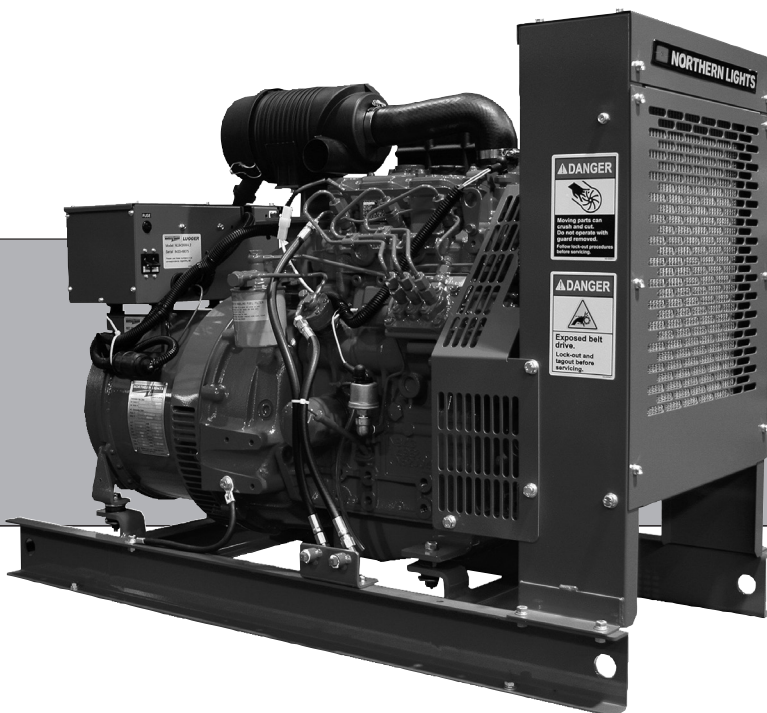




PARTS MANUAL

P843-4

For Model: NL843NW4 and NL843NW4E



www.northern-lights.com



— 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.

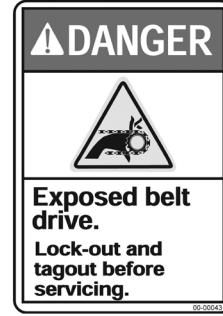


As of 2011, U.S. EPA regulations require the application of a permanently applied label near the fuel tank fill port for diesel driven equipment. This label is to state:

ULTRA LOW SULFUR FUEL ONLY

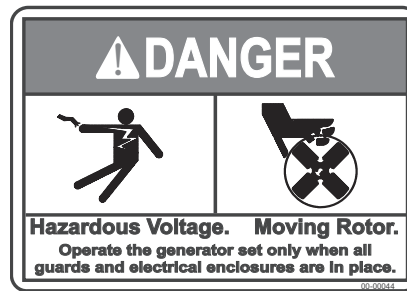
Northern Lights is providing this label for application to the fuel inlet of the fuel supply tank for each engine or generator set. This is to be applied by the installer of the engine or gen set, or by the manufacturer of the equipment that the engine or gen set is installed in. The location of the label must be in clear site of personnel that refill the supply tank.

Safety Labels



00-00041 & 00-00043

Located on Radiator Enclosure Side Panels



00-00044

Located on Generator J-Box Top Panel

Northern Lights
4420 14th Avenue N.W.
Seattle, WA 98107
Tel: (206) 789-3880
Fax: (206) 782-5455

Copyright ©2013 Northern Lights, Inc.
All rights reserved. Northern Lights™, and
the Northern Lights logo are trademarks of
Northern Lights, Inc.

Printed in U.S.A.
PART NO.: P843-4 6/20



PARTS CATALOG

for Models NL843NW4 and NL843NW4E

Please read thoroughly before attempting to use this manual:

Table of Contents	I
Model Designation & Serial Numbers	II
Reading a Parts Page	III

Table of Contents

GROUP 1 - ENGINE

Cylinder Block Assembly	0 - 1
Crankshaft and Flywheel Assembly	2 - 3
Camshaft and Oil Pump	4 - 5
Cylinder Head	6 - 7
Rocker Arm Assembly	8 - 9

GROUP 2 - INTAKE & EXHAUST SYSTEM

Air Filter and Mounting	0
Exhaust Manifold and Muffler	1

GROUP 3 - COOLING SYSTEM

Coolant Pump, Fan, & Thermostat Housing	0
Belt Guard Kit	2 - 3
Radiator and Guard	4 - 5

GROUP 4 - FUEL SYSTEM

Injection Pump and Lines	0 - 1
Governor and Timing Gear Case	2 - 3
Fuel Filter and Piping	4 - 5
Fuel Line Connection	6
Fuel Injector	7
Fuel Feed Pump	8

GROUP 5 - ELECTRICAL SYSTEM

12 Volt Engine	0
Alternator, Starter, and Flywheel Housing	1 - 2
Control Panels	3 - 6

GROUP 6 - GASKET SETS

Gasket Kit	0
------------------	---

GROUP 7 - FRAME & MOUNTING

Base Frame Assembly	0
---------------------------	---

GROUP 8 - ACCESSORIES & OPTIONAL EQUIPMENT

Oil Drain Kit	0
---------------------	---

Proprietary Information

This publication is the property of Northern Lights, Inc.
It may not be reproduced in whole or in part without the written permission of Northern Lights, Inc.
© Northern Lights, Inc. All rights reserved. Litho U.S.A. Publication number P843-4 6/20

Model Designation

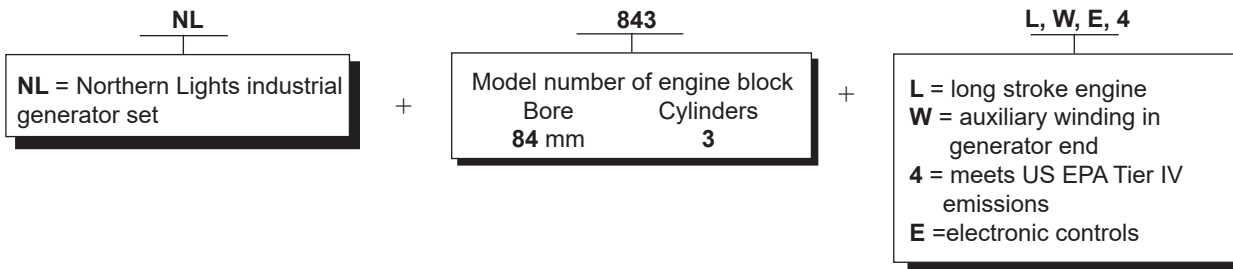
MODELS INCLUDED

This manual covers the parts and components used in:

NL843NW4 & NL843NW4E

Model Numbers

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



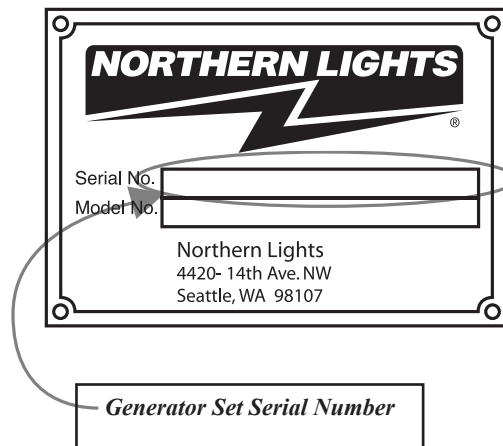
NL843NW4 = Northern Lights industrial diesel generator set with an 843 engine and a PX-312K2 generator, Tier IV compliant.

NL843NW4E = Northern Lights industrial diesel generator set with an 843 engine and a PX-312K2 generator, Tier IV compliant using electronic controls

Serial Numbers

NORTHERN LIGHTS

Your set has three serial numbers: ① an engine number stamped on the block, ② a generator plate, and ③ a generator set plate. Use the serial number on the **generator set plate** when ordering parts or in correspondence. The generator set plate is found on the service side of the generator and resembles the drawing below.



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.

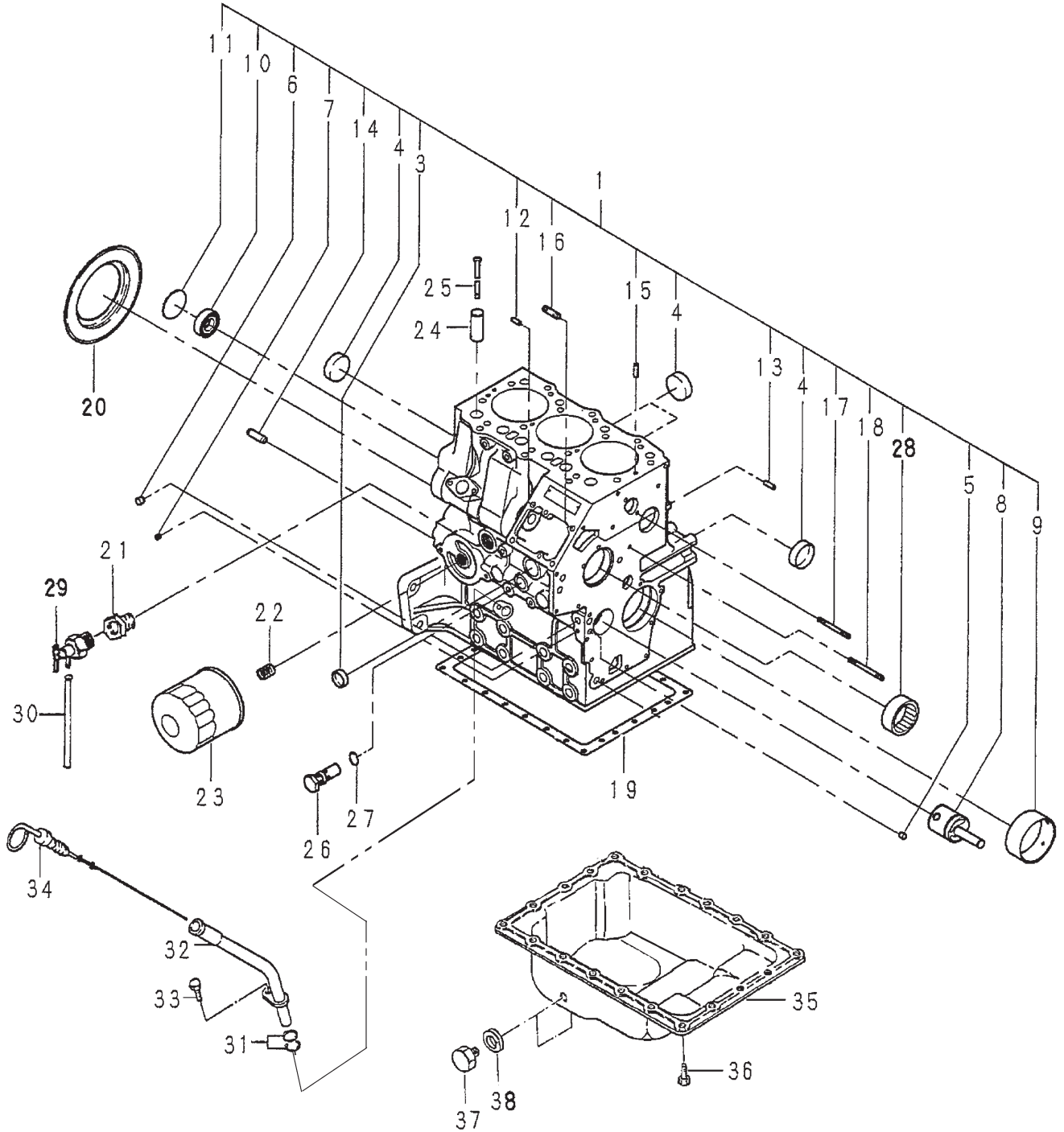
KEY	PART NUMBER	QTY.	DESCRIPTION	SERIALNUMBER
0	185046210	1	Alternator Assembly	-
1	185446219	1	Flywheel, complete	-
2	185446217	1	Plate, complete	-
3	185716200	1	Plate	-
4	185446218	1	Stator, complete	-
5	040126210	2	Bearing	-
6	020210010	1	Nut	-
7	027100010	1	Spring washer	-
8	026100010	1	Washer	-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

REFERENCES:

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

Cylinder Block Assembly

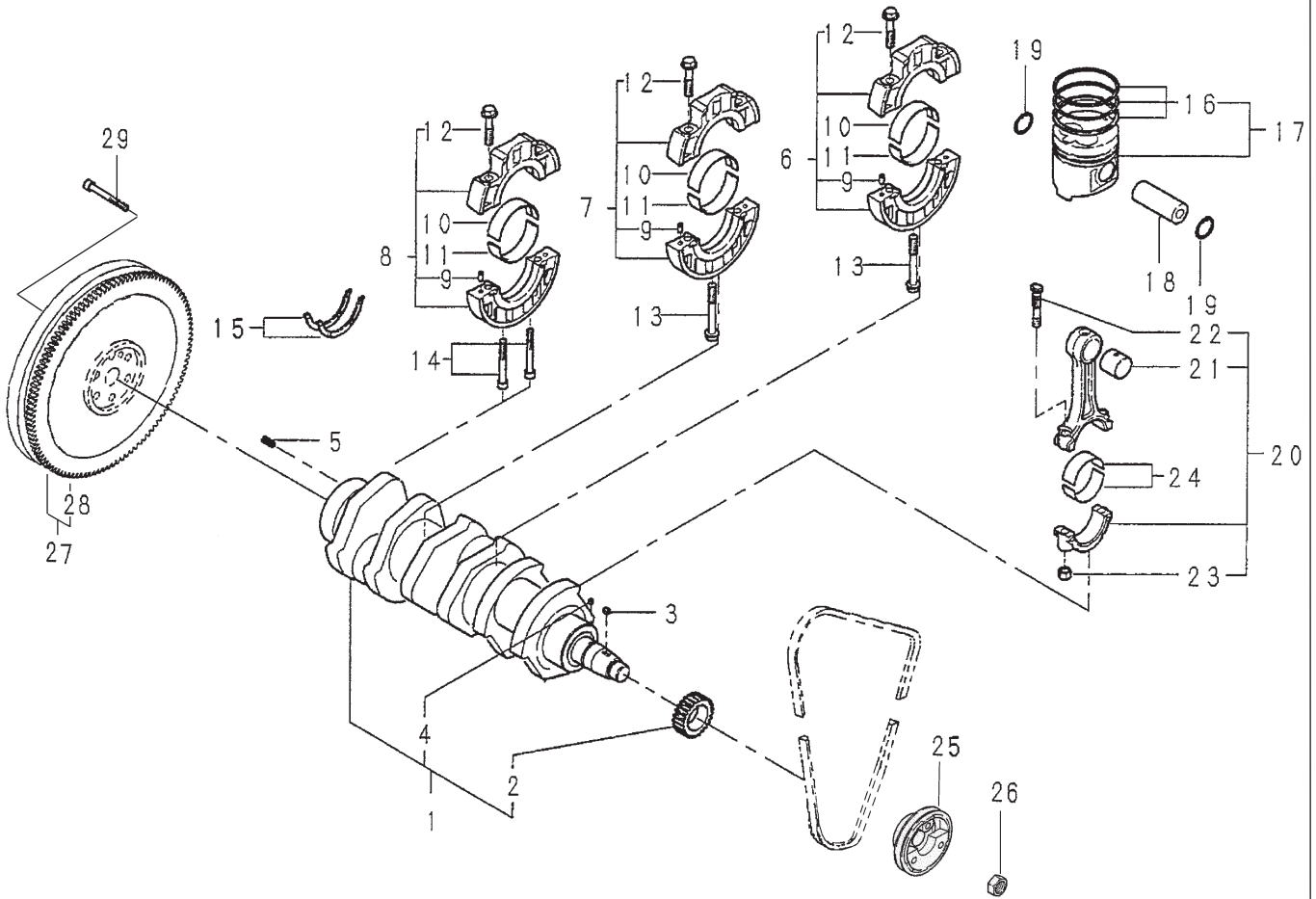


843NW3cylblock

Cylinder Block Assembly

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL
1	110101310	1	Cylinder Block Assembly (includes keys #3- 18, 28)	-
3	064210025	1	Expansion Plug 25 mm	-
4	064209055	4	Expansion Plug 40 mm	-
5	198466010	2	Plug	-
6	198466020	4	Plug	-
7	198466030	4	Plug	-
8	165296260	1	Idle Gear Shaft Assembly	-
9	198517222	1	Bushing, Standard	-
	198517226	1	Bushing, Undersized 0.25 mm	-
	198517229	1	Bushing, Undersized 0.50 mm	-
10	040106203	1	Bearing	-
11	064100045	1	Expansion Plug	-
12	030500612	2	Dowel Pin	-
13	030500616	2	Dowel Pin	-
14	030501025	2	Dowel Pin	-
15	030309005	2	Spring Pin	-
16	13-00709	2	Stud	-
17	012110635	1	Stud	-
18	012110660	1	Stud	-
19	110996820	1	Gasket	-
20	198636170	1	Oil Seal	-
21	198486770	1	Bushing	-
22	140546020	1	Filter Joint	-
23	24-02002	1	Oil Filter Assembly	-
24	120116160	6	Tappet	-
25	120456251	6	Push Rod	-
26	140036220	1	Relief Valve Assembly	-
27	052109078	1	O-ring	-
28	042309013	1	Needle Bearing	-
29	198736050	1	Drain Cock	-
30	068105250	1	Tube	-
31	052109113	2	O-ring	-
32	110756140	1	Dipstick Tube	-
33	011310612	1	Bolt	-
34	198416320	1	Dipstick	-
35	110707390	1	Oil Pan	-
36	010109235	26	Bolt	-
37	010411212	2	Plug, Hex Head M12 x 1.25	-
38	025100012	2	Seal Washer	-

Crankshaft and Flywheel Assembly

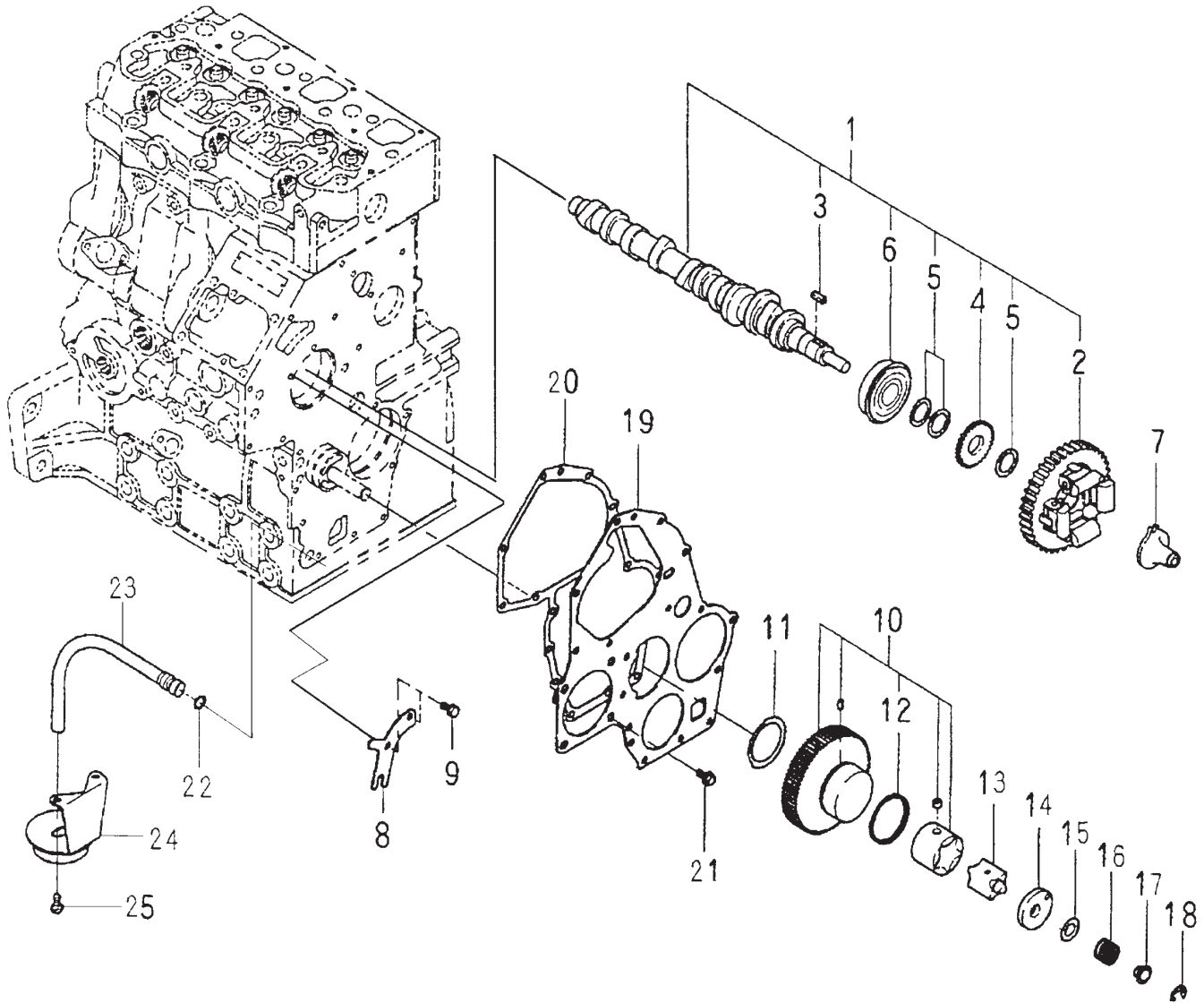


843NW3crankshaft

Crankshaft and Flywheel Assembly

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	115256950	1	Crankshaft Assembly (includes keys 2- 5)	-
2	115276200	1	Crankshaft Gear	-
3	034100508	1	Key	-
4	030509020	1	Dowel Pin	-
5	030300816	1	Spring Pin	-
6	110156171	1	Bearing Holder Assembly (includes keys 9 &12)	-
7	110156181	1	Bearing Holder Assembly (includes keys 9 &12)	-
8	110156191	1	Bearing Holder Assembly (includes keys 9 &12)	-
9	030500612	6	Dowel Pin	-
10	198517232	3	Bearing; Standard (Upper)	-
	198517236	3	Bearing; Undersized 0.25 mm (Upper)	-
	198517239	3	Bearing; Undersized 0.50 mm (Upper)	-
11	198517242	3	Bearing; Standard (Lower)	-
	198517246	3	Bearing; Undersized 0.25 mm (Lower)	-
	198517249	3	Bearing; Undersized 0.50 mm (Lower)	-
12	010109406	6	Bolt	-
13	010109667	2	Bolt	-
14	010700865	2	Bolt	-
15	199266200	2	Thrust Washer	-
16	115107970	3	Piston Ring Kit, Standard	-
17	115017541	3	Piston Kit, Standard	-
18	115326220	3	Piston Pin	-
19	036500028	6	Snap Ring	-
20	115026251	3	Connecting Rod Assembly (includes keys 21-23)	-
21	198517265	3	Bushing	-
22	115176140	6	Connecting Rod Bolt	-
23	020109120	6	Nut	-
24	198517650	6	Bearing, Standard	-
	198517256	6	Bearing, 0.25 mm	-
	198517259	6	Bearing, 0.50 mm	-
25	115396810	1	Crankshaft Pulley	-
26	020109086	1	Nut	-
27	115357040	1	Flywheel Assembly (includes key 28)	-
28	115376040	1	Ring Gear (109 Teeth)	-
29	010109341	6	Bolt	-

Camshaft and Oil Pump

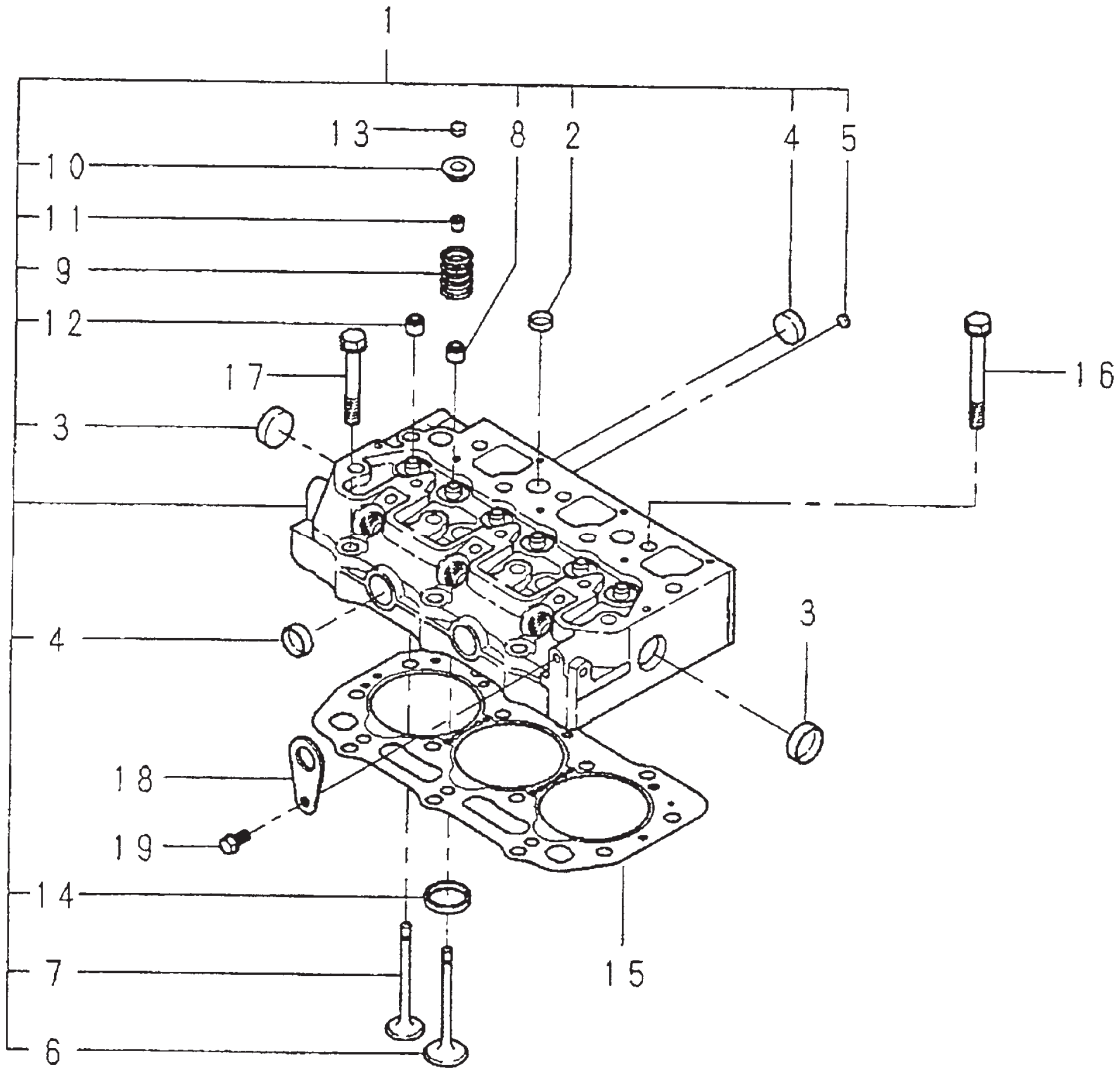


843NW3oilpump

Camshaft and Oil Pump

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	120026740	1	Camshaft Assembly (includes keys 2- 6)	-
2	120016050	1	Cam Gear	-
3	034100508	1	Key	-
4	120736081	1	Gear	-
5	199216230	3	Spacer	-
6	040156304	1	Bearing	-
7	125256120	1	Slider	-
8	199566651	1	Plate	-
9	011310612	2	Bolt	-
10	165026400	1	Idle Gear Assembly (includes key #12)	-
11	199266270	1	Thrust Washer	-
12	198217760	1	Spring	-
13	140166380	1	Rotor	-
14	140116220	1	Oil Pump Cover	-
15	199286150	1	Shim; t = 0.10	-
	199286160	1	Shim; t = 0.15	-
	199286170	1	Shim; t = 0.20	-
	199286180	1	Shim; t = 0.50	-
16	198216720	1	Spring	-
17	199236540	1	Collar	-
18	036800010	1	Snap Ring	-
19	165166630	1	Front Plate	-
20	165996540	1	Gasket	-
21	011300612	2	Bolt	-
22	052109076	1	O-ring	-
23	140986970	1	Oil Pipe	-
24	140406310	1	Suction Filter Assembly	-
25	011310612	2	Bolt	-

Cylinder Head



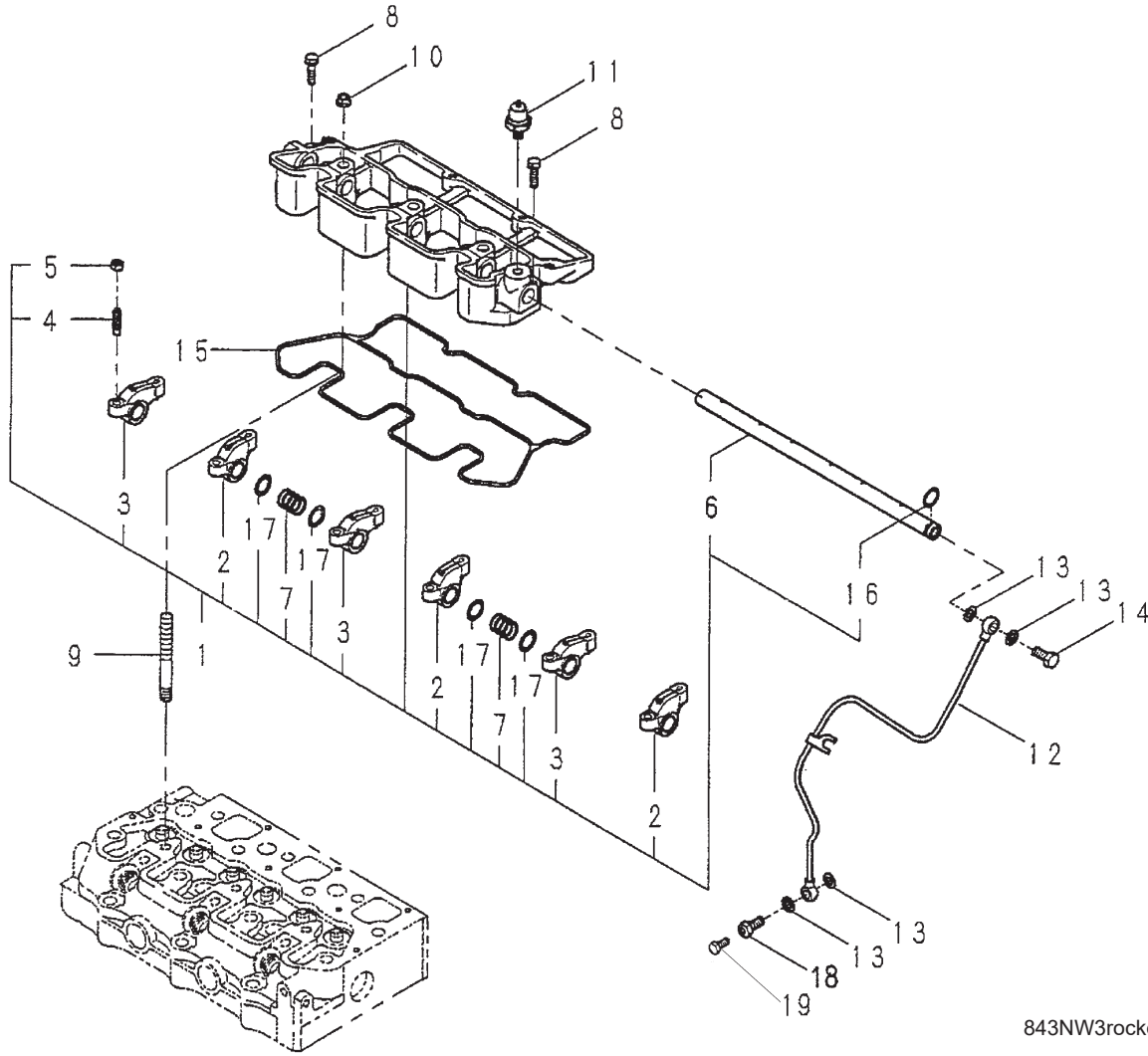
843NW3cylhead

Cylinder Head

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	111011280	1	Cylinder Head Assembly (Industrial, includes keys 1-14)	-
2	064210018	5	Expansion Plug, 18 mm	-
3	064210030	2	Expansion Plug, 30 mm	-
4	064210025	4	Expansion Plug, 25 mm	-
5	064210010	2	Expansion Plug, 10 mm	-
6	120166380	3	Intake Valve	-
7	120176380	3	Exhaust Valve	-
8	120406070	3	Valve Guide Seal - Intake	-
9	198216700	6	Spring	-
10	120186080	6	Retainer	-
11	120226070	12	Cotter	-
12	120406050	3	Valve Guide Seal - Exhaust	-
13	120216041	6	Cap	-
14	110136400	3	Valve Seat - Intake	-
15	111147491	1	Head Gasket t=1.3 mm	-
	111147501	1	Head Gasket t=1.4 mm	-
16	111136480	11	Head Bolt	-
17	111136490	3	Head Bolt	-
18	195816030	1	Lifting Eye	-
19	011510816	1	Bolt	-

GROUP 1 – ENGINE

Rocker Arm Assembly

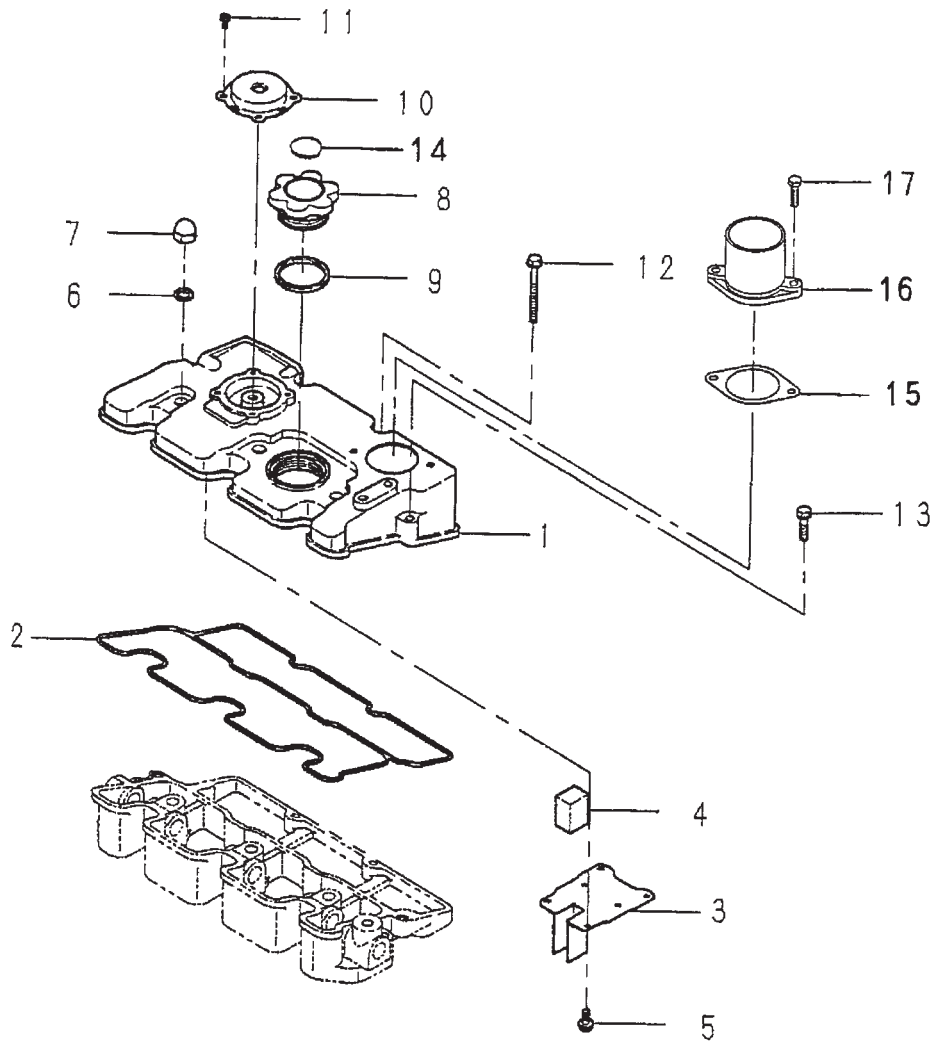


843NW3rockerarm

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	120037070	1	Rocker Arm Assembly (includes keys 2-7, 16-17)	-
2	120356131	3	Intake Rocker Arm	-
3	120356141	3	Exhaust Rocker Arm	-
4	199486220	6	Screw	-
5	020109076	6	Nut	-
6	120316281	1	Rocker Arm Shaft	-
7	198217170	2	Spring	-
8	011310635	2	Bolt	-
9	012109044	3	Stud	-
10	023100010	3	Nut	-
11		1	Oil Pressure Switch (see Electrical System)	-
12	140606941	1	Oil Pipe Assembly	-
13	140996260	4	Sealing Washer	-
14	198486780	1	Banjo Bolt	-
15	120996140	1	Gasket	-
16	052109076	1	O-ring	-
17	199280300	4	Shim	-
18	198487590	1	Banjo Bolt (Tapped 1/8 NPT)	-
19	21-00050	1	Plug	-

GROUP 1 – ENGINE

Rocker Arm Cover

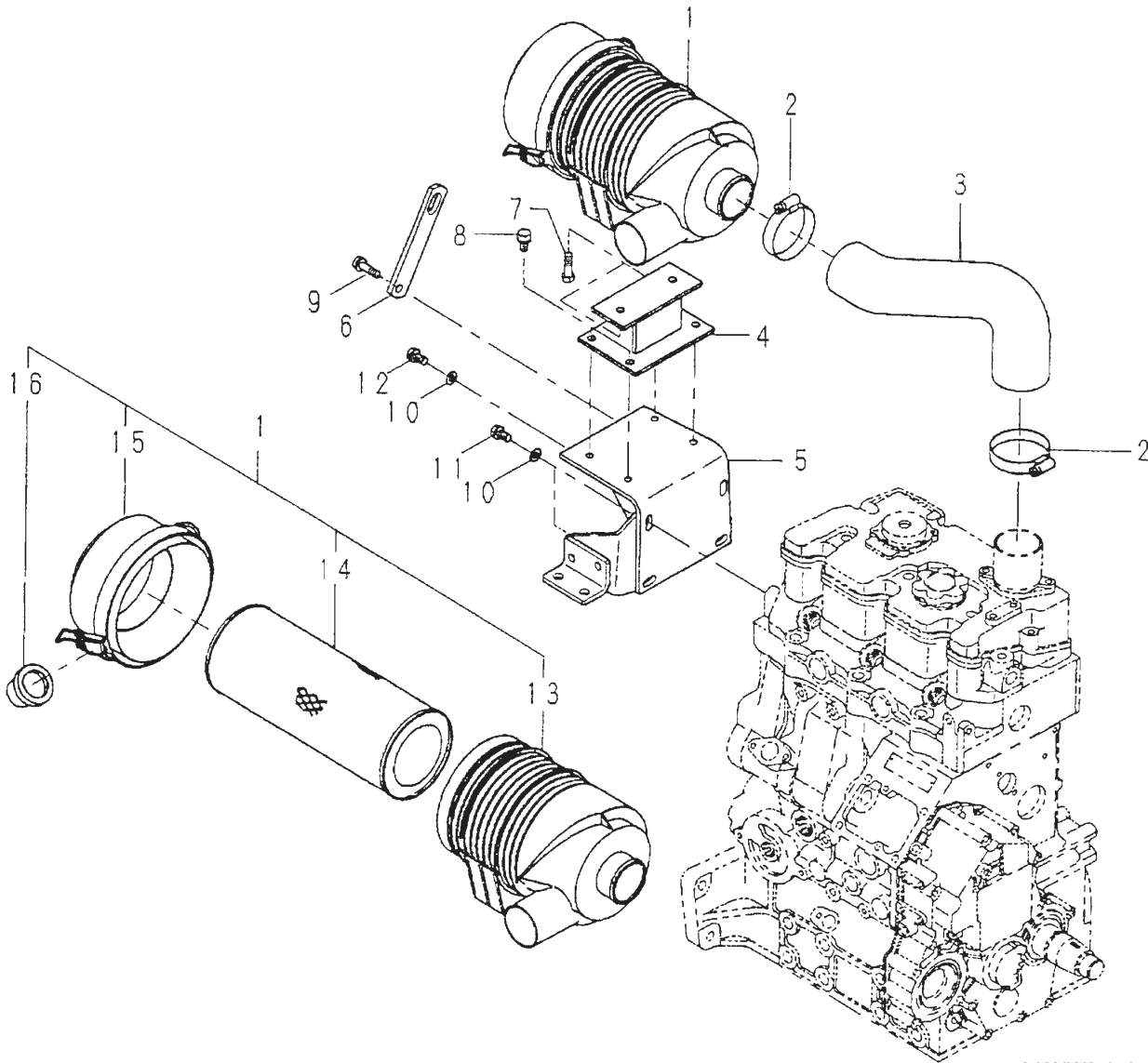


843NW3rockercoverind

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	111217820	1	Rocker Arm Cover	-
2	111996410	1	Gasket	-
3	110666210	1	Oil Stopper	-
4	110666060	1	Steel Wool	-
5	015600406	6	Screw	-
6	140996270	3	Gasket	-
7	024600010	3	Cap Nut	-
8	198436010	1	Cap	-
9	052100400	1	O-ring	-
10	110566080	1	Breather Valve	-
11	011100408	4	Bolt	-
12	011310660	2	Bolt	-
13	011310640	2	Bolt	-
14	190196630	1	Caution Plate	-
15	135996951	1	Gasket	-
16	135566510	1	Air Intake	-
17	011310620	2	Bolt	-

GROUP 2 – INTAKE AND EXHAUST

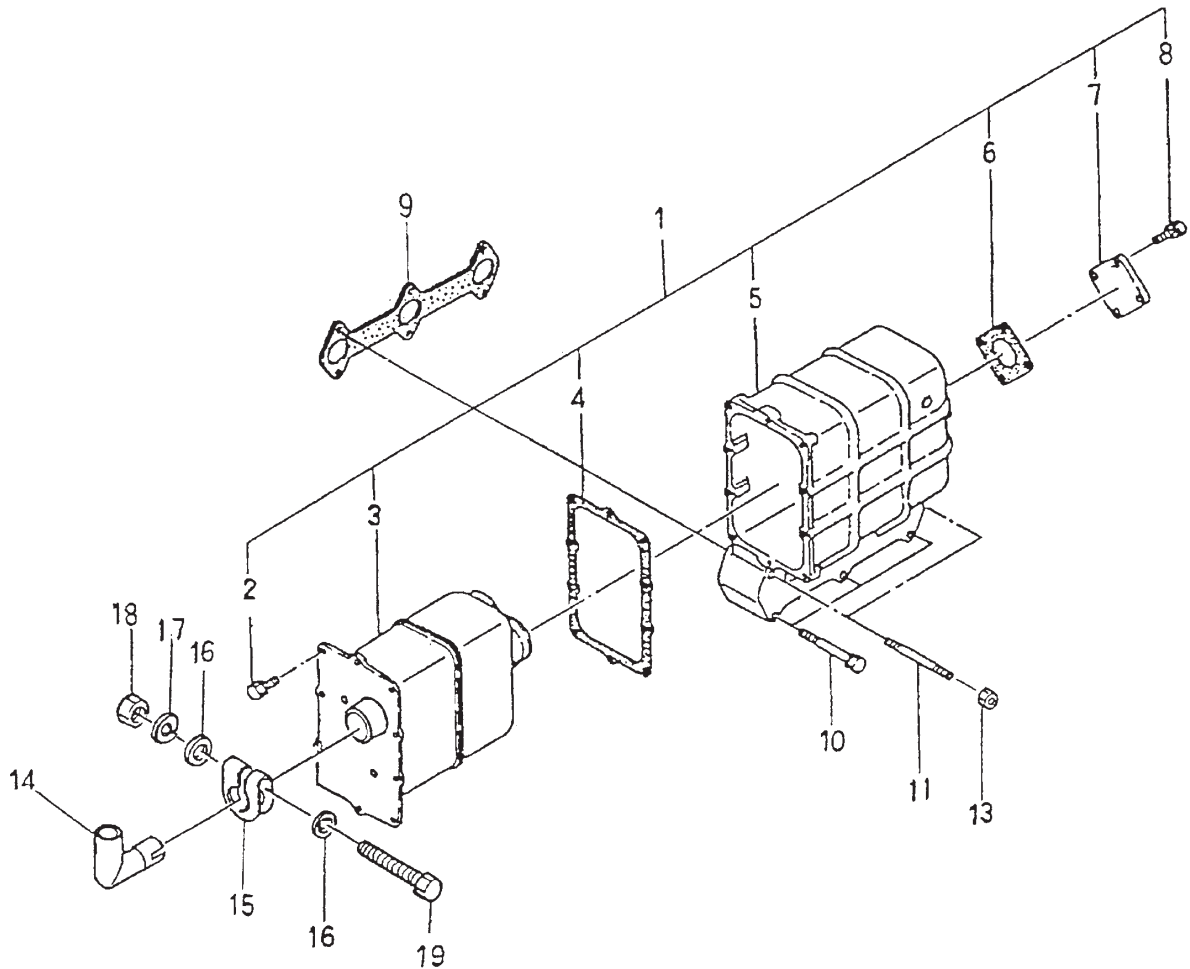
Air Filter and Mounting



843NW3aircleaner

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	135016300	1	Air Filter Assembly (includes keys #13 - 16)	-
2	19-00036	2	Clamp #36	-
3	135597860	1	Hose	-
4	135876600	1	Bracket	-
5	135976420	1	Bracket	-
6	195816100	1	Lifting Eye	-
7	011510820	2	Bolt	-
8	011510816	4	Bolt	-
9	011510825	1	Bolt	-
10	15-00071	4	Washer	-
11	011510825	2	Bolt	-
12	011510820	1	Bolt	-
13	135016300	1	Housing	-
14	24-27302	1	Element	-
15	135326199	1	Cover Assembly	-
16	314531163	1	Valve	-

Exhaust Manifold and Muffler

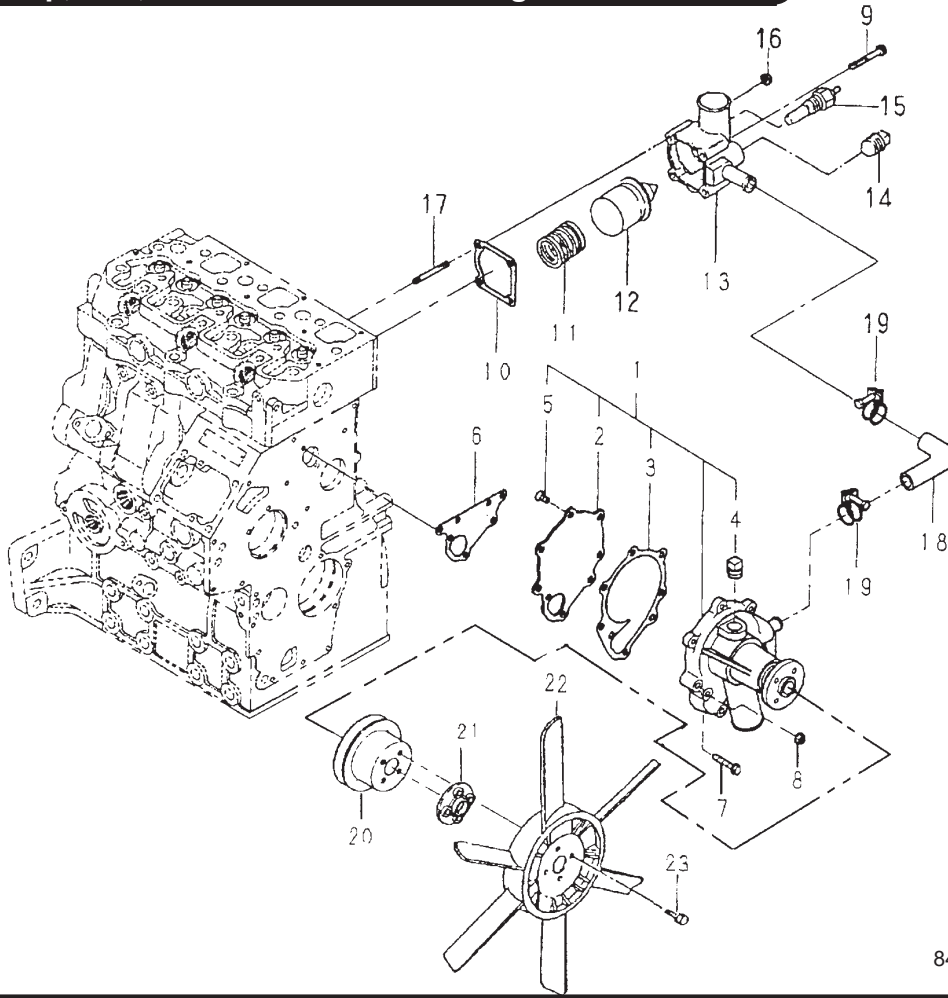


843NW3muffler

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	314011660	1	Muffler Assembly (includes keys #2 - 8)	-
2	011140612	10	Bolt	-
3	135406230	1	Muffler Element	-
4	135996900	1	Gasket	-
5	135616701	1	Exhaust Manifold	-
6	135996550	1	Gasket	-
7	314120300	1	Flange	-
8	011310620	4	Bolt	-
9	135996590	1	Gasket	-
10	011310670	4	Bolt	-
11	012110670	2	Stud	-
13	023100006	2	Nut	-
14	135606340	1	Exhaust Elbow (can use #27-33102)	-
	27-33103	1	Exhaust Elbow 1-1/2 NPT	-
15	314410110	1	Clamp	-
16	15-00701	2	Washer	-
17	15-00702	1	Spring Washer	-
18	020900008	1	Nut	-
19	010310865	1	Bolt	-

GROUP 3 – COOLING SYSTEM

Coolant Pump, Fan, and Thermostat Housing

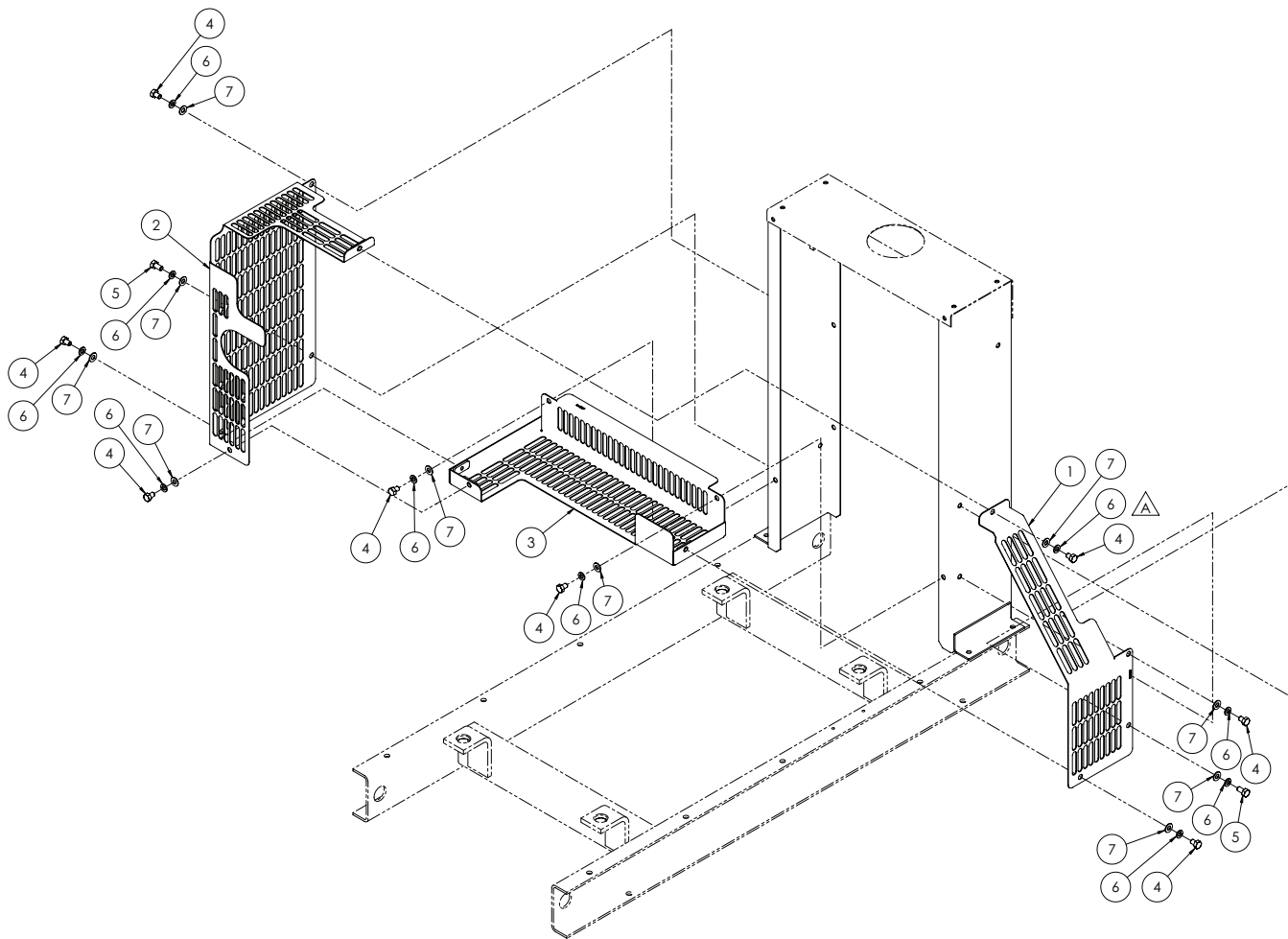


843NW3coolantpumpind

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
	145017730	1	Coolant Pump Assembly (includes keys #2 - 5)	-
2	145146320	1	Backing Plate	-
3	145996681	1	Gasket	-
4	064500030	1	Plug	-
5	015300614	3	Screw	-
6	145996670	1	Gasket	-
7	011310635	4	Bolt	-
8	023100006	1	Nut	-
9	12-01123	2	Bolt	-
10	145996710	1	Gasket	-
11	198217400	1	Spring	-
12	145206022	1	Thermostat, 180°F / 82°C	-
13	145216190	1	Thermostat Housing	-
14	064500030	1	Plug	-
15	385720101	1	Temperature Switch, 221°F/ 105°C	-
16	023100006	2	Nut	-
17	012110645	2	Stud	-
18	145536051	1	Hose	-
19	19-00006	2	Hose Clamp #6	-
20	145336620	1	Pulley	-
21	145386920	1	Spacer	-
22	145306620	1	Fan (Blower)	-
23	011310635	4	Bolt, M6 x 1.0 x 35 mm	-

Notes

Belt Guard Kit



00-03130 / D-4620A

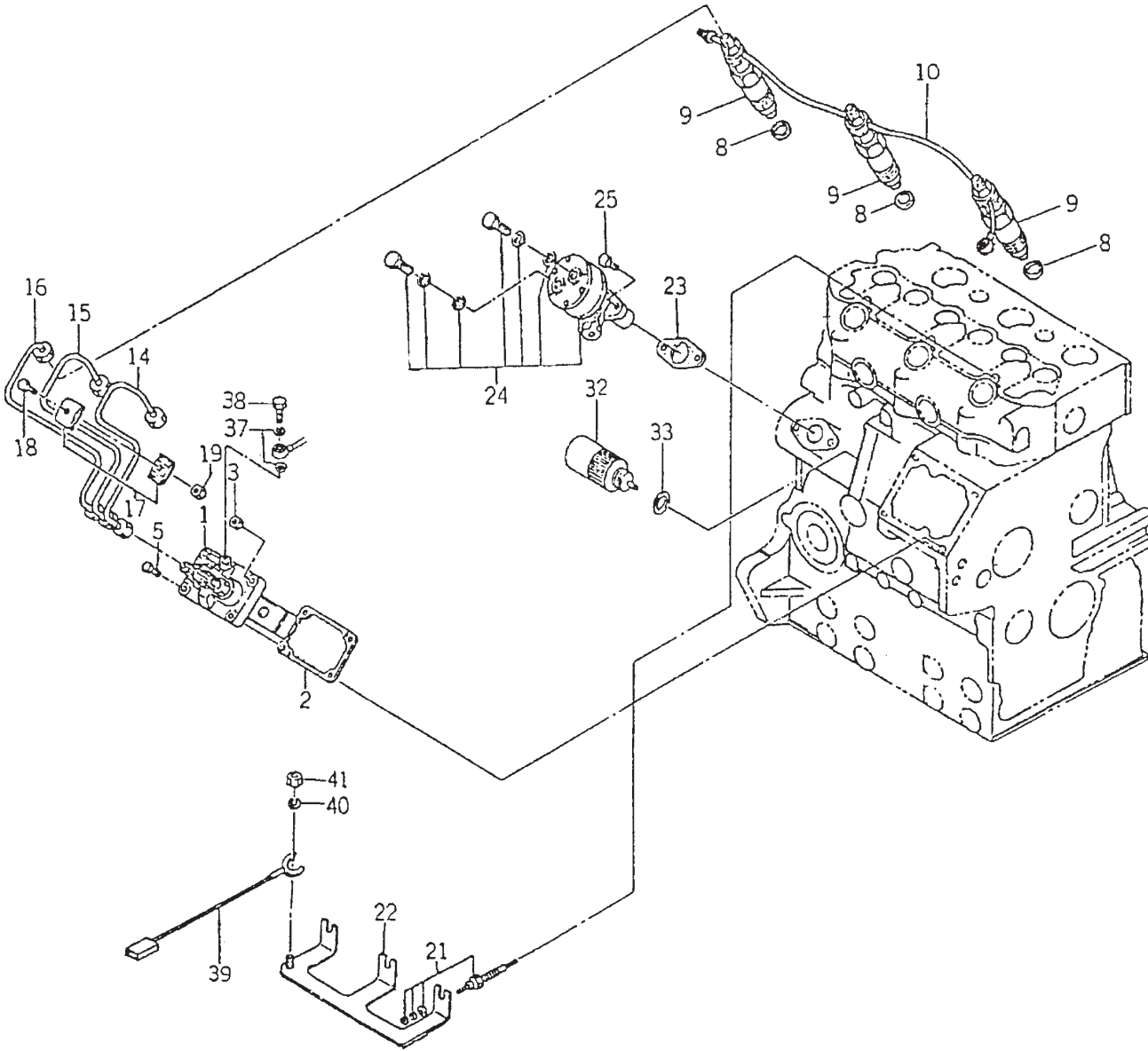
Belt Guard Kit

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	00-03111	1	Belt Guard, R.H.	-
2	00-03112	1	Belt Guard, L.H.	-
3	00-03113	1	Belt Guard, Lower	-
4	12-00752	8	Capscrew, HX HD M8 x 1.25 x 12mm	-
5	12-00751	2	Capscrew, HX HD M8 x 1.25 x 16mm	-
6	15-00702	10	Lock Washer, Helical M8	-
7	15-00701	10	Flat Washer M8	-

Radiator and Guard

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	39-13113	1	Top Panel	
2	39-13112	2	Side Panel	
3	39-13114	1	Radiator Support	
4	145506620	1	Radiator Assembly, Aluminum (includes keys 23 -25)	
5	21-18101	2	Spacer, Radiator Support	
6	12-00030	14	Capscrew, Hex Head M6 x 1.0 x 16 mm	
7	12-01131	2	Capscrew, Hex Head M6 x 1.0 x 20 mm	
8	15-00008	16	Flat Washer M6	
9	15-01132	16	Lock Washer, Helical M6	
10	12-00751	4	Capscrew, Hex Head M8 x 1.25 x 16 mm	
11	12-00711	4	Capscrew, Hex Head M8 x 1.25 x 20 mm	
12	15-00701	8	Flat Washer M8	
13	15-00702	4	Lock Washer, Helical M8	
14	14-04802	4	Hex Nut, Nylock M8 x 1.25	
15	12-04400	2	Capscrew, Hex Head M10 x 1.5 x 16 mm	
16	15-00802	2	Lock Washer, Helical M10	
17	15-00805	2	Flat Washer M10	
18	145537240	1	Hose, Radiator Inlet	
19	145537250	1	Hose, Radiator Outlet	
20	19-00020	4	Hose Clamp #20	
21	00-70079	1	Label "Northern Lights" (not shown)	
22	39-13101	1	Grille	
23	21-12016	1	Drain Cock	
24	310110200	1	Filler Cap	
25	18-11906	1	Vent Hose	
26	145546950	1	Shroud with Fan Guard	
27	310190477	1	O-ring	
28	00-00041	2	Safety Label, "Danger! Moving Parts Can Crush & Cut"	
29	00-00043	2	Safety Label, "Danger! Exposed Belt Drive"	

Injection Pump and Lines

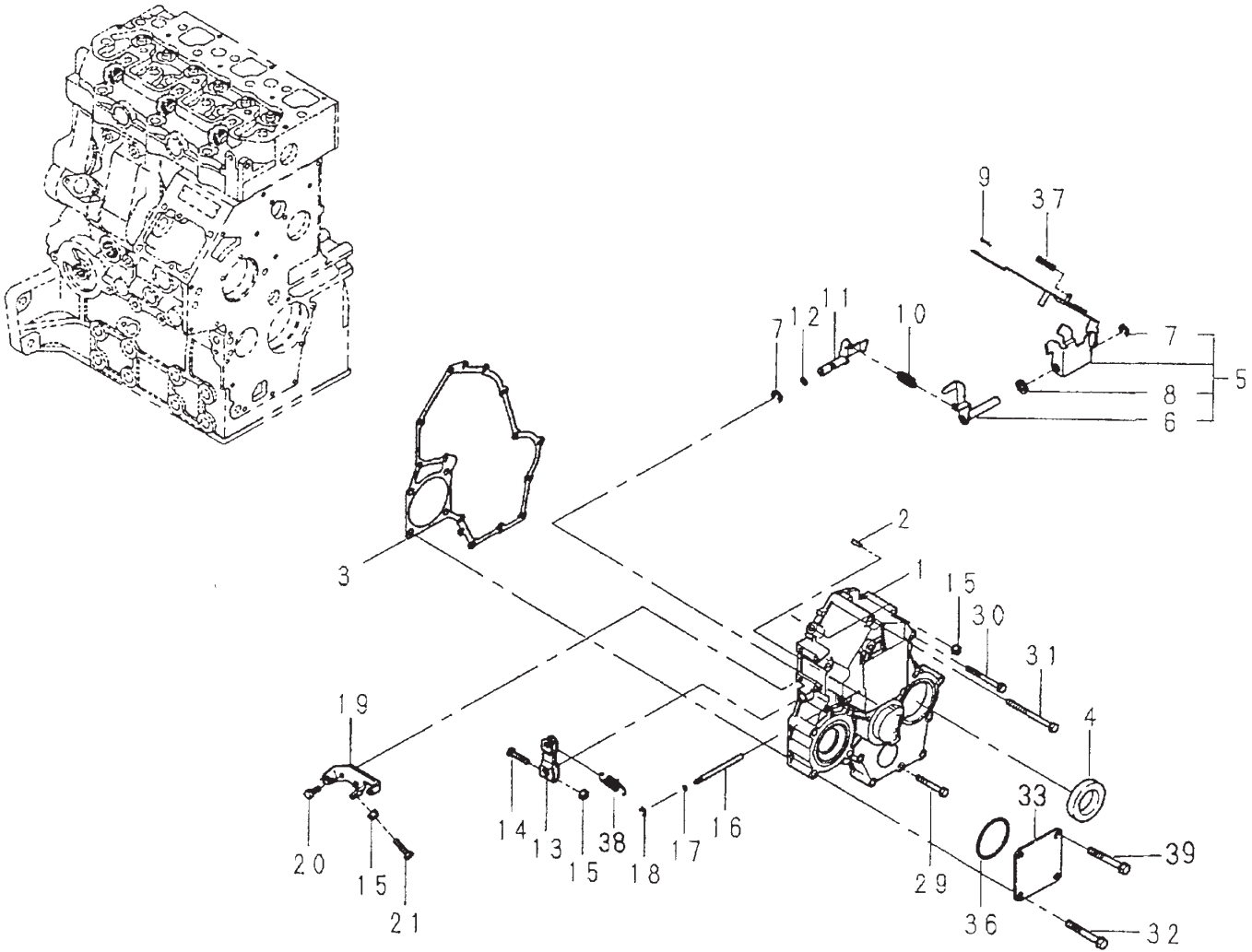


843injectionlines

Injection Pump and Lines

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	131017592	1	Injection Pump Assembly	-
2	131426310	1	Shim Set	-
3	023100008	2	Nut	-
5	010800820	2	Bolt	-
8	131426200	3	Gasket	-
9	131406360	3	Injector Assembly	-
10	131606451	1	Return Line	-
14	131507450	1	Injection Line #1	-
15	131507460	1	Injection Line #2	-
16	121507470	1	Injection Line #3	-
17	199106021	4	Clamp	-
18	010110625	2	Bolt	-
19	023100006	2	Nut	-
21	185366060	3	Glow Plug, 12 Volt	-
22	185376140	1	Connector	-
23	130996130	1	Gasket	-
24	130506140	1	Feed Pump Assembly (see parts detail)	-
25	011140616	2	Bolt	-
32	185206085	1	Solenoid, 12V Standard Ground	-
33	025100016	1	Seal Washer	-
37	025100008	2	Seal Washer	-
38	198487450	1	Screw	-
39	185606170	1	Wire Harness	-
40	027100004	1	Spring Washer	-
41	020100004	1	Nut	-

Governor and Timing Gear Case



843timinggear

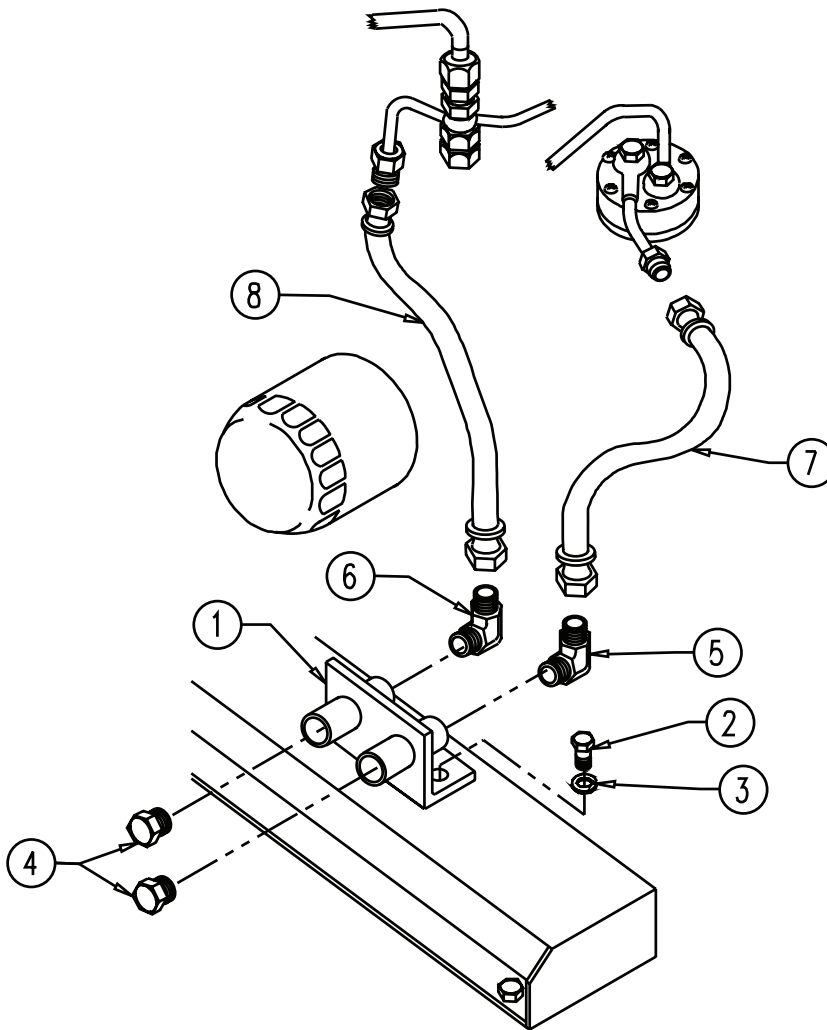
Governor and Timing Gear Case

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	165106800	1	Timing Gear Case (includes key #2)	-
2	030300410	1	Spring Pin	-
3	165996550	1	Gasket	-
4	198636160	1	Oil Seal	-
5	125046270	1	Governor Lever Assembly (includes keys 6- 8)	-
6	125406080	1	Tension Lever	-
7	036800008	2	Snap Ring	-
8	026200010	1	Washer	-
9	031100004	1	Snap Pin	-
10	198217390	1	Spring	-
11	125156250	1	Arm	-
12	052109110	1	O-ring	-
13	125416020	1	Governor Lever	-
14	010110630	1	Bolt	-
15	023100006	3	Nut	-
16	125116141	1	Shaft	-
17	052109108	2	O-ring	-
18	036800005	1	Snap Ring	-
19	125976120	1	Bracket	-
20	011300614	2	Bolt	-
21	012810640	1	Bolt	-
29	011310645	7	Bolt	-
30	011310660	3	Bolt	-
31	011310680	2	Bolt	-
32	010310865	**	Bolt (**as required)	-
33	165206150	2	Cover	-
34	165996610	1	Gasket	-
35	023100008	3	Nut	-
36	052300700	1	O-ring	-
37	198217420	1	Start Spring	-
38	398210070	1	Spring	-
39	011510860	1	Bolt	-

Fuel Filter and Piping

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	130306190	1	Fuel Filter Assembly (includes keys #2 - 5)	-
2	24-52020	1	Fuel Filter	-
3	130326051	5	Gasket	-
4	130436011	2	Joint Bolt	-
5	130396030	1	Plug	-
7	130976450	1	Bracket	-
8	130976440	1	Bracket	-
9	010310820	2	Bolt	-
10	023100008	2	Nut	-
11	15-00802	2	Spring Washer	-
12	020900010	2	Nut	-
13	135976420	1	Bracket	-
14	011510820	1	Bolt	-
15	011510825	**	Bolt	-
16	130556690	1	Pipe	-
17	130556701	1	Pipe	-
18	130556681	1	Connector, Fuel Inlet	-
19	010311030	2	Bolt	-
20	026200010	2	Washer	-
21	130516069	4	Gasket	-
22	130516092	2	Joint Bolt	-
23	198487450	1	Joint Bolt	-
24	025100008	2	Seal Washer	-
25	131246170	1	Joint Bolt	-
26	131296255	2	Sealing Washer M12	-
27	15-00701	**	Washer	-
29	195816100	1	Lifting Eye	-
			**As required	

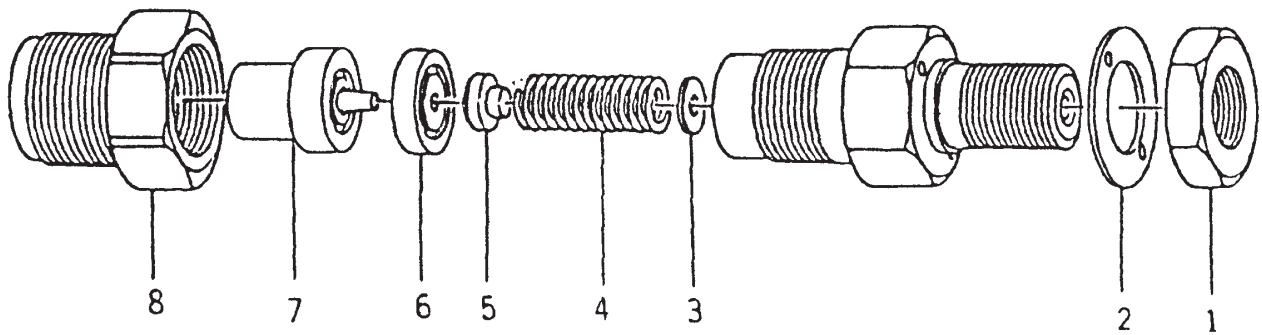
USCG SAE J1527 ISO 7840 Fuel Lines



A-11853 / B-9278

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-51099	1	Fuel Manifold 1/4 NPT	-
2	12-01102	2	Capscrew, Hex Head M6 x 1.0 x 16 mm S/S	-
3	15-00610	2	Lock Washer, Helical M6 S/S	-
4	21-31624	2	Plug, Hex Head Brass 1/4 NPT	-
5	21-52245	1	Male Elbow 90°, Brass 1/4 NPT x 5/16-45T	-
6	21-71044	1	Male Elbow 90°, Brass 1/4 NPT x 1/4-45T	-
7	18-53114	1	Hose Assembly 1/4" ID x 14-1/2"	-
8	18-53115	1	Hose Assembly 1/4" ID x 22"	-

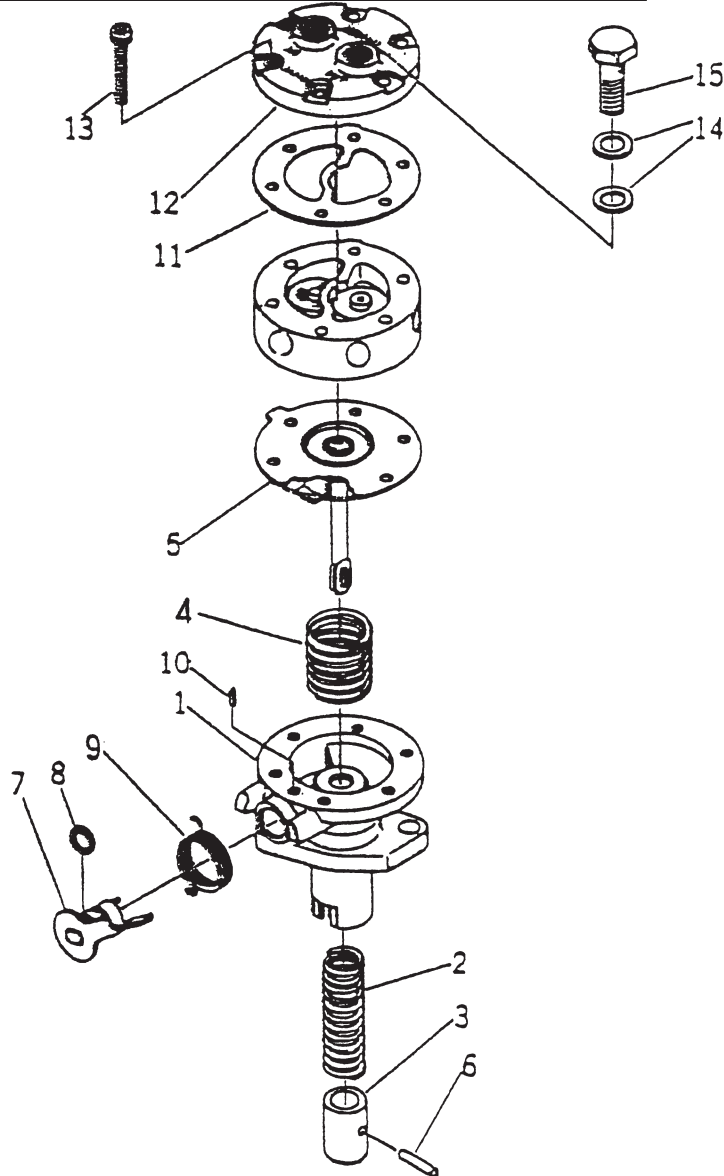
Fuel Injector



injector

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	131406360	1	Injector Assembly (includes keys #1 - 8)	-
1	131446006	1	Nut	-
2	131426230	1	Gasket	-
3	131437360	1	Shim	-
4	131446074	1	Spring	-
5	131446075	1	Spring seat	-
6	131446976	1	Spacer	-
7	131416170	1	Nozzle	-
8	131446077	1	Nut	-

Fuel Feed Pump

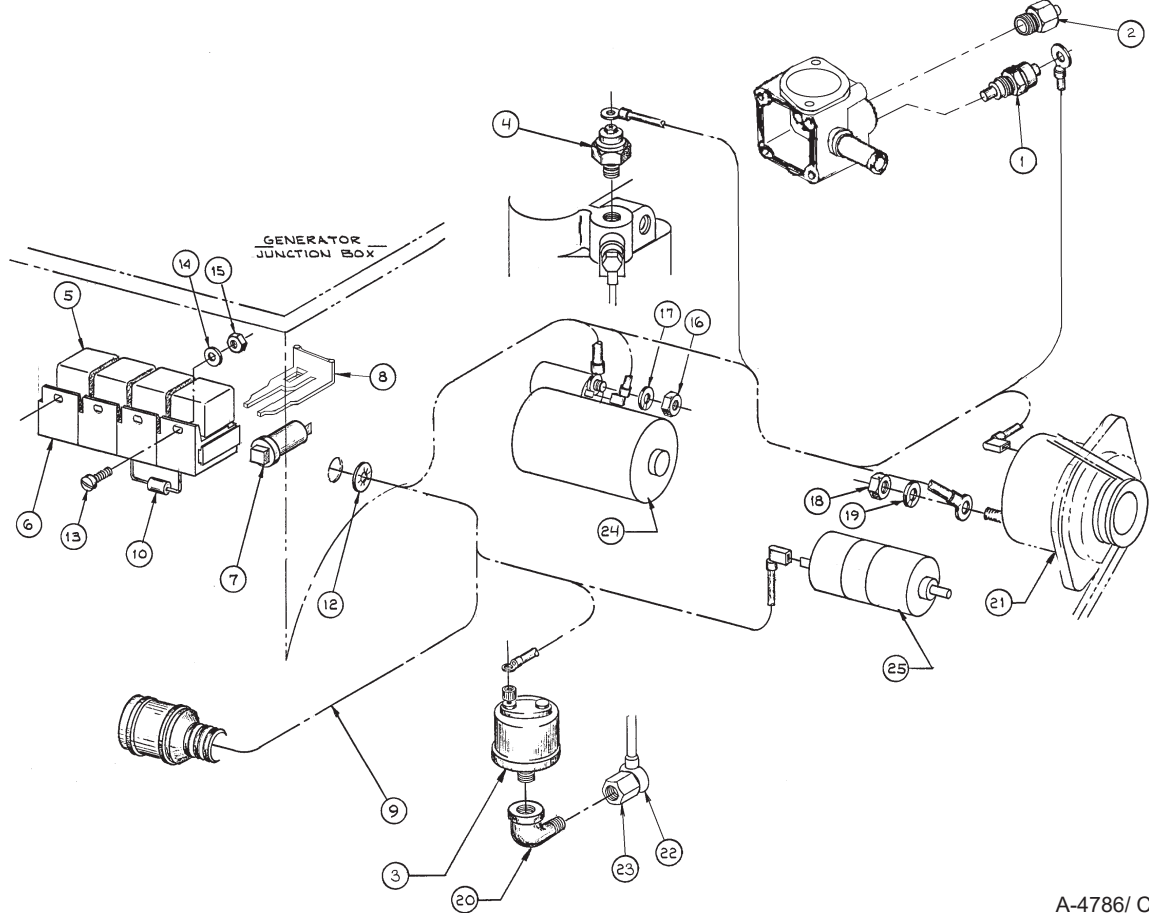


feedpump843

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	130506140	1	Feed Pump Assembly (includes keys #1 - 15)	-
1	130516080	1	Housing*	-
2	130516081	1	Spring	-
3	130516082	1	Piston	-
4	130516083	1	Spring	-
5	130516084	1	Diaphragm	-
6	130516085	1	Pin	-
7	130516086	1	Lever	-
8	131226180	1	O-ring	-
9	130516087	1	Spring	-
10	130516088	1	Guide*	-
11	130516101	1	Gasket	-
12	130516090	1	Cap*	-
13	130516091	6	Screw	-
14	130516069	4	Gasket	-
15	130516092	2	Banjo Bolt	-

*No longer available separately.

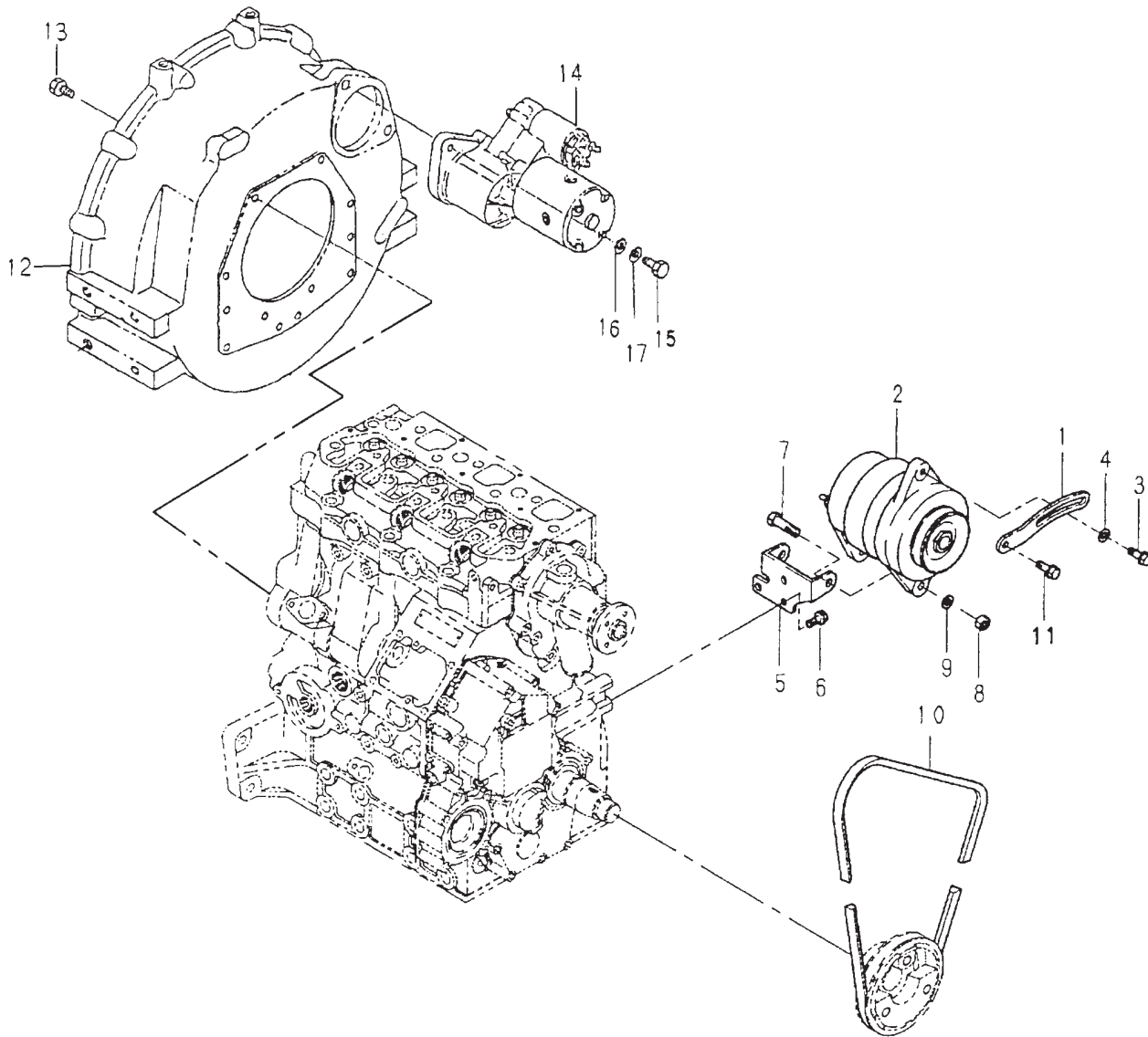
Engine Electrical - 12 Volt Standard Ground



A-4786/ C-2490Bnl

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-42055	1	Temperature Sender, 0-250°F Single Station 3/8 NPT	-
2	385720101	1	Temperature Switch 221°F/ 105°C	-
3	22-41016	1	Oil Pressure Sender 0-80 PSI, Single Station 1/8 NPT	-
4	185246011	1	Oil Pressure Switch	-
5	22-42047	4	Relay, 12 Volt SPDT	-
6	22-40391	4	Relay Base	-
7	22-42043	1	Circuit Breaker	-
8	22-40393	4	Terminal Retainer	-
9	22-43121	1	Engine Wire Harness (includes key #10)	-
10	22-41060	2	Diode, 6 Amp 50 Volt	-
11	22-40930	1	Wire Harness Extension 20' (not shown)	-
12	00-40028	1	Grommet	-
13	12-00094	2	Machine Screw #10-32 x 3/8" Stainless Steel	-
14	15-00032	2	Flat Washer #10	-
15	14-00001	2	Hex Nut, #10-32	-
16	14-00711	1	Hex Nut, M8 x 1.25	-
17	15-00702	1	Lock Washer M8	-
18	14-04401	1	Hex Nut, M5 x 0.8	-
19	15-04400	1	Lock Washer M5	-
20	21-04801	1	Street Elbow 90°, 1/8 NPT Steel	-
21	185046320	1	Alternator 12 Volt	-
22	140607941	1	Oil Line	-
23	198487590	1	Banjo Bolt (Tapped 1/8 NPT Female)	-
24	185086551	1	Starter 12 Volt	-
25	185206085	1	Fuel Solenoid	-

Alternator, Starter, and Flywheel Housing



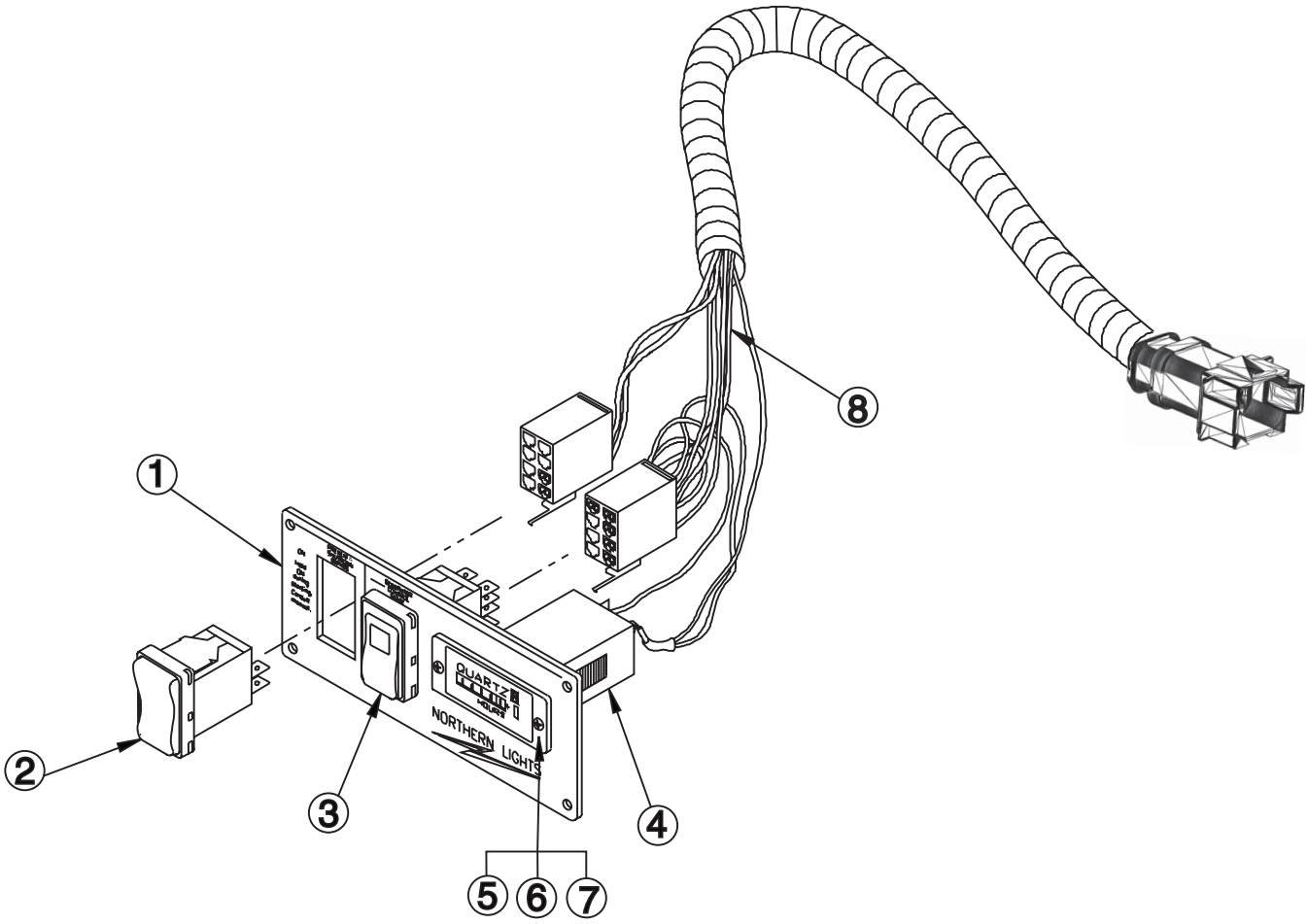
843NWalternator

Alternator, Starter, and Flywheel Housing

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	185727000	1	Tensioning Arm	-
2	185046320	1	Alternator, 12 Volt 40 Amp Standard Ground	-
3	011510825	1	Bolt	-
4	026109017	1	Washer	-
5	185976510	1	Bracket	-
6	011510816	3	Bolt	-
7	010311035	2	Bolt	-
8	020900010	2	Nut	-
9	15-00802	2	Spring Washer	-
10	40-02003	1	Drive Belt	-
11	011510820	1	Bolt	-
12	110446880	1	Flywheel Housing	-
13	011510820	10	Bolt	-
14	185086551	1	Starter, 12 Volt Standard Ground	-
15	12-00832	2	Capscrew, Hex Head M10 x 1.5 x 30 mm (12 volt starters)	-
16	15-00805	2	Washer	-
17	15-00802	2	Spring Washer	-

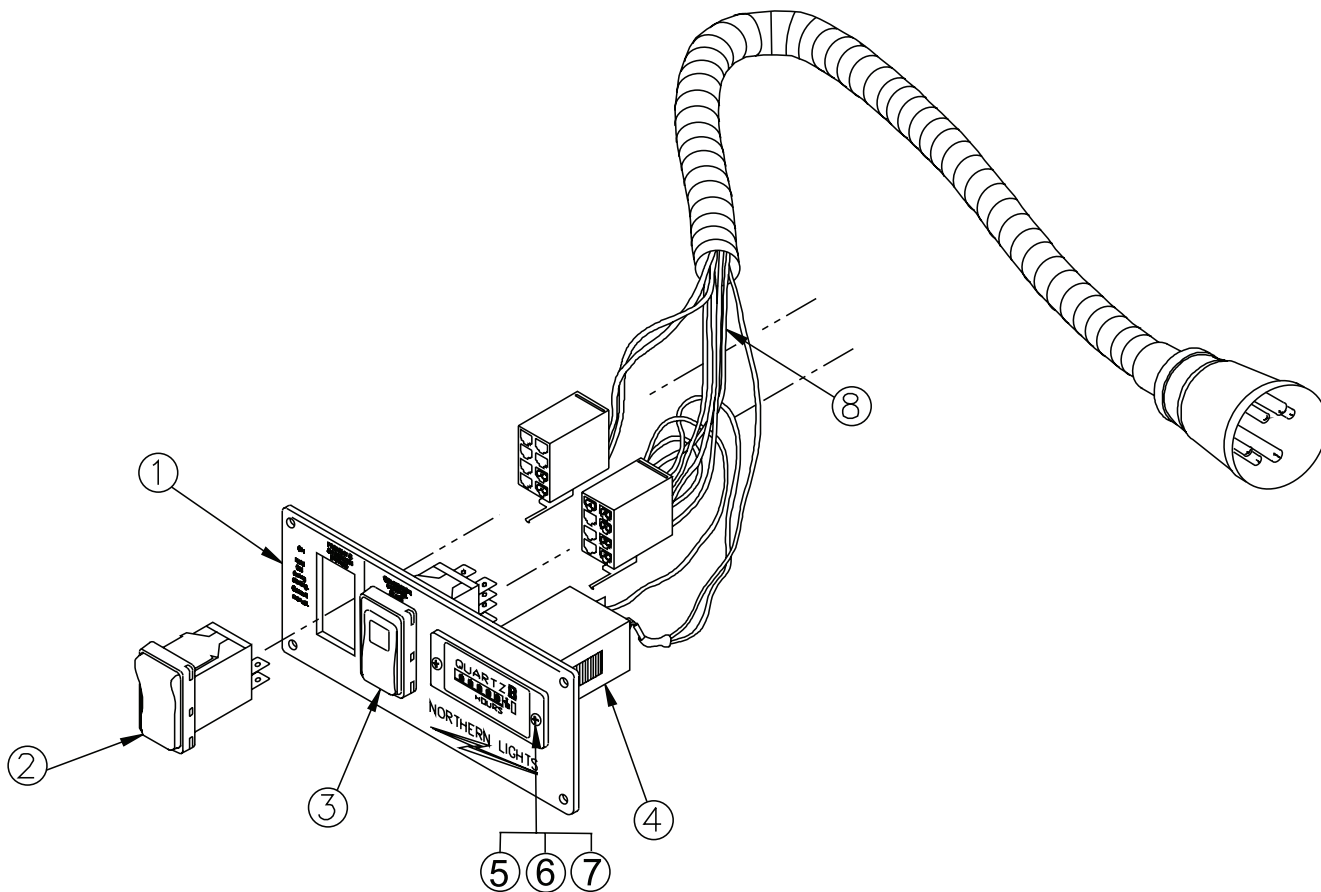
Series 1-B Start/Stop Control Panel

B+ ELECTRICAL SYSTEMS



KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-95605	1	Complete Series 1-B Start/Stop Control Panel (includes all keys)	-
1	28-90003	1	Plate	-
2	22-90167	1	Rocker Switch, Momentary (On)-Off	-
3	22-90362	1	Rocker Switch, Green LED (On)-Off-(On) Green Lamp	-
4	22-90009	1	Hour Meter	-
5	12-00093	2	Machine Screw, Round Head Phillips #6 - 32 x 1/2"	-
6	15-00030	2	Star Washer, Internal #6, Stainless Steel	-
7	14-00015	2	Hex Nut #6 - 32, Stainless Steel	-
8	22-45603	1	Wire harness	-
9	00-00048	1	Label "12-24 Volts" (Not shown)	-

Series 1-B Start-Stop Control Panel



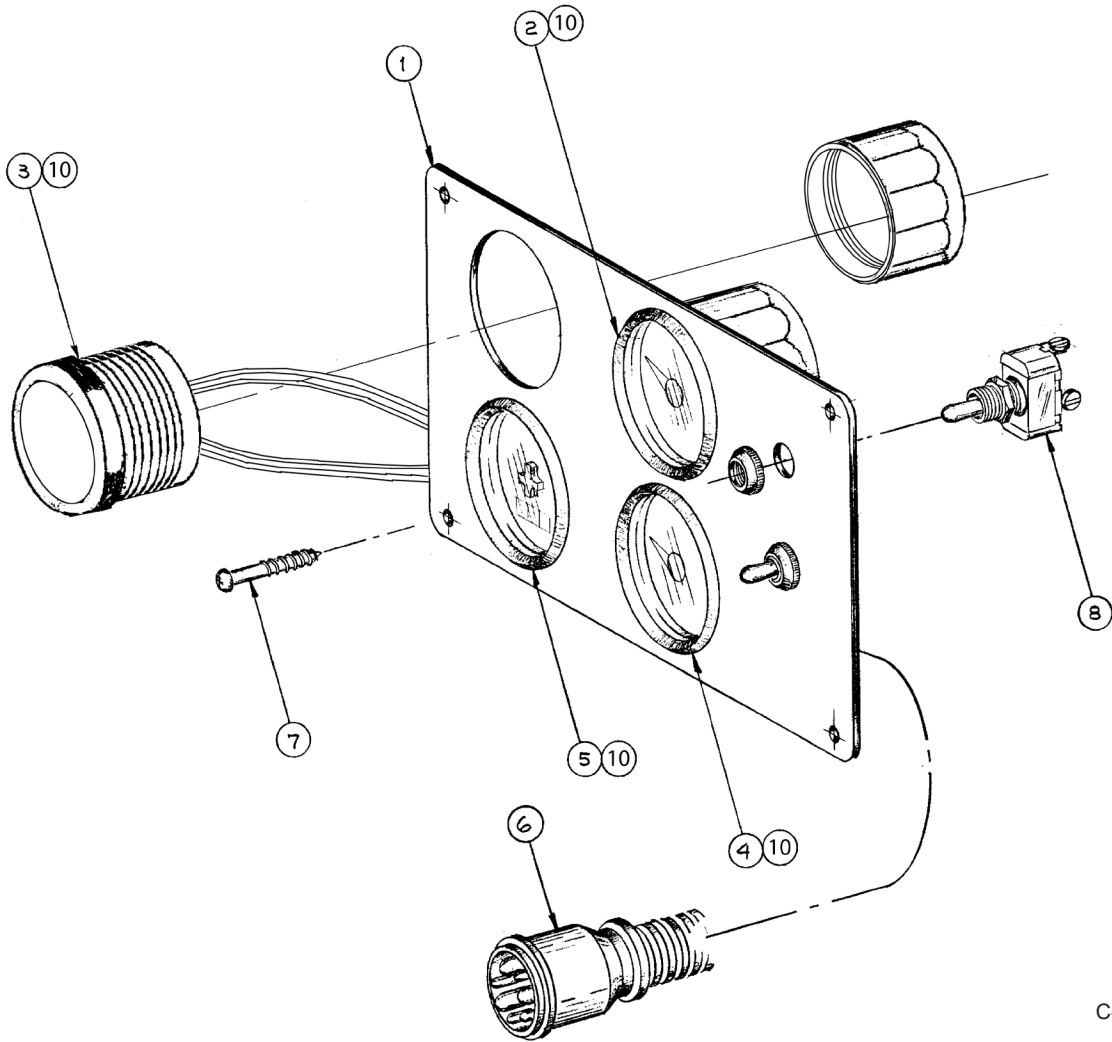
A-8553/ B-5971

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-92120	1	S 1-B Start/ Stop Control Panel - 12 Volt (includes all keys)	-
1	28-90003	1	Plate	-
2	22-90167	1	Rocker Switch	-
3	22-90362	1	Rocker Switch	-
4	22-90009	1	Hour Meter	-
5	12-00093	2	Machine Screw, Round Head Philips #6 - 32 x 1/2"	-
6	15-00030	2	Star Washer, Internal #6, Stainless Steel	-
7	14-00015	2	Hex Nut #6 - 32, Stainless Steel	-
8	22-42063	1	Wire Harness - 12 Volt Panels	-
	22-42064	1	Wire Harness - 24 Volt Panels	-

GROUP 5 – ELECTRICAL SYSTEM

S-3C Control Panel 12 Volt

VDO Viewline Black Bezel Gauges

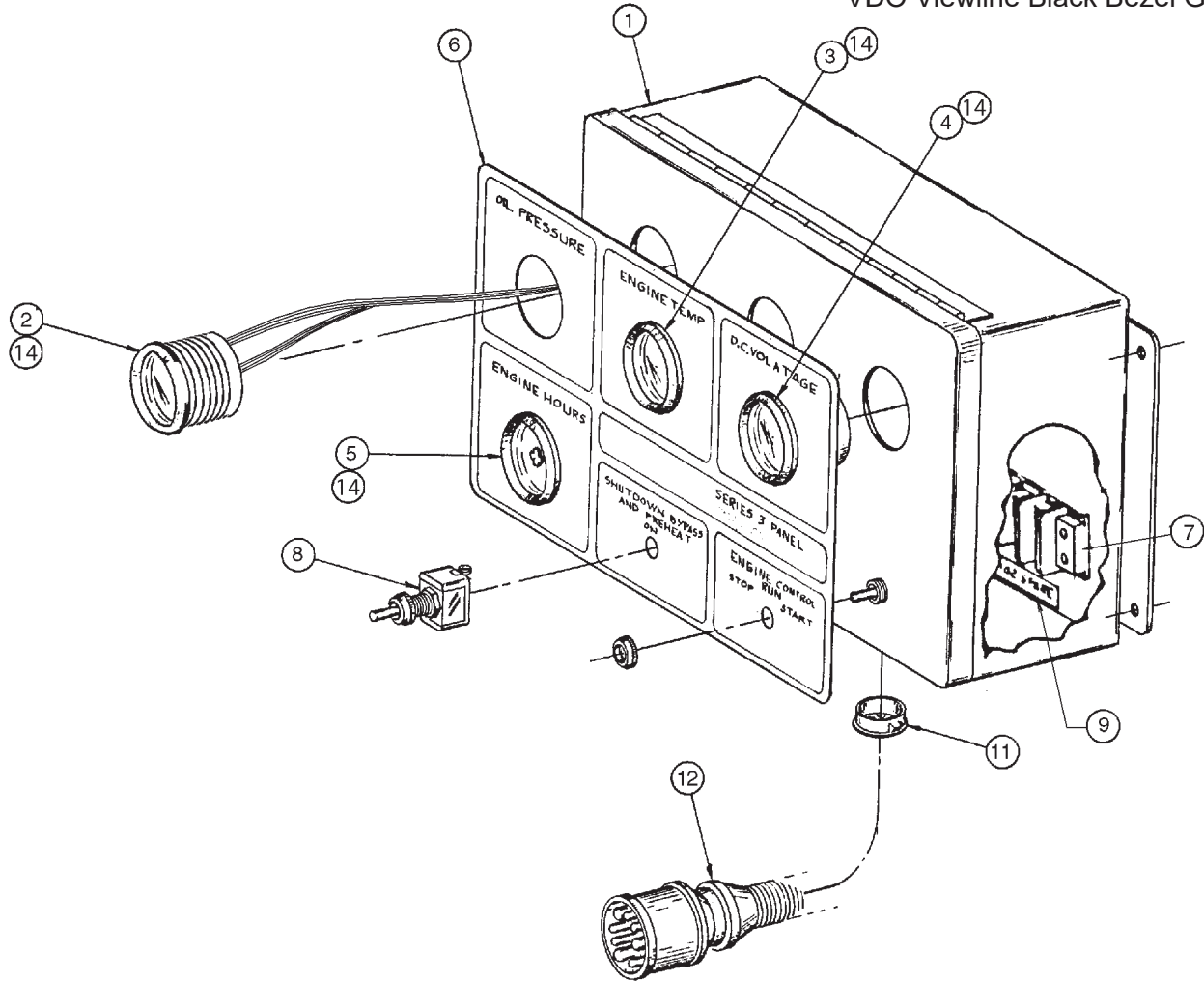


C-2441

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-91216	1	S-3C Control Panel, 12 Volt (includes all keys)	-
1	28-90010	1	Panel Plate	-
2	37-91075-1	1	Oil Pressure Gauge, 0-80 PSI 12 Volt	-
3	37-91074-1	1	Temperature Gauge, 0- 250°F 12 Volt	-
4	37-91070-1	1	DC Voltmeter, 8 - 16 VDC	-
5	37-91072-1	1	Hourmeter 12/ 24 Volt	-
6	22-42096	1	Panel Wire Harness	-
7	12-90007	4	Self Tapping Screw, Oval Head Phillips #6 x 3/4"	-
8	22-41051	2	Toggle Switch	-
9	00-00013	1	Label 12 Volt (not shown)	-
10	37-00014	4	Bezel	-

S-3B Control Panel 12 Volt

VDO Viewline Black Bezel Gauges



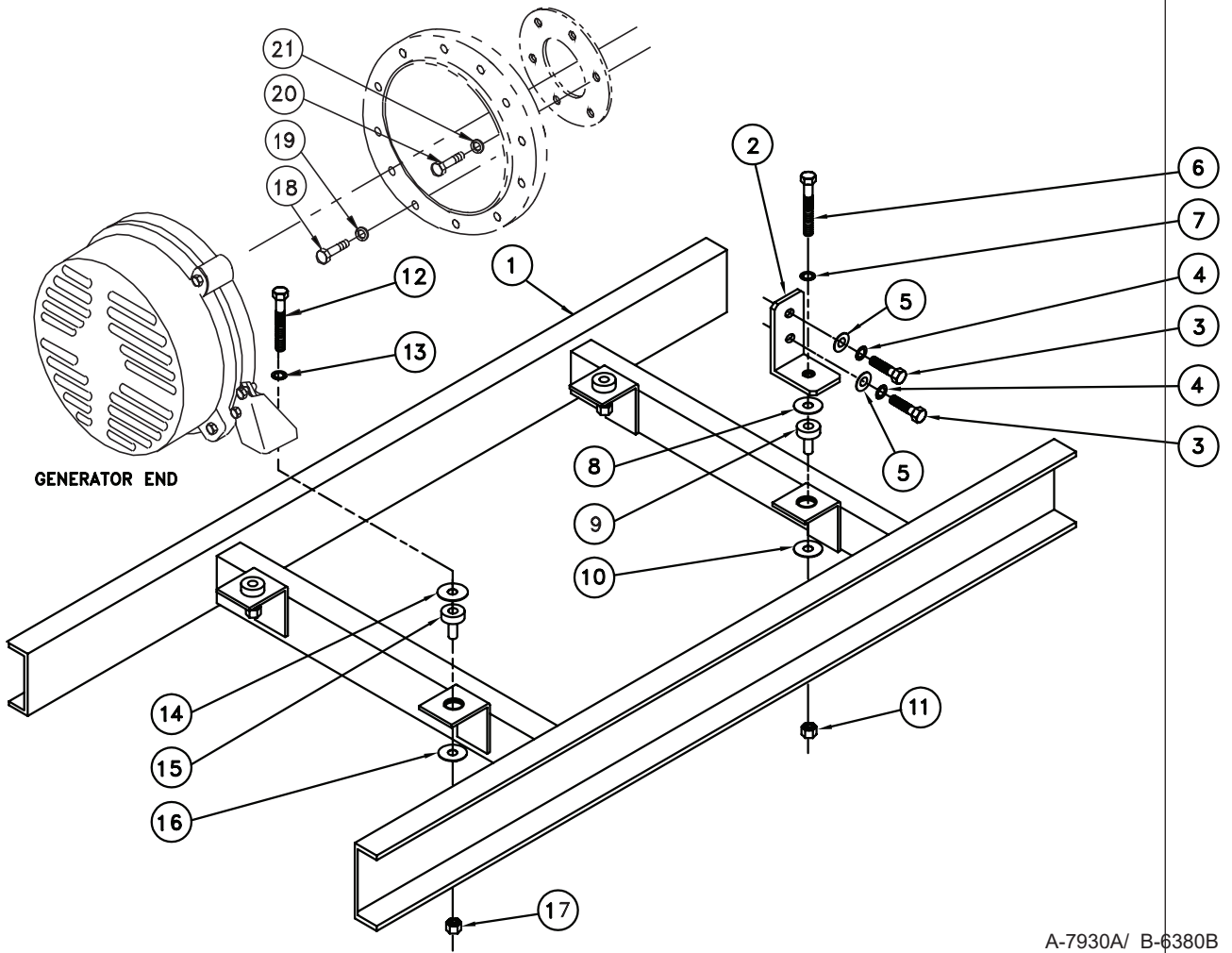
KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-91203	1	S-3C Control Panel, 12 Volt (includes all keys)	-
1	39-40027	1	Enclosure	-
2	37-91075-1	1	Oil Pressure Gauge, 0-80 PSI 12 Volt	-
3	37-91074-1	1	Temperature Gauge, 0- 250°F 12 Volt	-
4	37-91070-1	1	DC Voltmeter, 8 - 16 VDC	-
5	37-91072-1	1	Hourmeter 12/ 24 Volt	-
6	00-91018	1	Panel Decal	-
7	22-41077	1	Terminal Strip	-
8	22-41051	2	Toggle Switch	-
9	22-00052	1	Number Strip	-
10	22-40648	1	Wire Harness (not shown)	-
11	00-40028	1	Grommet	-
12	22-42027	1	Connection Harness	-
13	00-00013	1	Label 12 Volt (not shown)	-
14	37-00014	4	Bezel	-

GROUP 6 – GASKET SETS

Gasket Kit

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	195907470	1	Gasket Kit (Industrial, includes all keys)	-
1	198636170	1	Oil Seal, Rear	-
2	052109076	1	O-ring, Oil Line	-
3	110996820	1	Gasket, Oil Pan	-
4	025100012	2	Seal Washer, Oil Pan Drain	-
5	165996540	1	Gasket, Front Plate	-
6	052109108	2	O-ring, Governor Shaft	-
7	052109110	1	O-ring	-
8	165996550	1	Gasket, Timing Gear Case	-
9	198636160	1	Oil Seal, Front	-
10	165996610	1	Gasket, Gear Case Cover	-
11	131426310	1	Adjusting Shim Set, Injection Pump	-
12	025100008	2	Seal Washer, Air Bleed Screw	-
13	140996260	4	Gasket, Banjo Bolt	-
14	111147501	1	Head Gasket, t=1.3	-
15	120406050	3	Valve Guide Seal, Exhaust	-
16	120406070	3	Valve Guide Seal, Intake	-
17	131426200	3	Gasket, Lower side Injector	-
18	131426230	3	Gasket, Upper side injector	-
19	052109076	1	O-ring, Rocker Arm Shaft	-
20	120996140	1	Gasket, Rocker Arm Bracket	-
21	111996410	1	Gasket, Rocker Arm Cover	-
22	140996270	3	Gasket, Rocker Arm Cover	-
23	052100400	2	O-ring, Oil Fill Cap	-
24	135996951	1	Gasket, Air Intake	-
25	145996681	1	Gasket, Coolant Pump Set Plate	-
26	145996670	1	Gasket, Coolant Pump	-
27	145996710	1	Gasket, Thermostat Housing	-
28	130516069	4	Gasket, Fuel Pump Joint Bolt	-
29	130996130	1	Gasket, Fuel Feed Pump	-
30	052109113	2	O-ring, Dipstick Tube	-
31	025100016	1	Seal Washer, Solenoid	-
32	052109078	1	O-ring, Relief Valve	-
33	130326051	5	Gasket, Fuel Feed Pump Joint Bolt	-
34	135996900	1	Gasket	-
35	135996550	1	Gasket	-
36	135996590	1	Gasket, Exhaust Manifold	-
37	11-31902	1	Gasket, Elbow	-
38	052300700	1	O-ring, Gear Case Cover	-

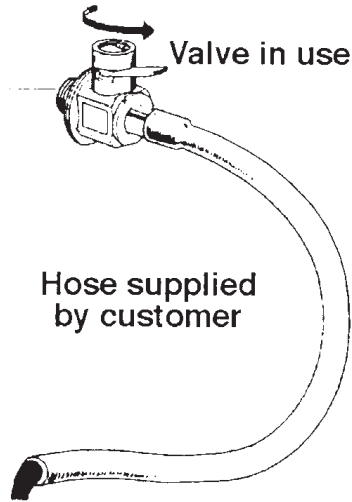
Base Frame Assembly



A-7930A/ B-6380B

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	39-83126	1	Base Frame	-
2	23-83123	2	Bracket	-
3	12-01100	4	Capscrew, Hex Head M14 x 1.5 x 30 mm	-
4	15-01402	4	Lock Washer, Helical M14	-
5	15-01401	4	Flat Washer M14	-
6	12-00048	2	Capscrew, Hex Head M10 x 1.5 x 60 mm	-
7	15-00809	2	Flat Washer, Special	-
8	15-00014	2	Head/Tail Washer	-
9	33-83151	2	Mount, Centerbonded 200 lb.	-
10	15-00014	2	Head/Tail Washer	-
11	14-00812	2	Hex Nut, Nylock M10 x 1.5	-
12	12-00817	2	Capscrew, Hex Head M10 x 1.5 x 55 mm	-
13	15-00809	2	Flat Washer, Special	-
14	15-00014	2	Head/Tail Washer	-
15	33-83151	2	Mount, Centerbonded 200 lb.	-
16	15-00014	2	Head/Tail Washer	-
17	14-00812	2	Hex Nut, Nylock M10 x 1.5	-
18	12-00313	12	Capscrew, Hex Head 3/8-16 x 1-1/4"	-
19	15-00302	12	Lock Washer, Helical 3/8	-
20	12-00213	8	Capscrew, Hex Head 5/16-18 x 1-1/4"	-
21	15-00202	8	Lock Washer, Helical 5/16	-

Oil Drain



A-6480

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	36-72003	1	Drain Valve	-



4420 14th Ave. NW., Seattle WA 98107

Tel: (206) 789-3880 • 1-800-762-0165 • www.northern-lights.com

Northern Lights and Lugger are registered trademarks of Northern Lights, Inc.

© 2020 All rights reserved. Litho USA.