 1.25 x 25 mm	-
17	01640-20816	2	Flat Washer M8	-
18	07040-13016	1	Plug, Socket Head M30 x 1.5	-
19	6210-61-2550	1	O-ring	-
20	6210-61-2810	1	Gasket	-
21	12-00832	12	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
22	12-00051	1	Capscrew, Hex Head M10 x 1.5 x 90 mm	-
23	12-00048	2	Capscrew, Hex Head M10 x 1.5 x 60 mm	-
24	15-00805	15	Flat Washer M10	-
25	6210-61-6350	1	Elbow	-
26	07730-50004	1	Valve	-
27	07043-00415	1	Plug	-
28	6210-61-6341	1	Gasket	-
29	01437-11080	3	Capscrew, 12 Point M10 x 1.5 x 80 mm	-
30	6210-61-6360	1	Connector	-
31	07000-05065	1	O-ring	-
32	6210-61-6371	1	Gasket	-
33	01437-01035	3	Capscrew, 12 Point M10 x 1.5 x 35 mm	-
34	16-15008	1	O-ring	-
35	07040-11409	1	Plug	-
36	07005-01412	1	O-ring	-
37	6210-61-6570	**	Cover	-
38	01437-01020	1	Capscrew, 12 Point M10 x 1.5 x 20 mm	-

**As required.

GROUP 3 - COOLING SYSTEM

GEAR OIL COOLER

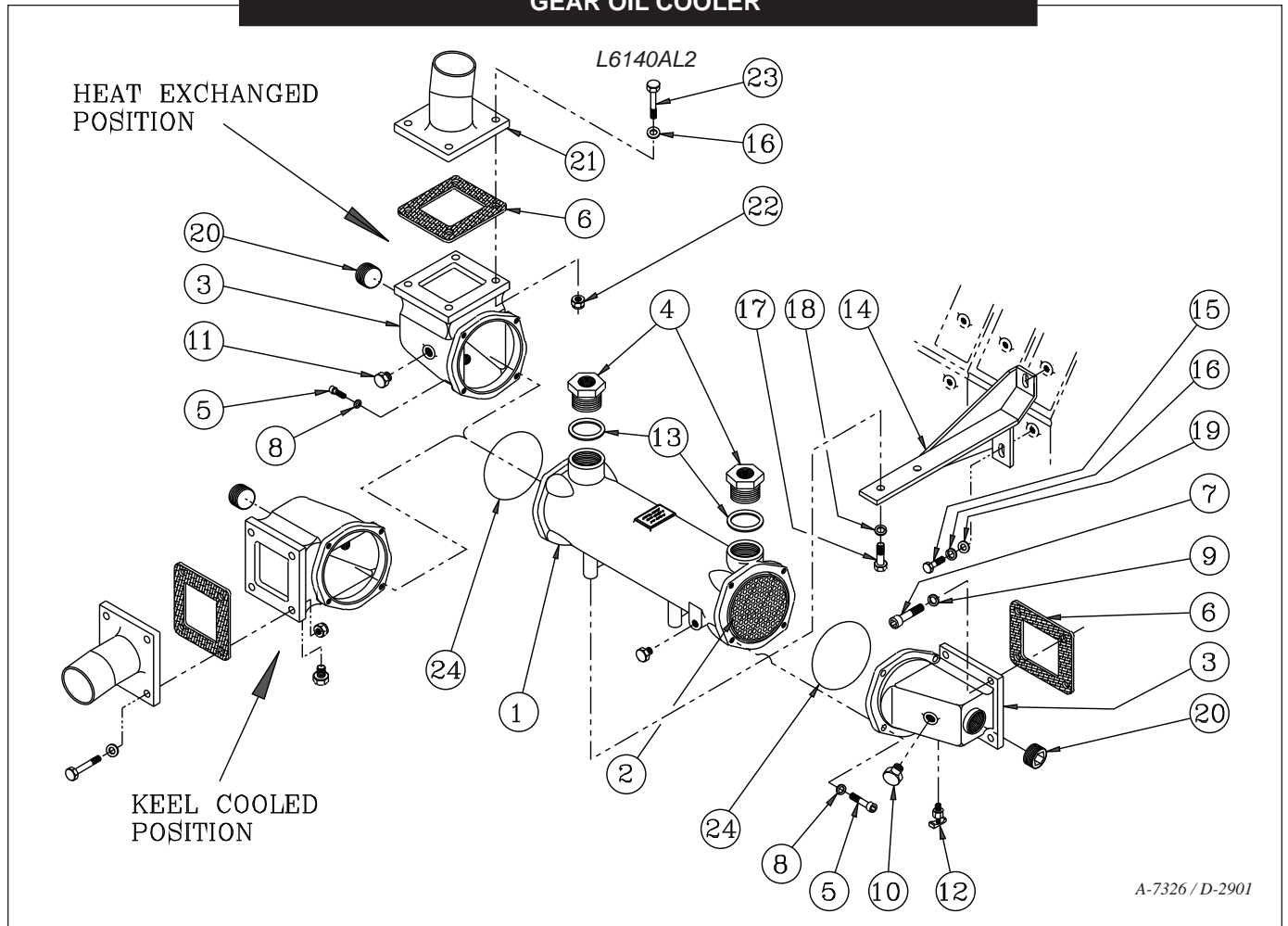


A-3505G / C-2161C

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	20-12802	1	Gear Oil Cooler (includes keys #1, #20 & #21)	-
1	10-04802	1	Gear Oil Cooler Housing	-
2	20-14800	1	End Cap	-
3	20-14801	1	End Cap	-
4	31-14802	2	Bushing 1-1/4 BSP X 3/4 NPT	-
5	12-14802	8	Capscrew, Socket Head M8 x 1.25 x 30 mm	-
6	6210-61-6230	1	Gasket	-
7	12-34802	4	Capscrew, Socket Head M10 x 1.5 x 30 mm	-
8	15-00704	8	Lock Washer, High Collar M8	-
9	15-00803	4	Lock Washer, High Collar M10	-
10	21-31902	1	Male Elbow, 90° Brass 1/2 NPT X 3/4 HB (w/remote expansion tank)	-
11	21-31624	1	Hex Plug 1/4 NPT	-
12	21-10002	1	Drain Cock 1/4 NPT	-
13	11-14807	2	Gasket	-
14	23-15002	1	Bracket, Gear Oil Cooler Support	-
15	12-00832	2	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
16	15-00805	3	Flat Washer, M10	-
17	12-00751	2	Capscrew, Hex Head M8 x 1.25 x 16 mm	-
18	15-00701	2	Flat Washer, M10	-
19	15-00802	2	Lock Washer, M10	-
20	20-02802	1	Gear Oil Cooler Element	-
21	16-64801	2	O-ring	-

GROUP 3 - COOLING SYSTEM

GEAR OIL COOLER

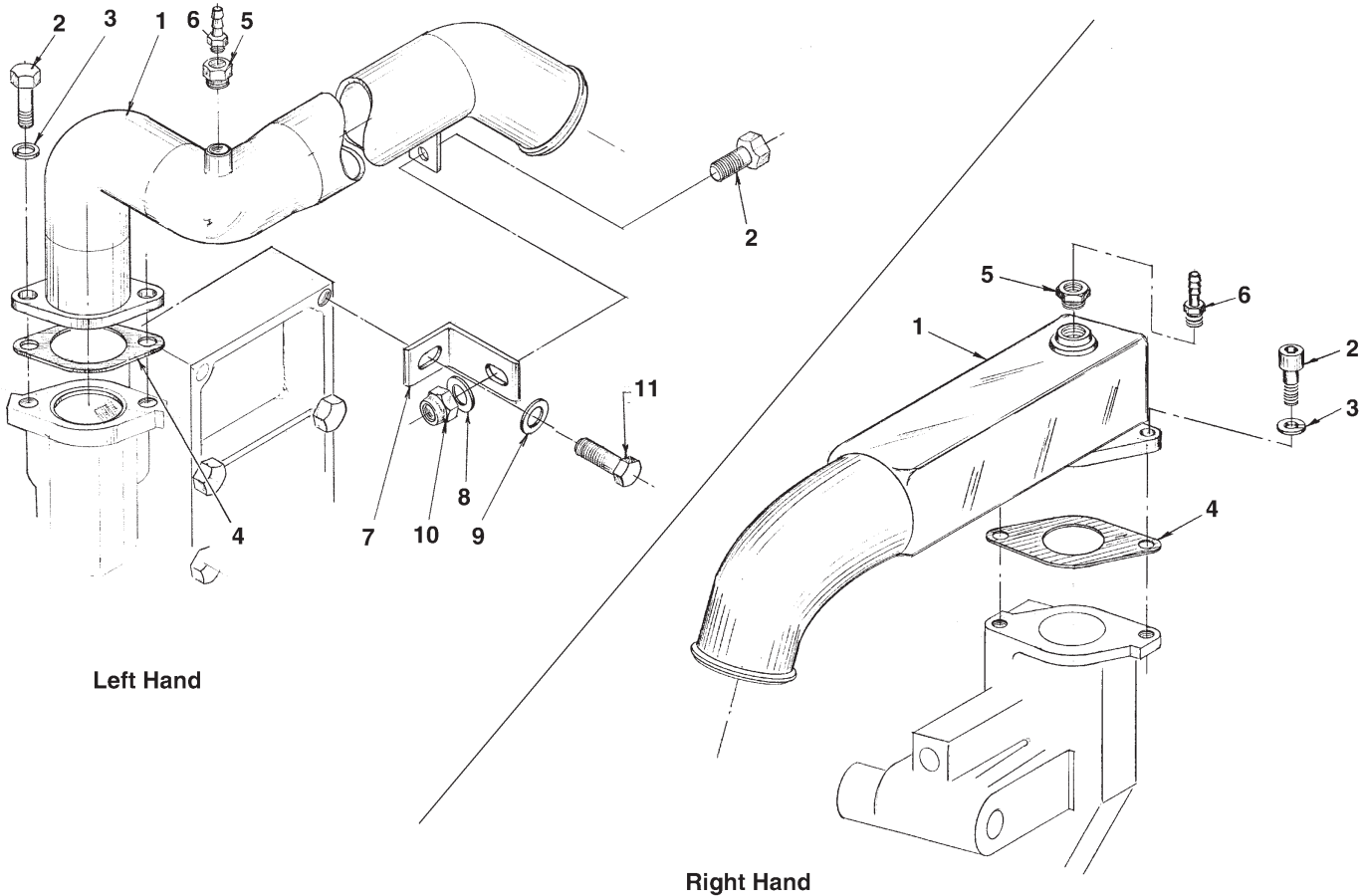


A-7326 / D-2901

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	20-12802	1	Gear Oil Cooler (includes keys #1, #2 & #24)	-
1	10-04802	2	Housing	-
2	20-02802	1	Gear Oil Cooler Element	-
3	20-15011	2	End Cap	-
4	31-14802	2	Bushing 1-1/4 BSP X 3/4 NPT	-
5	12-14802	8	Capscrew, Socket Head M8 x 1.25 x 30 mm	-
6	11-15005	2	Gasket	-
7	12-34802	4	Capscrew, Socket Head M10 x 1.5 x 30 mm	-
8	15-00704	8	Lock Washer, High Collar M8	-
9	15-00803	4	Lock Washer, High Collar M10	-
10	21-00530	1	Hex Head Plug, Brass 1/2 NPT	-
11	21-31624	1	Hex Plug 1/4 NPT	-
12	21-10002	1	Drain Cock 1/4 NPT	-
13	11-14807	2	Gasket	-
14	23-15013	1	Bracket, Gear Oil Cooler Support	-
15	12-00832	2	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
16	15-00805	6	Flat Washer, M10	-
17	12-00751	2	Capscrew, Hex Head M8 x 1.25 x 16 mm	-
18	15-00701	2	Flat Washer, M10	-
19	15-00802	2	Lock Washer, M10	-
20	21-11006	2	Socket Head Plug, Steel 1-1/4 NPT	-
21	27-15015	1	Connector	-
22	14-00812	4	Hex Nut M10 x 1.5	-
23	12-00812	4	Capscrew, Hex Head M10 x 1.25 x 40 mm	-
24	16-64801	2	O-ring	-

GROUP 3 - COOLING SYSTEM

KEEL COOL OUTLET - LEFT AND RIGHT HAND



Early Production

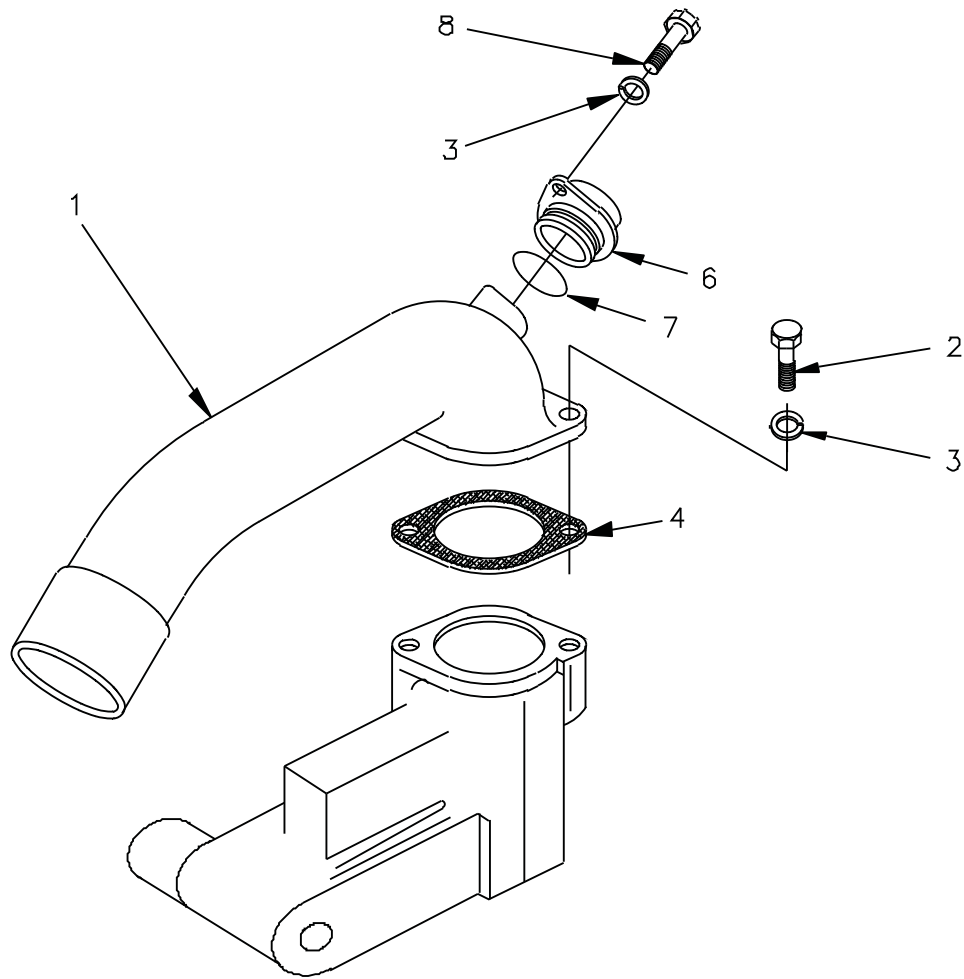
A-3692 / B-3332 & B-3577

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
LEFT HAND - HIGH PROFILE ONLY				
1	10-15003	1	Coolant Discharger Connector (standard only)	-
2	12-00831	3	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
3	15-00802	2	Lock Washer, M10	-
4	6210-61-6441	1	Gasket	-
5	21-00136	1	Brass Bushing, 1/2 NPT x 1/8 NPT	-
6	21-72042	1	Male Connector, Brass 1/4 HB x 1/8 NPT	-
7	23-15001	1	Support Bracket	-
8	15-00805	1	Flat Washer, M10	-
9	15-00007	1	Flat Washer, M12	-
10	14-00812	1	Nylock Nut, M10 x 1.5	-
11	12-00953	1	Capscrew, Hex Head M12 x 1.25 x 30 mm	-
RIGHT HAND - EARLY PRODUCTION				
1	10-15000	1	Coolant Discharge Connector (standard and low profile)	-
2	12-34803	2	Capscrew, Socket Head M10 x 1.5 x 25 mm	-
3	15-00802	2	Lock Washer, M10	-
4	6210-61-6440	1	Gasket	-
5	21-00136	1	Plug 1/2 NPT	-
6	21-72042	1	Male Connector, 1/8 NPT x 1/4 HB	-
NOTE: Shown for reference only. Use late production parts lists for replacement parts.				

GROUP 3 - COOLING SYSTEM

KEEL COOL OUTLET - RIGHT HAND

Late Production



A-3692 / B-3332A

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-15000	1	Connector	-
2	12-00831	2	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
3	15-00802	3	Lock Washer, Helical M10	-
4	6210-61-6441	1	Gasket	-
5	21-10002	1	Drain Cock, Brass 1/4 NPT (not shown)	-
6	6210-21-1940	1	Cover	-
7	16-15010	1	O-ring	-
8	12-00805	1	Capscrew, Hex Head M10 x 1.5 x 20 mm	-

GROUP 4 - FUEL SYSTEM

FUEL INJECTION PUMP & PIPING

L-M6140A & AL

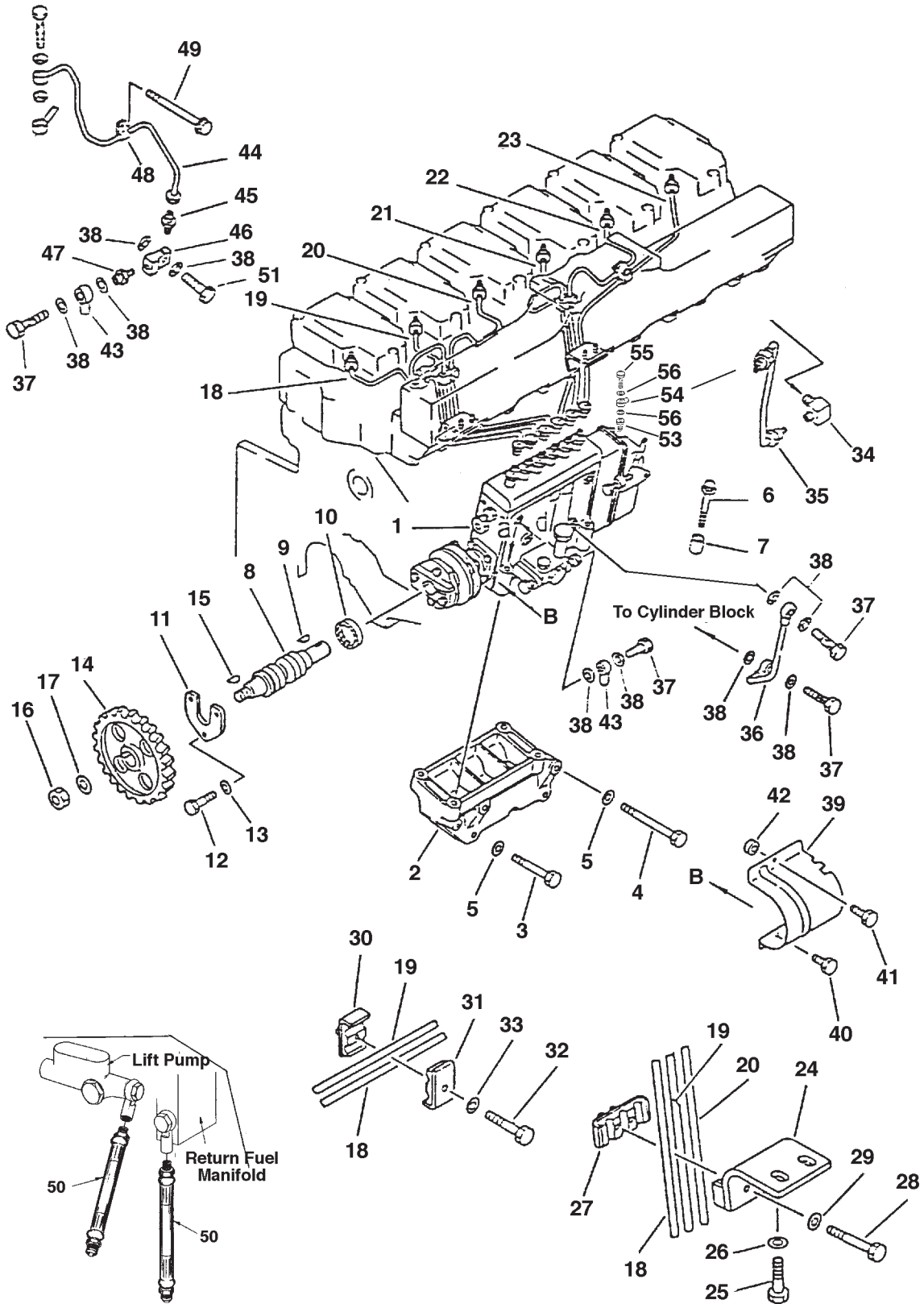


Figure 4003

GROUP 4 - FUEL SYSTEM

FUEL INJECTION PUMP AND PIPING L-M6140A & AL

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1		1	Fuel Injection Pump Assembly (see application chart)	-
2	6211-21-6110	1	Injection Pump Bracket	-
3	01010-51250	2	Bolt	-
4	01010-51280	2	Bolt	-
5	01640-21223	4	Washer	-
6	6150-81-9250	4	Bolt	-
7	6150-41-2430	2	Dowel Ring	-
8	6212-71-3150	1	Shaft	-
9	6150-71-3160	1	Key	-
10	6210-71-3181	1	Oil Seal	-
11	6210-71-3160	1	Thrust Plate	-
12	01010-30816	3	Bolt	-
13	01640-00816	3	Washer	-
14	6210-71-3220	1	Gear	-
15	6150-71-3160	1	Key	-
16	01582-02419	1	Nut	-
17	01643-32460	1	Washer	-
18	6211-71-5110	1	Injection Tube No. 1	-
19	6211-71-5120	1	Injection Tube No. 2	-
20	6211-71-5130	1	Injection Tube No. 3	-
21	6211-71-5140	1	Injection Tube No. 4	-
22	6211-71-5150	1	Injection Tube No. 5	-
23	6211-71-5160	1	Injection Tube No. 6	-
24	6210-71-5510	2	Clamp	-
25	12-00711	4	Capscrew, Hex Head M10 x 1.5 x 15 mm	-
26	01640-20816	4	Washer	-
27	6210-71-5520	2	Clamp	-
28	01010-50635	4	Bolt	-
29	01640-20610	4	Washer	-
30	6162-73-5510	4	Clamp	-
31	6162-73-5520	4	Clamp	-
32	12-00031	4	Capscrew, Hex Head M6 x 1.0 x 25 mm	-
33	01640-20610	4	Washer	-
34	21T-38-12290	1	Elbow	-
35	6212-71-5620	1	Tube	-
36	6211-71-5710	1	Drain Tube	-
37	07206-31014	4	Banjo Bolt	-
38	07005-01412	10	Gasket	-
39	6210-71-3910	1	Cover	-
40	01435-01016	2	Capscrew, Hex Head Flanged, M10 x 1.5 x 16 mm	-
41	01435-01020	1	Capscrew, Hex Head Flanged, M10 x 1.5 x 20 mm	-
42	6162-13-4860	1	Spacer	-
43	21-52203	1	Banjo Fitting (1/4 NPT)	-
44	6212-71-8620	1	Fuel Return Tube	-
45	07214-50510	1	Connector	-
46	6212-71-8520	1	Joint	-
47	6112-53-7720	1	Nipple	-
48	6210-71-8950	1	Clip	-
49	12-00070	1	Capscrew, Hex Head M10 x 1.5 x 100 mm	-
50	18-54802	2	Flexible Fuel Line	-
51	ND090310-0210	1	Banjo Bolt (with check valve)	-
52	ND092500-0560	1	Coupling Assembly (used w/pumps 6212-72-1750 & -1751)*	-
	ND092500-0920	1	Coupling Assembly (used w/pumps 6212-72-1752 & -1753)*	-
53	ND090224-0170	1	Adapter	-
54	ND090252-0260	1	Nipple	-
55	ND090245-0300	1	Banjo Bolt	-
56	ND090222-0060	2	Sealing Washer	-
			*See parts detail	

FUEL INJECTION PUMP & PIPING

L-M6140AL2

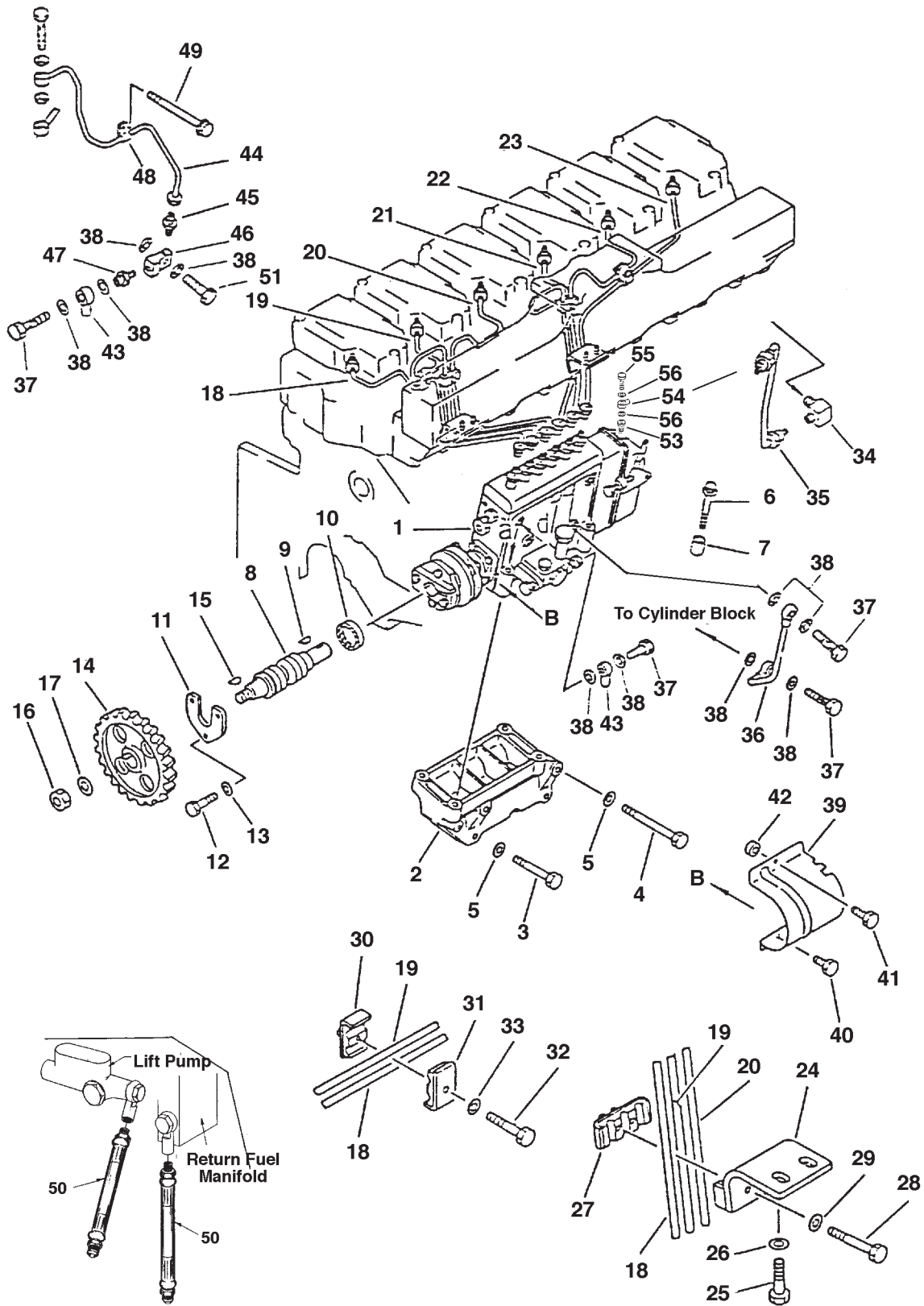


Figure 4003

GROUP 4 - FUEL SYSTEM

FUEL INJECTION PUMP AND PIPING <i>L-M 6140AL2</i>				
KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1		1	Fuel Injection Pump Assembly (see application chart)	up to S/N 31929
2	6211-21-6110	1	Injection Pump Bracket	-
3	01010-51250	2	Bolt	-
4	01010-51280	2	Bolt	-
5	01640-21223	4	Washer	-
6	6150-81-9250	4	Bolt	-
7	6150-41-2430	2	Dowel Ring	-
8	6212-76-3170	1	Shaft *	-
9	6222-75-3550	1	Pin	-
10	6210-71-3181	1	Oil Seal *	-
11	6210-71-3160	1	Thrust Plate	-
12	01010-30816	3	Bolt	-
13	01640-00816	3	Washer	-
14	6212-76-3220	1	Gear *	-
15	04020-00514	1	Dowel Pin *	-
16	01582-02419	1	Nut *	-
17	01643-32460	1	Washer *	-
18	6212-75-5110	1	Injection Tube No. 1	-
19	6212-75-5120	1	Injection Tube No. 2	-
20	6212-75-5130	1	Injection Tube No. 3	-
21	6212-75-5140	1	Injection Tube No. 4	-
22	6212-75-5150	1	Injection Tube No. 5	-
23	6212-75-5160	1	Injection Tube No. 6	-
24	6210-71-5510	2	Clamp	-
25	12-00711	4	Capscrew, Hex Head M10 x 1.5 x 20 mm	-
26	01640-20816	4	Washer	-
27	6210-71-5520	2	Clamp	-
28	01010-50635	4	Bolt	-
29	01640-20610	4	Washer	-
30	6162-73-5510	4	Clamp	-
31	6162-73-5520	4	Clamp	-
32	12-00031	4	Capscrew, Hex Head M6 x 1.0 x 25 mm	-
33	01640-20610	4	Washer	-
34	21T-38-12290	1	Elbow	-
35	6212-71-5620	1	Tube	-
36	6211-71-5710	1	Drain Tube	-
37	07206-31014	4	Banjo Bolt	-
38	07005-01412	10	Gasket	-
39	6210-71-3911	1	Cover	-
40	12-04400	2	Capscrew, Hex Head M10 x 1.5 x 15 mm	-
41	12-00805	1	Capscrew, Hex Head M10 x 1.5 x 20 mm	-
42	6162-13-4860	1	Spacer	-
43	21-52203	1	Banjo Fitting (1/4 NPT)	-
44	6212-71-8620	1	Fuel Return Tube	-
45	07214-50510	1	Connector	-
46	6212-71-8520	1	Joint	-
47	6112-53-7720	1	Nipple	-
48	6210-71-8950	1	Clip	-
49	12-00070	1	Capscrew, Hex Head M10 x 1.5 x 100 mm	-
50	18-54802	2	Flexible Fuel Line	-
51	ND090310	1	Banjo Bolt (with check valve)	-
52	ND092500-0920	1	Coupling Assembly (see parts detail)	-
53	ND090224-0170	1	Adapter	-
54	ND090252-0260	1	Nipple	-
55	ND090245-0300	1	Banjo Bolt	-
56	ND090222-0070	2	Sealing Washer	-
57	07209-01040	1	Nipple	-
58	6212-75-1380	1	Hose	-
59	07280-00910	2	Clamp	-
60	6212-75-8560	1	Banjo Fitting	-
			*Replaced by kit 34-55000 (includes shaft bushings & keys 8-10 & 14-17)	-

GROUP 4 - FUEL SYSTEM

FUEL INJECTION PUMP & PIPING

L-M6140AL2

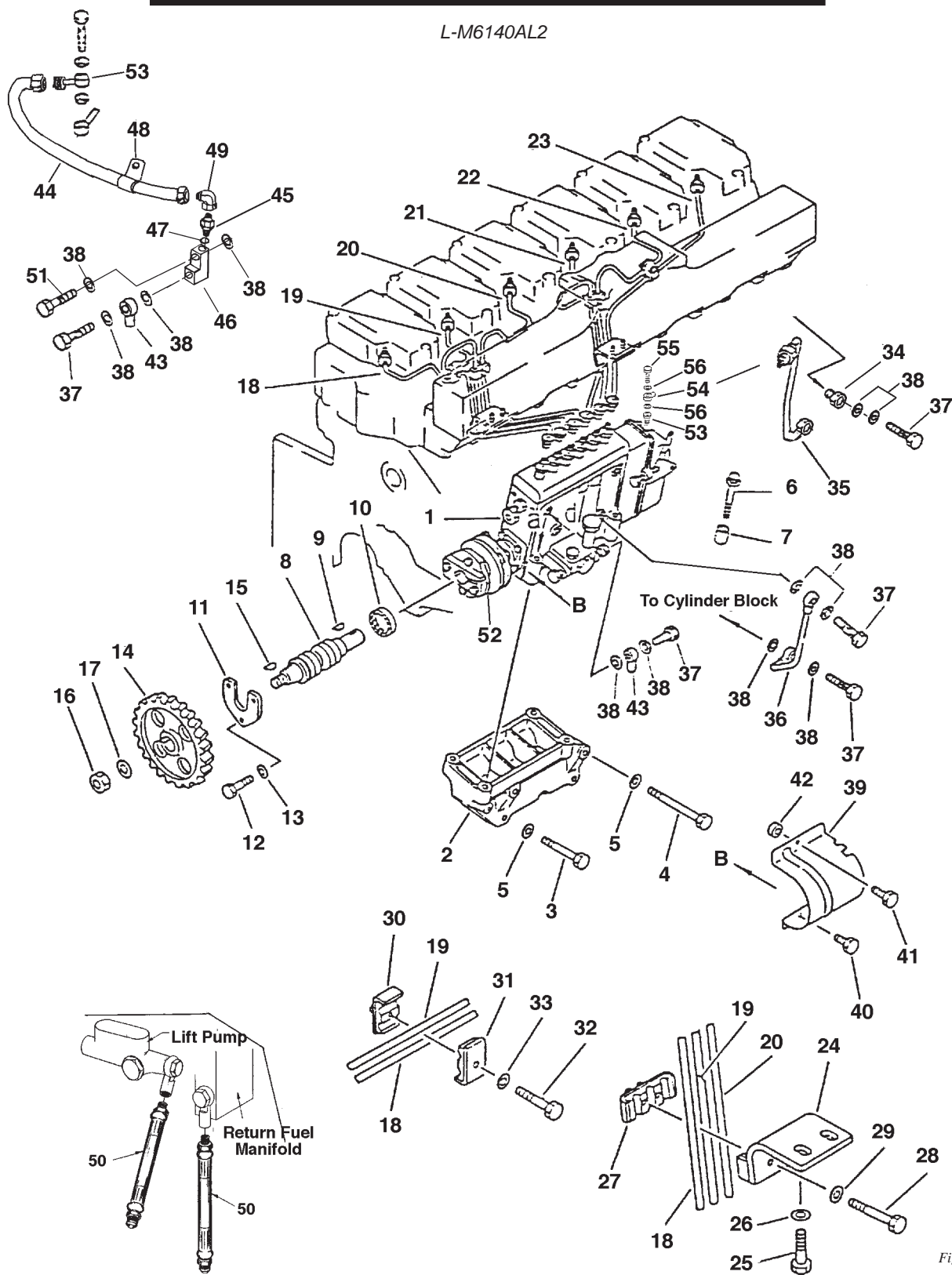


Figure 4003

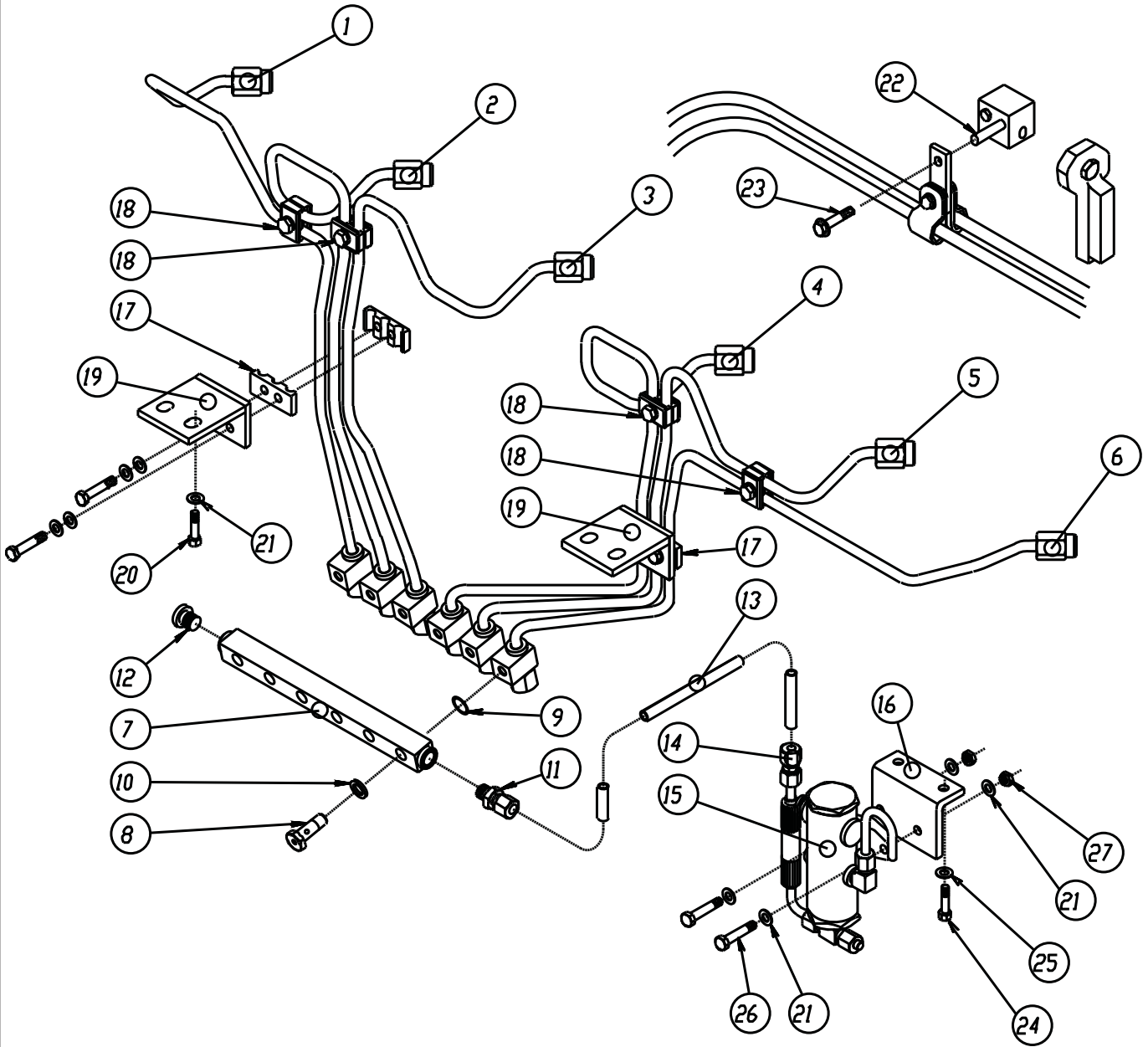
KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1		1	Fuel Injection Pump Assembly (see application chart)	from S/N 31930
2	6211-21-6110	1	Injection Pump Bracket - Lower	
3	01010-51250	2	Bolt	
4	01010-51280	2	Bolt	

FUEL INJECTION PUMP AND PIPING L-M 6140AL2					
KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER	
5	01640-21223	4	Washer	from S/N 31930 ↓	
6	6150-81-9250	4	Bolt		
7	6150-41-2430	2	Dowel Pin		
8	6212-76-3290	1	Shaft		
9	6222-75-3550	1	Pin		
10	6210-71-3183	1	Oil Seal		
11	6210-71-3160	1	Thrust Plate		
12	01010-30816	3	Bolt		
13	01640-00816	3	Washer		
14	6212-76-3230	1	Gear		
15	6152-75-3450	1	Dowel Pin		
16	6212-76-3240	1	Nut		
17	6212-76-3250	1	Washer		
18	6212-75-5110	1	Injection Tube No. 1		
19	6212-75-5120	1	Injection Tube No. 2		
20	6212-75-5130	1	Injection Tube No. 3		
21	6212-75-5140	1	Injection Tube No. 4		
22	6212-75-5150	1	Injection Tube No. 5		
23	6212-75-5160	1	Injection Tube No. 6		
24	6210-71-5512	2	Clamp		
25	12-00711	4	Capscrew, Hex Head M10 x 1.5 x 20 mm		
26	01640-20816	4	Washer		
27	6210-71-5522	2	Clamp		
28	01010-80635	4	Capscrew, Hex Head M6 x 35 mm		
29	01640-20610	4	Washer		
30	6215-71-5282	4	Clamp		
31	6215-71-5292	4	Clamp		
32	01010-80625	4	Capscrew, Hex Head M6 x 1.0 x 25 mm		
33	01640-20610	4	Washer		
34	6141-55-5610	1	Adapter		
35	6164-71-5650	1	Hose Assembly		
36	6211-71-5710	1	Drain Tube		
37	07206-31014	5	Banjo Bolt		
38	07005-01412	12	Gasket		
39	00-75007	1	Cover		
40	01435-01016	2	Capscrew, Hex Head M10 x 1.5 x 16 mm		
41	01435-01020	1	Capscrew, Hex Head M10 x 1.5 x 20 mm		
42	21-42208	1	Spacer		
43	21-52203	1	Banjo Fitting (1/4 NPT)		
44	18-55012	1	Fuel Return Hose		
45	21-75704	1	Connector		
46	6152-75-5360	1	Adapter, Fuel Connection		
47	07005-01012	1	Sealing Washer M10		
48	19-72252	1	Clip		
49	21-52214	1	Swivel 90° 1/4-37T		
50	18-54802	2	Flexible Fuel Line		
51	ND090310	1	Banjo Bolt (with check valve)		
52	ND092500-0920	1	Coupling Assembly (see parts detail)		
53	21-55005	1	Banjo Connector M8 x 1/4-37T		
54	6152-75-5650	1	Banjo Fitting		
55	ND090245-0300	1	Banjo Bolt		
56	07005-01212	2	Sealing Washer		
57	6212-76-1810	1	Bracket, Pump Support - Upper		} Injection Pump Upper Support - not shown
58	6212-76-1820	2	Adapter, Pump Support - Upper		
59	01050-51420	3	Capscrew, Hex Head M14 x 20 mm		
60	01640-21426	3	Washer M14		
61	01011-81030	2	Capscrew, Hex Head M10 x 130 mm		
62	01640-21016	2	Washer M10		
63	01010-81440	2	Capscrew, Hex Head M14 x 40 mm		
64	01643-31445	2	Washer M14		

GROUP 4 - FUEL SYSTEM

DOUBLE WALL FUEL LINES

L-M6140



A-9254A/ST113258-1a

GROUP 4 - FUEL SYSTEM

DOUBLE WALL FUEL LINES

L-M6140

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	27-55001	1	Injection Line #1 Double Wall	-
2	27-55002	1	Injection Line #2 Double Wall	-
3	27-55003	1	Injection Line #3 Double Wall	-
4	27-55004	1	Injection Line #4 Double Wall	-
5	27-55005	1	Injection Line #5 Double Wall	-
6	27-55006	1	Injection Line #6 Double Wall	-
7	10-54801	1	Manifold, Fuel Alarm	-
8	21-55707	6	Banjo Bolt, Leak Indicator Type	-
9	16-55701	6	O-ring	-
10	15-55701	6	Banjo Washer	-
11	21-55006	1	Adapter	-
12	21-55004	1	Plug	-
13	18-55009	1	Hose Assembly, 1/4" ID x 25"	-
14	21-55703	1	Union, Steel 8 mm	-
15	10-50002	1	Alarm Tank Assembly	-
16	23-54807	1	Bracket, Alarm Tank Mounting	-
17	19-55003	2	Clamp Assembly, 3 Lines	-
18	19-55002	4	Clamp Assembly, 2 Lines	-
19	23-55002	2	Bracket, Tube Support	-
20	12-00711	4	Capscrew, Hex Head M8 x 1/25 x 20 mm	-
21	15-00701	8	Flat Washer M8	-
22	21-32502	1	Spacer, Steel	-
23	01435-01090	1	Capscrew, Hex Head Flanged M10 x 1.5 x 90 mm	-
24	12-00832	2	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
25	15-00802	2	Lock Washer M10	-
26	12-00753	2	Capscrew, Hex Head M8 x 1.25 x 30 mm	-
27	14-04802	2	Hex Nut, Nylock M8 x 1.25	-

GROUP 4 - FUEL SYSTEM

FUEL INJECTORS & RETURN LINE

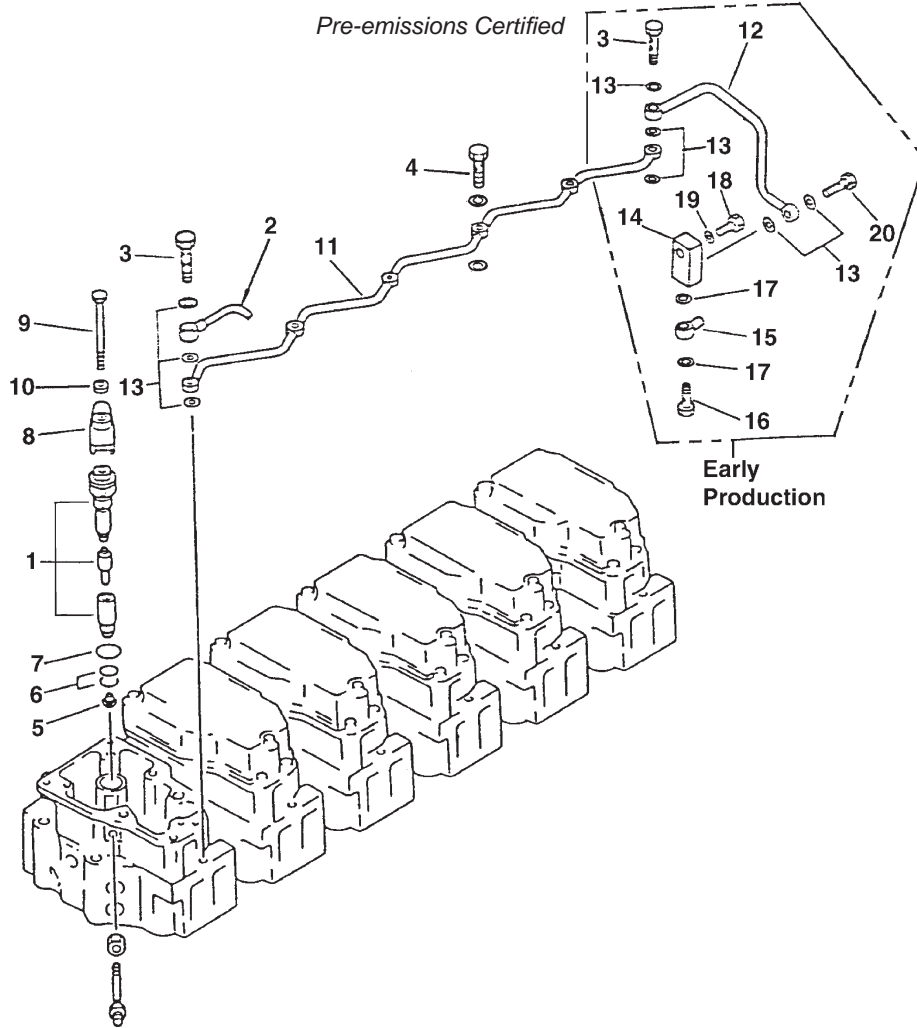


Figure 4203

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6212-11-3301	6	Fuel Injector 550-600 HP (formerly #6212-11-3300) see parts detail	Komatsu S/N's
	6212-15-3701	6	Fuel Injector 630 HP (formerly #6212-15-3700) see parts detail	-
	6212-15-3800	6	Fuel Injector 700 HP see parts detail	up to S/N 31929
	6212-16-3400	6	Fuel Injector 700 HP see parts detail	from S/N 31930
2	6212-71-8620	1	Fuel Return Tube	from S/N 12606
	6210-71-5370	2	Banjo Bolt (1 each - late production)	-
4	07206-20508	4	Banjo Bolt (5 each - late production)	-
5	6210-71-1160	6	Gasket	-
6	07000-F2021	12	O-ring (formerly #07000-22021)	-
7	6210-11-7710	6	O-ring	-
8	6210-71-1150	6	Holder	-
9	01011-31020	6	Bolt	-
10	6210-71-1140	6	Washer	-
11	6211-71-5340	1	Fuel Return Line	-
12	6210-71-5630	1	Tube	up to S/N 12605
13	07005-00812	16	Gasket	-
14	6210-71-5720	1	Adapter	-
15	07205-21014	1	Joint	-
16	07206-31014	1	Bolt	-
17	07005-01412	2	Gasket	up to S/N 12605
18	12-00814	1	Capscrew, Hex Head M10 x 1.5 x 35 mm	-
19	01641-01016	1	Washer	-
20	6127-11-3152	1	Banjo Bolt	-

} Early Production

GROUP 4 - FUEL SYSTEM

FUEL INJECTORS & RETURN LINE

Emissions Certified

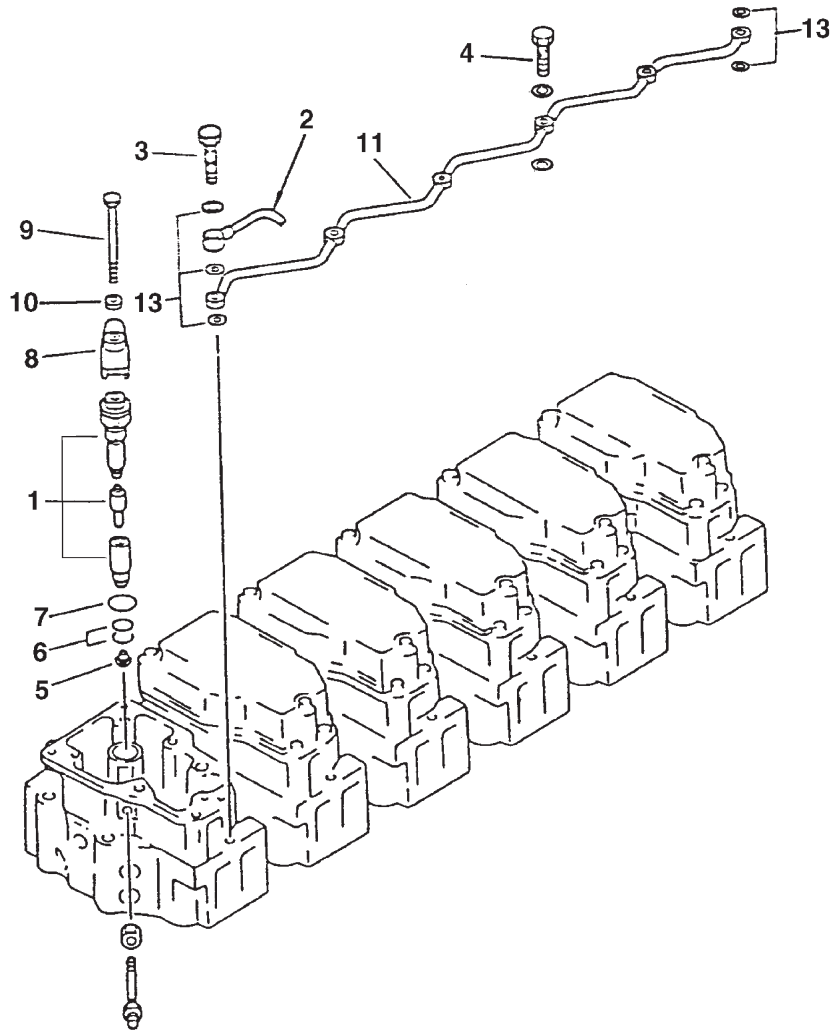


Figure 4203z

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6212-15-3701	6	Fuel Injector, Propulsion 500-600 Hp & Generator Applications (formerly #6212-15-3700, see parts detail)	Komatsu S/N's -
	6212-15-3800	6	Fuel Injector 700 HP (see parts detail)	up to S/N 31929
	6212-16-3400	6	Fuel Injector 700 HP (see parts detail)	from S/N 31930
2	6212-71-8620	1	Fuel Return Tube	-
3	6210-71-5370	1	Banjo Bolt	-
4	07206-20508	5	Banjo Bolt	-
5	6210-71-1160	6	Gasket	-
6	07000-F2021	12	O-ring	-
7	6210-11-7710	6	O-ring	-
8	6210-71-1150	6	Holder	-
9	01011-31020	6	Bolt	-
10	6210-71-1140	6	Washer	-
11	6211-71-5340	1	Fuel Return Line	-
12	6210-71-5630	1	Tube (not shown)	-
13	07005-00812	16	Gasket	-

INJECTION PUMP APPLICATION LIST

Pre-Emissions Certified

Propulsion Engines, Pre-Emissions Compliant through December 1999

6212-71-1750		L6140A & AL	to	600 Hp @ 2100 RPM *
6212-71-1751	(replaces 6212-71-1750)	L6140A & AL	to	600 Hp @ 2100 RPM *
6212-71-1752		L6140A & AL	to	630 Hp @ 2100 RPM *
6212-71-1753	(replaces 6212-71-1752)	L6140A & AL	to	630 Hp @ 2100 RPM *
26-55005		L6140AL2		500 Hp @ 1800 RPM
26-55004		L6140AL2		600 Hp @ 2100 RPM
26-55003		L6140AL2		700 Hp @ 2100 RPM
6212-75-1340	(replaces 26-55003)	L6140AL2		700 Hp @ 2100 RPM

*Specify rating.

Generator Drive Engines, Pre-Emissions Compliant through December 1999

6212-71-1753*		M6140AL	to	330 kW
26-55002		M6140AL	to	330 kW @ 1800 RPM (Assembly with 24V Actuator)

*Specify output rating and RPM or provide unit serial number.

If there is any question regarding pump and/or actuator applications, contact dealer or factory.
Please have unit serial number available.

INJECTION PUMP APPLICATION LIST

Emissions Certified

Propulsion Engines, Emissions Compliant from January 2000

6212-75-1340B	L6140AL2	500 Hp @ 1800 RPM	Up to serial # xxxx-31929
6212-75-1340A	L6140AL2	600 Hp @ 2100 RPM	"
6212-75-1340	L6140AL2	700 Hp @ 2100 RPM	"
6212-76-1121C	L6140AL2	500 Hp @ 1800 RPM	From # xxxx-31930
(Formerly 6212-76-1120C)			"
6212-76-1121B	L6140AL2	600 Hp @ 2100 RPM	"
(Formerly 6212-76-1120B)			
6212-76-1121A	L6140AL2	700 Hp @ 2100 RPM	"
(Formerly 6212-76-1120A)			

Generator Drive Engines, Emissions Compliant from January 2000

6212-75-1340C	M6140AL2	330 kW @ 1800 RPM	Up to serial # xxxx-31929
6212-75-1340D	M6140AL2	280 kW @ 1500 RPM	"
26-55009*	M6140AL2	330 kW @ 1800 RPM	"

*Equipped for actuator operation. Provide unit serial number when ordering.

			From serial # xxxx-31930
6212-76-1121E	M6140AL2	330 kW @ 1800 RPM	"
6212-76-1121D	M6140AL2	280 kW @ 1500 RPM	"

If there is any question regarding pump and/or actuator applications, contact dealer or factory.
Please have unit serial number available.

GROUP 4 - FUEL SYSTEM

FUEL INJECTORS

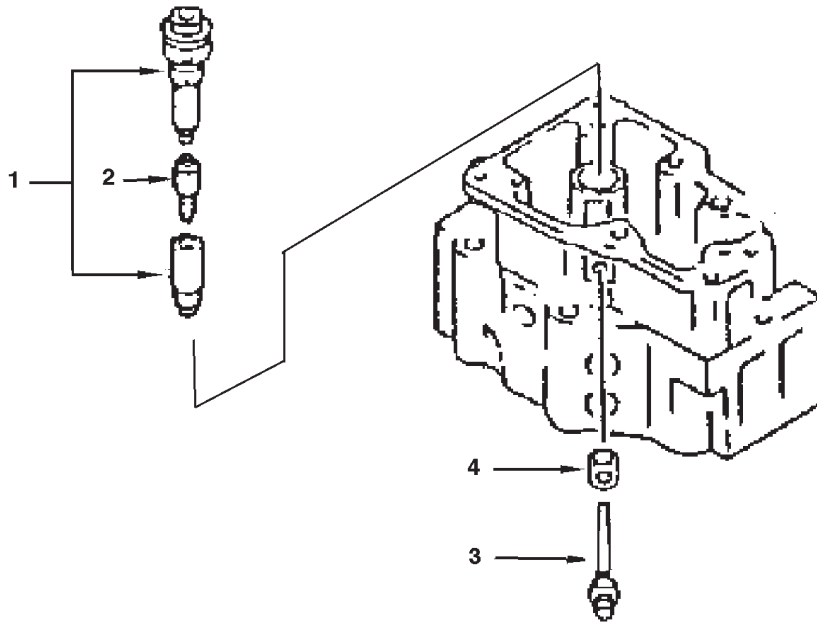


fig 4 05

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6212-11-3300	**	Fuel Injector (includes keys #2 - #4, marked 3630)	Komatsu S/N
	6212-11-3301	1	Fuel Injector (includes keys #2 - #4, marked 3632)	-
2	6212-11-3320	1	Nozzle (marked DLLA155SND210)	-
3	6212-11-3131	1	Connector	-
4	01582-11210	1	Locking Nut	-
1	6212-15-3700	**	Fuel Injector (includes keys #2 - #4, marked 5381)	-
	6212-15-3701	1	Fuel Injector (includes keys #2 - #4, marked 5382)	-
2	6212-11-3720	1	Nozzle (marked DLLA155SND274)	-
3	6212-11-3131	1	Connector	-
4	6211-71-9770	1	Locking Nut	-
1	6212-15-3800	**	Fuel Injector (includes keys #2 - #4, marked 6500)	up to 31929
2	6212-15-3820	1	Nozzle (marked DLLA155SND3090)	-
3	6212-11-3131	1	Connector	-
4	6211-71-9770	1	Locking Nut	-
1	6212-16-3400	**	Fuel Injector (includes keys #2 - #4)	from 31930
2	DK105025-2570	1	Nozzle (marked DLLA133SM257)	-
3	6212-11-3131	1	Connector	-
4	6211-71-9770	1	Locking Nut	-
			**As required.	

NOTES

FUEL FILTER

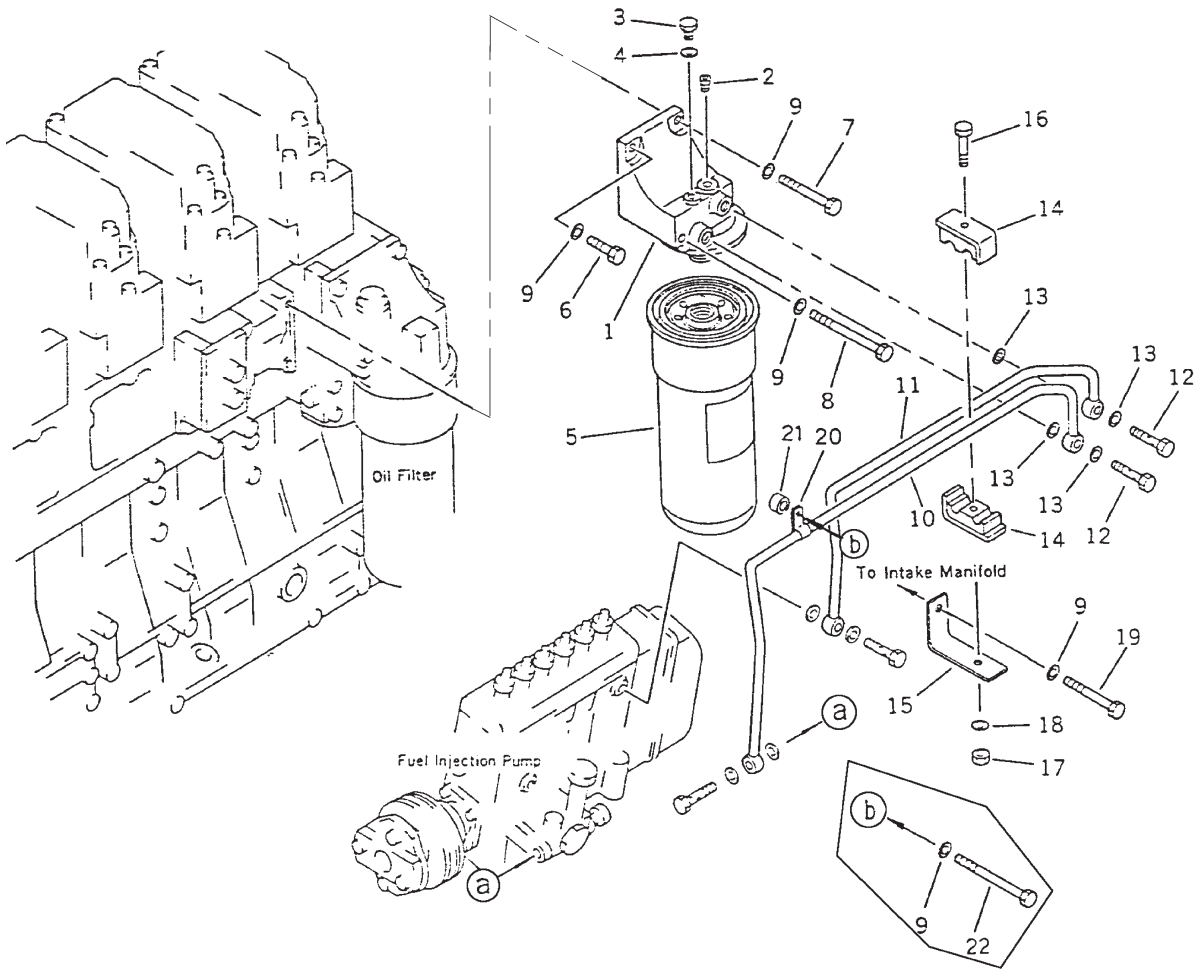


Figure 4103

GROUP 4 - FUEL SYSTEM

FUEL FILTER

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	6210-71-6200	1	Fuel Filter Assembly (includes keys #1 - #5)	up to S/N 31929
1	6210-71-6210	1	Head	-
2	07043-00108	1	Plug	-
3	6110-73-6231	1	Plug	-
4	07005-00812	1	Gasket	-
5	24-55001	1	Fuel Filter	-
6	12-00814	1	Capscrew, Hex Head M10 x 1.5 x 35 mm	-
7	12-00819	1	Capscrew, Hex Head M10 x 1.5 x 75 mm	-
8	12-00052	2	Capscrew, Hex Head M10 x 1.5 x 110 mm	-
9	15-00805	6	Flat Washer	-
10	6210-71-5610	1	Tube (all models)	-
11	6210-71-5620	1	Tube (18-55011 Hose for propulsion units w/ double wall fuel lines only)	-
12	07206-31014	2	Joint Bolt	-
13	07005-01412	4	Gasket	-
14	6127-71-6660	2	Clip	-
15	6210-71-5640	1	Stay	up to S/N xxxx-0531
	6210-71-5650	1	Stay	from S/N xxxx-0532
16	01010-30840	1	Bolt	-
17	01580-00806	1	Nut	-
18	01642-21016	2	Washer	-
19	01011-51005	1	Capscrew, Hex Head M10 x 1.5 x 105 mm	-
20	6210-71-5660	1	Clamp	up to S/N xxxx-0532
	6151-51-8540	1	Clamp	from S/N xxxx-0761
21	6143-11-4290	1	Spacer	-
22	01011-51045	1	Bolt (21-52203 Banjo fitting for propulsion units w/ double wall fuel lines)	-

GROUP 4 - FUEL SYSTEM

FUEL FILTER

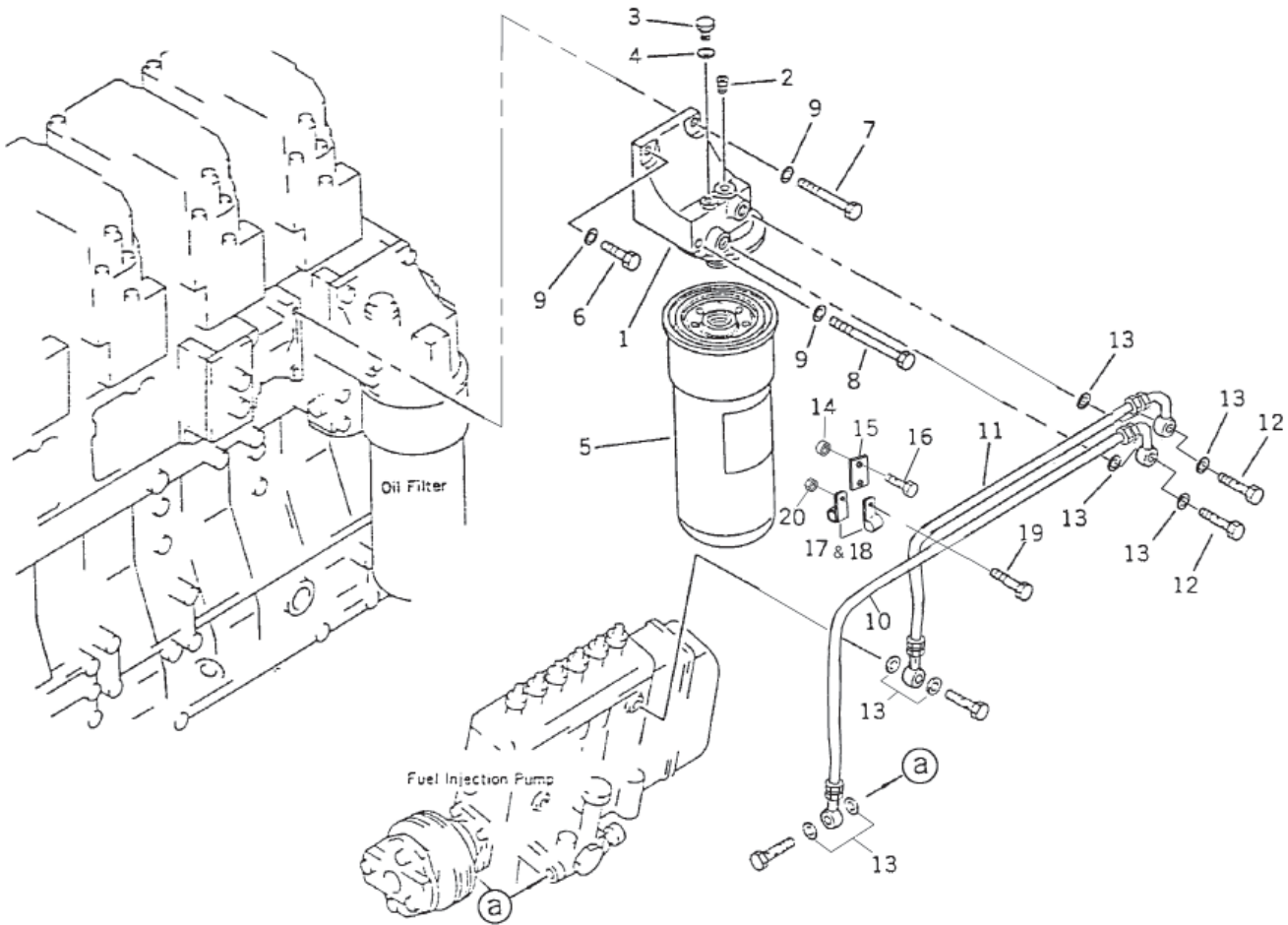


Figure 4103

GROUP 4 - FUEL SYSTEM

FUEL FILTER

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	6210-71-6202	1	Fuel Filter Assembly (includes keys #1 - #5)	from S/N 31930
1	6210-71-6210	1	Head	↓
2	07043-70108	1	Plug	
3	6110-73-6231	1	Plug	
4	07005-00812	1	Gasket	
5	24-55001	1	Fuel Filter	
6	01010-81035	1	Bolt	
7	01010-81075	1	Bolt	
8	01011-81010	2	Bolt	
9	01640-21016	4	Washer	
10	6212-76-5430	1	Hose, Fuel Filter Inlet	
11	6162-73-7940	1	Hose, Fuel Filter Outlet	
12	07206-31014	2	Joint Bolt	
13	07005-01412	8	Sealing Washer	
14	6144-81-6680	1	Spacer	
15	6150-81-8980	1	Plate	
16	01010-81050	1	Capscrew, Hex Head M10 x 50 mm	
17	04434-52511	2	Clamp	
18	07095-20318	2	Cushion	
19	01435-01020	1	Bolt	
20	01584-01008	1	Nut	

GROUP 4 - FUEL SYSTEM

FUEL LIFT PUMP ASSEMBLY

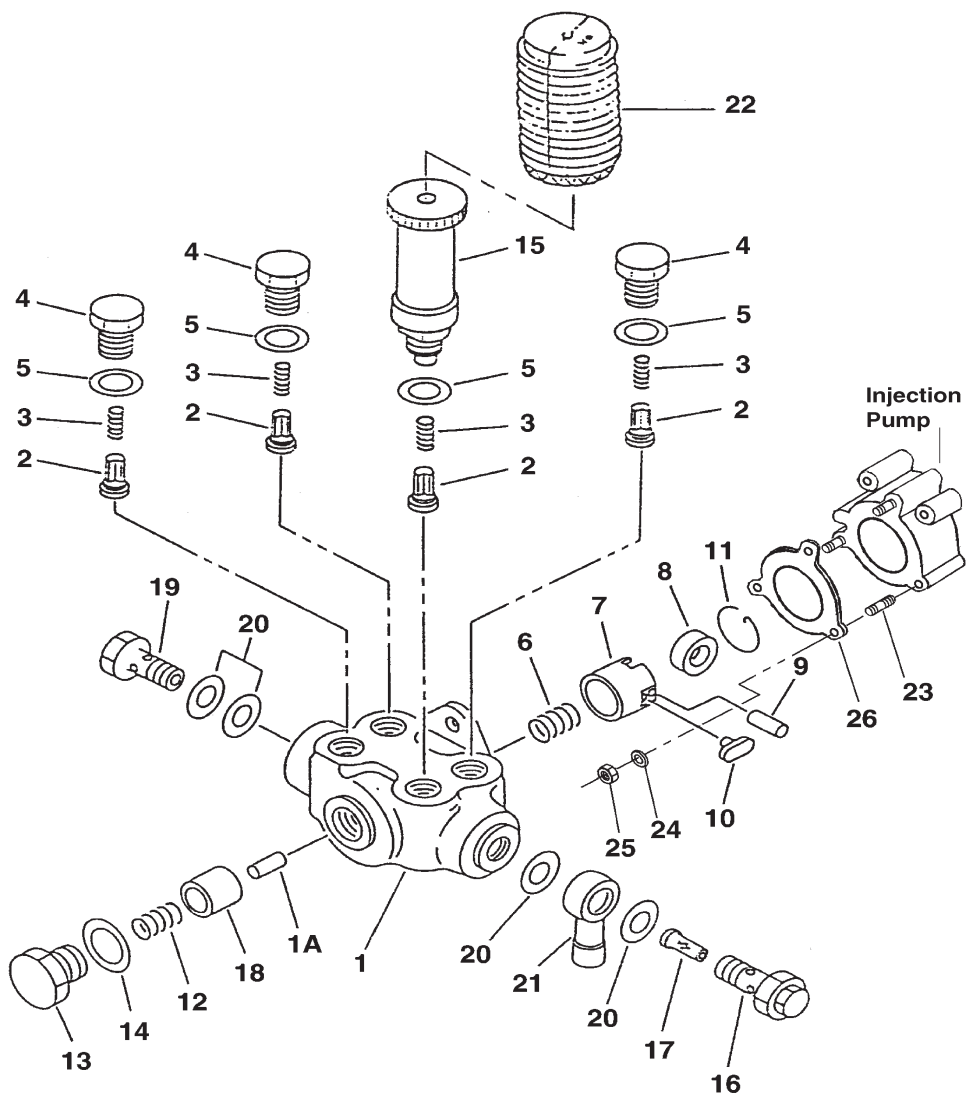


Figure 4801

GROUP 4 - FUEL SYSTEM

FUEL LIFT PUMP ASSEMBLY

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	ND092100-1890	1	Feed Pump Assembly (includes keys #1 - #22)*	-
1	ND092120-0520	1	Housing	-
1A	ND092168-0160	1	Push Rod	-
2	ND092121-0011	4	Check Valve	-
3	ND092124-0010	4	Check Valve Spring	-
4	ND092126-0010	3	Chamber Plug	-
5	ND092125-0010	4	Gasket	-
6	ND092173-0010	1	Tappet Spring	-
7	ND092174-0041	1	Tappet	-
8	ND092176-0040	1	Tappet Roller	-
9	ND092178-0030	1	Pin	-
10	ND092179-0080	2	Sliding Block	-
11	ND949072-0940	1	Snap Ring	-
12	ND092182-0050	1	Piston Spring	-
13	ND092184-0021	1	Plug	-
14	ND949018-1240	1	Washer	-
15	ND092130-0201	1	Priming Pump Assembly	-
16	ND092223-0070	1	Screw	-
17	ND092220-0040	1	Screen	-
18	ND092171-0011	1	Feed Pump Piston	-
19	ND949180-0310	1	Screw	-
20	07005-01412	4	Gasket	-
21	21-52203	1	Banjo Fitting 1/4 NPT	-
22	ND090061-0011	1	Cover	-
23	ND949043-0010	3	Stud	-
24	15-01132	3	Lock Washer, M6	-
25	14-01131	3	Hex Nut, M6 x 1.0	-
26	ND90106-0040	1	Gasket	-

*Note: Used on Injection Pumps 6212-71-1750, 6212-71-1751, 6212-71-1752, 6212-71-1753, and on 26-55002 series pumps.

FUEL LIFT PUMP ASSEMBLY

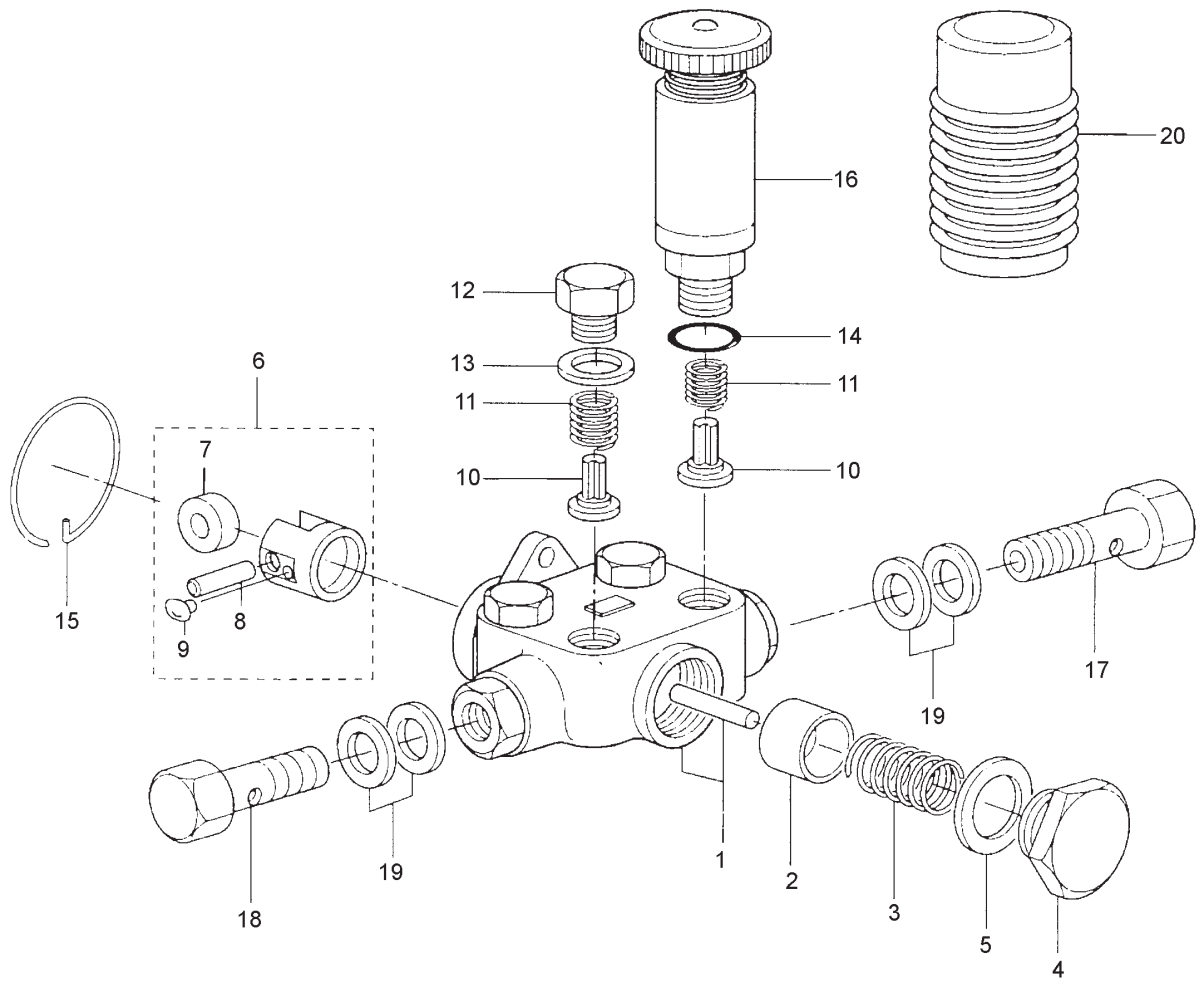


Figure Zexel1052371591

GROUP 4 - FUEL SYSTEM

FUEL LIFT PUMP ASSEMBLY

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	DK105237-1591	1	Fuel Lift Pump Assembly (includes all keys)*	-
1	152004-2320	1	Housing	-
2	152100-1120	1	Piston	-
3	152102-1300	3	Spring	-
4	152105-1500	1	Plug	-
5	029332-6030	1	Gasket	-
6	152111-4420	1	Tappet	-
7	152112-0800	1	Roller	-
8	152113-1300	1	Pin	-
9	152114-1600	1	Guide	-
10	152115-0500	2	Valve	-
11	152116-0200	2	Spring	-
12	152117-0400	1	Plug	-
13	029331-6030	1	Gasket	-
14	029631-6060	1	O-ring	-
15	152121-0400	1	Snap Ring	-
16	152200-5320	1	Priming Pump	-
17	152300-3620	1	Eye Bolt	-
18	029731-4680	1	Eye Bolt	-
19	029341-4130	2	Gasket	-
20	152320-0100	1	Cover	-

*Note: Used on Injection Pumps 6212-75-1340 series,
on 26-55003, 26-55004, 26-55005, and all 6212-76-1120 series,
and 6212-76-1121 series.

FUEL INJECTION PUMP COUPLING

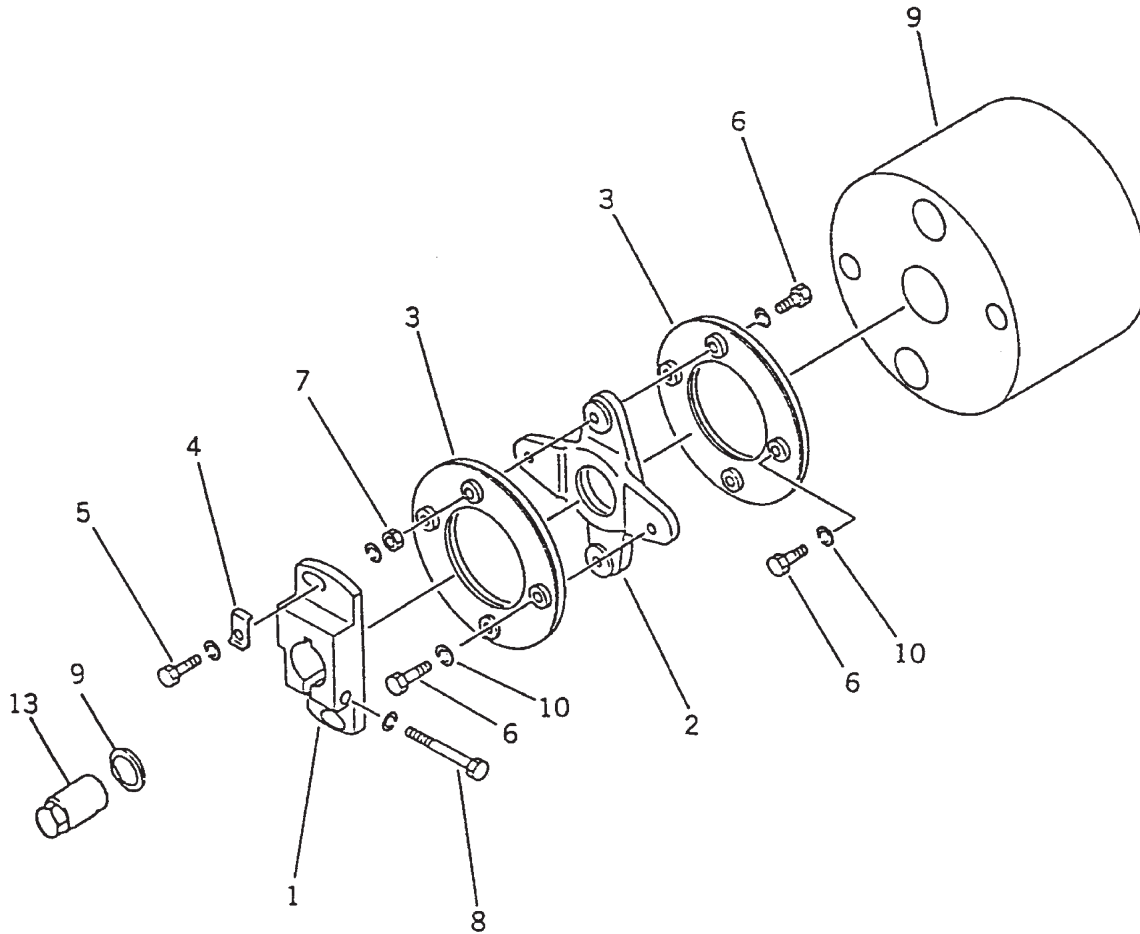


Figure 4701

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	ND092500-0560	1	Coupling Assembly	-
1	ND092415-0530	1	Flange	-
2	ND092439-0230	1	Cross Coupling	-
3	ND092460-0110	2	Plate Sub-assembly	-
4	ND092417-0110	2	Washer	-
5	ND092433-0110	2	Bolt	-
6	ND949040-6361	6	Bolt	-
7	ND949050-4530	2	Nut	-
8	12-04401	1	Capscrew, Hex Head M12 x 1.75 x 55 mm	-
9	ND092551-0470	1	Block	-
10	ND90258-10001	8	Washer	-
11	ND090012-0310	1	Nut (not shown)	-
12	ND949014-0320	1	Spring Washer (not shown)	-
13	ND949044-3730	1	Nut	-
			NOTE: This assembly and parts apply to injection pumps 6212-71-1750 & 6212-71-1751.	

FUEL INJECTION PUMP COUPLING

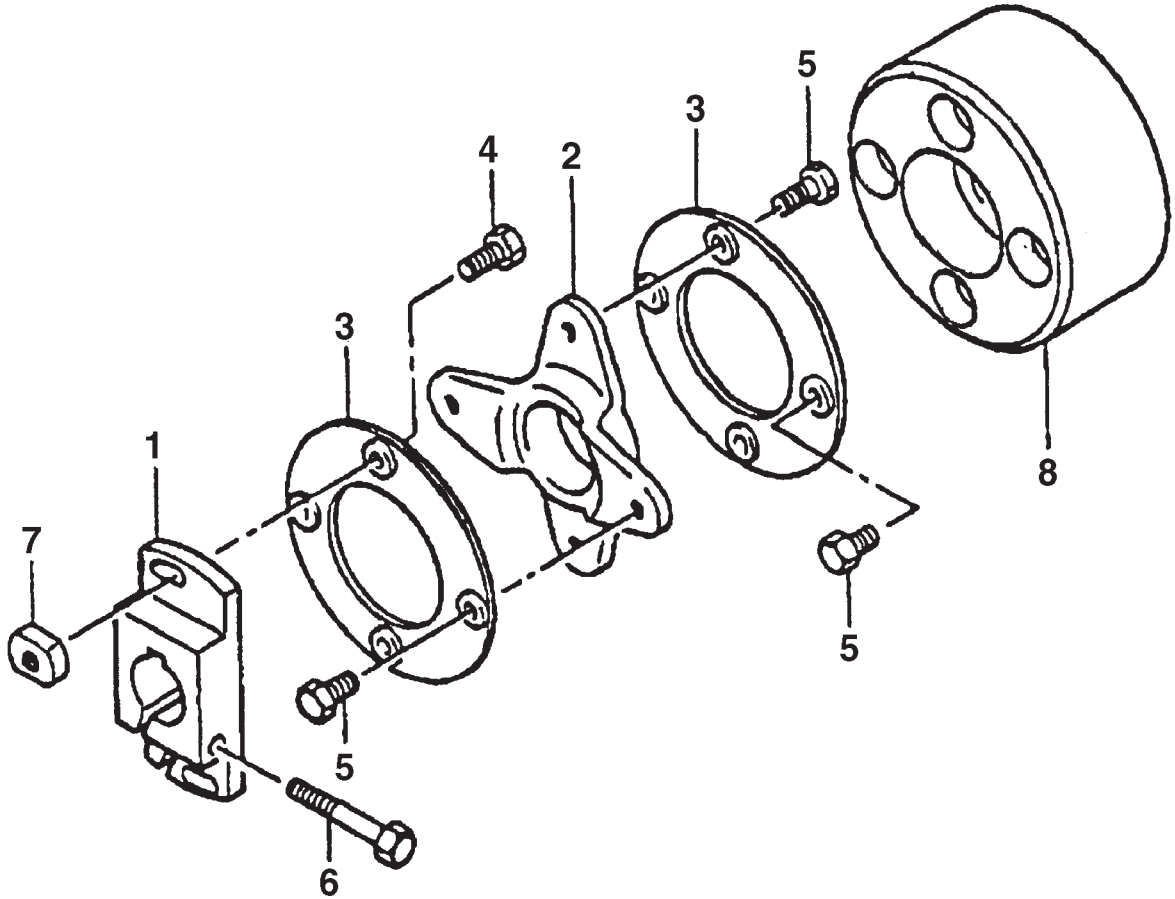
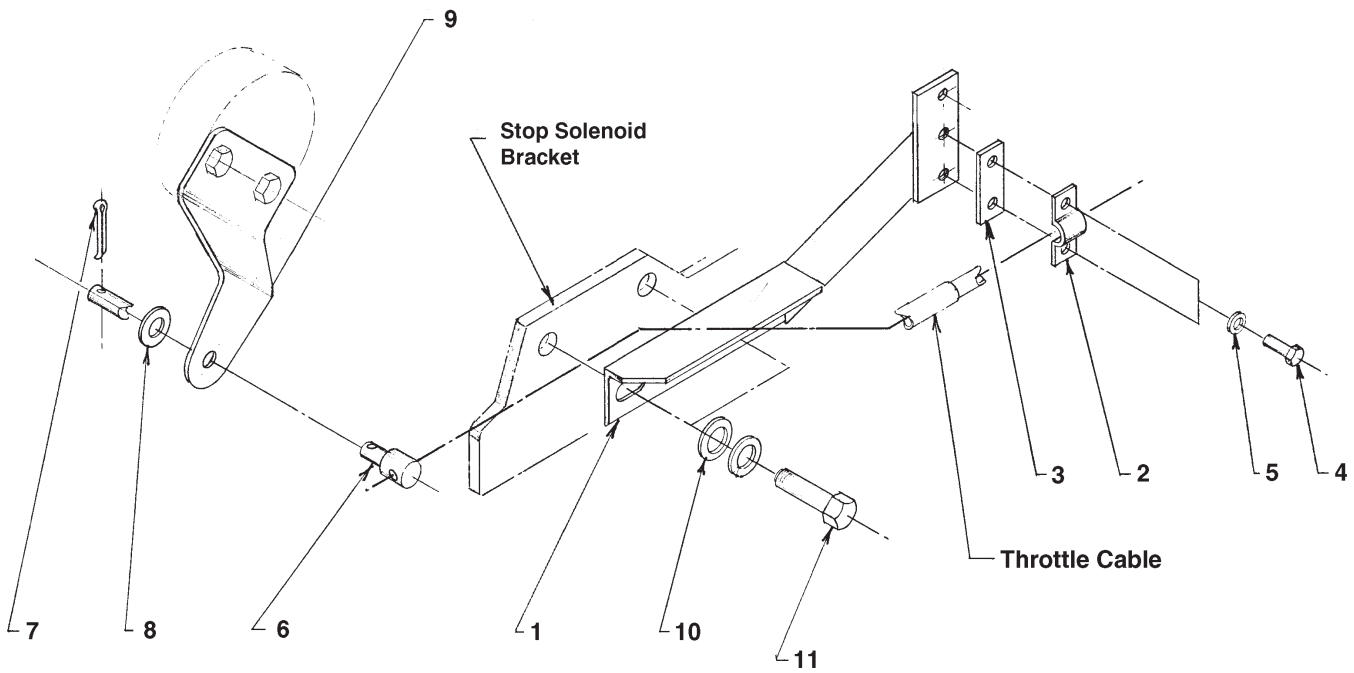


Figure 4701 fig 04 09

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	ND092500-0920	1	Coupling Assembly	-
1	ND092415-0710	1	Flange	-
2	ND092437-0420	1	Cross Coupling	-
3	ND092460-0130	2	Plate Sub-assembly	-
4	ND949040-7210	2	Bolt	-
5	ND949040-7200	6	Bolt	-
6	ND949044-3730	1	Capscrew, Hex Head M12 x 1.75 x 55 mm	-
7	ND092431-0150	2	Nut	-
8	ND092551-0610	1	Hub	-
NOTE: This assembly & parts apply to injection pumps: 6212-71-1752, 6212-71-1753 & 6212-75-1340				

GROUP 4 - FUEL SYSTEM

THROTTLE ASSEMBLY



A-3509 / C-2166

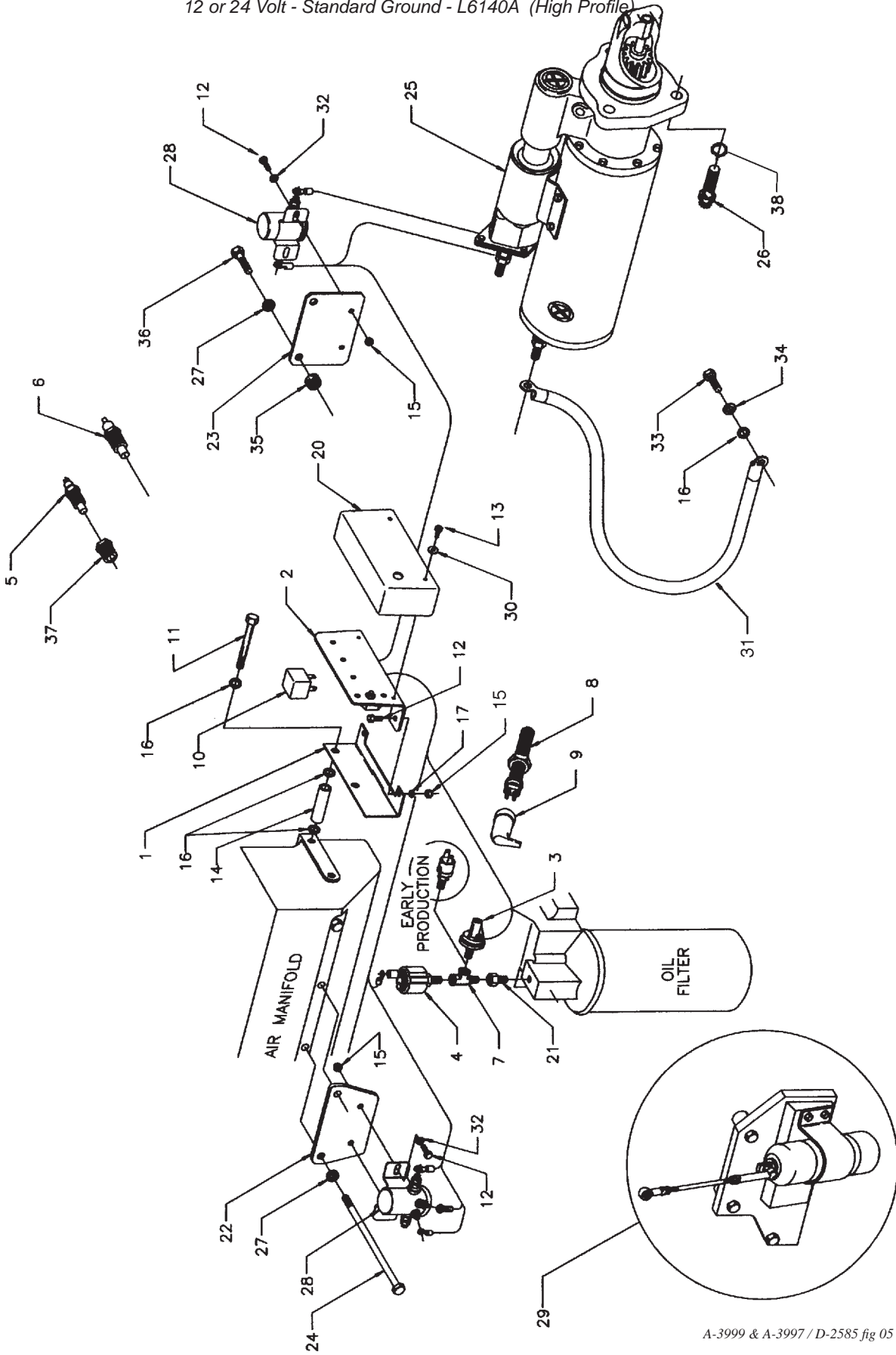
KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	23-95001	1	Throttle Bracket	-
2	23-91001	1	Clip	-
3	23-91002	1	Shim	-
4	12-00000	2	Machine Screw #10 - 32 x 1/2"	-
5	15-00033	2	Lock Washer #10	-
6	23-91003	1	Pivot	-
7	00-54801	1	Cotter Pin	-
8	15-01134	**	Flat Washer, M6 S/S	-
9	23-95002	1	Throttle Lever	-
10	15-00805	2	Flat Washer, M10	-
11	12-00843	2	Capscrew, Hex Head M10 x 1.5 x 65 mm	-
			**As required	

NOTES

GROUP 5 - ELECTRICAL SYSTEM

ENGINE ELECTRICAL

12 or 24 Volt - Standard Ground - L6140A (High Profile)



A-3999 & A-3997 / D-2585 fig 05 00

GROUP 5 - ELECTRICAL SYSTEM

ENGINE ELECTRICAL

12 or 24 Volt - Standard Ground - L6140A (High Profile)

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	23-44806	1	Mounting Bracket	-
2		1	Engine Wire Harness (see parts detail)	-
3	22-40233	1	Oil Pressure Switch	-
4	22-44871	1	Oil Pressure Sender	-
5	22-44810	1	Water Temperature Sender	-
6	22-41025	1	Water Temperature Switch	-
7	21-05400	1	Street Tee 1/8NPT	-
8	22-44812	1	Tachometer Sender	-
9	22-44813	1	Cover	-
10	22-40085	**	Relay 24 Volt	-
	22-42047	**	Relay 12 Volt	-
11	12-00071	2	Capscrew, Hex Head M10 x 1.5 x 70 mm	-
12	12-00111	6	Capscrew, Hex Head 1/4-20 x 3/4"	-
13	12-00015	2	Machine Screw #10-32 x 3/8"	-
14	21-41903	2	Spacer	-
15	14-00112	6	Hex Nut 1/4-20	-
16	15-74802	7	Star Washer M10	-
17	15-00103	6	Star Washer 1/4	-
18	22-41002	1	Wire Harness Extension 20' (not shown)	-
19		1	Instrument Panel (see parts detail)	-
20	00-44801	1	Cover	-
21	21-00139	1	Connector	-
22	23-45006	1	Bracket, Solenoid Mtg. (Pre-heat)	-
23	23-45012	1	Bracket, Solenoid Mtg. (Starter)	-
24	12-34800	2	Capscrew, Hex Head M10 x 1.5 x 160 mm	-
25	22-45028	1	Starter 24 Volt (formerly #22-45023)	-
	22-45039	1	Starter 12 Volt (formerly #22-45002 or 22-45027)	-
26	12-46801	3	Capscrew, 12 Point M16 x 2.0 x 45mm (requires key #38)	-
27	15-00802	4	Lock Washer, Helical M10	-
28	22-41079	**	Slave Solenoid 24 Volt*	-
	22-41080	**	Slave Solenoid 12 Volt*	-
29		1	Stop Solenoid (see mounting detail)	-
30	15-00032	2	Flat Washer #10	-
31	22-44829	1	Ground Cable	-
32	15-00111	2	Flat Washer 1/4"	-
33	12-00805	1	Capscrew, Hex Head M10 x 1.5 x 20 mm	-
34	15-00805	1	Flat Washer M10	-
35	21-42206	2	Spacer	-
36	12-00050	2	Capscrew, Hex Head M10 x 1.5 x 85 mm	-
37	21-00134	2	Bushing	-
38	15-04803	**	Lock Washer, Hi-Collar M16	-

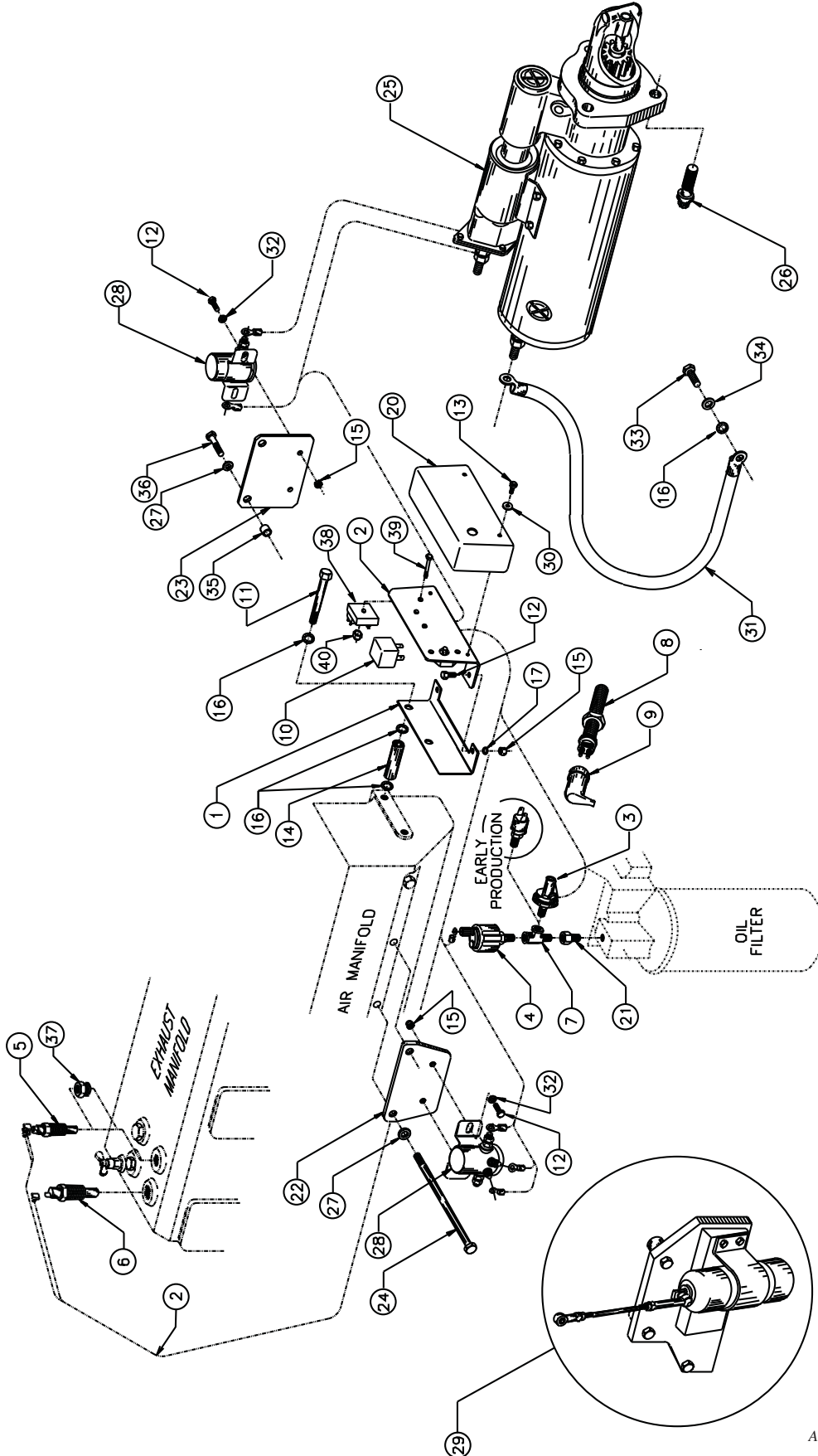
*Note: 1 ea. for pre-heat function and 1 ea. for starter (when used)

**As required

GROUP 5 - ELECTRICAL SYSTEM

ENGINE ELECTRICAL

12V or 24 Volt Standard Ground - L6140AL & AL2 (Low Profile)



A-5726, A-5727 / D-2580

GROUP 5 - ELECTRICAL SYSTEM

ENGINE ELECTRICAL

12V or 24 Volt Standard Ground - L6140AL & AL2 (Low Profile)

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	23-44806	1	Mounting Bracket	-
2		1	Engine Wire Harness (see parts detail)	-
3	22-40233	1	Oil Pressure Switch	-
4	22-44871	1	Oil Pressure Sender	-
5	22-44810	1	Water Temperature Sender	-
6	22-41025	1	Water Temperature Switch	-
7	21-05400	1	Street Tee 1/8 NPT	-
8	22-44812	1	Tachometer Sender	-
9	22-44813	1	Cover	-
10	22-42047	**	Relay 12 Volt	-
	22-40085	**	Relay 24 Volt	-
11	12-00071	2	Capscrew, Hex Head M10 x 1.5 x 70 mm	-
12	12-00111	6	Capscrew, Hex Head 1/4-20 x 3/4"	-
13	12-00015	2	Machine Screw #10-32 x 3/8"	-
14	21-41903	2	Spacer	-
15	14-00112	6	Nylock Nut 1/4-20	-
16	15-74802	6	Star Washer M10	-
17	15-00103	6	Star Washer 1/4	-
18	22-41002	1	Wire Harness Extension 20' (not shown)	-
19		1	Instrument Panel (see parts detail)	-
20	00-44801	1	Cover	-
21	21-00139	1	Connector	-
22	23-45006	1	Bracket, Solenoid Mtg. (Pre-heat)	-
23	23-45012	1	Bracket, Solenoid Mtg. (Starter)	-
24	12-34800	2	Capscrew, Hex Head M10 x 1.5 x 160 mm	-
25	22-45039	1	Starter 12 Volt (formerly #22-45002 or 22-45027)	-
	22-45028	1	Starter 24 Volt (formerly #22-45023)	-
26	12-45001	3	Capscrew, 12 Point M16 x 2.0 x 40 mm	-
27	15-00802	2	Lock Washer, Helical M10	-
28	22-41080	**	Slave Solenoid 12 Volt*	-
	22-41079	**	Slave Solenoid 24 Volt*	-
29		1	Stop Solenoid (see mounting detail)	-
30	15-00032	2	Flat Washer #10	-
31	22-44829	1	Ground Cable	-
32	15-00111	4	Flat Washer 1/4"	-
33	12-00805	1	Capscrew, Hex Head M10 x 1.5 x 20 mm	-
34	15-00805	1	Flat Washer M10	-
35	21-32502	2	Spacer (Units with Super Cooler only)	-
36	12-00832	2	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
	12-00088	2	Capscrew, Hex Head M10 x 1.5 x 95 mm (units with Super Cooler only)	-
37	21-00134	1	Bushing 1/2 NPT x 3/8 NPT	-
38	22-40407	1	Timer 12 Volt	-
	22-40408	1	Timer 24 Volt	-
39	12-03012	1	Machine Screw, Countersunk #10-32 x 1-1/4" S/S	-
40	14-00032	1	Nylock Nut #10-32	-

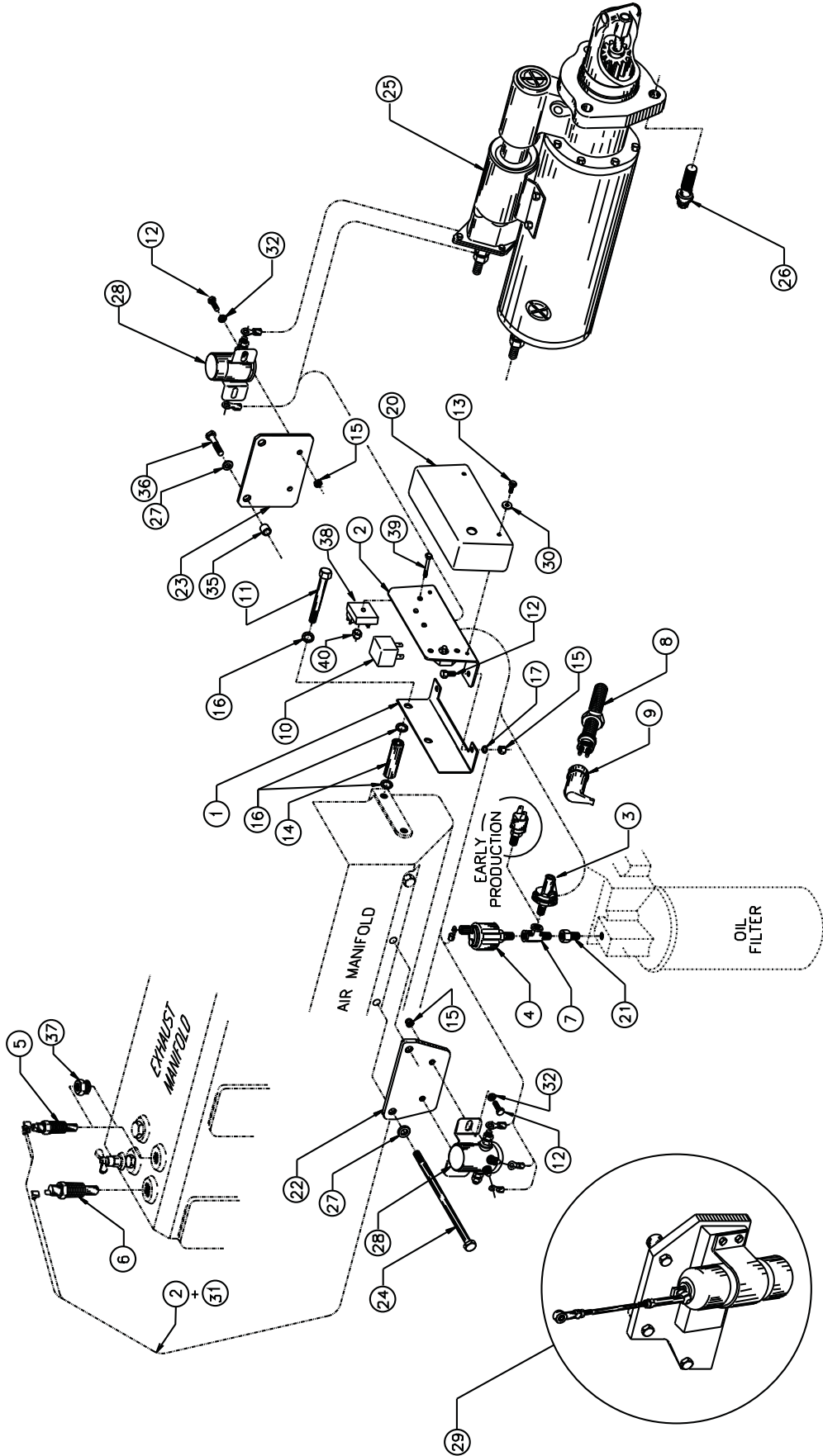
*Note: 1 ea. for pre-heat function and 1 ea. for starter (when used).

**As required

GROUP 5 - ELECTRICAL SYSTEM

ENGINE ELECTRICAL

12 or 24 Volt - Isolated Ground - L6140AL & AL2 (Low Profile)



A-5726 / D-2580z

GROUP 5 - ELECTRICAL SYSTEM

ENGINE ELECTRICAL

12 or 24Volt - Isolated Ground- L6140AL & AL2 (Low Profile)

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	23-44806	1	Mounting Bracket	-
2		1	Engine Wire Harness (see parts detail)	-
3	22-40236	1	Oil Pressure Switch	-
4	22-40201	1	Oil Pressure Sender	-
5	22-44810	1	Water Temperature Sender	-
6	22-40906	1	Water Temperature Switch	-
7	21-05400	1	Stree Tee 1/8NPT	-
8	22-44812	1	Tachometer Sender	-
9	22-44813	1	Cover	-
10	22-40085	**	Relay 24 Volt	-
	22-42047	**	Relay 12 Volt	-
11	12-00071	2	Capscrew, Hex Head M10 x 1.5 x 70 mm	-
12	12-00111	6	Capscrew, Hex Head 1/4-20 x 3/4"	-
13	12-00015	2	Machine Screw #10-32 x 3/8"	-
14	21-41903	2	Spacer	-
15	14-00112	6	Nylock Nut 1/4-20	-
16	15-74802	6	Star Washer M10	-
17	15-00103	6	Star Washer 1/4	-
18	22-41002	1	Wire Harness 20' (not shown)	-
19		1	Instrument Panel (see parts detail)	-
20	00-44801	1	Cover	-
21	21-00139	1	Connector	-
22	23-45006	1	Bracket, Solenoid Mounting (Pre-heat)	-
23	23-45012	1	Bracket, Solenoid Mounting (Starter)	-
24	12-34800	2	Capscrew, Hex Head M10 x 1.5 x 160 mm	-
25	22-45028	1	Starter 24 Volt	-
	22-45039	1	Starter 12 Volt (formerly #22-45027)	-
26	12-45001	3	Capscrew, 12 Point M16 x 2.0 x 40 mm	-
27	15-00802	2	Lock Washer, Helical M10	-
28	22-41079	**	Slave Solenoid 24 Volt*	-
	22-41080	**	Slave Solenoid 12 Volt*	-
29		1	Stop Solenoid (see mounting detail)	-
30	15-00032	2	Flat Washer #10	-
31	22-45036	1	Ground Harness Addition	-
32	15-00111	4	Flat Washer 1/4"	-
35	21-32502	2	Spacer (units with Supercooler only)	-
37	21-00134	**	Bushing	-
38	22-40407	1	Timer 12 Volt	-
	22-40408	1	Timer 24 Volt	-
39	12-03012	1	Machine Screw, Countersunk #10- 32 x 1- 1/4" S/S	-
40	14-00032	1	Nylock Nut #10- 32 S/S	-

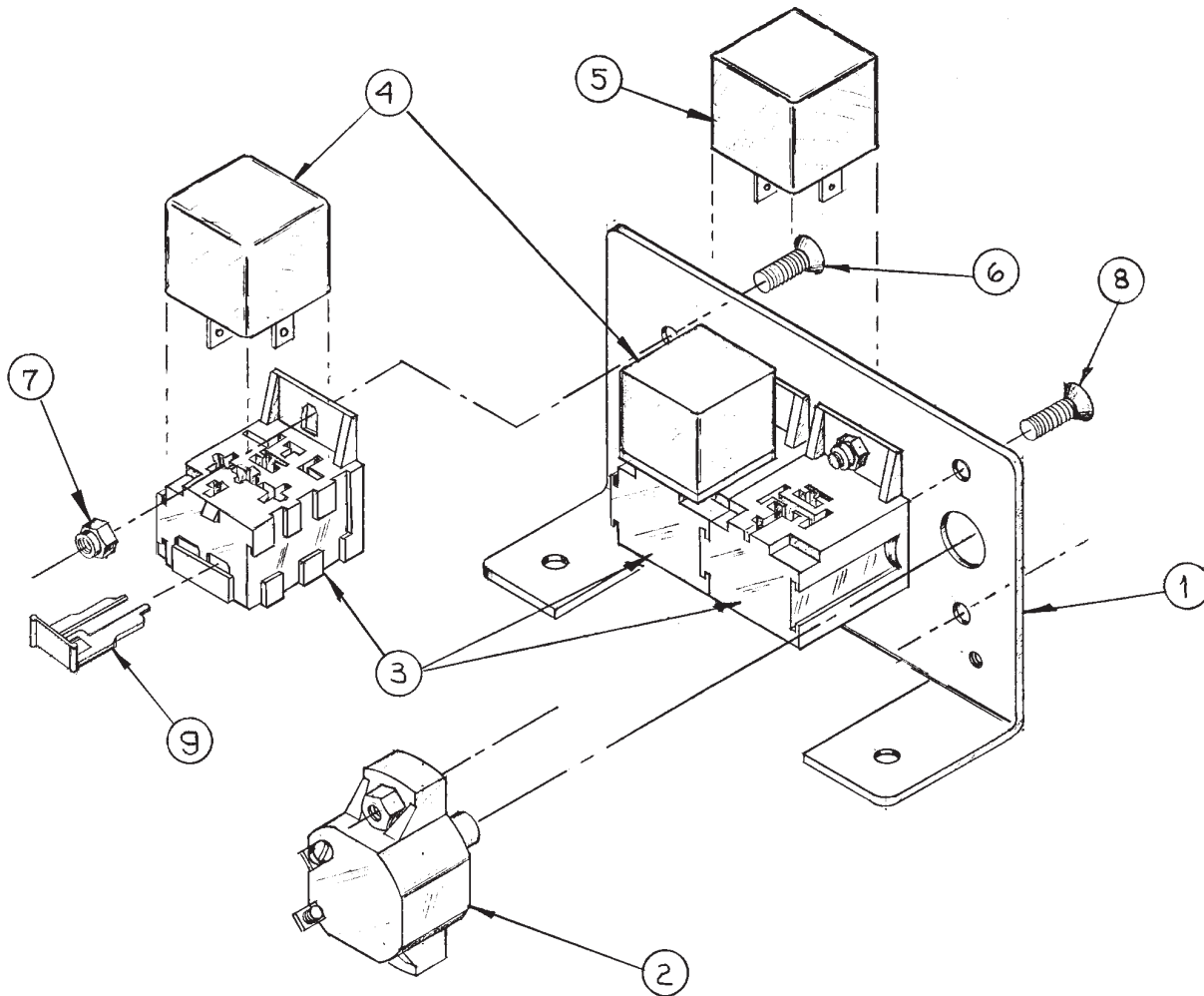
*Note: 1 ea. for pre-heat function and 1 ea. for starter (when used).

**As required

GROUP 5 - ELECTRICAL SYSTEM

WIRE HARNESS, CIRCUIT BREAKER, & RELAY ASSEMBLY

High Profile Propulsion Units with 3 Relay Functions



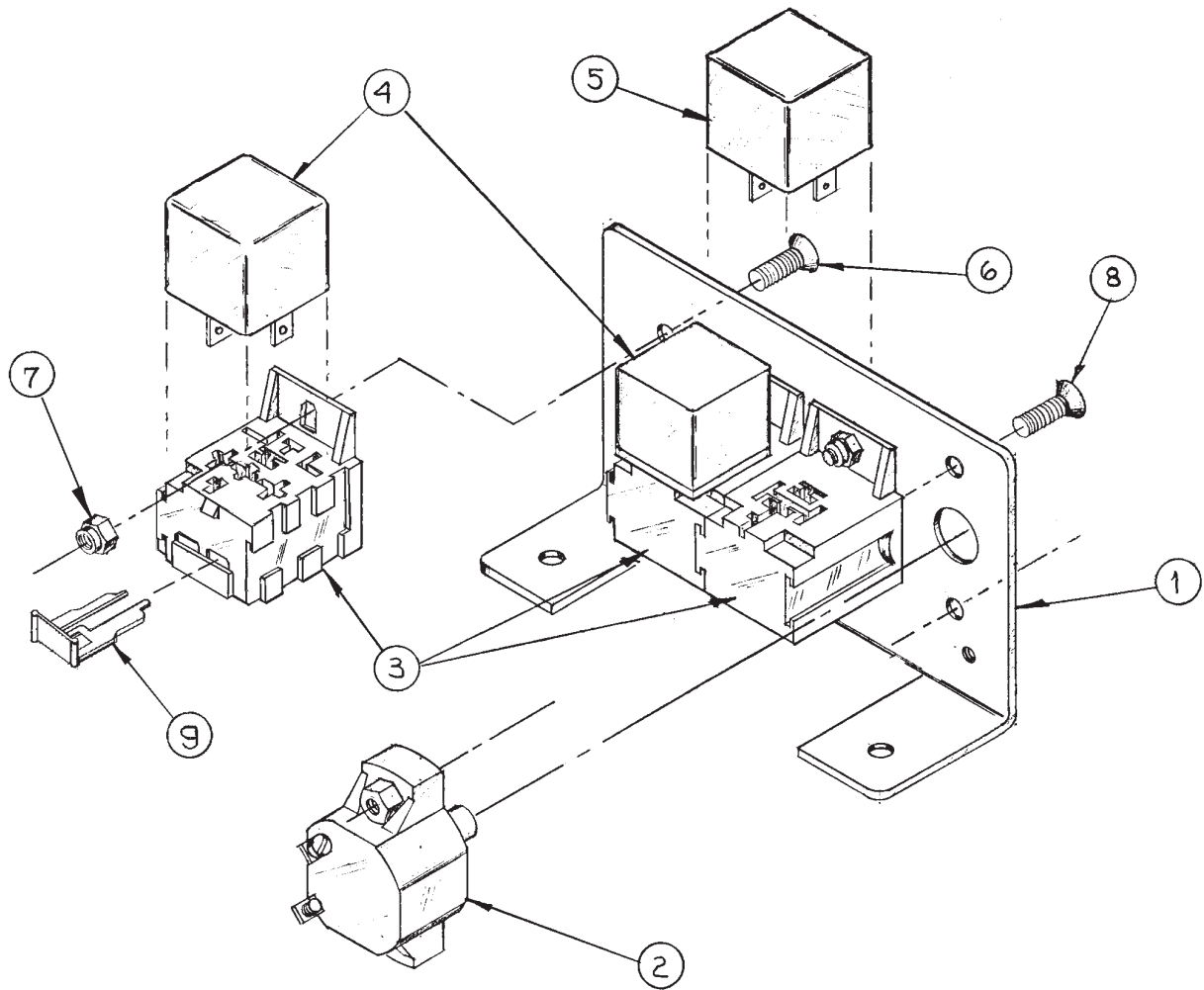
A-3647, A-3356C / B-3139B

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-45001	1	Wire Harness Assembly 3 Relay (High Profile, includes keys #1-3 & 6-9)	-
1	23-40010	1	Bracket	-
2	22-41070	1	Circuit Breaker 40 Amp	-
3	22-40391	3	Relay Base (formerly #22-41032, also requires #9)*	-
4	22-42047	2	12 Volt Relay Horn & Start	-
	22-40085	2	24 Volt Relay Horn & Start	-
5	22-44820	1	12 Volt Stop Relay	-
	22-44821	1	24 Volt Stop Relay	-
6	12-03010	3	Machine Screw #10-32 x 3/8"	-
7	14-00001	5	Hex Nut #10-32	-
8	12-03011	2	Countersunk Flathead Machine Screw, 10-32 x 3/4"	-
9	22-40393	3	Terminal Retainer*	-
<p>*Note: Included in Relay Base Retrofit kit #22-40395.</p>				

GROUP 5 - ELECTRICAL SYSTEM

WIRE HARNESS, CIRCUIT BREAKER, & RELAY ASSEMBLY

High Profile Propulsion Units with 2 Relay Functions



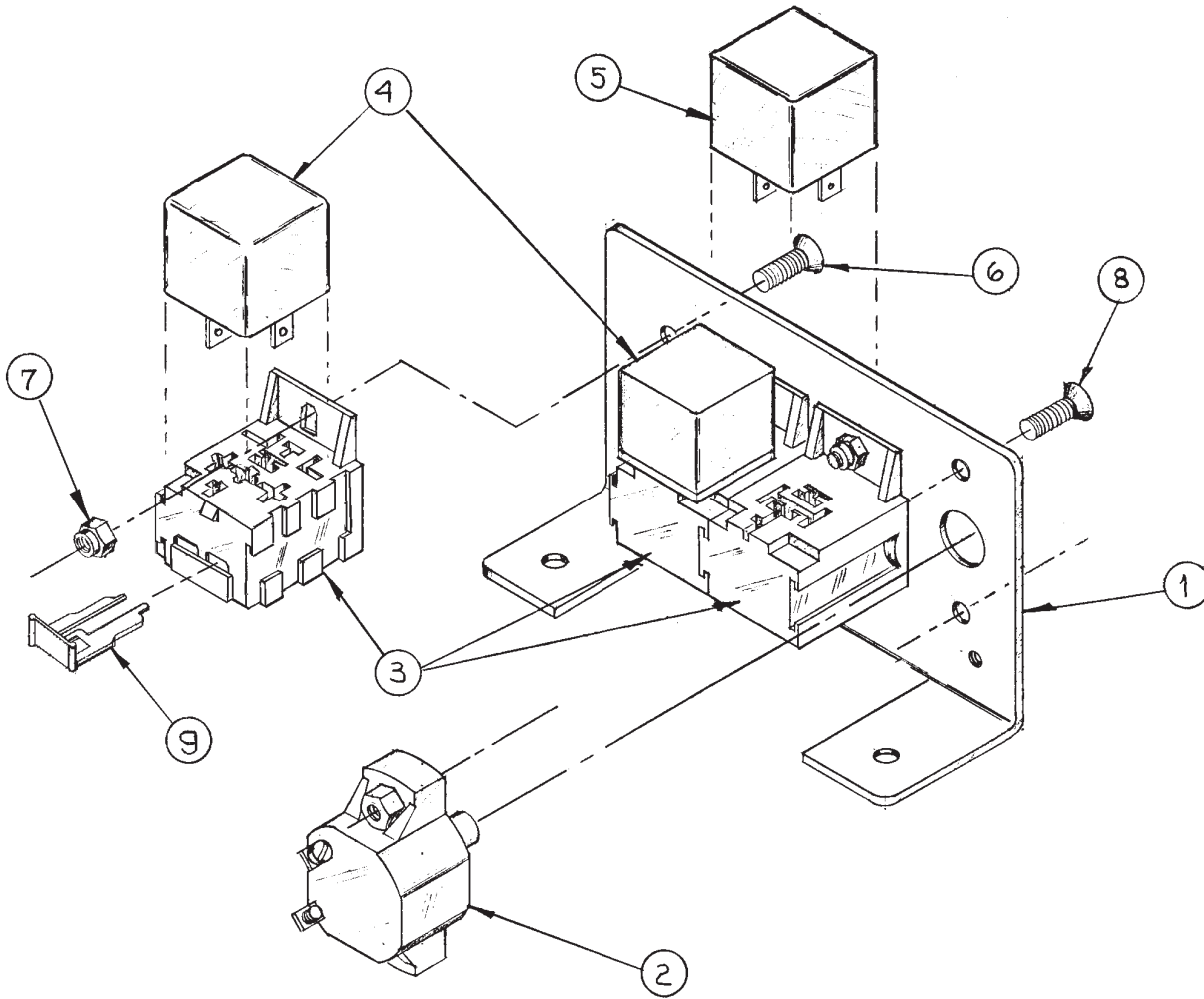
A-3356C / B-3139B

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-45011	1	Wire Harness Assembly 2 Relay (units without starter slave solenoid, includes keys #1-3 & 6-9)	-
••	22-45032	1	Wire Harness Assembly 2 Relay (units with starter slave solenoid, includes keys #1-3 & 6-9)	-
1	23-40010	1	Bracket	-
2	22-41070	1	Circuit Breaker 40 Amp	-
3	22-40391	2	Relay Base (formerly #22-41032, also requires #9)*	-
4	22-42047	1	12 Volt Relay Horn & Start	-
	22-40085	1	24 Volt Relay Horn & Start	-
5	22-42047	1	12 Volt Stop Solenoid Relay	-
	22-40085	1	24 Volt Stop Solenoid Relay	-
6	12-03010	3	Machine Screw #10-32 x 3/8"	-
7	14-00001	5	Hex Nut #10-32	-
8	12-03011	2	Countersunk Flathead Machine Screw, 10-32 x 3/4"	-
9	22-40393	2	Terminal Retainer*	-
<p>*Note: Included in Relay Base Retrofit kit #22-40395.</p>				

GROUP 5 - ELECTRICAL SYSTEM

WIRE HARNESS, CIRCUIT BREAKER, & RELAY ASSEMBLY

Low Profile Propulsion Units with 2 Relay Functions



A-3356C / B-3139B

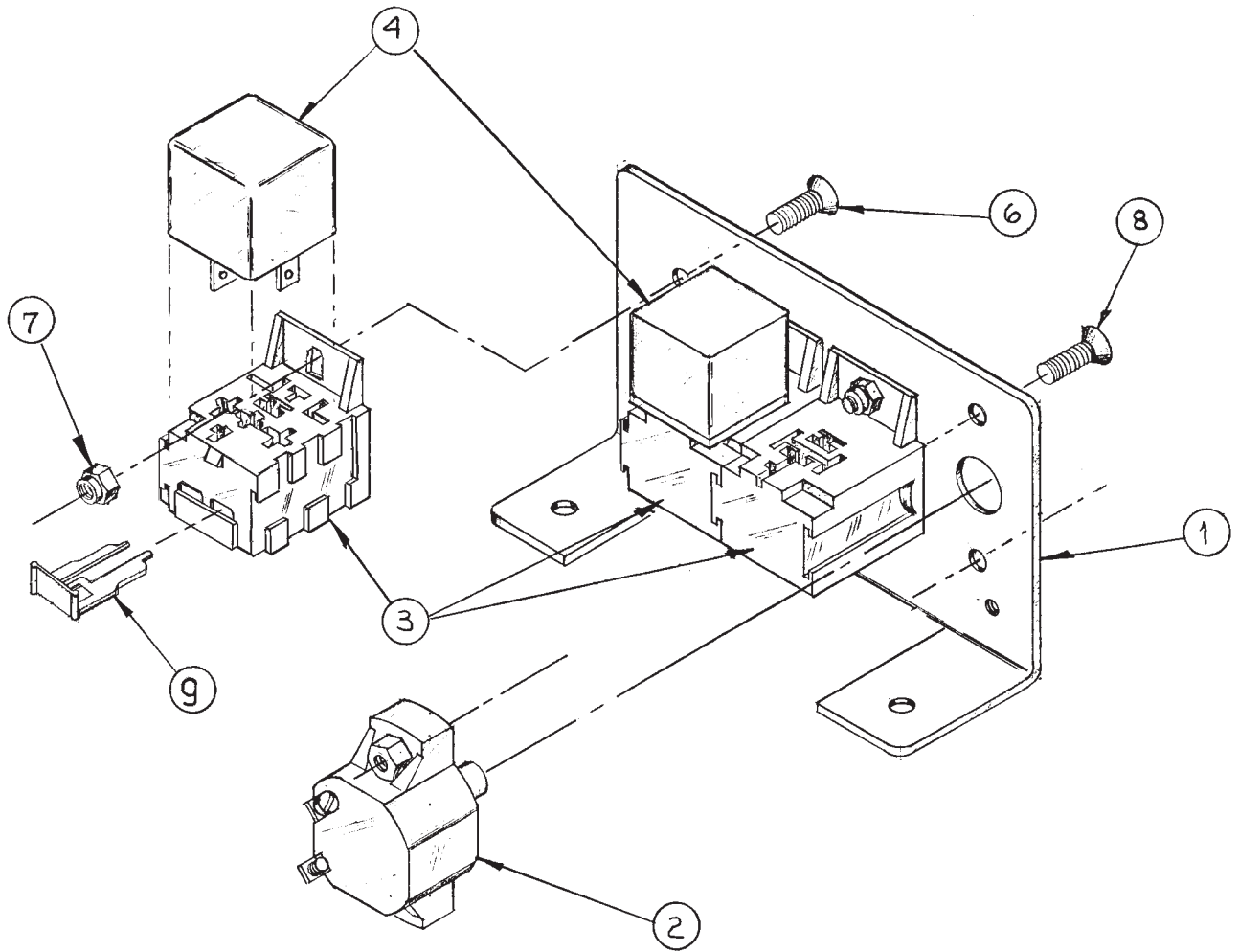
KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-45021	1	Wire Harness Assembly 2 Relay (units without starter slave solenoid, includes keys #1-3 & 6-9)	-
••	22-45033	1	Wire Harness Assembly 2 Relay (units with starter slave solenoid, includes keys #1-3 & 6-9)	-
1	23-40010	1	Bracket	-
2	22-41070	1	Circuit Breaker 40 Amp	-
3	22-40391	2	Relay Base (formerly #22-41032, also requires #9)*	-
4	22-42047	1	12 Volt Start Relay	-
	22-40085	1	24 Volt Start Relay	-
5	22-42047	1	12 Volt Start Relay	-
	22-40085	1	24 Volt Start Relay	-
6	12-03010	3	Machine Screw #10-32 x 3/8"	-
7	14-00001	5	Hex Nut #10-32	-
8	12-03011	2	Countersunk Flathead Machine Screw, 10-32 x 3/4"	-
9	22-40393	2	Terminal Retainer*	-

*Note: Included in Relay Base Retrofit kit #22-40395.

GROUP 5 - ELECTRICAL SYSTEM

WIRE HARNESS, CIRCUIT BREAKER, & RELAY ASSEMBLY

Low Profile Propulsion Units with Shutdown Timer & Single Relay Function

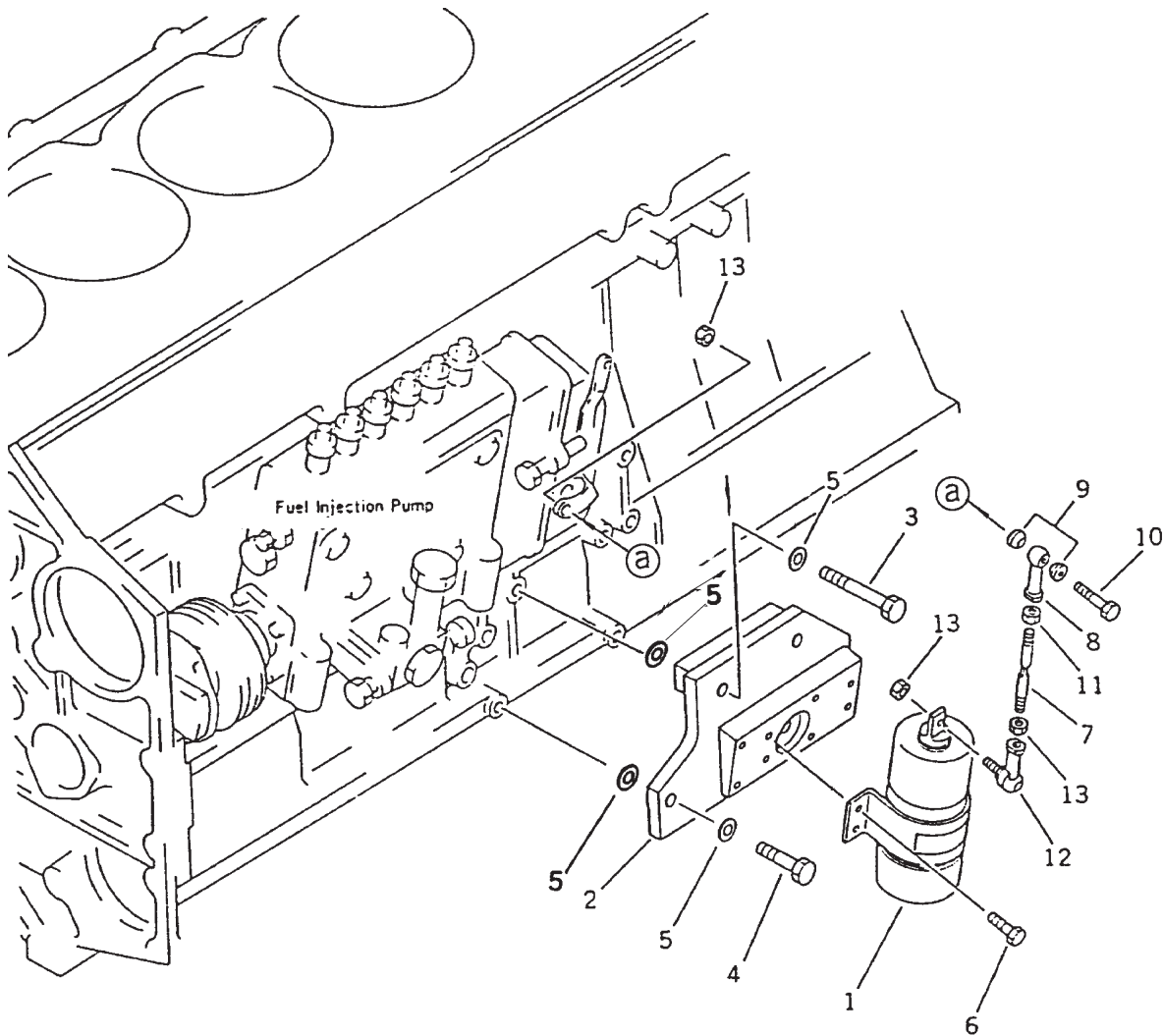


A-3356C / B-3139z

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-45047	1	Wire Harness Assembly with Relay Bases (includes keys #1-3 & 6-9)	-
1	23-40010	1	Bracket	-
2	22-41070	1	Circuit Breaker 40 Amp	-
3	22-40391	2	Relay Base (formerly #22-41032, also requires #9)*	-
4	22-42047	1	12 Volt Start Relay	-
	22-40085	1	24 Volt Start Relay	-
6	12-03010	3	Machine Screw #10-32 x 3/8"	-
7	14-00001	5	Hex Nut #10-32	-
8	12-03011	2	Countersunk Flathead Machine Screw, 10-32 x 3/4"	-
9	22-40393	2	Terminal Retainer*	-

*Note: Included in Relay Base Retrofit kit #22-40395.

STOP SOLENOID 24 VOLT STANDARD GROUND

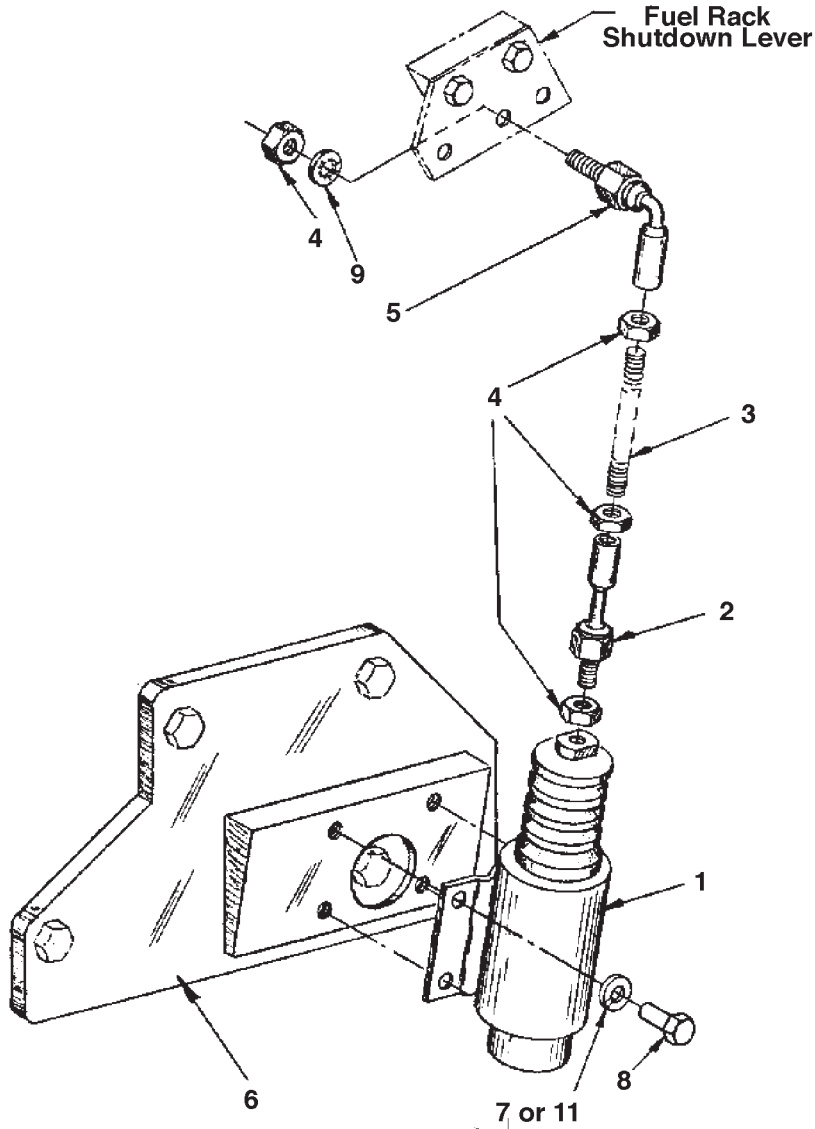


A-6308 / Fig. 4053

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	69902-0-0460	1	Stop Solenoid, 24 volt	-
2	6212-71-8211	1	Bracket	"
3	12-00817	2	Capscrew, Hex Head M10 x 1.5 x 55 mm	"
4	12-00832	2	Capscrew, Hex Head M10 x 1.5 x 30 mm	"
5	15-01132	4	Lock Washer M6	"
6	12-00062	4	Capscrew, Hex Head M6 x 1.0 x 10 mm	"
7	04248-50613	1	Control Rod 130mm	"
8	04250-60639	1	Female Ball Joint	"
9	04254-00623	2	Beveled Spacer	"
10	12-00031	1	Capscrew, Hex Head M6 x 1.0 x 25 mm	"
11	01508-30603	1	Hex Nut M6 x 1.0 (left hand thread)	"
12	6127-82-9230	1	Joint 90°	"
13	14-01131	3	Hex Nut M6 x 1.0	"

STOP SOLENOID 12 OR 24 VOLT ISOLATED GROUND

Engines with Injection Pumps Marked 6212-71-1750, 1751, 1752, 1753, 1340



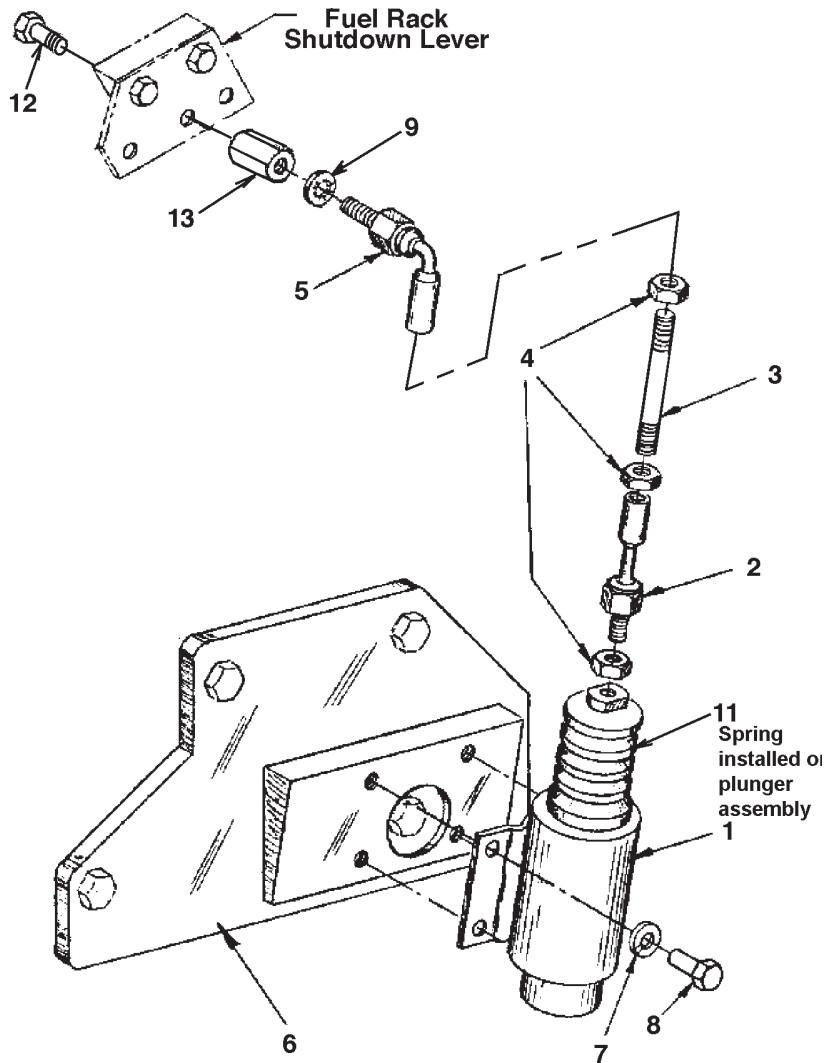
A-3615, A-3613A / C-2228, fig05 08

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-45007	1	Stop Solenoid 12V with female plunger thread	-
	22-40007	1	Stop Solenoid 24V with male plunger stud	-
2	00-42501	1	Ball Joint, In Line (12 volt)	-
	14-00011	1	Hex Nut, X-L 1/4-28 (24 volt)	-
3	13-45001	1	Threaded Rod, 1/4-28 x 4-5/8 (12 volt)	-
	13-51005	1	Threaded Rod, 1/4-28 x 100 mm (24 volt)	-
4	14-00121	**	Hex Nut, 1/4 - 28	-
5	00-42502	1	Ball Joint, 90°	-
6	23-95009	1	Stop Solenoid Mounting Bracket	-
7	15-01132	4	Lock Washer, M6	-
8	12-00062	4	Capscrew, Hex Head M6 x 1.0 x 10 mm	-
9	15-00103	1	Star Washer 1/4	-
10	15-00018	**	Lock Washer, Hi-collar 1/4 (not shown)	-
11	15-00008	**	Flat Washer M6	-
12	00-54802	1	Spring, Stop Lever Return (Propulsion Units, not shown)	-
	00-54803	1	Spring, Stop Lever Return (Marine Units, not shown)	-
			**As required	

GROUP 5 - ELECTRICAL SYSTEM

STOP SOLENOID 12 OR 24 VOLT ISOLATED GROUND

Engines with Injection Pumps Marked 6212-76-1120



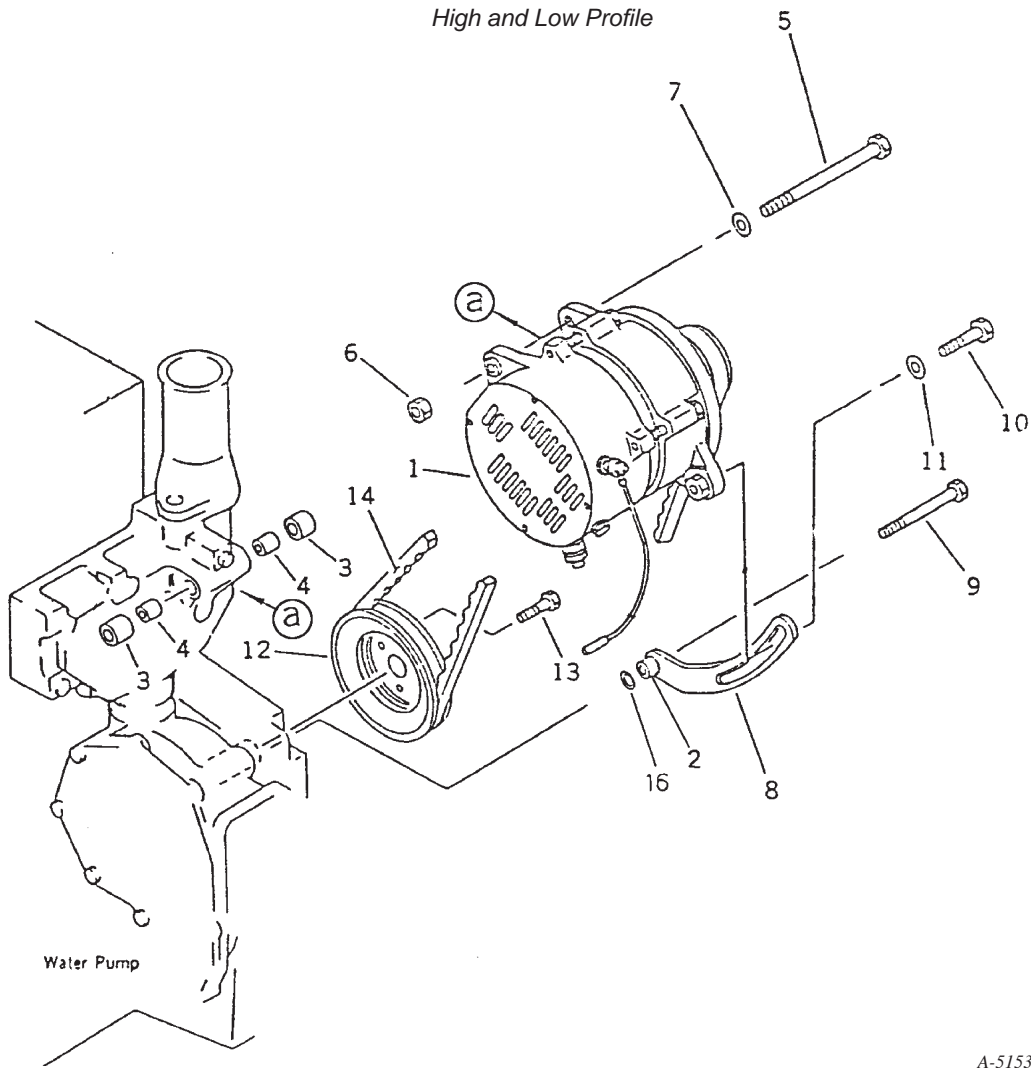
A-3615, A-3613A / C-2228b

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-45007	1	Stop Solenoid 12V with female plunger thread	-
	22-40007	1	Stop Solenoid 24V with male plunger stud	-
2	00-42501	1	Ball Joint, In Line (12 volt)	-
	14-00011	1	Hex Nut, X-L 1/4-28 (24 volt)	-
3	13-45001	1	Threaded Rod, 1/4-28 x 4-5/8 (12 volt)	-
	13-51005	1	Threaded Rod, 1/4-28 x 100 mm (24 volt)	-
4	14-00121	**	Hex Nut, 1/4 - 28	-
5	00-42502	1	Ball Joint, 90°	-
6	23-95009	1	Stop Solenoid Mounting Bracket	-
7	15-01132	4	Lock Washer, M6	-
8	12-00062	4	Capscrew, Hex Head M6 x 1.0 x 10 mm	-
9	15-00103	1	Star Washer 1/4	-
10	15-00018	**	Lock Washer, Hi-collar 1/4 (not shown)	-
11	00-55002	1	Spring, Stop Lever Return	-
12	12-11001	1	Capscrew, Hex Head 1/2- 28 x 1/2"	-
13	14-00011	1	Hex Nut X-L 1/2- 28	-
			**As required	

NOTES

GROUP 5 - ELECTRICAL SYSTEM

24 VOLT 25 AMP ALTERNATOR & MOUNTING

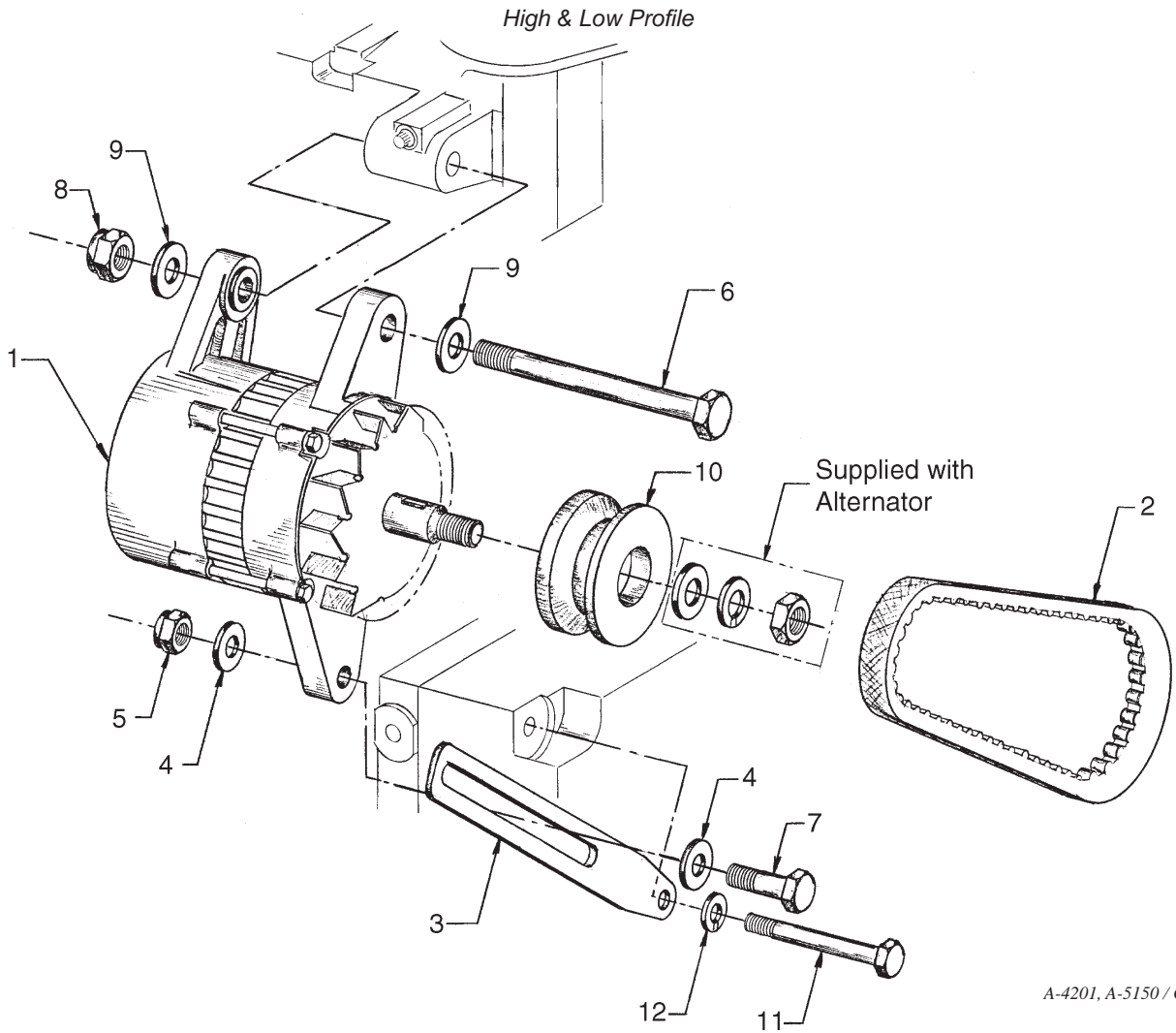


A-5153, A-4300 / Fig. 6001

KEY	PART NUMBER	QTY	DESCRIPTION	KOMATSU S/N
1	600-821-5690	1	Alternator 24 Volt 25 Amp (see detail)	12600 - 13932
2	21-43100	1	Tensioning Arm Spacer (low profile only)	-
3	21-45001	2	Spacer	-
4	6210-61-6530	2	Sleeve	-
5	12-45002	1	Capscrew, Hex Head 1/2 - 13 x 6 - 1/2"	-
6	14-00512	1	Nylock Hex Nut 1/2 - 13	-
7	15-00504	2	Flat Washer, 1/2	-
8	6210-81-6811	1	Tensioning Arm (standard)	-
	23-45011	1	Tensioning Arm (low profile, formerly #23-45010)	-
9	12-00070	1	Capscrew, Hex Head M10 x 1.5 x 100 mm	-
10	01050-31230	1	Capscrew, Hex Head M12 x 1.5 x 30 mm	-
11	15-00007	2	Flat Washer, M12	-
12	6210-81-6530	1	Pulley	-
13	12-00711	3	Capscrew, Hex Head M8 x 1.25 x 20 mm	-
14	600-736-9550	1	Drive Belt (standard)	-
	40-45004	1	Drive Belt (low profile)	-
15	00-75001	1	Belt Guard (standard - not shown)	-
	0075014	1	Belt Guard (low profile - not shown)	-
16	15-00805	1	Flat Washer M10	-

GROUP 5 - ELECTRICAL SYSTEM

12 VOLT 60 AMP ALTERNATOR & MOUNTING

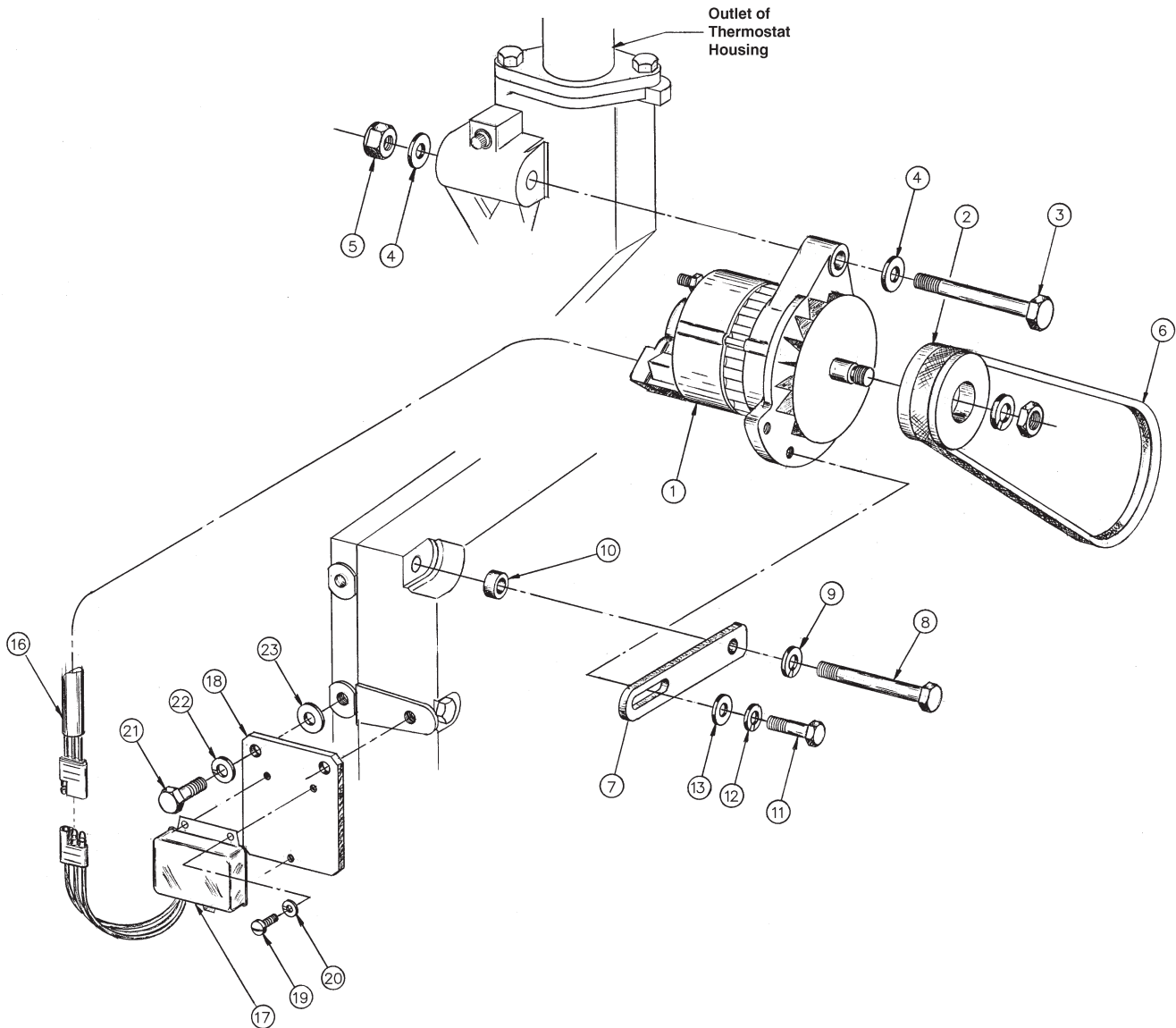


A-4201, A-5150 / C-2724

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	600-821-2460	1	Alternator, 12 Volt 60 Amp	-
2	600-736-9550	1	Drive Belt (High Profile)	-
	40-45003	1	Drive Belt (Low Profile)	-
3	23-45702	1	Tensioning Arm (High Profile)	-
	23-45703	1	Tensioning Arm (Low Profile)	-
4	15-00501	2	Flat Washer, 1/2	-
5	14-00512	1	Nylock Nut 1/2 - 13	-
6	12-00629	1	Capscrew, Hex Head 9/16 - 12 x 5-1/2"	-
7	12-00516	1	Capscrew, Hex Head 1/2 - 13 x 2"	-
8	14-00612	1	Nylock Nut 9/16 - 12	-
9	15-00607	1	Flat Washer, 9/16 SAE	-
10	34-45001	1	Pulley	-
11	12-00049	1	Capscrew, Hex Head M10 x 1.5 x 80 mm	-
12	15-00802	1	Lock Washer, M10	-
13	00-75001	1	Belt Guard (High Profile)	-
	00-75016	1	Belt Guard (Low Profile)	-
14	12-00911	1	Capscrew, Hex Head M12 x 1.75 x 20 mm	-
15	15-00007	1	Flat Washer M12	-
16	15-00912	1	Lock Washer M12	-
NOTE: Belt guard and hardware #13 - #16 not shown.				

MEDIUM FRAME ALTERNATORS & MOUNTING

High & Low Profile HE (& KC without Aftercooler Pump)



A-4314D / D-2128
A-5151B / D-2179

GROUP 5 - ELECTRICAL SYSTEM

MEDIUM FRAME ALTERNATORS & MOUNTING

High & Low Profile HE (& KC without Aftercooler Pump)

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-40278	1	Alternator, 24 Volt 40 Amp Standard Ground (formerly #22-71051)	-
	22-71052	1	Alternator, 24 Volt 35 Amp Isolated Ground	-
	22-40276	1	Alternator, 12 Volt 65 Amp Standard Ground (formerly #22-40261)	-
	10-134	1	Alternator, 12 Volt 72 Amp	-
			(no longer available; contact dealer or factory for appropriate replacement)	-
	22-40332	1	Alternator, 12 Volt 90 Amp Isolated Ground	-
2	34-30001	1	Pulley	-
3	12-00523	1	Capscrew, Hex Head 1/2 - 13 x 5"	-
4	15-00504	2	Flat Washer, 1/2 SAE	-
5	14-00512	1	Nylock, Hex Nut 1/2 - 13	-
6	600-736-9550	1	Drive Belt (High Profile)	-
	40-45003	1	Drive Belt (Low Profile)	-
7	R108404	1	Tensioning Arm (High Profile, formerly #T20204)	-
	23-45009	1	Tensioning Arm (Low Profile)	-
8	12-00070	1	Capscrew, Hex Head M10 x 1.5 x 100 mm	-
9	15-00802	1	Lock Washer M10	-
10	21-42206	1	Spacer	-
11	12-00313	1	Capscrew, Hex Head 3/8 - 16 x 1-1/4" (12V/ 72A only)	-
	12-00212	1	Capscrew, Hex Head 5 - 16 x 1"	-
12	15-00302	1	Lock Washer, 3/8 (12V/ 72A only)	-
	15-00202	1	Lock Washer, 5/16	-
13	15-00012	1	Stud Washer, 3/8 (12V/ 72A only)	-
	15-00201	1	Stud Washer, 5/16	-
15	00-75001	1	Belt Guard (High Profile) *	-
	00-75014	1	Belt Guard (Low Profile - replaced by assembly 00-45000, see parts detail)	-
16	16-1	1	Wire Harness	-
17	5-141	1	Voltage Regulator	-
18	23-45005	1	Regulator Mounting Bracket	-
19	12-00015	3	Machine Screw, #10 - 32 x 3/8"	-
20	15-00033	3	Lock Washer, #10	-
21	12-00805	2	Capscrew, Hex Head M10 x 1.5 x 20 mm	-
22	15-00802	2	Lock Washer, M10	-
23	15-00805	1	Flat Washer, M10	-

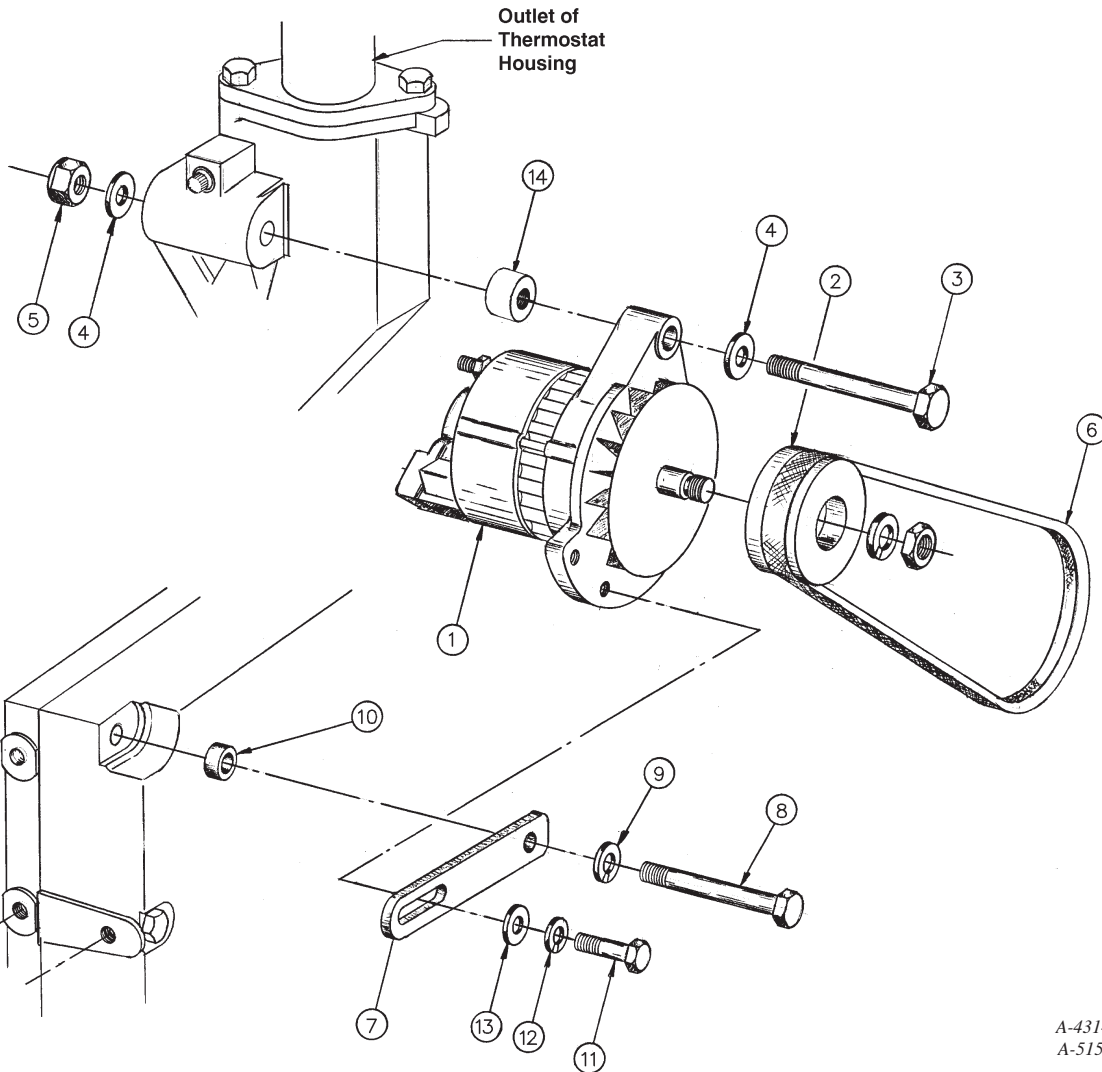
} 12V/ 72A only

*Not shown

GROUP 5 - ELECTRICAL SYSTEM

MEDIUM FRAME ALTERNATORS & MOUNTING

Low Profile Keel Cooled with Aftercooler Pump)

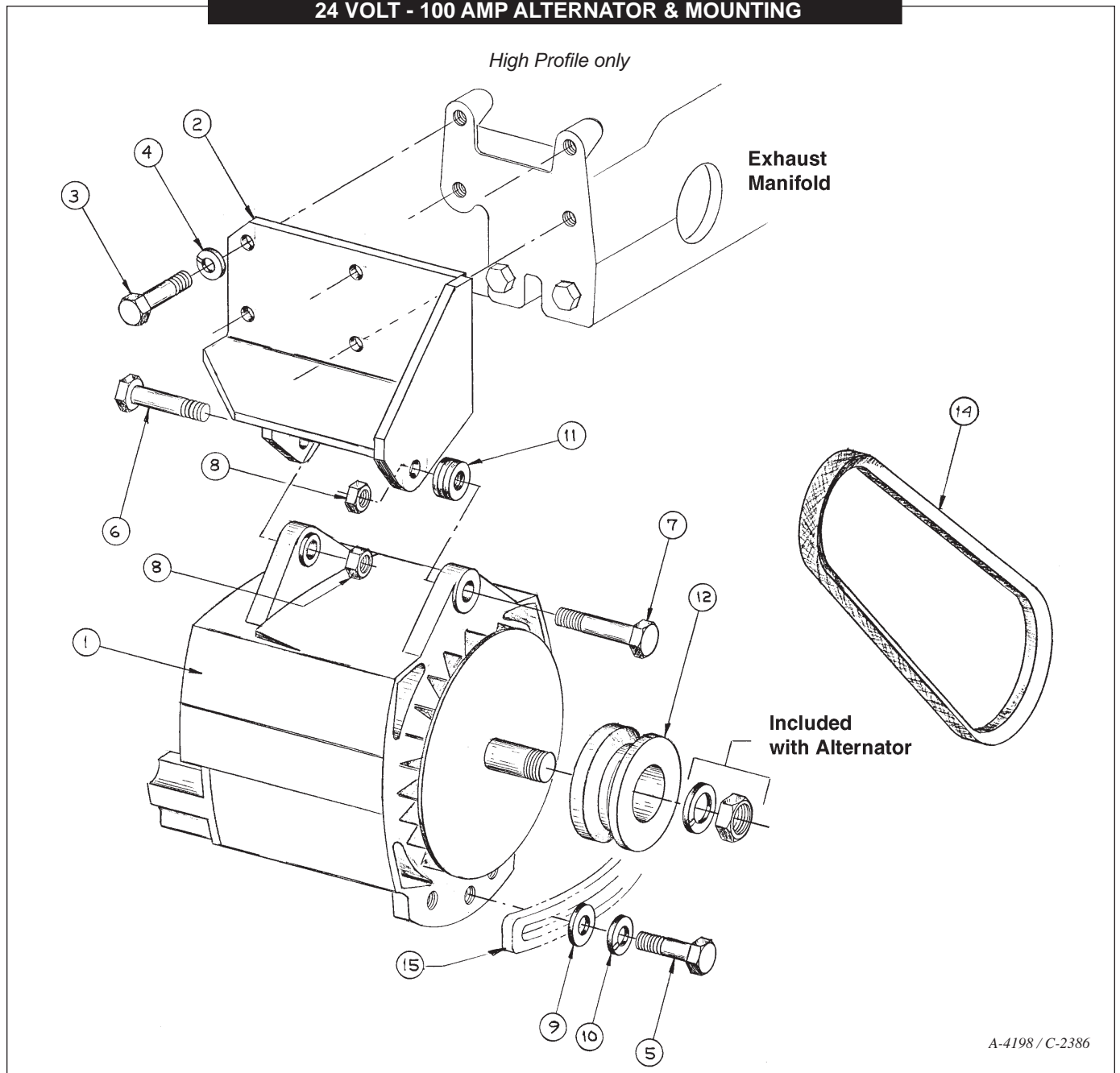


A-4314D / D-2128
A-5151B / D-2179

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-40278	1	Alternator, 24 Volt 40 Amp Standard Ground (formerly #22-71051)	-
	22-71052	1	Alternator, 24 Volt 35 Amp Isolated Ground	-
	22-40276	1	Alternator, 12 Volt 65 Amp Standard Ground (formerly #22-40261)	-
	22-40332	1	Alternator, 12 Volt 90 Amp Isolated Ground	-
2	34-30001	1	Pulley	-
3	12-00523	1	Capscrew, Hex Head 1/2 - 13 x 5"	-
4	15-00504	2	Flat Washer, 1/2 SAE	-
5	14-00512	1	Hex Nut, Nylock 1/2 - 13	-
6	40-05001	1	Drive Belt	-
7	23-45009	1	Tensioning Arm	-
8	01011-81015	1	Capscrew, Hex Head M10 x 1.5 x 115 mm	-
9	15-00802	1	Lock Washer M10	-
10	21-42206	1	Spacer	-
11	12-00212	1	Capscrew, Hex Head 5 - 16 x 1"	-
12	15-00202	1	Lock Washer, 5/16	-
13	15-00201	1	Stud Washer, 5/16	-
14	21-75703	1	Spacer	-
15	00-05025	1	Belt Guard Assembly (see parts detail)	-

GROUP 5 - ELECTRICAL SYSTEM

24 VOLT - 100 AMP ALTERNATOR & MOUNTING



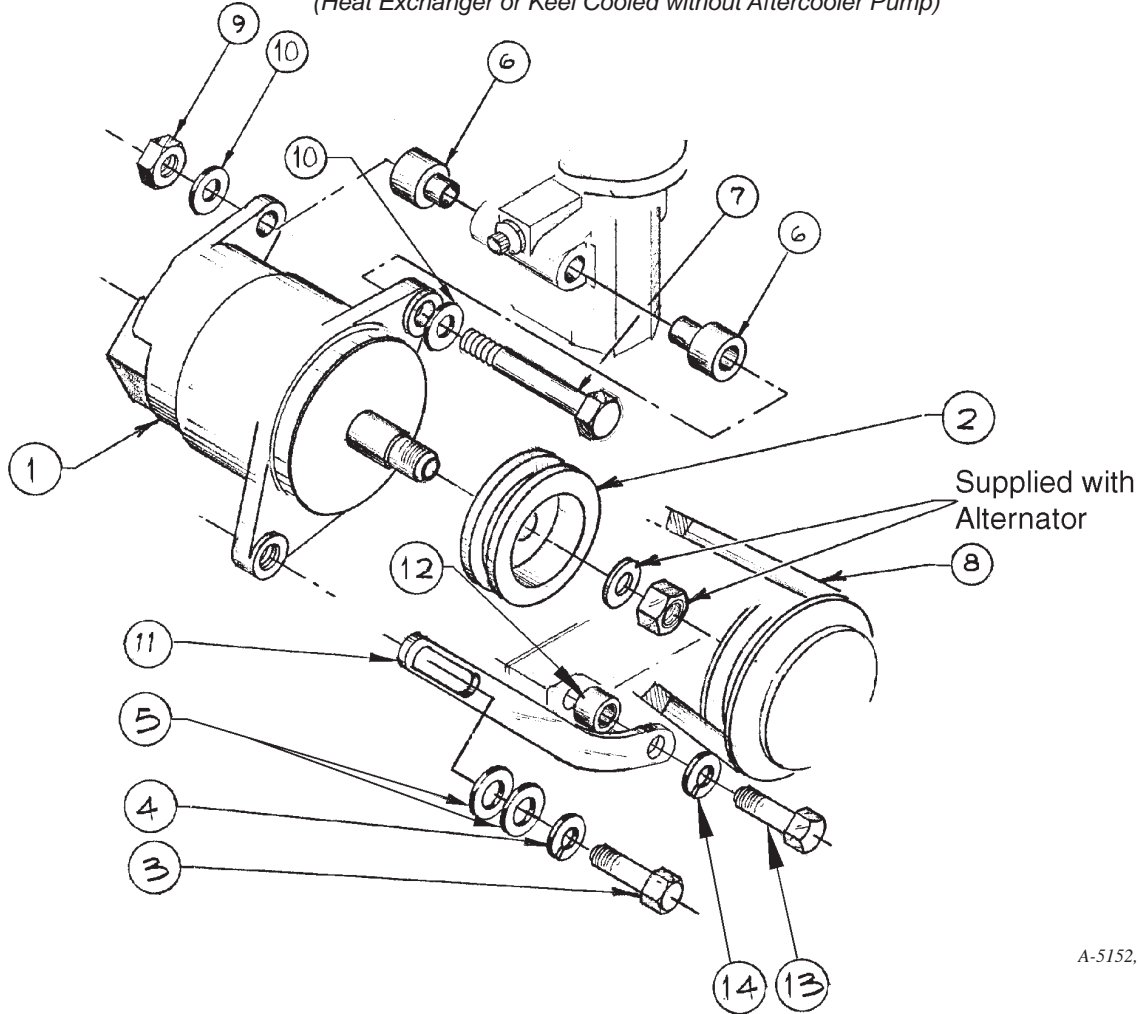
A-4198 / C-2386

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-45018	1	Alternator, 24 Volt 100 Amp	-
2	23-45003	1	Mounting Bracket	-
3	12-00805	4	Capscrew, Hex Head M10 x 1.5 x 20 mm	-
4	15-00802	4	Lock Washer, M10	-
5	12-00514	1	Capscrew, Hex Head 1/2" x 1-1/2"	-
6	12-00516	1	Capscrew, Hex Head 1/2" x 2"	-
7	12-00517	1	Capscrew, Hex Head 1/2" x 2-1/4"	-
8	14-00512	2	Nylock Nut, 1/2-13	-
9	15-00606	1	Flat Washer, 1/2" SAE	-
10	15-00502	1	Lock Washer, 1/2"	-
11	21-44800	4	Spacer	-
12	34-45001	1	Pulley	-
13	00-75009	1	Belt Guard (not shown)	-
14	600-736-9550	1	Drive Belt	-
15	6210-81-6811	1	Tensioning Arm	-

GROUP 5 - ELECTRICAL SYSTEM

LARGE FRAME ALTERNATORS & MOUNTING

24 Volt 75 Amp High & Low Profile, 24 Volt 100 Amp Low Profile Only, 12 Volt 140 Amp High & Low Profile
(Heat Exchanger or Keel Cooled without Aftercooler Pump)



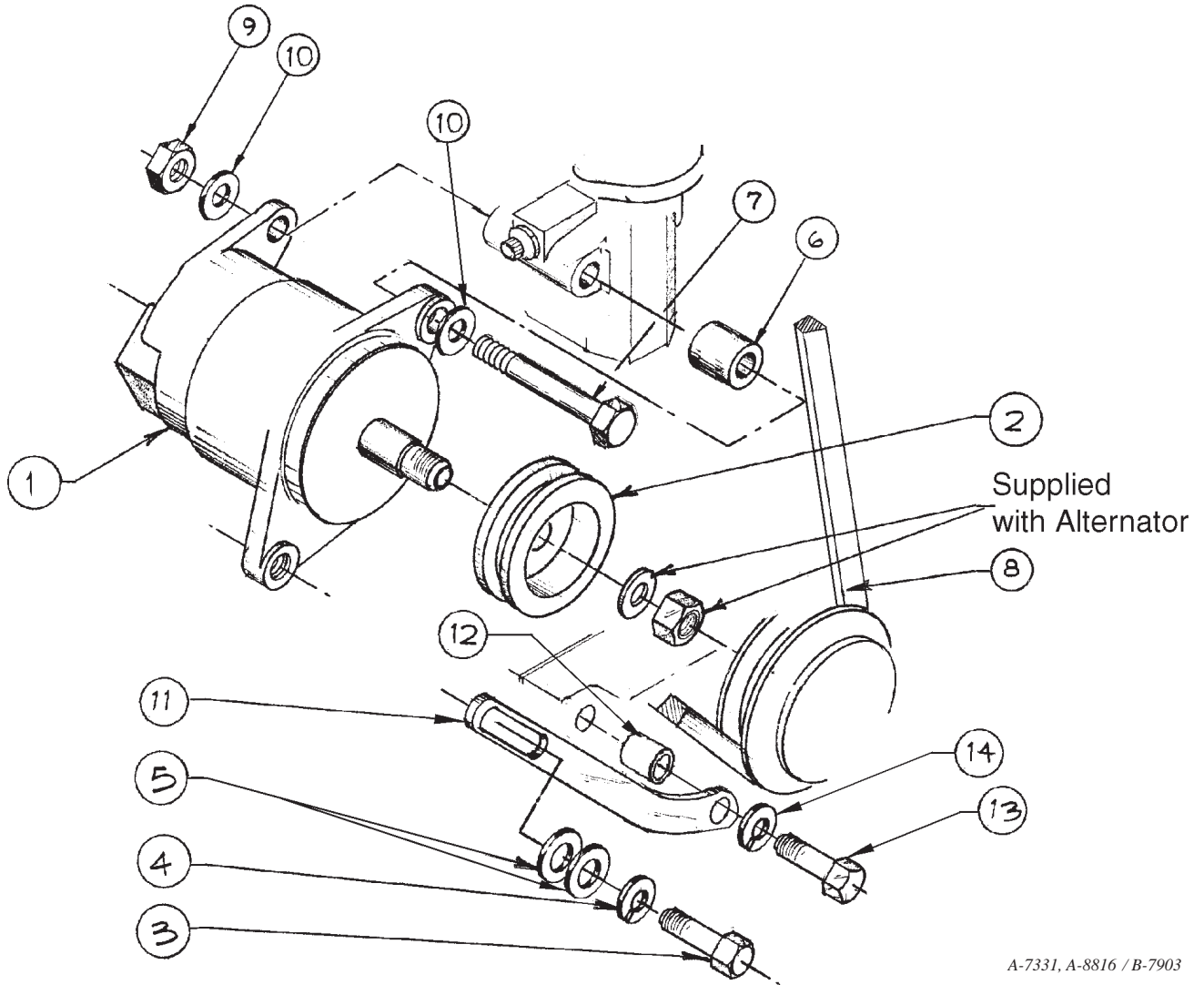
A-5152, A-5155, A-5155,
A-6340 / B-7904

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-40277	1	Alternator 24 Volt 75 Amp (formerly #22-42516)	-
	22-45018	1	Alternator 24 Volt 100 Amp	-
	22-40282	1	Alternator 12 Volt 140 Amp (formerly #22-44808)	-
2	34-45001	1	Pulley	-
3	12-00514	1	Capscrew, Hex Head 1/2 - 13 x 1-1/2"	-
4	15-00502	2	Lock Washer, 1/2"	-
5	15-00501	2	Flat Washer, 1/2" USS	-
6	21-45001	2	Spacer	-
7	12-45002	1	Capscrew, Hex Head 1/2 - 13 x 6-1/2"	-
8	600-736-9550	1	Drive Belt (High Profile)	-
	40-45004	1	Drive Belt (Low Profile)	-
9	14-00512	1	Hex Nut, Nylock 1/2 - 13	-
10	15-00504	2	Flat Washer 1/2" SAE	-
11	6210-81-6811	1	Tensioning Arm (High Profile)	-
	23-45011	1	Tensioning Arm (Low Profile, requires key #12)	-
12	21-44801	1	Spacer (Low Profile)	-
13	12-00052	1	Capscrew, Hex Head M10 x 1.5 x 110 mm	-
14	15-00802	1	Lock Washer M10	-
15	00-75001	1	Belt Guard (High Profile, not shown)	-
	00-75014	1	Belt Guard (Low Profile, replaced by Assembly 00-45000 - see parts detail)	-
	00-45000	1	Belt Guard (not shown)	-

GROUP 5 - ELECTRICAL SYSTEM

LARGE FRAME ALTERNATORS & MOUNTING

24 Volt 75 Amp, 24 Volt 100 Amp, 12 Volt 140 Amp Low Profile (Keel Cooled with Aftercooler Pump)

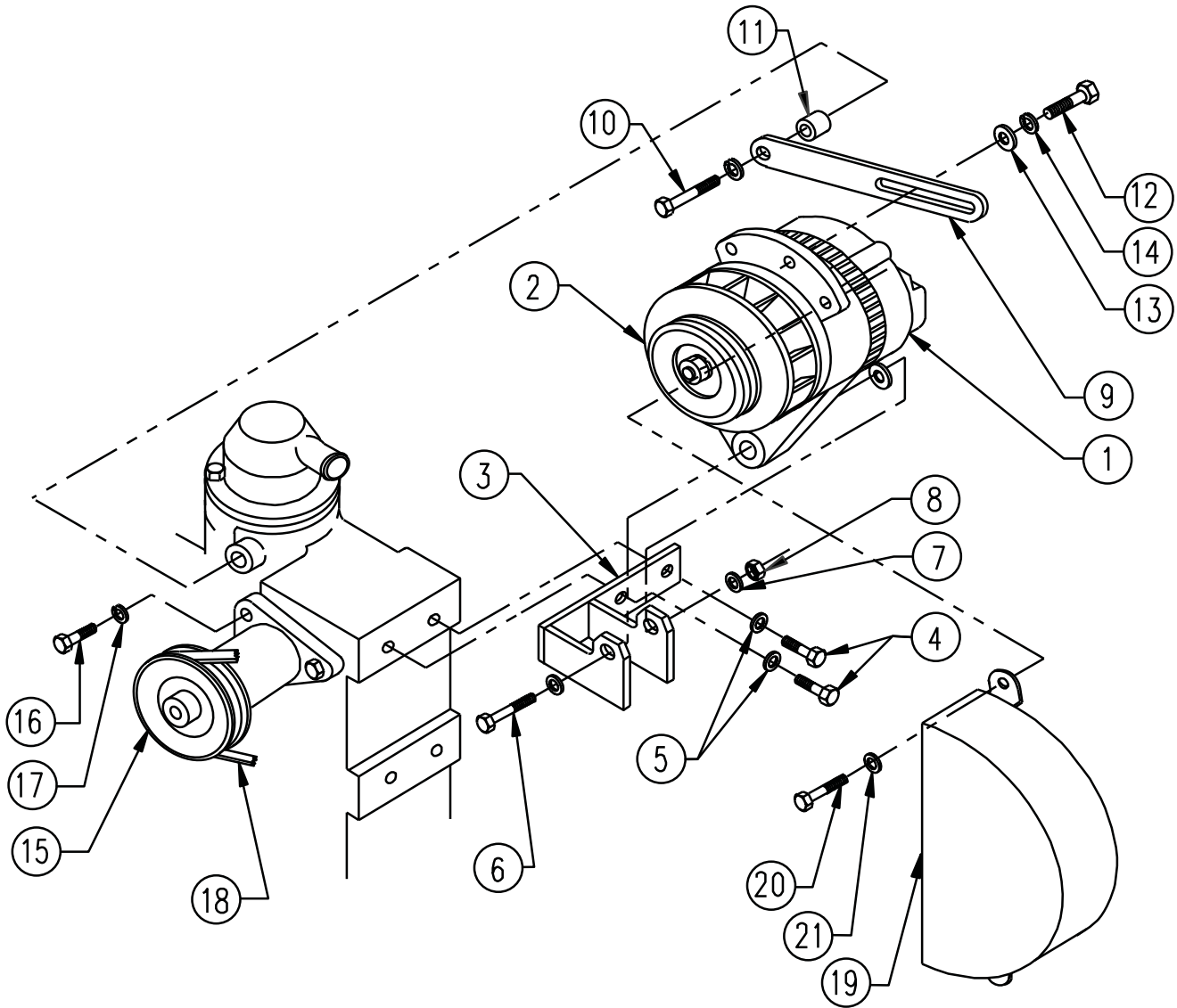


A-7331, A-8816 / B-7903

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-40277	1	Alternator 24 Volt 75 Amp (formerly #22-42516)	-
	22-45018	1	Alternator 24 Volt 100 Amp	-
	22-40282	1	Alternator 12 Volt 140 Amp (formerly #22-44808)	-
2	34-45001	1	Pulley	-
3	12-00514	1	Capscrew, Hex Head 1/2 - 13 x 1-1/2"	-
4	15-00502	2	Lock Washer, 1/2"	-
5	15-00501	2	Flat Washer, 1/2" USS	-
6	21-40005	1	Spacer	-
7	12-45002	1	Capscrew, Hex Head 1/2 - 13 x 6-1/2"	-
8	40-15001	1	Drive Belt	-
9	14-00512	1	Hex Nut, Nylock 1/2 - 13	-
10	15-00504	2	Flat Washer 1/2" SAE	-
11	6211-21-6350	1	Tensioning Arm	-
12	21-40004	1	Spacer	-
13	12-00053	1	Capscrew, Hex Head M10 x 1.5 x 120 mm	-
14	15-00802	1	Lock Washer M10	-
15	00-05025	1	Belt Guard Assembly (see parts detail)	-

SECOND ALTERNATOR AND MOUNTING

12 Volt 90 Amp, 24 Volt 35 Amp, 24 Volt 40 Amp, Heat Exchanged



A-8108A, A-8940, A-9191 / B-9378

GROUP 5 - ELECTRICAL SYSTEM

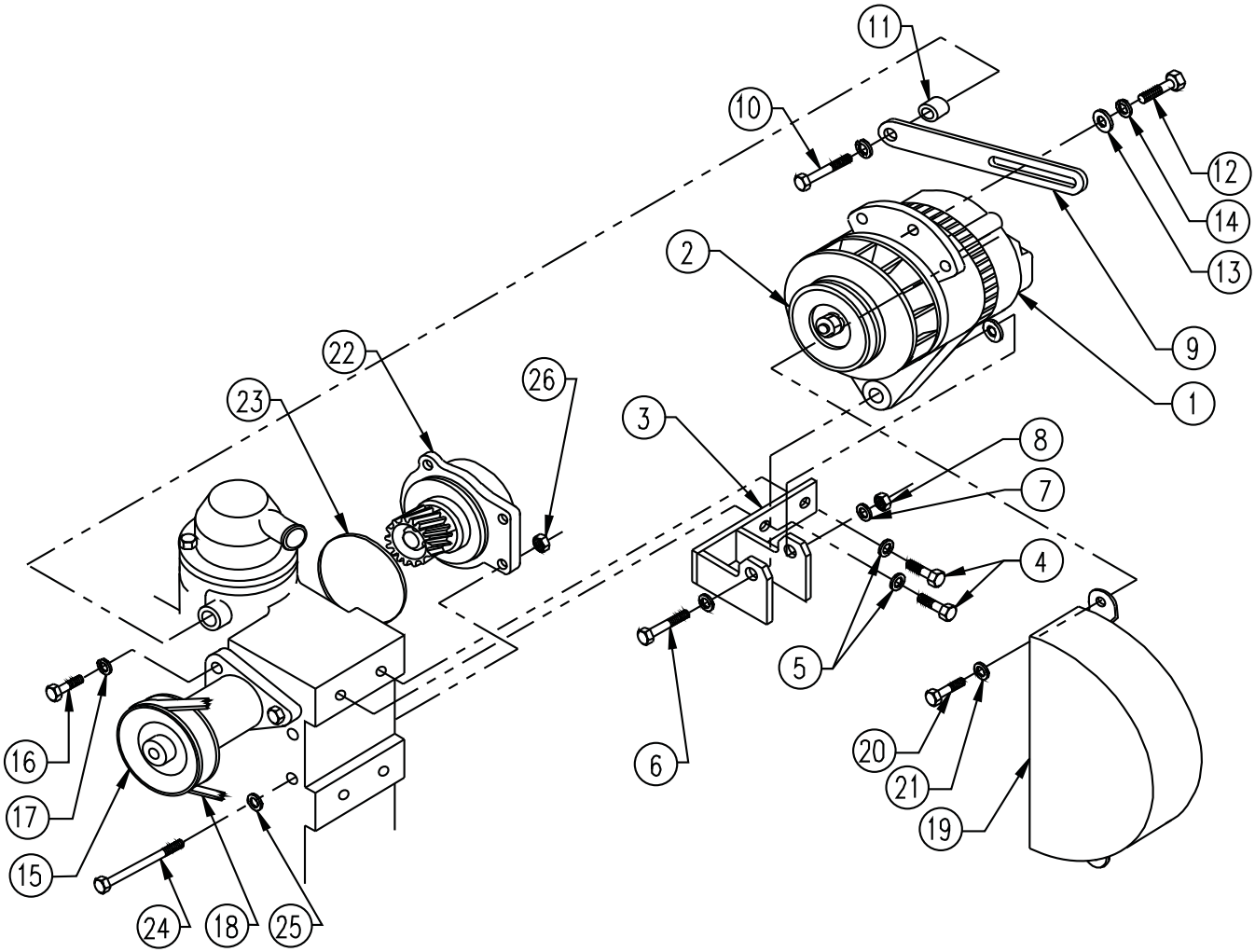
SECOND ALTERNATOR AND MOUNTING

12 Volt 90 Amp, 24 Volt 35 Amp, 24 Volt 40 Amp Heat Exchanged

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-40332	1	Alternator 12 Volt 90 Amp	-
	22-71052	1	Alternator 24 Volt 35 Amp	-
	22-40278	1	Alternator 24 Volt 40 Amp	-
2	34-41000	1	Pulley	-
3	23-75020	1	Bracket	-
4	12-00831	2	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
5	15-00802	2	Lock Washer, Helical M10	-
6	12-00550	1	Capscrew, Hex Head 1/2-13 x 3"	-
7	15-00504	3	Flat Washer 1/2" SAE	-
8	14-00512	1	Hex Nut, Nylock 1/2-13"	-
9	23-45013	1	Tensioning Arm	-
10	01011-61225	1	Capscrew, Hex Head M12 x 1.75 x 125 mm	-
11	21-41102	1	Spacer	-
12	12-00212	1	Capscrew, Hex Head 5/16-18 x 1"	-
13	15-00201	1	Stud Washer 5/16	-
14	15-00202	1	Lock Washer, Helical 5/16	-
15	6210-21-3403	1	PTO Assembly with 1-A/B x 120 mm Pulley	-
16	12-00832	3	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
17	15-00802	3	Lock Washer, Helical M10	-
18	40-45007	1	Drive Belt	-
19	00-65002	1	Belt Guard	-
20	12-00209	1	Capscrew, Hex Head 5/16-18 x 3/4"	-
21	15-00221	1	Flat Washer 5/16" SAE	-

SECOND ALTERNATOR AND MOUNTING

12 Volt 90 Amp, 24 Volt 35 Amp, 24 Volt 40 Amp Keel Cooled



A-9288, A-9287, A-9286 / B-9421

GROUP 5 - ELECTRICAL SYSTEM

SECOND ALTERNATOR AND MOUNTING

12 Volt 90 Amp, 24 Volt 35 Amp, 24 Volt 40 Amp Keel Cooled

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-40332	1	Alternator 12 Volt 90 Amp	-
	22-71052	1	Alternator 24 Volt 35 Amp	-
	22-40278	1	Alternator 24 Volt 40 Amp	-
2	34-41000	1	Pulley	-
3	23-75020	1	Bracket	-
4	12-00831	2	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
5	15-00802	2	Lock Washer, Helical M10	-
6	12-00550	1	Capscrew, Hex Head 1/2-13 x 3"	-
7	15-00504	3	Flat Washer 1/2" SAE	-
8	14-00512	1	Hex Nut, Nylock 1/2-13"	-
9	23-45013	1	Tensioning Arm	-
10	01011-E1225	1	Capscrew, Hex Head M12 x 1.75 x 125 mm	-
11	21-41102	1	Spacer	-
12	12-00212	1	Capscrew, Hex Head 5/16-18 x 1"	-
13	15-00201	1	Stud Washer 5/16	-
14	15-00202	1	Lock Washer, Helical 5/16	-
15	6210-21-3403	1	PTO Assembly with 1-A/B x 120 mm Pulley	-
16	12-00832	3	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
17	15-00802	3	Lock Washer, Helical M10	-
18	40-45007	1	Drive Belt	-
19	00-65002	1	Belt Guard	-
20	12-00209	1	Capscrew, Hex Head 5/16-18 x 3/4"	-
21	15-00221	1	Flat Washer 5/16" SAE	-
22	6210-21-3500	1	Idler Gear Assembly	-
23	6210-81-5240	1	O-ring	-
24	12-00053	3	Capscrew, Hex Head M10 x 1.5 x 120 mm	-
25	15-00802	3	Lock Washer, Helical M10	-
26	14-00811	3	Hex Nut M10 x 1.5	-

24 VOLT - 25 AMP ALTERNATOR

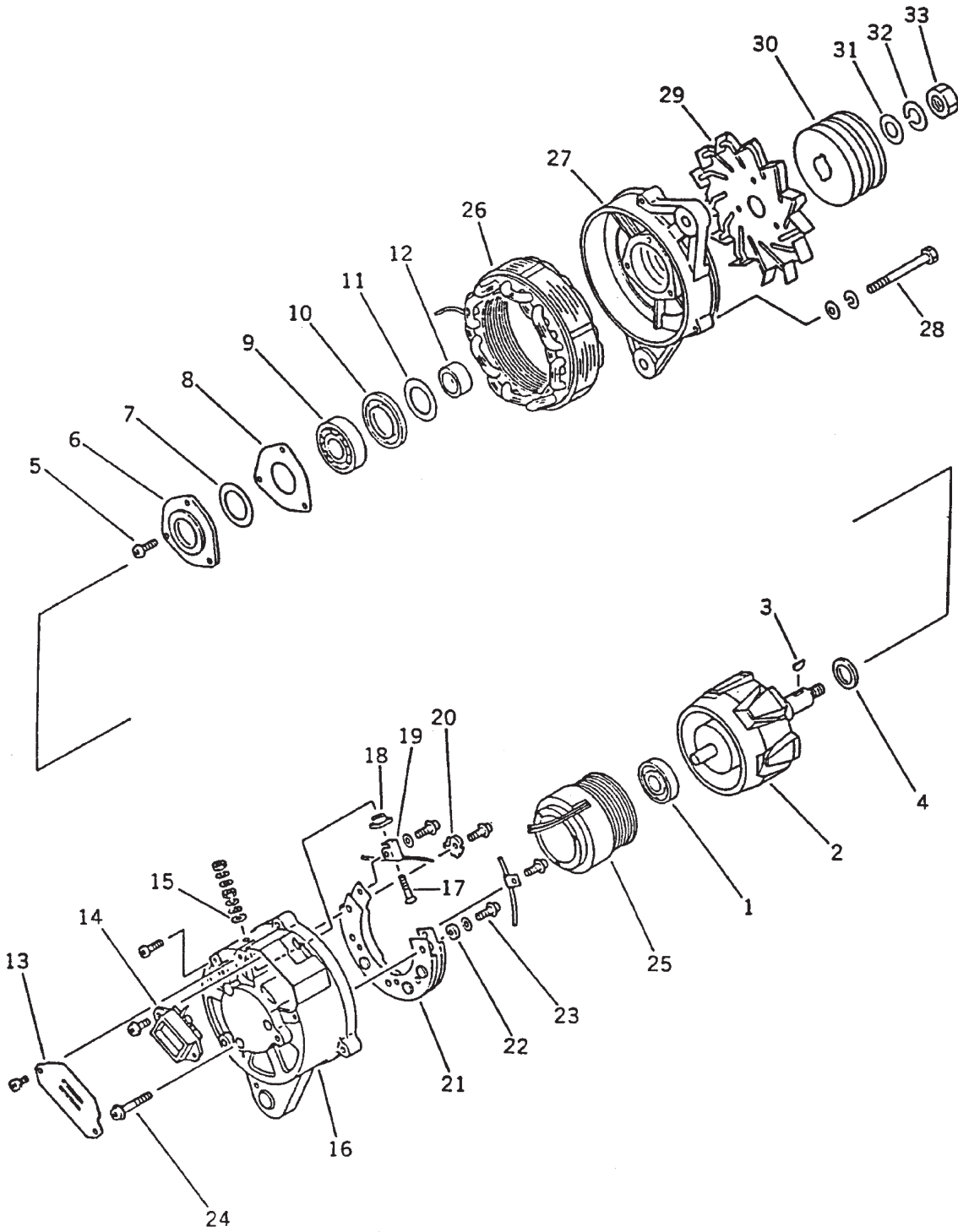


Figure 6501

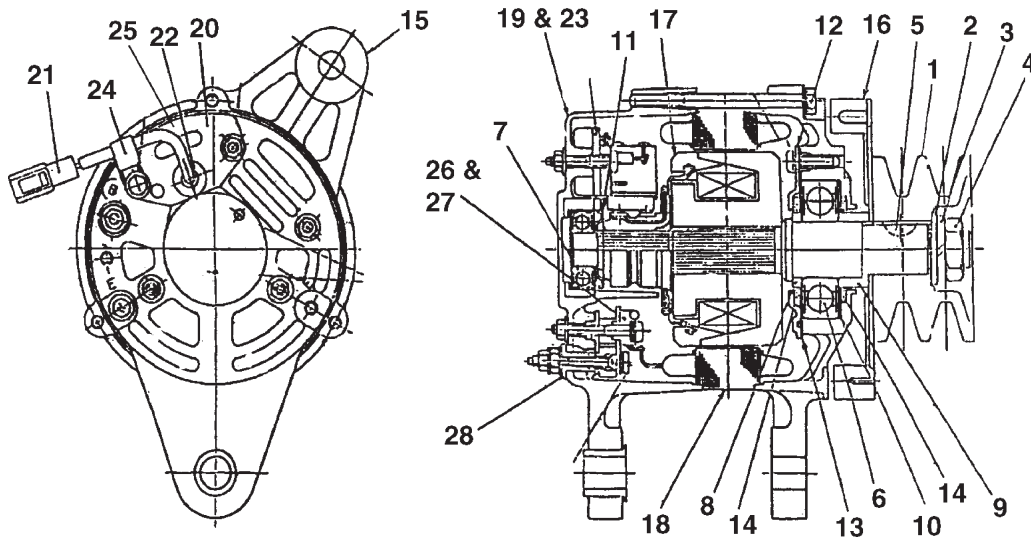
GROUP 5 - ELECTRICAL SYSTEM

24 VOLT - 25 AMP ALTERNATOR

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	600-821-5690	1	Alternator Assembly, 24 Volt 25 Amp (includes keys #1 - #33)	-
1	KD1-09201-0460	1	Ball Bearing	-
2	KD1-35100-0060	1	Rotor Assembly	-
3	KD1-0416-04160	1	Woodruff Key	-
4	KD1-33923-0780	1	Collar	-
5	KD1-0055-06162	3	Screw	-
6	KD1-33923-0740	1	Retainer	-
7	KD1-33951-0610	1	Packing	-
8	KD1-33926-0750	1	Retainer	-
9	KD1-0446-63057	1	Ball Bearing	-
10	KD1-33926-0770	1	Retainer	-
11	KD1-09251-0440	1	Packing	-
12	KD1-33923-0810	1	Collar	-
13	KD1-35761-0060	1	Cover	-
••	KD0-35700-0130	1	Rear Bracket Assembly (includes keys #14 - #23)	-
14	KD7-44000-0901	1	Regulator Assembly	-
15	KD1-47941-0180	1	Washer	-
16	KD0-35710-0140	1	Rear Bracket	-
17	KD0-33901-0640	1	Bolt (for battery terminal, not shown)	-
18	KD1-33943-0870	1	Bushing	-
19	KD1-35784-0040	1	Connecting Bar	-
20	KD1-35780-0030	1	Terminal Assembly	-
21	KD0-35730-0080	1	Rectifier Assembly	-
22	KD1-09102-0010	2	Plate	-
23	KD0-0056-05252	3	Screw	-
24	KD0-0056-05452	3	Screw	-
25	KD0-35120-0040	1	Field Coil Assembly	-
26	KD0-35200-0060	1	Stator Assembly	-
27	KD0-35310-0020	1	Front Bracket Assembly	-
28	KD0-0275-06802	3	Bolt	-
29	KD1-35421-0050	1	Fan	-
30	KD1-35411-0060	1	Pulley	-
31	KD1-0330-16012	1	Washer	-
32	KD1-0335-16002	1	Spring Washer	-
33	KD0-0280-16022	1	Nut	-

GROUP 5 - ELECTRICAL SYSTEM

12 VOLT - 60 AMP ALTERNATOR



Nikkoalternator

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	600-821-2460	1	Alternator, 12 Volt 60 Amp (includes all keys)	-
1	34-45001	1	Pulley	-
2	1-0330-16012	1	Washer	-
3	1-0335-16002	1	Spring Washer	-
4	0-0280-16022	1	Nut	-
5	1-0416-04160	1	Woodruff Key	-
6	1-4056-63057	1	Ball Bearing	-
7	1-09201-0530	1	Ball Bearing	-
8	0-33923-0980	1	Collar	-
9	1-33923-0920		Collar	-
10	1-33926-0730	1	Retainer	-
11	1-33926-0820	1	Retainer	-
12	0-35926-0060	1	Retainer	-
13	1-33926-0750	1	Retainer	-
14	1-33951-0610	2	Packing	-
15	0-33311-0490	1	Front Bracket	-
16	1-33421-0590	1	Fan	-
17	0-33100-1460	1	Rotor Assembly	-
18	0-33200-1370	1	Stator Assembly	-
19	0-33700-2760	1	Rear Bracket Assembly	-
20	0-33761-1200	1	Cover	-
21	033780-0690	1	Terminal Assembly	-
22	1-0540-06001	1	Grommet	-
23	0-33710-3360	1	Rear Bracket	-
24	1-33931-0021	1	Clip	-
25	0-33719-0040	1	Regulator Assembly	-
26	0-33730-2911	1	Rectifier Assembly	-
27	0-33784-0260	1	Connecting Bar	-
28	1-33943-0980	1	Insulating Bushing	-

STARTING MOTOR AND MOUNTING

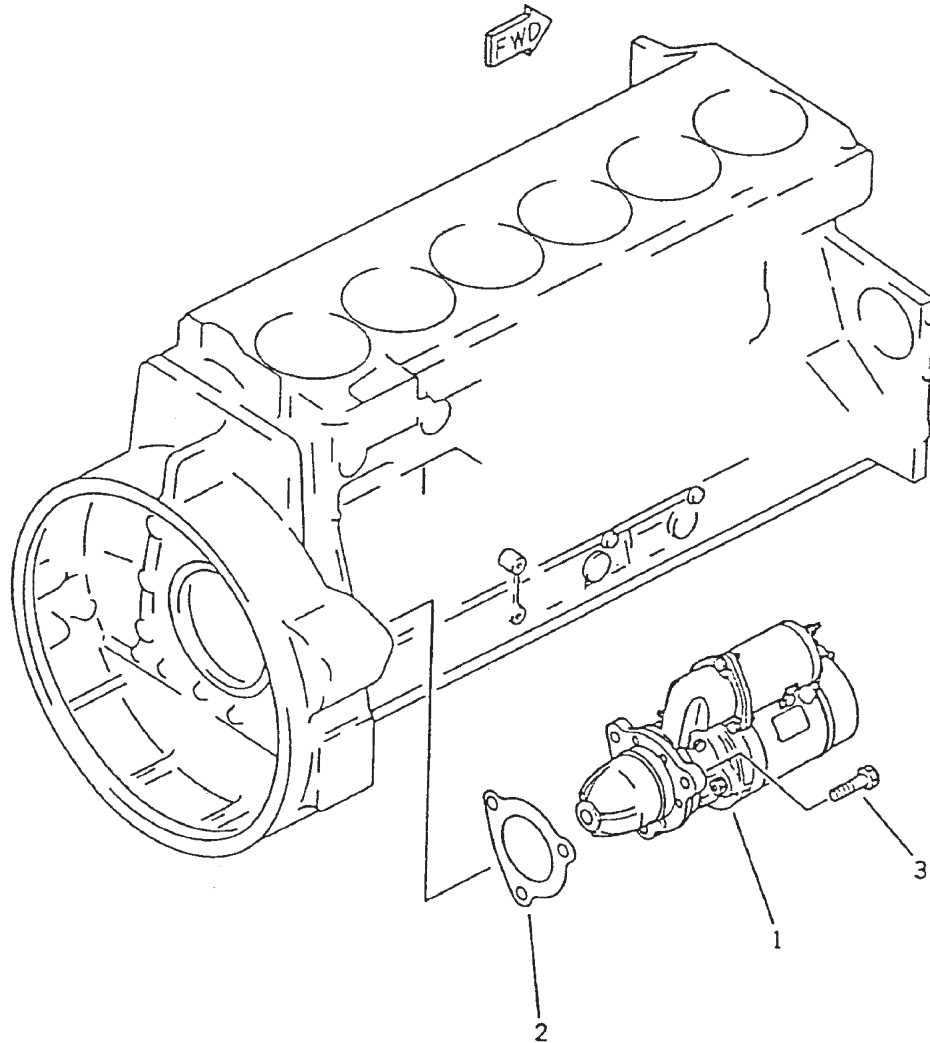


Figure 6101

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-45028	1	Starting Motor, 24 Volt (formerly #22-45023 & #600-813-4530)	-
	22-45039	1	Starting Motor, 12 Volt (formerly #22-45002 & 22-45027)	-
2	6610-81-2210	1	Gasket	-
3	12-45001	3	Capscrew, 12 Point M16 x 2.0 x 40 mm	-

GROUP 5 - ELECTRICAL SYSTEM

STARTING MOTOR 24 VOLT

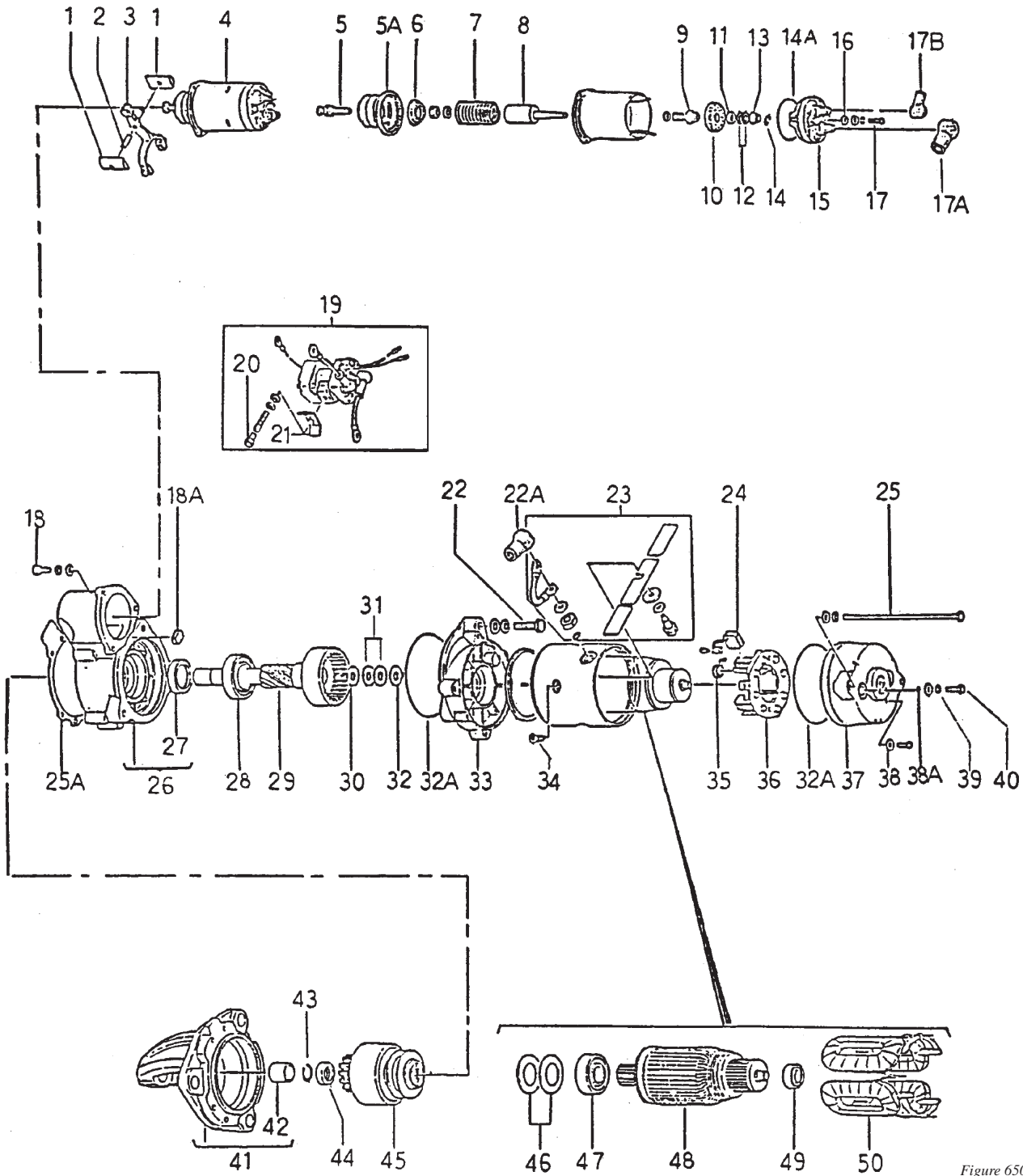


Figure 6503

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	600-813-4530	1	Starting Motor Assembly, 24 Volt (includes keys #1 - #50)	-
1	KD0-23927-0071	1	Holder	-
2	KD0-23904-0070	1	Pin	-
3	KD0-23320-0220	1	Shift lever	-
4	KD0-47100-3940	1	Solenoid (includes keys #4 - #17)	-
5	KD1-47903-0610	1	Screw	-
5A	KD1-47952-0370	1	Rubber Cap	-

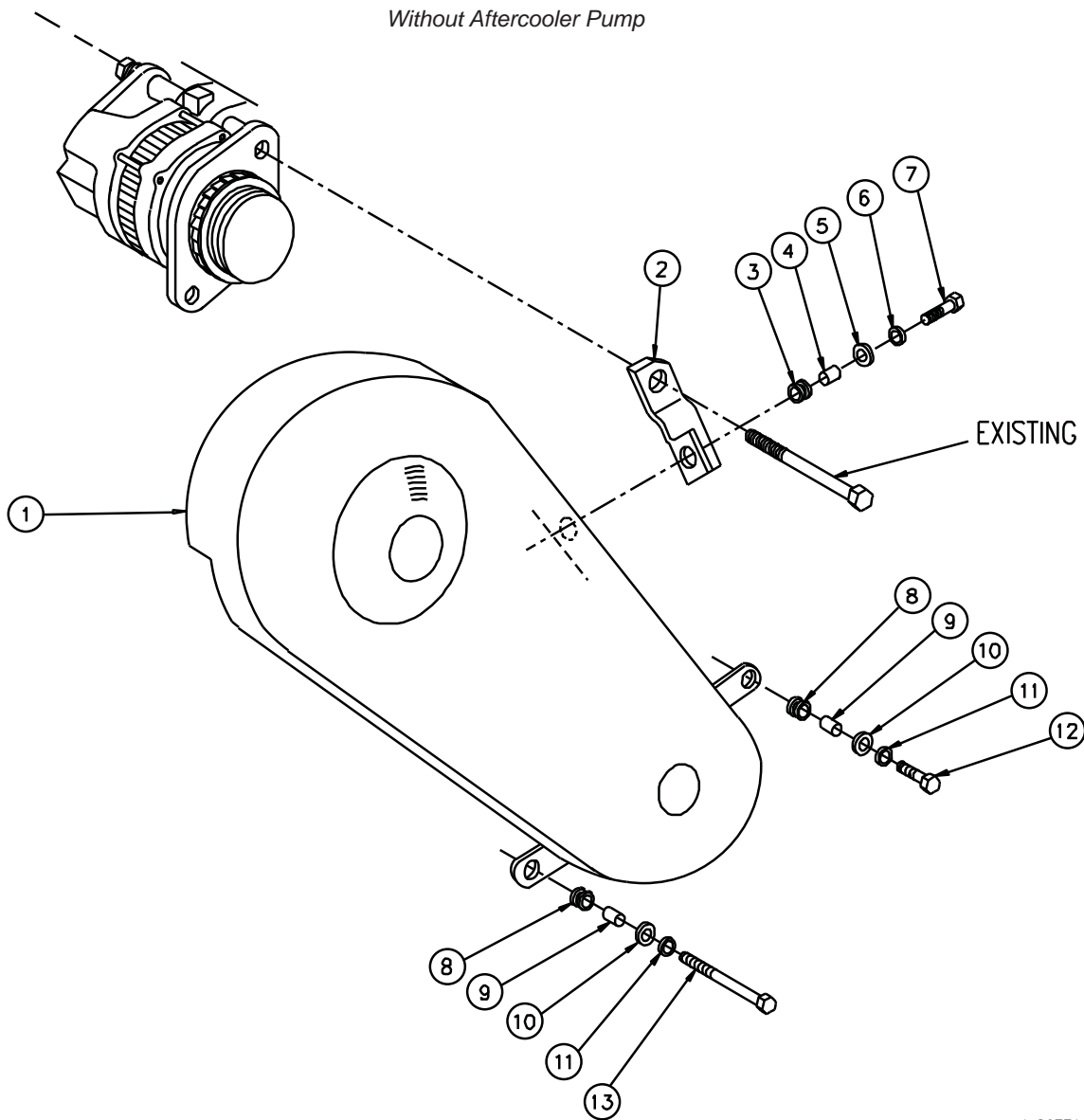
GROUP 5 - ELECTRICAL SYSTEM

STARTING MOTOR 24 VOLT

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
6	KD1-47927-1050	1	Holder	-
7	KD1-47911-0880	1	Spring	-
8	KD1-47120-1581	1	Plunger	-
9	KD1-47943-0780	1	Insulator	-
10	KD1-47151-0530	1	Contractor	-
11	KD1-47941-0550	1	Insulator	-
12	KD1-47921-1020	2	Washer	-
13	KD1-47927-1030	1	Holder	-
14	KD1-47914-0090	1	Retaining Ring	-
14A	KD1-09211-0380	1	O-ring	-
15	KD0-47780-0505	1	Terminal Assembly	-
16	KD1-0345-05001	2	Seal Washer	-
17	KD0-09011-2120	2	Screw	-
17A	KD1-09252-0420	1	Rubber Cap	-
17B	KD1-09252-0211	1	Rubber Cap	-
18	KD0-0274-06202	3	Bolt	-
18A	KD-023951-0291	1	Packing	-
19	KD0-25000-6520	1	Switch Assembly (includes keys #19 - #21)	-
20	KD0-0270-06452	1	Bolt	-
21	KD1-47927-1250	1	Holder	-
22	KD1-0240-08405	3	Bolt	-
22A	KD1-09252-0430	1	Rubber Cap	-
23	KD7-23780-0200	1	Terminal Assembly	-
24	KD0-23740-0250	4	Brush	-
25	KD0-23901-0170	2	Bolt	-
25A	KD0-23951-0300	1	Packing	-
26	KD0-23600-0250	1	Center Bracket Assembly (includes keys #26 - #27)	-
27	KD1-09210-1040	1	Oil Seal	-
28	KD1-0454-60067	1	Ball Bearing	-
29	KD1-23111-0160	1	Shaft	-
30	KD1-23921-0130	1	Washer	-
31	KD1-23921-0140	2	Washer	-
32	KD1-23941-0040	1	Insulator	-
32A	KD1-09211-0980	2	O-ring	-
33	KD0-23611-0690	1	Bracket	-
34	KD0-23903-0020	4	Screw	-
35	KD1-23913-0040	4	Brush	-
36	KD0-23750-0250	1	Brush Holder	-
37	KD0-23700-0130	1	Rear Bracket Assembly	-
38	KD1-0345-05001	1	Sea Washer	-
38A	KD1-0505-00601	2	O-ring	-
39	KD1-47921-0790	2	Washer	-
40	KD0-09001-4580	2	Bolt	-
41	KD0-23310-0860	1	Front Bracket	-
42	KD7-23351-0080	1	Bushing	-
43	KD1-23914-0020	1	Retaining Ring	-
44	KD1-23181-0020	1	Stopper	-
45	KD1-23500-0171	1	Starter Drive	-
46	KD0-23921-0230	2	Washer	-
47	KD1-0454-62047	1	Ball Bearing	-
48	KD0-23100-0251	1	Armature	-
49	KD1-0454-62007	1	Ball Bearing	-
50	KD0-23230-0281	1	Field Coil	-

BELT GUARD, MEDIUM & LARGE FRAME ALTERNATORS

Without Aftercooler Pump

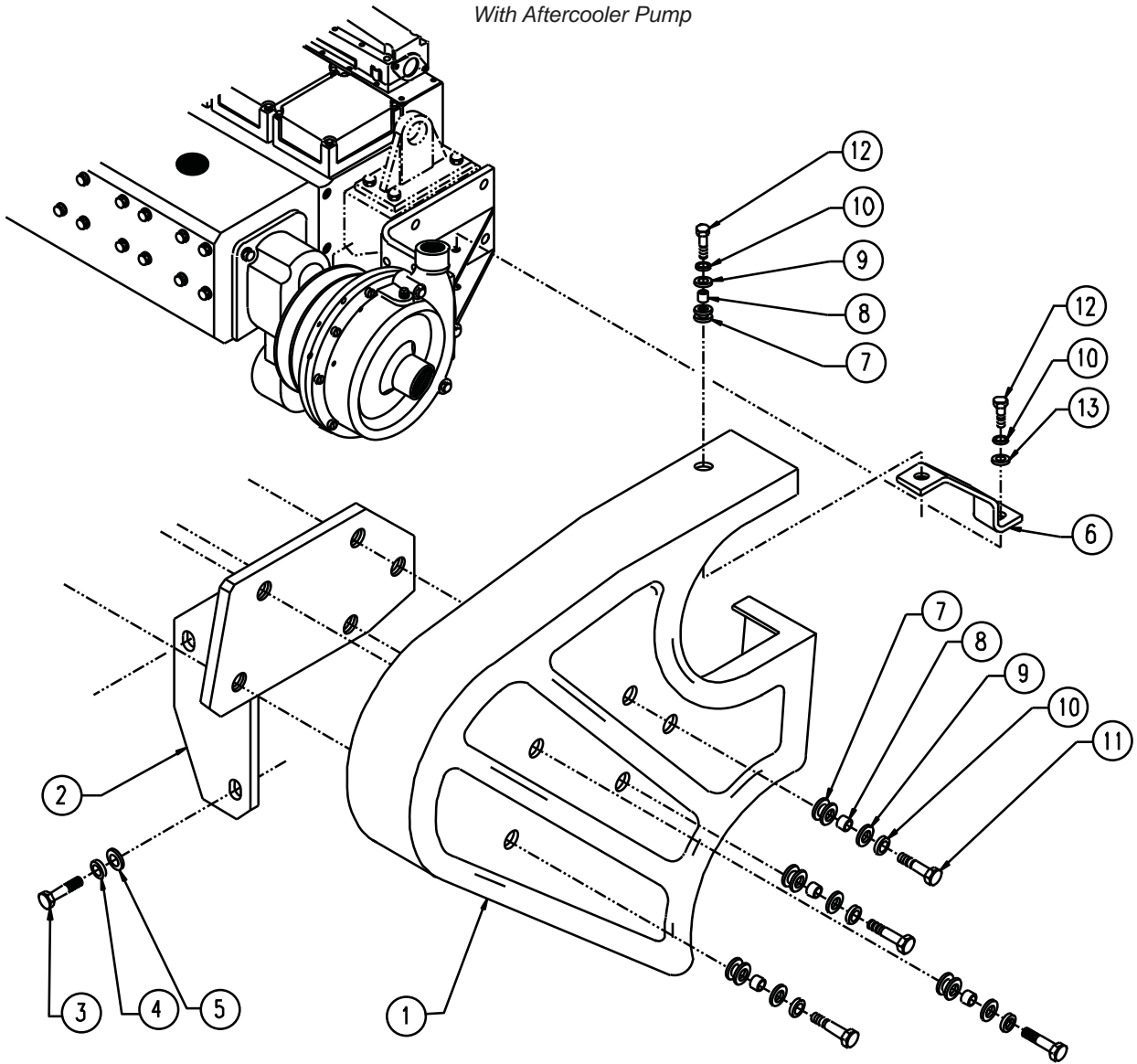


A-8177/ C-5326

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	00-45001	1	Belt Guard	-
2	23-65034	1	Bracket, Belt Guard Mtg.	-
3	00-00020	1	Grommet	-
4	21-05002	1	Spacer	-
5	15-70004	1	Snubbing Washer S/S	-
6	15-09703	1	Star Washer, M8 S/S	-
7	12-00712	1	Capscrew, Hex Head M8 x 1.25 x 25 mm	-
	12-09712	1	Capscrew, Hex Head M8 x 1.25 x 25 mm	-
8	00-00019	2	Grommet	-
9	21-05003	2	Spacer	-
10	15-70005	2	Snubbing Washer S/S	-
11	15-09001	2	Star Washer M12 S/S	-
12	12-00953	1	Capscrew, Hex Head M12 x 1.75 x 30 mm	-
13	12-00924	1	Capscrew, Hex Head M12 x 1.75 x 100 mm	-

BELT GUARD, MEDIUM & LARGE FRAME ALTERNATORS

With Aftercooler Pump



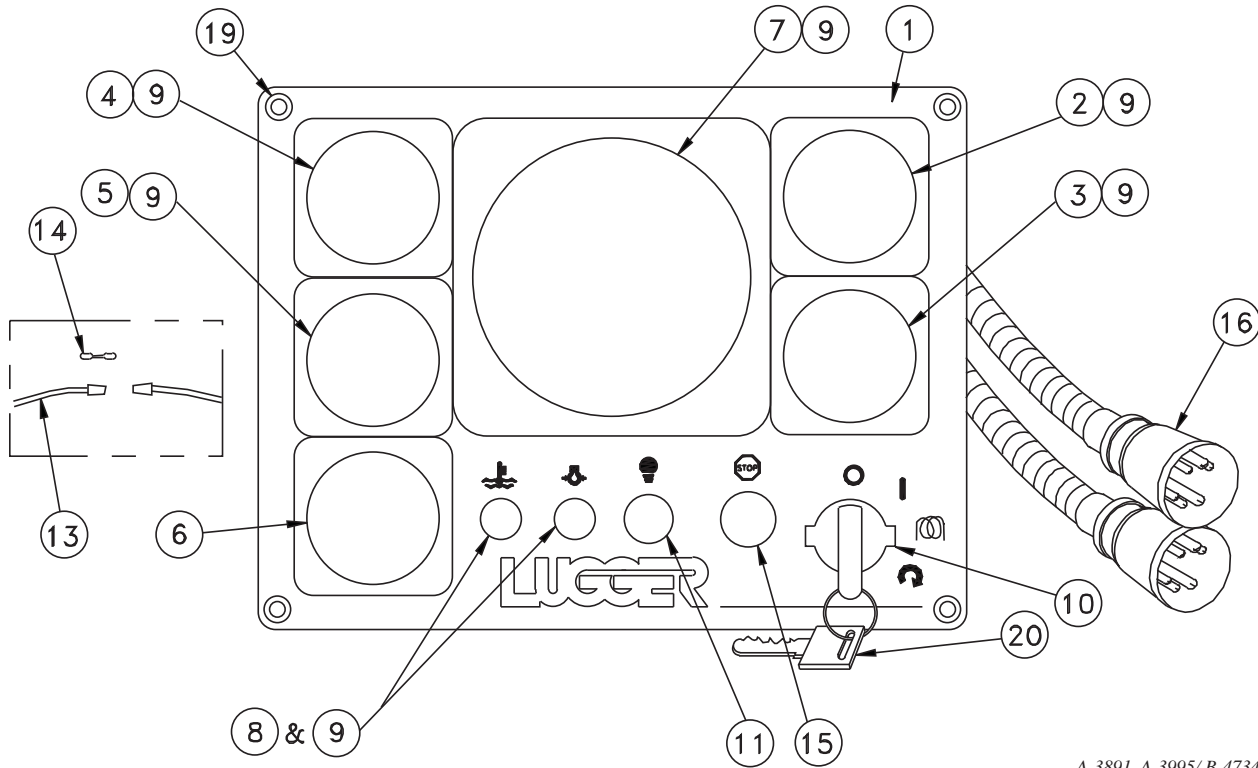
A-10174/D-3604

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	00-75023	1	Belt Guard, Large Frame Alternators	-
2	23-75023	1	Bracket, Belt Guard Mtg.	-
3	12-00831	2	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
4	15-00802	2	Lock Washer M10	-
5	15-00805	2	Flat Washer M10	-
6	23-05007	1	Bracket, Belt Guard Mounting	-
7	00-00017	6	Grommet	-
8	21-05002	6	Spacer	-
9	15-70004	6	Snubbing Washer S/S	-
10	15-00705	1	Lock Washer M8	-
11	12-09712	5	Capscrew, Hex Head M8 x 1.25 x 25 mm S/S	-
12	12-00776	2	Capscrew, Hex Head M8 x 1.25 x 20 mm S/S	-
13	15-00706	1	Flat Washer M8 S/S	-

GROUP 5 - ELECTRICAL SYSTEM

MAIN INSTRUMENT PANEL "BLUE LINE"

24 & 12 Volt - Luger Application



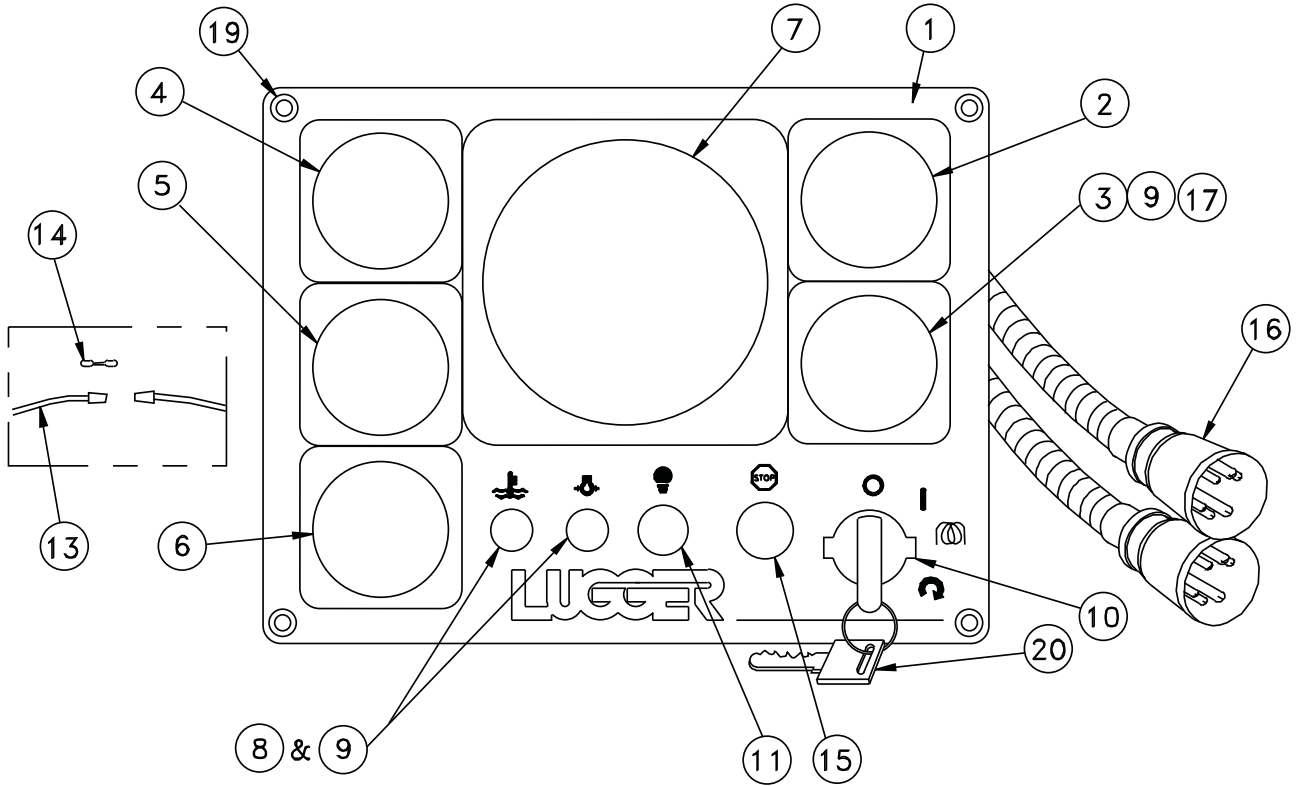
A-3891, A-3995/ B-4734-2

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-45010		24 Volt Main Instrument Panel (includes all keys)	-
••	22-95030		12 Volt Main Instrument Panel (includes all keys)	-
1	37-94801	1	Panel Plate	-
2	37-91008	1	Voltmeter, 12 Volt	-
	37-91034	1	Voltmeter, 24 Volt	-
3	37-94806	1	Hourmeter	-
4	37-94805	1	Temperature Gauge, 12 Volt	-
	37-94810	1	Temperature Gauge, 24 Volt	-
5	37-94804	1	Oil Pressure Gauge 0-150 PSI, 12 Volt	-
	37-94811	1	Oil Pressure Gauge 0-150 PSI, 24 Volt	-
6	22-40263	1	Alarm Horn 12/24 Volt (replaces former #22-44854 & #22-44855)	-
7	37-95001	1	Tachometer 0-3000 RPM	-
8	22-44851	2	Fault Lamp Holder, Amber	-
9	22-44853	**	Bulb, Clear 24 Volt	-
	22-44852	**	Bulb, Clear 12 Volt	-
	37-41003	**	Bulb, Red 24 Volt	--
	37-41004	**	Bulb, Red 12 Volt	-
10	37-94803	1	Key Switch	-
11	22-44856	1	Dimmer Switch	-
12	22-41060	2	Diode (not shown)	-
13	22-00044	1	Fuse Holder	-
14	22-41008	1	Fuse, 7-1/2 Amp	-
15	37-91007	1	Push Button	-
16	22-44859	1	Wire Harness	-
17	22-40004	1	Resistor Kit (24 volt panel, not shown)	-
19	12-90002	4	Screw, Self Tapping #8	-
20	37-94814	**	Key, Single Sided	-
	37-96805	**	Key, Double Sided	-
			**As required.	

GROUP 5 - ELECTRICAL SYSTEM

MAIN INSTRUMENT PANEL "VANGUARD"

24 & 12 Volt - Luger Application



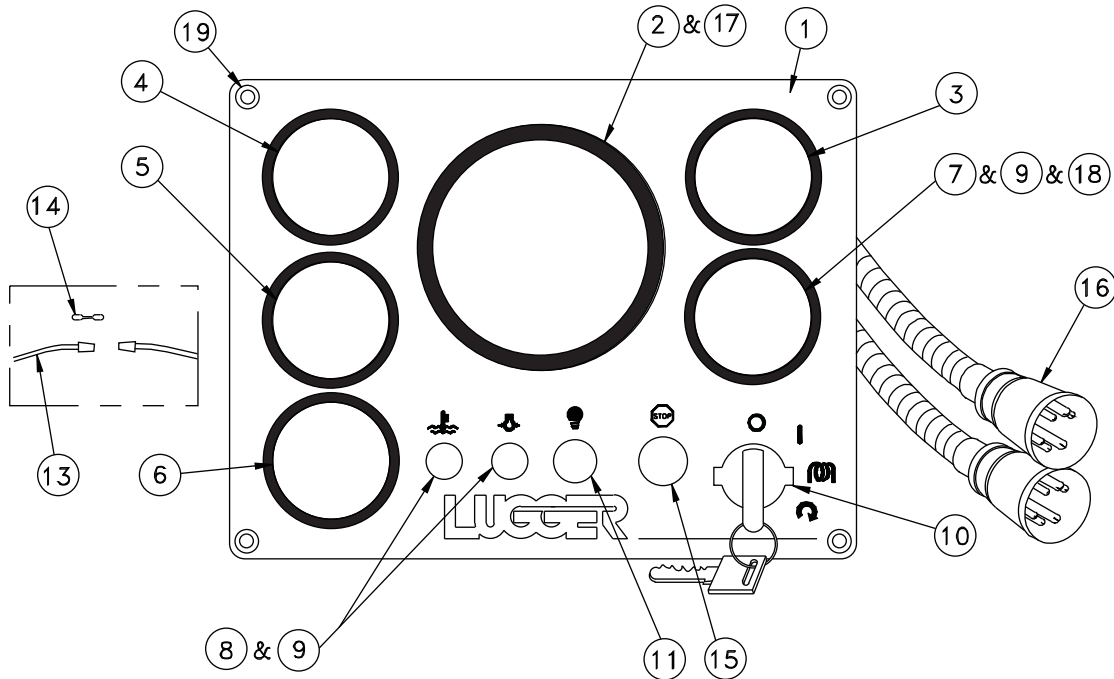
A6866, A6867/B-4734-2verB

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-96805		24 Volt Main Instrument Panel (includes all keys)	-
••	22-96810		12 Volt Main Instrument Panel (includes all keys)	-
1	37-96801	1	Panel Plate	-
2	37-90022	1	Voltmeter, 12 Volt	-
	37-90023	1	Voltmeter, 24 Volt	-
3	37-90024	1	Hourmeter	-
4	37-90025	1	Temperature Gauge, 12 Volt	-
	37-90026	1	Temperature Gauge, 24 Volt	-
5	37-90027	1	Oil Pressure Gauge 0-150 PSI, 12 Volt	-
	37-90028	1	Oil Pressure Gauge 0-150 PSI, 24 Volt	-
6	22-40263	1	Alarm Horn 12/24 Volt (replaces former #22-44854 & #22-44855)	-
7	37-96801	1	Tachometer 0-3000 RPM, 24 Volt	-
	37-96802	1	Tachometer 0-3000 RPM, 12 Volt	-
8	22-44851	2	Fault Lamp Holder, Amber	-
9	22-44853	**	Bulb, Clear 24 Volt	-
	22-44852	**	Bulb, Clear 12 Volt	-
10	37-94803	1	Key Switch	-
11	22-40247	1	Toggle Switch (for panel lights)	-
12	22-41060	2	Diode (not shown)	-
13	22-00044	1	Fuse Holder	-
14	22-41008	1	Fuse, 7-1/2 Amp	-
15	37-91007	1	Push Button	-
16	22-44859	1	Wire Harness	-
17	22-44861	1	Red Diffuser (for hourmeter)	-
19	12-90002	4	Screw, Self Tapping #8	-
20	37-94814	**	Key, Single Sided	-
	37-96805	**	Key, Double Sided	-
			**As required.	

GROUP 5 - ELECTRICAL SYSTEM

MAIN INSTRUMENT PANEL "OCEAN LINE"

12 & 24 Volt - Lugger Application



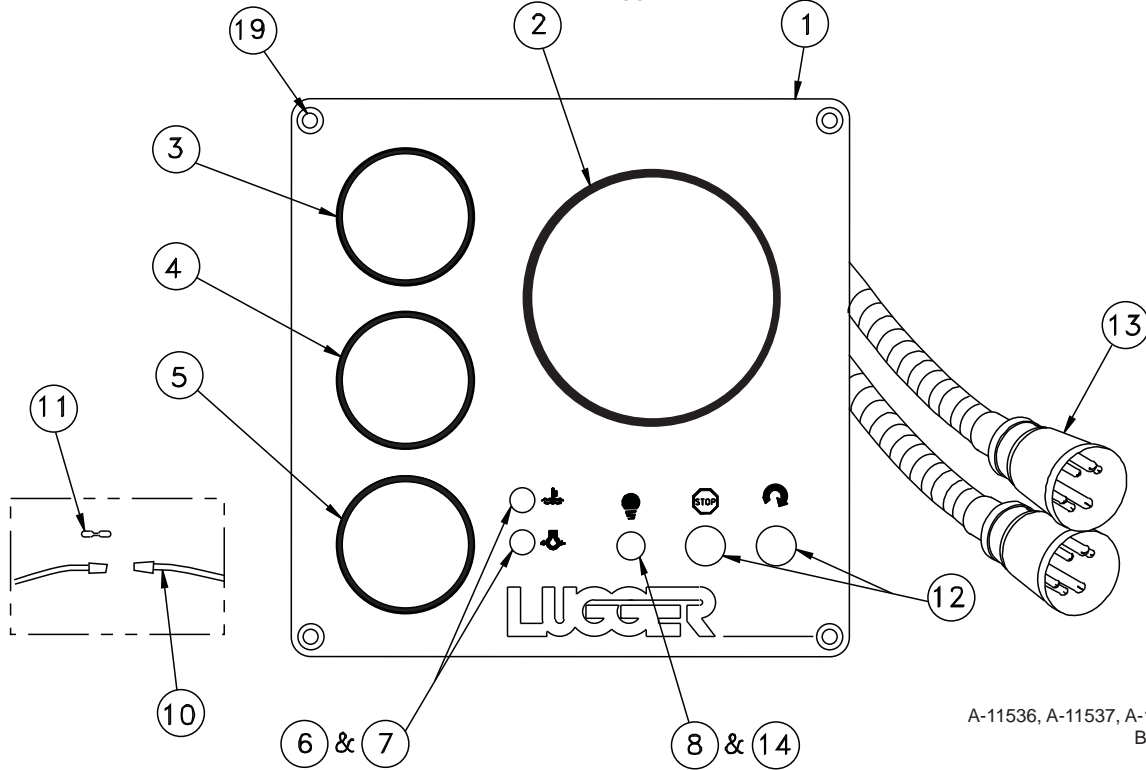
A-11525, A-11526 / B-4734-2changed

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-95045	1	Main Instrument Panel 12 Volt (includes all keys)	-
••	22-95055	1	Main Instrument Panel 24 Volt (includes all keys)	-
1	28-90031	1	Plate, Main Instrument Panel	-
2	37-90069	1	Tachometer 0-3500 RPM 12/24 Volt	-
3	37-90072-1	1	Voltmeter 8-16 VDC	-
	37-90073-1	1	Voltmeter 18-32 VDC	-
4	37-90075-1	1	Temperature Gauge, 250°F 12 Volt	-
	37-90076-1	1	Temperature Gauge, 250°F 24 Volt	-
5	37-90071-1	1	Oil Pressure Gauge 0-150 PSI, 12 Volt	-
	37-90080-1	1	Oil Pressure Gauge 0-150 PSI, 24 Volt	-
6	22-40263	1	Alarm Horn 12/24 Volt	-
7	37-90074-1	1	Hourmeter 12/24 Volt	-
8	22-44851	2	Lamp Holder, Amber Lens	-
9	22-44852	2	Bulb, Clear 12 Volt	-
	22-44853	2	Bulb, Clear 24 Volt	-
10	37-94803	1	Key Switch	-
11	22-40247	1	Toggle Switch, SPST maintained	-
12	22-41060	2	Diode 6 Amp 50 Volt (not shown)	-
13	22-00044	1	Fuse Holder, In-line 15 Amp 32 Volt	-
14	22-41008	1	Fuse, 7-1/2 Amp 240 VAC/DC	-
15	37-91007	1	Push Button Switch	-
16	22-44859	1	Wire Harness	-
17	16-01002	1	O-ring	-
18	22-44861	2	Bulb Diffuser, Red	-
19	12-90002	4	Screw, Self Tapping #8	-
20	00-90043	1	Label, Panel Electrical Load Warning (not shown)	-
21	00-00013	1	Label, "12 Volt" (not shown)	-
	00-00014	1	Label, "24 Volt" (not shown)	-

GROUP 5 - ELECTRICAL SYSTEM

FLYBRIDGE PANEL "OCEAN LINE"

12 & 24 Volt - Luger Application

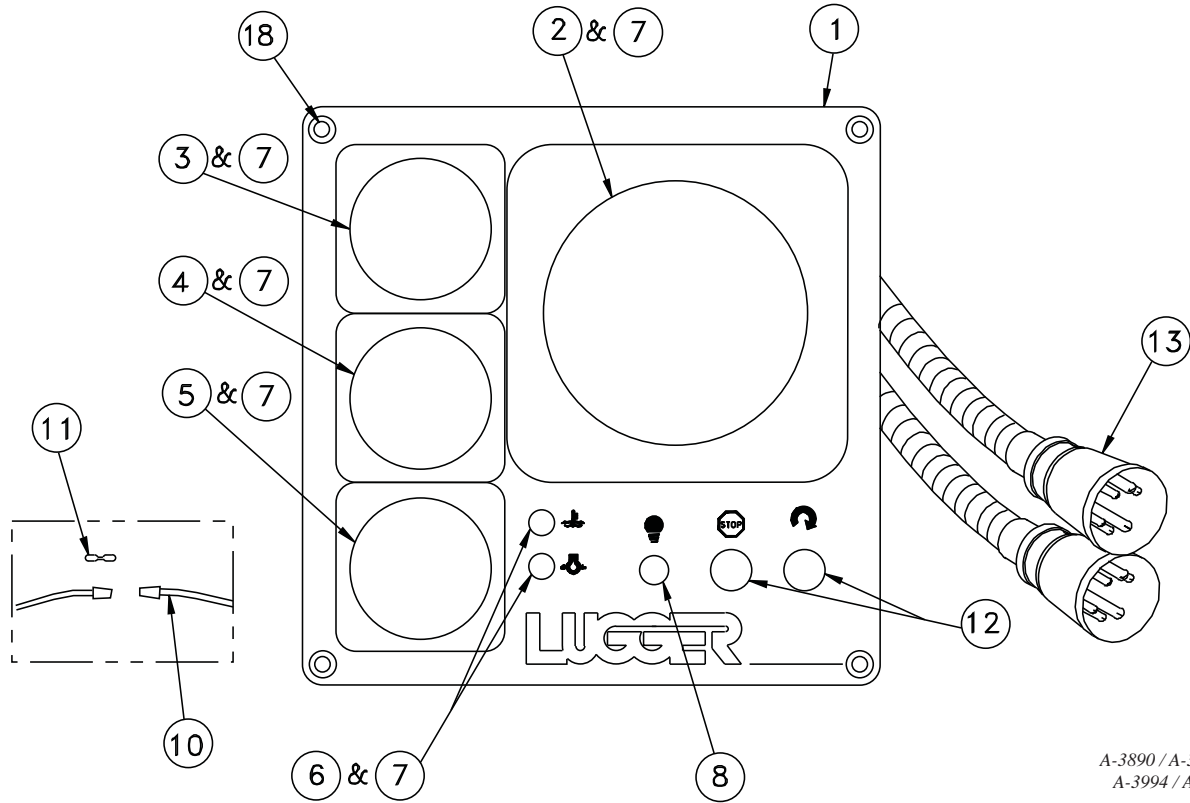


A-11536, A-11537, A-11534, A-11535 /
B-4734-3changed

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-95065	1	Flybridge Panel Kit 12 Volt (includes all keys)	-
••	22-95075	1	Flybridge Panel Kit 24 Volt (includes all keys)	-
•	22-95064	1	Flybridge Panel 12 Volt (includes keys 1-21)	-
•	22-95074	1	Flybridge Panel 24 Volt (includes keys 1-21)	-
1	28-96802	1	Panel Plate	-
2	37-90069	1	Tachometer 0-3500 RPM 12/24 Volt	-
3	37-90071-1	1	Oil Pressure Gauge, 0-150 PSI 12 Volt	-
	37-90080-1	1	Oil Pressure Gauge, 0-150 PSI 24 Volt	-
4	37-90075-1	1	Temperature Gauge, 250°F 12 Volt	-
	37-90076-1	1	Temperature Gauge, 250°F 24 Volt	-
5	22-40263-1	1	Alarm Horn - 12/24 VDC	-
6	22-44851	2	Lamp Holder, Amber Lens	-
7	22-44852	**	Bulb, Clear 12 Volt	-
	22-44853	**	Bulb, Clear 24 Volt	-
8	22-40247	1	Toggle Switch (for panel lights)	-
9	22-41060	2	6 Amp 50 Volt Diode (not shown)	-
10	22-00044	1	In-line Fuse Holder	-
11	22-41008	1	7.5 Amp Fuse	-
12	37-91007	2	Push Button Weatherproof	-
13	22-90003	1	Wire Harness	-
14	16-01002	1	O-ring	-
15	22-44861	2	Bulb Diffuser, Red (not shown)	-
16	22-40361	1	Boot, Toggle Switch (not shown)	-
17	00-90043	1	Label, Panel Electrical Load Warning (not shown)	-
18	00-00013	1	Label "12 Volt" (not shown)	-
	00-00014	1	Label "24 Volt" (not shown)	-
19	12-90002	4	Screw, Self Tapping #8 x 1, Type AB Philips	-
20	22-41001	1	Extension Harness 10 ft. (not shown)	-
21	22-71009	1	Double Plug "Y" Harness (not shown)	-

GROUP 5 - ELECTRICAL SYSTEM

FLYBRIDGE PANEL - BLUE LINE 12 & 24 VOLT

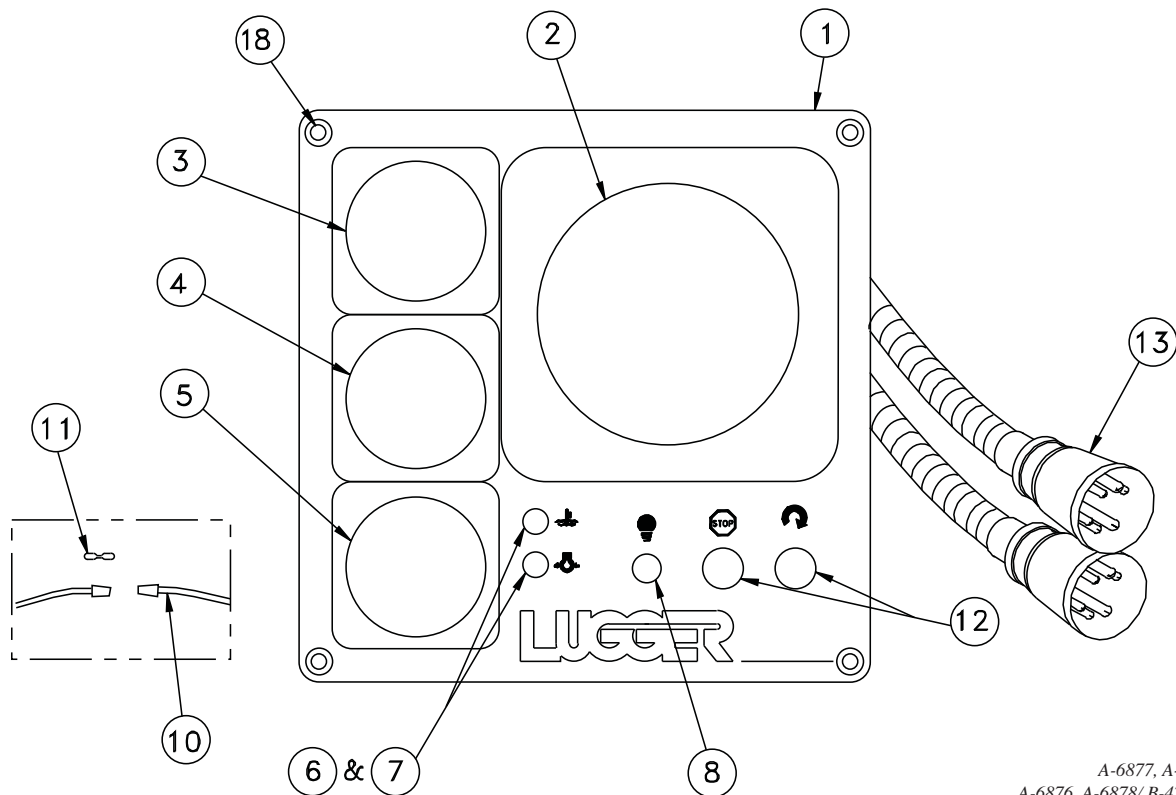


A-3890 / A-3993D
A-3994 / A-3893

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-95060	1	12 Volt Flybridge Panel Kit (includes all keys)	-
••	22-95080	1	24 Volt Flybridge Panel Kit (includes all keys)	-
•	22-95040	1	12 Volt Flybridge Panel (includes keys #1 - #14, #18 & #19)	-
•	22-45030	1	24 Volt Flybridge Panel (includes keys #1 - #14, #18 & #19)	-
1	28-94802	1	Panel Plate	-
2	37-95001	1	Tachometer 0-3000 RPM	-
3	37-94804	1	Oil Pressure Gauge 0-150 PSI - 12 Volt	-
	37-94811	1	Oil Pressure Gauge 0-150 PSI - 24 Volt	-
4	37-94805	1	Temperature Gauge - 12 Volt	-
	37-94810	1	Temperature Gauge - 24 Volt	-
5	22-40263	1	Alarm Horn - 12/24 Volt (replaces former #22-44854 & #22-44855)	-
6	22-44851	2	Fault Lamp Holder, Amber	-
7	22-44852	**	Bulb, Clear - 12 Volt	-
	22-44853	**	Bulb, Clear - 24 Volt	-
	37-41004	**	Bulb, Red - 12 Volt	-
	37-41003	**	Bulb, Red - 24 Volt	-
8	22-44856	1	Dimmer Switch for Panel Lights	-
9	22-41060	2	6 Amp 50 Volt Diode (not shown)	-
10	22-00044	1	In-Line Fuse Holder	-
11	22-41008	1	7.5 Amp Fuse	-
12	37-91007	2	Push Button, Weatherproof	-
13	22-90003	1	Wire Harness	-
14	22-41001	1	Extension Harness 10 ft. (not shown)	-
15	22-44872	1	Oil Pressure Sender, Dual Station (not shown)	-
16	22-74802	1	Temperature Sender, Dual Station (not shown) (formerly #22-71026)	-
17	22-71009	1	Double Plug "Y" Harness (not shown)	-
18	12-90002	4	Self Tapping Screw #8 x 1, Type AB Phillips	-
			**As required.	

GROUP 5 - ELECTRICAL SYSTEM

FLYBRIDGE PANEL - VANGUARD 12 & 24 VOLT

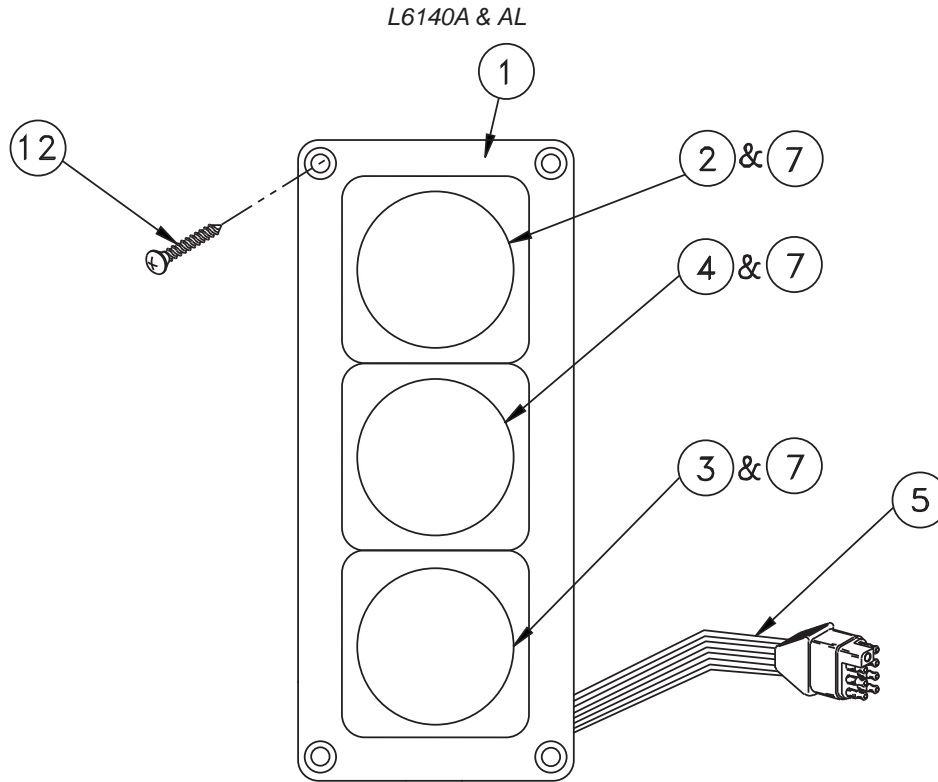


A-6877, A-6879
A-6876, A-6878/ B-4734-3

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-96825	1	12 Volt Flybridge Panel Kit (includes all keys)	-
••	22-96820	1	24 Volt Flybridge Panel Kit (includes all keys)	-
•	22-96824	1	12 Volt Flybridge Panel (includes keys #1 - #13, #18 & #19)	-
•	22-96819	1	24 Volt Flybridge Panel (includes keys #1 - #13, #18 & #19)	-
1	28-96802	1	Panel Plate	-
2	37-96802	1	Tachometer 0-3000 RPM, 12 Volt	-
	37-96801	1	Tachometer 0-3000 RPM, 24 Volt	-
3	37-90027	1	Oil Pressure Gauge 0-150 PSI - 12 Volt	-
	37-90028	1	Oil Pressure Gauge 0-150 PSI - 24 Volt	-
4	37-90025	1	Temperature Gauge - 12 Volt	-
	37-90026	1	Temperature Gauge - 24 Volt	-
5	22-40263	1	Alarm Horn - 12/24 Volt	-
6	22-44851	2	Fault Lamp Holder, Amber	-
7	22-44852	**	Bulb, Clear - 12 Volt	-
	22-44853	**	Bulb, Clear - 24 Volt	-
8	22-40247	1	Toggle Switch (for Panel Lights)	-
9	22-41060	2	6 Amp 50 Volt Diode (not shown)	-
10	22-00044	1	In-Line Fuse Holder	-
11	22-41008	1	7.5 Amp Fuse	-
12	37-91007	2	Push Button Weatherproof	-
13	22-90003	1	Wire Harness	-
14	22-41001	1	Extension Harness 10 ft. (not shown)	-
15	22-44872	1	Oil Pressure Sender, Dual Station (not shown)	-
16	22-74802	1	Temperature Sender, Dual Station (not shown, formerly #22-71026)	-
17	22-71009	1	Double Plug "Y" Harness (not shown)	-
18	12-90002	4	Self Tapping Screw #8 x 1, Type AB Phillips	-
19	21-51099	1	Bushing, Brass 3/4 NPT x 1/4 NPT (not shown)	-
			**As required.	

GROUP 5 - ELECTRICAL SYSTEM

AUXILIARY INSTRUMENT PANEL - BLUE LINE 12 & 24 VOLT

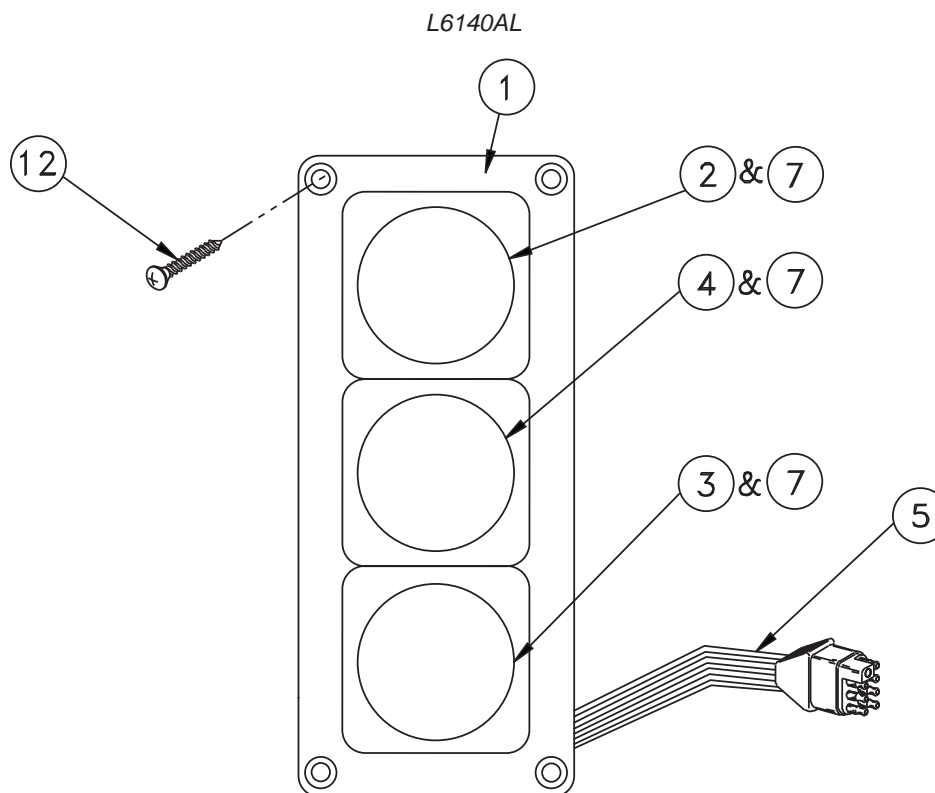


A-3892C, A-3888C,
A-4383, A-4384/ B-6747

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-44870	1	12 Volt Auxiliary Panel Kit (includes all keys)	-
••	22-45020	1	24 Volt Auxiliary Panel Kit (includes all keys)	-
•	22-44869	1	12 Volt Auxiliary Panel (includes keys 1-7)	-
•	22-45019	1	24 Volt Auxiliary Panel (includes keys 1-7)	-
1	28-74801	1	Panel Plate	-
2	37-94809	1	Pyrometer Assembly (includes thermocouple & harness)	-
	37-94816	1	Pyrometer (gauge only)	-
	22-75006	1	Harness	-
	22-75007	1	Thermocouple	-
3	37-94807	**	Oil Pressure Gauge 0-350 PSI, 12 Volt	-
	37-94812	**	Oil Pressure Gauge 0-350 PSI, 24 Volt	-
	37-90019	**	Oil Pressure Gauge 0-400 PSI, 12 Volt	-
4	37-94808	1	Pressure Gauge 0-30 PSI	-
5	22-44865	1	Wire Harness	-
6	22-40004	**	Resistor Kit - 24 Volt Panel Only (not shown)	-
7	22-44852	**	Bulb, Clear - 12 Volt	-
	22-44853	**	Bulb, Clear - 24 Volt	-
	37-41004	**	Bulb, Red - 12 Volt	-
	37-41003	**	Bulb, Red - 24 Volt	-
8	22-41094	1	Pressure Sender 0-30 PSI (not shown)	-
9	22-44873	1	Pressure Sender 0-350 PSI (not shown)	-
	22-40239	1	Pressure Sender 400 PSI (not shown)	-
10	21-00139	1	Adapter 1/8 BSPT x 1/8 NPT (not shown)	-
11	22-94803	1	Extension Harness 3 Ft. (not shown)	-
12	12-90002	4	Self Tapping Screw #8 x 1" Type AB Phillips	-
13	21-34802	1	Connector for Thermocouple (included in #37-94809)	-
			**As required.	

GROUP 5 - ELECTRICAL SYSTEM

AUXILIARY INSTRUMENT PANEL - BLUE LINE 12 & 24 VOLT



A-6040, A-6042
A-6041, A-6043/ B-6747

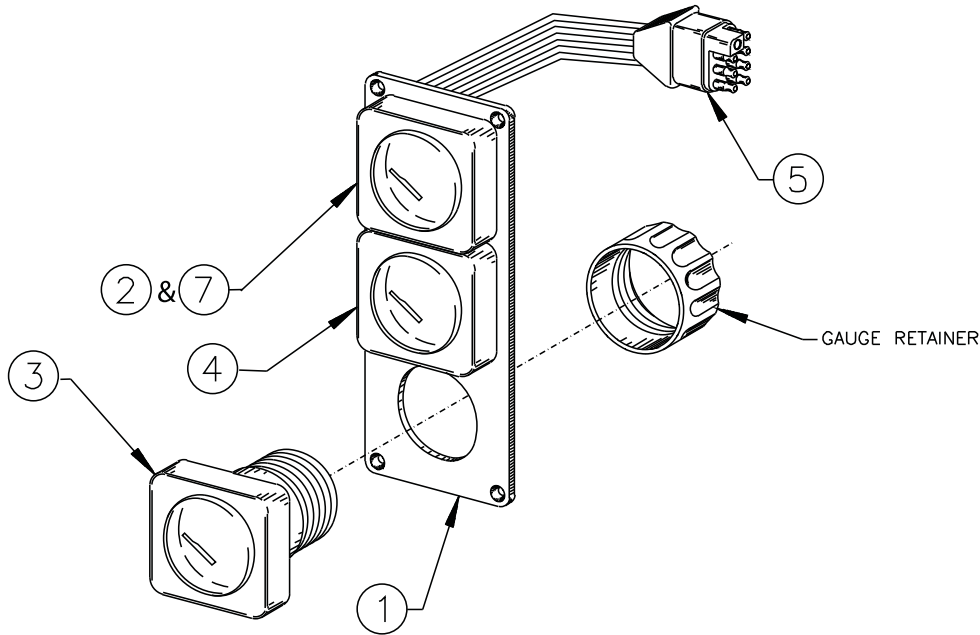
KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-70045	1	12 Volt Auxiliary Panel Kit (includes all keys)	-
••	22-70050	1	24 Volt Auxiliary Panel Kit (includes all keys)	-
•	22-40218	1	12 Volt Auxiliary Panel (includes keys #1 - #7)	-
•	22-40219	1	24 Volt Auxiliary Panel (includes keys #1 - #7)	-
1	28-74801	1	Panel Plate	-
2	37-94809	1	Pyrometer Assembly (includes thermocouple & harness)	-
	37-94816	1	Pyrometer (gauge only)	-
	22-75006	1	Harness	-
	22-75007	1	Thermocouple	-
3	37-94807	1	Oil Pressure Gauge 0-350 PSI, 12 Volt	-
	37-94812	1	Oil Pressure Gauge 0-350 PSI, 24 Volt	-
	37-90019	1	Oil Pressure Gauge 0-400 PSI, 12 Volt	-
4	37-91001	1	Pressure Gauge 0-80 PSI, 12 Volt	-
5	22-44865	1	Wire Harness	-
6	22-40004	**	Resistor Kit - 24 Volt Panel Only (not shown)	-
7	22-44852	**	Bulb, Clear - 12 Volt	-
	22-44853	**	Bulb, Clear - 24 Volt	-
	37-41004	**	Bulb, Red - 12 Volt	-
	37-41003	**	Bulb, Red - 24 Volt	-
8	22-41016	1	Pressure Sender 0-80 PSI (not shown)	-
9	22-44873	1	Pressure Sender 0-350 PSI (not shown)	-
	22-40239	1	Pressure Sender 400 PSI (not shown)	-
10	21-00139	1	Adapter 1/8 BSPT x 1/8 NPT (not shown)	-
11	22-94803	1	Extension Harness 3 Ft. (not shown)	-
12	12-90002	4	Self Tapping Screw #8 x 1" Type AB Phillips	-
13	21-34802	1	Connector for Thermocouple (included in #37-94809)	-

**As required.

GROUP 5 - ELECTRICAL SYSTEM

AUXILIARY INSTRUMENT PANEL - "VANGUARD" 12 & 24 VOLT

Propulsion Application



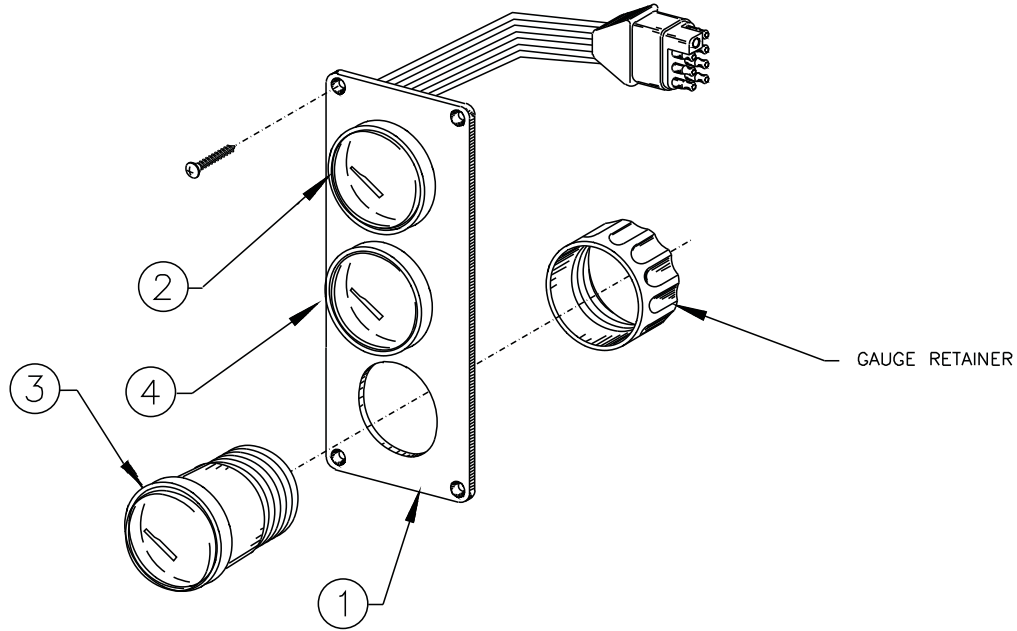
A-6902, A-6904
A-6901, A-6903 / B-4766C

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-96830	1	12 Volt Auxiliary Panel Kit (includes all keys)	-
••	22-96835	1	24 Volt Auxiliary Panel Kit (includes all keys)	-
•	22-96829	1	12 Volt Auxiliary Panel (includes keys 1 - 7)	-
•	22-96834	1	24 Volt Auxiliary Panel (includes keys 1 - 7)	-
1	28-74801	1	Panel Plate	-
2	37-90029	1	Pyrometer Assembly (includes thermocouple & harness)	-
	37-90030	1	Pyrometer (Gauge only)	-
	21-34802	1	Pyrometer Probe Connector*	-
3	37-90035	1	Oil Pressure Gauge 0-400 PSI, 12 Volt	-
	37-90036	1	Oil Pressure Gauge 0-400 PSI, 24 Volt	-
4	37-90061	1	Pressure Gauge 0-80 PSI, 12 Volt	-
	37-90062	1	Pressure Gauge 0-80 PSI, 24 Volt	-
5	22-44865	1	Wire Harness	-
6	12-90002	4	Self Tapping Screw #8 x 1 Type AB Phillips*	-
7	22-44852	**	Bulb, Clear - 12 Volt	-
	22-44853	**	Bulb, Clear - 24 Volt	-
	37-41004	**	Bulb, Clear - 12 Volt	-
	37-41003	**	Bulb, Clear - 24 Volt	-
8	22-41016	1	Pressure Sender 0-80 PSI*	-
9	22-40239	1	Pressure Sender 400 PSI*	-
10	21-00139	1	Adapter 1/8 BSPT x 1/8 NPT*	-
11	22-94803	1	Extension Harness 3 Ft.*	-
12	21-34802	1	Connector for Thermocouple (included in #37-90029)	-
			*Not shown	
			**As required	

GROUP 5 - ELECTRICAL SYSTEM

AUXILIARY INSTRUMENT PANEL - "OCEAN LINE" 12 & 24 VOLT

Propulsion Application, 28 PSI Pressure Gauge



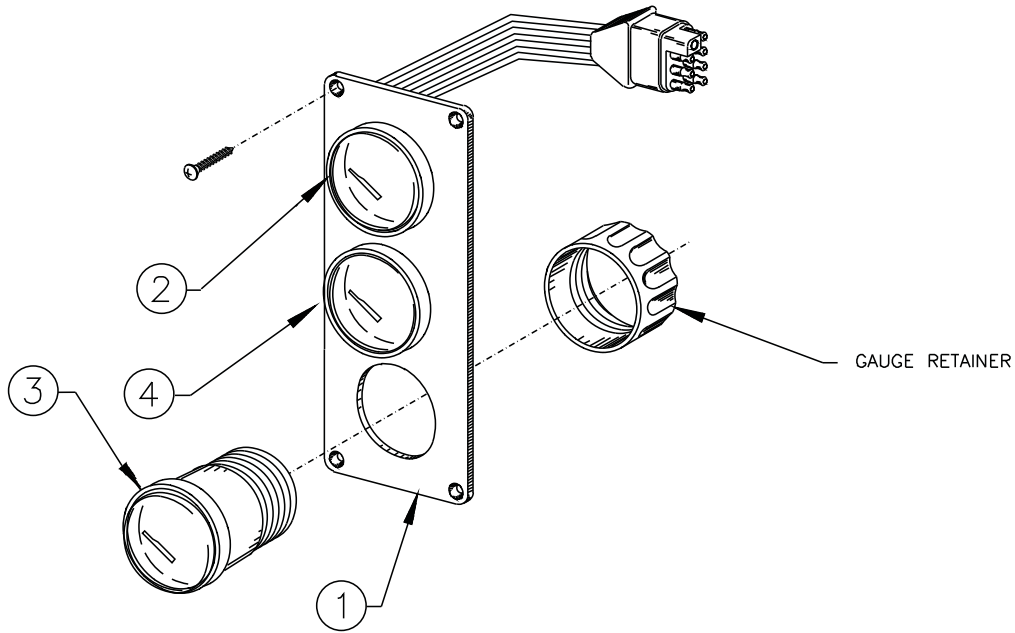
A-11546, A-11547, A-11550,
A-11551 / B-4766Cchanged

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-90660	1	12 Volt Auxiliary Panel Kit (includes all keys)	-
••	22-90665	1	24 Volt Auxiliary Panel Kit (includes all keys)	-
•	22-90659	1	12 Volt Auxiliary Panel (includes keys 1 - 7)	-
•	22-90664	1	24 Volt Auxiliary Panel (includes keys 1 - 7)	-
1	28-74801	1	Panel Plate	-
2	37-90029-1	1	Pyrometer Assembly (includes thermocouple & harness)	-
3	37-90083-1	1	Pressure Gauge 0-400 PSI, 12 Volt	-
	37-90084-1	1	Pressure Gauge 0-400 PSI, 24 Volt	-
4	37-90063-1	1	Pressure Gauge 0-28 PSI, 12 Volt	-
	37-90064-1	1	Pressure Gauge 0-28 PSI, 24 Volt	-
5	22-44865	1	Wire Harness	-
6	12-90002	4	Self Tapping Screw #8 x 1 Type AB Phillips*	-
7	37-41004	**	Bulb, Clear - 12 Volt	-
	37-41003	**	Bulb, Clear - 24 Volt	-
8	22-41094	1	Pressure Sender 0-30 PSI*	-
9	22-40239	1	Pressure Sender 400 PSI*	-
10	21-00139	**	Adapter 1/8 BSPT x 1/8 NPT*	-
11	22-94803	1	Extension Harness 3 Ft.*	-
12	21-34802	1	Connector for Thermocouple (included in #37-90029-1)	-
13	22-40004	1	Resistor Kit (for pyrometer, 24 Volt only)	-
			*Not shown	
			**As required	

GROUP 5 - ELECTRICAL SYSTEM

AUXILIARY INSTRUMENT PANEL - "OCEAN LINE" 12 & 24 VOLT

Propulsion Application, 80 PSI Pressure Gauge

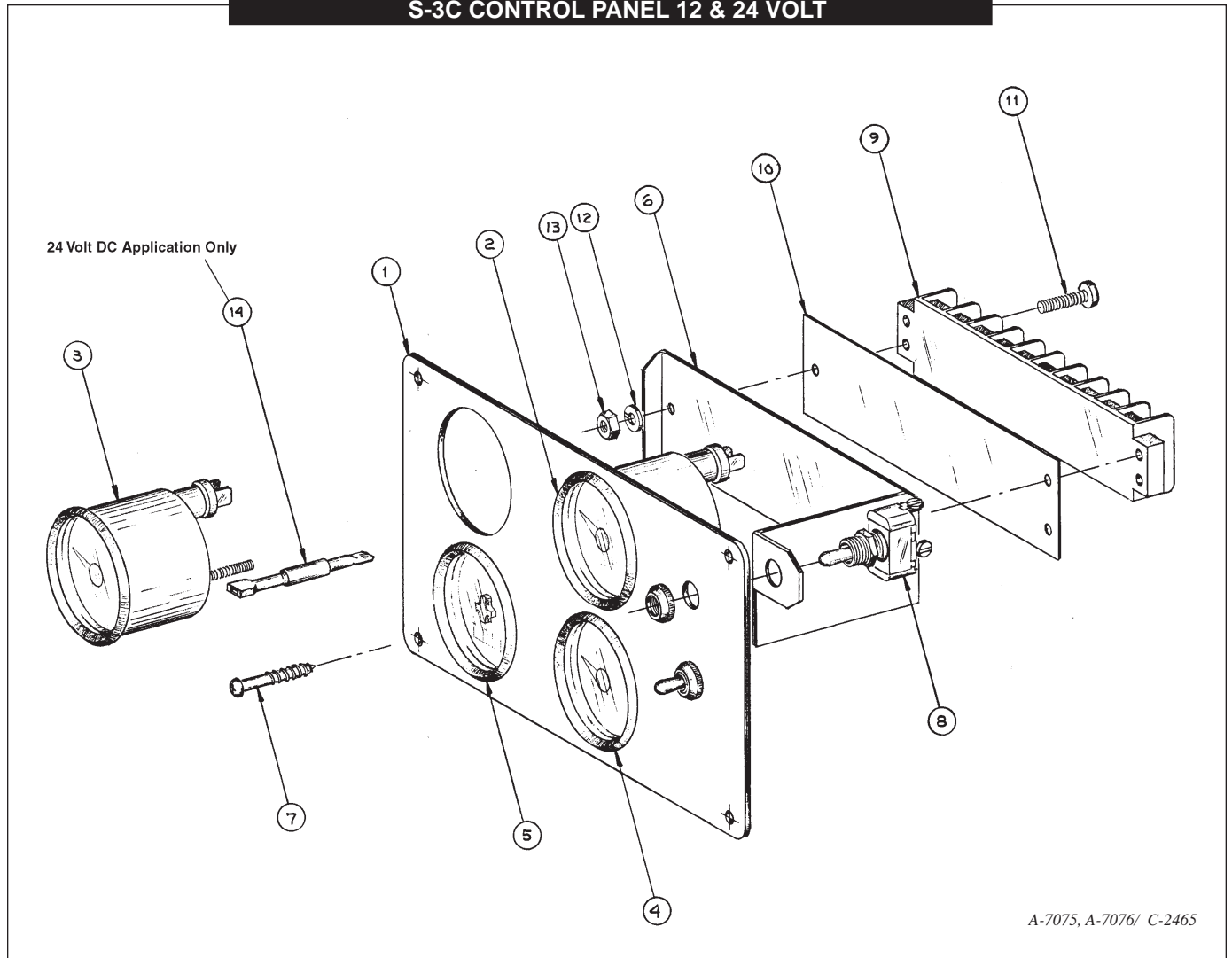


A-11548, A-11549, A-11552,
A-11553 / B-4766changed

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-90670	1	12 Volt Auxiliary Panel Kit (includes all keys)	-
••	22-90675	1	24 Volt Auxiliary Panel Kit (includes all keys)	-
•	22-90669	1	12 Volt Auxiliary Panel (includes keys 1 - 7)	-
•	22-90674	1	24 Volt Auxiliary Panel (includes keys 1 - 7)	-
1	28-74801	1	Panel Plate	-
2	37-90029-1	1	Pyrometer Assembly (includes thermocouple & harness)	-
3	37-90083-1	1	Pressure Gauge 0-400 PSI, 12 Volt	-
	37-90084-1	1	Pressure Gauge 0-400 PSI, 24 Volt	-
4	37-90067	1	Pressure Gauge 0-80 PSI, 12 Volt	-
	37-90068	1	Pressure Gauge 0-80 PSI, 24 Volt	-
5	22-44865	1	Wire Harness	-
6	12-90002	4	Self Tapping Screw #8 x 1 Type AB Phillips*	-
7	37-41004	**	Bulb, Clear - 12 Volt	-
	37-41003	**	Bulb, Clear - 24 Volt	-
8	22-41016	1	Pressure Sender 0-80 PSI*	-
9	22-40239	1	Pressure Sender 400 PSI*	-
10	21-00139	**	Adapter 1/8 BSPT x 1/8 NPT*	-
11	22-94803	1	Extension Harness 3 Ft.*	-
12	21-34802	1	Connector for Thermocouple (included in #37-90029-1)	-
13	22-40004	1	Resistor Kit (for pyrometer, 24 Volt only)	-
			*Not shown	
			**As required	

GROUP 5 - ELECTRICAL SYSTEM

S-3C CONTROL PANEL 12 & 24 VOLT

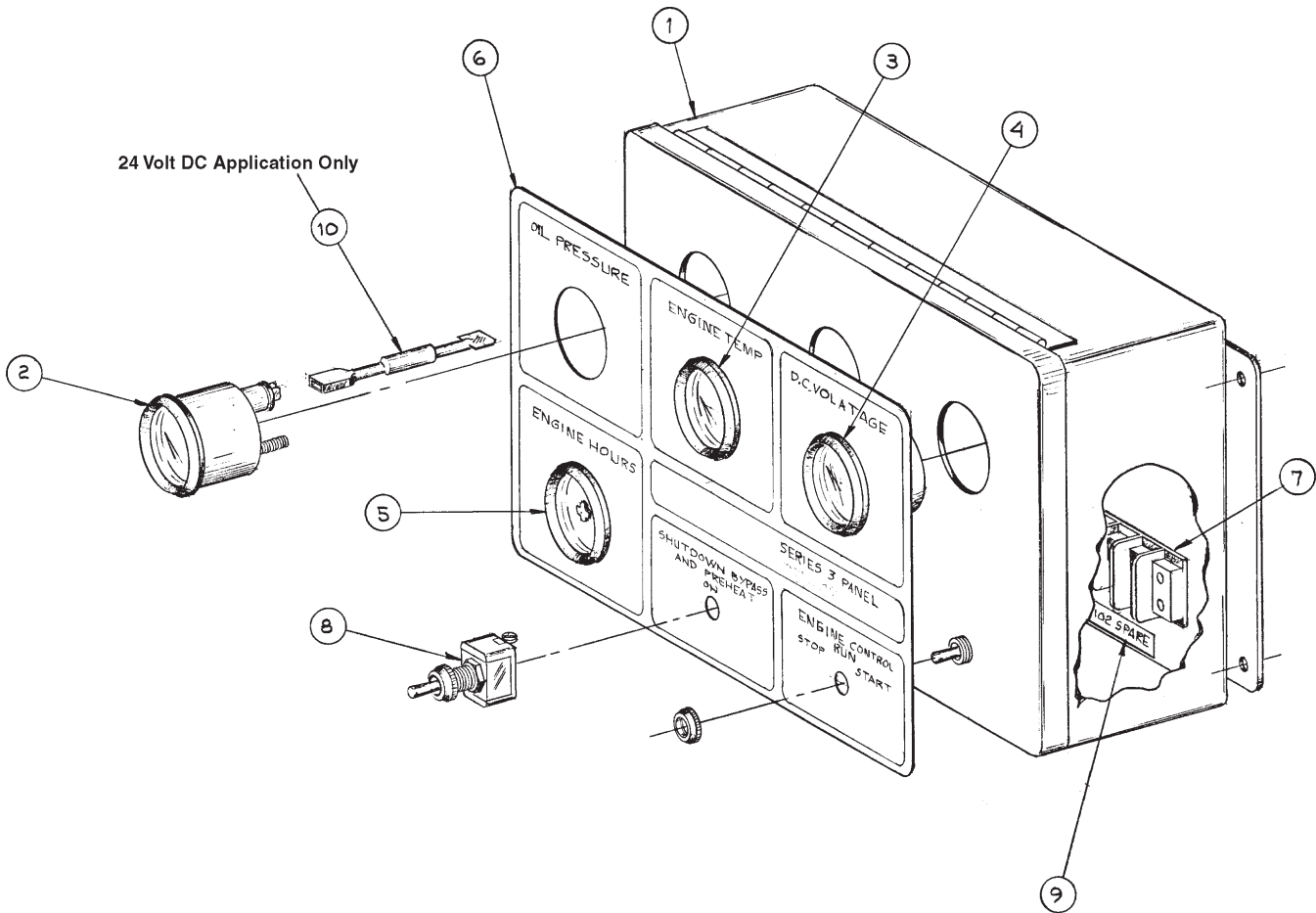


A-7075, A-7076/ C-2465

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-96855	1	S-3C Control Panel Assembly, 12 Volt (includes all keys)	-
••	22-96850	1	S-3C Control Panel Assembly, 24 Volt (includes all keys)	-
1	28-90010	1	Plate	-
2	37-40015	1	Pressure Gauge, 0-150 PSI	-
3	37-40011	1	Temperature Gauge, 250°	-
4	37-40012	1	DC Volt Meter, 12 Volt	-
	37-40014	1	DC Volt Meter, 24 Volt	-
5	37-40020	1	Hour Meter (not illuminated - replaces 22-40013)	-
6	23-90014	1	Bracket (replaces 23-91019)	-
7	12-90001	4	Screw, Philips Round Head #6 x 1" Black	-
8	22-41051	2	Switch	-
9	22-41077	1	Terminal Strip	-
10	22-00052	1	Number Strip	-
11	12-00005	2	Machine Screw, #8-32 x 3/4"	-
12	15-00000	2	Lock Washer, Helical #8	-
13	14-00000	2	Hex Nut, Steel #8-32	-
14	22-40004	2	Resistor Kit (24 Volt Panel only)	-
15	22-44852	**	Bulb, 12 Volt*	-
	22-44853	**	Bulb, 24 Volt*	-
16	22-40245	1	Wire Harness*	-
			*Not shown	**As required

GROUP 5 - ELECTRICAL SYSTEM

S-3B CONTROL PANEL 12 & 24 VOLT



A-7073, A-7074/ C-2470

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-96845	1	S-3B Control Panel Assembly, 12 Volt (includes all keys)	-
••	22-96840	1	S-3B Control Panel Assembly, 24 Volt (includes all keys)	-
1	39-40008	1	Enclosure	-
2	37-40015	1	Pressure Gauge 0-150 PSI	-
3	37-40011	1	Temperature Gauge 250° F	-
4	37-40012	1	DC Volt Meter, 12 Volt	-
	37-40014	1	DC Volt Meter, 24 Volt	-
5	37-40020	1	Hour Meter (not illuminated - replaces 22-40013)	-
6	00-91018	1	Decal	-
7	22-41077	1	Terminal Strip	-
8	22-41051	2	Switch	-
9	22-00052	1	Number Strip	-
10	22-40004	2	Resistor Kit (24 Volt Panel only)	-
11	22-44852	**	Bulb, 12 Volt *	-
	22-44853	**	Bulb, 24 Volt *	-
12	22-40257	1	Wire Harness *	-
13	16-01001	4	O-ring (for Gauge mounting)*	-
			*Not shown	**As required

NOTES

CYLINDER HEAD GASKETS L - M6140A - AL

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	29-05005	1	Cylinder Head Gasket Set (includes all keys)	up to 17627
1	07005-00812	15	Washer	-
2	16-25002	4	O-ring	-
3	16-11001	1	O-ring	-
4	16-14802	4	O-ring	-
5	16-64801	2	O-ring	-
6	11-25000	1	Gasket, Air Inlet Connector Mtg.	-
7	11-34804	2	Gasket, Turbo Mtg.	-
8	11-15002	1	Gasket, Thermostat Spacer	-
9	11-31014	1	Gasket, Turbo Oil Inlet	-
10	11-31013	1	Gasket, Turbo Oil Return	-
11	11-35001	1	Gasket, Turbo Exhaust Outlet 5.2" I.D.	-
12	11-34808	1	Gasket, Turbo Exhaust Outlet 5.2" I.D.	-
13	11-14804	3	Gasket	-
14	11-14806	1	Gasket	-
15	11-15001	1	Gasket, Coolant Outlet to H.E.	-
16	11-15003	1	Gasket, Coolant Pump Inlet	-
17	11-14807	2	Gasket, 1-1/4 BSPP Port	-
18	16-15002	3	O-ring	-
19	16-15006	4	O-ring	-
20	16-14804	1	O-ring	-
21	16-00003	1	O-ring	-
22	16-15001	1	O-ring	-
23	11-75001	2	Gasket, Raw Water Pump Connection	-
24	6210-11-8811	6	Gasket, Rocker Arm Cover	-
25	6210-11-7813	6	Gasket, Rocker Arm Housing	-
26	02893-05037	2	O-ring	-
27	02895-67075	4	O-ring	-
28	02895-67081	2	O-ring	-
29	07000-03025	4	O-ring	-
30	07000-72055	1	O-ring	-
31	07000-73025	6	O-ring	-
32	07000-F2021	12	O-ring	-
33	07005-01012	12	Washer	-
34	07005-01412	1	Washer	-
35	07005-02416	1	Washer	-
36	6127-81-4823	1	Gasket	-
37	6128-11-5910	1	Gasket	-
38	6151-51-8151	1	Gasket	-
39	6210-11-4811	12	Gasket	-
40	6210-11-5881	6	Gasket	-
41	6210-11-7131	6	O-ring	-
42	6210-11-7710	6	O-ring	-
43	6210-11-8141	18	Rubber Seal	-
44	6210-17-1814	6	Gasket, Head	-
45	6210-41-4541	12	Valve	-
46	6210-61-6421	1	Gasket	-
47	6210-71-1160	6	Gasket	-
48	6211-11-5180	1	Gasket	-
49	6211-11-5191	2	Gasket	-
50	6211-11-5241	2	Seal	-

CYLINDER HEAD GASKETS L - M6140A - AL *continued*

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
51	6211-11-5281	1	Gasket	-
52	6211-11-5291	1	Gasket	-
53	6212-11-4721	1	Gasket	-
54	6212-15-5831	1	Gasket	-
55	6212-61-6431	4	O-ring	-
56	6212-61-6661	4	Gasket	-
57	6215-15-4710	2	Gasket	-
58	6990-20-3270	2	Gasket	-

CYLINDER HEAD GASKETS L - M6140A - AL

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	29-05000	1	Cylinder Head Gasket Set (includes all keys)	from s/n 17628
1	07005-00812	15	Sealing Washer	-
2	16-25002	4	O-ring, Air Inlet Connection	-
3	16-11001	1	O-ring, Turbo Coolant Tube Connection	-
4	16-14802	4	O-ring, Heat Exchanger Cover	-
5	16-64801	2	O-ring, Gear Oil Cooler Cover	-
6	11-25000	1	Gasket, Air Inlet Connection	-
7	11-34804	2	Gasket, Turbo Mtg.	-
8	11-15002	1	Gasket, Thermostat Hsg. Connection	-
9	11-31014	1	Gasket, Turbo Oil Supply Connection	-
10	11-31013	1	Gasket, Turbo Oil Return Connection	-
11	11-35001	1	Gasket, Exhaust Outlet	-
12	11-34808	1	Gasket, Exhaust Outlet	-
13	11-14804	3	Gasket, Heat Exchanger Outlet	-
14	11-14806	1	Gasket, Heat Exchanger to Gear Cooler	-
15	11-15001	1	Gasket, Coolant Tube to H. E.	-
16	11-15003	1	Gasket, Circulation Pump Inlet	-
17	11-14807	2	Gasket, Gear Cooler Port	-
18	16-15002	3	O-ring, Coolant Connector	-
19	16-15006	4	O-ring, Expansion Tank Mtg.	-
20	16-14804	1	O-ring, Filler Neck Mtg.	-
21	16-00003	1	O-ring, Filler Neck Mtg.	-
22	16-15001	1	O-ring, Water Pump/Acc.Drive Mtg.	-
23	11-75001	2	Gasket, Raw Water Pump Connection	-
24	11-15005	2	Gasket, Coolant Pump Inlet	-
25	16-15705	2	O-ring	-
26	16-15008	1	O-ring	-
27	16-13101	1	O-ring	-
28	16-15010	1	O-ring	-
29	6212-41-4540	12	Valve Stem Seal, Exhaust	-
30	02893-05037	2	O-ring	-
31	02895-67075	4	O-ring	-
32	02895-67081	2	O-ring	-
33	07000-03025	4	O-ring	-
34	07000-72055	1	O-ring	-
35	07000-73025	6	O-ring	-
36	07000-F2021	12	O-ring	-
37	07005-01012	12	Washer	-
38	07005-01412	1	Washer	-
39	07005-02416	1	Washer	-
40	6127-81-4823	1	Gasket	-
41	6128-11-5910	1	Gasket	-
42	6151-51-8151	1	Gasket	-
43	6210-11-4811	12	Gasket	-
44	6210-11-5881	6	Gasket	-
45	6210-11-7131	6	O-ring	-
46	6210-11-7710	6	O-ring	-
47	6210-11-7830	6	Gasket	-
48	6210-11-8141	18	Rubber Seal	-
49	6210-11-8820	6	Gasket, Rocker Cover	-
50	6210-17-1814	6	Gasket, Head	-
51	6210-41-4541	12	Valve	-
52	6210-61-6421	1	Gasket	-

CYLINDER HEAD GASKETS L - M6140A - AL *continued*

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
53	6210-71-1160	6	Gasket	-
54	6211-11-5180	1	Gasket	-
55	6211-11-5191	2	Gasket	-
56	6211-11-5241	2	Seal	-
57	6211-11-5281	1	Gasket	-
58	6211-11-5291	1	Gasket	-
59	6212-11-4721	1	Gasket	-
60	6212-15-5831	1	Gasket	-
61	6212-61-6431	4	O-ring	-
62	6212-61-6661	4	Gasket	-
63	6215-15-4710	2	Gasket	-
64	6990-20-3270	2	Gasket	-

GROUP 6 - GASKET SETS

CYLINDER BLOCK KIT L - M6140 ALL

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	6212-K2-9902	1	Cylinder Block Gasket Kit (includes all keys, formerly #6212-K2-7900, 6212-K2-7901, 6212-K2-7200, 6212-K2-9900, and 6212-K2-9901)	-
1	6210-21-2250	6	Cylinder Liner Crevice Seal	-
2	6210-21-2240	6	Cylinder Liner Center O-ring	-
3	6210-21-2230	6	Lower Cylinder Liner O-ring	-
4	6150-21-6460	2	Cover O-ring	-
5	6150-21-6390	6	Cover Mount Bolt Packing	-
6	6210-21-6452	1	Cover O-ring	-
7	6210-61-6550	1	Water Cover Plate Gasket	-
8	6210-21-1970	1	Water Cover Flange Gasket	-
9	6696-61-9920	1	Water Cover Flange Gasket	-
10	07005-01012	1	Cylinder Block Plug Gasket	-
11	07005-01412	28	Gasket	-
12	07000-03050	1	Front Cover O-ring	-
13	07000-02060	1	PTO Front Cover O-ring	-
14	6150-21-3230	1	Front Oil Seal	-
15	6210-21-5280	1	Oil Pan Gasket, Frame End	-
16	07002-23634	1	Drain Plug O-ring	-
17	6210-21-5812	1	Oil Pan Gasket	-
18	6150-21-4230	1	Rear Oil Seal	-
19	07000-63038	1	Oil Pump O-ring	-
20	07000-63040	1	Strainer O-ring	-
21	6210-21-6462	1	Oil Filter Adapter O-ring	-
22	07000-63028	2	Oil Filter Adapter O-ring	-
23	07000-63032	1	Oil Filter Adapter O-ring	-
24	6162-53-5430	1	Oil Filter Plug Packing	-
25	07000-63048	1	Oil Filter O-ring	-
26	07000-63032	1	Oil Filter O-ring	-
27	07000-63035	2	Oil Cooler Element	-
28	6210-61-2170	2	Oil Cooler Element Gasket	-
29	6150-61-2540	1	Oil Cooler Thermostat Seal	-
30	07000-63042	1	Oil Cooler Thermostat Seal	-
31	6210-61-2550	1	Oil Cooler Cover O-ring	-
32	6210-61-2810	1	Oil Cooler Gasket	-
33	6210-71-3181	1	Injection Pump Drive Shaft Seal	-
34	07000-62060	1	Breather O-Ring	-
35	07005-00812	1	Fuel Filter Air Plug Gasket	-
36	6136-21-5870	1	Gasket	-
37	6210-21-5820	1	Oil Pan Gasket	-
38	6710-11-6451	2	Thermostat Seal	-
39	6210-61-6420	1	Thermostat Housing Gasket	-
40	6210-61-6440	1	Water Connector Gasket	-
41	6610-81-2210	1	Starting Motor Gasket	-

GROUP 6 - GASKET SETS

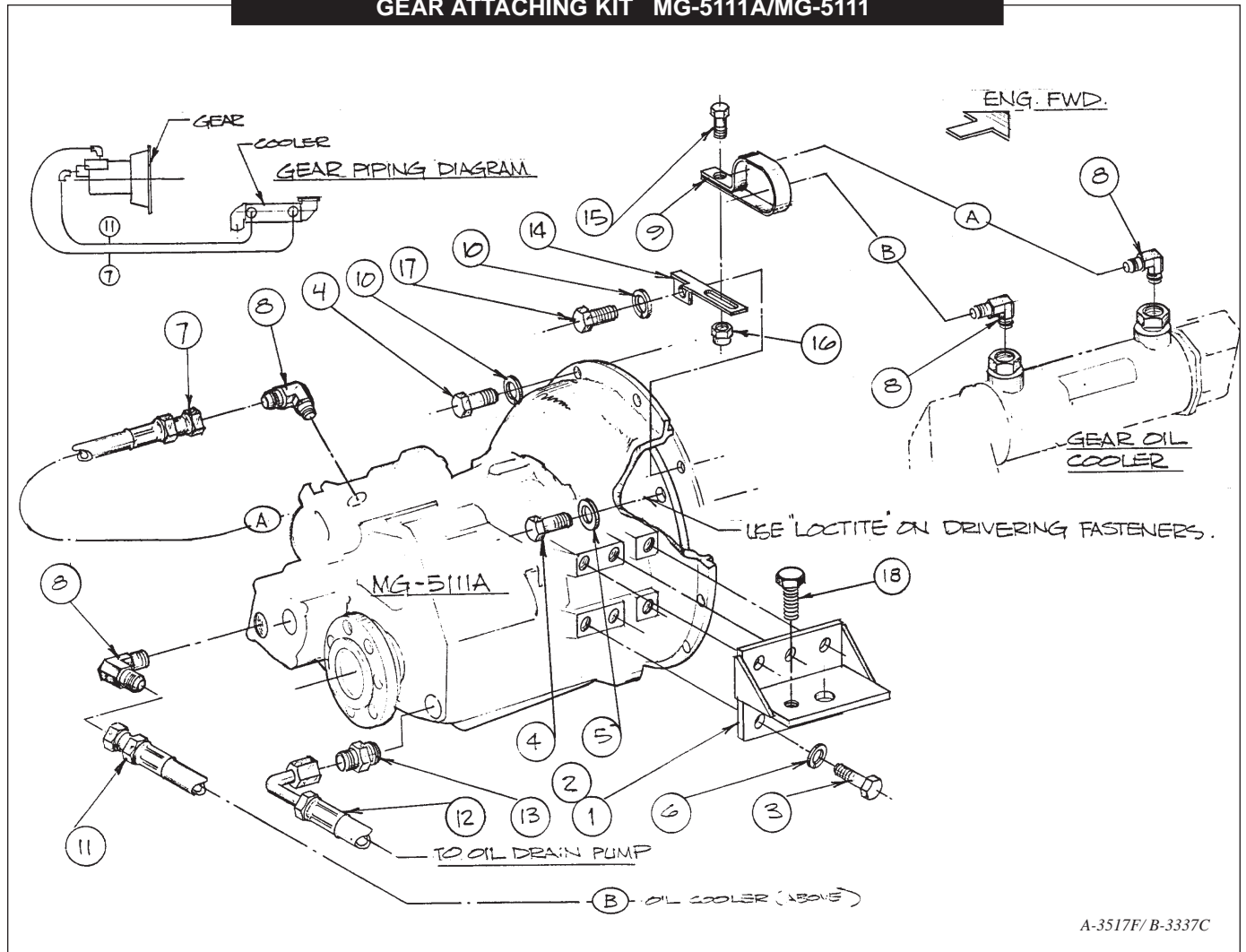
WATER PUMP KIT

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	6212-K6-9902	1	Water Pump Gasket Kit (includes all keys, formerly #6212-K6-7900, 6212-K6-7901, 6212-K6-9900, & 6212-K6-9901)	-
1	6210-61-6340	1	Water Elbow Gasket	-
2	07000-05065	1	Water Elbow O-ring	-
3	6210-61-6330	1	Water Connector Gasket	-
4	6150-61-1520	1	Water Seal	-
5	6210-61-1510	1	Oil Seal	-
6	6210-61-1520	1	Oil Seal	-
7	6211-61-1160	1	Water Pump Cover Gasket	-
8	07000-02070	1	Water Pump Housing O-ring	-
9	07000-02115	1	Water Pump Housing O-ring	-
10	6210-61-6230	1	Water Connector Gasket	-
11	02893-05037	2	Water Tube O-ring	-
12	07000-03025	1	Water Tube Bypass O-ring	-
13	07000-03032	1	Water Tube Bypass O-ring	-

NOTES

GROUP 7 - GEAR AND ADAPTER PARTS

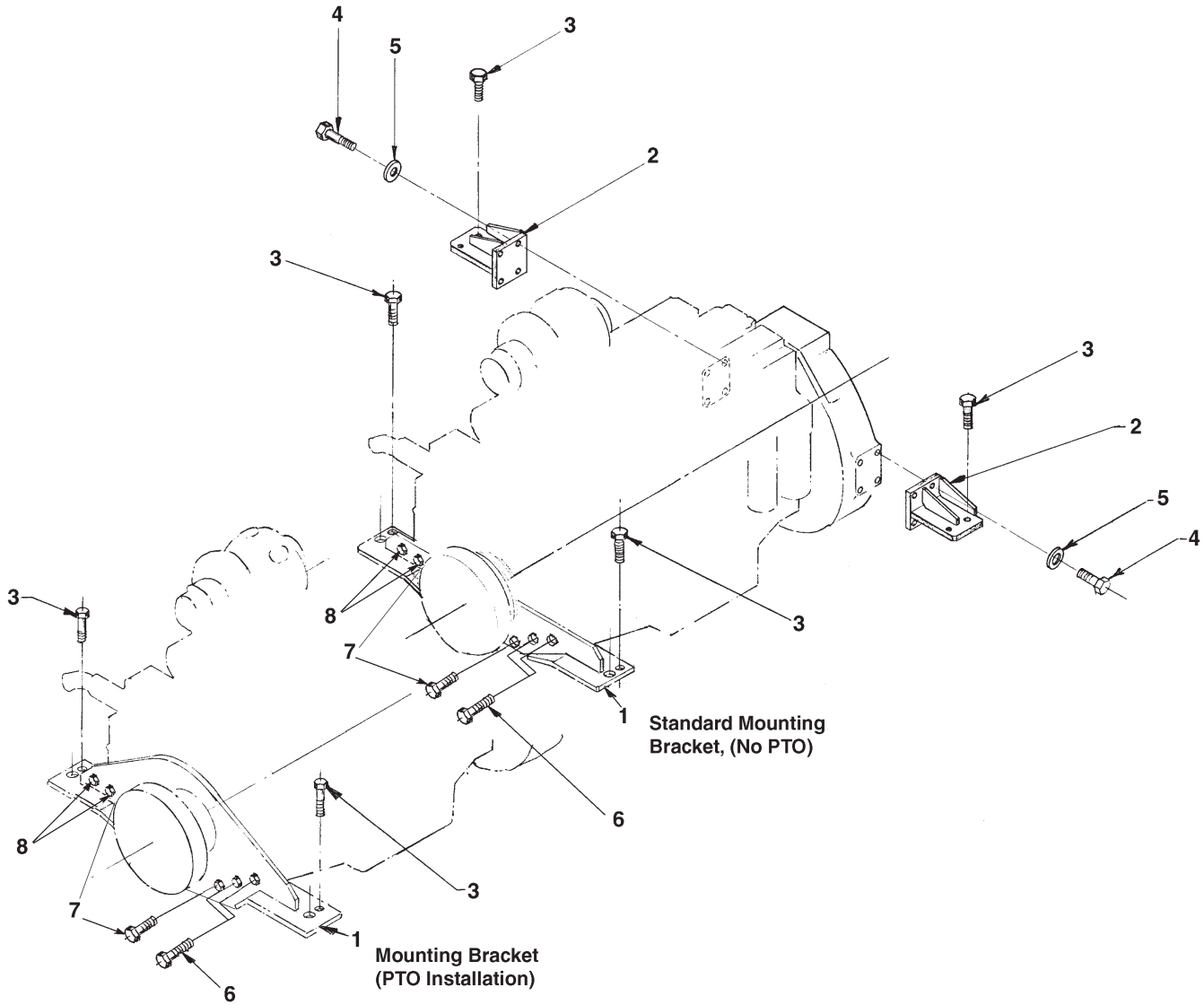
GEAR ATTACHING KIT MG-5111A/MG-5111



KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	23-65013	1	Gear Mount Bracket, Left Hand (MG-5111)	-
	23-65005	1	Gear Mount Bracket, Left Hand (MG-5111A)	-
2	23-65014	1	Gear Mount Bracket, Right Hand (MG-5111)	-
	23-65006	1	Gear Mount Bracket, Right Hand (MG-5111A)	-
3	12-00913	8	Capscrew, Hex Head 5/8-11 x 1-1/2"	-
4	12-00953	10	Capscrew, Hex Head M12 x 1.75 x 30 mm	-
5	15-00007	8	Flat Washer, M12	-
6	15-00902	8	Lock Washer, 5/8"	-
7	18-65003	1	Hose Assembly, 3/4" ID x 87" (keel cooled)	-
	18-65005	1	Hose Assembly, 3/4" ID x 127" (heat exchanged)	-
8	21-64801	4	Male Elbow, 90° Steel 3/4 NPT x 3/4-37T	-
9	19-71031	2	Adelle Clamp	-
10	15-00802	12	Lock Washer, M10	-
11	18-65002	1	Hose Assembly 3/4"ID x 71" (keel cooled)	-
	18-65005	1	Hose Assembly 3/4"ID x 127" (heat exchanged)	-
12	18-64806	1	Hose Assembly 1/2 x 40" (to oil drain pump)	-
13	21-64805	1	Adapter, 5/8-37T x 1-1/16 O-ring	-
14	23-62516	1	Plumbing Support Bracket	-
15	12-00831	1	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
16	12-00812	1	Nylock Nut M10 x 1.5	-
17	12-00832	12	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
18	12-80000	2	Capscrew, Hex Head Full Thread M12 x 1.75 x 50 mm	-

GROUP 8 - BASE FRAME AND MOUNTING

ENGINE MOUNTING

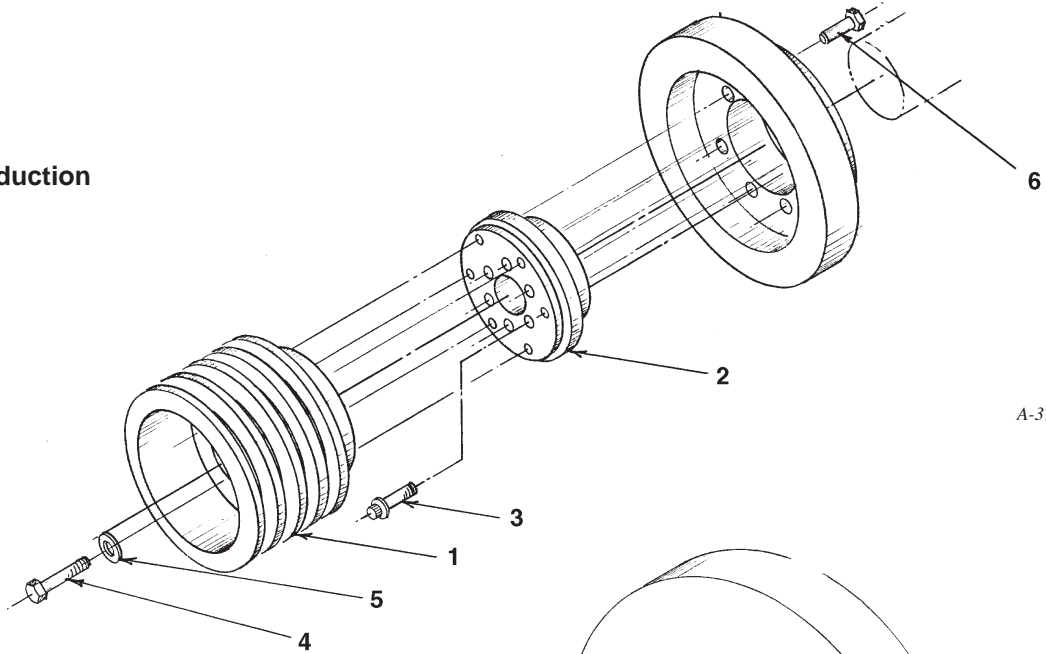


A-3645C / C-2163A

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	23-85001	1	Front Support (used without PTO) 8 Bolt Mtg.	up to S/N xxxx - 0547
	23-65004	1	Front Support (used with PTO) 8 Bolt Mtg.	up to S/N xxxx - 0547
	6212-21-3721	1	Front Engine Mounting Bracket (used with PTO) 6 Bolt Mtg.	from S/N xxxx - 0548
2	23-65009	1	Front Engine Mounting Bracket (used without PTO) 6 Bolt Mtg.	from S/N xxxx - 0548
	23-85005	2	Rear Engine Mounting Bracket, SAE #0 Housing	-
3	23-85031	1	Rear Engine Mounting Bracket, SAE #1 Housing, Left Hand	-
	23-85032	1	Rear Engine Mounting Bracket, SAE #1 Housing, Right Hand	-
4	12-80000	4	Capscrew, Hex Head M12 x 1.75 x 50 mm	-
5	12-04803	8	Capscrew, Hex Head M16 x 2.0 x 40 mm	-
6	15-01000	8	Lock Washer, M16	-
7	12-00937	2	Capscrew, Hex Head M12 x 1.75 x 160 mm	-
	01011-81225	3	Capscrew, Hex Head M12 x 1.75 x 125 mm	up to S/N xxxx - 0547
8	01011-81220	2	Capscrew, Hex Head M12 x 1.75 x 120 mm	from S/N xxxx - 0548
	01011-81235	2	Capscrew, Hex Head M12 x 1.75 x 135 mm	up to S/N xxxx - 0547
	01011-81225	1	Capscrew, Hex Head M12 x 1.75 x 125 mm	from S/N xxxx - 0548

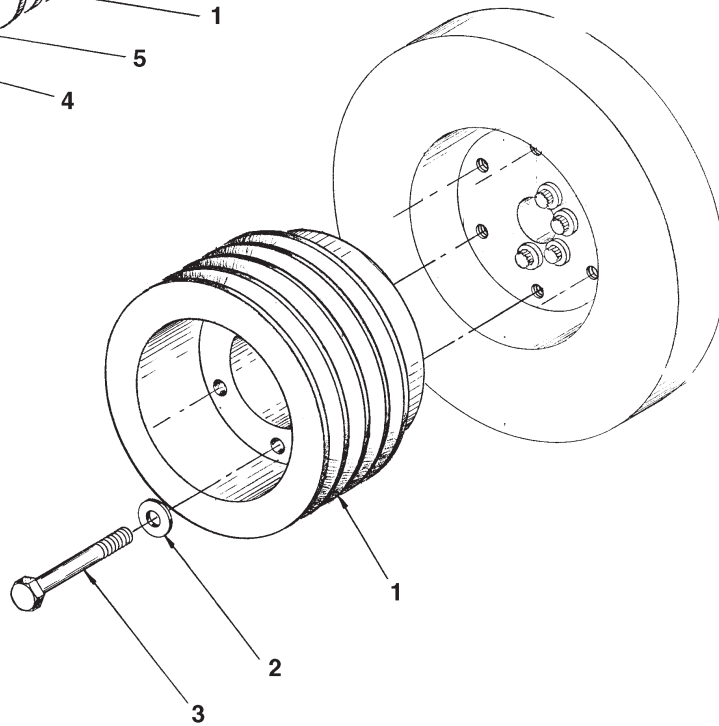
FOUR GROOVE PULLEY

Early Production



A-3702A/ B-3342

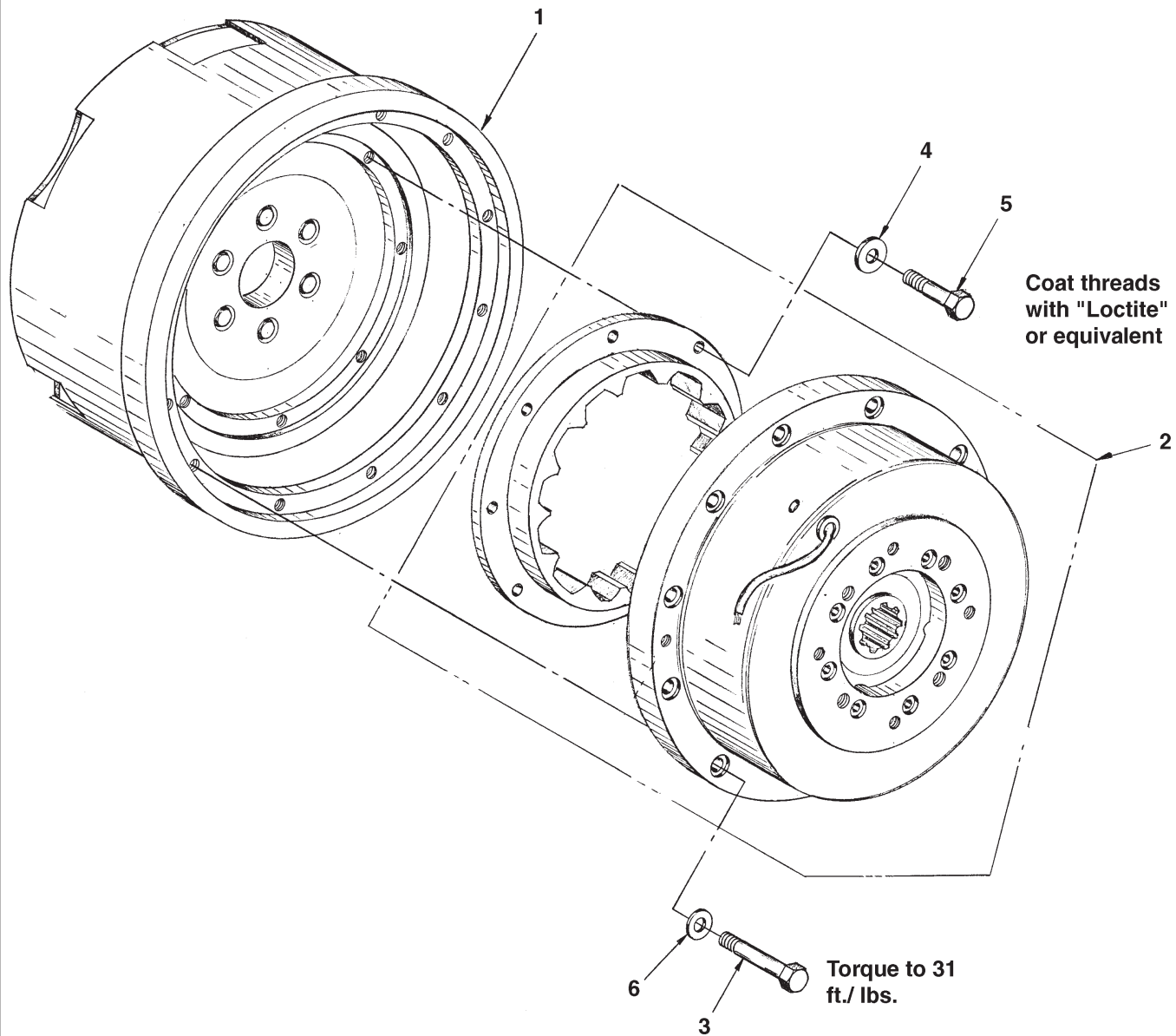
Late Production



A-4165 / B-3583

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
Four Groove Pulley (Early Production)				
1	34-65005	1	Crankshaft Pulley, 4 A-B	from S/N xxxx-0584
	34-65001	1	Crankshaft Pulley, 4 A	
2	31-65002	1	Hub/Vibration Damper	up to S/N xxxx-0583
3	6210-81-8710	6	Capscrew, 12 Point M16 x 1.5 x 60 mm	"
4	12-00819	6	Capscrew, Hex Head M10 x 1.5 x 75 mm	"
5	15-74802	6	Internal Star Washer, M10	"
6	12-00953	6	Capscrew, Hex Head M12 x 1.7 x 30 mm	"
Four Groove Pulley (Late Production)				
1	34-65005	1	Crankshaft Pulley, 4 groove A-B	from S/N xxxx-0584
2	15-00805	6	Flat Washer, M10	
3	12-00819	6	Capscrew, Hex Head M10 x 1.5 x 75 mm	"

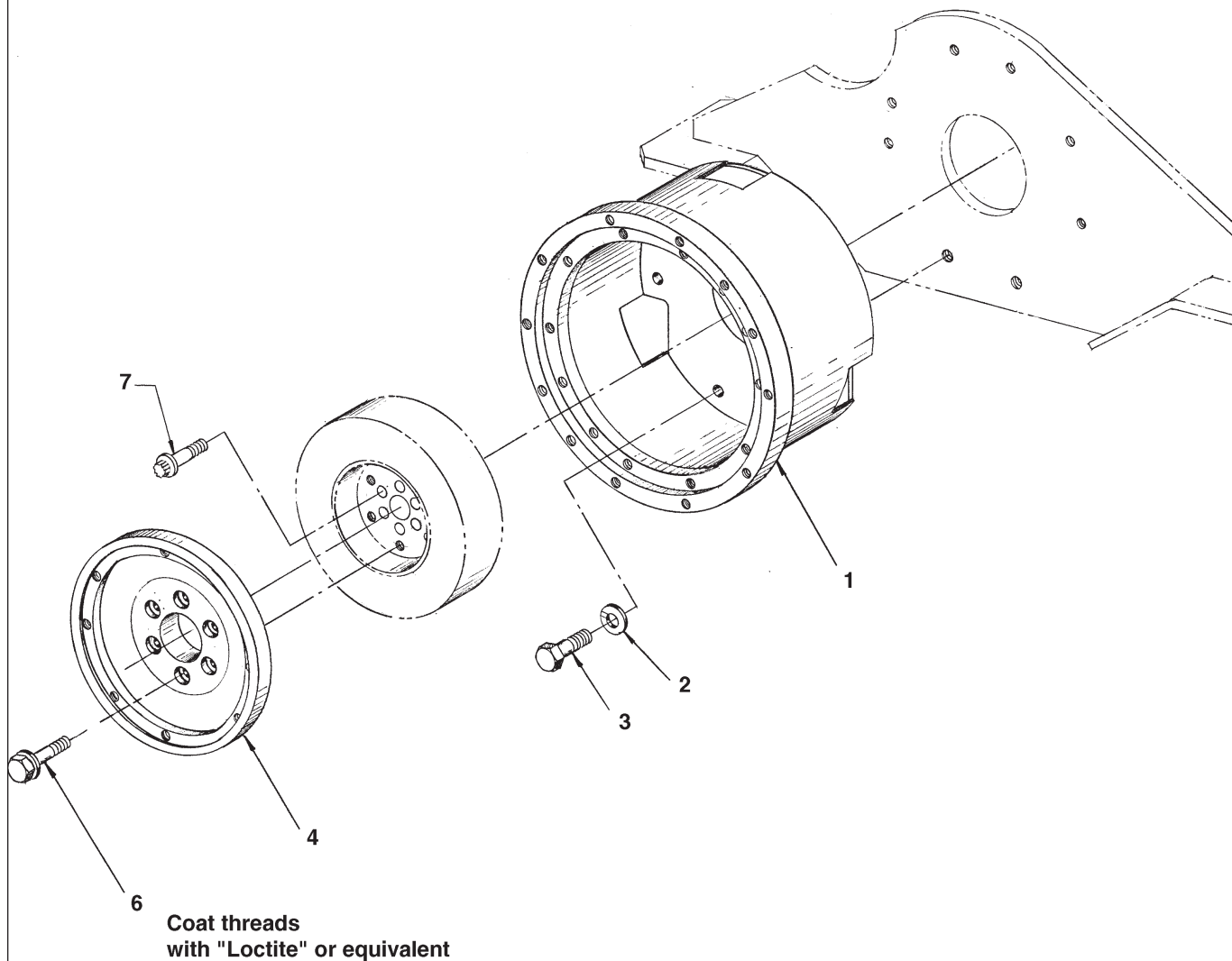
PTO & ELECTRIC CLUTCH MOUNTING ARRANGEMENT



A-4084B, A4085B / C-2304

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	31-65003	1	PTO Adapter Assembly - SAE #4/#10 (see detail)	-
2	34-60050	1	Electric Clutch H-49/C-Spline 12 Volt (see detail)	-
	34-60055	1	Electric Clutch H-49/C-Spline 24 Volt (see detail)	-
3	12-00315	12	Capscrew, Hex Head 3/8-16 x 1-3/4"	-
4	15-00301	8	Flat Washer, 3/8	-
5	12-00312	8	Capscrew, Hex Head 3/8-16 x 1"	-
6	15-00300	12	Flat Washer, 3/8 Narrow	-

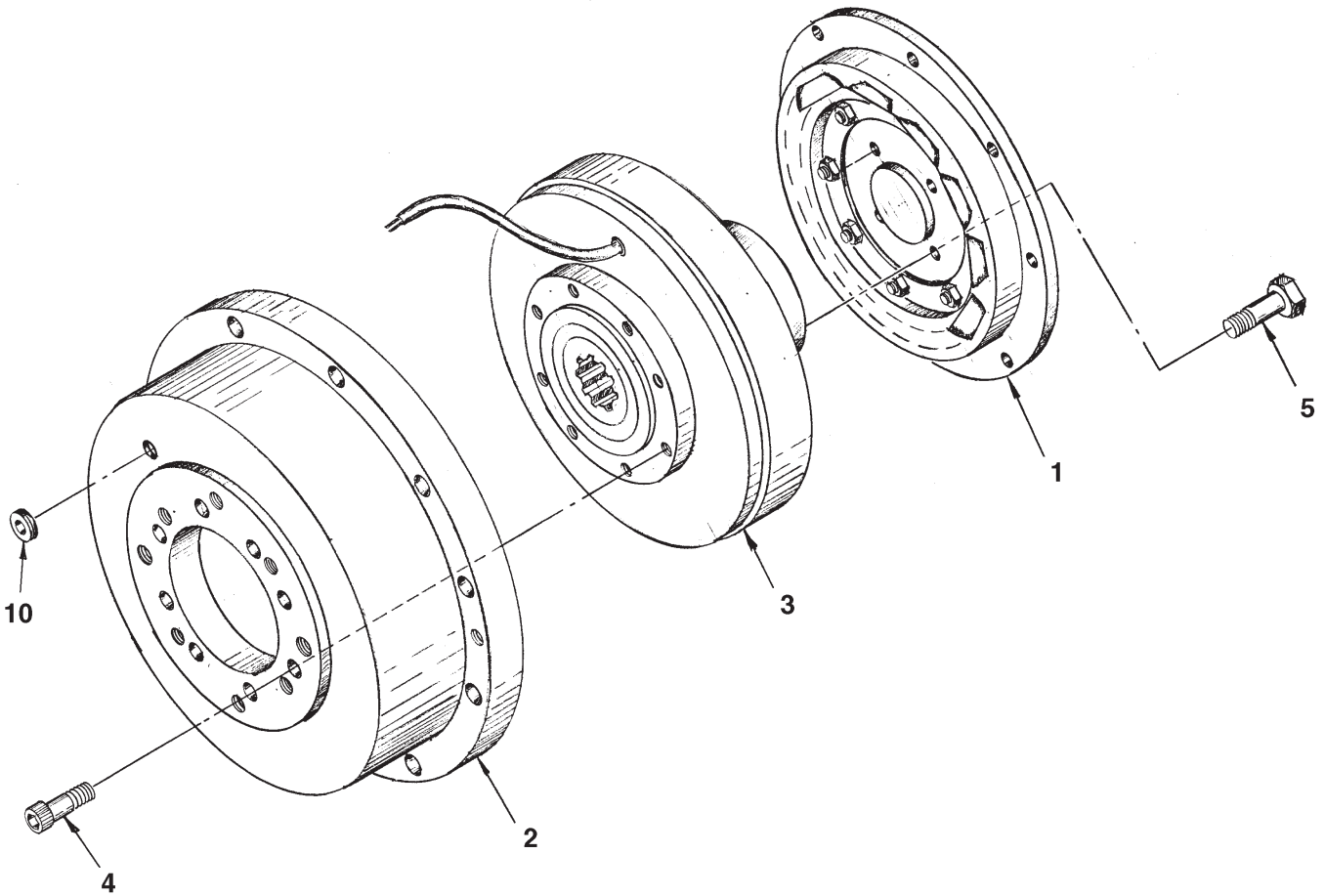
PTO ADAPTER - SAE #4/#10 & SAE #3/#11-1/2



A-4017A / C-2295

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	23-65015	1	PTO Housing, SAE 3 & 4 (replaces #23-65001 & #23-65008)	-
2	15-00802	8	Lock Washer, Helical M10	-
3	12-00832	8	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
4	34-65012	1	PTO Carrier SAE #11-1/2	-
	34-65006	1	PTO Carrier SAE #10	-
6	19M8528	6	Capscrew, Hex Head Flanged M10 x 1.5 x 55 mm	-
7	6210-81-8710	6	Capscrew, 12 pt. M16 x 1.5 x 60 mm	-

ELECTRIC CLUTCH COMPONENTS

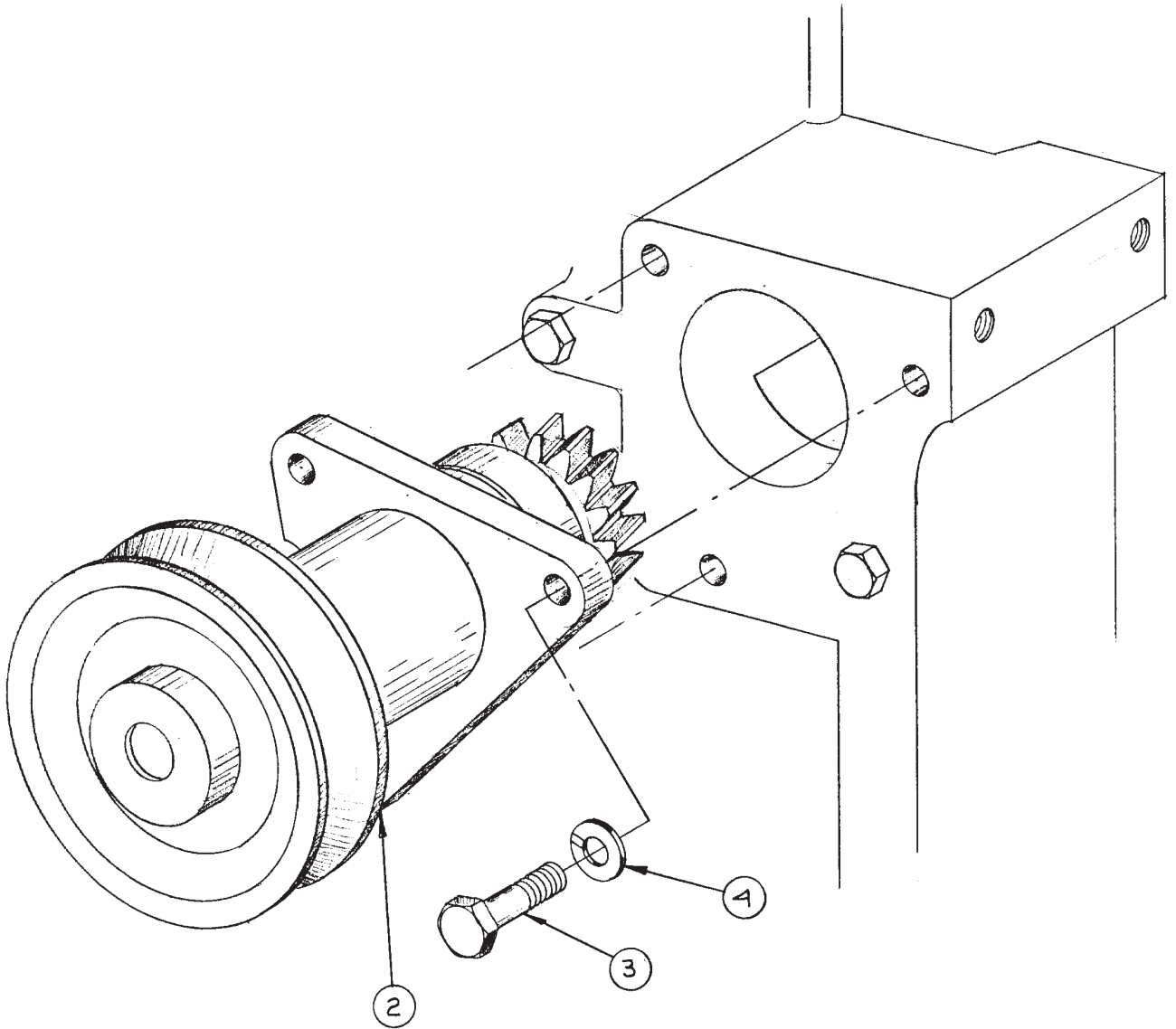


A-3858B, A-4056B / C-2236

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	34-61454	1	Drive Assembly	-
2	10-60011	1	Clutch Housing C-Spline SAE #4 (formerly #10-60010)	-
3	34-60026	1	Electric Clutch H-49 C-Spline, 24 Volt	-
	34-60019	1	Electric Clutch H-49 C-Spline, 12 Volt	-
4	12-00035	8	Capscrew, Socket Head 3/8 - 16 x 3/4"	-
5	12-00025	4	Capscrew, Hex Head 7/16 - 20 x 3/4"	-
10	00-61003	1	Grommet	-

GROUP 9 - ACCESSORIES & OPTIONAL EQUIPMENT

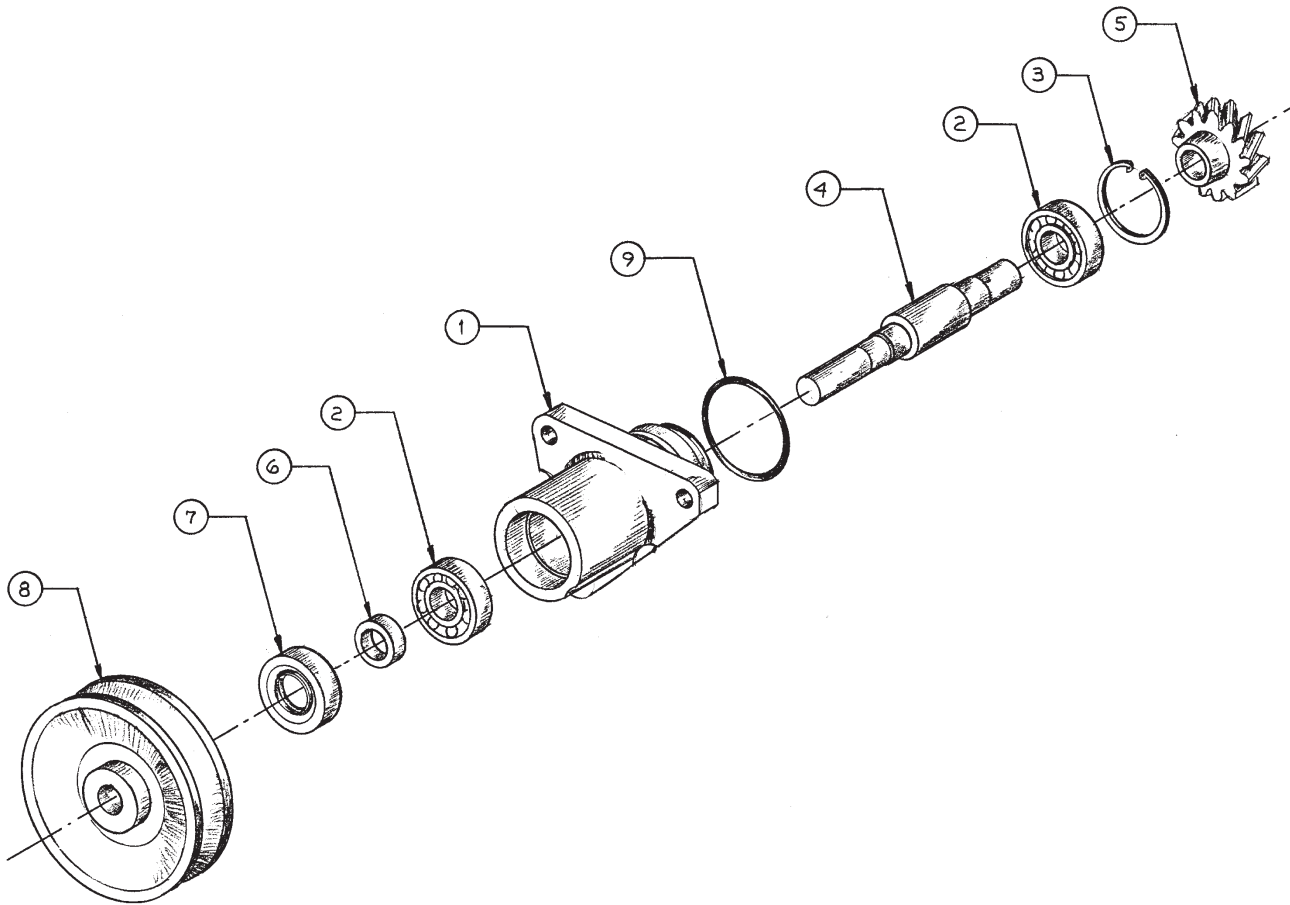
84 MM & 110 MM PULLEY & DRIVE



A-3950B, A-3951B / B-3495

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
2	6210-21-3303	1	PTO Assembly w/110 mm OD Pulley (see detail)	-
	6210-21-3403	1	PTO Assembly w/120 mm OD Pulley (see detail)	-
3	12-00832	3	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
4	15-00802	3	Lock Washer, M10	-

110 MM & 120 MM PULLEY & DRIVE ASSEMBLY

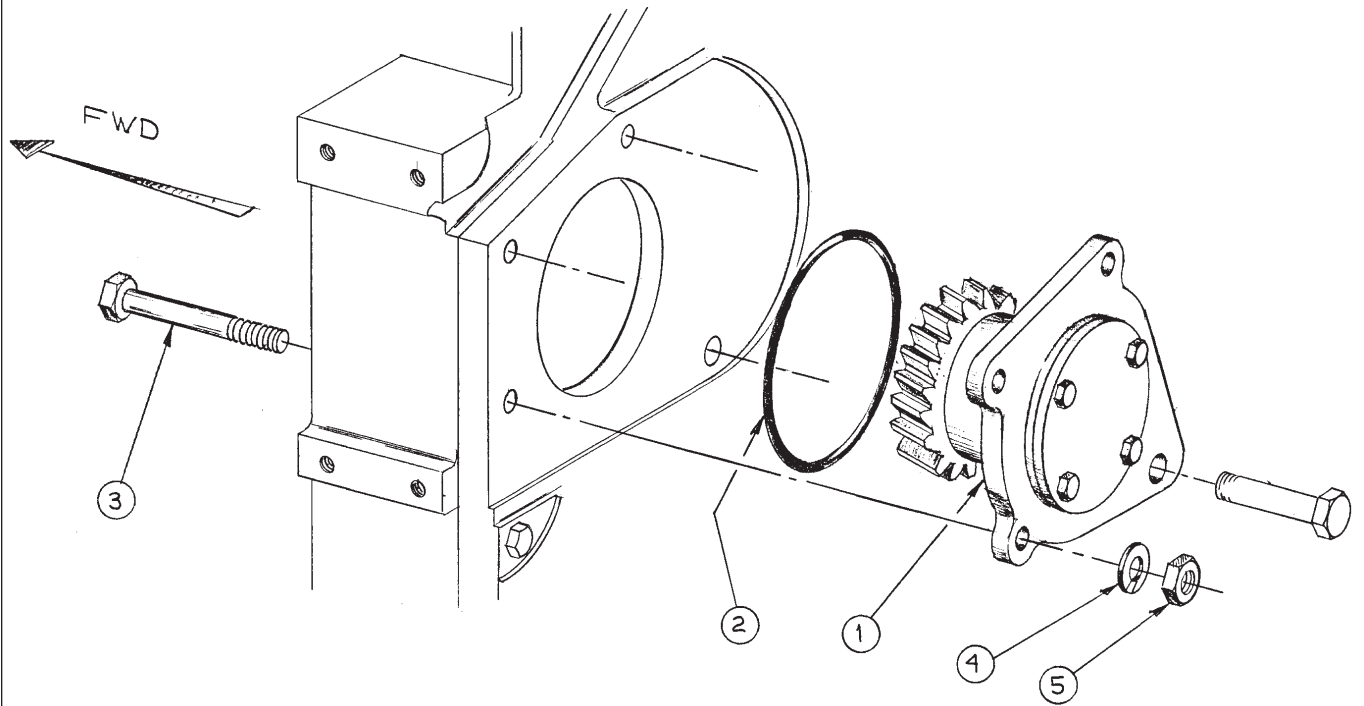


C-2734

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	6210-21-3303	1	110 mm Pulley & Drive - Late Style w/Large ID Housing (47 mm Bearing Bore) (includes all keys)*	-
••	6210-21-3403	1	120 mm Pulley & Drive - Late Style w/Large ID Housing (47 mm Bearing Bore) (includes all keys)*	-
1	6210-21-3411	1	Housing - Early (42 mm bearing bore)	-
	6210-21-3413	1	Housing - Late (47 mm bearing bore)	-
2	06030-06004	2	Bearing - Early	-
	06030-06204	2	Bearing - Late	-
3	04065-04218	1	Snap Ring - Early	-
	04065-04718	1	Snap Ring - Late	-
4	6210-21-3421	1	Shaft	-
5	6210-21-3440	1	Drive Gear	-
6	6210-21-3451	1	Sleeve	-
7	07012-00025	1	Seal - Early	-
	07012-00028	1	Seal - Late	-
8	6210-21-3431	1	Pulley 110 mm OD	-
	6210-21-3460	1	Pulley 120 mm OD	-
9	07000-02060	1	O-ring	-

*NOTE: Early Style Drive Assemblies (110 mm Pulley P/N 6210-21-3301 & 120 mm Pulley P/N 6210-21-3401) are NLA. Assemblies listed above are direct replacements. When ordering repair parts, verify type by measurement of housing bearing bore.

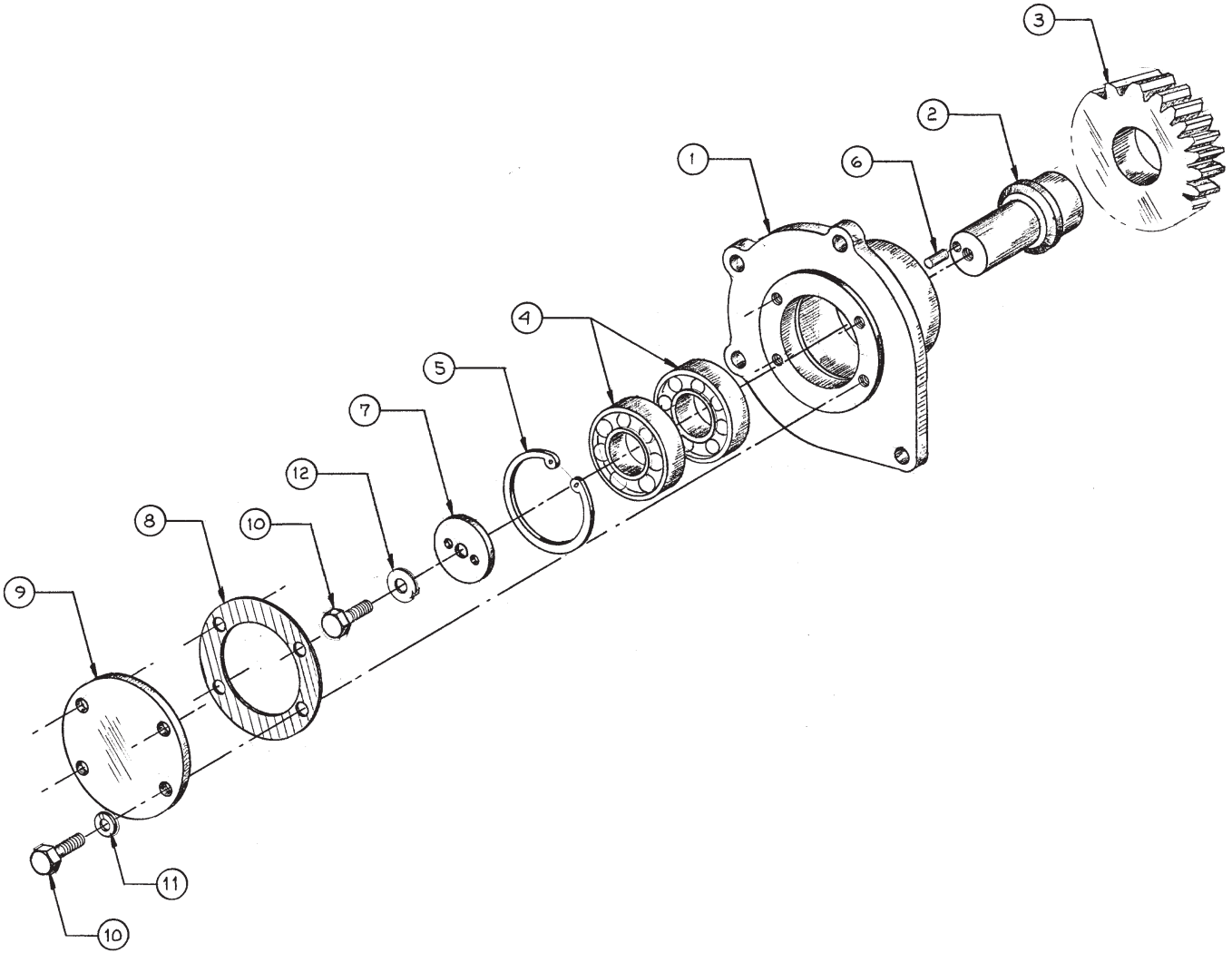
PTO IDLER



A-3949A / B-3494

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6210-21-3500	1	Idler Gear Assembly (see detail)	-
2	6210-81-5240	1	O-ring	-
3	12-00053	3	Bolt	-
4	15-00802	3	Lock Washer, M10 Helical	-
5	14-00811	3	Hex Nut, M10 x 1.5	-

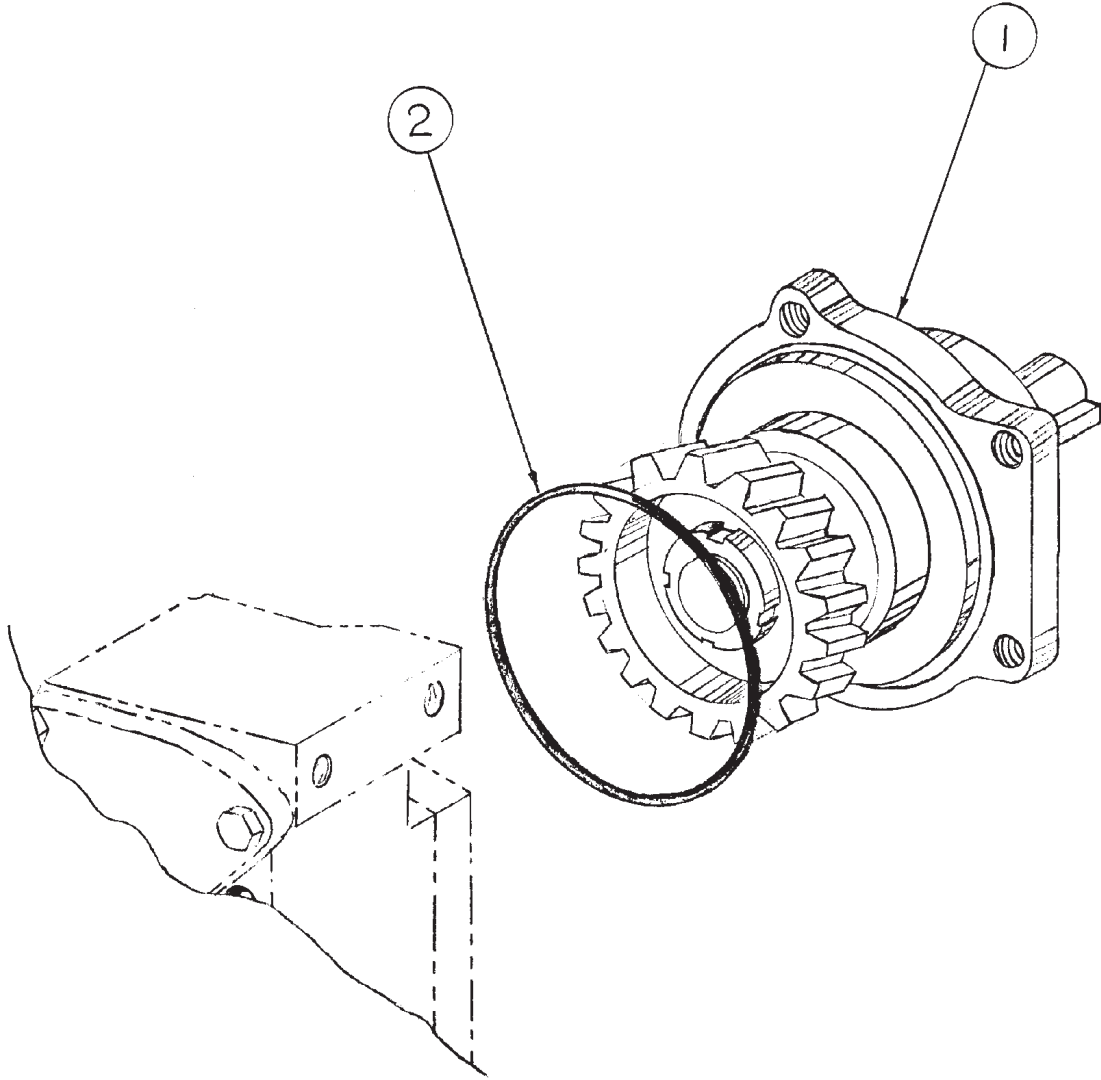
IDLER GEAR ASSEMBLY



A-5720 / C-2732

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	6210-21-3500	1	Idler Gear Assembly (includes all keys)	-
1	6210-21-3510	1	Housing	-
2	6210-21-3520	1	Shaft	-
3	6210-21-3530	1	Gear	-
4	06000-06206	2	Bearing	-
5	04065-06220	1	Snap Ring	-
6	04020-00514	1	Dowel Pin	-
7	6210-21-3550	1	Cover Plate	-
8	6210-21-3560	1	Gasket	-
9	6210-21-3540	1	Flange	-
10	12-00711	5	Capscrew, Hex Head M8 x 1.25 x 20 mm	-
11	15-00702	4	Lock Washer, Helical M8	-
12	016531-20808	1	Tab Washer	-

ACCESSORY DRIVE

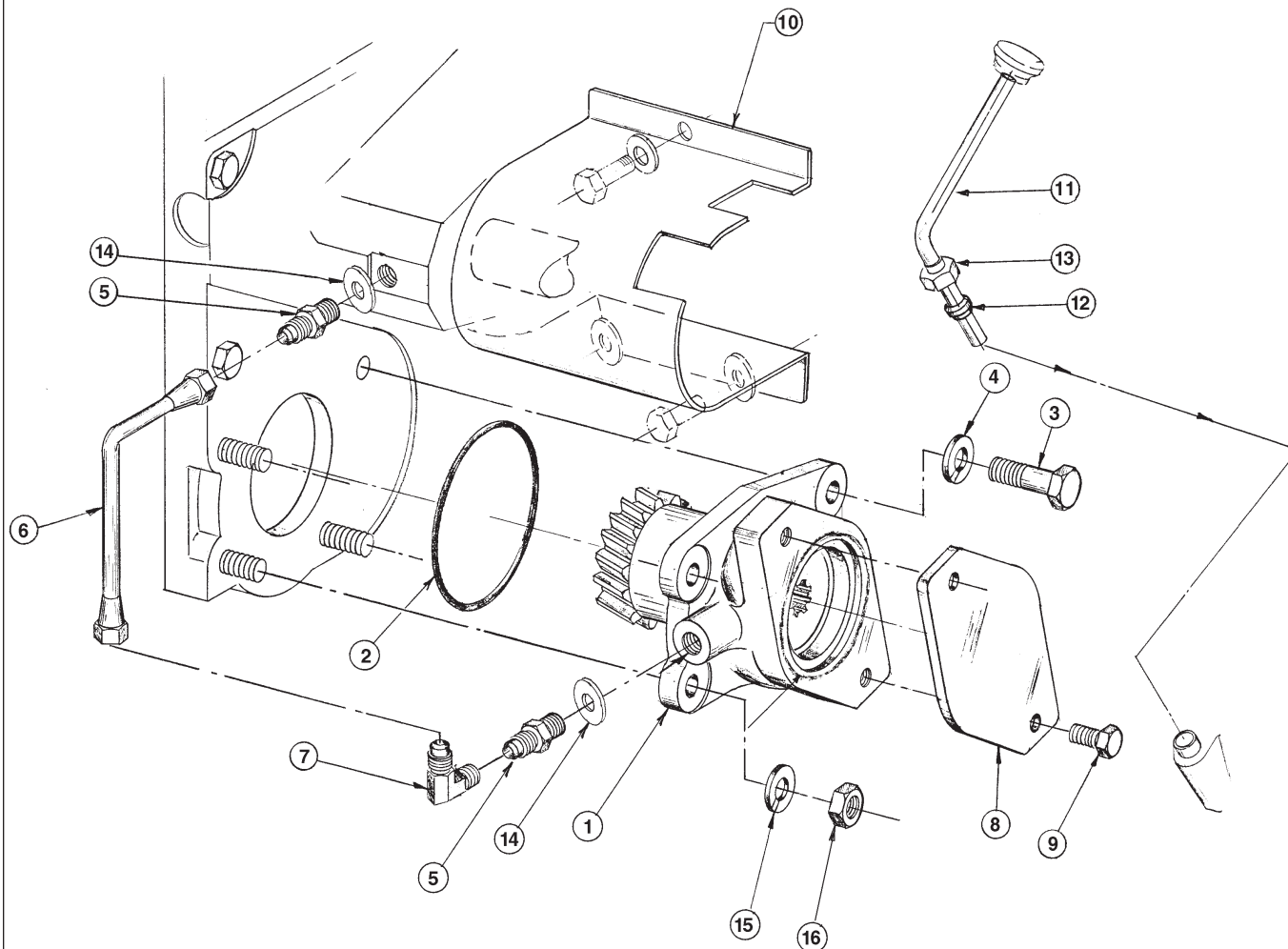


A-5126 / B-4031

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	34-65023	1	Accessory Drive Assembly (see detail in cooling system)	-
2	16-15001	1	O-ring	-

GROUP 9 - ACCESSORIES & OPTIONAL EQUIPMENT

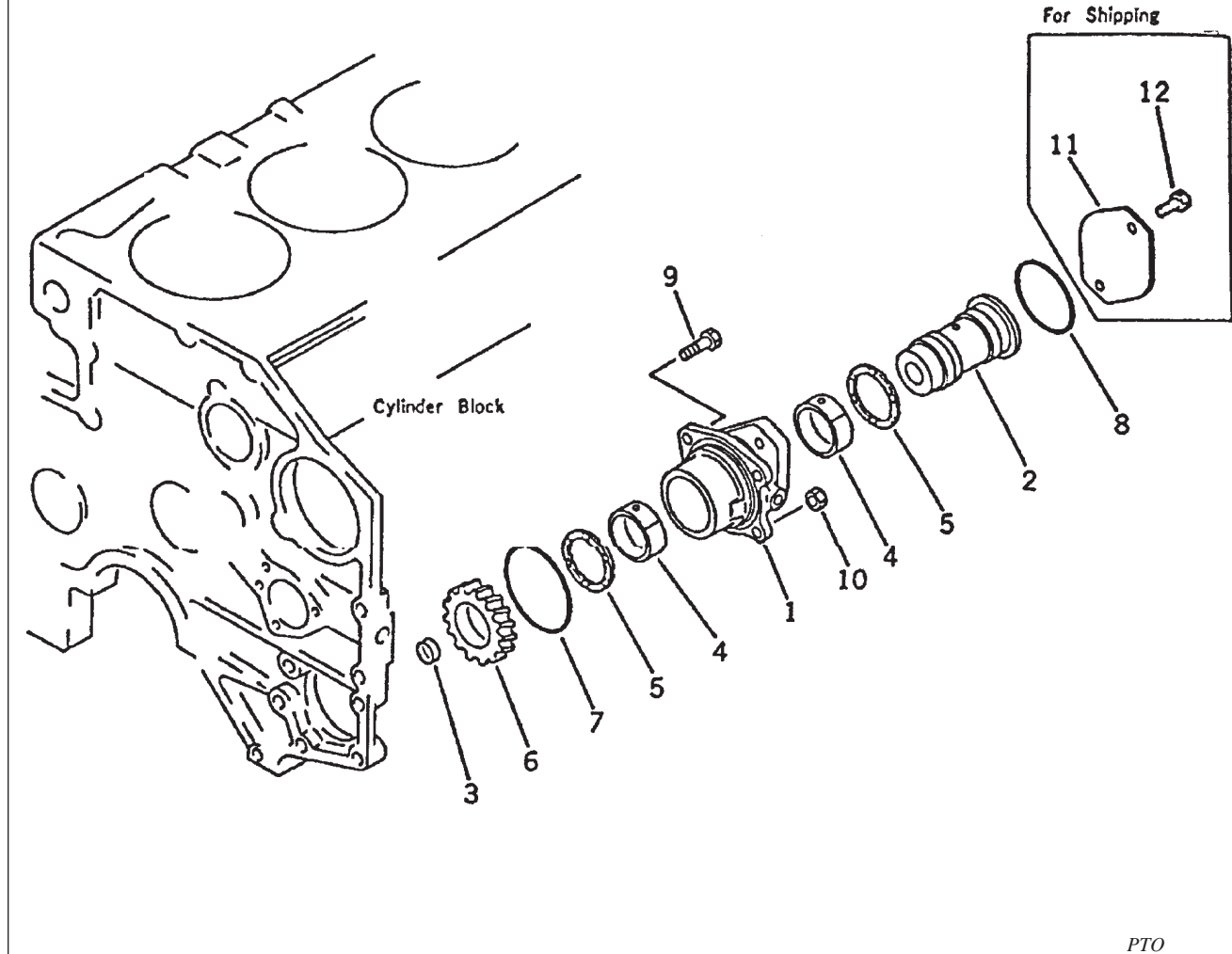
HYDRAULIC PUMP ADAPTER



A-3774C / C-2280B

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6210-81-4900	1	PTO Drive Assembly 10T - 16/32 DP Spline (see parts detail)	-
	6210-81-4700	1	PTO Drive Assembly 9T - 16/32 DP Spline (see parts detail)	-
2	07000-02100	1	O-ring	-
3	12-00953	1	Capscrew, Hex Head M12 x 1.75 x 30 mm	-
4	15-00912	1	Lock Washer, M12	-
5	21-75704	2	Male Connection M10 x 1.25 x 1/4 - 37T	-
6	18-55404	1	Oil Supply Hose	-
7	21-52214	1	Swivel Elbow, 90° Steel 1/4 - 37T x 1/4 - 37T	-
8	28-75001	1	Cover Plate (for shipping)	-
9	12-00832	2	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
10	00-75007	1	Injection Pump Drive Guard (See Injection Pump & Piping for Fasteners)	-
11	27-75007	1	Dipstick Tube	-
12	21-15015	1	Compression Sleeve (for dipstick tube)	-
13	6150-21-5930	1	Compression Net	-
14	07005-01012	1	Sealing Washer	-
15	15-00802	3	Lock Washer, M10	-
16	14-00811	3	Hex Nut M10 x 1.5	-

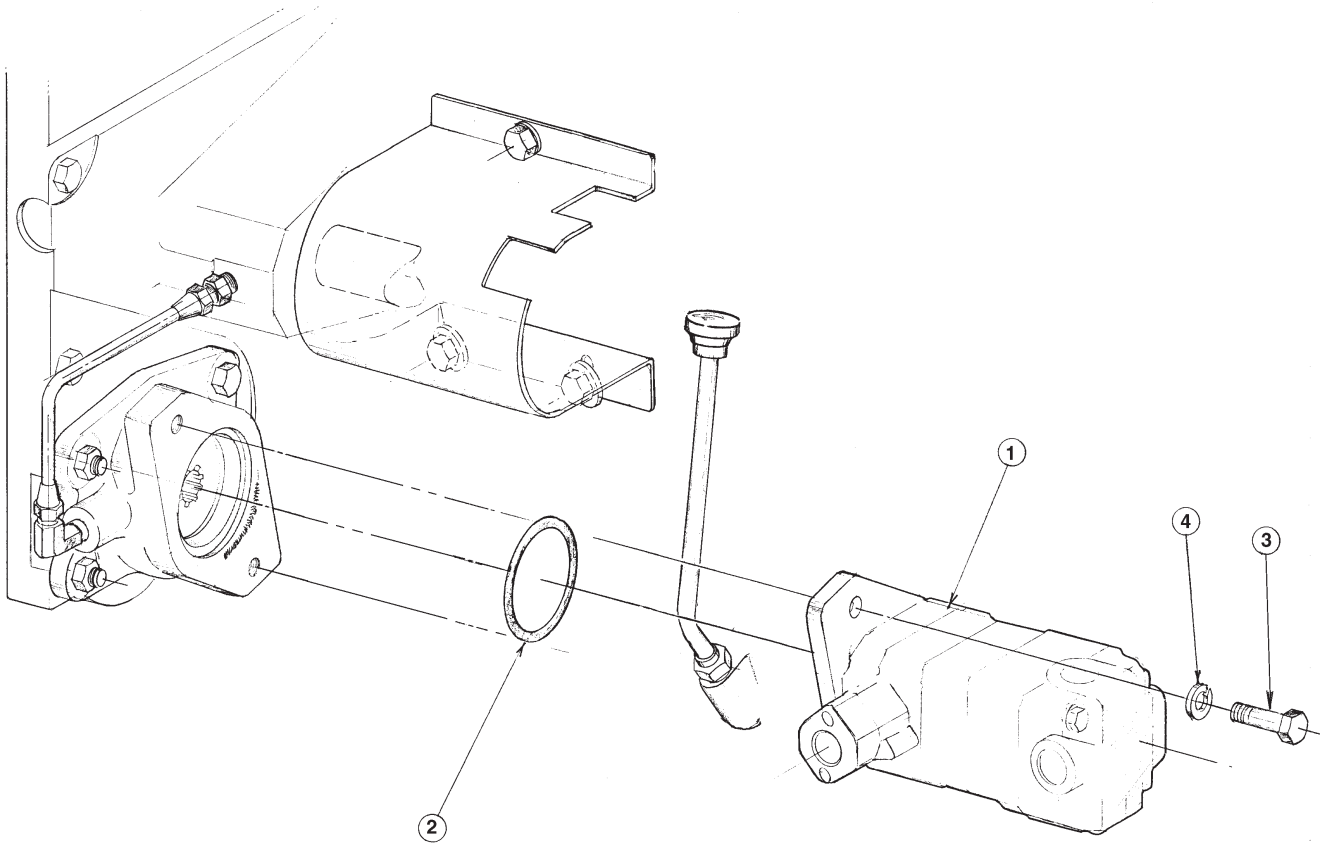
PTO/HYDRAULIC PUMP DRIVE



PTO

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	6210-81-4900	1	PTO Drive Assembly, 10T - 16/32 DP Spline (includes keys #1-#6)	-
	6210-81-4700	1	PTO Drive Assembly, 9T - 16/32 DP Spline (includes keys #1-#6)	-
1	6210-81-4910	1	Housing	-
2	6210-81-4920	1	Shaft, 10T - 16/32 DP Spline	-
	6210-81-4720	1	Shaft, 9T - 16/32 DP Spline	-
3	07046-42516	1	Plug	-
4	6210-81-4840	2	Bushing	-
5	6210-81-4850	2	Bearing	-
6	6210-81-4830	1	Gear	-
7	07000-02100	1	O-ring	-
8	16-00004	1	O-ring	-
9	12-00953	1	Cap screw, Hex Head M12 x 1.75 x 30 mm	-
10	14-00811	3	Nut M10 x 1.5	-
11	28-75001	1	Cover	-
12	12-00805	2	Cap screw, Hex Head M10 x 1.5 x 20 mm	-

HYDRAULIC PUMP INSTALLATION, VICKERS V10-F

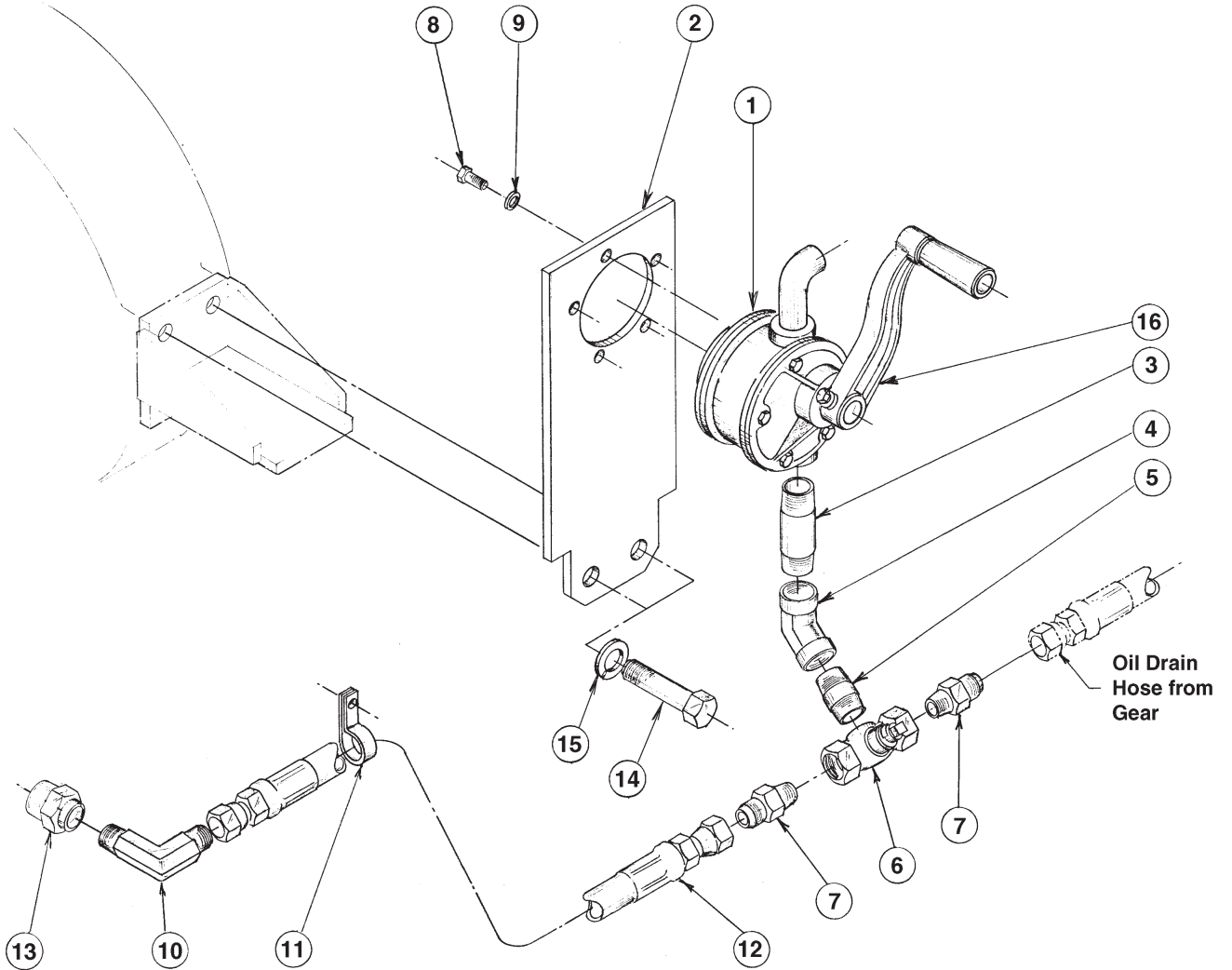


A-4522A / C-2407

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	34-75003	1	Hydraulic Pump	-
2	16-00004	1	O-ring	-
3	12-00832	2	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
4	15-00802	2	Lock Washer, M10	-

GROUP 9 - ACCESSORIES & OPTIONAL EQUIPMENT

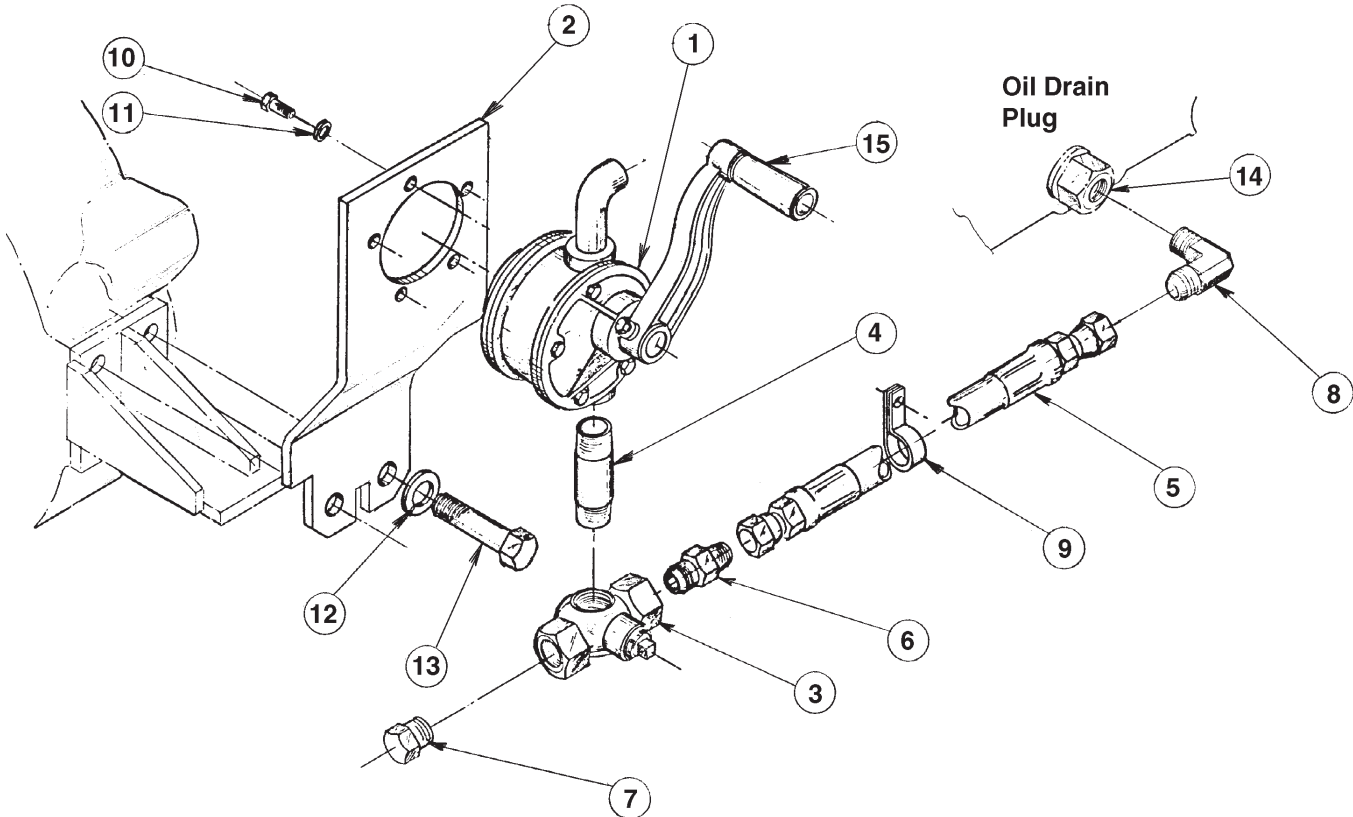
OIL DRAIN PUMP, LEFT SIDE MOUNTING



A-3508B / C-2164

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	36-74807	1	Hand Pump (icludes key #16)	-
2	23-05001	1	Mounting Bracket	-
3	21-00000	1	Nipple 3/4 NPT x 3	-
4	21-00020	1	Elbow, 45° 3/4 NPT	-
5	21-00021	1	Close Nipple 3/4 NPT	-
6	36-70001	1	3-Way Valve	-
7	21-74801	2	Male Connector, Steel 3/4 NPT x 5/8 - 37T	-
8	12-00031	5	Capscrew, Hex Head M6 x 1.0 x 25 mm	-
9	15-01132	5	Lock Washer, M6	-
10	21-62507	1	Male Elbow 90° Steel 1/2 NPT x 5/ 8- 37T	-
11	19-00000	1	Adelle Clamp	-
12	18-64802	1	Hose Assembly 1/2" ID x 34"	-
13	6150-21-5630	1	Drain Fitting M36 x 1.5 x 1/2 BSPT	-
14	12-01503	2	Capscrew, Hex Head M16 x 2.0 x 50 mm	-
15	15-01000	2	Lock Washer, M16	-
16	6136-55-7120	1	Crank Handle	-

OIL DRAIN PUMP, RIGHT SIDE MOUNTING



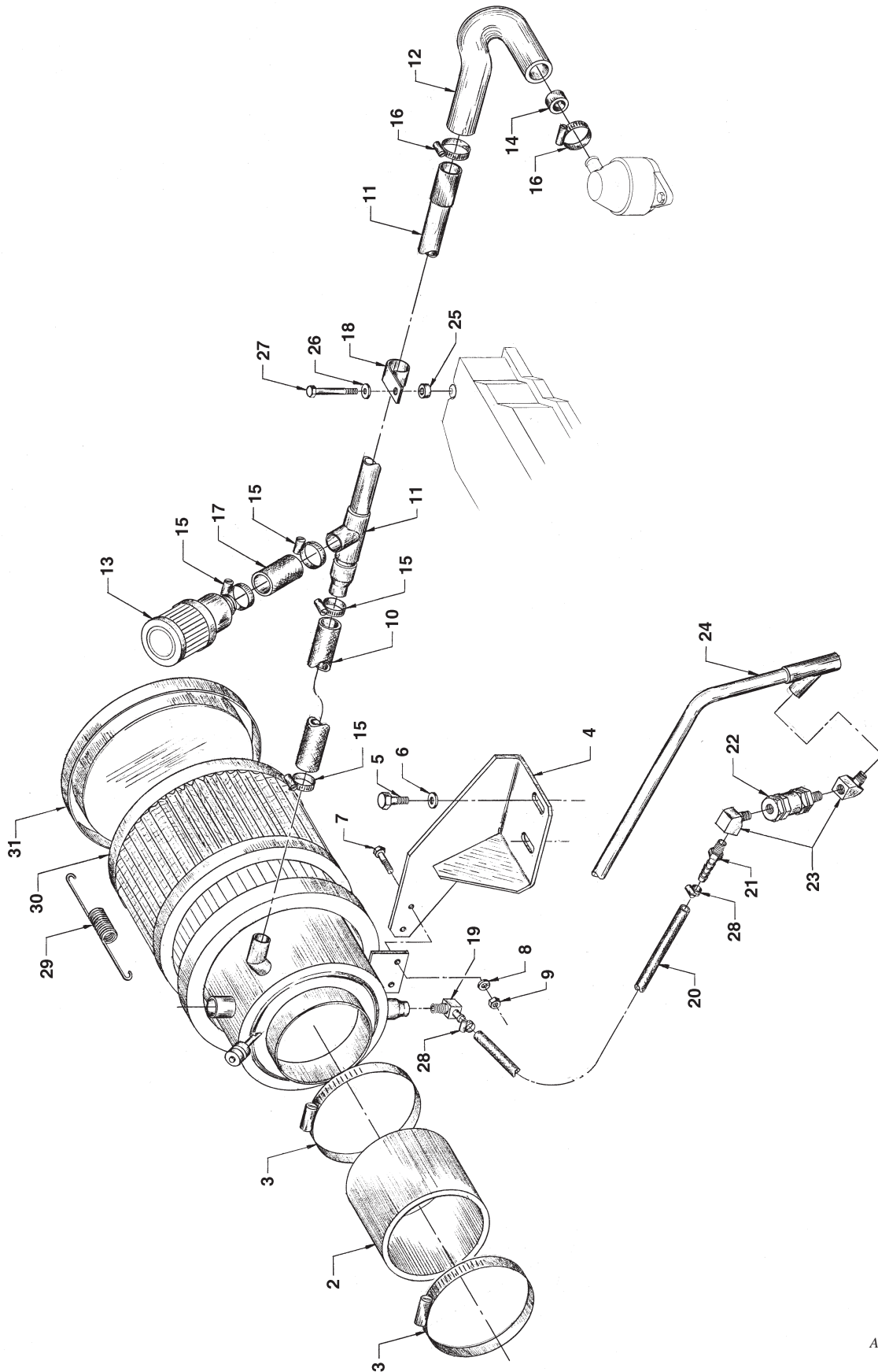
A-4870A/B-3911

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	36-74807	1	Hand Pump (includes key #15)	-
2	23-05004	1	Mounting Bracket	-
3	36-70001	1	3- Way Valve	-
4	21-00124	1	Nipple, 3/4 NPT x 4"	-
5	18-64803	1	Hose Assembly, 1/2" ID x 49"	-
6	21-74801	1	Male Connection, Steel 3/4 NPT x 5/8 - 37T	-
7	21-11000	1	Plug, 3/4 NPT	-
8	21-62507	1	Male Elbow, 90° Steel 1/2 NPT x 5/8 - 37T	-
9	19-00000	1	Adelle Clamp	-
10	12-0003	1	Capscrew, Hex Head M6 x 1.0 x 25 mm	-
11	15-01132	5	Lock Washer, M6	-
12	15-01000	2	Lock Washer, M16	-
13	12-01503	2	Capscrew, Hex Head M16 x 2.0 x 50 mm	-
14	6150-21-5630	1	Drain Fitting M36 x 1.5 x 1/2 BSPT	-
15	6136-55-7120	1	Crank Handle	-

NOTES

AIRSEP AIR FILTER/CRANKCASE BREATHER SYSTEM

L6140AL



GROUP 9 - ACCESSORIES & OPTIONAL EQUIPMENT

AIRSEP AIR FILTER/CRANKCASE BREATHER SYSTEM

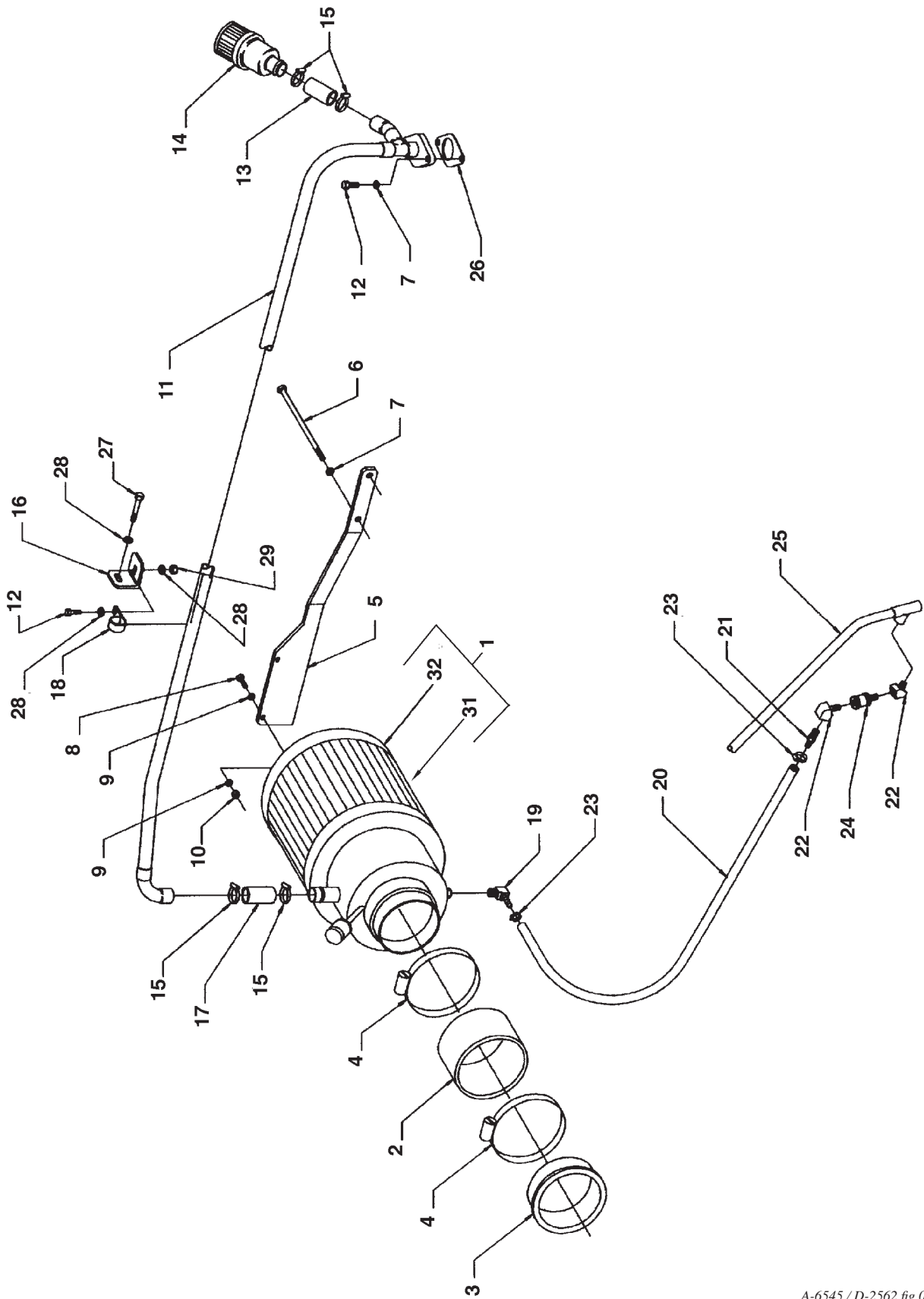
L6140AL

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	24-25012	1	Filter Assembly "Air-Sep" w/Angled Breather Inlet	} includes keys #29-#31
••	24-25013	1	Filter Assembly "Air-Sep" 1 1-1/4" Top Breather Inlet	
2	24-25004	1	Connector	-
3	19-00104	2	Hose Clamp #104	-
4	23-25006	1	Bracket	-
5	12-00805	2	Capscrew, Hex Head M10 x 1.5 x 20 mm	-
6	15-00802	2	Lock Washer, Helical M10	-
7	12-01131	2	Capscrew, Hex Head M6 x 1.0 x 20 mm	-
8	15-00008	2	Flat Washer M6	-
9	14-04803	2	Hex Nut M6 x 1.0	-
10	17-25002	1	Hose 1" ID x 8-1/4" *	-
11	27-25001	1	Tube *	-
12	R49473	1	Hose 1" ID	-
13	24-20006	1	Vacuum Limiter	-
14	18-25004	1	Bushing 7/8"ID x 1"OD x 1/2"	-
15	19-00020	**	Hose Clamp #20	-
16	19-00016	**	Hose Clamp #16	-
17	18-25003	**	Hose 1-1/4" ID x 2-1/4"	-
18	19-71030	2	Adelle Clamp 1-1/8" ID x 1/2" Stud	-
19	21-14828	1	Elbow 90°, Brass 1/4 NPT x 3/8 HB	-
20	18-52568	1	Hose 3/8" ID x 36" Push-On	-
21	21-71030	1	Connector, Brass 1/4 NPT x 3/8 HB	-
22	21-50023	1	One Way Valve	-
23	21-00034	2	Elbow 45°, Brass 1/4 NPT x 1/4 NPT	-
24	27-35024	1	Tube Assembly	-
25	21-74807	2	Spacer	-
26	15-00211	2	Flat Washer 5/16"	-
27	12-34801	2	Capscrew, Hex Head M8 x 1.25 x 70 mm	-
28	19-00002	2	Hose Clamp #2	-
29	00-20000	3	Retaining Spring	-
30	24-20007	1	Element	-
31	24-20011	1	Cover	-

*Items illustrated are used with "Air-Sep" assembly #24-25012.
Units with assembly #24-25013 use tube (#11) 27-25005
[1"ID Hose (#10) not used]

AIRSEP AIR FILTER/CRANKCASE BREATHER SYSTEM

L6140AL



A-6545 / D-2562 fig 09 26

GROUP 9 - ACCESSORIES & OPTIONAL EQUIPMENT

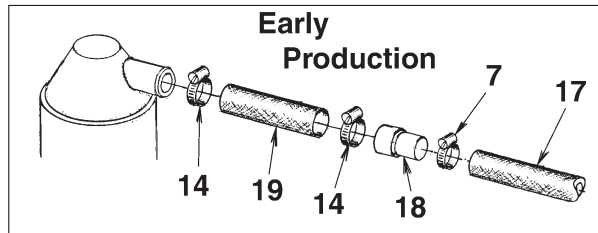
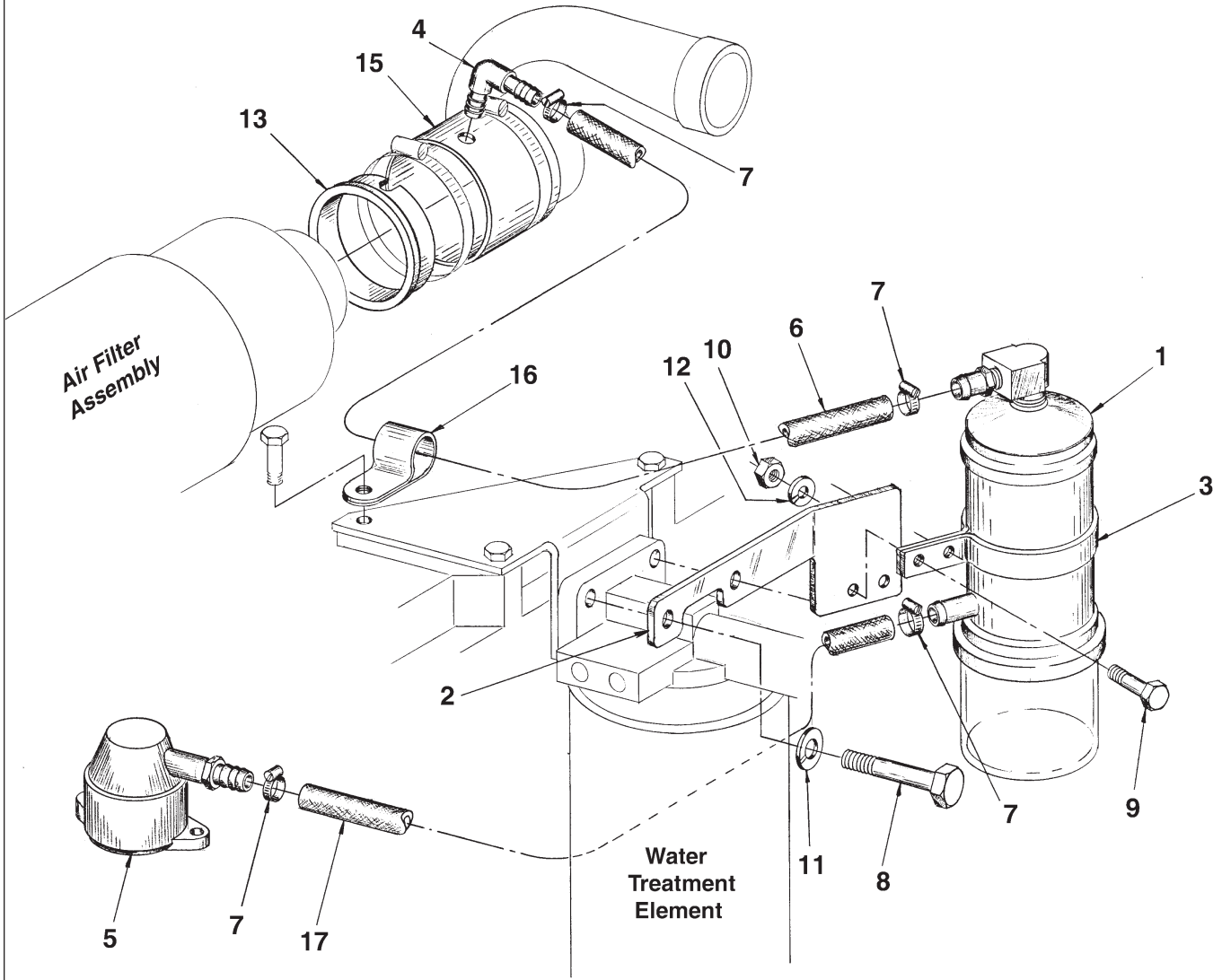
AIRSEP AIR FILTER/CRANKCASE BREATHER SYSTEM

L6140AL

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	24-25014	1	Filter Assembly "Air-Sep" (includes keys #30 - #32)	-
2	24-25004	1	Connector	-
3	24-25003	1	Rubber Bushing 5-1/2"ID x 6"OD	-
4	19-00104	2	Hose Clamp #104	-
5	23-25009	1	Bracket	-
6	12-00838	2	Capscrew, Hex Head M10 x 1.5 x 170 mm	-
7	15-00802	4	Lock Washer M10	-
8	12-00712	2	Capscrew, Hex Head M8 x 1.25 x 25 mm	-
9	15-00701	4	Flat Washer M8	-
10	14-04802	2	Hex Nut M8 x 1.25	-
11	27-25004	1	Tube	-
12	12-00831	3	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
13	18-25003	1	Hose 1-1/4ID x 2-1/4"	-
14	24-20006	1	Vacuum Limiter	-
15	19-00020	4	Hose Clamp #20	-
16	23-25010	1	Bracket	-
17	18-11902	2	Hose 1-1/4"ID x 3-1/2"	-
18	19-71030	2	Adelle Clamp 1-1/8"ID x 1/2" Stud	-
19	21-14828	1	Elbow 90°, Brass 1/4NPT x 3/8 HB	-
20	18-52568	1	Hose 3/8"ID x 36" Push-On	-
21	21-71030	1	Connector, Brass 1/4 NPT x 3/8 HB	-
22	21-00034	2	Elbow 45°, Brass 1/4 NPT x 1/4 NPT	-
23	19-00002	2	Hose Clamp #2	-
24	21-50023	1	One Way Valve	-
25	27-35024	1	Tube Assy. Turbo/"Air-Sep Oil Return	-
26	11-25001	1	Gasket	-
27	12-00816	1	Capscrew, Hex Head M10 x 1.5 x 50 mm	-
28	15-00805	3	Flat Washer M10	-
29	14-00812	1	Hex Nut M10 x 1.5	-
30	00-20000	3	Retaining Spring (not shown)	-
31	24-20007	1	Element	-
32	24-20008	1	Cover	-

CRANKCASE VENT FILTER

Standard - Exhaust Aft



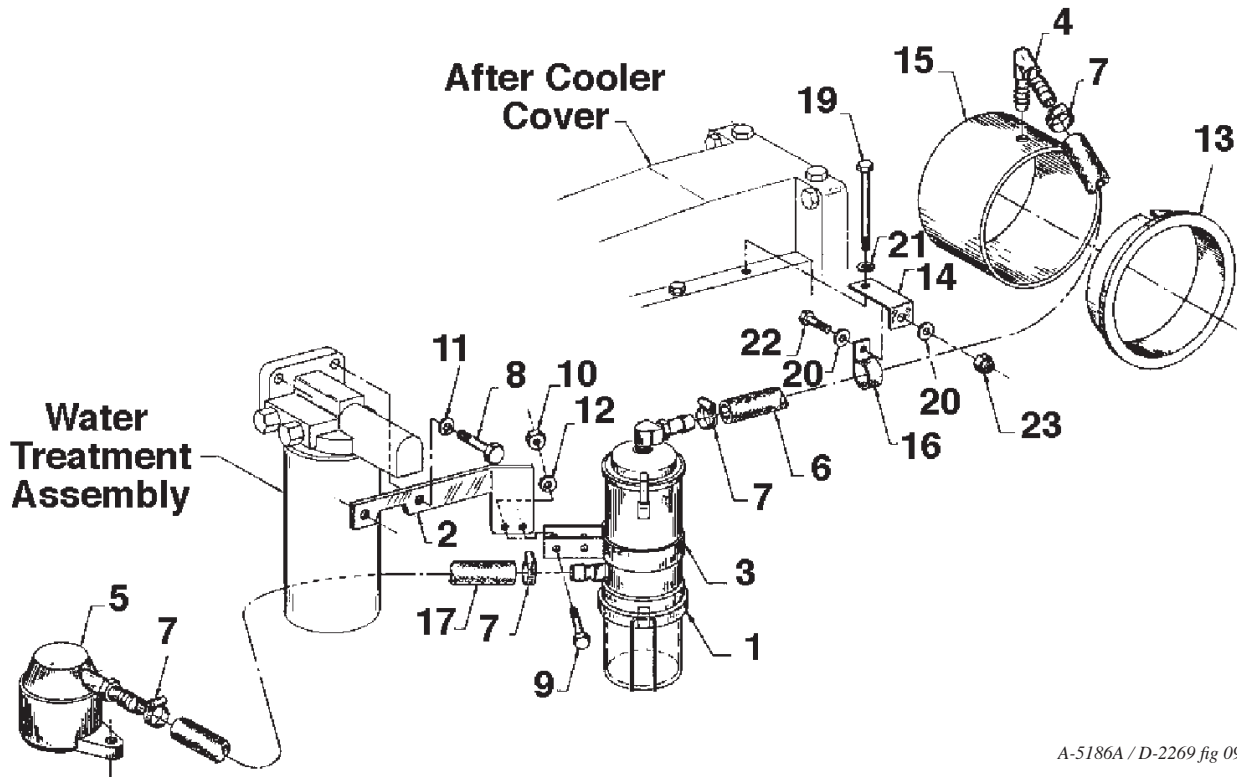
A-4179B / C-2327B

CRANKCASE VENT FILTER*Standard - Exhaust Aft*

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	24-71003	1	Crankcase Vent Filter Assembly (includes keys #20 - #23)	-
2	23-75008	1	Mounting Bracket	-
3	24-71004	1	Band Bracket	-
4	21-00019	1	Male Elbow, 90° PVC 1/2 HB x 1/2 HB	-
5	6210-21-8711	1	Crankcase Breather (Early Production)	-
	24-25008	1	Crankcase Breather (Late Production)	-
6	18-00006	1	Hose, 5/8" ID x 26"	-
7	19-00006	4	Hose Clamp	-
8	12-00813	2	Capscrew, Hex Head M10 x 1.5 x 45 mm	-
9	12-01131	2	Capscrew, Hex Head M6 x 1.0 x 20 mm	-
10	14-01131	2	Hex Nut, M6 x 1.0	-
11	15-00802	2	Lock Washer, M10	-
12	15-01132	2	Lock Washer, M6	-
13	24-25007	1	Rubber Bushing	-
14	19-00016	2	Hose Clamp (Early Production)	-
15	24-25006	1	Connector Hose	-
16	19-00000	1	Adelle Clamp	-
17	18-12055	1	Hose, 5/8" ID x 20" (Early Production)	-
	18-70002	1	Hose 5/8" ID x 21" (Late Production)	-
18	27-75006	1	Hose Reducer (Early Production)	-
19	18-14800	1	Hose, 7/8"ID x 3-1/2" (Early Production)	-
20	24-70000	1	Filter Element (not shown)	-
21	11-70004	1	Element Gasket (not shown)	-
22	11-70002	1	Bowl Gasket (not shown)	-
23	24-70001	1	Bowl Assembly (not shown, includes key #22)	-

CRANKCASE VENT FILTER

Low Profile

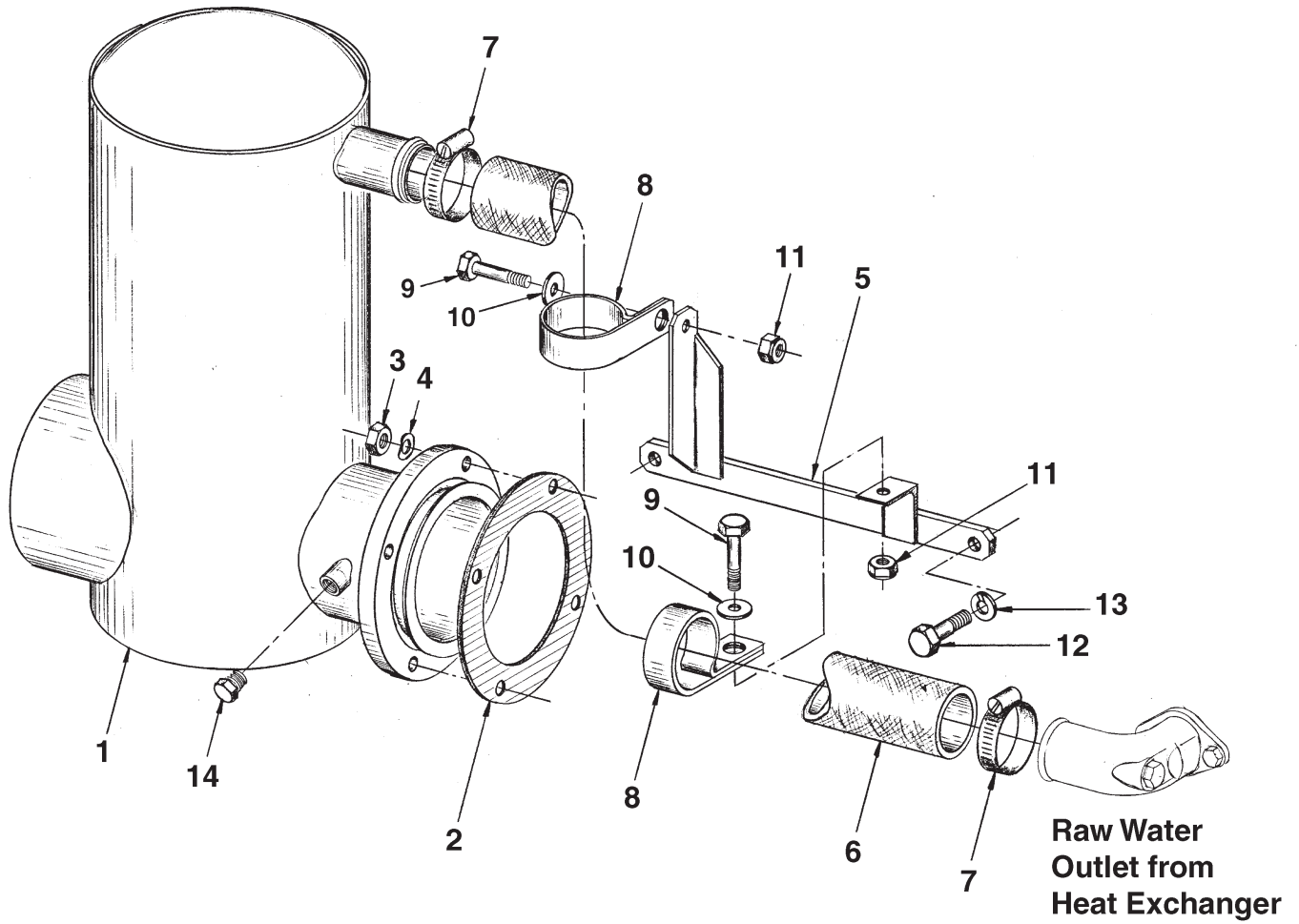


A-5186A / D-2269 fig 09 30

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	24-71003	1	Crankcase Vent Filter Assembly (includes keys #24 - #27)	-
2	23-75008	1	Mounting Bracket	-
3	24-71004	1	Band Bracket	-
4	21-00019	1	Male Elbow, 90° PVC 1/2 HB x 1/2 HB	-
5	24-25008	1	Crankcase Breather	-
6	18-25001	1	Hose, 5/8" ID x 42"	-
7	19-00006	4	Hose Clamp	-
8	12-00813	2	Capscrew, Hex Head M10 x 1.5 x 45 mm	-
9	12-01131	2	Capscrew, Hex Head M6 x 1.0 x 20 mm	-
10	14-01131	2	Hex Nut, M6 x 1.0	-
11	15-00802	2	Lock Washer, M10	-
12	15-01132	2	Lock Washer, M6	-
13	24-25007	1	Rubber Bushing	-
14	23-71016	1	Bracket	-
15	24-25006	1	Connector	-
16	19-00000	1	Adelle Clamp	-
17	18-70002	1	Hose, 5/8" ID x 21"	-
19	12-00700	1	Capscrew, Hex Head M8 x 1.25 x 105 mm	-
20	15-00701	2	Flat Washer, M8	-
21	15-00702	2	Lock Washer, M8	-
22	12-00711	1	Capscrew, Hex Head M8 x 1.25 x 20 mm	-
23	14-04802	1	Nylock Nut, M8 x 1.25	-
24	24-70000	1	Filter Element (not shown)	-
25	11-70004	1	Element Gasket (not shown)	-
26	11-70002	1	Bowl Gasket (not shown)	-
27	24-70001	1	Bowl Assembly (includes key #26, not shown)	-

8" WET RISER

Exhaust Aft

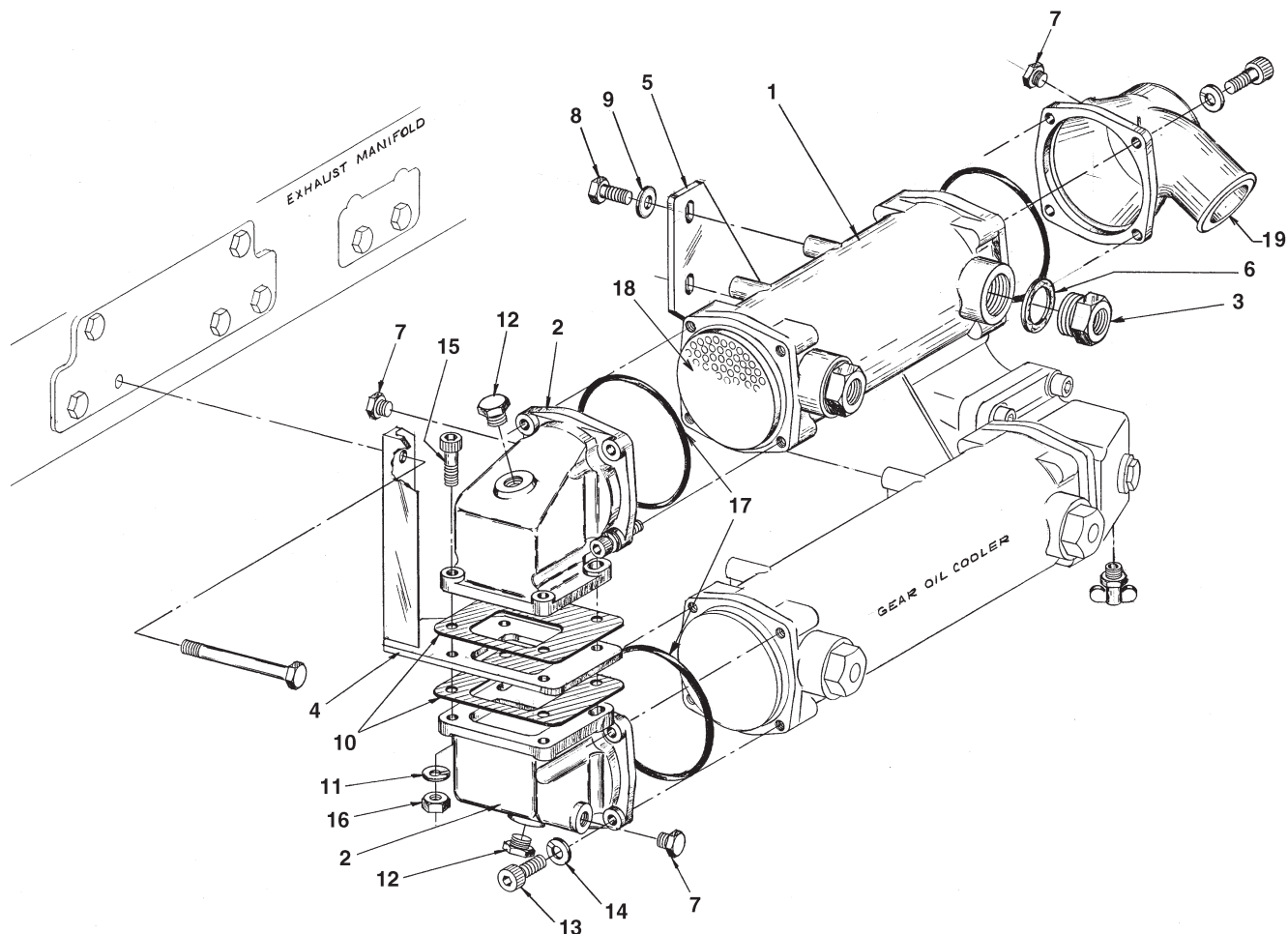


A-4762 / C-2556

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	27-35003	1	Wet Exhaust Riser 8"	-
2	11-35001	1	Gasket	-
3	14-00321	4	Hex Nut, 3/8 - 24	-
4	15-00804	4	Wave Washer, M10	-
5	23-35001	1	Hose Support Bracket	-
6	18-35001	1	Hose, 2" ID x 50"	-
7	19-00032	2	Hose Clamp, #32	-
8	19-71034	2	Adelle Clamp 2-1/2"	-
9	12-00312	2	Capscrew, Hex Head 3/8 - 16 x 1"	-
10	15-00321	2	Flat Washer, SAE 3/8	-
11	14-00312	2	Nylock Nut 3/8-16	-
12	12-00831	2	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
13	15-00802	2	Lock Washer, M10	-
14	21-10003	2	Plug, 1/4 NPT	-

GROUP 9 - ACCESSORIES & OPTIONAL EQUIPMENT

HYDRAULIC OIL COOLER - TOP MOUNT (KEEL COOLING)

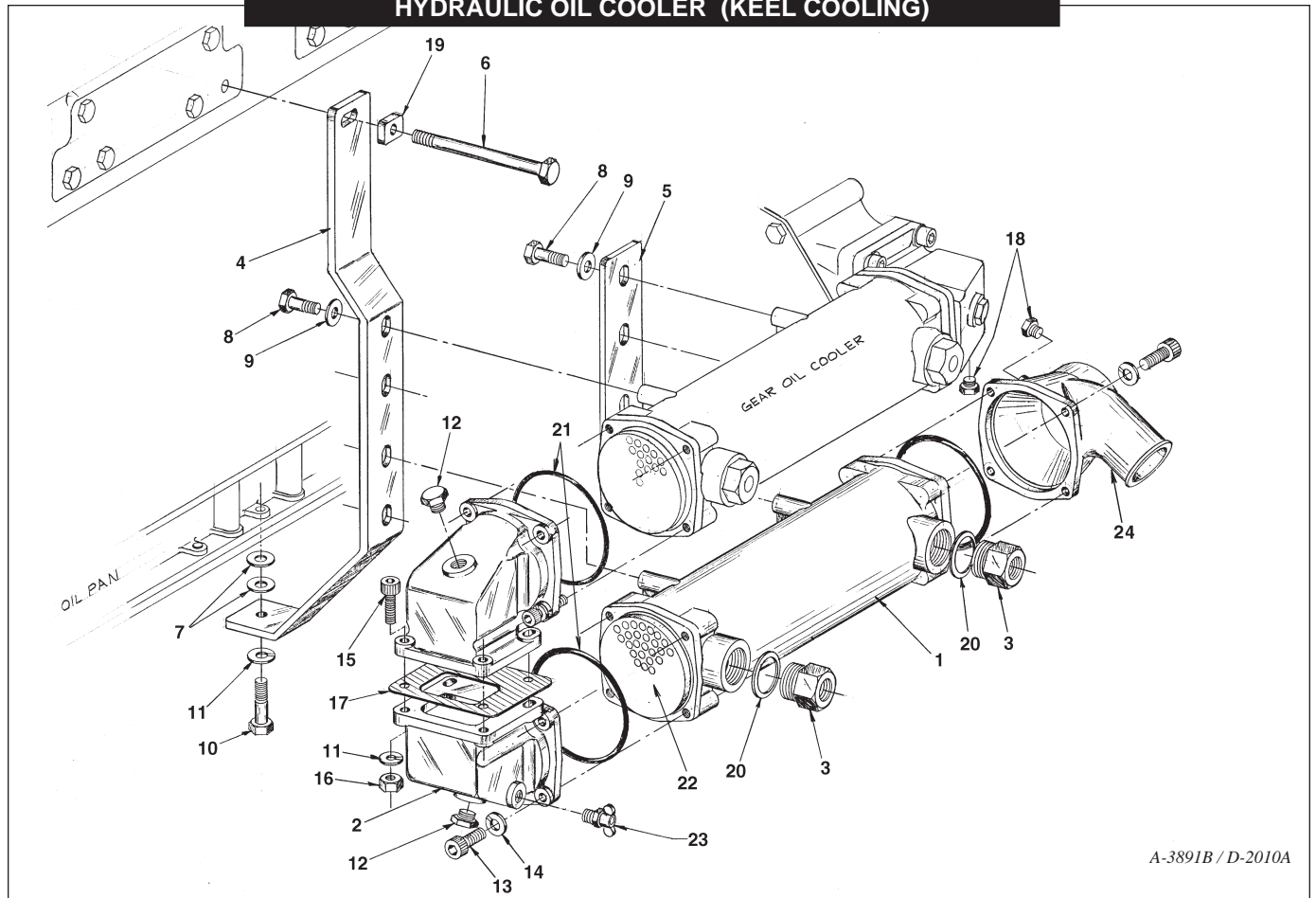


A-4175A / D-2040

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	20-64800	1	Hydraulic Oil Cooler (includes keys #1, #17 & #18)	-
1	10-04803	1	Hydraulic Oil Cooler Housing	-
2	20-14801	2	End Cap	-
3	31-14802	2	Bushing, 1-1/4 BSP x 3/4 NPT (Replaced by #31-14805)	-
	31-14805	2	Bushing, 1-1/4 BSP x 1" NPT	-
4	23-75006	1	Support Bracket (High Profile only)	-
5	23-75007	1	Support Bracket	-
6	11-14807	2	Gasket	-
7	21-31624	3	Plug, 1/4 NPT	-
8	12-00711	4	Capscrew, Hex Head M8 x 1.25 x 20 mm	-
9	15-00701	2	Flat Washer, M8	-
10	11-14806	2	Gasket	-
11	15-00803	4	Lock Washer, High Collar M10	-
12	21-00530	2	Plug, 1/2 NPT	-
13	12-14802	8	Capscrew, Socket Head M8 x 1.25 x 30 mm	-
14	15-00704	8	Lock Washer, High Collar M8	-
15	12-00059	4	Capscrew, Socket Head M10 x 1.5 x 55 mm	-
16	14-00811	4	Hex Nut, M10 x 1.5	-
17	16-64801	4	O-ring	-
18	20-64802	1	Element	-
19	20-14800	1	End Cap	-

GROUP 9 - ACCESSORIES & OPTIONAL EQUIPMENT

HYDRAULIC OIL COOLER (KEEL COOLING)

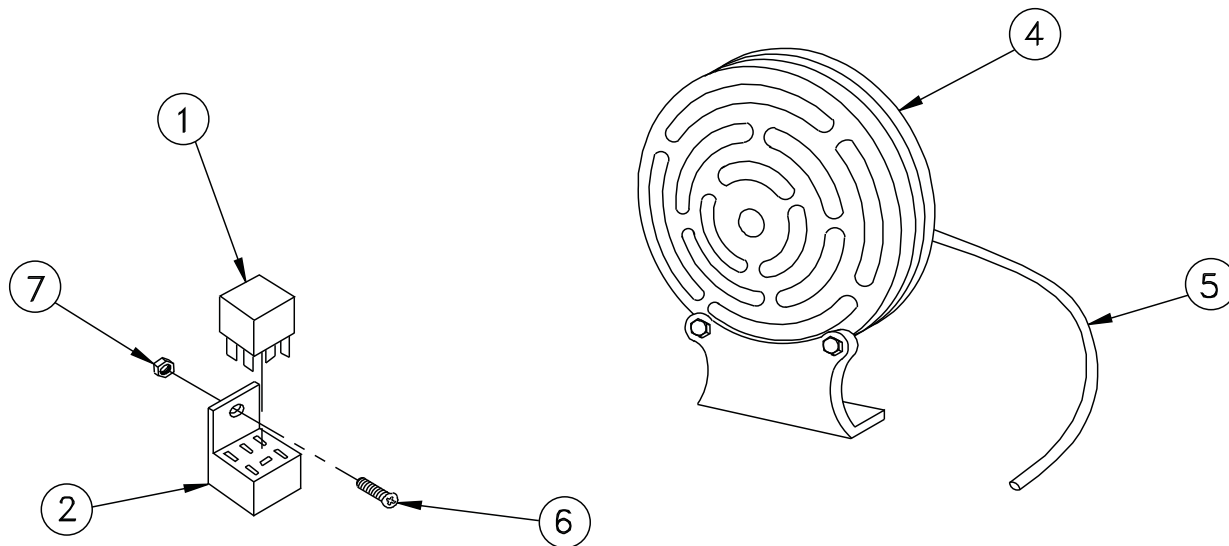


A-3891B / D-2010A

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	20-12802	1	Hydraulic Oil Cooler (includes keys #1, #21 - #22)	-
1	10-04802	1	Hydraulic Oil Cooler Housing	-
2	20-14801	2	End Cap	-
3	31-14802	2	Bushing, 1-1/4 BSP x 3/4 NPT (Replaced by 31-14805)	-
	31-14805	2	Bushing, 1-1/4 BSP x 1" NPT	-
4	23-75002	1	Support Bracket	-
	23-75009	1	Support Bracket	-
5	23-75003	1	Support Bracket	-
6	12-00841	1	Capscrew, Hex Head M10 x 1.5 x 220 mm	-
7	15-00805	2	Flat Washer, M10	-
8	12-00714	8	Capscrew, Hex Head M8 x 1.25 x 40 mm	-
9	15-00701	8	Flat Washer, M8	-
10	12-00708	1	Capscrew, Hex Head M10 x 1.5 x 45 mm	-
11	15-00803	5	Lock Washer, High Collar M8	-
12	21-00530	2	Plug, 1/2 NPT	-
13	12-14802	8	Capscrew, Socket Head M8 x 1.25 x 30 mm	-
14	15-00704	8	Lock Washer, High Collar M8	-
15	12-20815	4	Capscrew, Socket Head M10 x 1.5 x 40 mm	-
16	14-00811	4	Hex Nut, M10 x 1.5	-
17	11-14806	1	Gasket	-
18	21-31624	2	Plug, 1/4 NPT	-
19	21-75007	1	Spacer	-
20	11-14807	2	Gasket	-
21	16-64801	4	O-ring	-
22	20-02802	1	Element	-
23	21-10002	1	Drain Cock 1/4 NPT	-
24	20-14800	1	End Cover	-

REMOTE 12 & 24 VOLT LOUD ALARM

Propulsion Application

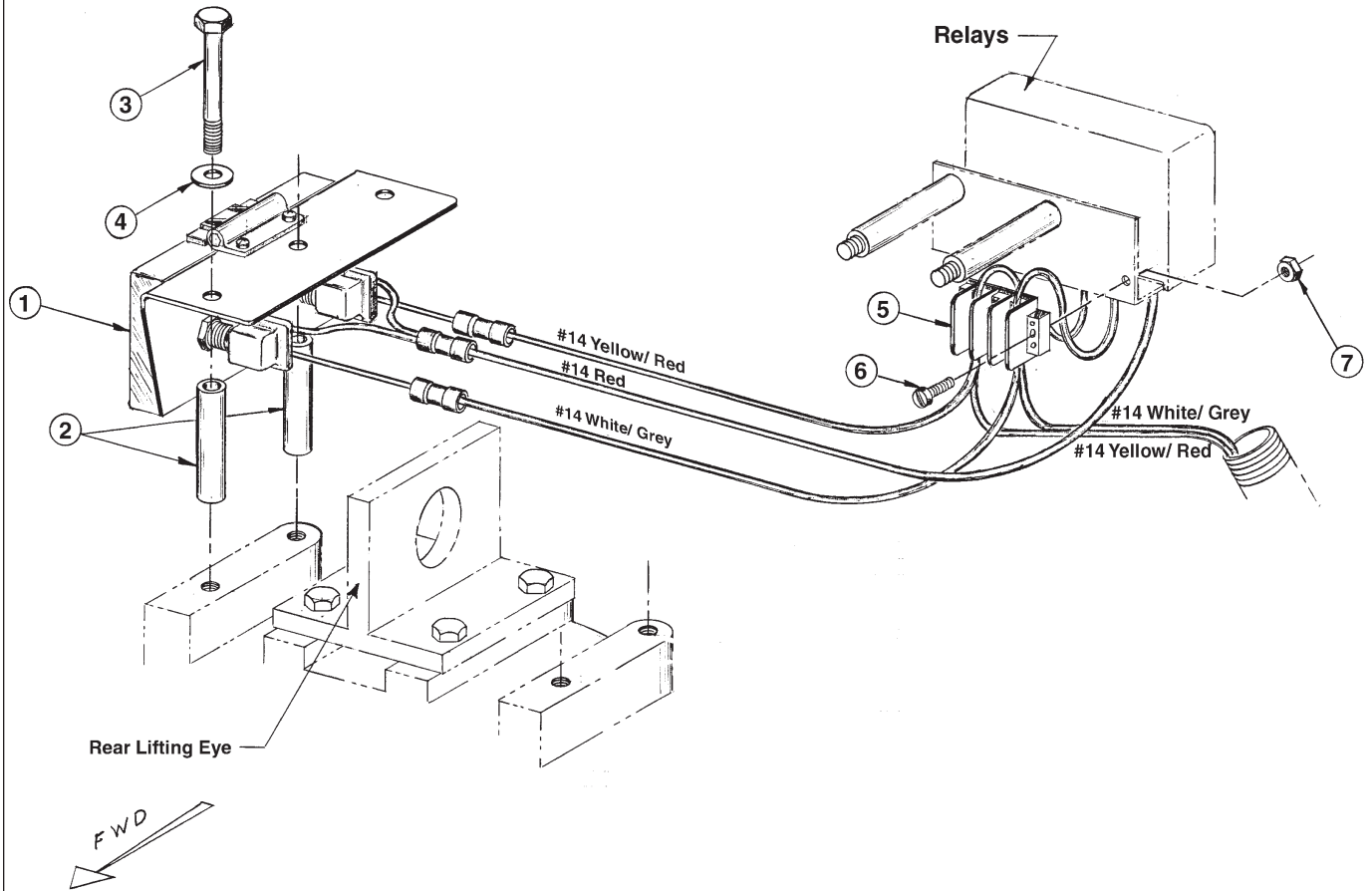


A-4186A , A-4115A / B -alarm

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-42047	1	12 Volt Relay SPST	-
	22-40085	1	24 Volt Relay SPST	-
2	22-41032	1	Relay Base	-
3	22-41060	2	6 Amp Diode (not shown)	-
4	22-41007	1	Alarm Horn, 12 Volt	-
	22-40933	1	Alarm Horn, 24 Volt	-
5	22-41009	1	Horn Wire, 14/2 Conductor x 6' (included in 22-74814)	-
	22-74814	1	WIRE HARNESS ASSEMBLY (includes key #2)	-
6	12-03010	1	Machine Screw #10 - 32 x 3/8 100 F.H. CSK	-
7	14-00001	1	Hex Nut, #10 - 32	-

LOCAL START/STOP PANEL & MOUNTING

Propulsion Application

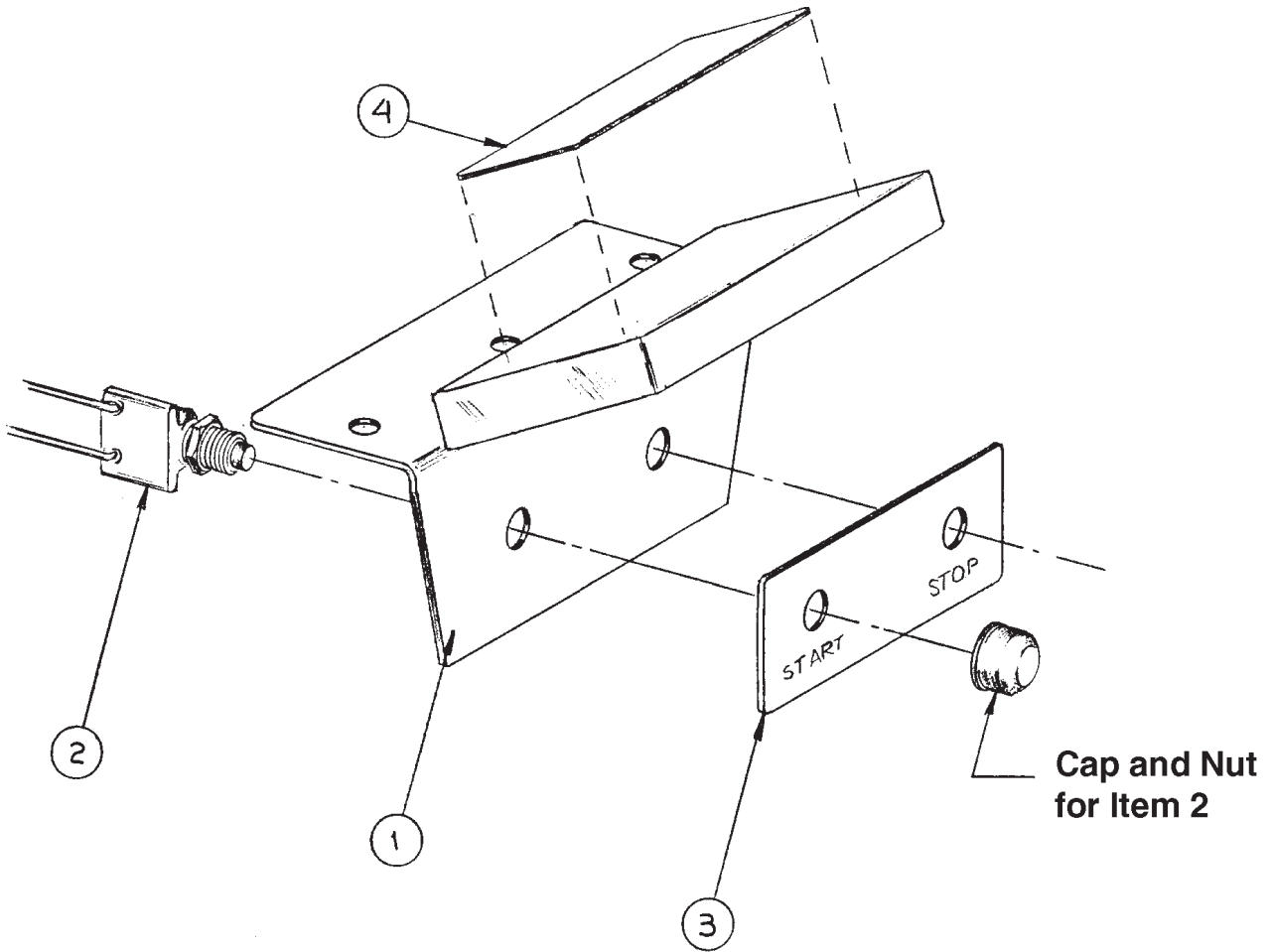


A-4521 / C-2408

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-95010	1	Local Control Panel (see detail)	-
2	21-32501	2	Spacer	-
3	12-00049	2	Capscrew, Hex Head M10 x 1.25 x 80 mm	-
4	15-00805	2	Flat Washer M10	-
5	22-75005	1	3 Connection Terminal Block	-
6	12-00005	2	Machine Screw #8 - 32 x 3/4"	-
7	14-00003	2	Nylock Hex Nut #8 - 32	-

LOCAL CONTROL PANEL DETAIL

Propulsion Application

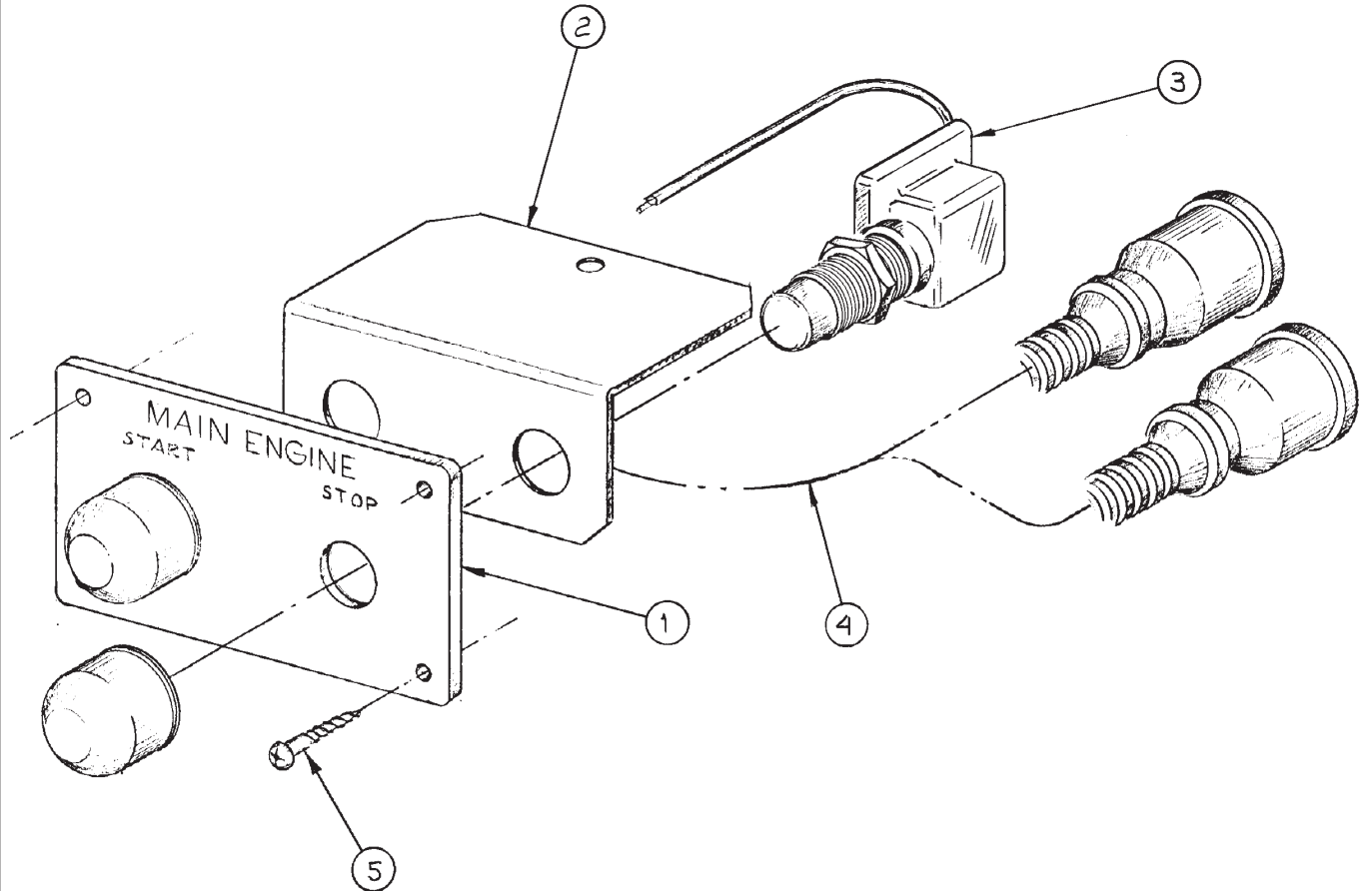


A-4524 / B-3752

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-95010	1	LOCAL CONTROL PANEL COMPLETE (includes keys #1 - #4)	-
1	23-95003	1	Panel Bracket	-
2	37-91007	2	Push Button Weatherproof	-
3	00-95001	1	Label "Start/Stop"	-
4	00-95002	1	Local Control Panel Label	-

REMOTE START/STOP PANEL

Propulsion Application

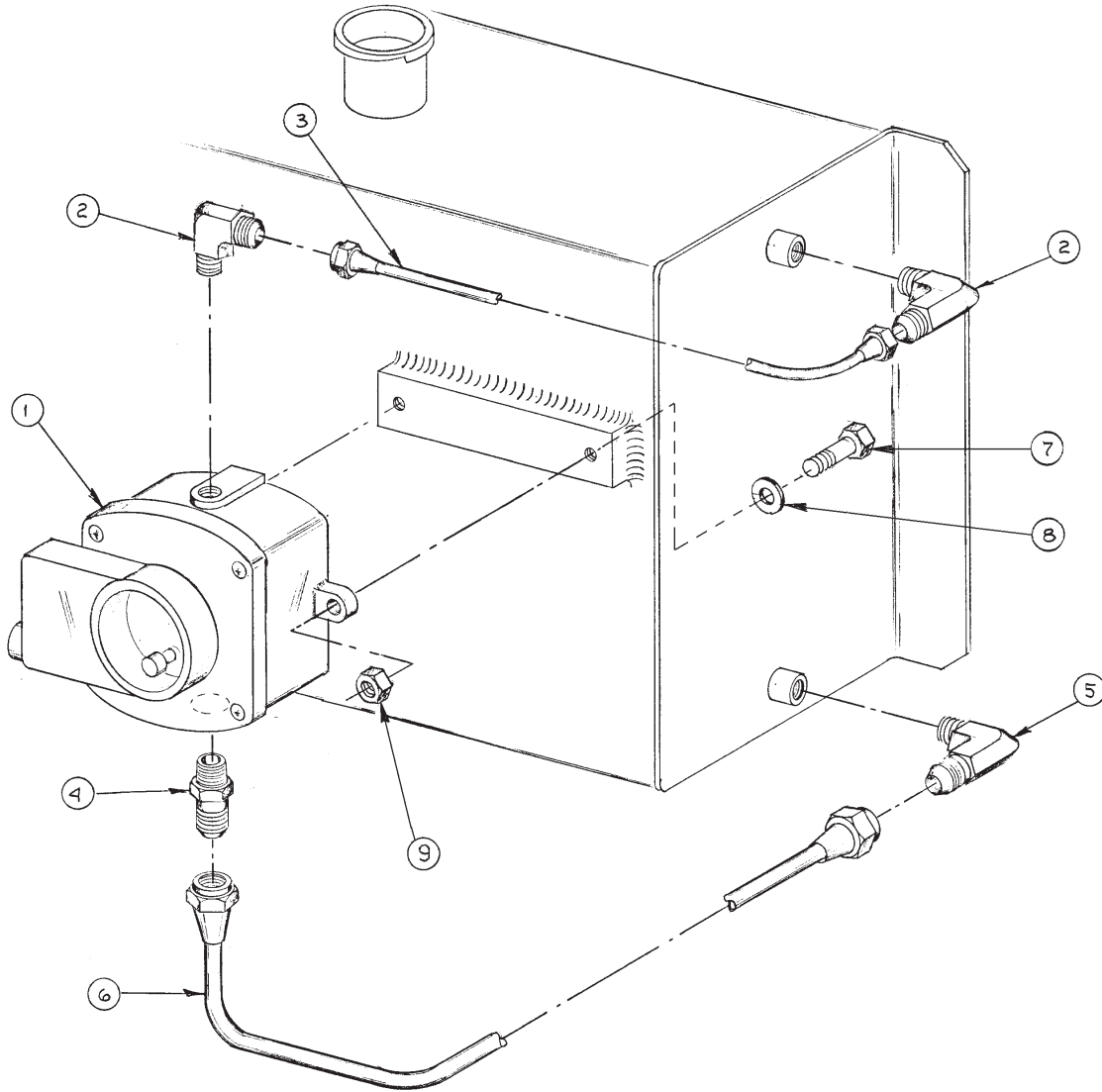


A-5066 / B-4010

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	00-94801	1	Label, "Main Engine, Start/Stop"	-
2	23-74820	1	Mounting Bracket	-
3	37-91007	2	Push Button Weather Proof	-
4	22-90003	1	Wire Harness	-
5	12-90001	4	Wood Screw, #6 x 1" Round Head, Black	-

COOLANT LEVEL SWITCH/GAUGE - EARLY

Remote Tank Mounted

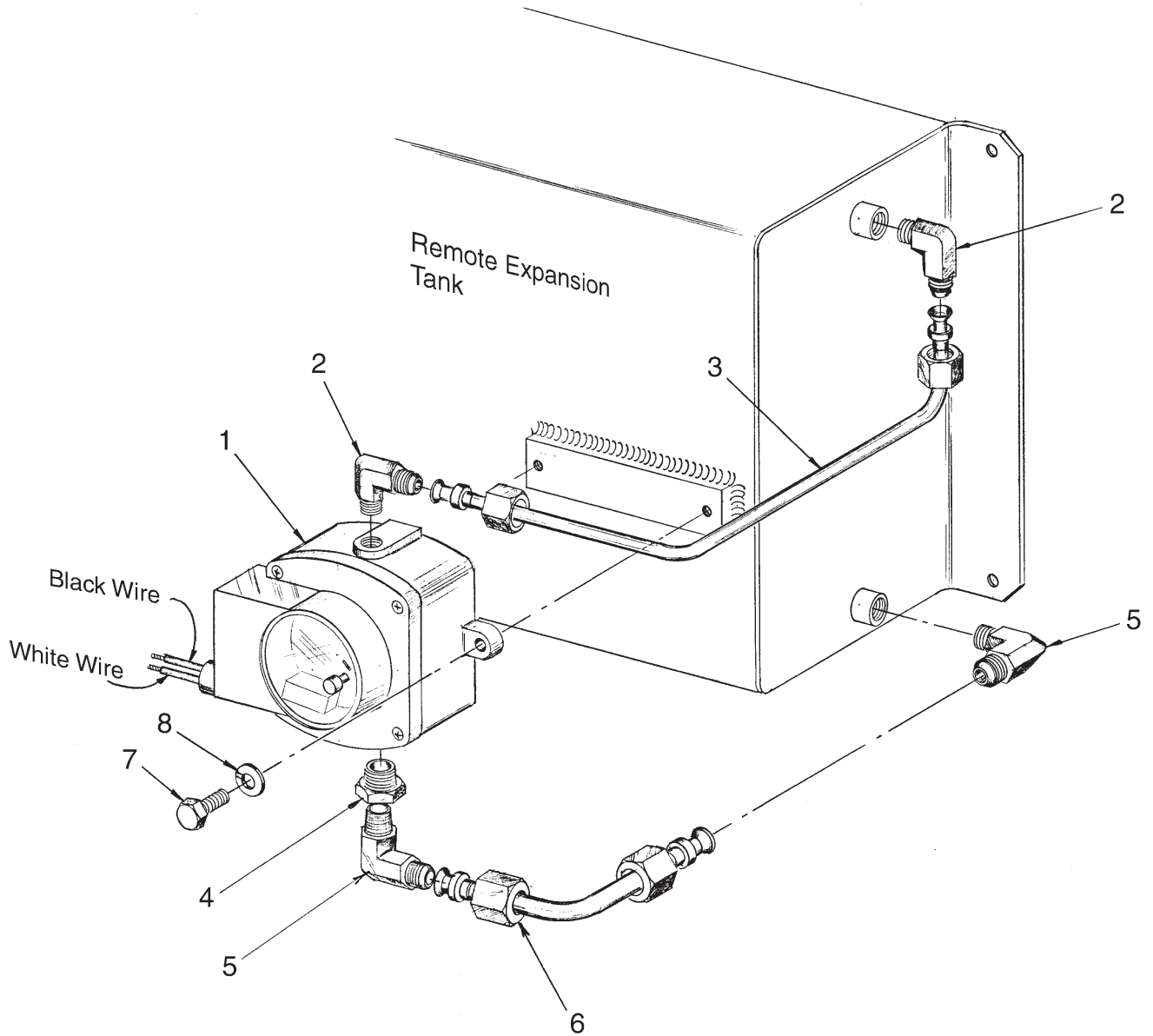


A-3697B / C-2189A

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-10003	1	Coolant Level Switch/Gauge	-
2	21-71049	2	Male Elbow, 90° Steel 1/4 NPT x 1/4 - 37T	-
3	27-75001	1	Tube Assembly	-
4	21-51001	1	Male Connector, Steel 1/2 NPT x 3/8 - 37T	-
5	21-00015	1	Male Elbow, 90° Steel 1/4 NPT x 3/8 - 37T	-
6	27-75002	1	Tube Assembly	-
7	12-00111	2	Capscrew, Hex Head 1/4 - 20 x 3/4"	-
8	15-00103	2	Internal Star Washer, 1/4	-
9	14-00111	2	Hex Nut, 1/4 - 20	-
10	22-75015	1	Wire Harness (not shown)	-

COOLANT LEVEL SWITCH/GAUGE - LATE

Remote Tank Mounted

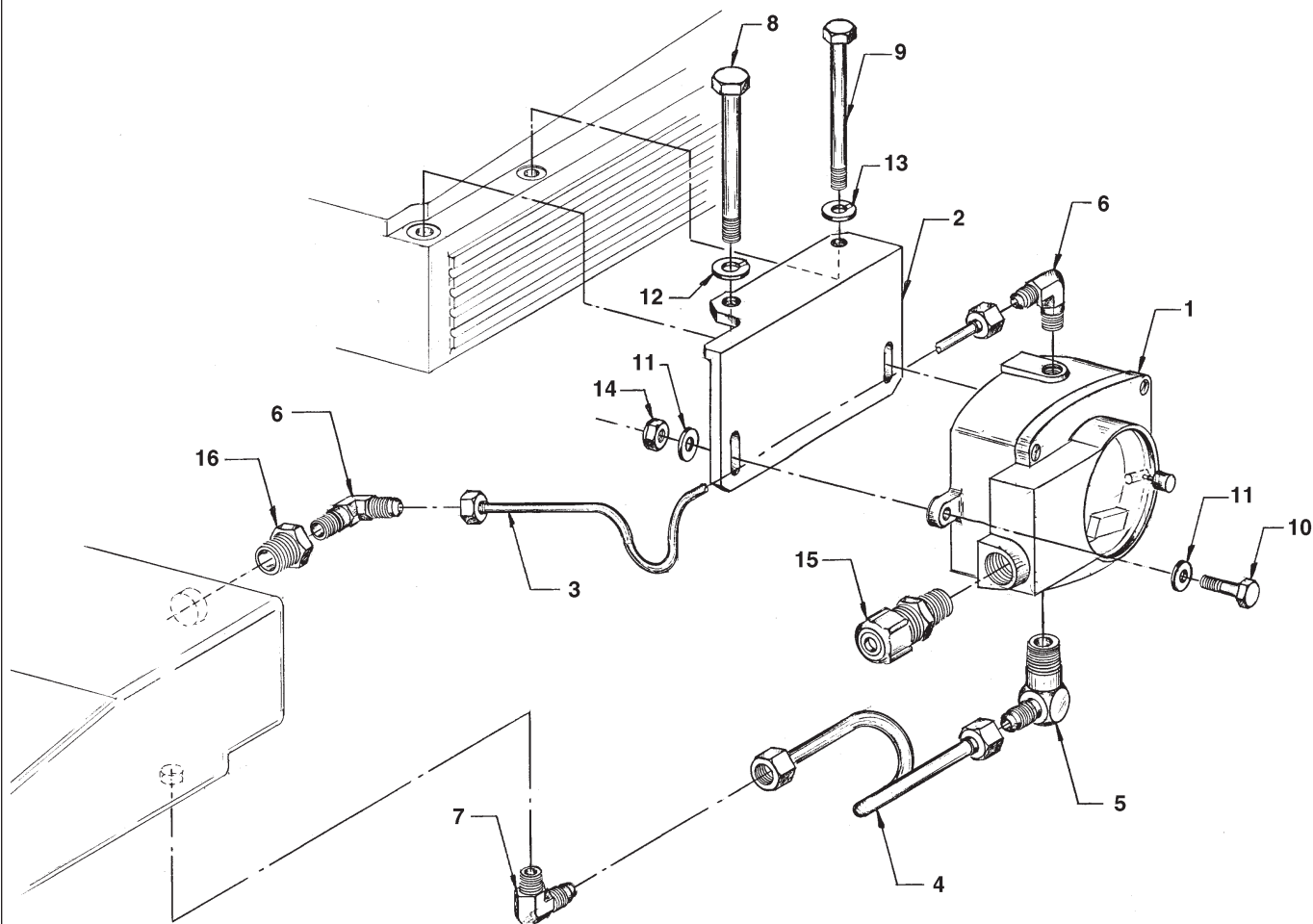


A-4155A / C-2318A

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-10003	1	Coolant Level Switch/Gauge	-
2	21-71049	2	Male Elbow, 90° Steel 1/4 NPT x 1/4 - 37T	-
3	27-75005	1	Tube Assembly	-
4	21-00135	1	Brass Bushing 1/2 NPT x 1/4 NPT	-
5	21-00015	1	Male Elbow, 90° Steel 1/4 NPT x 3/8 - 37T	-
6	27-75004	1	Tube Assembly	-
7	12-00111	2	Capscrew, Hex Head 1/4 - 20 x 3/4"	-
8	15-00103	2	Internal Star Washer, 1/4	-
9	22-75015	1	Wire Harness (not shown)	-

COOLANT LEVEL SWITCH /GAUGE

Low Profile - Early

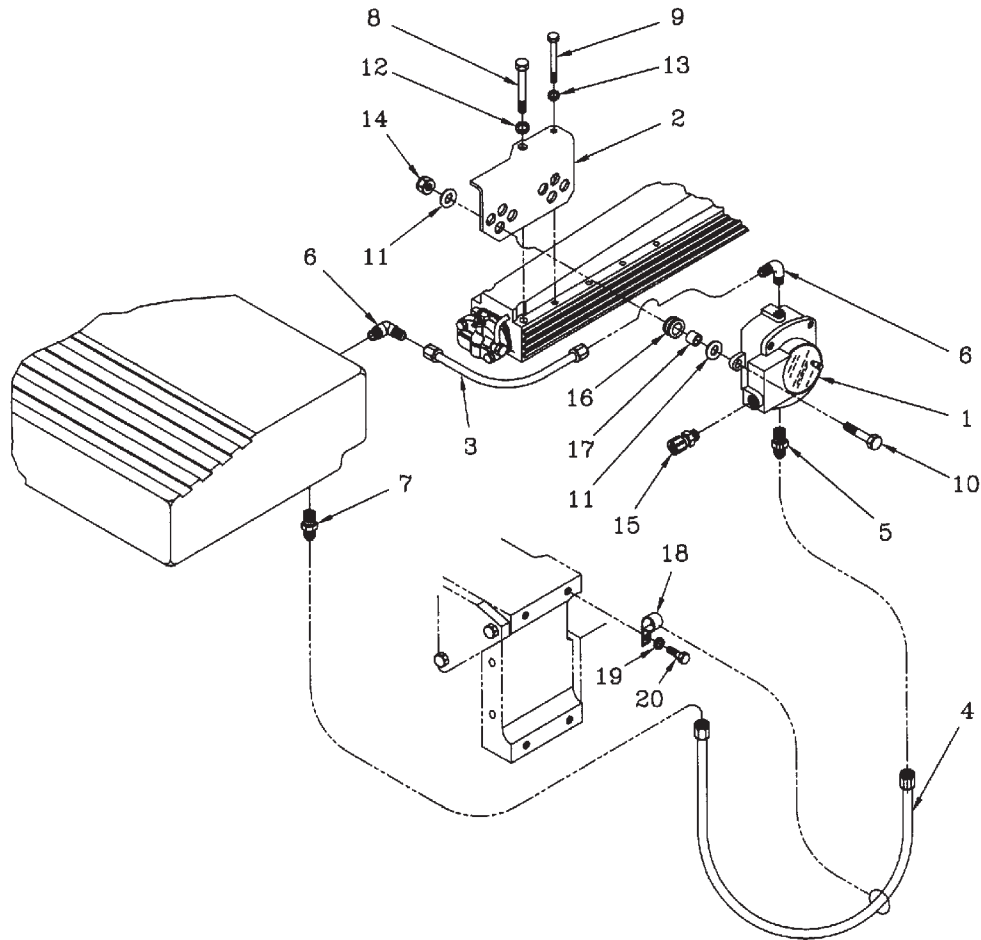


A-5310 / C-2659

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-10003	1	Coolant Level Switch/Gauge	-
2	23-15005	1	Mounting Bracket	-
3	27-75000	1	Tube Assembly	-
4	27-75008	1	Tube Assembly	-
5	21-70011	1	Male Elbow, 90° Steel 1/2 NPT x 3/8 - 37T	-
6	21-71049	2	Male Elbow, 90° Steel 1/4 NPT x 1/4 - 37T	-
7	21-00015	1	Male Elbow, 90° Steel 1/4 NPT x 3/8 - 37T	-
8	12-00052	1	Capscrew, Hex Head M10 x 1.5 x 110 mm	-
9	12-00701	1	Capscrew, Hex Head M8 x 1.25 x 110 mm	-
10	12-00031	2	Capscrew, Hex Head M6 x 1.0 x 25 mm	-
11	15-00008	4	Flat Washer, M6	-
12	15-00802	1	Lock Washer, M10	-
13	15-00702	1	Lock Washer, M8	-
14	14-04803	2	Nylock Nut, M6 x 1.0	-
15	00-40016	1	1/2" Strain Relief Cord Connector	-
16	21-00135	1	Brass Bushing 1/2 NPT x 1/4 NPT	-

COOLANT LEVEL SWITCH /GAUGE

Low Profile - Late



A-6209 / D-2906

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-10003	1	Coolant Level Switch/Gauge	-
2	23-15008	1	Mounting Bracket	-
3	18-15001	1	Hose Assembly 1/4" ID x 7 -3/4	-
4	18-15002	1	Hose Assembly 3/8" ID x 18"	-
5	21-51001	1	Male Connector 1/2 NPT x 3/8 -37T	-
6	21-71049	2	Elbow 90° 1/4NPT x 1/4 -37T	-
7	21-00612	1	Male Connector 1/4 NPT x 3/8 -37T	-
8	12-00052	1	Capscrew, Hex Head M10 x 1.5 x 110 mm	-
9	12-00701	1	Capscrew, Hex Head M8 x 1.25 x 110 mm	-
10	12-00032	3	Capscrew, Hex Head M6 x 1.0 x 30 mm	-
11	15-70003	4	Snubbing Washer	-
12	15-00802	1	Lock Washer M10	-
13	15-00702	1	Lock Washer M8	-
14	14-04803	3	Hex Nut M6 x 1.0	-
15	00-40016	1	Strain Relief Connection 1/2 NPT w/.187"	-
16	00-41074	2	Grommet 3/8" ID x 9/16" OD	-
17	21-15014	2	Sleeve	-
18	19-53200	1	Adelle Clamp 1/2" ID x 3/8" Stud	-
19	15-00805	1	Flat Washer M10	-
20	12-04400	1	Capscrew, Hex Head M10 x 1.5 x 16 mm	-



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