



# PARTS MANUAL

## P673-4

For Models: NL673L4 and NL673L4E



[www.northern-lights.com](http://www.northern-lights.com)

**ULTRA LOW  
SULFUR FUEL  
ONLY**

RE529956

As of January 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.



— CALIFORNIA —

Proposition 65 Warning:

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

- \* Always start and operate the engine in a well-ventilated area.
- \* If in an enclosed area, vent the exhaust to the outside.
- \* Do not modify or tamper with the exhaust system.
- \* Do not idle the engine except as necessary.

**For more information, go to [www.P65warnings.ca.gov/diesel](http://www.P65warnings.ca.gov/diesel).**

**Northern Lights**

4420 14th Avenue NW  
Seattle, WA 98107  
Tel: (206) 789-3880  
Fax: (206) 782-5455

Copyright ©2020 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.: P673-4 04/20



# PARTS CATALOG

for Model:  
NL673L4

*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 & Piston .....	2 - 3
Oil Pump & Strainer .....	4
Camshaft .....	5
Cylinder Head & Rocker Arm Assembly .....	6 - 7
Rocker Arm Cover .....	8

### GROUP 2 - AIR INTAKE SYSTEM

Air Filter & Mounting .....	0-1
Air Filter Assembly .....	2
Muffler .....	3

### GROUP 3 - COOLING SYSTEM & EXHAUST

Thermostat & Housing .....	0
Coolant Pump .....	1
Raw Water Pump .....	2

### GROUP 4 - FUEL SYSTEM

Injection Pump & Lines .....	0 - 1
Governor & Timing Gear Case .....	2 - 3
Fuel Filter & Mounting .....	4
Fuel Line .....	5
Injector Assembly .....	6
Injection Pump Assembly .....	7

### GROUP 5 - ELECTRICAL SYSTEM

12 Volt Engine .....	0 - 3
Flywheel Housing & Starter Mounting .....	4
Alternator & Mounting .....	5
Control Panels .....	6 - 8
Belt Guard .....	9

### GROUP 6 - GASKET SETS

Gasket Sets .....	0
-------------------	---

### GROUP 7 - GENERATOR

Generator Components .....	0 - 1
----------------------------	-------

### GROUP 8 - FRAME & MOUNTING

Base Frame Assemblies .....	0
-----------------------------	---

### GROUP 9 - ACCESSORIES & OPTIONAL EQUIPMENT

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

#### Proprietary Information

This publication is the sole property of Northern Lights, Inc.

It may not be reproduced in whole or part without the expressed written permission of Northern Lights, Inc.

© Northern Lights, Inc. 2020. All rights reserved. Litho U.S.A. Publication number: P6734 4/20

## Model Designation

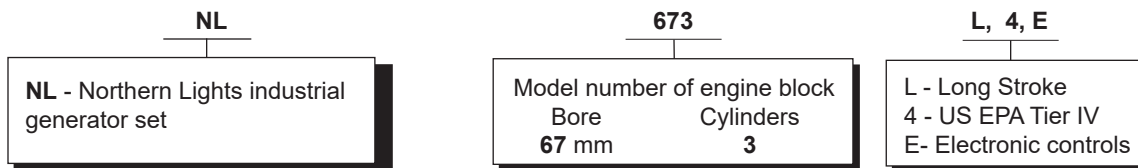
### MODELS INCLUDED

This manual covers the parts and components used in:

**NL673L4** and **NL673L4E** which use the 673 engine.

## Model Numbers

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

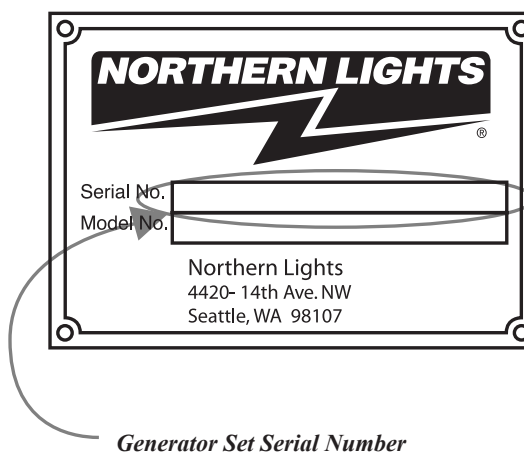


**NL 673L4** = Northern Lights industrial diesel generator set with a 673 engine and a TF-276D generator, long stroke, Tier IV.

**NL 673L4E** = Northern Lights industrial diesel generator set with a 673 engine and a TF-276D generator, long stroke, electronic controls, meeting Tier IV emissions.

## Serial Numbers

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.*

15 Updated 3-31-16

1 ELECTRICAL SYSTEM

ALTERNATOR ASSEMBLY: M - NL673

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	-

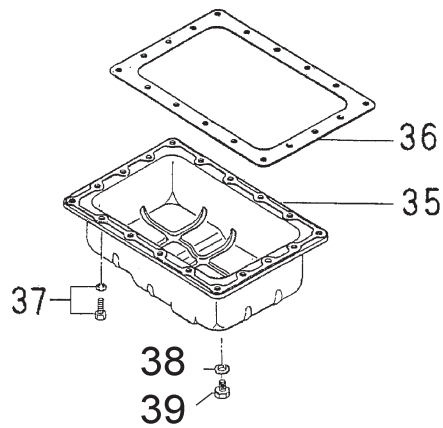
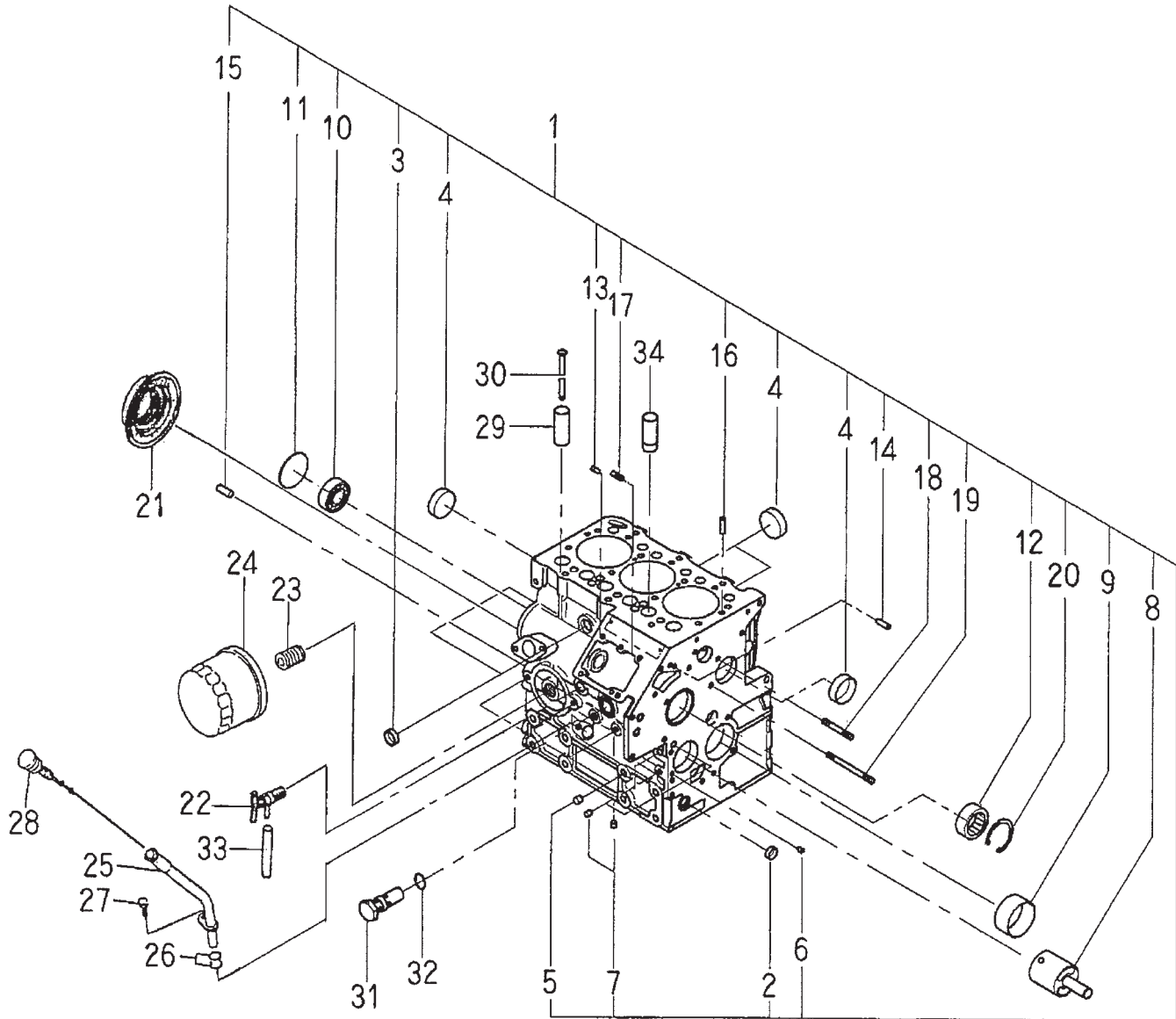
13 P673 06/96 14  
11 5-2 12

### REFERENCES:

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. Grouping section title.</li> <li>2. Model designation of equipment that uses parts listed on this page.</li> <li>3. Title and description of assembly.</li> <li>4. Drawing numbers that correspond to key column numbers for parts identification.</li> <li>5. Key column for locating parts shown on drawing.</li> <li>6. Part number.</li> </ol> | <ol style="list-style-type: none"> <li>7. Quantity of parts used.</li> <li>8. Description of each component part.</li> <li>9. Serial number of unit the part fits.</li> <li>10. Assembly or kit designated by Key 0 or ••/•.</li> <li>11. Grouping index number.</li> <li>12. Page number within the grouping index.</li> <li>13. Manual title.</li> <li>14. Page publication date.</li> <li>15. Date of most recent update</li> </ol> |
|--|--|

**NOTE:** ⇨ Arrows always point toward the front of the engine.

# Cylinder Block Assembly



673L2cylblock

## Cylinder Block Assembly

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	110100730	1	Cylinder Block - (includes keys #2- 20)	-
2	064210015	1	Expansion Plug 15 mm	-
3	064210018	2	Expansion Plug 18 mm	-
4	064210035	4	Expansion Plug 35 mm	-
5	198466030	5	Blank Plug	-
6	198466050	1	Blank Plug	-
7	198466010	4	Blank Plug	-
8	165296162	1	Idle Gear Shaft	-
9	198517302	1	Bushing, standard	-
	198517306	1	Bushing, undersize 0.25 mm	-
	198517309	1	Bushing, undersize 0.50 mm	-
10	040106203	1	Bearing	-
11	064100045	1	Expansion Plug	-
12	042303015	1	Bearing	-
13	030500512	2	Dowel Pin	-
14	030500616	2	Dowel Pin	-
15	030500820	2	Dowel Pin	-
16	030309005	2	Spring Pin	-
17	012110620	2	Stud M6 x 1.0 x 20 mm	-
18	012110635	1	Stud M6 x 1.0 x 35 mm	-
19	012110660	1	Stud M6 x 1.0 x 60 mm	-
20	036509005	1	Retaining Ring	-
21	198636080	1	Oil Seal	-
22	198736050	1	Drain Cock	-
23	140546020	1	Adapter Union	-
24	24-08001	1	Oil Filter	-
25	110756070	1	Dipstick Tube	-
26	052109113	2	O-ring	-
27	011310612	1	Bolt	-
28	198416350	1	Dipstick	-
29	120116100	5	Tappet	-
30	120456321	6	Push Rod	-
31	140036220	1	Relief Valve Assembly	-
32	052109078	1	O-ring	-
33	068115200	1	Tube	-
34	120116180	1	Tappet (#1 Exhaust only)	-
35	110706691	1	Oil Pan	-
36	110996760	1	Gasket	-
37	010109235	18	Bolt	-
38	025100012	1	Seal Washer	-
39	010411212	1	Plug M12 x 1.25	-

# Crankshaft and Pistons

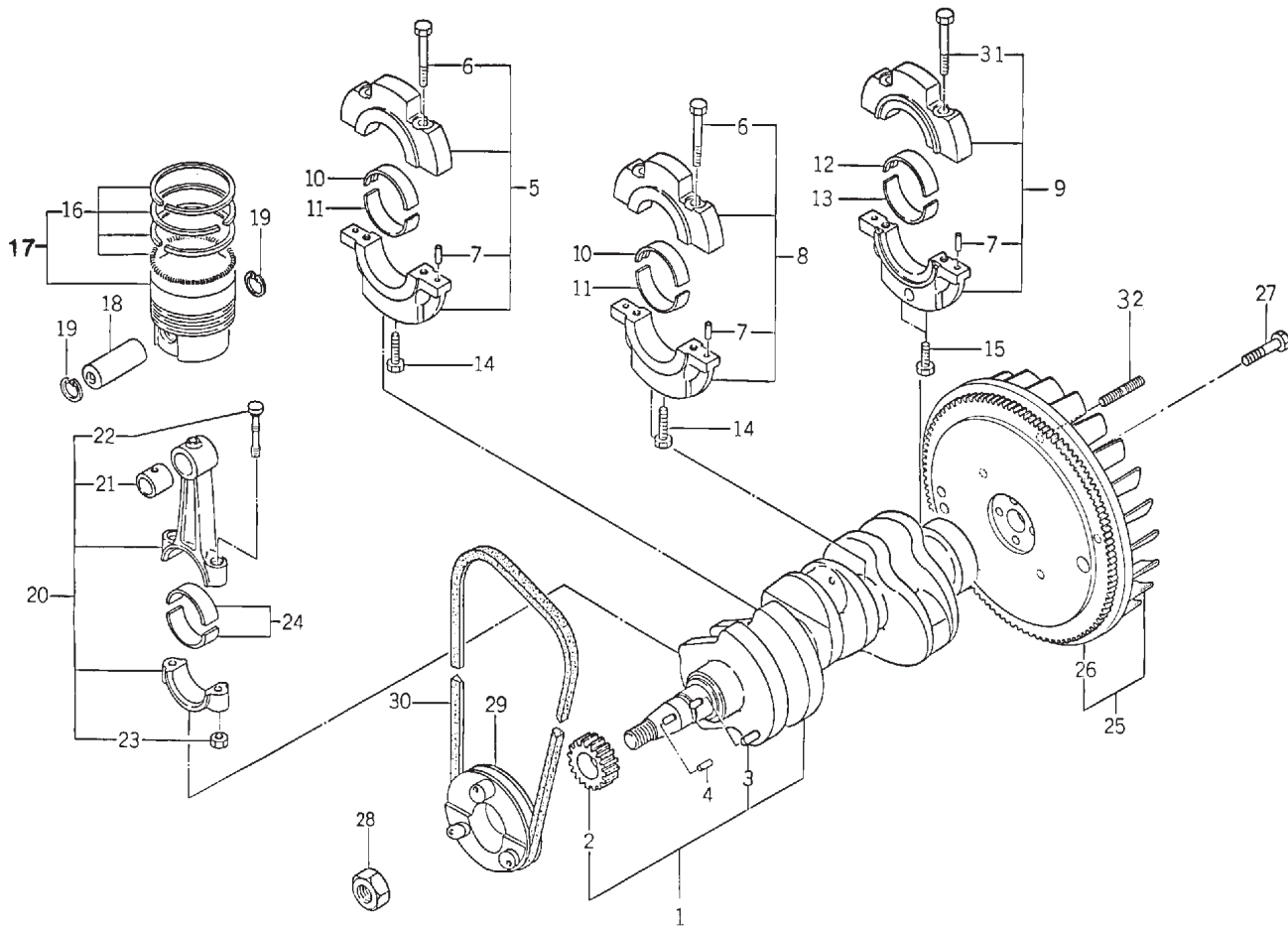


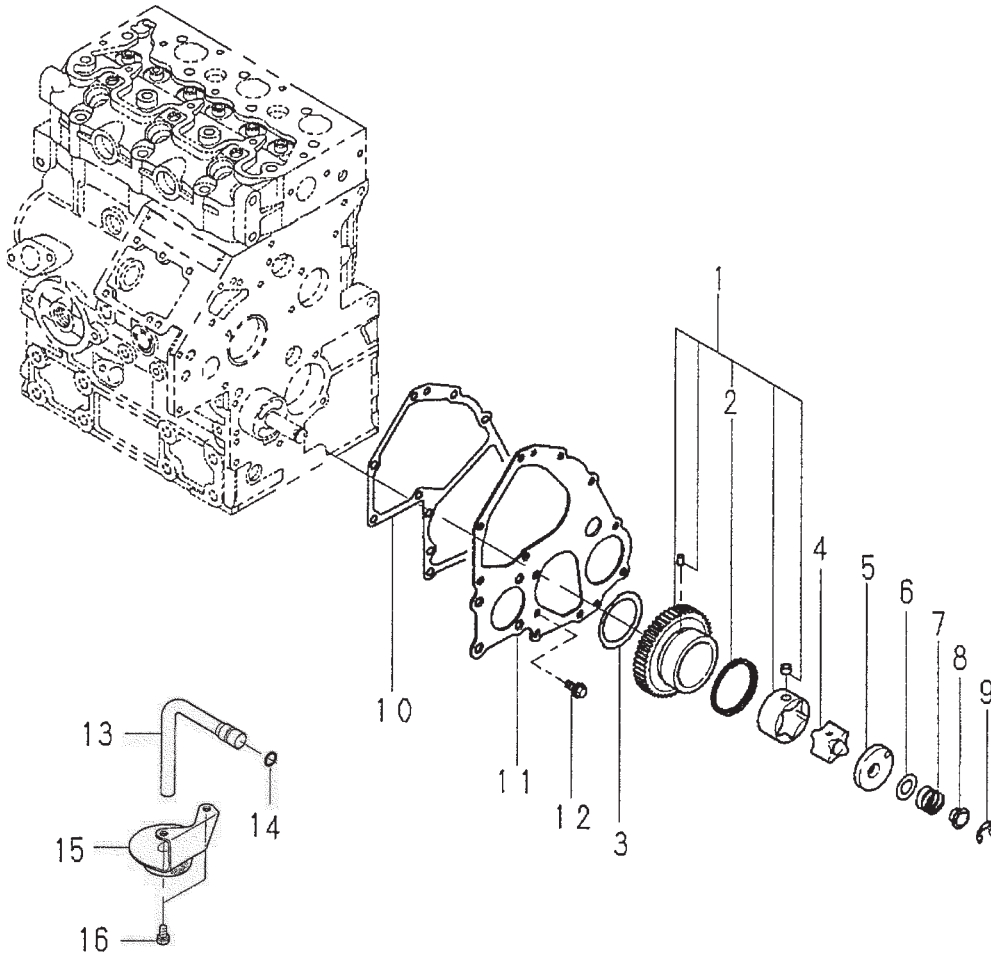
FIG: 1-2



## Crankshaft and Pistons

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	115256890	1	Crankshaft (includes keys #2- 3)	-
2	115276210	1	Crankshaft Gear	-
3	030509020	1	Dowel Pin	-
4	034100508	1	Key	-
5	110156440	1	Bearing Holder Assembly (includes keys #6- 7)	-
6	010810845	4	Bolt	-
7	030500612	6	Dowel Pin	-
8	110156450	1	Bearing Holder Assembly (includes keys #6- 7)	-
9	110156460	1	Bearing Holder Assembly (includes key #7 & 31)	-
10	198517332	2	Bearing, Standard Upper	-
	198517336	2	Bearing, undersize 0.25 mm	-
	198517339	2	Bearing, undersize 0.50 mm	-
11	198517342	2	Bearing, Standard Lower	-
	198517346	2	Bearing, undersize 0.25 mm	-
	198517349	2	Bearing, undersize 0.50 mm	-
12	198517103	1	Bearing, Standard Upper	-
	198517107	1	Bearing, undersize 0.25 mm	-
	198517630	1	Bearing, undersize 0.50 mm	-
13	198517112	1	Bearing, Standard Lower	-
	198517116	1	Bearing, undersize 0.25 mm	-
	198517119	1	Bearing, undersize 0.50 mm	-
14	011510850	2	Bolt	-
15	010700845	2	Bolt	-
16	115104050	3	Ring Kit, standard	-
17	115017630	3	Piston, standard (includes key #16)	-
18	115326260	3	Piston Pin	-
19	036500019	6	Snap Ring	-
20	115026350	3	Connecting Rod Assembly (includes keys #21 - 23)	-
21	198517325	3	Bushing	-
22	115176130	6	Connecting Rod Bolt	-
23	020109103	6	Nut	-
24	198517312	6	Bearing, standard	-
	198517316	6	Bearing, undersize 0.25 mm	-
	198517319	6	Bearing, undersize 0.50 mm	-
25	115356930	1	Flywheel, SAE #6 - 1/2 (includes key #26)	-
26	115376040	1	Ring Gear, 109 Teeth	-
27	010109330	4	Bolt	-
28	020800018	1	Nut	-
29	115396751	1	Crankshaft Pulley	-
30	40-02002	1	Drive Belt	-
31	010810850	2	Bolt	-
32	012111025	4	Stud M10 x 1.5 x 25 mm (can use 13-05001)	-

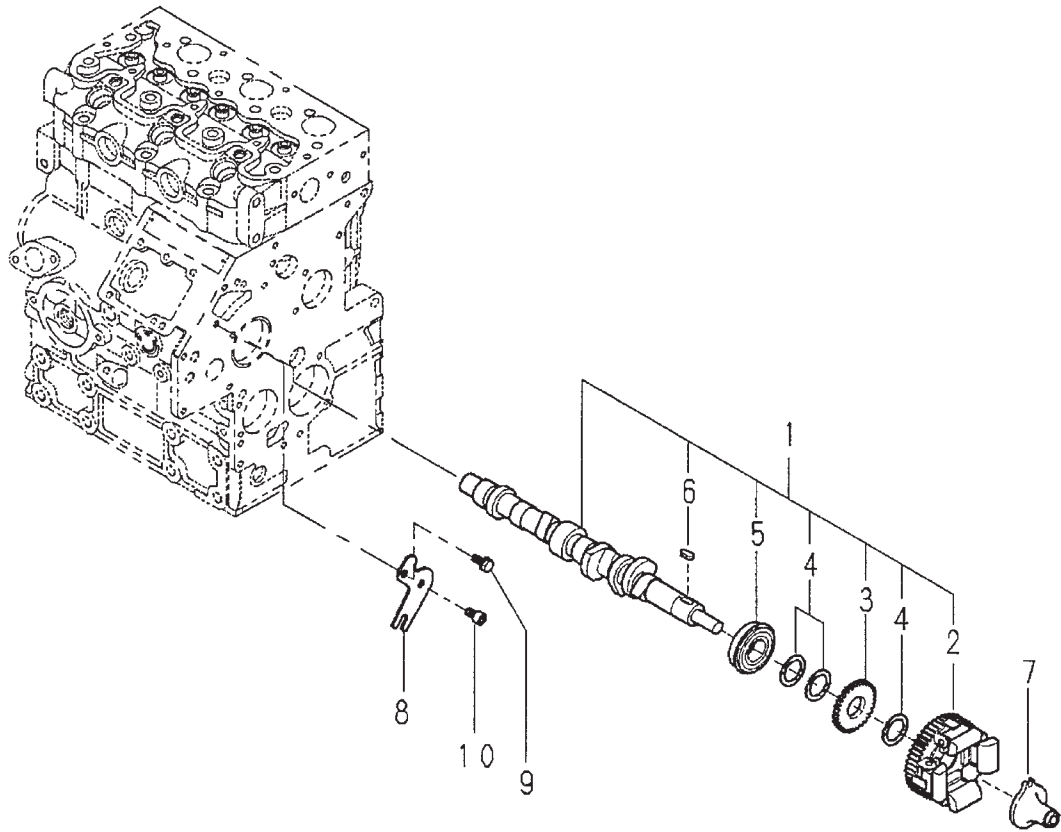
**Oil Pump and Pick-Up**



673L2oilpump

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	165026380	1	Idle Gear Assembly (includes key #2)	-
2	198216821	1	Spring	-
3	199266180	1	Thrust Washer	-
4	140166400	1	Rotor	-
5	140116140	1	Oil Pump Cover	-
6	199286150	1	Shim, t=0.10	-
	199286160	1	Shim, t=0.15	-
	199286170	1	Shim, t=0.20	-
	199286180	1	Shim, t=0.50	-
7	198216720	1	Spring	-
8	199236540	1	Collar	-
9	036800010	1	Snap Ring	-
10	165996490	1	Gasket	-
11	165166270	1	Front Plate	-
12	011310612	3	Bolt	-
13	140986590	1	Oil Pipe	-
14	052109076	1	O-ring	-
15	140406570	1	Pick-Up with Screen	-
16	011310612	2	Capscrew, Hex Head with Washer M6 x 1.0 x 12 mm	-

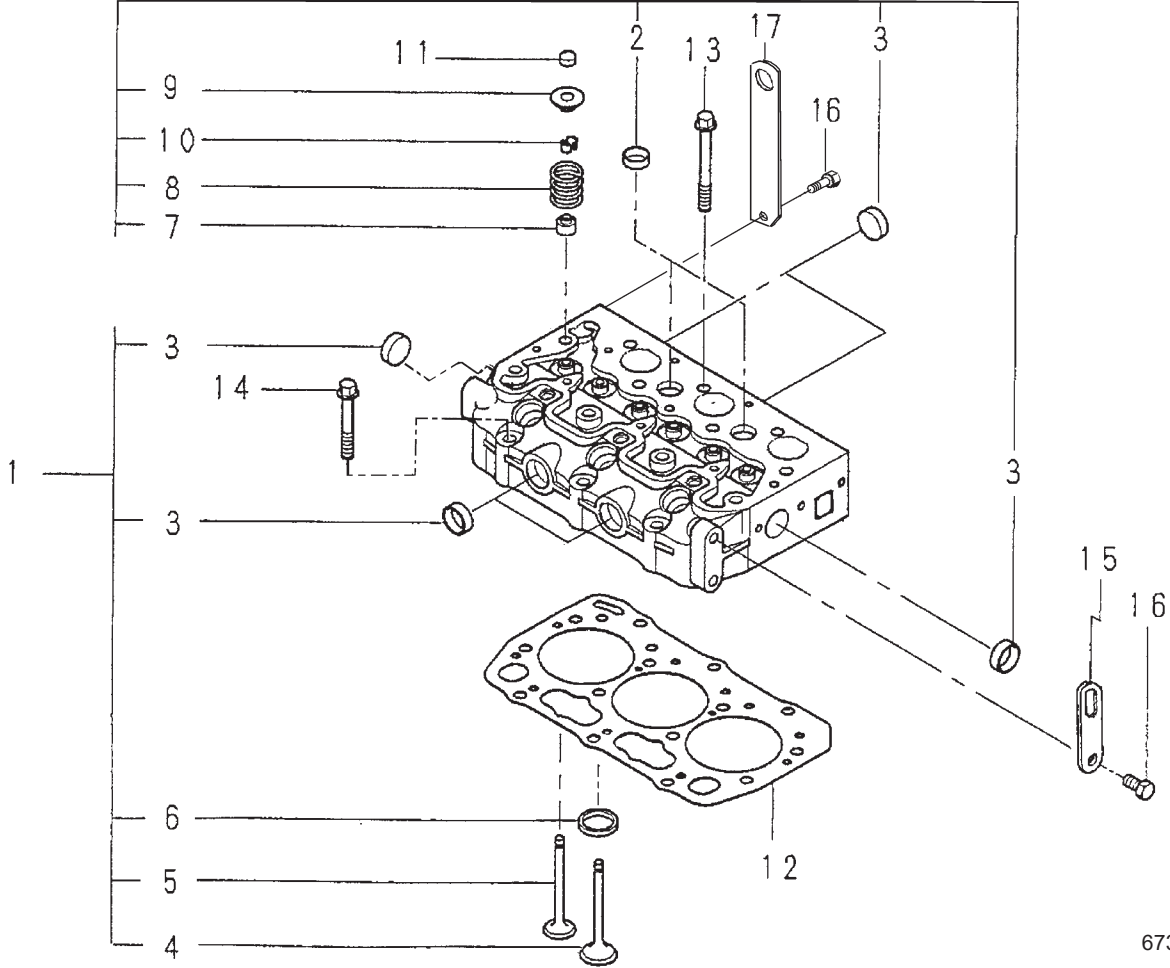
**Camshaft**



673L2camshaft

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	120026810	1	Camshaft Assembly (includes keys #2 - 6)	-
2	120016060	1	Cam Gear	-
3	120736081	1	Gear	-
4	199261230	3	Spacer	-
5	56-60002	1	Bearing	-
6	034100508	1	Key	-
7	125256120	1	Slider Assembly	-
8	199566651	1	Plate	-
9	011310612	1	Bolt	-
10	010700610	1	Bolt	-

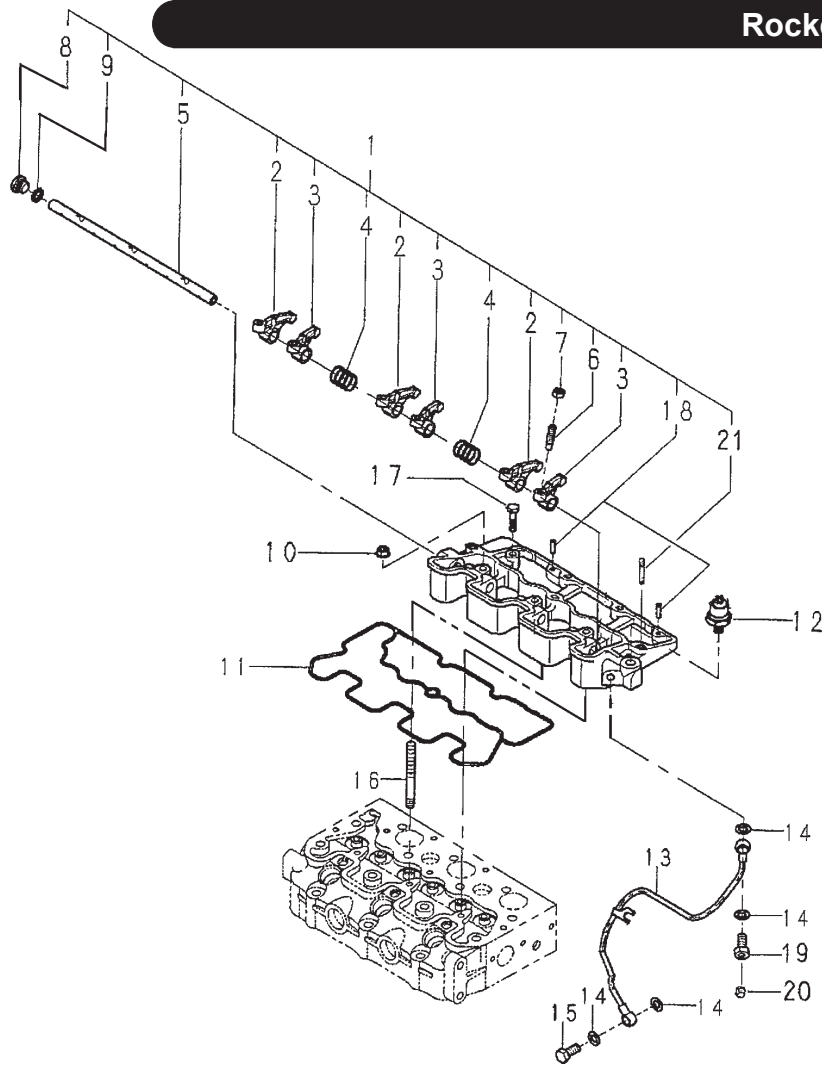
**Cylinder Head**



673L2cylhead

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	111010740	1	Cylinder Head Assembly (includes keys #2-10)	-
2	064210018	2	Expansion Plug, 18 mm	-
3	064210022	6	Expansion Plug, 22 mm	-
4	120166370	3	Intake Valve	-
5	120176290	3	Exhaust Valve	-
6	110136445	3	Intake Valve Seat	-
7	120406080	6	Valve Guide Seal	-
8	198217070	6	Spring	-
9	120186100	6	Retainer	-
10	120226080	12	Valve Keeper	-
11	120216130	6	Valve Cap	-
12	111147650	1	Head Gasket, Thickness= 1.2 mm	-
	111147660	1	Head Gasket, Thickness= 1.3 mm	-
13	111136460	11	Head Bolt	-
14	111136470	3	Head Bolt	-
15	195816030	1	Lifting Eye	-
16	011510816	2	Bolt	-
17	195816390	1	Lifting Eye	-

**Rocker Arm Assembly**

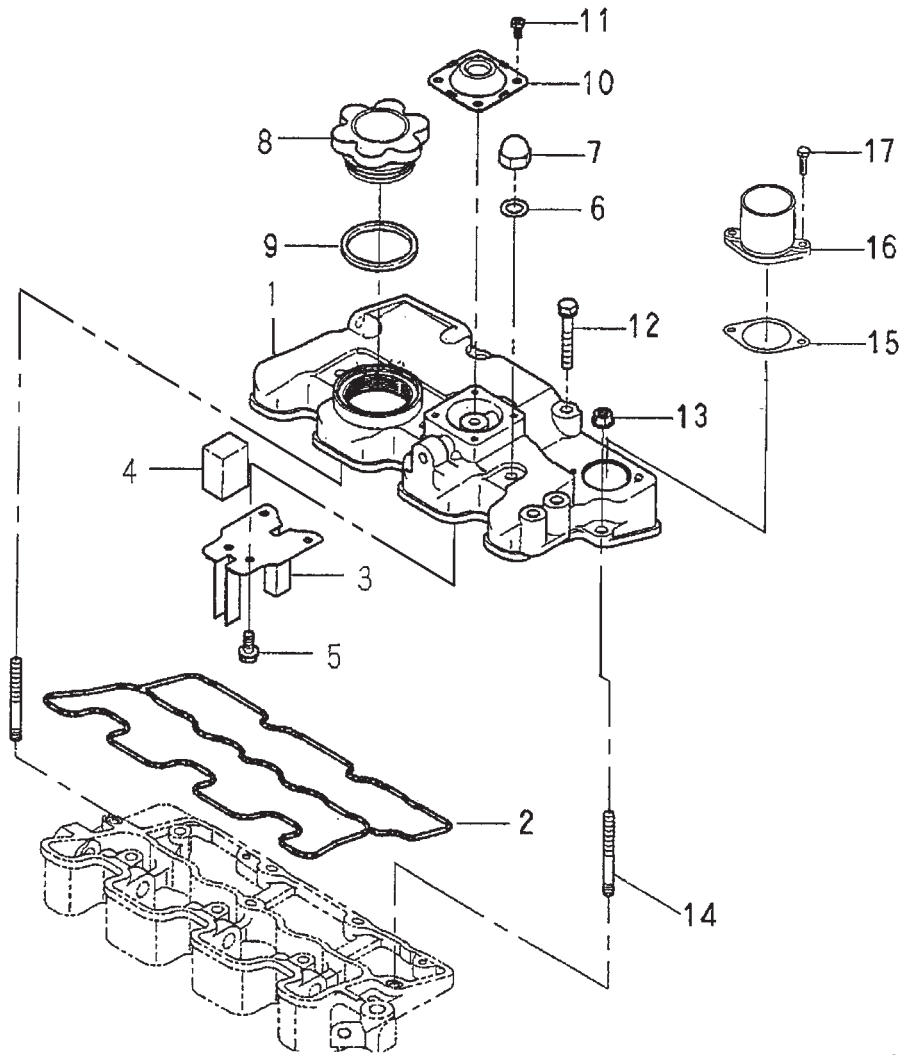


673L2rockerarm

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	120037180	1	Rocker Arm Assembly (includes keys #2- 9,18, 21)	-
2	120366330	3	Rocker Arm, Exhaust	-
3	120366320	3	Rocker Arm, Intake	-
4	198217650	2	Spring	-
5	120316320	1	Rocker Arm Shaft	-
6	199486220	6	Screw	-
7	020109076	6	Nut	-
8	198436370	1	Plug	-
9	052100100	1	O-ring	-
10	023100006	3	Nut	-
11	120996200	1	Gasket	-
12		1	Oil Pressure Switch (see Electrical System)	-
13	140607410	1	Oil Pipe	-
14	140996260	4	Sealing Washer M8	-
15	198486780	1	Banjo Bolt	-
16	012109259	3	Stud Bolt	-
17	011310625	3	Bolt	-
18	030300416	2	Spring Pin	-
19	198487590	1	Banjo Bolt (Tapped 1/8 NPT)	-
20	21-00050	**	Plug	-
21	012110620	2	Stud Bolt	-

\*\* As Required

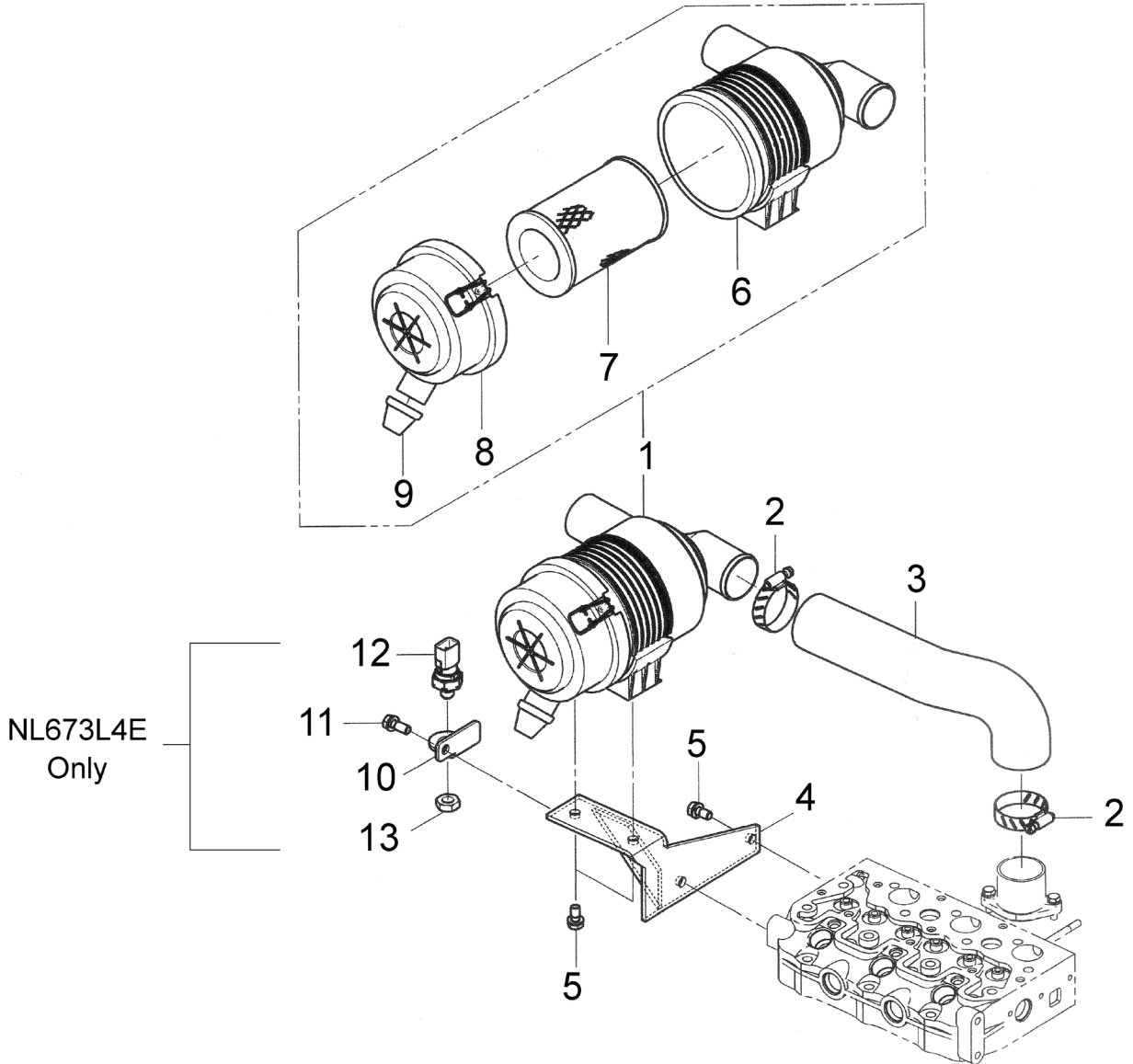
**Rocker Arm Cover**



673L2rockerarmcover

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	111210150	1	Rocker Arm Cover	-
2	111996470	1	Gasket	-
3	110666240	1	Oil Stopper	-
4	110666250	1	Filter	-
5	015600406	4	Screw	-
6	140996380	3	Gasket	-
7	024500006	3	Cap Nut	-
8	198436010	1	Cap	-
9	052100400	1	O-ring	-
10	110566070	1	Breather Valve	-
11	011100408	4	Bolt	-
12	011310670	3	Bolt	-
13	023100006	2	Nut	-
14	012110620	2	Stud Bolt	-
15	135996751	1	Gasket	-
16	135566630	1	Air Intake	-
17	011310620	2	Bolt	-

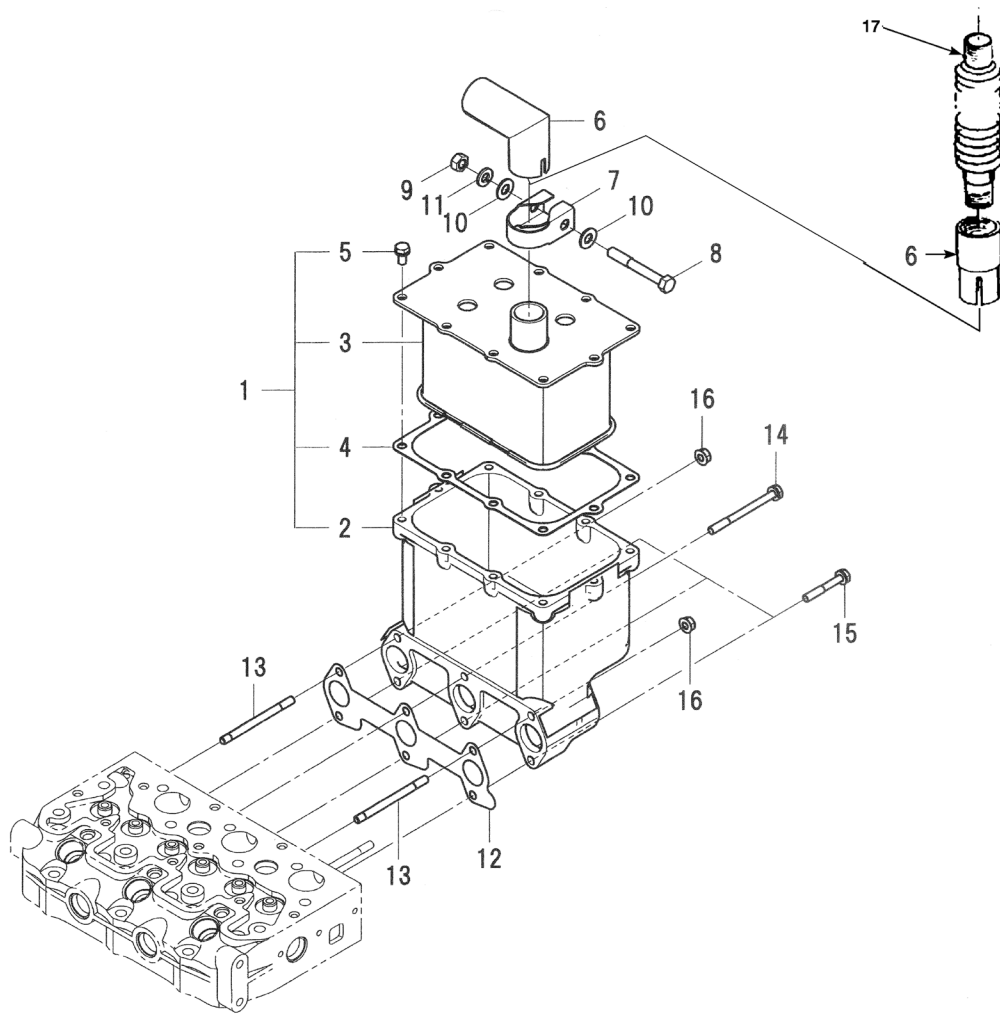
**Air Filter**



673 AIR CLEANER

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	135016360	1	Air Filter Assembly (includes keys 6-9)	-
2	19-00032	2	Hose Clamp #32	-
3	135597910	1	Hose	-
4	135976650	1	Bracket	-
5	011510816	3	Bolt	-
6	135326207	1	Housing	-
7	24-27301	1	Element	-
8	135326208	1	Cover Assembly (with Retaining Latches)	-
9	24-28001	1	"Vacuator" Condensate Valve	-
10	185977810	1	Bracket	-
11	011510820	1	Bolt	-
12	U85746210	1	Pressure Sensor	-
13	020109248	1	Nut	-
14	19-22001	2	Retaining Latch (Not Shown)	-

**Muffler**



673 MUFFLER

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	135046100	1	Exhaust Manifold / Muffler Assembly (includes keys 2-5)	-
2	135616551	1	Exhaust Manifold / Muffler	-
3	135406170	1	Muffler Element	-
4	135996900	1	Gasket	-
5	011310612	10	Bolt M6 x 1.0 x 12 mm (with lock washer)	-
6	135606150	1	Exhaust Adapter 90°	-
	31-38300	1	Exhaust Adapter, Straight 1-1/4 NPT (optional)	-
7	408330011	1	Clamp	-
8	010310860	1	Bolt	-
9	020900008	1	Nut	-
10	15-00701	2	Washer	-
11	15-00702	1	Lock Washer	-
12	135996521	1	Gasket	-
13	012110670	2	Stud Bolt	-
14	011310670	1	Bolt	-
15	011310640	3	Bolt	-
16	023100006	2	Flange Nut M6 x 1.0	-
17	27-38302	1	Stainless Steel Exhaust Flex 1-1/4 NPT x 18" (optional)	-



**Thermostat & Housing**

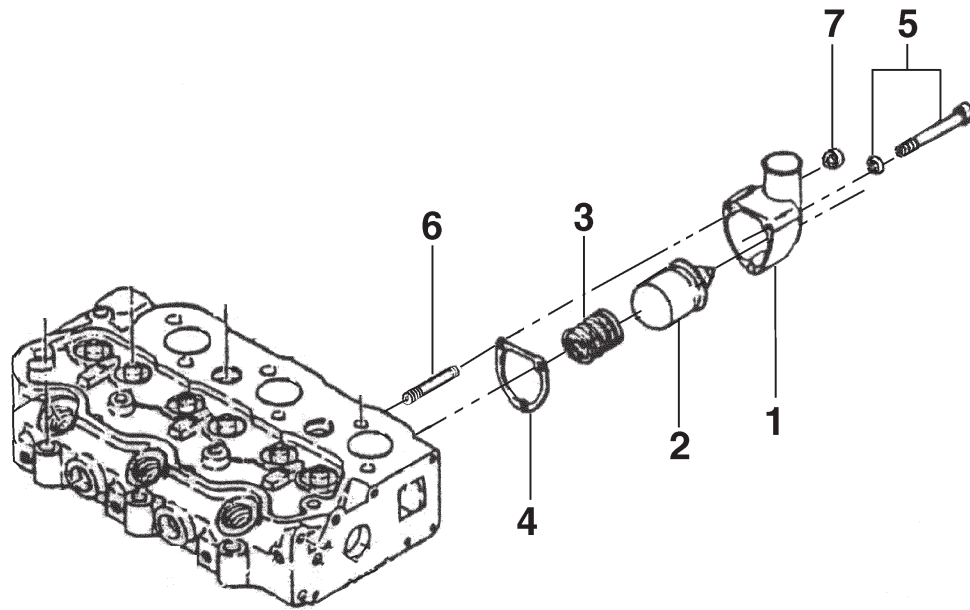
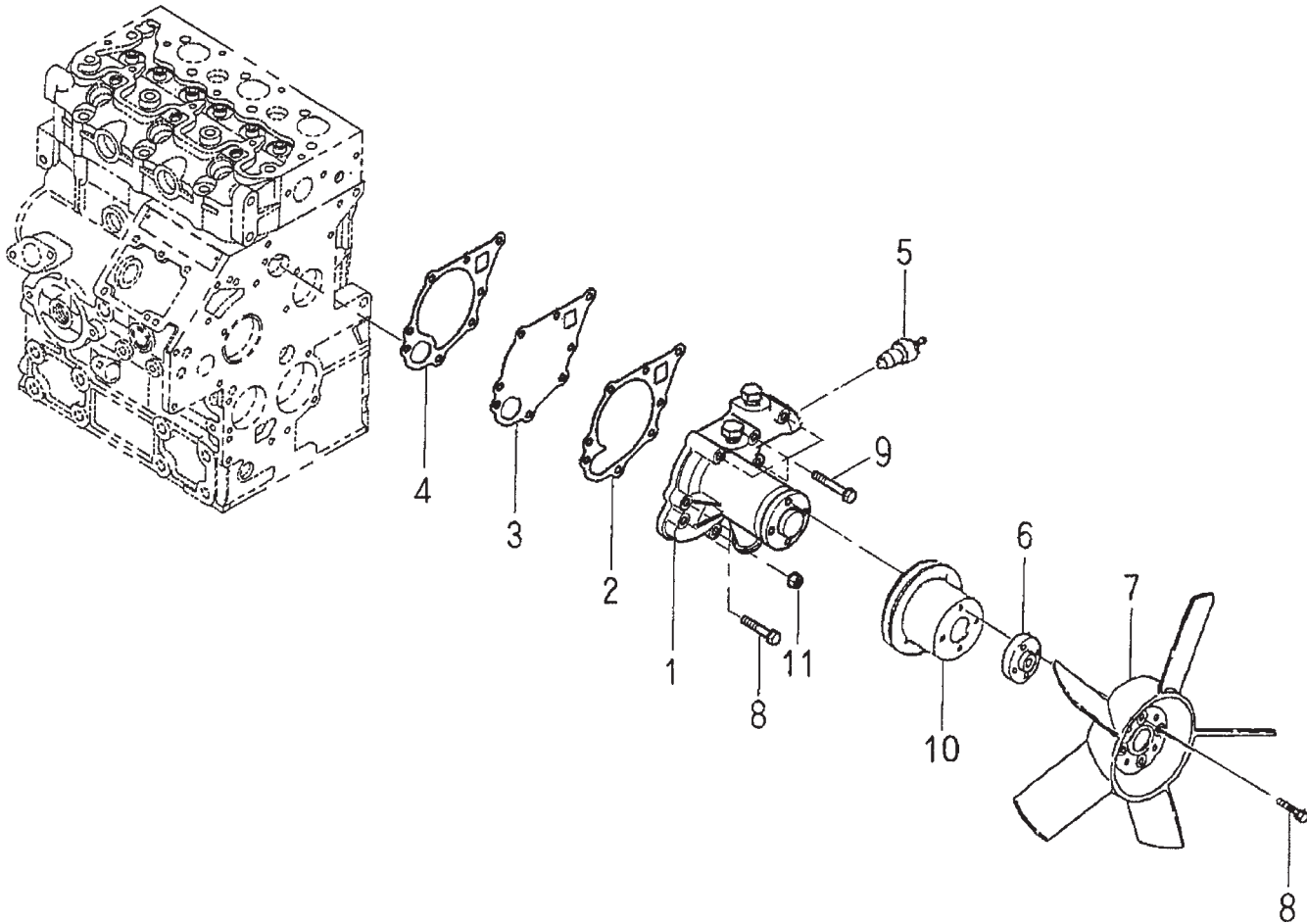


FIG. 3-3

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	145216171	1	Thermostat Housing	-
2	145206320	1	Thermostat 75°C / 167°F	-
3	198217410	1	Spring	-
4	145996740	1	Gasket	-
5	011310650	2	Bolt	-
6	012110650	1	Stud	-
7	023100006	1	Nut	-

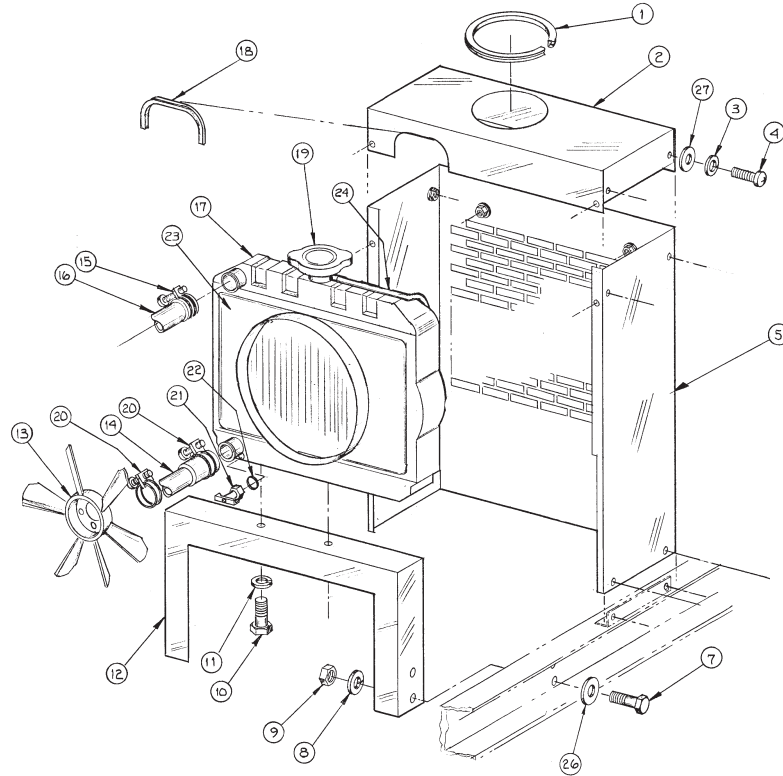
**Coolant Pump**



673L2coolantpumpind

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	145016850	1	Coolant Pump Assembly	-
2	145996640	1	Gasket	-
3	145146490	1	Backing Plate	-
4	145996630	1	Gasket	-
5		1	Switch, Temperature (see Electrical System)	-
6	145386920	1	Fan Spacer	-
7	145306820	1	Fan, Hi-Flow (Blower)	-
8	011310635	7	Bolt	-
9	011310650	4	Bolt	-
10	145336490	1	Pulley	-
11	023100006	1	Nut	-

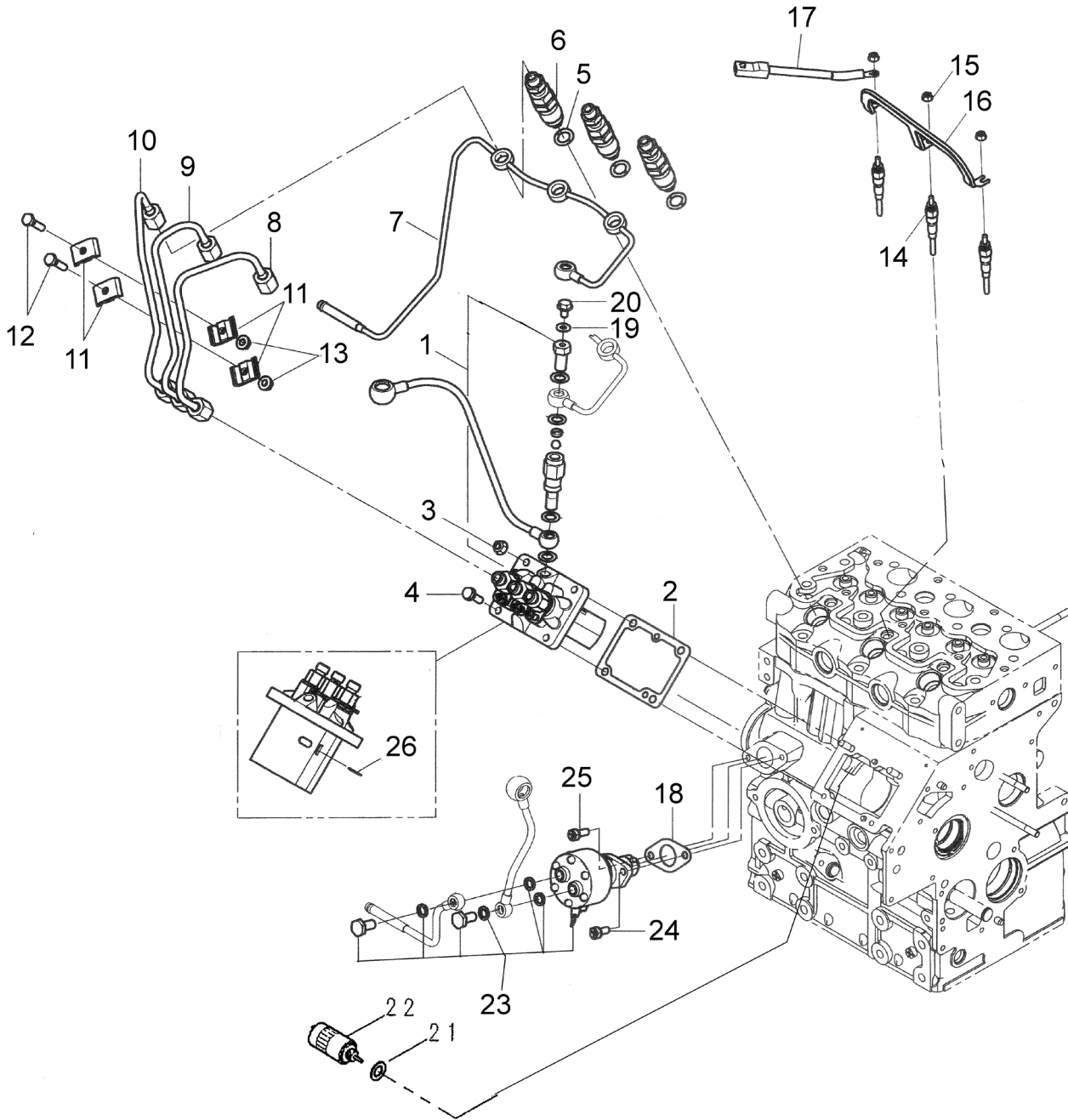
**Radiator (Aluminum) & Mounting**



/ C-1930

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	00-18302	1	Grommet	-
2	39-18302	1	Shroud Cover	-
3	15-01132	10	Lock Washer M6	-
4	12-00097	10	Capscrew, Hex Head, M6 x 1.0 x 12 mm	-
5	39-18001	1	Radiator Shroud	-
7	12-00711	4	Capscrew, Hex Head M8 x 1.25 x 20 mm	-
8	15-00702	4	Lock Washer, M8	-
9	14-00711	4	Nut M8 x 1.25	-
10	12-00809	2	Capscrew, Hex Head M10 x 1.25 x 25 mm	-
11	15-00802	2	Lock Washer, M10	-
12	23-18004	1	Bracket, Radiator Support	-
13	145306820	1	Fan, Blower 275 mm OD Hi-Flow	-
14	145537190	1	Hose, Radiator Outlet	-
15	19-00016	2	Hose Clamp #16	-
16	145537200	1	Hose, Radiator Inlet	-
17	145506600	1	Radiator Assembly, Aluminum (includes keys #19 & #21 - #24)	-
	20-18003	1	Radiator Assembly, Heresite coated (optional)	-
18	00-18304	1	Grommet	-
19	310110200	1	Filler Cap 12.8 PSI	-
20	19-00012	2	Hose Clamp #12	-
21	310130230	1	Drain Cock	-
22	310190477	1	O-ring	-
23	145546910	1	Fan Shroud with Guard	-
24	310120170	1	Overflow Hose	-
25	011150610	4	Capscrew, Hex Head M6 x 1.0 x 10mm (for fan shroud installation - not shown)	-
26	15-00701	4	Flat Washer M8	-
27	15-00008	10	Flat Washer M6	-

# Injection Pump and Lines

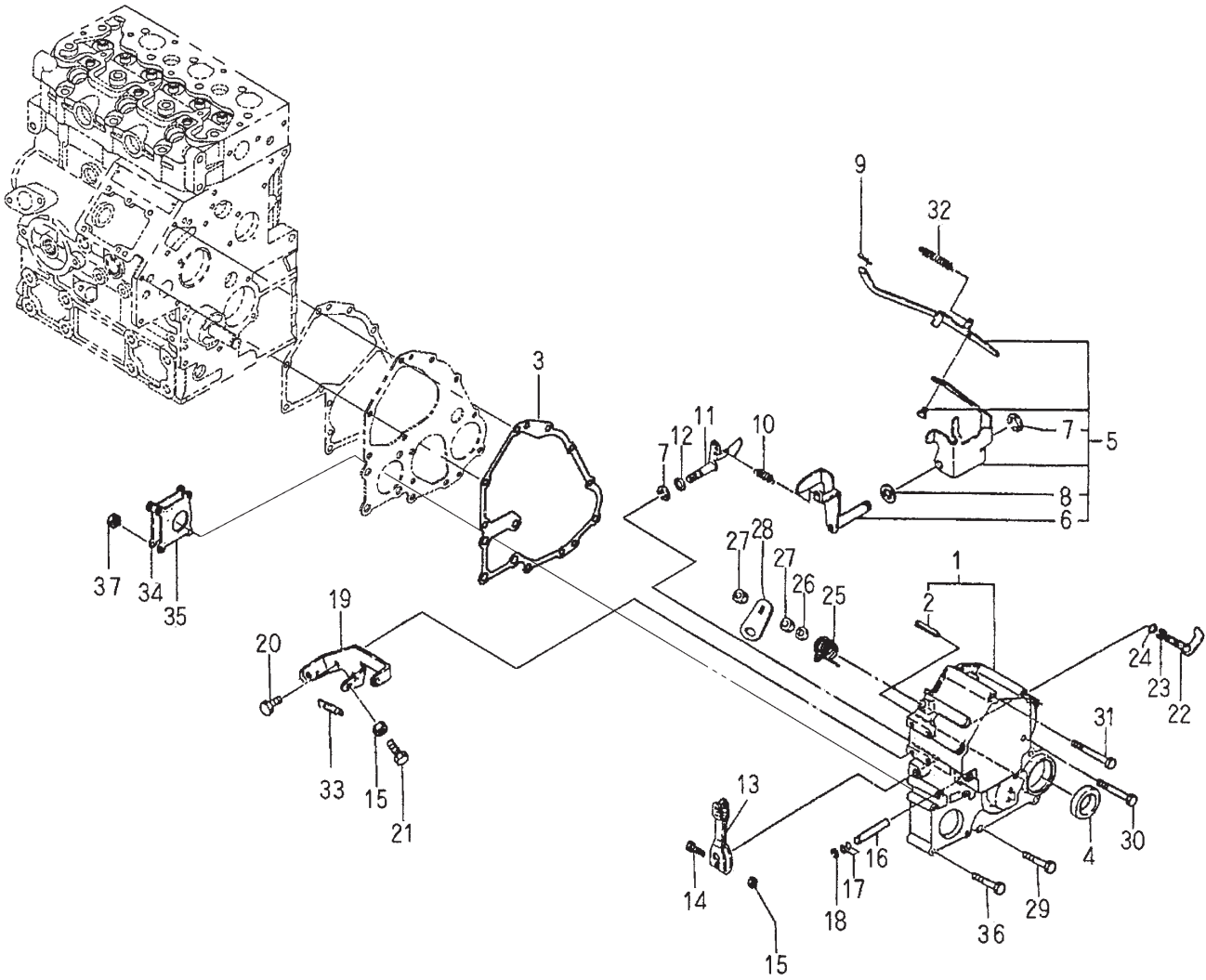


### Injection Pump and Lines

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	131010070	1	Injection Pump Assembly	-
2	131426300	1	Shim Set	-
3	023100006	2	Hex Nut, Flanged M6 x 1.0	-
4	011310620	2	Bolt	-
5	131426200	3	Gasket	-
6	131406480	3	Injector Assembly (see parts detail)	-
7	131607020	1	Return Line	-
8	131507920	1	Injection Line	-
9	131507930	1	Injection Line	-
10	121507940	1	Injection Line	-
11	199106021	4	Clamp	-
12	010110625	2	Bolt	-
13	023100006	2	Nut	-
14	185366220	3	Glow Plug	-
15	023100004	3	Nut	-
16	185376390	1	Connector	-
17	185606170	1	Wire Harness	-
18	130996130	1	Gasket	-
19	025100006	1	Seal Washer	-
20	131236280	1	Screw	-
21	025100016	1	Seal Washer	-
22	185206085	**	Solenoid, 12 Volt Standard Ground	-
23	130506140	1	Feed Pump Assembly (see parts detail)	-
24	011140614	1	Bolt	-
25	011140616	1	Bolt	-
26	031100004	1	Snap Pin	-

\*\*As required

### Governor and Timing Gear Case



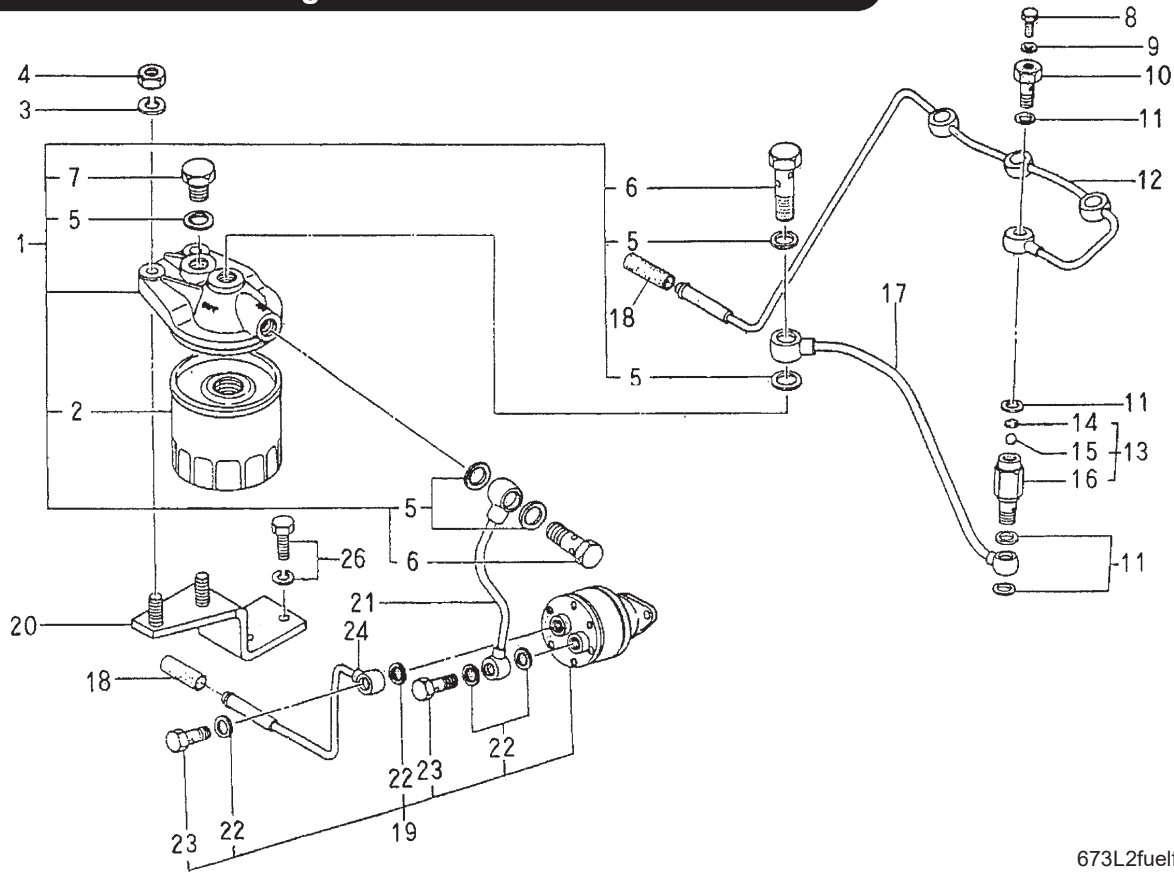
673L2governor

### Governor and Timing Gear Case

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	165106141	1	Timing Gear Case (includes key #2)	-
2	030300410	1	Spring Pin	-
3	165996500	1	Gasket	-
4	198636140	1	Oil Seal	-
5	125046250	1	Governor Lever Assembly (includes keys #6- 8)	-
6	125406071	1	Tension Lever	-
7	036800008	2	Snap Ring	-
8	026200010	1	Washer	-
9	031100004	1	Snap Pin	-
10	198217131	1	Main Spring	-
11	125156250	1	Governor Arm	-
12	052109110	1	O-ring	-
13	125416020	1	Governor Lever	-
14	010110630	1	Bolt	-
15	023100006	3	Nut	-
16	125116131	1	Shaft	-
17	052109108	2	O-ring	-
18	036800005	1	Snap Ring	-
19	125976120	1	Bracket	-
20	011310614	2	Bolt	-
21	010109264	1	Bolt	-
22	125156180	1	Governor Arm	-
23	036800006	1	Snap Ring	-
24	052109109	1	O-ring	-
25	198216760	1	Spring	-
26	026200008	1	Washer	-
27	020700008	2	Nut	-
28	125176080	1	Stop Lever	-
29	011310640	4	Bolt	-
30	011310660	2	Bolt	-
31	011310680	2	Bolt	-
32	198217420	1	Start Spring	-
33	398210070	1	Spring	-
34	165206370	1	Cover	-
35	165996510	1	Gasket	-
36	010310850	4	Bolt	-
37	023100008	4	Nut	-

GROUP 4 – FUEL SYSTEM

Fuel Filter and Mounting



673L2fuelfilter

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	130306190	1	Fuel Filter Assembly (includes keys #1, #2, #5, #6, and #7)	-
2	24-52020	1	Fuel Filter	-
3	15-00702	2	Lock Washer M8	-
4	14-00711	2	Hex Nut M8 x 1.25	-
5	130326051	5	Gasket	-
6	130436011	2	Banjo Bolt	-
7	130396030	1	Plug	-
8	131236280	1	Screw	-
9	025100006	1	Sealing Washer M6	-
10	131236190	1	Bolt	-
11	140996270	4	Sealing Washer M10	-
12	131607020	1	Return Pipe	-
13	140036141	1	Valve Assembly (includes keys #14 - #16)	-
14	198116230	1	Rubber	-
15	048100010	1	Ball	-
16	140036141	1	Connector	-
17	130556340	1	Pipe	-
18	398113230	2	Rubber Grommet	-
19	130506140	1	Feed Pump (includes keys #22 & #23 – see parts detail page)	-
20	131976120	1	Mounting Bracket	-
21	130556350	1	Tube	-
22	130516069	4	Sealing Washer M8	-
23	130516092	2	Banjo Bolt M8 x 1.25 x 22mm	-
24	130556361	1	Tube	-
26	011510816	2	Bolt	-



**Injector Assembly**

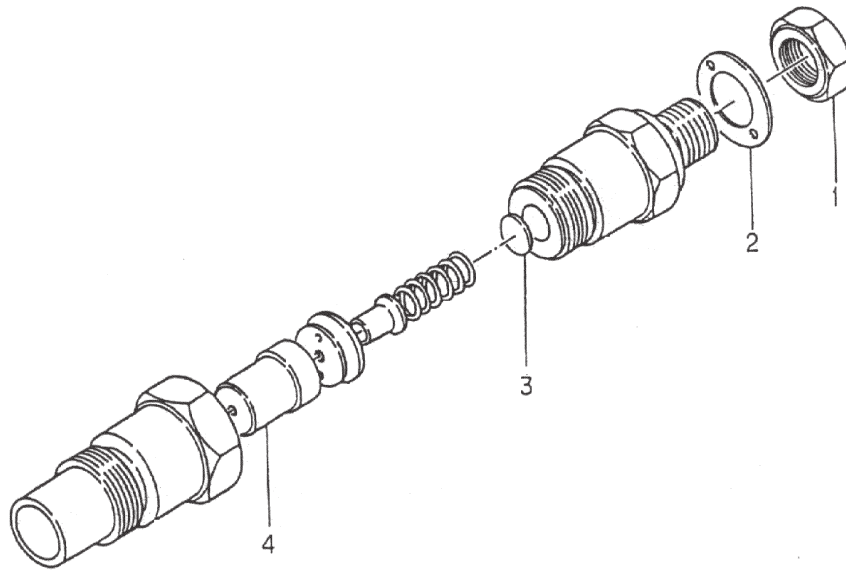
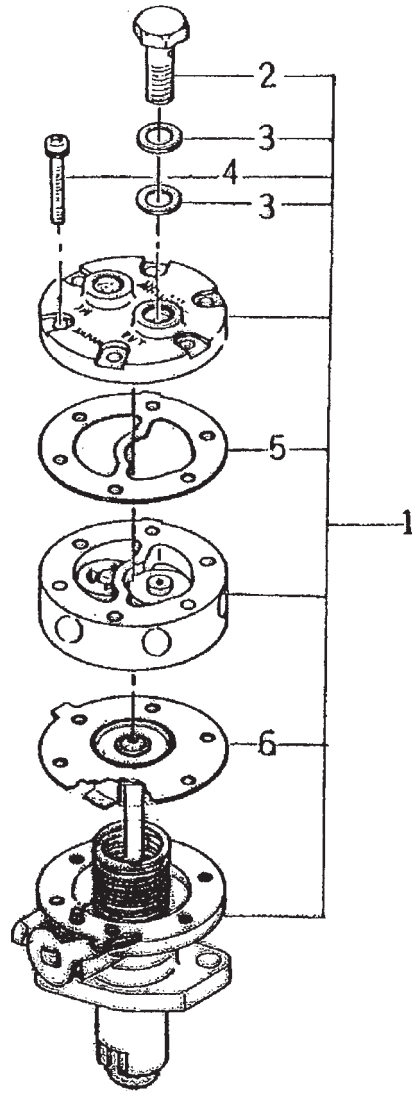


Fig: 4-6

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	131406480	1	Injector Assembly	-
1	131446069	1	Nut	-
2	131426210	1	Gasket	-
3	131437640	1	Shim Kit	-
4	131416260	1	Nozzle Assembly	-

**Injection Pump Assembly**

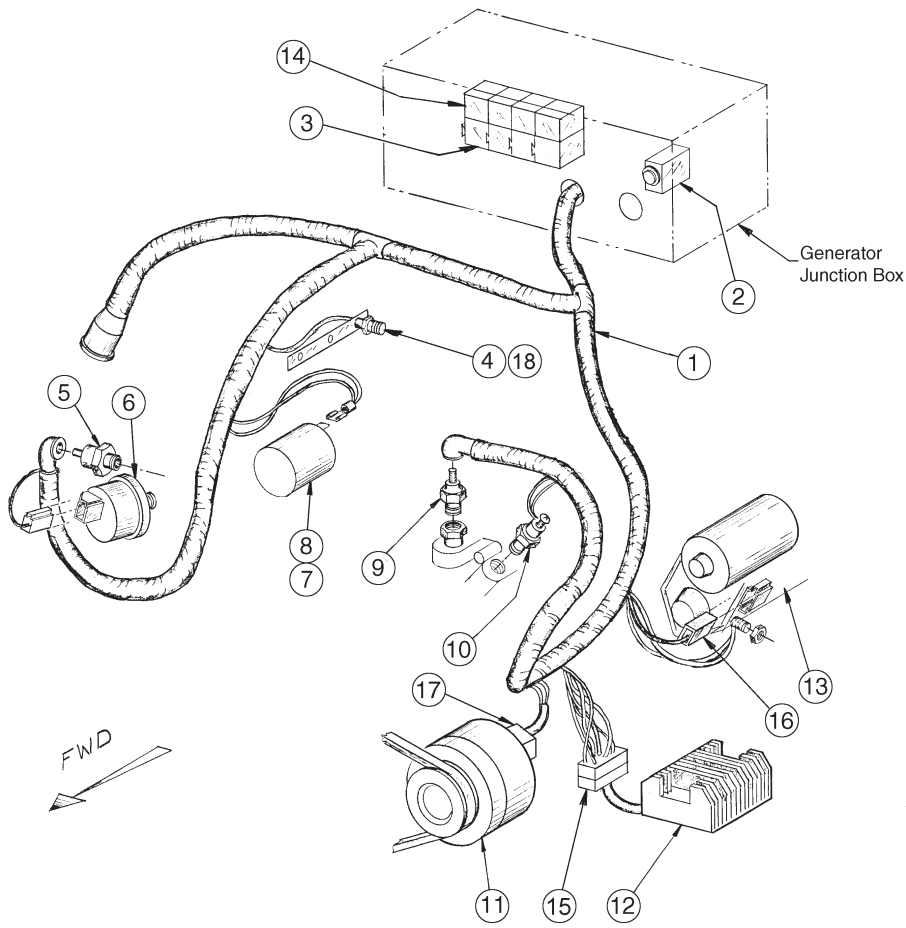


673L2injectionpump

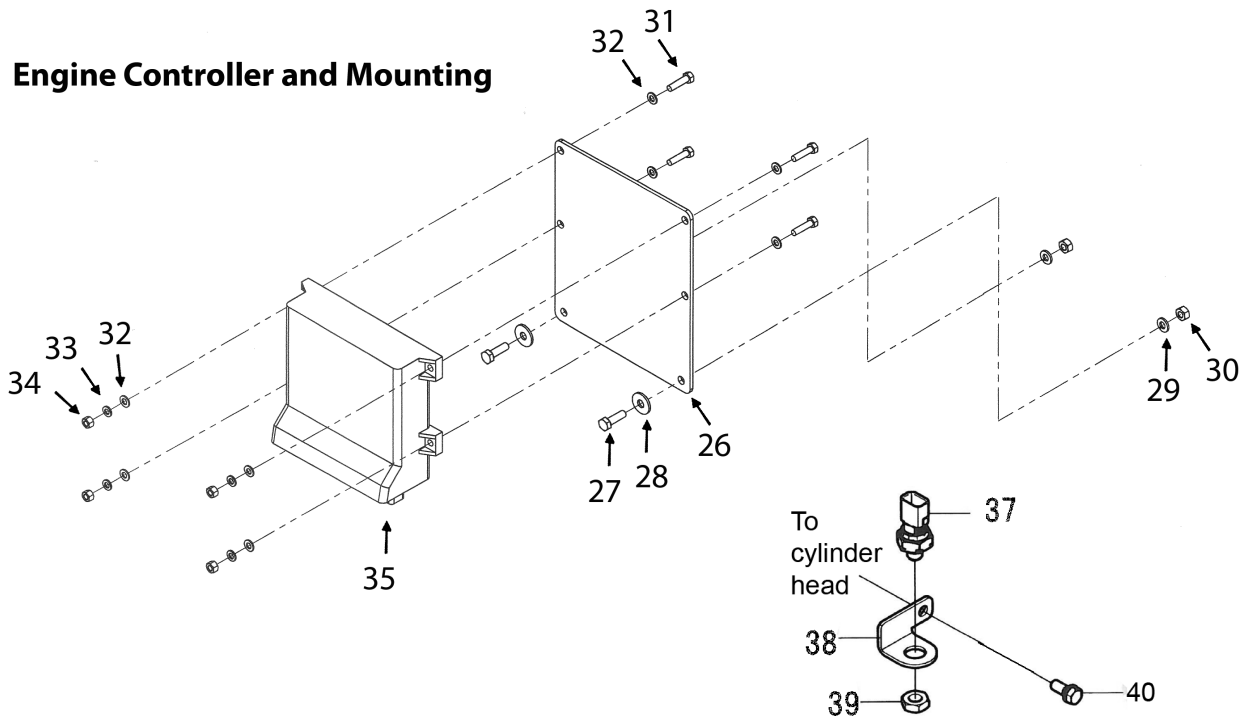
KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	130506140	1	Feed Pump Assembly (includes all keys)	-
2	130516092	1	Joint Bolt	-
3	130516069	4	Gasket	-
4	130516091	6	Screw	-
5	130516101	1	Gasket	-
6	130516084	1	Diaphragm	-

**This page intentionally left blank**

**Engine Electrical - 12 Volt Standard Ground NL673L4**



**Engine Controller and Mounting**



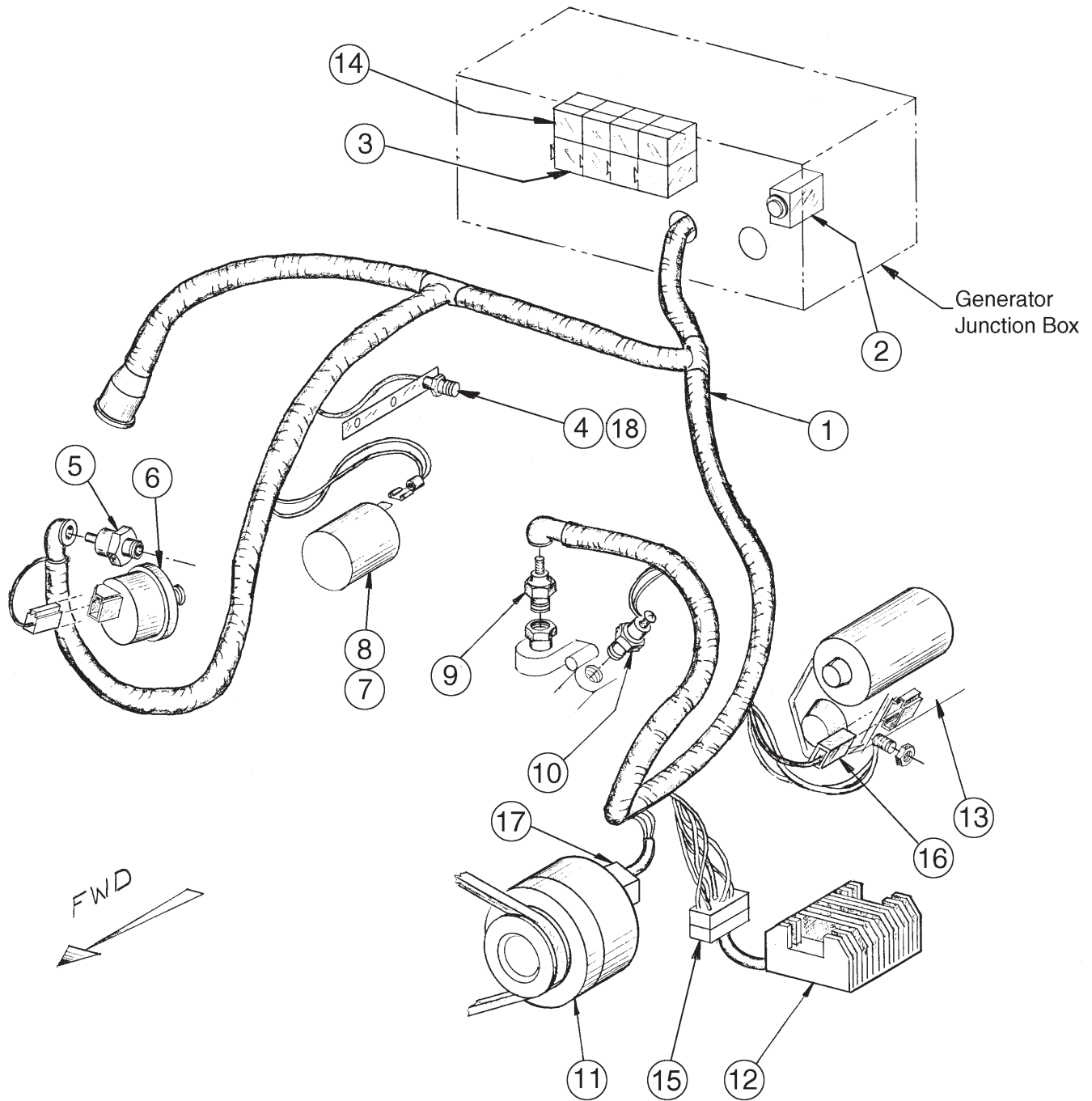
**Engine Electrical - 12 Volt Standard Ground NL673L4**

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-48006	1	Wire Harness Round "Merc" Connector (includes keys 15- 18)	-
2	22-42043	1	Circuit Breaker 15 Amp Snap-In Type	-
	22-40674	1	Circuit Breaker 15 Amp Screw Mount Type	-
3	22-40391	4	Relay Base	-
	22-40393	4	Terminal Retainer	-
4	185366220	3	Glow Plug	-
5	185246011	1	Switch, Oil Pressure	-
6	22-41016	1	Sender, Oil Pressure - Single Station	-
7	025100016	1	Sealing Washer M16	-
8	185206085	1	Stop Solenoid, 12 volt	-
9	22-42055	1	Sender, Water Temperature - Single Station (not shown)	-
10	22-40366	1	Switch, Water Temperature 110°C	-
11	185046210	1	Alternator, 12 volt (see Mounting detail)	-
12	185516061	1	DC Voltage Regulator	-
13	22-48008	1	Starter (see Mounting & Parts details)	-
14	22-42047	4	Relay, 12 Volt	-
15	385620010	1	Regulator Connector (not shown)	-
16	385620300	1	Starter Connector	-
17	385620280	1	Alternator Connector	-
18	385620230	1	Terminal - Glow Plug Circuit	-
19	23-48303	1	Bracket, Regulator Mounting (not shown)	-
20	12-04400	2	Capscrew, Hex Head M10 x 1.5 x 16mm	-
21	15-00802	2	Lock Washer, Helical M10	-
22	12-00031	2	Capscrew, Hex Head M6 x 1.0 x 25mm	-
23	15-00008	2	Flat Washer M6	-
24	15-01132	2	Lock Washer, Helical M6	-
25	23-92004	1	Bracket, Engine Control Unit Mounting	-
26	12-01131	2	Capscrew, Hex Head M6 x 1.0 x 20mm	-
27	15-00008	2	Flat Washer M6	-
28	15-01132	2	Lock Washer, Helical M6	-
29	14-01131	2	Hex Nut M6 x 1.0	-
30	12-04405	4	Capscrew, Hex Head M x 0.8 x 20 mm	-
31	15-00027	8	Flat Washer M5	-
32	15-04400	4	Lock Washer, Helical M5	-
33	14-04401	4	Hex Nut M5 x 0.8	-
34	18518620	1	Engine Control Unit	-
35	22-40514	1	Speed Sensor (not shown) former # U85746200	-
36	U85746210	1	Barometric Air Pressure Sensor	-
37	185977810	1	Bracket	-
38	020109248	1	Nut	-
39	011510820	1	Capscrew M8 x 20mm	-

} for bracket & regulator mounting.

### Engine Electrical - 12 Volt Standard Ground NL673L4

#### B+ Electrical System



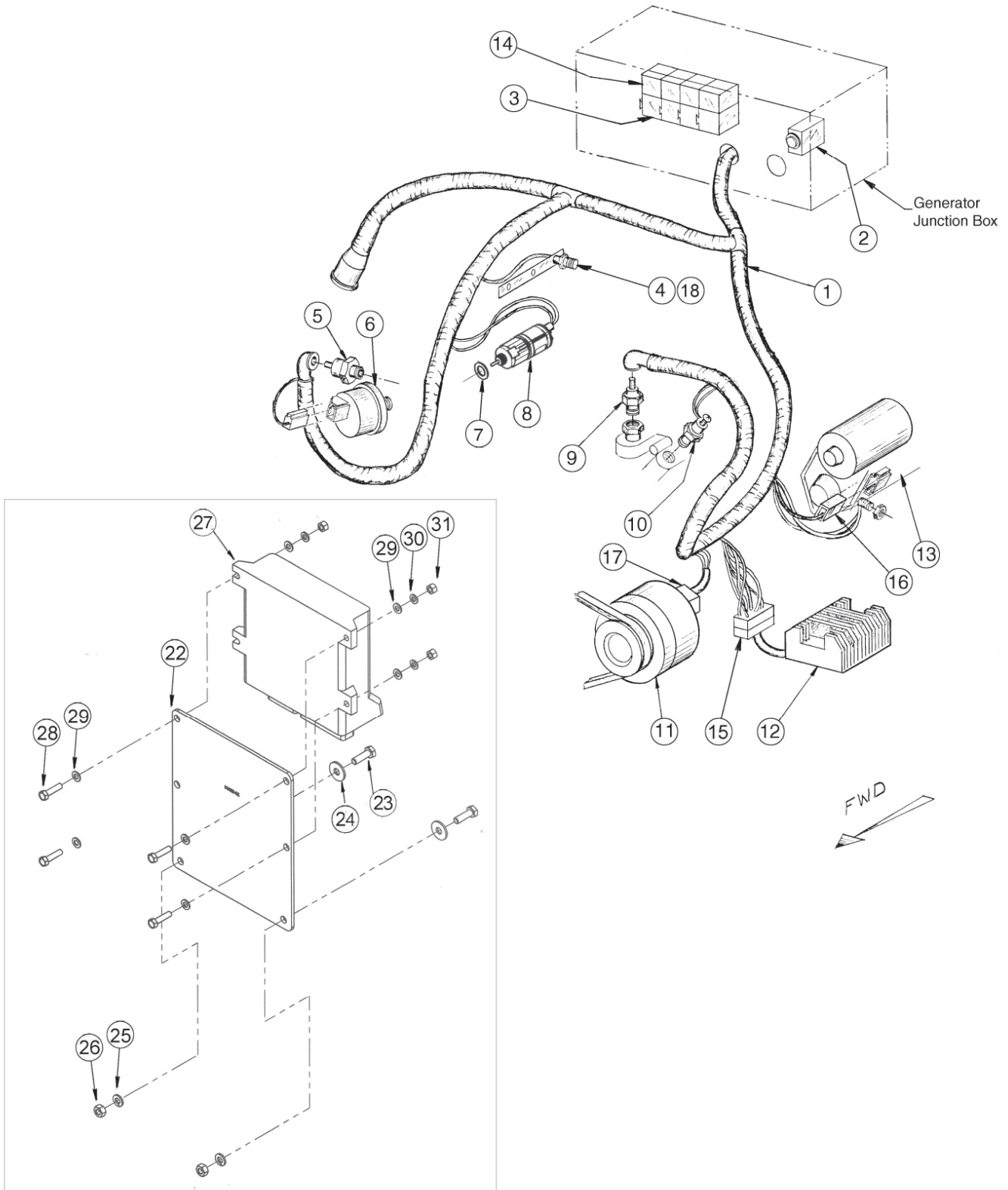
**Engine Electrical - 12 Volt Standard Ground NL673L4**

B+ Electrical System

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-48018	1	Wire Harness w/Square "Deutsch" Connector (includes keys 15- 18)	-
2	22-40018	1	Circuit Breaker 10 Amp Screw Mount	-
3	22-40391	4	Relay Base	-
	22-40393	4	Terminal Retainer	-
4	185366220	3	Glow Plug	-
5	185246011	1	Switch, Oil Pressure	-
6	22-41016	1	Sender, Oil Pressure - Single Station	-
7	025100016	1	Sealing Washer M16	-
8	185206085	1	Stop Solenoid, 12 volt	-
9	22-42055	1	Sender, Water Temperature - Single Station (not shown)	-
10	22-40366	1	Switch, Water Temperature 110°C	-
11	185046210	1	Alternator, 12 volt (see Mounting detail)	-
12	185516061	1	DC Voltage Regulator	-
13	22-48008	1	Starter (see Mounting & Parts details)	-
14	22-42047	4	Relay, 12 Volt	-
15	385620010	1	Regulator Connector (not shown)	-
16	385620300	1	Starter Connector	-
17	385620280	1	Alternator Connector	-
18	385620230	1	Terminal - Glow Plug Circuit	-
19	23-48303	1	Bracket, Regulator Mounting (not shown)	-
20	12-04400	2	Capscrew, Hex Head M10 x 1.5 x 16mm	-
21	15-00802	2	Lock Washer, Helical M10	-
23	12-00031	2	Capscrew, Hex Head M6 x 1.0 x 25mm	-
24	15-00008	2	Flat Washer M6	-
25	15-01132	2	Lock Washer, Helical M6	-
26	14-01131	2	Hex Nut M6 x 1.0	-

} for bracket & regulator mounting.

Engine Electrical - 12 Volt Standard Ground NL673L4E



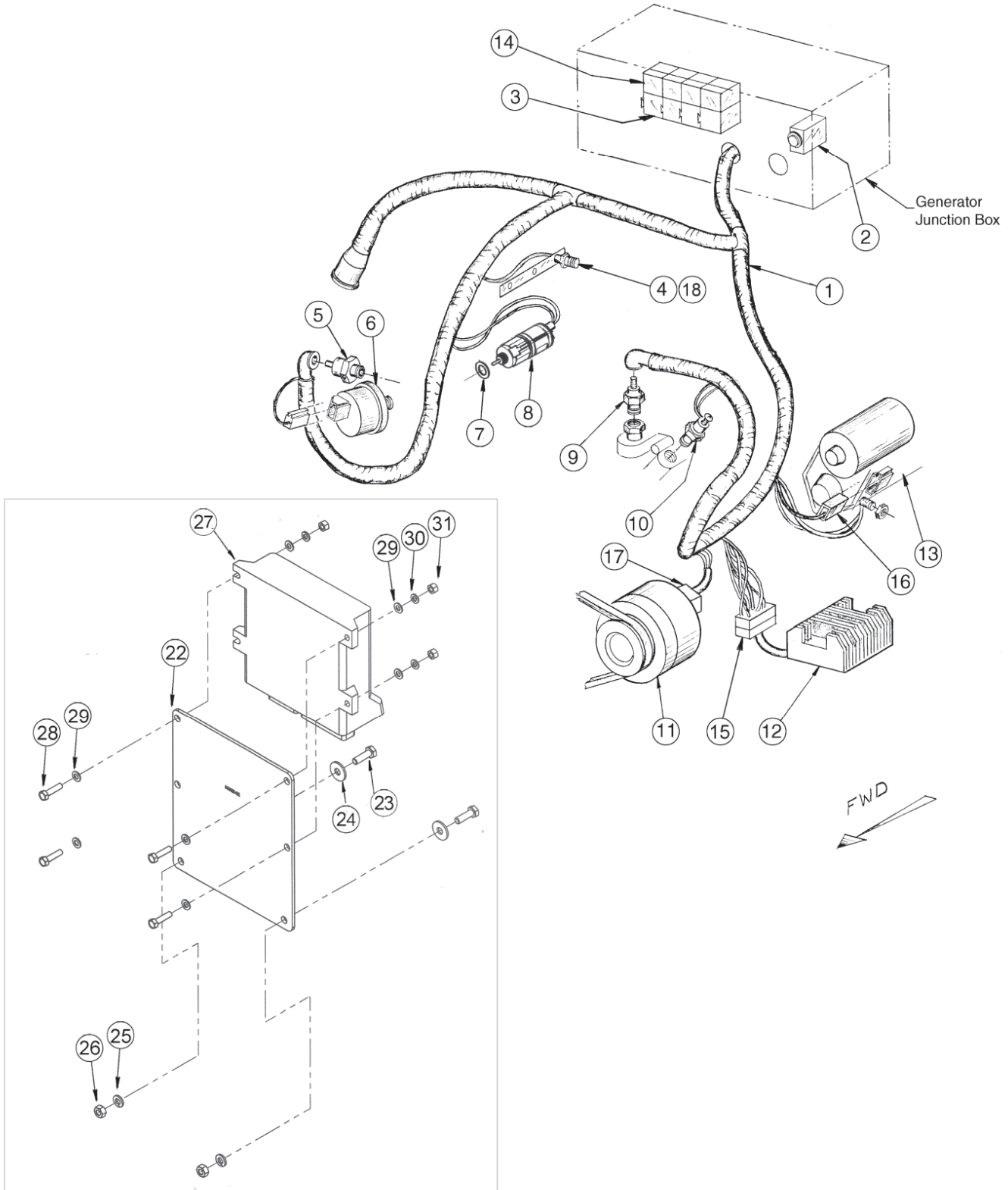


### Engine Electrical - 12 Volt Standard Ground NL673L4E

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-48006	1	Wire Harness w/ Round "Merc" Connector (includes keys 15- 18)	-
2	22-42043	1	Circuit Breaker 15 Amp Snap-in type	-
	22-40674	1	Circuit Breaker 15 Amp Screw mount type	-
3	22-40391	4	Relay Base	-
	22-40393	4	Terminal Retainer	-
4	185366220	3	Glow Plug	-
5	185246011	1	Switch, Oil Pressure	-
6	22-41016	1	Sender, Oil Pressure - Single Station	-
7	025100016	1	Sealing Washer M16	-
8	185206085	1	Stop Solenoid, 12 volt	-
9	22-42055	1	Sender, Water Temperature - Single Station (not shown)	-
10	22-40366	1	Switch, Water Temperature 110°C	-
11	185046210	1	Alternator, 12 volt (see Mounting detail)	-
12	185516061	1	DC Voltage Regulator	-
13	22-48008	1	Starter (see Mounting & Parts details)	-
14	22-42047	4	Relay, 12 Volt	-
15	385620010	1	Regulator Connector (not shown)	-
16	385620300	1	Starter Connector	-
17	385620280	2	Alternator Connector	-
18	385620230	1	Terminal - Glow Plug Circuit	-
19	23-48303	1	Bracket, Regulator Mounting (not shown)	-
20	12-04400	2	Capscrew, Hex Head M10 x 1.5 x 16mm	-
21	15-00802	2	Lock Washer, Helical M10	-
22	23-92004	1	Bracket, Engine Control Unit Mtg	-
23	12-00031	2	Capscrew, Hex Head M6 x 1.0 x 25mm	-
24	15-00008	2	Flat Washer M6	-
25	15-01132	2	Lock Washer, Helical M6	-
26	14-01131	2	Hex Nut M6 x 1.0	-
27	185186210	1	Engine Control Unit	-
28	12-04405	4	Cap Screw, Hex Head M5 x 0.8 x 20mm	-
29	15-00027	8	Flat Washer M5	-
30	14-04400	4	Hex Nut M5 x 0.8	-
31	14-04401	4	Hex Nut M5 x 0.8	-
32	22-40514	1	Speed Sensor M18 x 1.5 (See Flywheel Housing)	-

# Engine Electrical - 12 Volt Standard Ground NL673L4E

## B+ Electrical System



## Engine Electrical - 12 Volt Standard Ground NL673L4E

B+ Electrical System

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-48018	1	Wire Harness w/Square "Deutsch" Connector (includes keys 15- 18)	-
2	22-40018	1	Circuit Breaker 10 Amp Screw mount type	-
3	22-40391	4	Relay Base	-
	22-40393	4	Terminal Retainer	-
4	185366220	3	Glow Plug	-
5	185246011	1	Switch, Oil Pressure	-
6	22-41016	1	Sender, Oil Pressure - Single Station	-
7	025100016	1	Sealing Washer M16	-
8	185206085	1	Stop Solenoid, 12 volt	-
9	22-42055	1	Sender, Water Temperature - Single Station (not shown)	-
10	22-40366	1	Switch, Water Temperature 110°C	-
11	185046210	1	Alternator, 12 volt (see Mounting detail)	-
12	185516061	1	DC Voltage Regulator	-
13	22-48008	1	Starter (see Mounting & Parts details)	-
14	22-42047	4	Relay, 12 Volt	-
15	385620010	1	Regulator Connector (not shown)	-
16	385620300	1	Starter Connector	-
17	385620280	2	Alternator Connector	-
18	385620230	1	Terminal - Glow Plug Circuit	-
19	23-48303	1	Bracket, Regulator Mounting (not shown)	-
20	12-04400	2	Capscrew, Hex Head M10 x 1.5 x 16mm	-
21	15-00802	2	Lock Washer, Helical M10	-
22	23-92004	1	Bracket, Engine Control Unit Mtg	-
23	12-00031	2	Capscrew, Hex Head M6 x 1.0 x 25mm	-
24	15-00008	2	Flat Washer M6	-
25	15-01132	2	Lock Washer, Helical M6	-
26	14-01131	2	Hex Nut M6 x 1.0	-
27	185186210	1	Engine Control Unit	-
28	12-04405	4	Cap Screw, Hex Head M5 x 0.8 x 20mm	-
29	15-00027	8	Flat Washer M5	-
30	14-04400	4	Hex Nut M5 x 0.8	-
31	14-04401	4	Hex Nut M5 xc 0.8	-
32	22-40514	1	Speed Sensor M18 x 1.5 (See Flywheel Housing)	-

**Flywheel Housing & Starter**

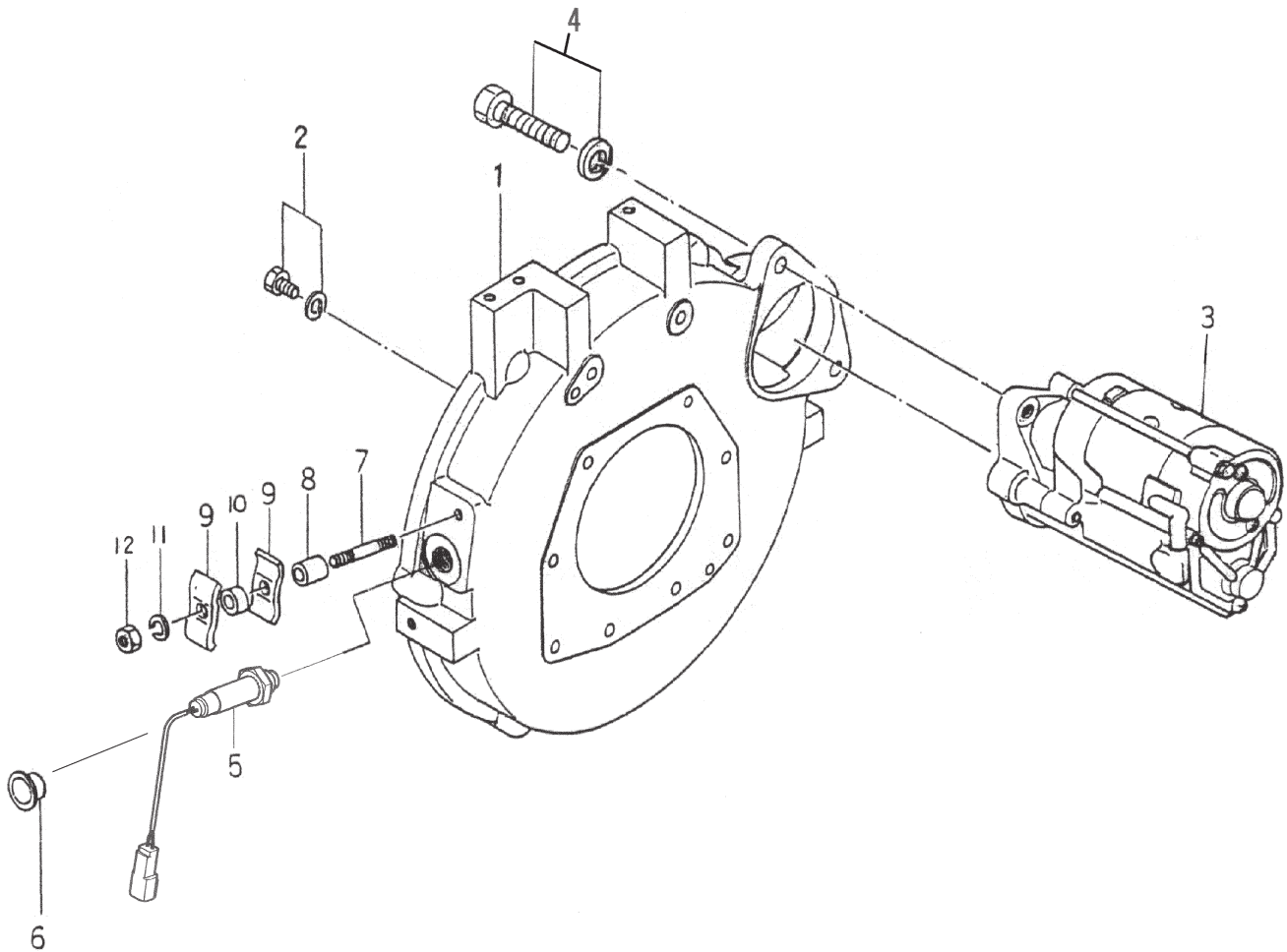
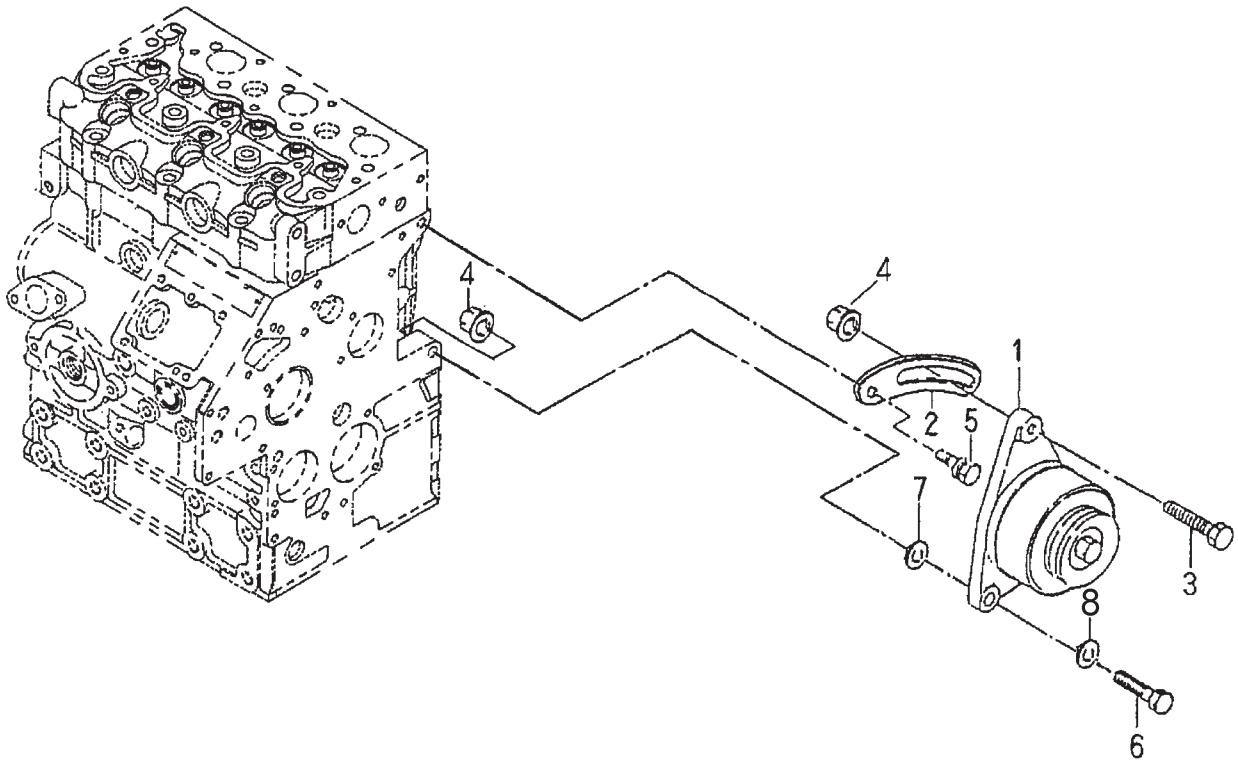


FIG. 5-2

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	110446480	1	Flywheel Housing	-
2	011510820	10	Capscrew, Hex Head w/Washer M8 x 1.25 x 20 mm	-
3	22-48008	1	Starter, Standard Ground	-
4	011611035	2	Bolt with Lock Washer	-
5	22-40514	**	Speed Sensor NL673L4 (non-ECU controlled units with speed switch option)	-
	22-40514	1	Speed Sensor NL673L4E (former # U85746200)	-
6	398460090	**	Plug	-
7	012100845	1	Stud M8 x 1.25 x 45 mm	-
8	199236690	1	Collar	-
9	399110160	2	Clamp	-
10	399233250	1	Collar	-
11	15-00702	1	Lock Washer M8	-
12	020900008	1	Hex Nut M8 x 1.25	-
			* As Required	

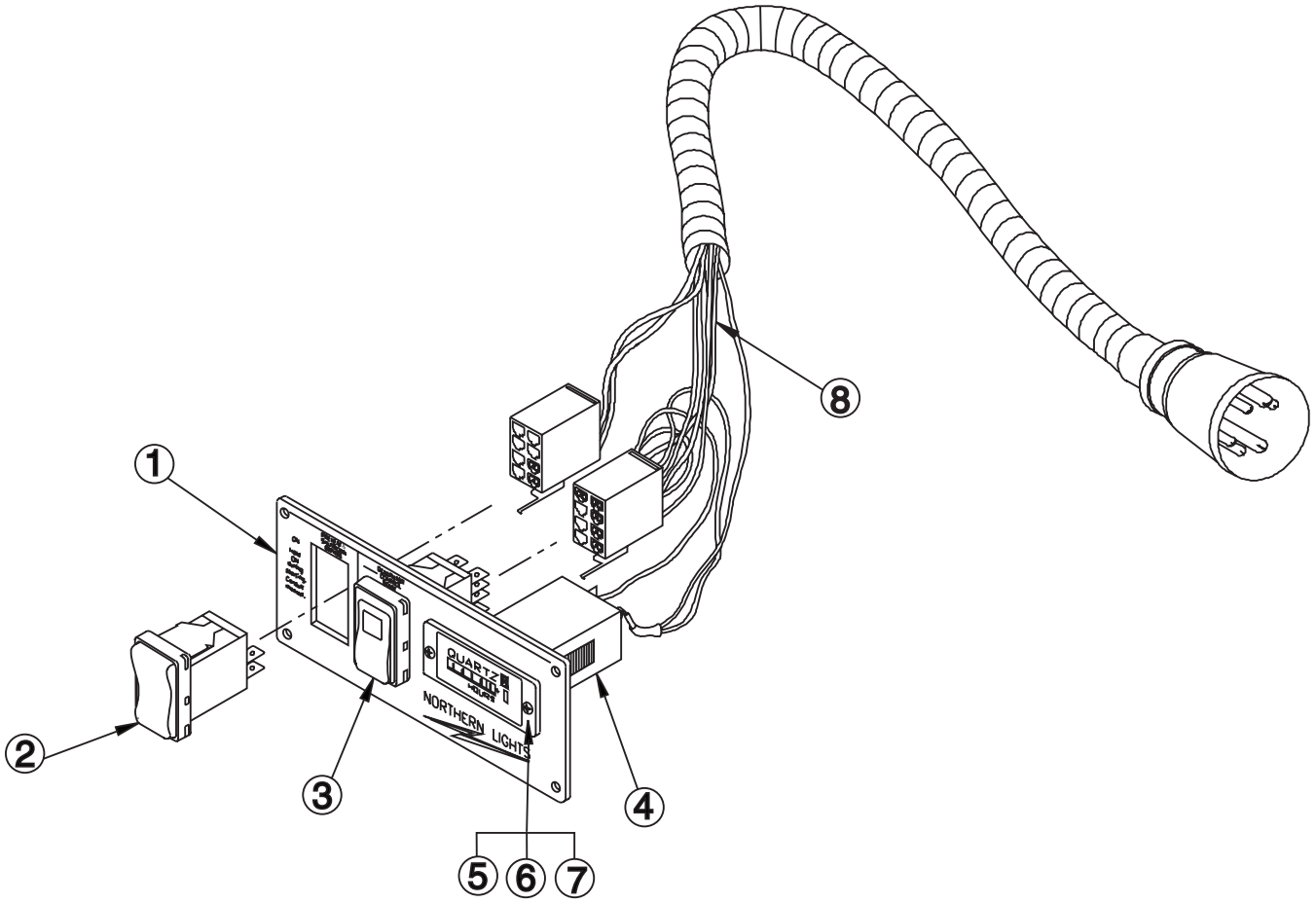
**Alternator and Mounting**



673L2altind

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	185046210	1	Alternator Assembly, 12 Volt 14 Amp	-
2	185727010	1	Tensioning Arm	-
3	013100830	1	Bolt	-
4	023100008	2	Hex Nut, Flanged M8 x 1.25	-
5	011510816	1	Bolt	-
6	010310850	1	Bolt	-
7	026109011	1	Washer	-
8	15-00702	1	Washer	-

**Series 1-B Start/Stop Control Panel**

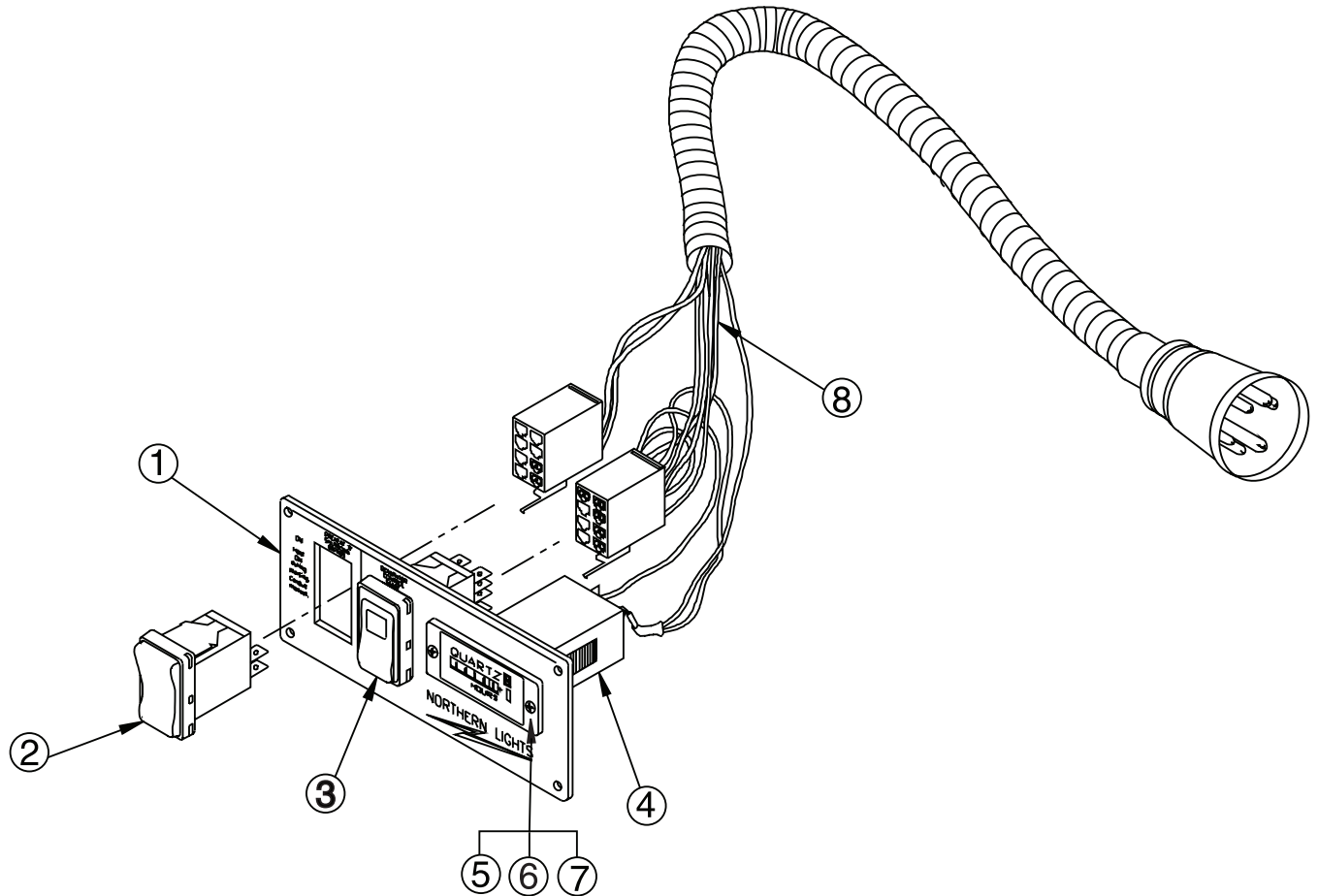


A-8553/ B-5971

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-92120	1	Complete Series 1-B Start/Stop Control Panel (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 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	22-42063	1	Wire harness	-

Series 1-B Start/Stop Control Panel

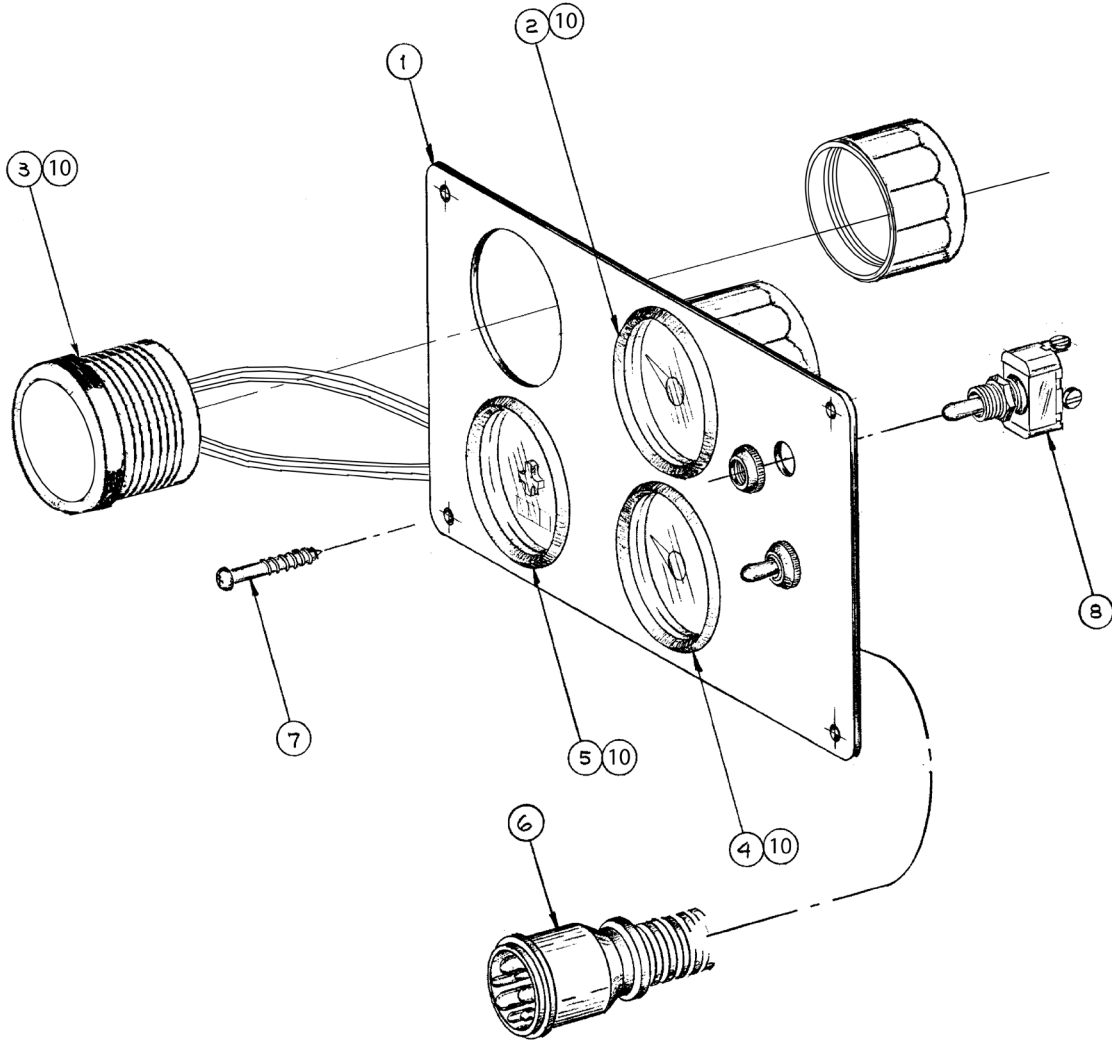
B+ Electrical Systems



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)	-

**S-3C Control Panel 12 Volt**

VDO Viewline Black Bezel Gauges



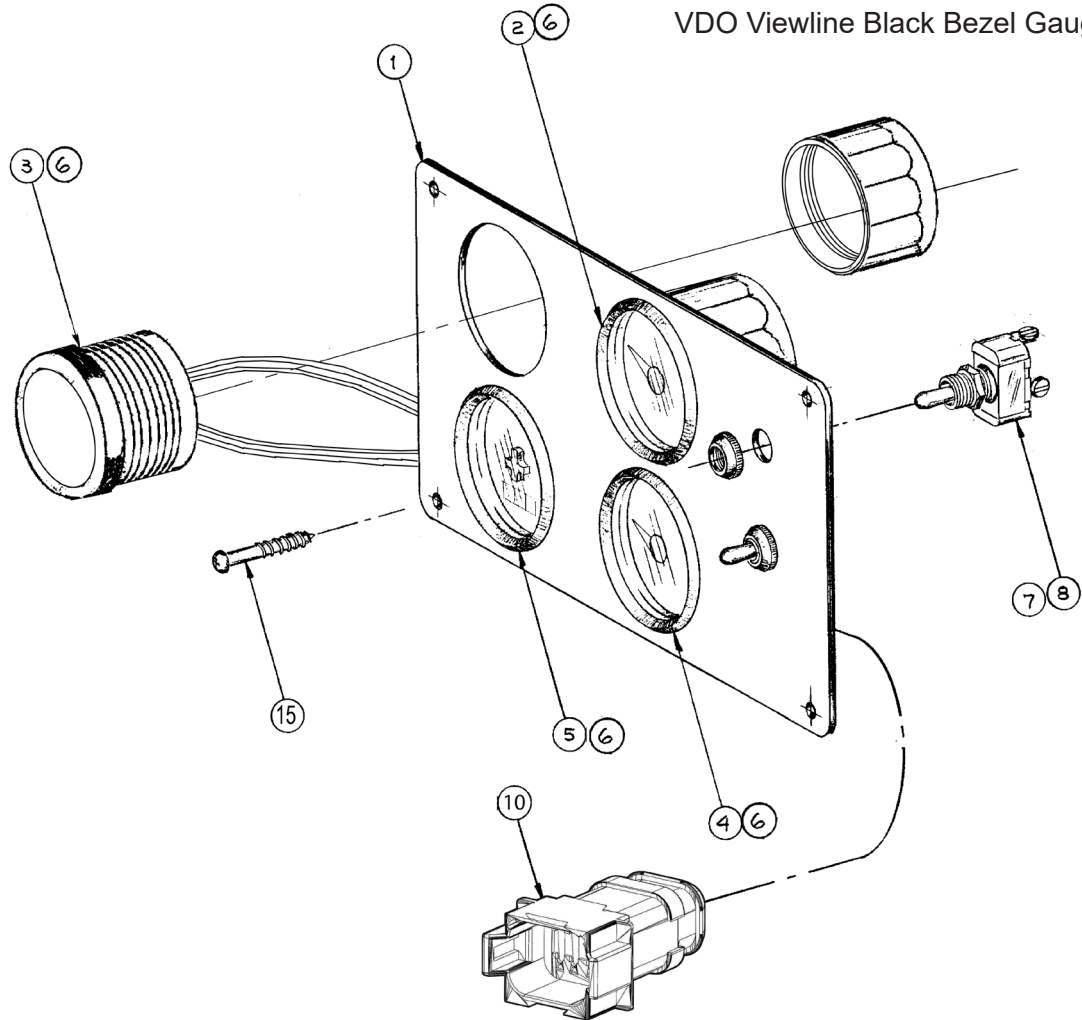
C-2441

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-3C Control Panel 12 Volt B+ Systems**

VDO Viewline Black Bezel Gauges

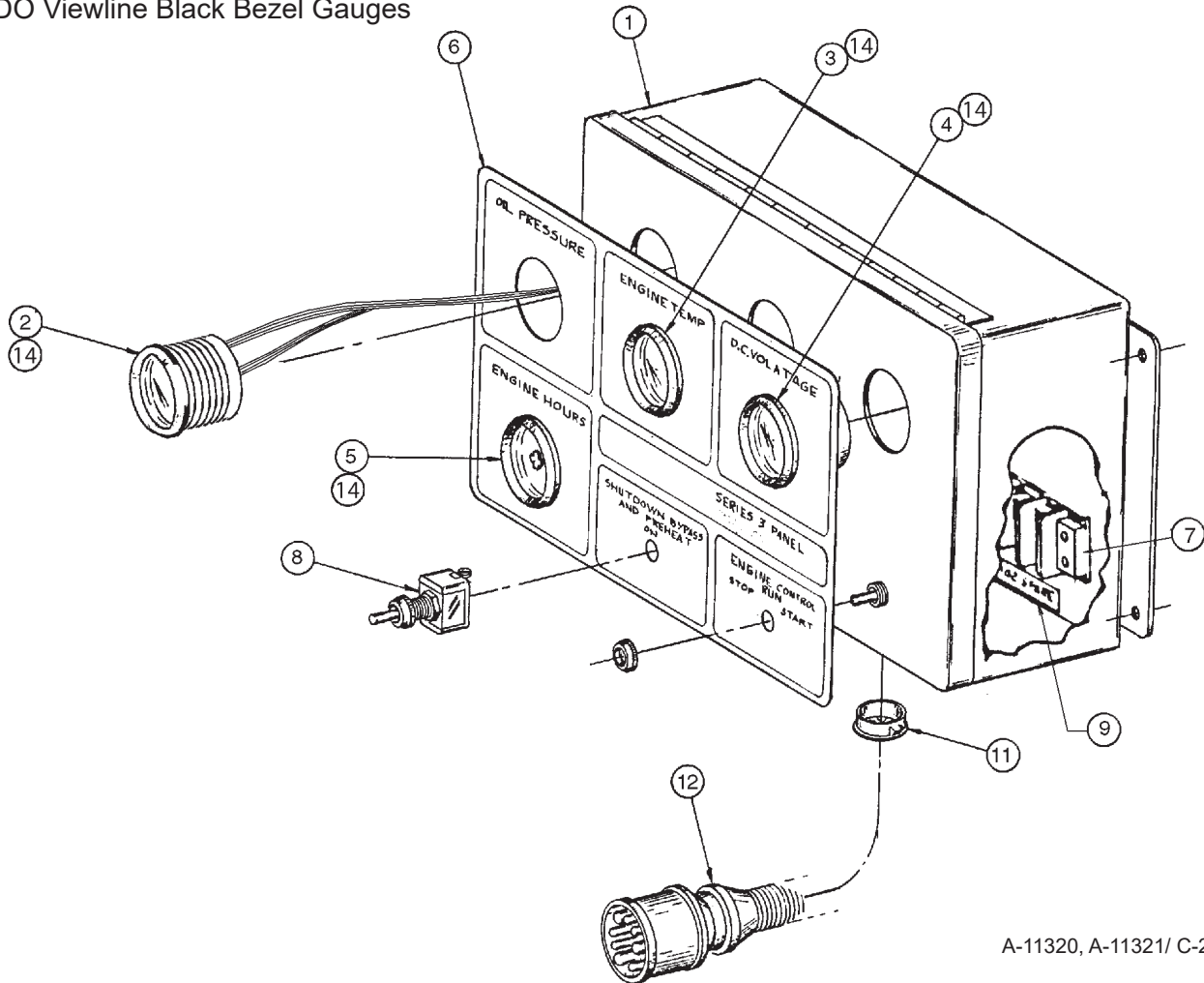


KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-95611	1	S-3C Control Panel, 12 Volt (includes all keys)	-
1	28-90010	1	Panel Plate	-
2	37-91075-1	1	Oil Pressure Gauge, 0-80 PSI 12/24 Volt *	-
3	37-91074-1	1	Temperature Gauge, 0- 250°F 12/24 Volt *	-
4	37-91070-1	1	DC Voltmeter, 8 - 16 VDC *	-
5	37-91072-1	1	Hourmeter 12/ 24 Volt *	-
6	37-00014	4	Bezel	-
8	22-41051	1	Toggle Switch	-
	22-40335	1	Toggle Switch	-
9	23-95601	1	Bracket, Relay Base Mounting	-
10	22-45606	1	Panel Wire Harness	-
11	12-00075	1	Machine Screw #8-32 x 1/4"	-
12	15-00035	1	Star Washer #8	-
13	22-42047	**	Relay 12 Volt	-
14	00-00013	**	Label 12 Volt (not shown)	-
15	12-90007	4	Self Tapping Screw, Oval Head Phillips #6 x 3/4"	-
			** As Required	

GROUP 5 – ELECTRICAL SYSTEM

**S-3B Control Panel 12 Volt**

VDO Viewline Black Bezel Gauges



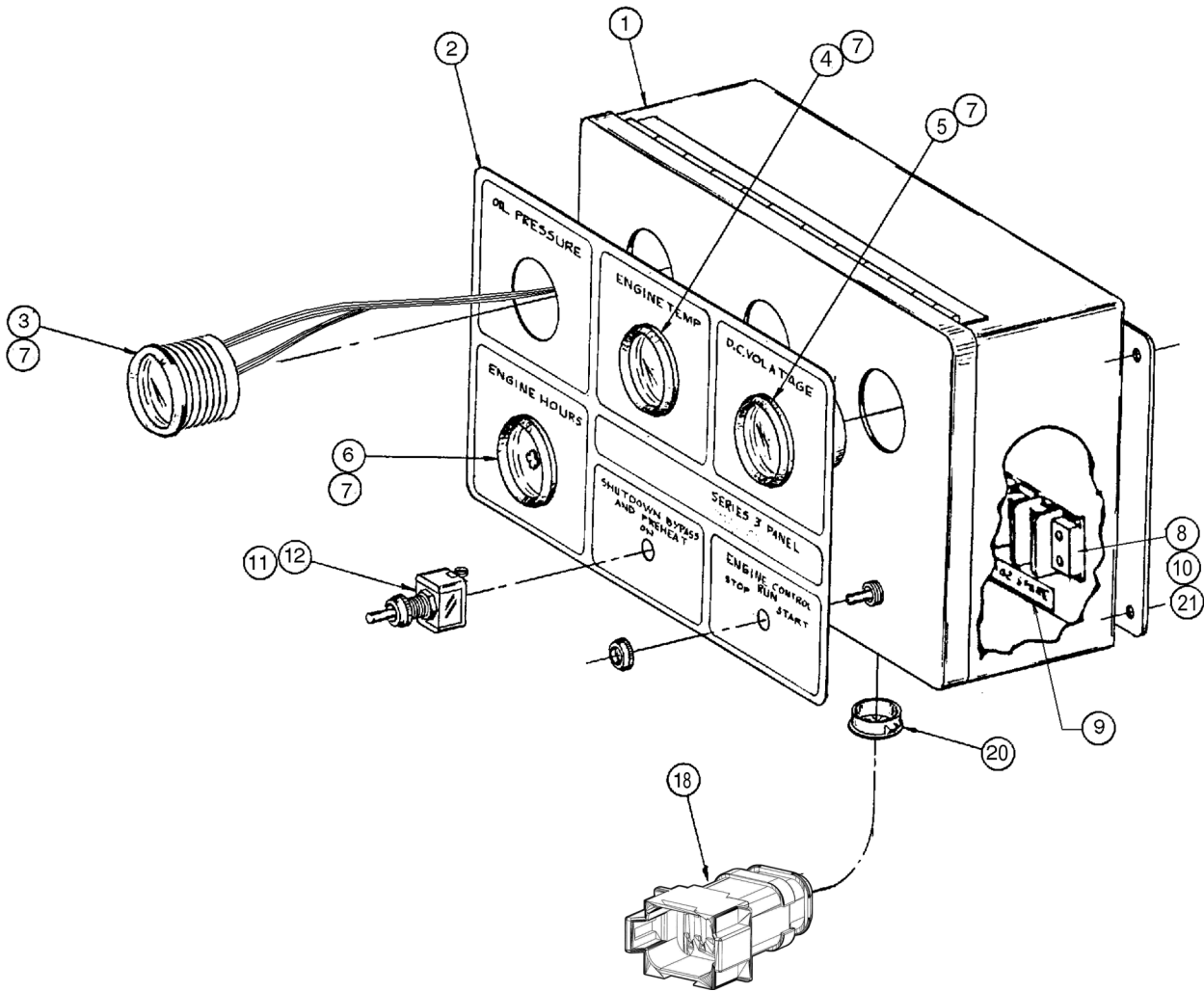
A-11320, A-11321/ C-2470

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	-

**This page intentionally left blank.**

### S-3B Control Panel 12 Volt B+ Systems

VDO Viewline Black Bezel Gauges



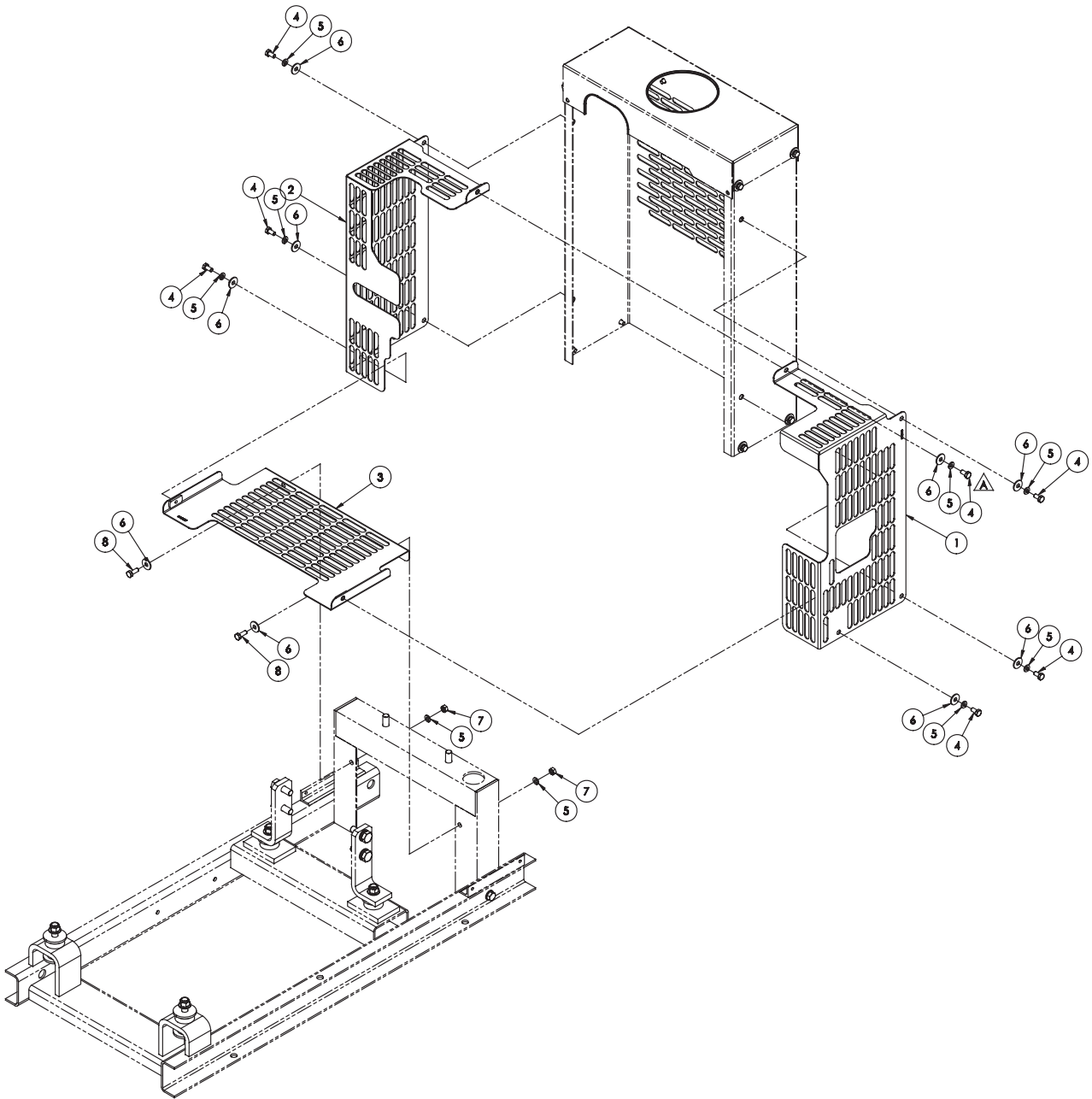
### S-3B Control Panel 12 Volt B+ Systems

VDO Viewline Black Bezel Gauges

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	22-95601	1	S-3C Control Panel, 12 Volt (includes all keys)	-
1	39-40027	1	Enclosure	-
2	00-91018	1	Decal	-
3	37-91075-1	1	Oil Pressure Gauge, 0-80 PSI 12/24 Volt *	-
4	37-91074-1	1	Temperature Gauge, 0- 250°F 12/24 Volt *	-
5	37-91070-1	1	Voltmeter, 8 - 16 VDC *	-
6	37-91072-1	1	Hourmeter 12/ 24 Volt	-
7	37-00014	4	Bezel	-
8	22-41077	1	Terminal Strip	-
9	22-00052	1	Number Strip	-
10	14-09021	2	Jam Nut, Nylock #8-32 S/S	-
11	22-41051	1	Toggle Switch	-
12	22-40335	1	Toggle Switch	-
13	23-95602	1	Bracket, Relay Mounting	-
14	22-45604	1	Wire Harness (not shown) (Includes keys 22-23)	-
15	12-00075	1	Machine Screw, Phillips #8-32 x 1/4" S/S	-
16	15-00035	1	Star Washer #8 S/S	-
17	22-42047	**	Relay 12 Volt	-
	22-40710	**	Relay 24 Volt	-
18	22-45607	1	Connection Harness	-
19	00-00013	**	Label 12 Volt (not shown)	-
	00-00014	**	Label 24 Volt	-
20	00-40028	1	Grommet	-
21	12-42103	2	Machine Screw, Pan Head, Phillips #8-32 x 5/8" S/S	-
22	22-40931	1	Relay Base	-
23	22-40393	1	Retainer	-

\* Note Bezel 37-00014 supplied separately

# Belt Guard



## Belt Guard

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	00-08001	1	Belt Guard Right Hand	-
2	00-08002	1	Belt Guard Left Hand	-
3	00-08003	1	Belt Guard Bottom	-
4	12-00097	7	Capscrew, Hex Head M6 x 1.0 x 12mm	-
5	15-01132	9	Lock Washer, Helical M6	-
6	15-00008	9	Flat Washer M6	-
7	14-01131	2	Hex Nut M6 x 1.0 x 16mm	-
8	12-00030	2	Capscrew, Hex Head M6 x 1.0 x 16 mm	-

## GROUP 6 – GASKET SETS

## Gasket Sets

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
••	195907370	1	Gasket Kit (includes all keys)	-
1	198636080	1	Rear Oil Seal	-
2	052109076	1	Oil Pipe	-
3	110996760	1	Gasket, Oil Pan	-
4	025100012	1	Seal Washer	-
5	165996490	1	Gasket, Front Plate	-
6	052109108	2	O-ring, Governor Shaft	-
7	052109110	1	O-ring	-
8	052109109	1	O-ring	-
9	198636140	1	Oil Seal	-
10	165996500	1	Gasket, Timing Gear Case	-
11	165996510	1	Gasket, Gear Case Cover	-
12	135996731	1	Gasket	-
13	140996260	4	Gasket	-
14	111147660	1	Head Gasket	-
15	120406080	6	Valve Guide Seal, Cylinder Head	-
16	131426200	3	Gasket, Injector Lower Side	-
17	131416210	3	Gasket, Injector Upper Side	-
18	052100100	1	O-ring, Rocker Arm Shaft	-
19	120996200	1	Gasket, Rocker Arm Bracket	-
20	111996470	1	Gasket, Head Cover	-
21	140996380	3	Gasket, Head Cover	-
22	052100400	2	O-ring, Oil Filler Cap	-
23	135996751	1	Gasket, Air Intake	-
24	145996640	1	Gasket, Coolant Pump Set Plate	-
25	145996630	1	Gasket, Coolant Pump	-
26	145996740	1	Gasket, Thermostat Housing	-
27	130516069	4	Gasket, Fuel Lift Pump Bolts	-
28	130996130	1	Gasket, Fuel Lift Pump	-
29	052109113	2	O-ring, Dipstick Guide	-
30	025100016	1	Seal Washer, Solenoid	-
31	052109078	1	O-ring, Relief Valve	-
32	130326051	5	Gasket	-
33	140996270	4	Gasket, Valve Assembly	-
34	025100006	1	Seal Washer, Air Bleed Screw	-
35	135996900	1	Gasket, Muffler Assembly	-
36	135996521	1	Gasket, Exhaust Manifold	-
37	135996550	1	Gasket, Exhaust Elbow	-
38	052400400	1	O-ring, Raw Water Pump	-

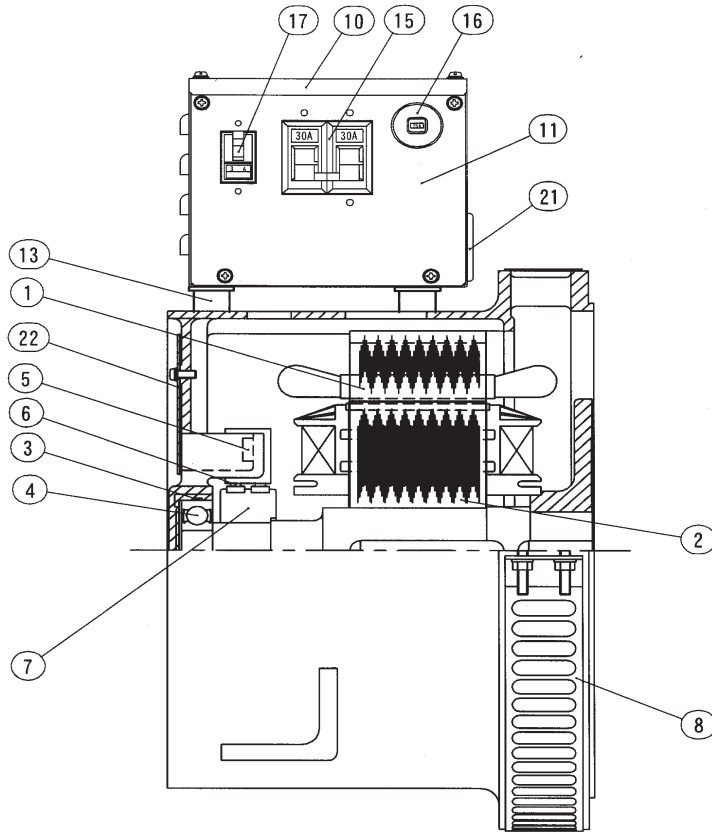


**This page intentionally left blank.**

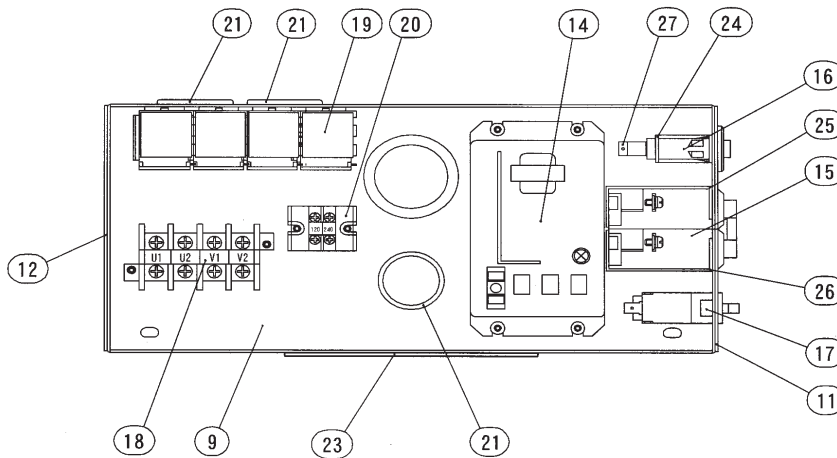
# Generator Components

TF-276D-N - From S/N 6733-45823C

## GENERATOR COMPONENTS:



## GENERATOR JUNCTION BOX:



## Generator Components

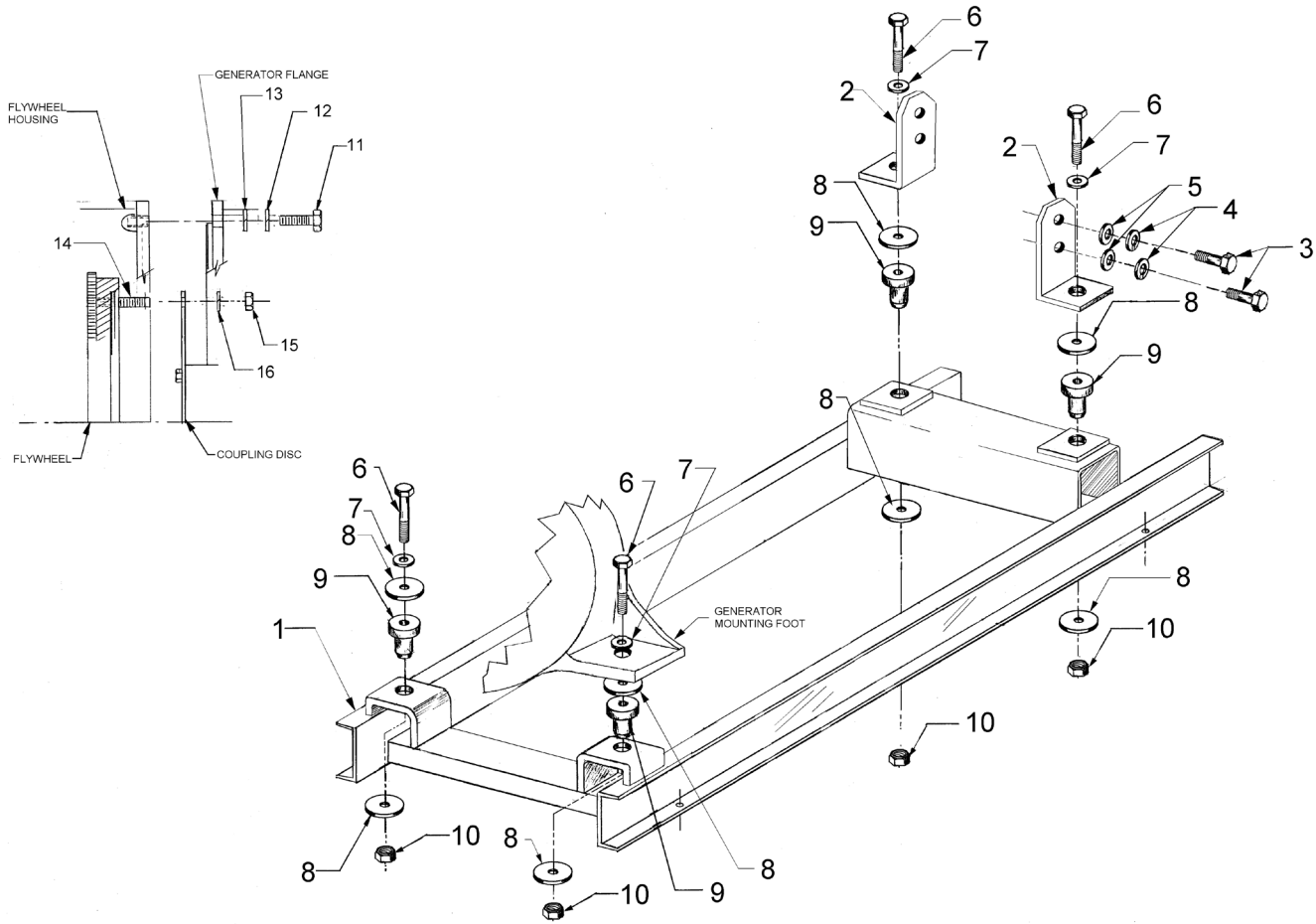
TF-276D-N - From S/N 6733-45823C

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	WKC-00079-ST	1	Stator Assembly, Single Phase	-
2	WKC-00079-RT	1	Rotor Assembly	-
3	1BG60	1	O-ring	-
4	6305ZZ	1	Ball Bearing	-
5	22-68304	1	Brush Assembly	-
6	GM405900	1	Brush	-
7	4T401-071-1	1	Slip Ring	-
8	3T301-567-1	1	Ventilation Cover	-
9	3T303-709	1	Terminal Box	-
10	4T301-108	1	Terminal Box (Top)	-
11	4T303-711	1	Terminal Box (Side)	-
12	4T303-710	1	Terminal Box (Side)	-
13	33-40007	1	Rubber Mount	-
14	22-68035	1	A.C. Voltage Regulator	-
15	22-68007	1	Circuit Protector (Generator, 30 Amp 240 VAC)	-
16	22-42043	1	Circuit Protector ( Engine, 15 Amp)	-
17	22-68004	1	Circuit Protector (A.C. Regulator, 3 Amp 240 VAC)	-
18	TE-K14-4	1	Terminal Block (Output)	-
19	22-42047	4	Relay	-
20	TS-615-2P	1	Terminal Block	-
21	NG-79-R	3	Grommet	-
22	4T303-702	1	End Cover	-
23	4T303-712	1	Adaptor Plate S-1 B	-
24	23-60002	1	Bracket, Circuit Protector Mounting (Aux Contact Side)	-
25	23-68001	1	Bracket, Circuit Protector Mounting	-
26	23-68002	1	Bracket, Circuit Protector Mounting	-
27	22-40222	2	Terminal Adapter	-
28	3T302-864-3R	1	Bracket, J-Box Support, Right hand *	-
29	3T302-864-3L	1	Bracket, J-Box Support, Left hand *	-

\*Not shown

**GROUP 8 – FRAME & MOUNTING**

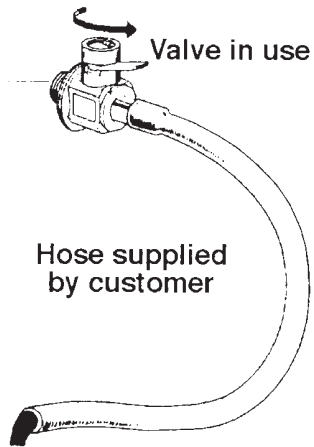
**Base Frame**



/ C-4322

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	39-88002	1	Base Frame	-
2	23-88003	2	Bracket	-
3	12-00831	4	Capscrew, Hex Head M10 x 1.5 x 25 mm	-
4	15-00802	4	Lock Washer, Helical M10	-
5	15-00805	4	Flat Washer, M10	-
6	12-00048	4	Capscrew, Hex Head M10 x 1.5 x 60 mm	-
7	15-00809	4	Flat Washer, M10 Hardened	-
8	15-00014	8	Head/Tail Washer	-
9	33-83100	4	Centerbonded Mount, 100 lb.	-
10	14-00812	4	Hex Nut, Nylock M10 x 1.5	-
11	12-00753	6	Capscrew, Hex Head M8 x 1.25 x 30 mm	-
12	15-00702	6	Lock Washer, Helical M8	-
13	15-00701	6	Flat Washer, M8	-
14	012110025	4	Stud, M10 x 1.25 x 25 mm	-
15	14-00814	4	Hex Nut, M10 x 1.25	-
16	15-00802	4	Lock Washer, Helical M10	-

**GROUP 9 – ACCESSORIES & OPTIONAL EQUIPMENT**



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](http://www.northern-lights.com)

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

© 2020 All rights reserved. Litho USA.