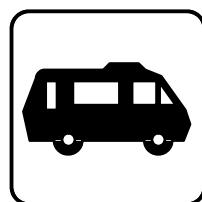


Service Parts

RV/Mobile Generator Sets



Models:

**4/5CKM-RV
4/5CFKM-RV
4/5CKMR
4CFKM**

KOHLER[®]
POWER SYSTEMS

ISO 9001
KOHLER[®]
GENERATORS
INTERNATIONALLY REGISTERED
U.S.A. Plant ISO Registered

Specification Series 101

TP-5395 4/97a

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Introduction

This manual contains a list of generator and engine service replacement parts for Kohler RV/Mobile generator sets. Refer to the Specification Number Index for models and specifications covered.

This manual includes the following main sections:

- **Table of Contents:** Lists the sections of this catalog.
- **Introduction (and other information sections):** Contains introductory material followed by sections on specification numbers, part numbers, and hardware.
- **Index:** Indexes generator set specifications and their groups.
- **Group Parts Lists:** Lists part numbers of parts in the groups.
- **Kit List and kit sections:** Lists kits and their parts.
- **Appendices:** Includes Glossary of Abbreviations, Common Hardware Application Guidelines, Common Hardware Identification, General Torque Specifications, and Common Hardware List.

Number Significance

This catalog uses a variety of numbering systems. A description of these follows:

- **Specification Number:** The generator specification number (spec number) is six digits with a PA-, PB-, or PE- prefix (Specification Number Index does not show prefixes). The first three digits designate generator size and engine model (specification series). The remaining digits are in sequence and identify a particular spec in a series. Spec numbers break down into groups.
- **Group Number:** A group consists of parts needed to perform one or more related functions. For example, the 101 group is the generator set Air Intake group.
- **Variation Number:** A group might have several variations. Parts comprising each variation perform the same function, but parts lists vary. For example, a 50 Hz generator alternator and 60 Hz generator alternator both perform the same function. However, they are constructed of different parts. Each of these differences necessitates the assignment of a group variation number.
- **Part Number:** The part number identifies an individual assembly, subassembly, component, or accessory kit.

How to Find Part Numbers

FOLLOW THESE STEPS to identify a part:

STEP 1: Turn to the Specification Number Index. The first column lists generator set specification numbers grouped by model. The headings across the top identify the groups of parts

that make up the generator set. The intersection of the specification number and the group numbers is the variation number corresponding to the components of that specification number. Note the variation number.

STEP 2: Find the page number of the group in the Table of Contents and turn to that page or page forward until you find the group. Use the drawings and itemized text to locate the part and its part number.

Hardware Grades

When replacing hardware do not substitute inferior grade hardware. All hex. head screws are hardness grade 5, except where noted. Socket head screws are similar to grade 8. All replacement hardware should be at least equal to original manufacturer's hardware quality. Refer to Common Hardware Application Guidelines and Common Hardware Identification in the back of the manual.

Hardware References

Many common hardware items will appear in parts catalogs as common hardware entries or hardware references. A common hardware entry refers to the size of common hardware to apply in accordance with hardware guidelines. For example, an item may appear as "3/8-16 hardware" in the text. It indicates that the piece is 3/8-16 size. See Common Hardware Application Guidelines.

A hardware reference has the abbreviation "ref." in the part's description. Hardware references specify common hardware items; however, size or some other characteristic requires specification in that application. For example, item 1 in Figure 1 below might appear in the text as follows:

Screw, 3/8-16 x 1, ref. X-6021-1

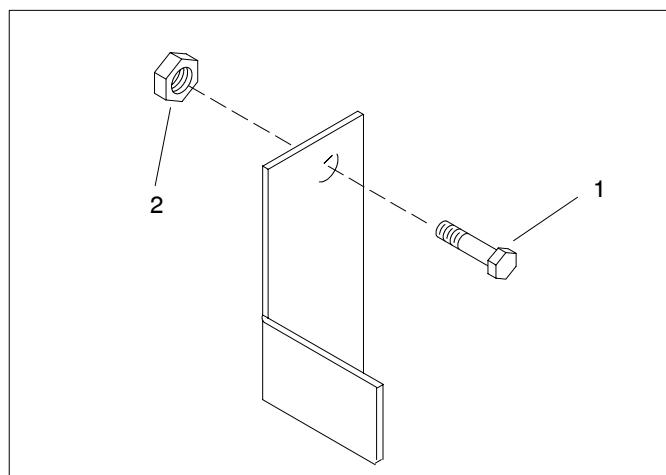


Figure 1. Hardware References

Specification Number Index

Specification Number Index

Specification Number Index

Specification Number Index

Specification Number Index

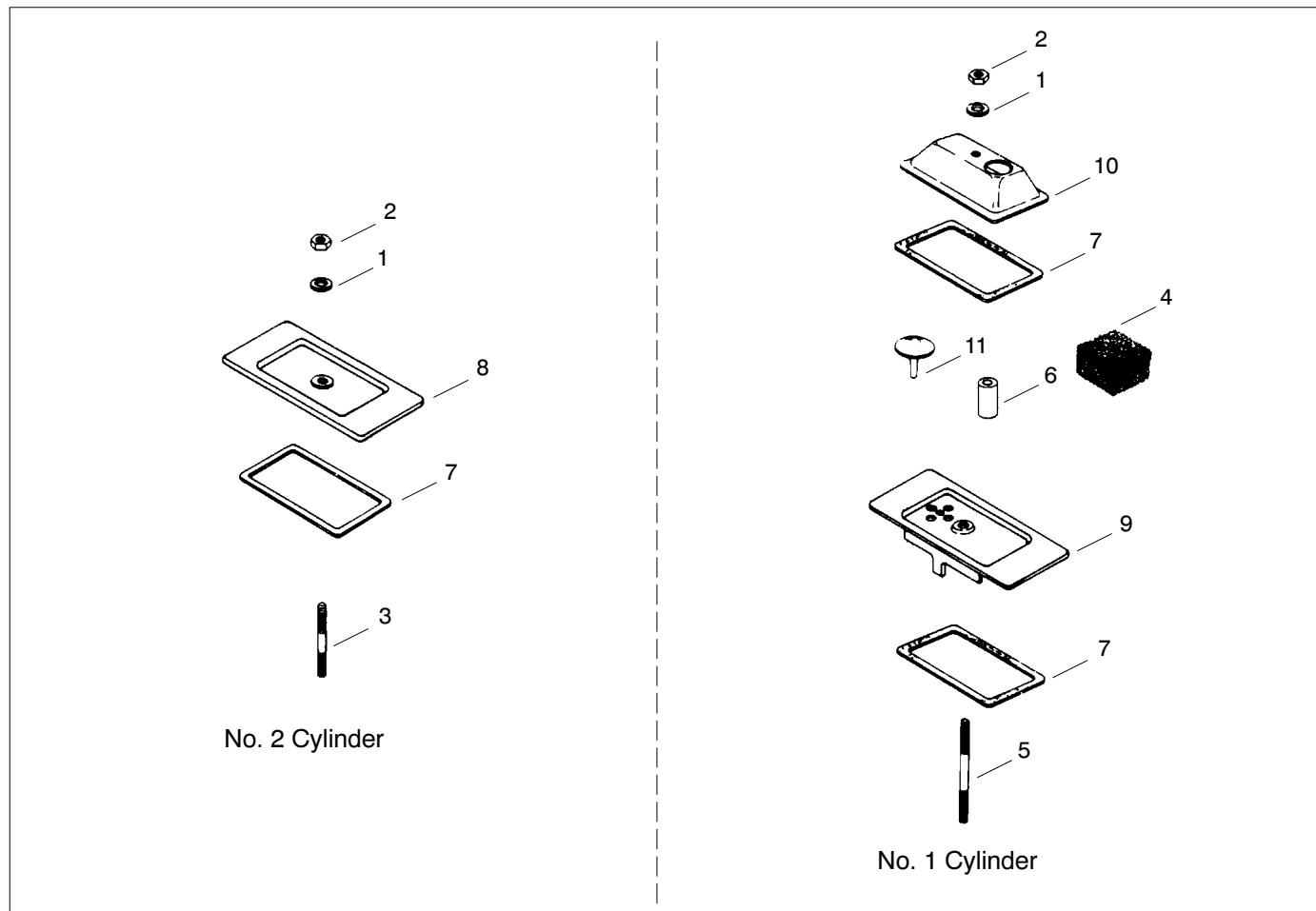
Specification Number Index

Specification Number Index

Specification Number Index

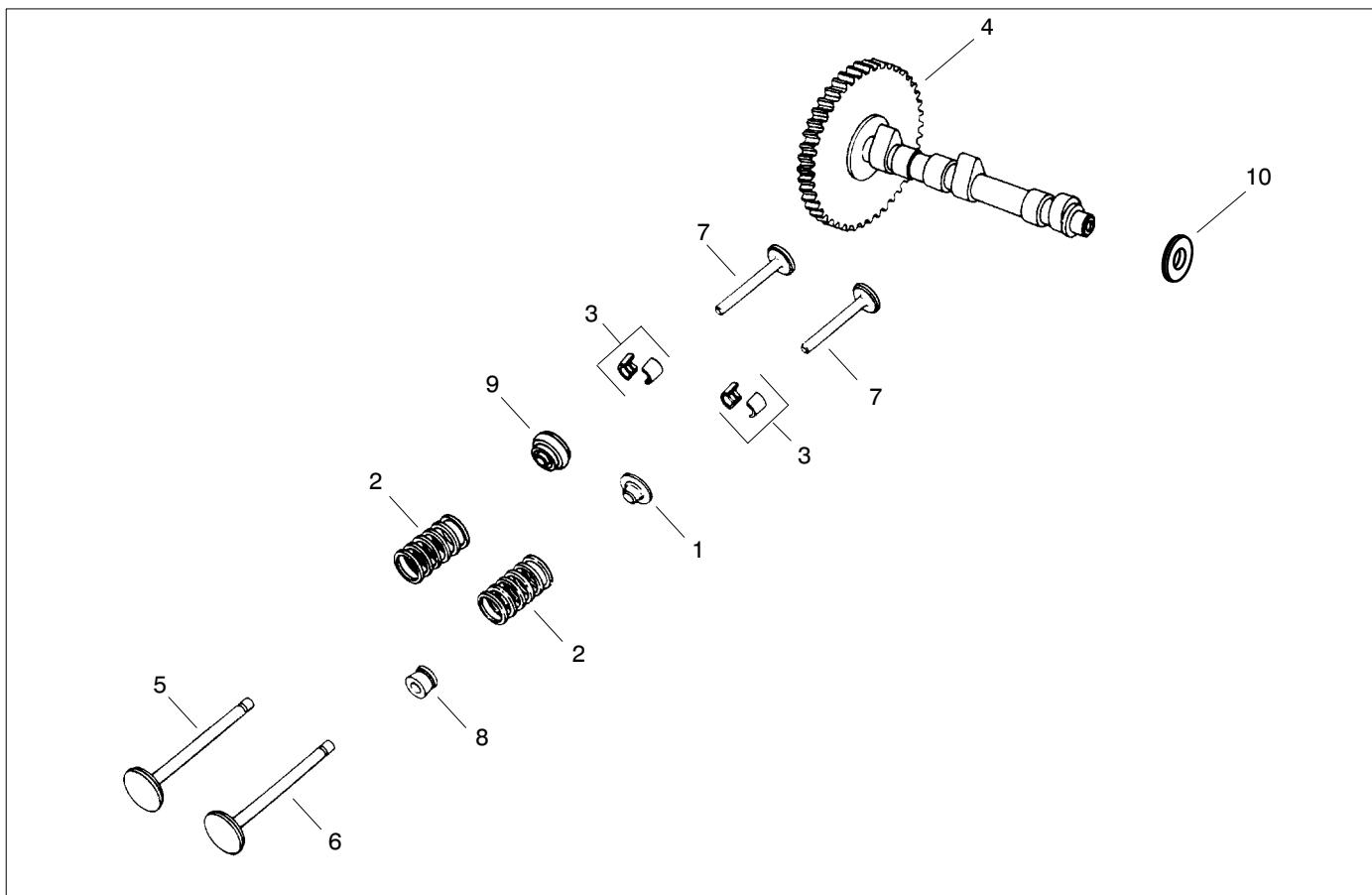
Group 3: Breather and Vent

Description			
Item	Qty.	Variation	Part No.
1	2	Washer, 17/64 x 15/32 x .032 12, 13	X-25-12
2	2	Nut, hex, 1/4-20 12, 13	X-81-1
3	1	Stud 12, 13	X-352-39
4	1	Filter, breather 12, 13	231419
5	1	Stud, valve cover 12, 13	275220
6	1	Seal, breather 12, 13	52 032 04
7	3	Gasket, valve cover 12, 13	52 055 01
8	1	Cover, valve #2 side 12, 13	52 096 40
9	1	Cover, valve #1 side 12, 13	52 096 41
10	1	Cover assembly, valve 12	52 096 43
11	1	Cover assembly, valve 13	52 033 03
12	1	Valve umbrella 12, 13	52 462 01

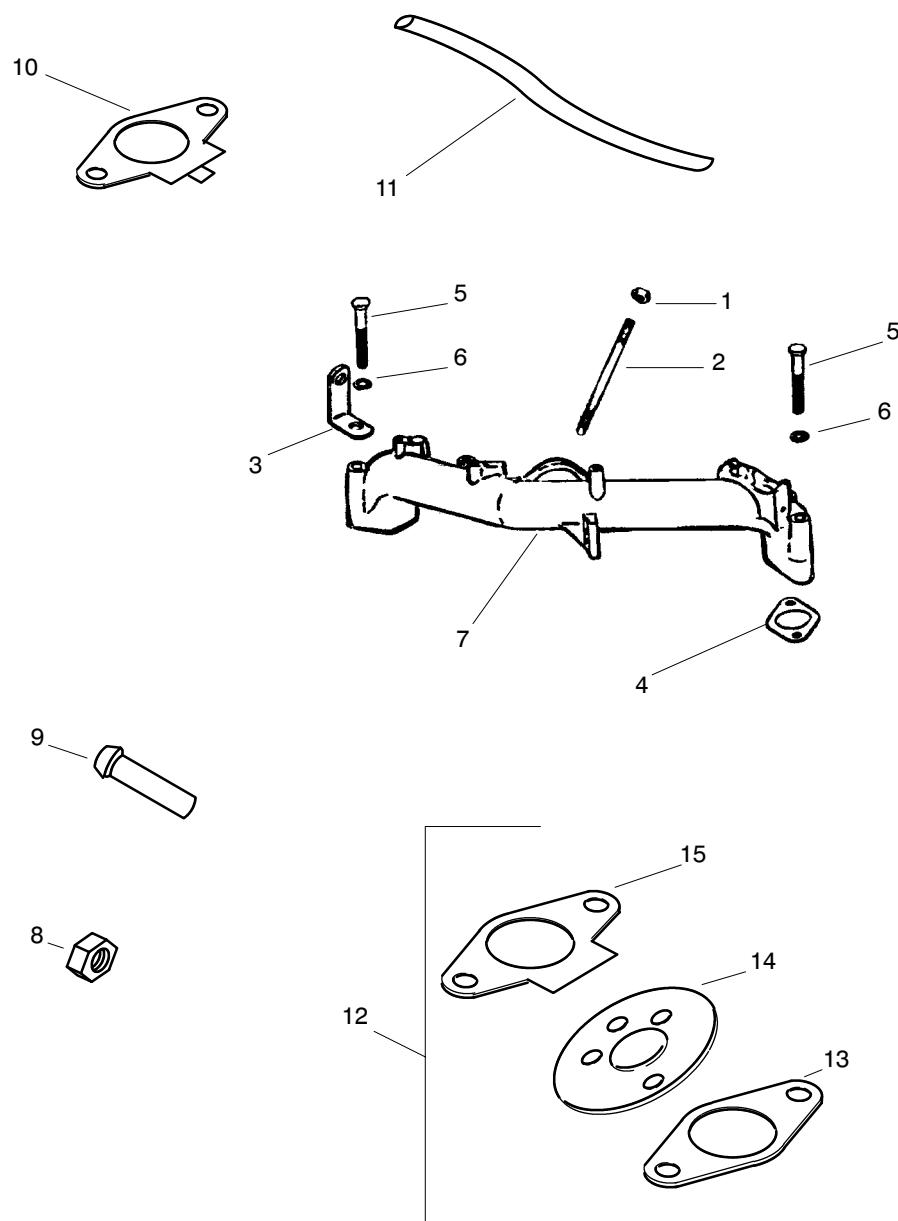


Group 4: Camshaft and Valves

Description Variation				Description Variation			
Item	Qty.		Part No.	Item	Qty.		Part No.
1	2	Retainer, valve spring 33, 34	230011	6	2	Valve, intake 33	52 017 07
2	4	Spring, valve 33, 34	25 089 01		2	Valve, intake 34	52 017 08
3	4	Kit retainer 33, 34	41 755 10	7	4	Tappet, valve 33, 34	52 019 03
4	1	Camshaft assembly 33, 34	52 010 04	8	2	Seal, valve 33, 34	52 032 13
5	2	Valve, faced exhaust 33	52 016 06	9	2	Valve, rotator 33, 34	52 413 01
	2	Valve, faced exhaust 34	52 016 05	10	3	Shim 33, 34	52 422 03



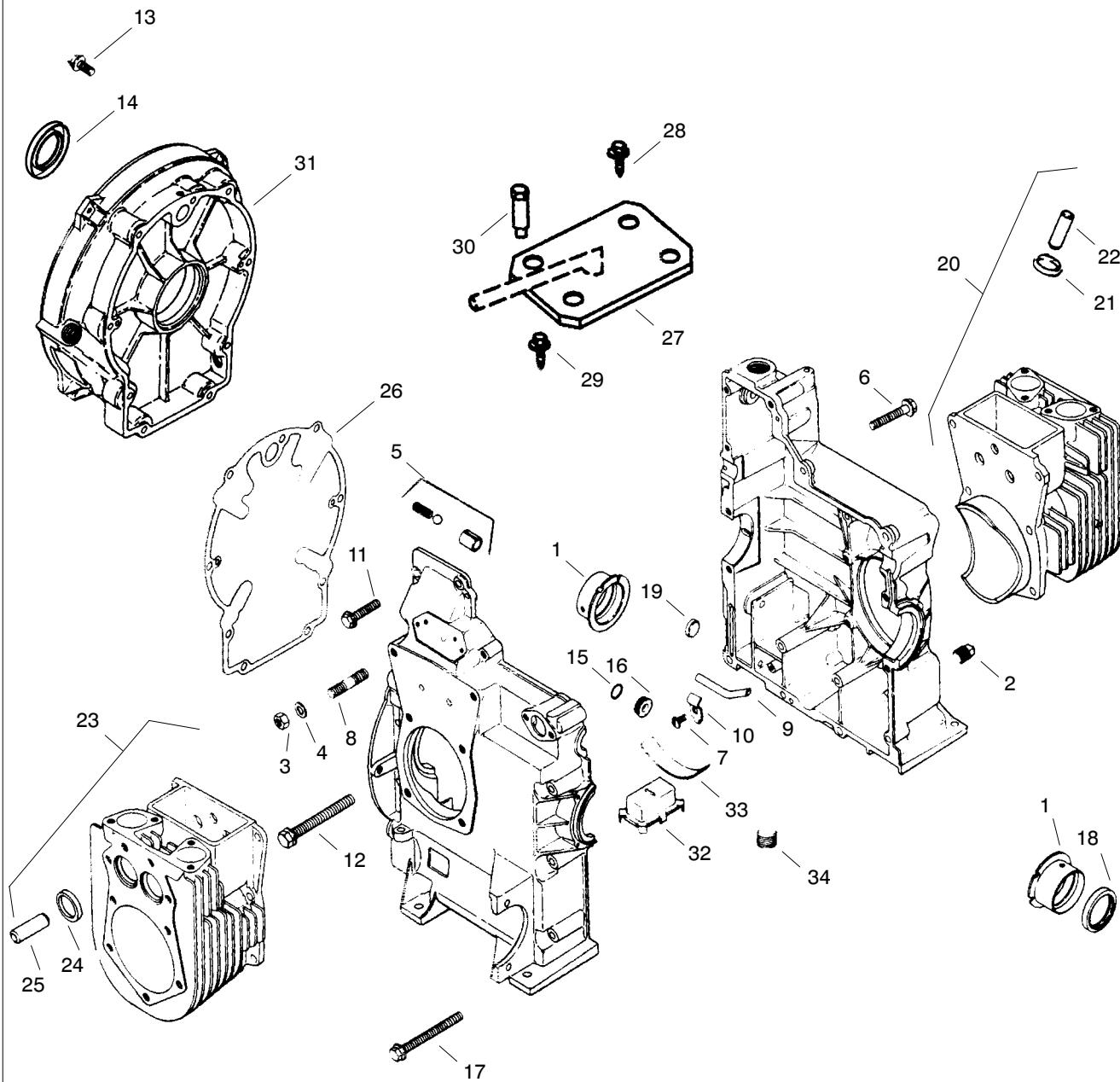
Group 5: Carburetor



Group 5: Carburetor

Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.	
1	2	Nut, 5/16-18 82	X-77-2		1	Connector 92	25 155 02	
2	2	Stud, 1/4-20 x 1 82, 91	50 072 02	10	1	Heater, thermistor 82, 91, 92	52 319 02	
	2	Stud 92	25 072 02		1	Thermostat, low temperature 92	52 453 01	
3	2	Strap, lifting 82, 91, 92	52 445 05	11	1	Line, fuel 82, 91	25 353 06	
4	2	Gasket, intake 82, 91, 92	52 041 09		1	Line, fuel 92	25 353 12	
5	4	Screw, H.C., 5/16-18 x 2 82, 91, 92	X-6-29	12	1	Kit, carburetor (gasoline models only) (includes items 13-15, and carburetor assembly in Group 103) 82, 91, 92	52 853 32	
6	4	Washer, lock, 5/16 82, 91, 92	X-21-1		13	1	Gasket, carburetor 82, 91, 92	210223
7	1	Manifold, intake 82	52 164 20	14	1	Gasket, air cleaner 82, 91, 92	41 041 11	
	1	Manifold intake 91	52 164 21		15	1	Gasket, thermistor 82, 91, 92	52 041 22
	1	Manifold, intake 92	52 164 22					
8	2	Nut, 1/4-20 82, 91, 92	X-76-2					
9	1	Hose fitting 82, 91	X-380-1					
							NOTE: See Group 103 for carburetor component parts and LP gas PTC assembly and gasket.	

Group 7: Crankcase



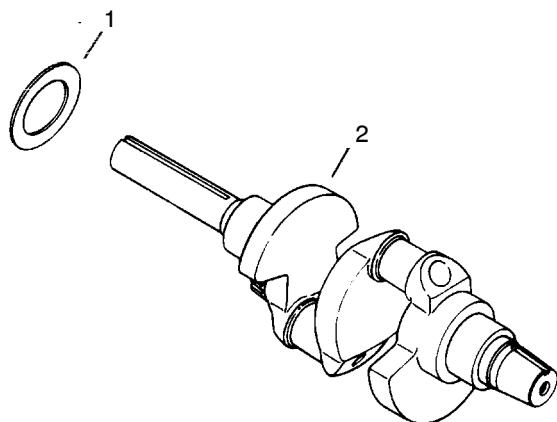
Group 7: Crankcase

Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.
1	2	Bearing, sleeve (std.) 198, 204, 205, 211, 214, 215	52 030 10			(includes items 21-22) 198, 205, 215	
	2	Bearing, sleeve (.010) 198, 204, 205, 211, 214, 215	52 030 11	1		Kit, Barrel, #1 cylinder (includes items 21-22)	52 565 83
	2	Bearing, sleeve (0.20) 198, 204, 205, 211, 214, 215	52 030 12			204, 211, 214	
2	1	Plug, pipe, 3/8 198, 204, 205	X-75-10	21	1	Insert, valve seat 198, 204, 205, 211	52 031 01
3	12	Nut, hex, 5/16-18 198, 204, 205, 211, 214, 215	X-82-2	22	2	Guide, valve 198, 204, 205, 211, 214, 215	52 316 06
4	12	Washer, flat, 5/16 198, 204, 205, 211, 214, 215	52 468 12	23	1	Kit, Barrel, #2 cylinder (includes items 24-25)	52 565 82
					1	198, 205, 215	
5	2	Kit, oil relief 198, 204, 205, 211, 214, 215	52 755 50		1	Kit, Barrel, #2 cylinder (includes items 24-25)	52 565 84
					1	204, 211, 214	
6	2	Screw, hex flange, 5/16-18 x 2 198, 204, 205	25 086 12	24	1	Insert, valve seat 198, 204, 205, 211	52 031 01
7	1	Screw, self-tapping 198, 204, 205, 211	X-67-64	25	2	Guide, valve 198, 204, 205, 211, 214, 215	52 316 06
8	12	Studs 198, 204, 205, 211	52 072 12	26	1	Gasket, closure plate 198, 204, 205, 211, 214, 215	52 041 15
9	1	Tube, dipstick 198, 204, 205, 211	52 123 10	27	1	Cover, crankcase 198, 215	52 096 44
					1	Cover, crankcase 204, 205, 211, 214	52 096 39
10	1	Clamp, tube 198, 204, 205, 211	52 237 05	28	2	Screw, hex head 1/4-20 x 5/8	52 086 11
						198, 204, 205, 211, 215	
11	3	Screw, hex flange, 5/16-18 x 1-1/2 198, 204, 205	25 086 10	29	1	Screw, hex head 1/4-20 198, 204, 205, 211, 215	X-67-96
12	2	Screw, hex flange, 3/8-16 x 3-5/8 198, 204, 205	25 086 13	30	1	Spacer 198, 204, 205, 214, 215	52 112 15
13	9	Screw, W.H., 5/16-18 x 1 198, 204, 205, 211, 214, 215	X-802-9	31	1	Adapter, generator 198, 204, 205	52 029 20
14	1	Seal, rear oil 198, 204, 205, 211, 214, 215	X-583-5		1	Adapter, generator 211, 214, 215	52 029 22
15	1	O-Ring 198, 204, 205, 211, 214, 215	52 141 02	32	1	Housing, oil pickup 198, 204, 205	52 095 03
16	1	Plug 198, 204, 205, 211, 214, 215	52 139 08	33	1	Clip, spring 198, 204, 205	52 237 02
17	8	Screw, hex flange, 5/16-18 x 3-1/2 198, 204, 205	25 086 11	34	1	Screw, hex ctsl., 3/8 N.P.T.F. 204, 205, 211, 214	X-75-32
18	1	Seal, front oil 198, 204, 205, 211, 214, 215	52 032 10	35	1	Crankcase Assembly (service with short block)	
19	1	Cup, plug 198, 204, 205, 211, 214, 215	X-702-15		1	Short Block 87, 204, 214	82 522 38
20	1	Kit, Barrel, #1 cylinder	52 565 81		1	Short Block 198, 215	82 522 39

Group 8: Crankshaft

Item	Qty.	Description	Variation	Part No.
1	1	Thrust washer	87, 135	52 468 03
	1	Thrust washer	87, 135	52 468 04
1	1	Thrust washer	87, 135	52 468 05

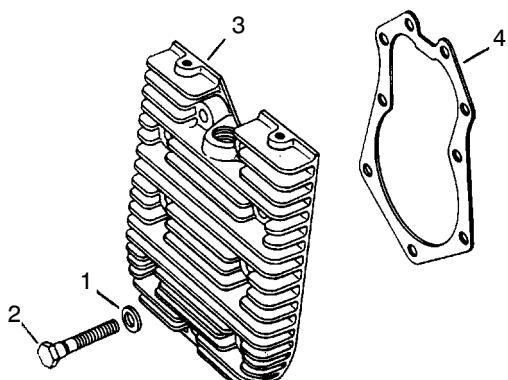
Item	Qty.	Description	Variation	Part No.
2	1	Crankshaft	87	82 014 10
	1	Crankshaft	M20 135	82 014 11



Group 9: Cylinder Head

Item	Qty.	Description	Variation	Part No.
1	18	Washer, 5/16 I.D.	31	220534
2	18	Screw, hex head	5/16-18 x 1 1/2 31	41 086 02

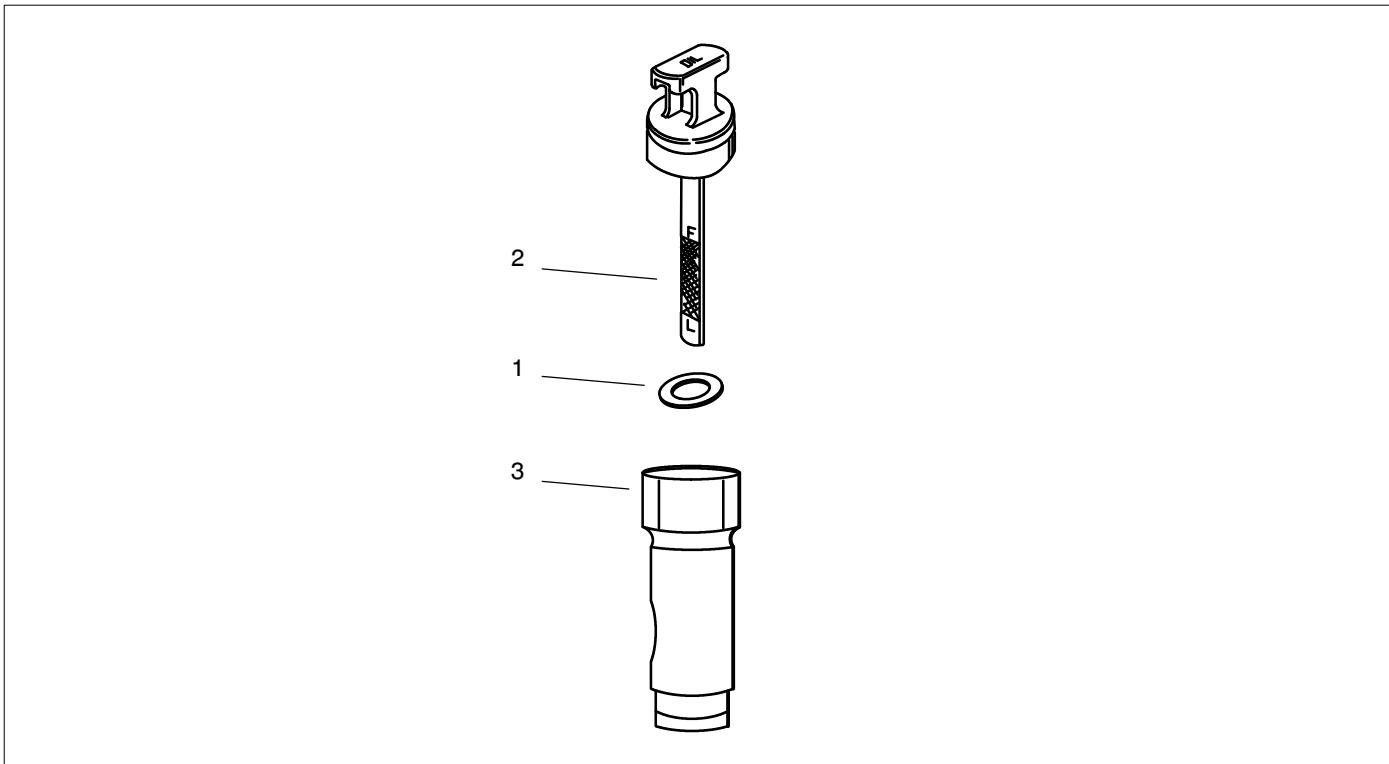
Item	Qty.	Description	Variation	Part No.
3	2	Head, cylinder	31	52 015 12
4	2	Gasket	31	52 041 21



Group 10: Dipstick

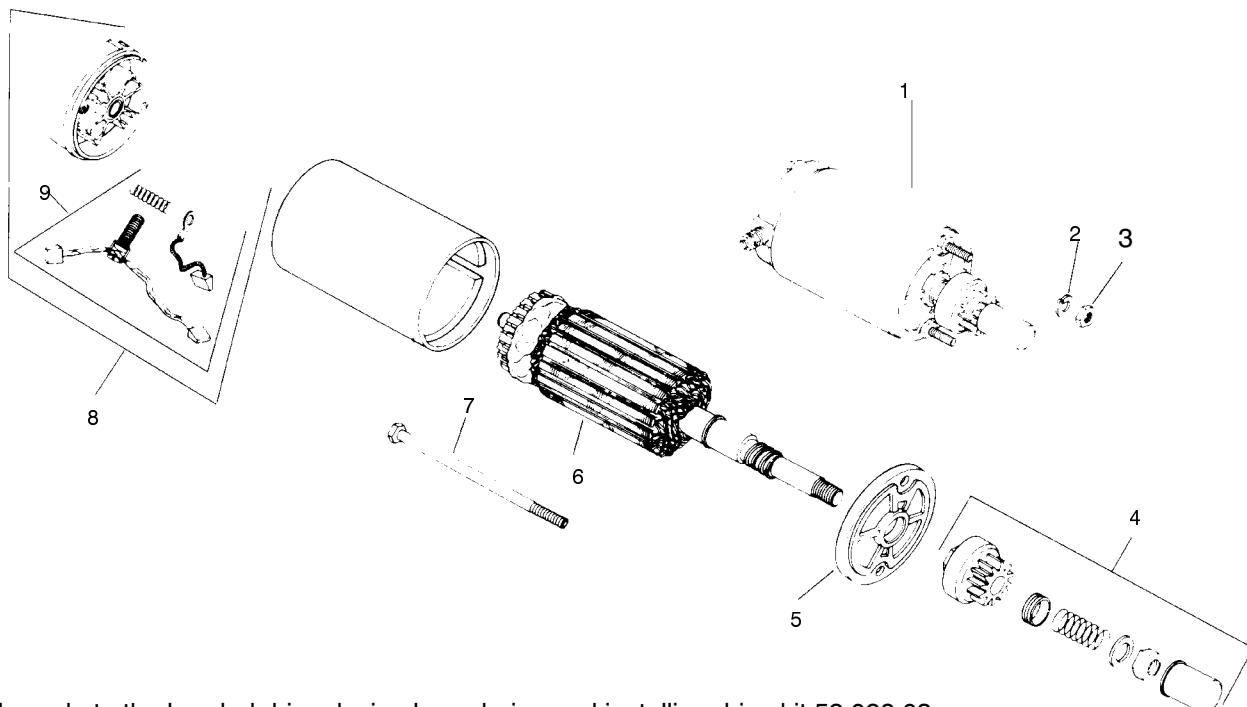
Item	Qty.	Description	Variation	Part No.
1	1	O-Ring		41 153 01
		25		
2	1	Dipstick		52 038 20
		25		

Item	Qty.	Description	Variation	Part No.
3	1	Tube, oil fill		52 123 26
		25		



Group 11: Starter

Item	Qty.	Description	Variation	Part No.	Item	Qty.	Description	Variation	Part No.
1	1	Starter assembly (older inertia drive) (Includes 4 through 10)	1, 9	52 098 03	6	1	Armature (older inertia drive)	1	52 170 02
1	1	Starter assembly (newer bonded drive) (includes 4 through 10)	1, 9	52 098 12	6	1	Armature (newer bonded drive)	1	52 170 05
2	2	Washer, split lock 1/4"	1	X-20-1	7	2	Bolt, thru 1/4-20X5-7/8"	1	52 211 01
3	2	Nut, hex 1/4"-20	1	x-81-1	8	1	Cap, commutator end assembly (includes 9) older inertia drive	1	277612
4	1	Kit drive (older inertia drive)	1	52 755 05	8	1	Cap, commutator end assembly (includes 9) newer bonded drive	1	52 227 10
4	1	Kit drive (newer bonded drive)	1	52 755 26	9	1	Kit, brush & spring (older inertia drive)	1	52 755 15
5	1	Cap drive end (older inertia drive)	1	52 227 01	9	1	Kit brush and spring (newer bonded drive)	1	52 755 28
5	1	Cap drive end (newer bonded drive)	1	52 081 07					

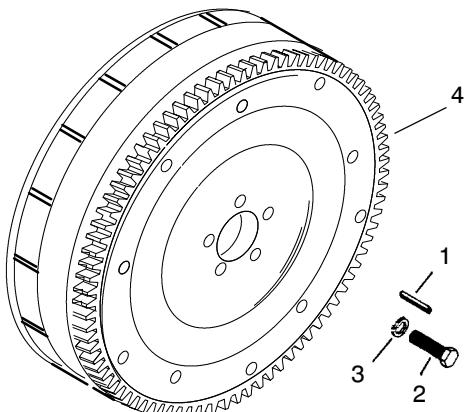


Upgrade to the bonded drive design by ordering and installing drive kit 52 098 03.

Kit includes 52 081 07 and 82 755 26

Group 13: Flywheel

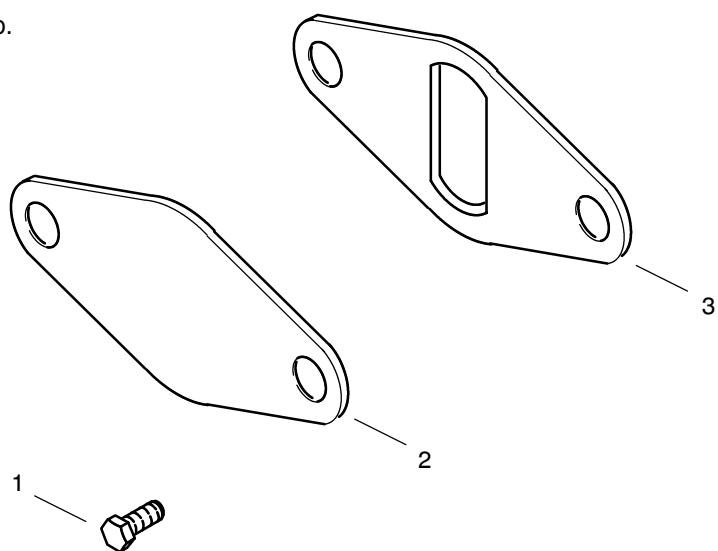
Item	Qty.	Description	Variation	Part No.
1	1	Key, square, 7/8 x .18	81, 87	X-286-17
2	1	Screw	81, 87	25 086 24
3	1	Washer	81, 87	52 468 15
4	1	Flywheel	81, 87	278704



Group 14: Fuel Pump

Item	Qty.	Description	Variation	Part No.
1	2	Screw, hex head, 1/4-20 x 1/2	2	X-132-6
2	1	Plate, pump pad cover	2	240282
3	1	Gasket, fuel pump	2	25 041 05

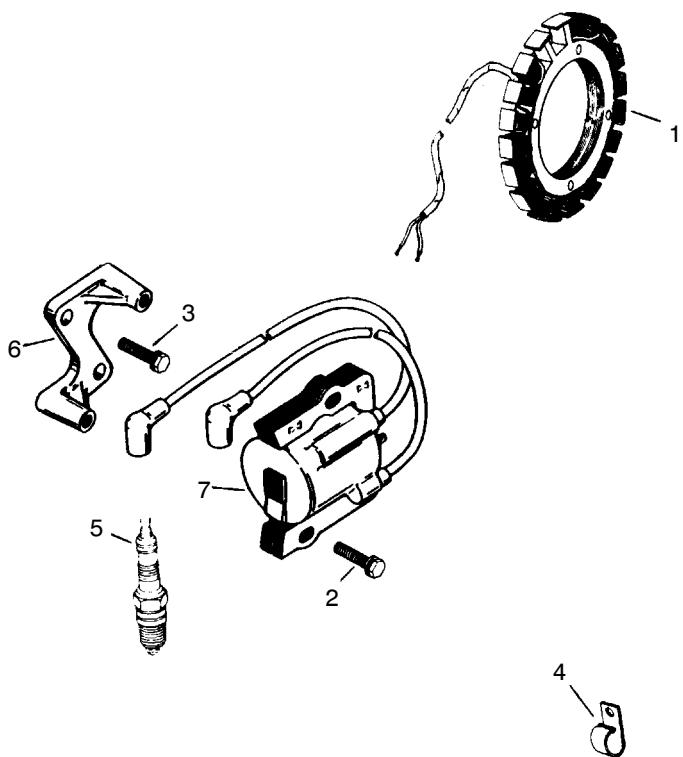
See Group 103 for pump.



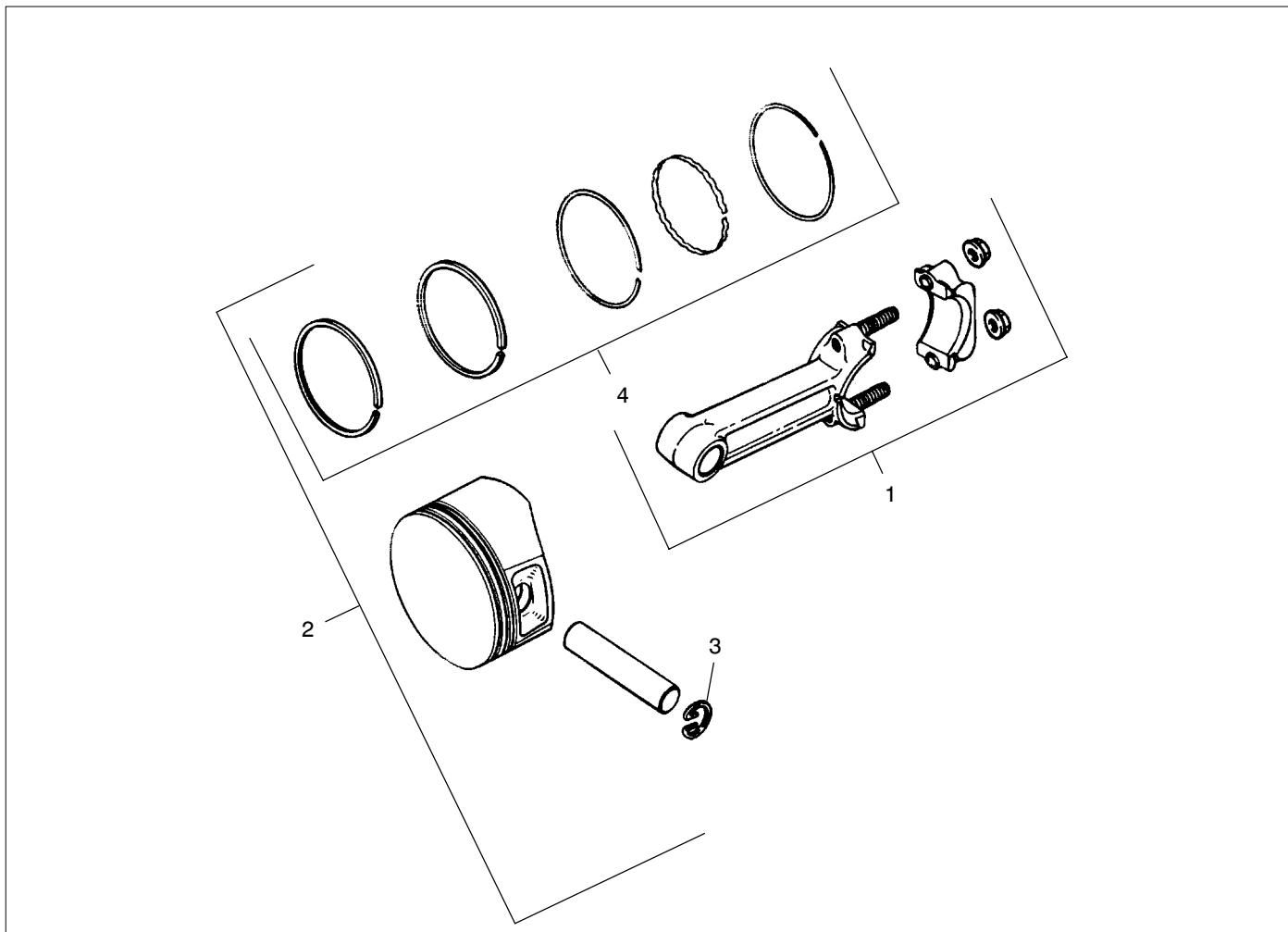
Group 18: Ignition

Item	Qty.	Description Variation	Part No.
1	1	Kit, stator 83, 136	237878
2	2	Screw, hex hd, 1/4-20 x 1 83, 136	25 086 15
3	2	Screw, hex hd, 1/4-20 x 1 83, 136	25 086 16
4	1	Clip, cable 83, 136	48 154 02

Item	Qty.	Description Variation	Part No.
5	2	Plug, spark (RV17YC) 83, 136	52 132 02
6	1	Bracket, module 83, 136	52 126 21
7	1	Module, ignition 83, 136	52 584 02
	1	Baffle, coil 136	52 063 43



Group 22: Piston and Rod

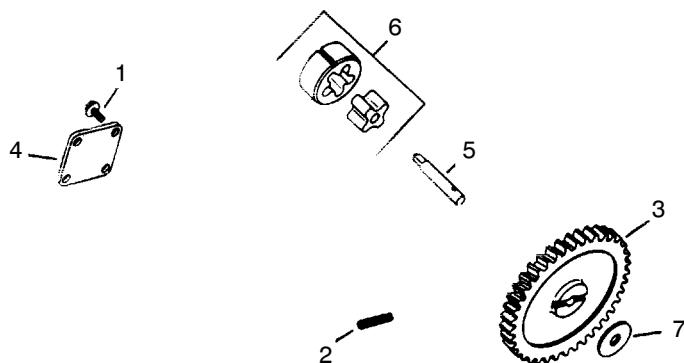


Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.
Model M18 (4kW)							
1	2	Connecting rod (Std.) 14	52 067 67	1	2	Connecting rod (Std.) 15	52 067 71
	2	Connecting rod (.010)	52 067 68		2	Connecting rod (.010)	52 067 72
Model M20 (5kW)							
2	2	Piston w/ring set (Std.) 14	52 874 11	2	2	Piston w/ring set (Std.) 15	52 874 16
	2	Piston w/ring set (.003)	52 874 12		2	Piston w/ring set (.003)	52 874 17
	2	Piston w/ring set (.010)	52 874 13		2	Piston w/ring set (.010)	52 874 18
	2	Piston w/ring set (.020)	52 874 14		2	Piston w/ring set (.020)	52 874 19
	2	Piston w/ring set (.030)	52 874 15		2	Piston w/ring set (.030)	52 874 20
3	4	Retainer, piston pin 14	230004	3	4	Retainer, piston pin 15	52 141 01
4	2	Ring set (Std. and .003) 14	52 108 09	4	2	Ring set (Std. and .003) 15	52 108 09
	2	Ring set (.010)	52 108 10		2	Ring set (.010)	52 108 10
	2	Ring set (.020)	52 108 11		2	Ring set (.020)	52 108 11
	2	Ring set (.030)	52 108 12		2	Ring set (.030)	52 108 12

Group 25: Oil Pump

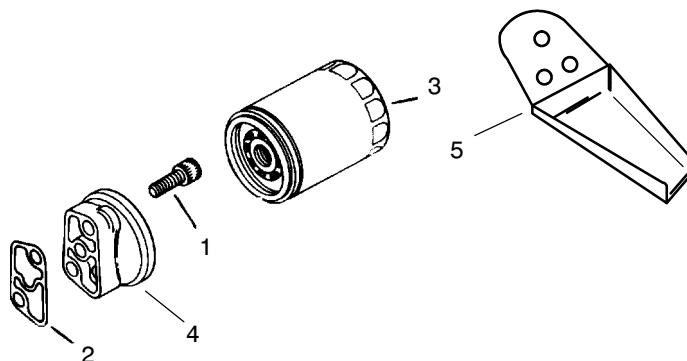
Item	Qty.	Description Variation	Part No.
1	4	Screw, self-tapping 4	X-67-64
2	1	Roll pin 4	X-280-25
3	1	Gear, oil pump drive 4	52 043 05
4	1	Cover 4	52 096 03

Item	Qty.	Description Variation	Part No.
5	1	Shaft, oil pump 4	52 144 05
6	1	Oil pump assembly 4	52 393 09
7	1	Shim, spacer 4	52 422 01



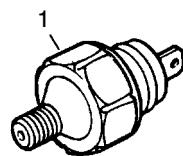
Group 29: Oil Filter

Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.
1	2	Screw, socket head cap, 5/16-18 x 1-1 18	X-55-15	3	1	Filter, oil 18	52 050 02
2	2	Gasket 18	52 041 19	4	1	Adapter casting 18	52 181 03
				5	1	Trough, oil catch 18	52 459 01

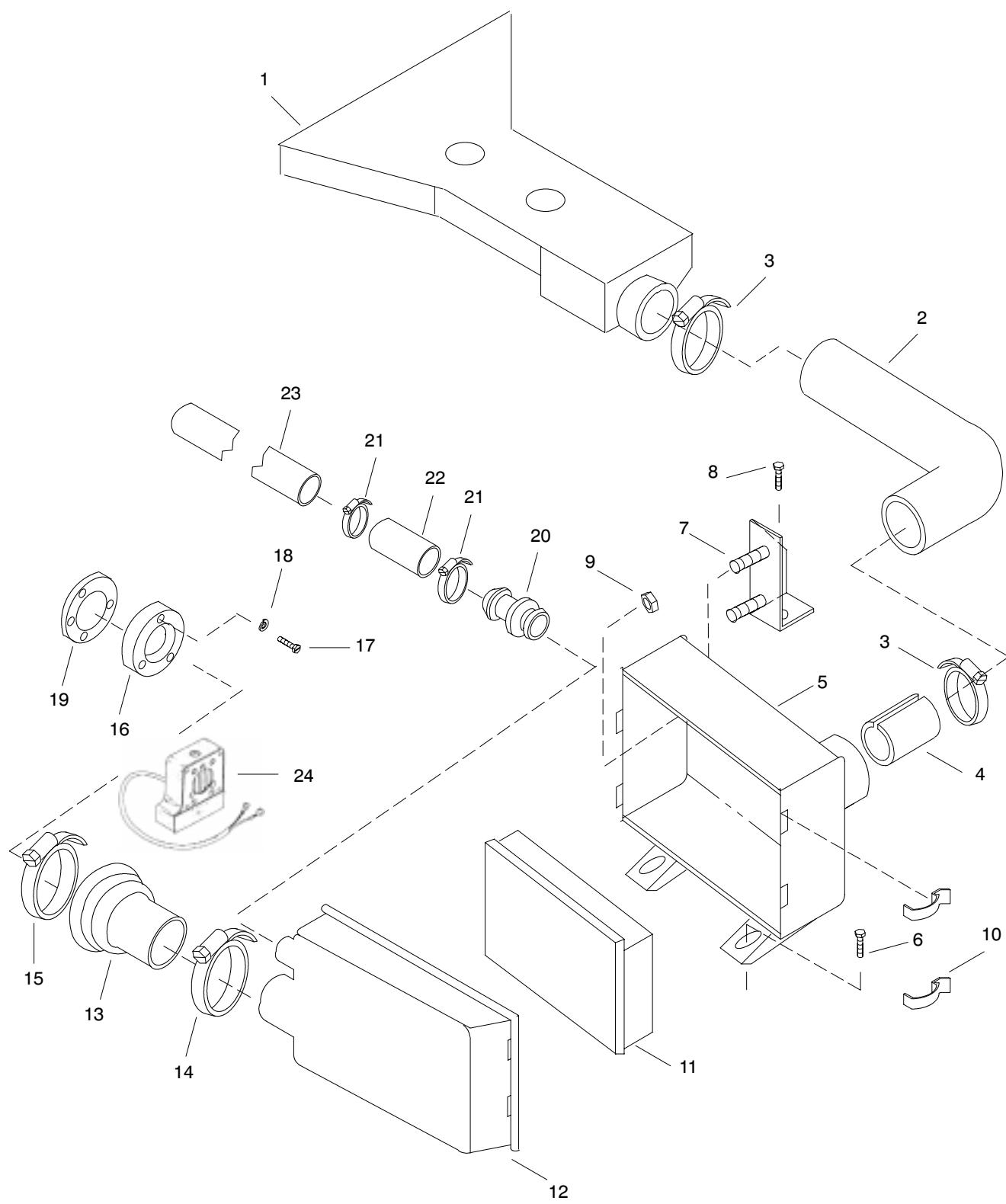


Group 32: Low Oil Pressure Switch

Item	Qty.	Description Variation	Part No.
1	1	Oil pressure switch 13	52 099 06



Group 101: Air Intake

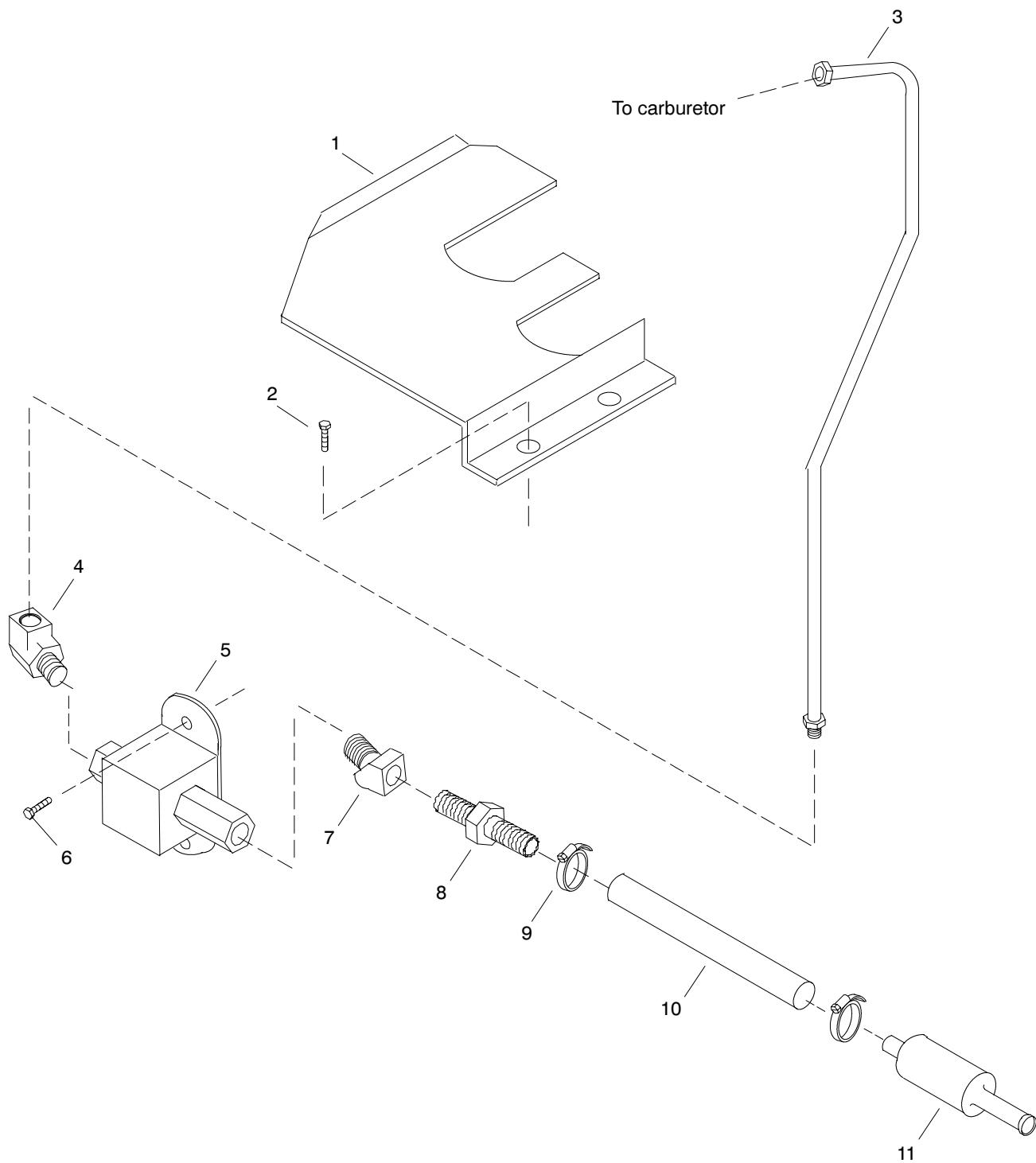


101-97-16
EK-277000

Group 101: Air Intake

Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.
1	1	Duct, air cleaner 15, 16	227552	13	1	Hose, pleated 12, 14, 15, 16, 19, 20	278609
2	1	Duct, carburetor preheater 15, 16	227550		1	Hose, air cleaner 21	227653
3	2	Clamp, hose 15, 16	X-426-19		4	Screw, tapping, 8-32 x 3/8 21	X-67-59
4	1	Adapter, hose 15, 16	227545	14	1	Clamp, hose 12, 14, 15, 16, 19, 20	X-426-20
5	1	Base, air cleaner 15, 16	227542	15	1	Clamp, hose 12, 14, 15, 16, 19, 20, 21	X-426-19
	1	Base, air cleaner, plastic 12, 14, 19, 20, 21	246495	16	1	Adapter, carburetor 12, 14, 15, 16	278608
	1	Damper, air cleaner (not shown) 15, 16	227544	17	4	Screw, r.h.m., 8-32 x 5/8 15, 16	X-51-9
	1	Washer, curved spring (not shown) 15, 16	278447	18	3	Washer, #8 15, 16	
	1	Screw, r.h.m., 8-32 x 5/8 (not shown) 15, 16	X-51-9	19	1	Gasket 15, 16	278583
	1	Nut, elastic stop, 8-32 (not shown) 15, 16	X-101-11	20	1	Adapter, nylon hose 12, 14, 15, 16, 19, 20	278805
6	2	Screw, self-tapping 12, 14, 15, 16, 19-21	X-67-115	21	2	Clamp, hose 15, 16	X-426-10
7	1	Bracket, air cleaner 14, 16, 19, 20, 21	278950		1	Clamp, hose 12, 14, 19, 20	X-426-10
	1	Bracket, air cleaner 12, 15	278783	22	1	Line, breather 19, 20	227573
	2	Screw, r.h.m., 10-32 x 1/2 (not shown) 12, 15, 19-21	X-50-1		1	Hose, fuel line (not shown) 12, 14, 15, 16, 19, 20	X-422-28
8	1	Screw, self-tapping 12, 14, 15, 16, 19-21	X-67-115	23	1	Insulation, sleeve 12, 14, 15, 16, 19-21	227574
9	2	Nut, #10-32 12, 14, 15, 16		24	1	Thermostat, high limit 21	227660
10	4	Clip, air cleaner 12, 14, 15, 16, 19-21	278862		3	Screw, socket hd cap 21	X-55-32
11	1	Element, filter 12, 14, 15, 16, 19-21	278612				
12	1	Cover, plastic 12, 14, 15, 16, 19, 20	227463	Note: Order air cleaner kit 227523 for older units with problem base and cover.			
	1	Cover, plastic 21	278856				

Group 103: Fuel System (Gasoline)

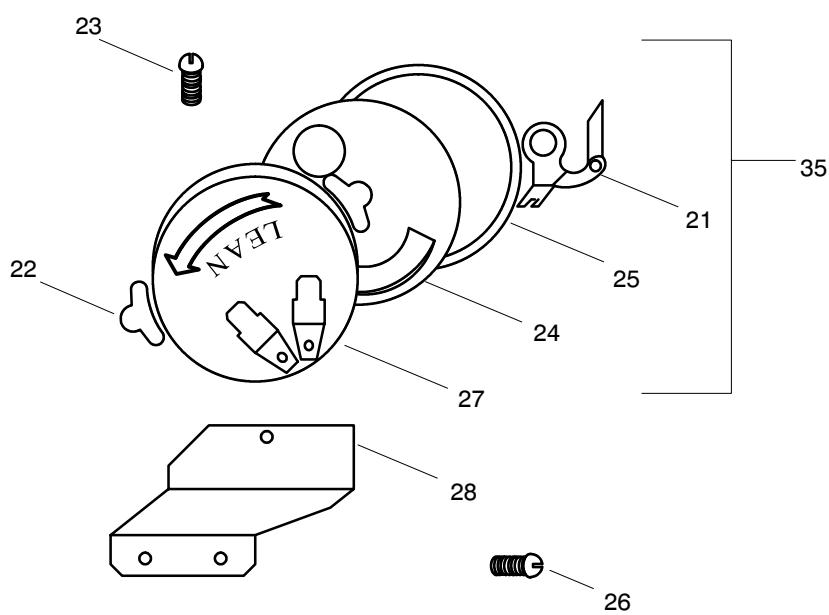
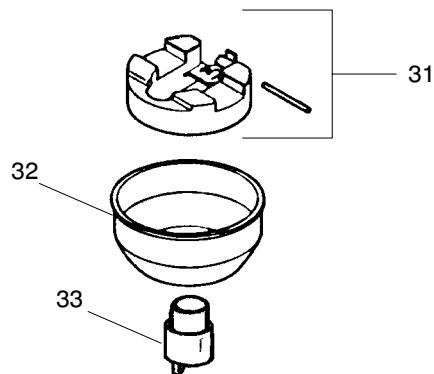
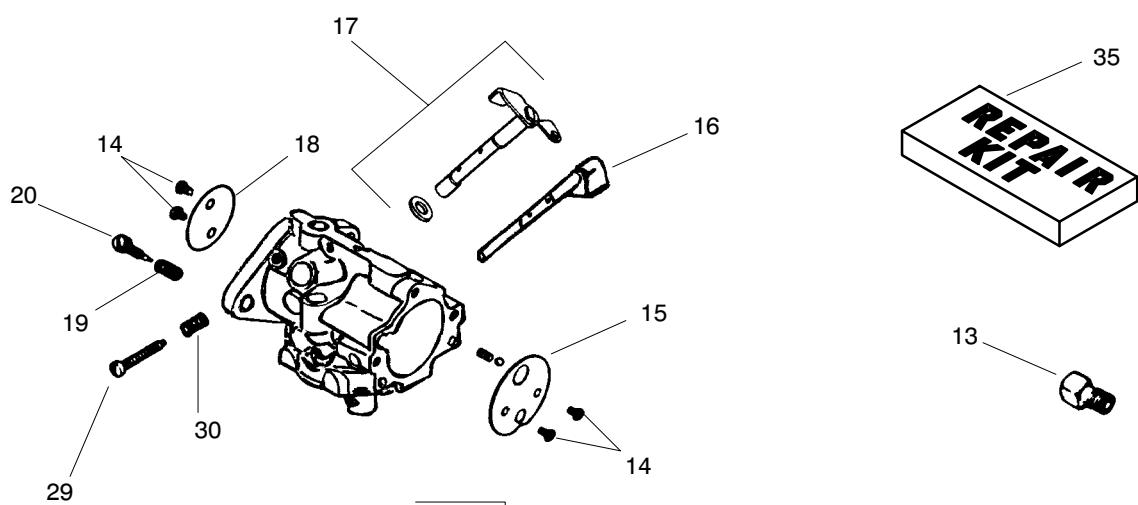


103-97-11
DY-277000

Group 103: Fuel System (Gasoline)

Description Variation				Description Variation			
Item	Qty.		Part No.	Item	Qty.		Part No.
1	1	Tray, drip 11, 20, 21, 25	227813	8	1	Connector, hose, 1/8 x 1/4 11, 21	X-380-1
2	2	Screw, Phillips head 11, 20	X-6216-1		1	Connector, hose, 1/8 x 1/4 20, 25	X-380-5
	4	Screw, Phillips head 20, 21, 25	X-6216-1	9	1	Clamp, hose 11, 20	X-426-9
3	1	Line, fuel 11, 20	278719		1	Clamp, spring hose, 9/16" 11, 20	X-309-16
	1	Line, fuel 21, 25	227752		2	Clamp, spring hose 21, 25	X-426-9
4	1	Elbow, 45° 11, 20, 21, 25	278770	10	1	Line, flex fuel, 1/4 x 9" 11, 21	X-386-14
					1	Line, flex fuel, 1/4 x 9" 20, 25	X-386-83
5	1	Pump assembly, fuel 11, 20, 21, 25	249862		1	Clip, wire, 5/16 (not shown) 11, 20, 21, 25	X-339-3
6	2	Screw, self-tapping 11, 20, 21, 25	X-67-115	11	1	Filter, fuel 11, 21	228269
7	1	Elbow, 45° street 11, 20, 21	267428		1	Filter, fuel 20, 25	227647

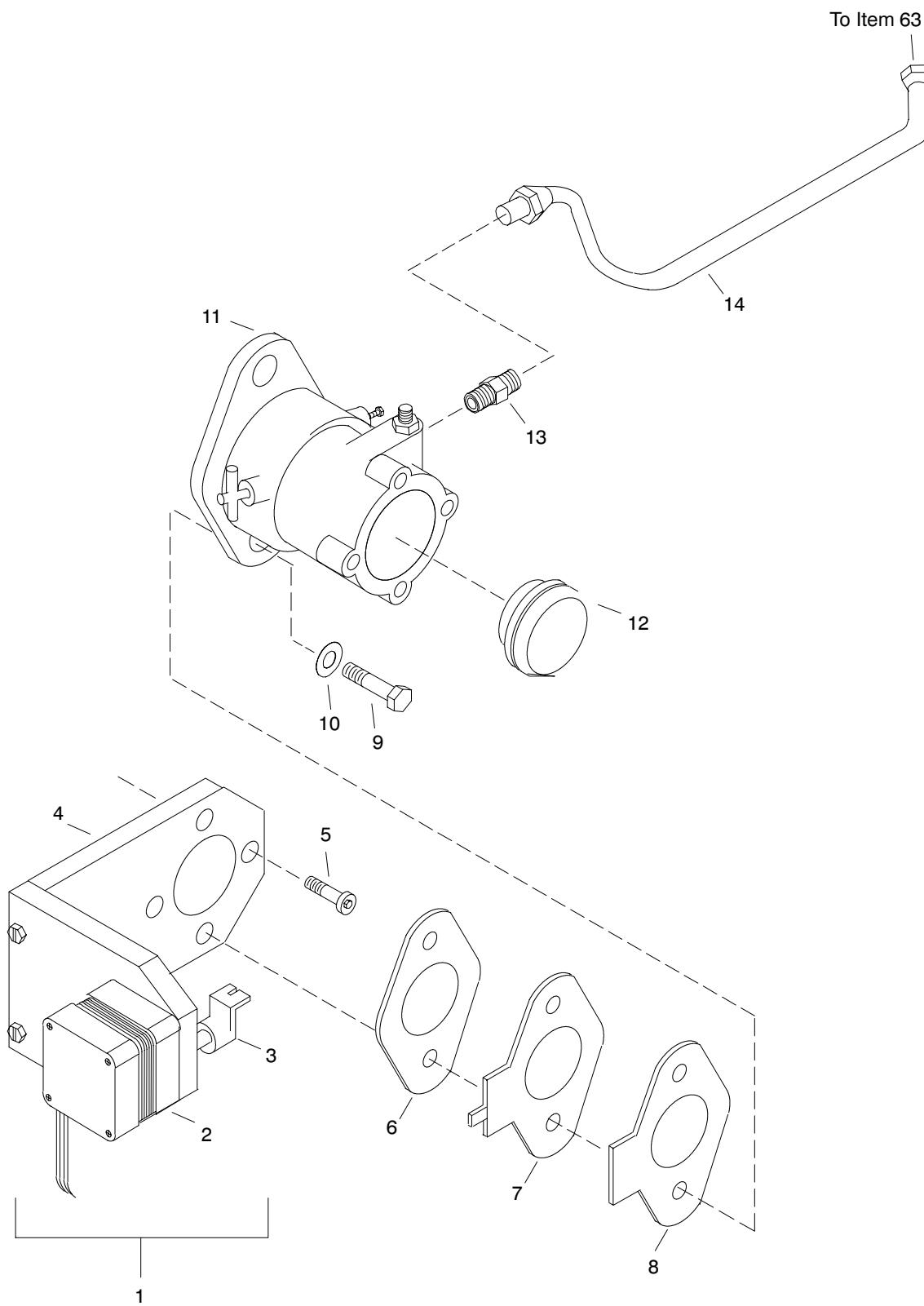
Group 103: Fuel System (Gasoline)



Group 103: Fuel System (Gasoline)

Description Variation				Description Variation			
Item	Qty.		Part No.	Item	Qty.		Part No.
12	1	Carburetor assembly (For information only not available separately) Includes items 13-35 11, 20, 21, 25	52 053 69	24	1	Plate, baffle 11, 20, 21, 25	277297
13	1	Elbow 11, 20, 21, 25	52 054 45	25	1	Gasket, choke 11, 20, 21, 25	277281
14	4	Screw, throttle and choke plate 11, 20, 21, 25	25 086 27	26	2	Screw, flat head, #10 11, 20, 21, 25	52 086 18
15	1	Plate, choke 11, 20, 21, 25	52 146 10	27	1	Choke, heater 11, 20, 21, 25	52 175 03
16	1	Shaft, choke assembly 11, 20, 21, 25	52 144 20	28	1	Bracket 11, 20, 21, 25	52 126 20
17	1	Shaft, w/lever and seal 11, 20, 21, 25	52 144 22	29	1	Needle, main fuel 11, 20, 21, 25	52 368 03
18	1	Plate, throttle 11, 20, 21, 25	25 146 05	30	1	Spring, main fuel 11, 20, 21, 25	25 089 02
19	1	Spring, idle fuel 11, 20, 21, 25	25 089 02	31	1	Kit, float 11, 20, 21, 25	25 757 09
20	1	Needle, idle fuel adj. 11, 20, 21, 25	25 368 02	32	1	Bowl, fuel 11, 20, 21, 25	25 104 01
21	1	Lever, choke assembly 11, 20, 21, 25	277272	33	1	Solenoid assembly 11, 20, 21, 25	227819
22	2	Retainer, choke heater 11, 20, 21, 25	277275	34	1	Kit, carburetor repair 11, 20, 21, 25	52 757 04
23	2	Screw, f.h.m., 8/32 x 1/4 11, 20, 21, 25	X-14-6	35	1	Kit, choke repair (includes items 21-25 and choke housing) 11, 20, 21, 25	277469

Group 103: Fuel System (LP)

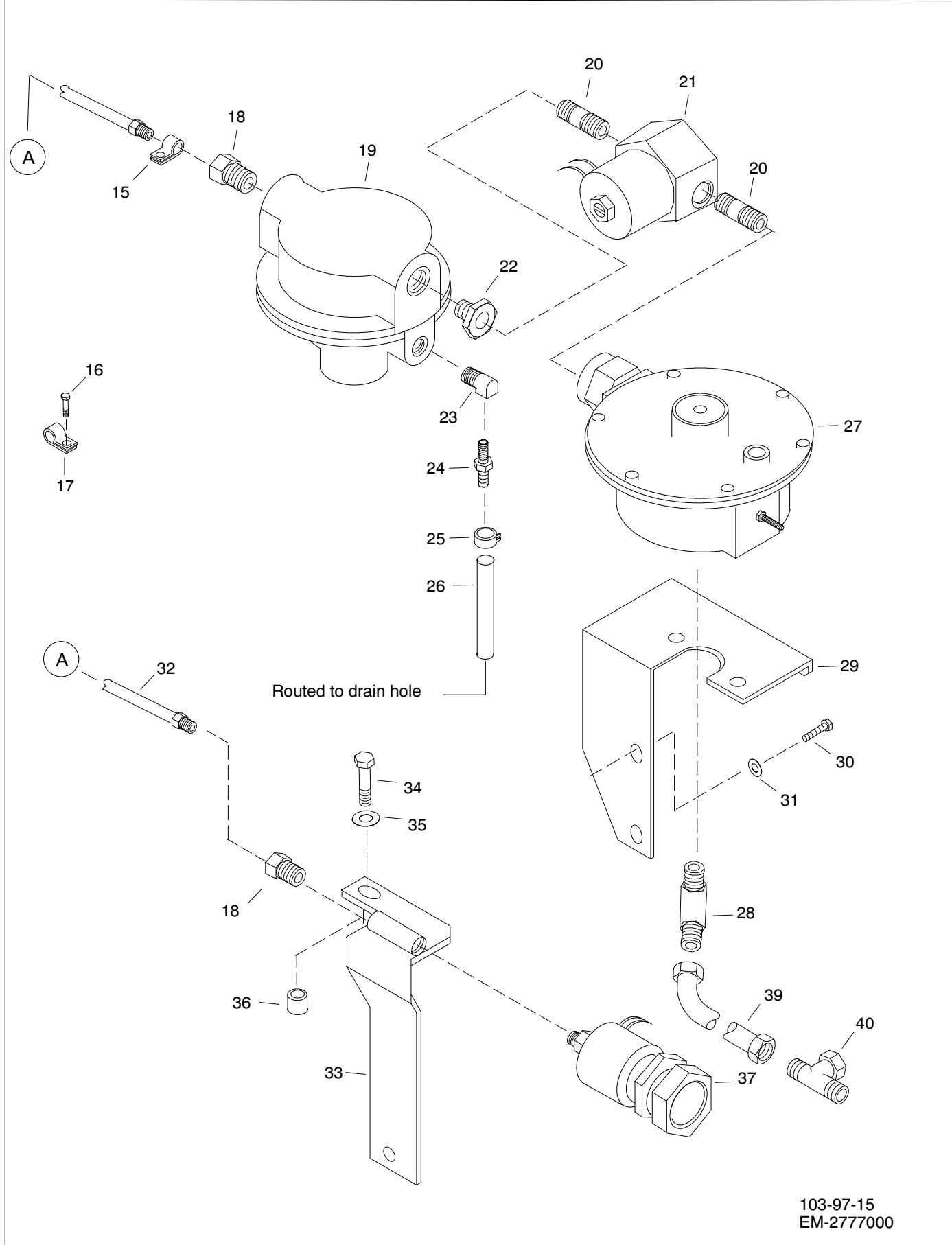


103-97-15
EM-277000

Group 103: Fuel System (LP)

Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.
1	1	Actuator rotary assembly (includes items 2-4) 13-15, 19, 22, 23, 24, 26-28	A-278426	9	2	Screw, 5/16-18 x 1, ref. 13-15, 19, 22, 23, 24, 26-28	X-125-5
2	1	Actuator 13-15, 19, 22, 23, 24, 26-28	278672	10	2	Washer, 5/16 15, 19, 22, 23, 24, 26-28	
3	1	Coupling, governor 13-15, 19, 22, 23, 24, 26-28	278671	11	1	Carburetor assembly 13, 14, 22, 27	A-278955
				1	1	Carburetor assembly 15, 19, 23, 24, 26, 28	A-278414
4	1	Bracket, carburetor 13-15, 19, 22, 24, 23, 26-28	278953	12	1	Sleeve, carburetor 13-15, 19, 22-24, 26, 27	278954
5	2	Screw, socket head 13-15, 19, 22-24	X-55-30	13	1	Connector, 5/8-18 x 1/4 15, 19, 22, 23, 24, 26	X-296-2
6	1	Gasket, carburetor 13-15, 19, 22, 23, 24, 26-28	271030		1	Elbow, 5/8-18 x 1/4 13, 14, 19, 22, 27	X-447-1
7	1	PTC assembly 13-15, 19, 22, 23, 24, 26-28	278445	14	1	Line, fuel 13, 14, 27	278991
8	1	Gasket, PTC 13-15, 19, 22, 23, 24, 26-28	278528		1	Line, fuel 15, 28	278434

Group 103: Fuel System (LP)

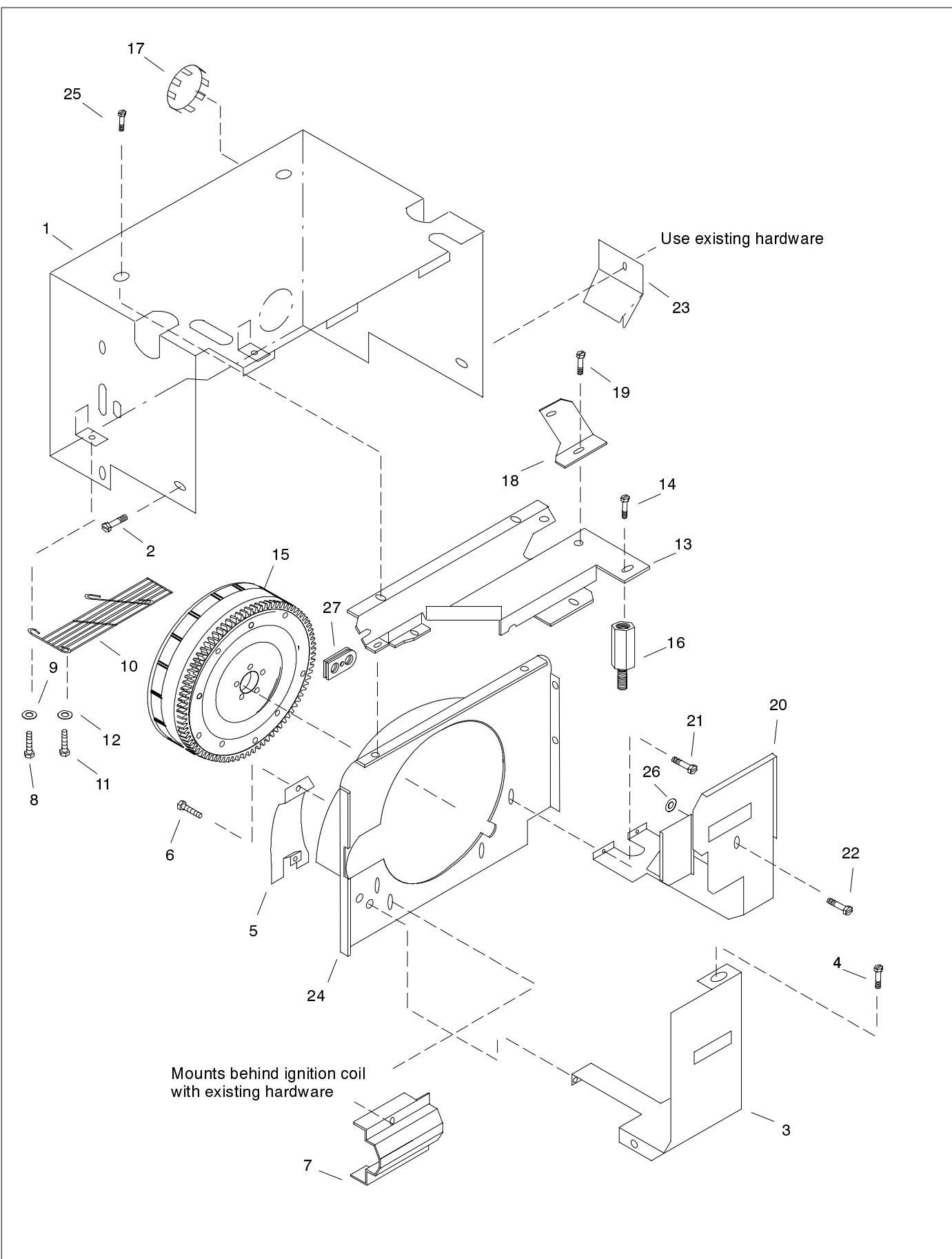


103-97-15
EM-2777000

Group 103: Fuel System (LP)

Description Variation				Description Variation			
Item	Qty.		Part No.	Item	Qty.		Part No.
15	2	Clip 15, 19, 23, 24, 26, 28	X-414-5	28	1	Elbow, 5/8-18 x 1/4 13-15, 23, 24, 26-28	X-447-1
16	4	Screw, drill 15, 19, 23, 24, 26, 28	X-794-3	29	1	Bracket, regulator 13, 14, 22, 27	278976
				1		Bracket, regulator 15, 19, 23, 24, 26, 28	278882
17	4	Clip 15, 19, 23, 24, 26, 28	X-414-4	30	1	Screw, self-tapping 13, 15, 27, 28	X-67-114
18	1	Fitting, fuel 15, 28	X-6290-2	31	1	Washer, 1/4" 15	
	2	Fitting, fuel 19, 23, 24, 26	X-6290-2	32	1	Line, fuel 15, 19, 23, 24, 26, 28	278907
19	1	Regulator, gas 15, 19, 23, 24, 26, 28	278889	33	1	Bracket, fuel valve 15, 19, 23, 24, 26, 27	278879
20	1	Nipple, pipe, 1/4 x 1 1/2 13, 14, 22, 27	X-220-6	34	1	Screw, H.C., ref. 15, 18, 23, 24, 28	X-6217-4
	1	Nipple, pipe, 1/4 x 7/8 15, 19	X-220-5	35	1	Washer, 1/4" 15	
	2	Nipple, pipe, 1/4 x 7/8 23, 24, 26	X-220-5	36	1	Spacer 15, 19, 23, 24, 26, 28	X-400-179
21	1	Solenoid, anti-diesel 13-15, 19, 22-24, 26-28	A-278424	37	1	Solenoid, primary fuel 15, 19, 22-24, 26, 28	A-278958
22	1	Bushing, reducer 15, 19, 23, 24, 26, 28	X-202-30	38	1	Plug, pipe (not shown) 13-15, 19, 22-24, 26-28	X-75-23
23	1	Elbow, street, 1/8 x 1/8 15, 19, 23, 24, 26, 28	X-555-2	39	1	Line, fuel 22	227767
24	1	Connector, hose, 1/8 x 1/4 15, 19, 21, 23, 24, 26, 28	X-380-1		1	Line, fuel 23	227768
25	1	Clamp, hose, 1/2 15, 19, 23, 24, 26, 28	X-309-14		1	Line, fuel 24	227769
26	1	Line, fuel 15, 19, 23, 24, 26, 28	X-386-97	40	1	Tee, pipe 22-24	X-203-19
27	1	Regulator, gas 13-15, 19, 22, 24, 26-28	239153				

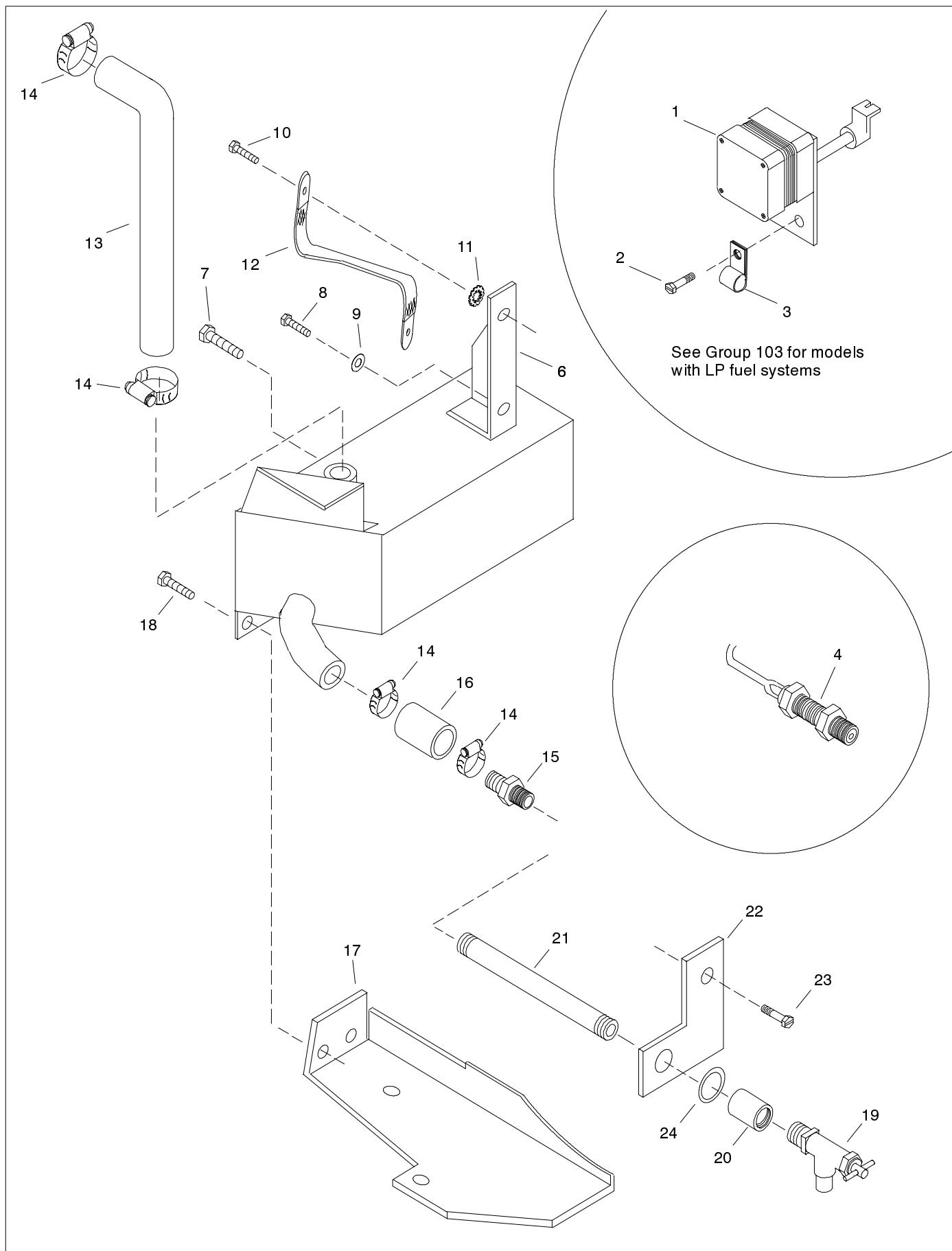
Group 104: Cooling System



Group 104: Cooling System

Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.
1	1	Hood 2	278947-BLK	14	2	Screw, self-tapping 2	X-67-115
	1	Hood 4	227603-BLK	15	1	Flywheel 2	278704
	1	Liner, reflective (not shown) 2, 4	278678	16	4	Standoff 2	278707
2	13	Screw, self-tapping 2, 4	X-67-115	17	1	Button, plug, 1 3/4 2, 4	X-301-9
3	1	Baffle, #1 2, 4	278601	18	1	Plate, closure 2, 4	278665
4	2	Screw, self-tapping 2	X-67-115	19	2	Screw, self-tapping 2	X-67-115
5	1	Cover, coil 2, 4	278667	20	1	Baffle, #2 2, 4	278602
6	2	Screw, drill 2, 4	X-794-3	21	2	Screw, self-tapping 2	X-67-115
7	1	Shield, coil 2	278944	22	1	Screw, self-tapping 2	X-67-114
	1	Shield, coil 4	227462	23	1	Baffle, air 2	278836
8	2	Screw, hex hd, 10-24 x 1/2 2, 4	X-67-52		1	Baffle, air 4	227611
9	2	Washer, #10 2		24	1	Plate, backing 2	278666
10	1	Guard, fan 2, 4	278654		1	Plate, backing 4	227461
11	2	Screw, self-tapping 2	X-67-115	25	2	Screw, self-tapping 2	X-67-115
12	2	Washer, 1/4 2		26	1	Spacer 4	X-400-31
13	1	Plate, closure 2, 4	278664	27	1	Grommet 2, 4	278705

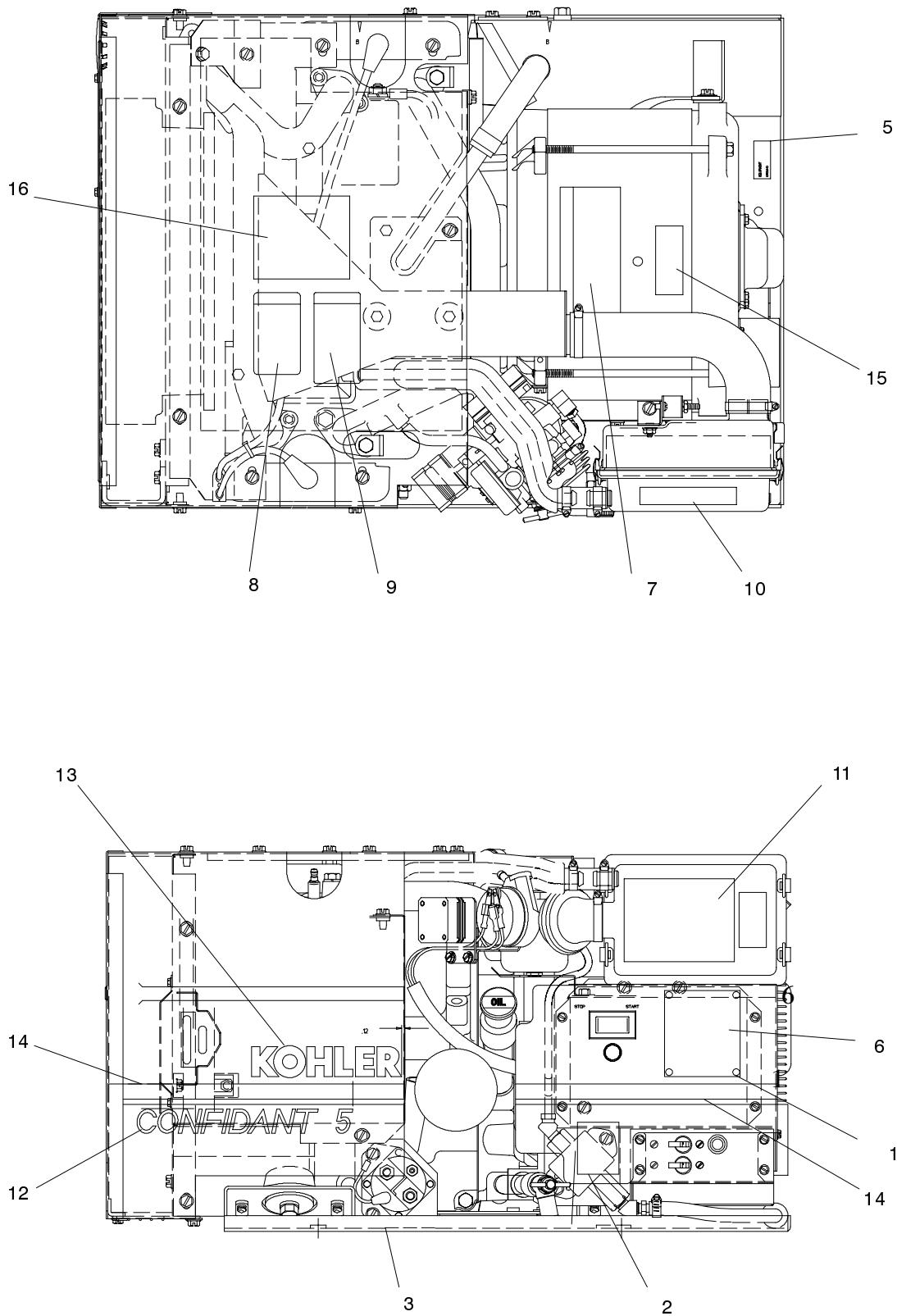
Group 105: Engine



Group 105: Engine

Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.
1	1	Actuator assembly, rotary 10, 12	A-278779		1	Strap, ground 3, 12	X-6046-1
2	2	Screw, Phillips hex 10, 12-14	X-6216-1	13	1	Hose, oil tank 10, 14, 18, 19	227608
3	1	Clamp, insulated 10, 12-14	X-672-14	14	4	Clamp, hose, 1/2 x 1 13/32 10, 14, 18, 19	X-426-3
4	1	Sensor assembly, magnetic 10, 12	A-278782	15	1	Connector, adapter hose 10, 14, 18, 19	X-582-2
	1	Sensor, magnetic 13, 14	227736	16	1	Hose, oil proof 10, 14, 18, 19	X-577-45
5	1	Engine assembly (49635) (not shown) 10, 14	A-227831	17	1	Bracket, oil tank 10, 14	278835
	1	Engine assembly (24669) (not shown) 12, 13	A-278693		1	Screw, H.C. (not shown) 10, 14	X-6238-11
	1	Engine assembly (24698) (not shown) 17	A-227678		1	Washer, 3/8 (not shown) 10, 14	
	1	Engine assembly (49636) (not shown) 18, 19	A-227679	18	2	Screw, self-tapping 10, 12-14, 17, 18, 19	X-67-115
				19	1	Valve, shut-off 10, 12-14, 17, 18, 19	278788
6	1	Tank, oil 10, 13, 14, 18	227607	20	1	Coupling, pipe, 3/8 x 1 3/16 10, 12-14, 17, 18, 19	X-216-23
	1	Tank, oil 19	227890	21	1	Pipe 10, 12, 13	X-204-19
	1	Grommet (not shown) 19	243319	22	1	Bracket, oil drain 10, 12-14, 17, 18, 19	278834
	1	Bracket, oil tank 10, 12, 13, 17, 19	227606	23	1	Screw, self-tapping 10, 12-14, 17, 18, 19	X-67-115
7	1	Bolt, 5/16-18 10, 14, 18		24	1	Bushing 10, 12-14, 17, 18, 19	X-634-25
8	1	Screw, self-tapping 10, 12, 13	X-67-114	25	1	Lead (anti-icer to choke) (not shown) 10, 12-14	278816
9	1	Washer, 1/4 10, 12-14		26	1	Lead (ignition module) (not shown) 10, 12-14, 17, 18, 19	278817
10	1	Screw, self-tapping 10, 12-14, 18, 19	X-67-114	27	1	Conduit, convoluted (not shown) 10, 12-14, 17, 18, 19	X-6003-9
11	1	Washer, shakeproof 10, 12-14, 17, 18, 19	X-22-12				
12	1	Lead, ground 10, 14, 17, 18, 19	230857				

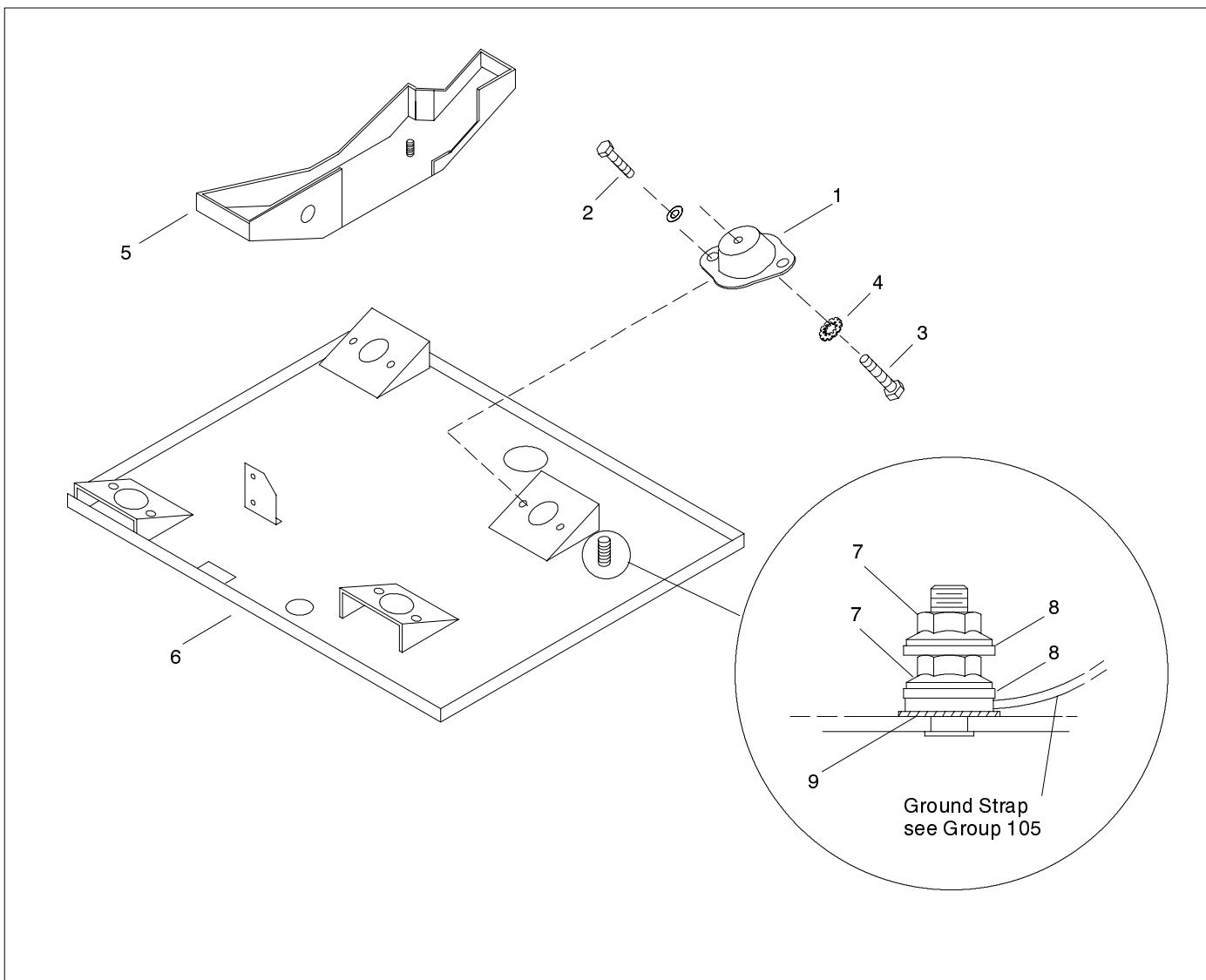
Group 107: Nameplate and Decals



Group 107: Nameplate and Decals

Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.	
1	4	Rivet, pop all variations	X-793-3	12	1	Decal, Confidant 4 25, 32, 35, 37, 39, 41, 42, 45, 47, 49, 53, 55, 56, 58, 59, 60, 63	278430	
2	1	Decal, 1-800 number all variations	224233		1	Decal, Confidant 5 24, 28, 33, 34, 36, 38, 40, 43, 46, 48, 50, 52, 54, 57	278431	
3	1	Marker, adhesive all variations	238162		13	1	Logo, Kohler all variations	X-6276-3
4	4	Nameplate, serial number (not shown) all variations	Not Avail.		14	2	Decal, strip all variations	278433
5	1	Decal, ground all variations	238575		15	1	Decal, UL 24, 25, 34, 35, 40, 42, 45, 46, 47, 48, 52, 55, 56, 59, 60	239772
6	1	Nameplate all variations	239573		16	1	Decal, CSA 24, 25, 34, 35, 40, 41, 45-49, 52, 55, 59, 60, 61, 62, 63	278949
7	1	Decal, hazardous voltage all variations	239771		17	1	Key, square (not shown) 32, 33, 36, 37, 49, 50, 53, 54	X-286-6
8	1	Decal, fire warning all variations except 60	228489		18	1	Cap (not shown) 32, 33, 36, 37, 49, 50, 53, 54	227539
9	1	Decal, carbon monoxide warning all	239796					
10	1	Decal, instructions all	278634					
11	1	Decal, service instructions 25, 32, 35, 37, 39, 41, 42, 45, 47, 49, 53, 55, 56, 58, 59, 60, 61, 62	278831					
	1	Decal, service instructions 24, 28, 33, 34, 36, 38, 40, 43, 46, 48, 50, 52, 54, 57, 58	278635					

Group 109: Skid and Plant Mounting

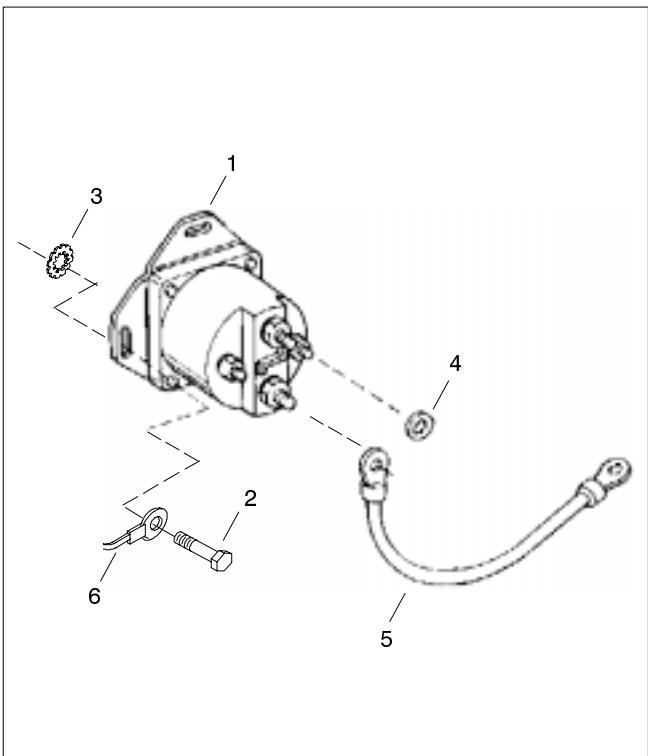


Item	Qty.	Description Variation	Part No.
1	4	Mount, vibro 22, 24, 25, 26	278271
2	8	Screw, tapping 22, 25, 26	X-67-131
	2	Screw 24	X-67-116
3	4	Bolt, 3/8-16 22, 24, 25, 26	#
4	4	Washer, lock shakeproof 22, 24, 25, 26	X-22-10
5	1	Bracket, engine mounting 22, 24	278526

Item	Qty.	Description Variation	Part No.
6	1	Tray 22, 25, 26	227949
1	1	Tray 24	278937
2	2	Plate, hinge 24	278924
7	1	Nut, 1/4-20 22, 24, 25, 26	#
8	1	Washer, 1/4 22, 24, 25, 26	#
9	1	Washer, shakeproof 25, 26	X-22-12
	2	Washer, shakeproof 22, 24	X-22-12

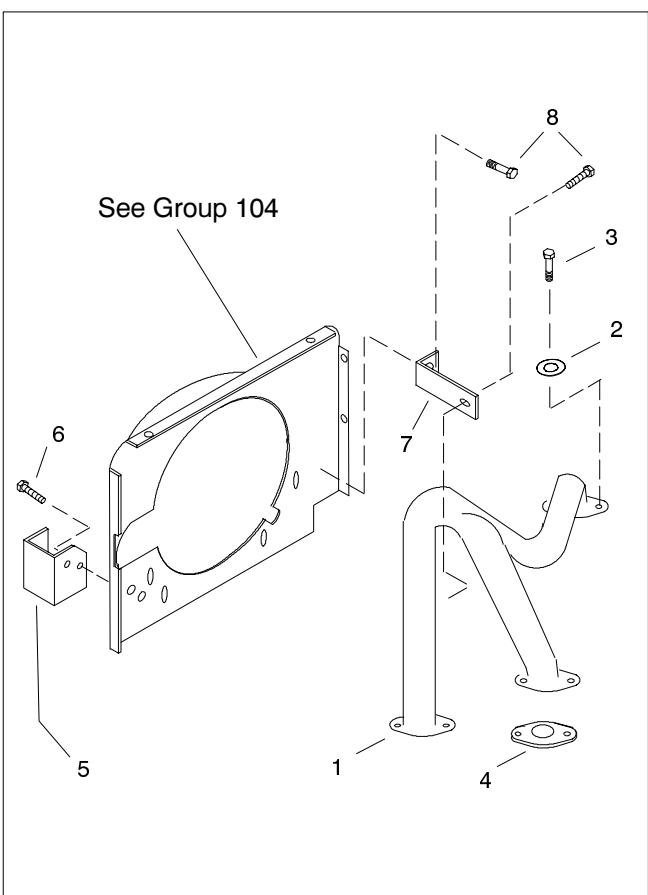
Common hardware. Procure locally.

Group 112: Starter



Item	Qty.	Description	Variation	Part No.
1	1	Switch, relay	7, 9	248846
2	2	Screw, self-tapping	7, 9	X-67-115
	1	Washer, shakeproof	7, 9	X-22-10
3	2	Washer, shakeproof	7	X-22-12
	1	Washer, shakeproof	9	X-22-12
4	2	Washer, lock shakeproof	7, 9	X-22-5
5	1	Cable, battery	7, 9	X-545-25
6	1	Lead	7, 9	278628

Group 116: Exhaust System



Item	Qty.	Description	Variation	Part No.
1	1	Manifold, exhaust	10, 13	278632
2	4	Washer, plain	10, 13	X-25-33
3	4	Screw, hex socket head	10, 13	X-55-6
4	2	Gasket, exhaust	10, 13	278306
5	1	Bracket, exhaust	10	278731
6	2	Screw, self-tapping	10	X-67-115
7	1	Bracket, exhaust mounting	10, 13	278969
8	2	Screw, self-tapping	13	X-67-115

100-Hour Recommended Spare Parts List

Description	Part Number			
	4CFKM61 Spec. No. 101302	4CKMR61 Spec. No. 101305	5CKM21 Spec. No. 101203	5CKMR61 Spec. No. 101205
Fuse, 5 Amp	239298	239298	239298	239298
Fuse, 15 Amp	283645	283645	283645	283645
Main Circuit Board	F-239563	F-239563	F-239563	F-239563
Battery Charger Board	N/A	B-278660	N/A	B-278660
Governor Circuit Board	D-278670	D-278670	D-278670	D-278670
Magnetic Pick Up	227641	227641	227641	227641
Voltage Regulator, PBIII3	228605	228605	228605	228605
Brush	239282	239282	239282	239282
Brush Spring	238150	238150	238150	238150
Ignition Module	5258402	5258402	5258402	5258402
Spark Plug	5213202	5213202	5213202	5213202
Fuel Pump	249862	249862	249862	249862
Starter Relay	248846	248846	248846	248846
Oil Pressure Switch	5209906	5209906	5209906	5209906
Air Filter	278612	278612	278612	278612
Fuel Filter	228269	227647	228269	227647
Oil Filter	5205002	5205002	5205002	5205002

4kW

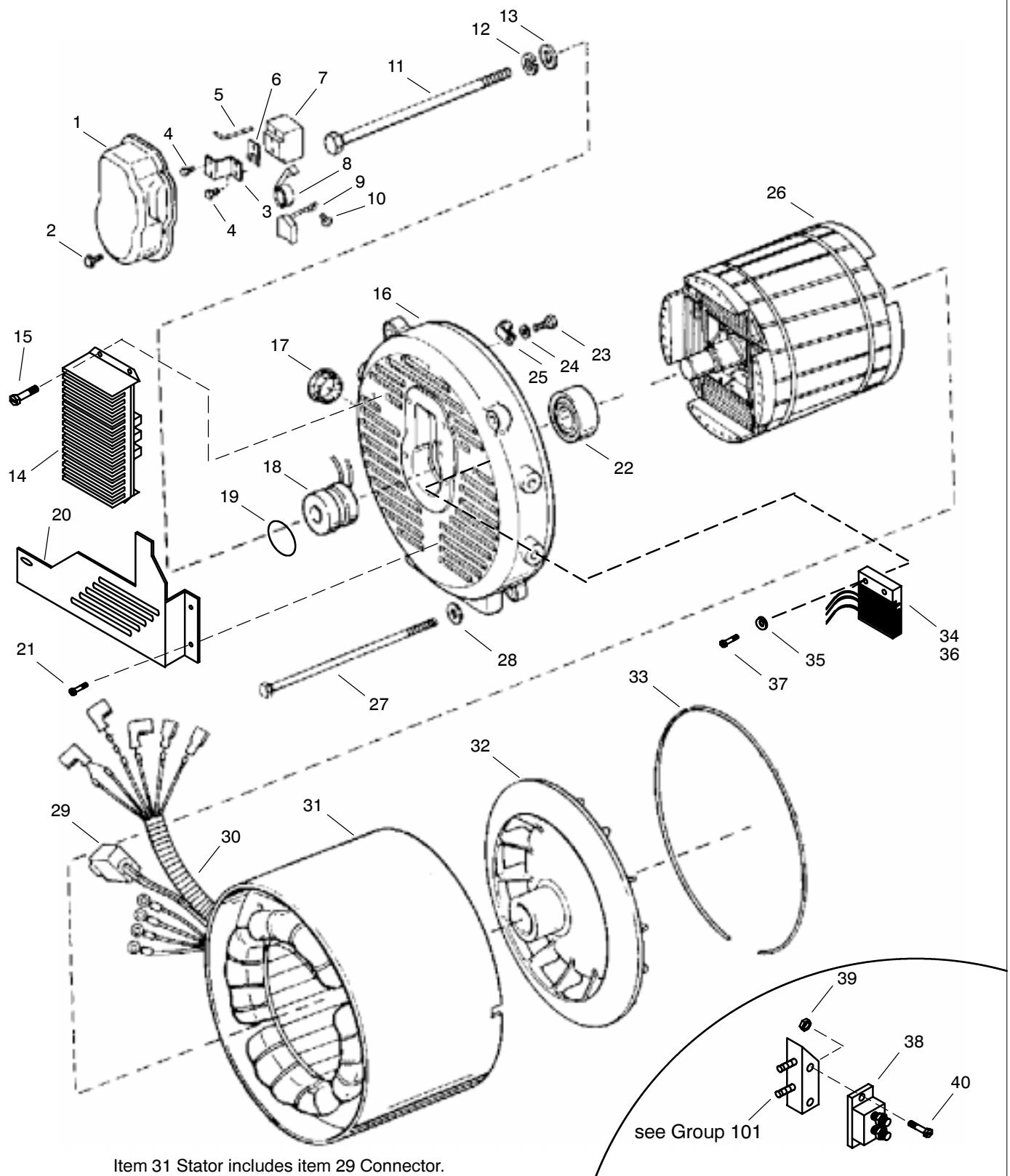
Change oil and oil filter every 100 hours. Check air cleaner every 50 hours. Replace fuel filter every 500 hours.

5kW

Change oil and oil filter every 50 hours. Check air cleaner every 50 hours. Replace fuel filter every 500 hours.

Notes

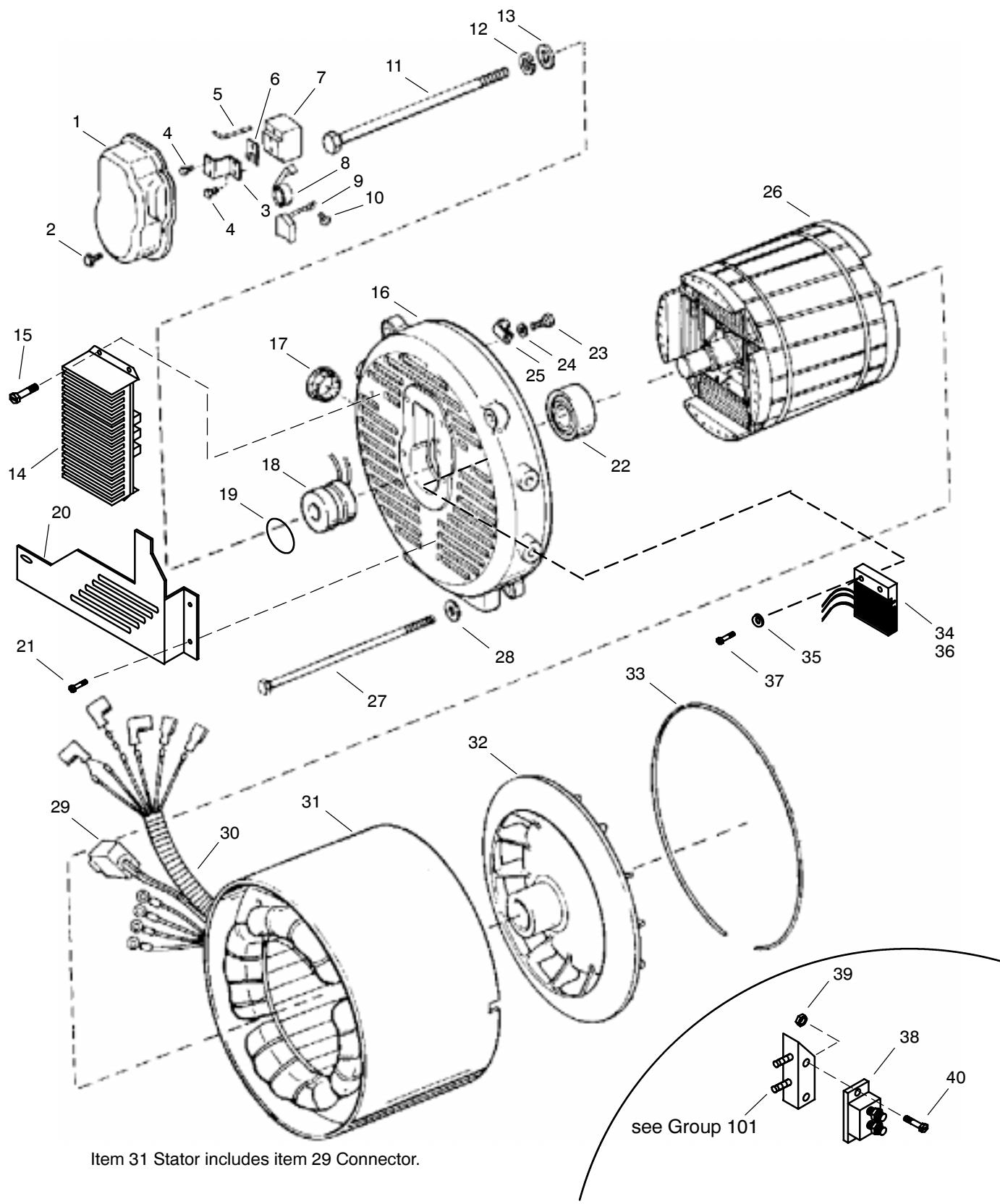
Group 201: Generator and Mounting



Group 201: Generator and Mounting

Description Variation				Description Variation				
Item	Qty.		Part No.	Item	Qty.		Part No.	
1	1	Cover, brush holder 25, 32	278804	15	4	Screw, tapping 8-32 29, 34	X-67-59	
	1	Cover, brush holder 26, 30, 33, 44-48	278877		3	Screw, tapping, 10-32 x 3/8 42, 44, 45, 46, 47	X-67-113	
2	4	Screw, hex hd, 10-24 25, 26, 30, 32, 33, 49	X-67-52		1	Screw, tapping, 10-32 x 5/8 42, 44, 45, 46, 47	X-67-118	
					4	Screw, tapping 43, 48	X-67-43	
3	1	Bracket, brush holder 25, 26, 30, 32, 33, 44-49	229335	16	1	Bracket, end 25, 26, 30, 32, 44-47, 49	227401	
	1	Bracket, brush holder 29, 34, 42, 43, 50	278943		1	Bracket, end 29, 42, 50	278807	
4	4	Screw, hex head 25, 26, 30, 32, 33, 42, 43, 50	X-97-13		1	Bracket, end 33, 48	227622	
	2	Screw, hex head 29, 34, 44-48	X-97-13		1	Bracket, end 34, 43	227584	
	2	Washer, plain (not shown) 30, 33, 44, 45, 48	X-25-74		1	Grommet, nylon (not shown) 33, 48	X-6090-3	
5	1	Retainer, wire all	238247		1	Cover (not shown) 29, 34, 42, 50	278840	
6	3	Shim, brush holder all	238248		1	Cover (not shown) 29, 34, 42, 43, 50	278842	
7	1	Holder, brush all	239247		1	Cover (not shown) 43	227916	
					6	Screw, tapping, 8-32 (not shown) 29, 34	X-67-59	
8	2	Spring all	238150		6	Screw, tapping 50	X-67-43	
9	2	Brush all	239282	17	1	Bushing, nylon 25, 26, 32, 49	X-634-11	
					1	Bushing, nylon 26, 30, 32, 33, 44-49	X-634-22	
10	2	Screw, r.h.m., 6-32 all	X-49-1		1	Bushing 29, 34, 42	X-634-12	
	2	Washer, lock all	X-22-6	18	1	Ring, collector 25, 26, 30, 32, 33, 44-49	241671	
11	1	Bolt, thru 25, 30, 32, 33, 44-49	278158		1	Ring, collector 29, 34, 42, 43, 50	238134	
	1	Bolt, thru 29, 34, 42, 43, 50	278841		19	O-Ring all	256466	
12	1	Washer, 1/2 25, 30, 32, 33			20	Guard, harness 25, 26, 30, 32, 33, 44-49	227541	
13	1	Washer, plain 25, 26, 30, 32, 33, 44-49	X-25-30	21	2	Screw, self-tapping 25, 26, 32-34, 49	X-67-113	
	1	Washer 29, 34, 42, 43, 50	X-25-97		11	Screw, self-tapping 30, 44-48	X-67-113	
14	1	Voltage Regulator, PBIIIE (1 Phase) 29, 34, 42, 44, 45, 46, 47	228605		22	Bearing, ball all	X-758-1	
		Voltage Regulator, PBV (3 Phase) 43, 48	B-258296		23	Screw, H.C. sltd, 1-32 25, 26, 29, 32, 34, 49	X-97-11	
See Group 301 Controller for voltage regulator on units without the extended shaft.					24	3	Washer, lock shakproof 25, 26, 32	X-22-9
						2	Washer, lock shakproof 30, 33, 44-48	X-22-9

Group 201: Generator and Mounting



Group 201: Generator and Mounting

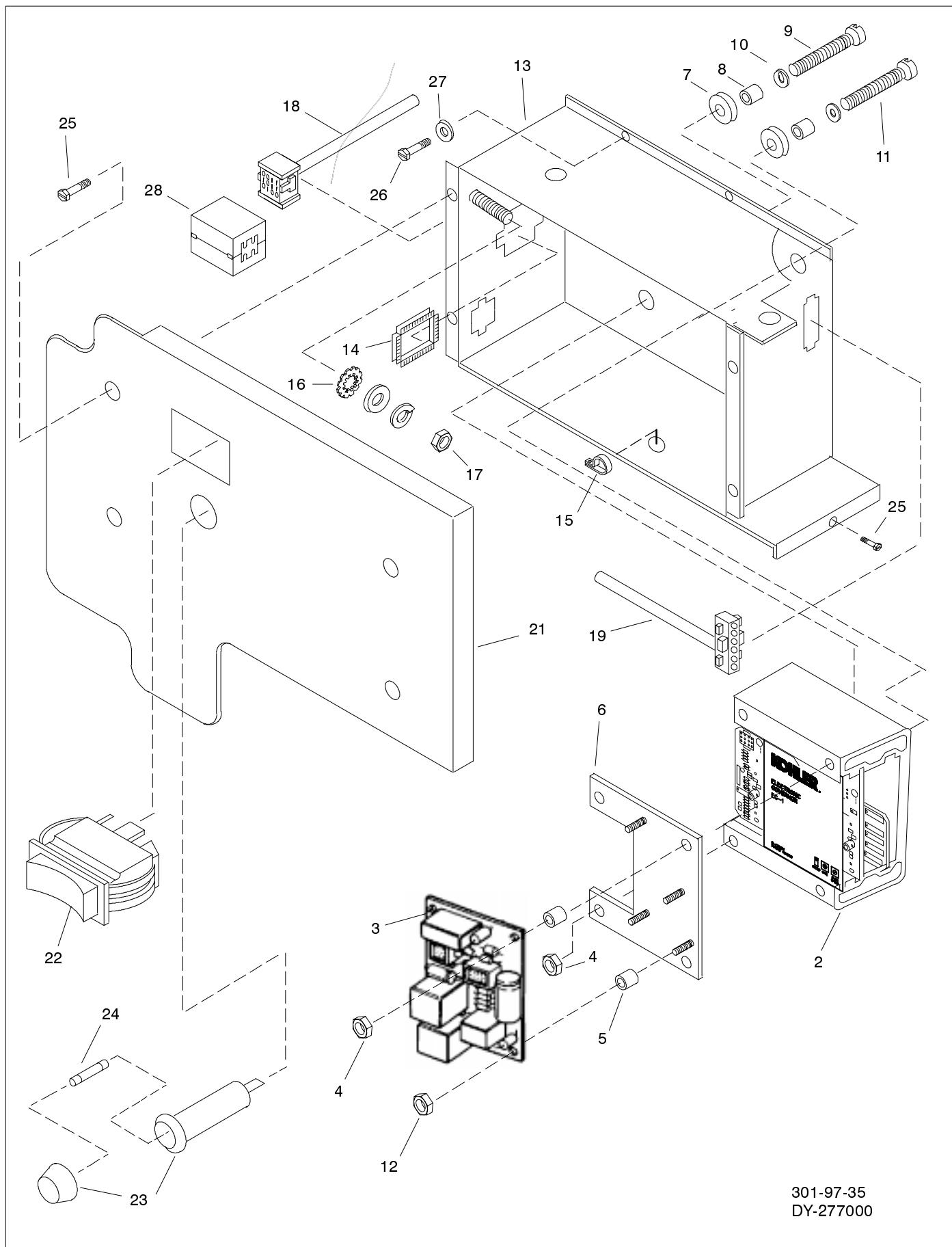
Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.	
25	1	Clip, wire 25, 26, 30, 32, 33, 49	X-339-3	32	1	Fan, generator all	278763	
26	1	Rotor assembly 25, 26, 30, 32, 33, 44-49	A-278420	33	1	Guard, generator fan all	238214	
	1	Rotor assembly 29, 34, 42, 43, 50	A-278839		34	1	Charger, battery 29, 30, 32-34, 42-45, 48	B-278660
27	4	Bolt, over all	X-5-44	35	2	Washer, plain 30, 33, 44, 45, 48	X-25-74	
28	4	Washer, hardened 25, 26, 29, 30, 32-34, 42, 43, 49, 60	X-801-2		2	Spacer, 1/20 x 9/32 x 1/4 42, 43	X-400-31	
	4	Washer, special 30, 44-48	229239	36	1	Conduit, convoluted (not shown) 30, 32, 33, 44, 45, 48	X-6003-93	
29	1	Connector 33, 34	239408		1	Conduit (not shown) 25, 26, 29, 30, 32, 42, 44-47, 49, 50	X-6003-87	
30	1	Harness, brush/voltage reg. 30, 32, 33, 44, 45, 48	278975	37	2	Screw, self-tapping 29, 30, 32-34, 42-45, 48	X-67-125	
	1	Harness, brush/voltage reg. 25, 26, 46, 47, 49	278617		38	1	Breaker, circuit 29, 30, 32-34, 42-45, 48	241879
	1	Harness, brush/voltage reg. 29, 34, 42, 50	278843	39	2	Nut, #10-32 29, 30, 32-34		
31	1	Stator assembly 25, 49	278419	40	2	Screw, f.h.m., 8-32 30, 33, 43	X-14-16	
	1	Stator assembly 26	278659					
	1	Stator assembly 29, 30	278764					
	1	Stator assembly 32	278768					
	1	Stator assembly 33, 34	227441					
	1	Stator assembly 42, 44	227774					
	1	Stator assembly 43, 48	227772					
	1	Stator assembly 45	227775					
	1	Stator assembly 47	227779					
	1	Stator assembly 46, 50	227778					

Voltage Regulator for 3-Phase Units

Replace PBIIIIE voltage regulator with PBV regulator on 3-phase units. New PBV regulator and box are mounted on side of generator end bracket above oil tank. Parts are listed below. Order remote voltage regulator kit for 3-Phase units with LP vapor or LP liquid fuel systems. See accessories for parts list.

1	Box	227887
1	Cover	227788
6	Nylon Washer	239665
1	Nylon Bushing	X-634-5
6	Spacer	X-712-9
6	Nut, hex.	X-72-9
5	Screw, Crimpitite	X-6216-1

Group 301: Controller and Mounting

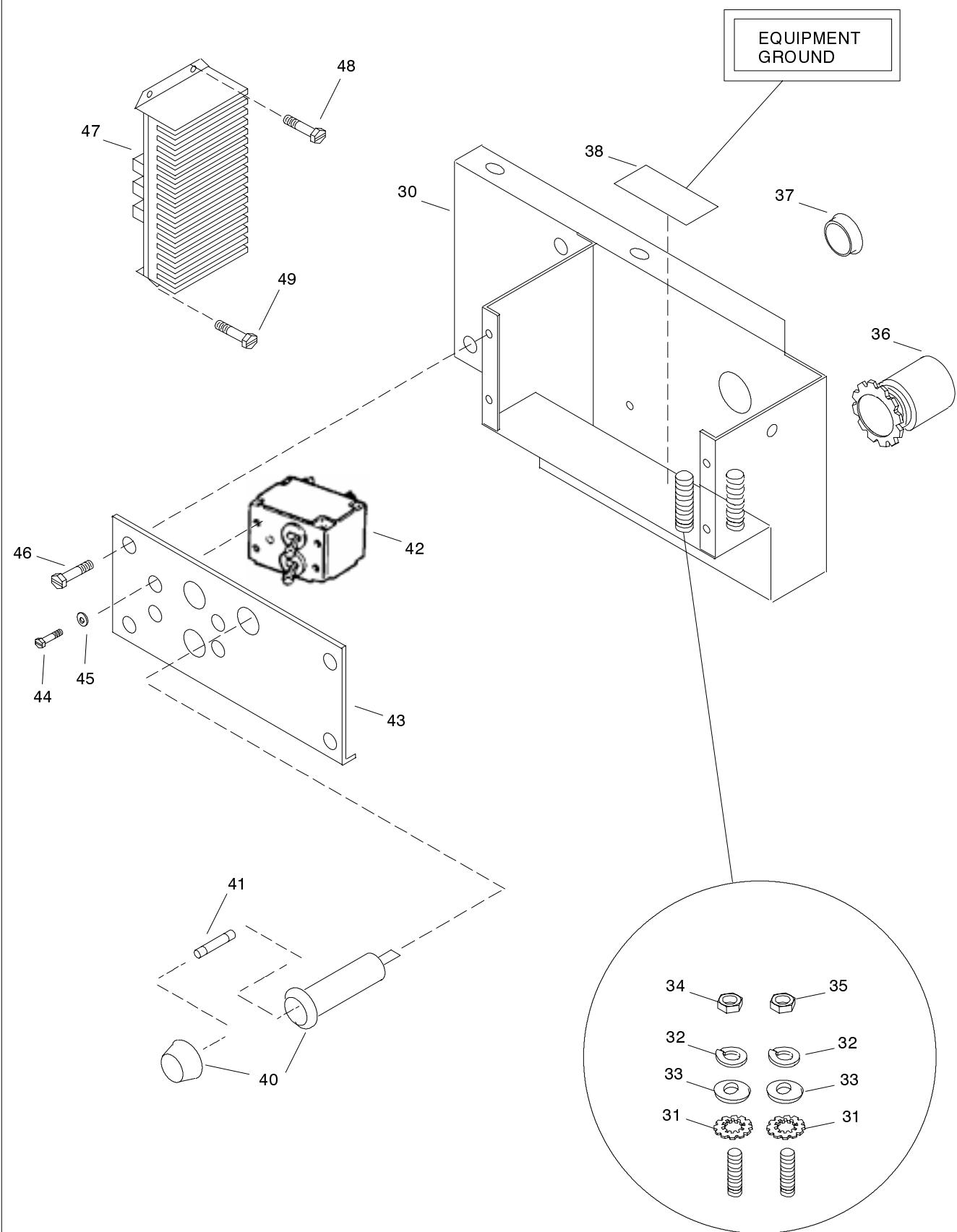


301-97-35
DY-277000

Group 301: Controller and Mounting

Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.
1	1	Controller assembly (includes items 2-17, 19) 29, 31, 32, 42, 43, 76-88	A-227799	16	1	Washer, shakeproof all	X-22-18
	1	Controller assembly (includes items 2-17, 19) 62-66, 68, 70-75, 89-104	A-227879	17	1	Hardware, #8-32 all	
2	1	Governor assembly, electronic all	D-278670	18	1	Harness, wiring 29, 31, 32, 42, 43, 76-88	227402
				1	1	Harness, wiring 62, 64, 89, 90, 101	227728
3	1	Circuit board assembly all	F-239563	1	1	Harness, wiring 63, 65, 71, 72, 75, 91, 93, 96-98, 104	227726
4	4	Nut all	X-101-22	1	1	Harness, wiring 66, 68, 70, 73, 74, 92, 94, 95, 99, 100	227727
5	5	Spacer, fiber all	X-712-16	1	1	Harness, wiring 67, 69	227729
6	1	Plate, circuit board all	278749	1	1	Harness, wiring 102, 103	227878
				19	1	Harness, remote wiring all	227403
7	4	Grommet, vibro mount all	278999	20	1	Cover assembly (includes items 21-24) all	B-278574
8	4	Spacer all	X-400-187	21	1	Cover, silkscreen all	278751
9	3	Screw, pan head all	X-49-46	22	1	Switch, rocker all	249406
10	4	Washers, #6 all		23	1	Holder, fuse all	267996
11	1	Screw, pan head all	X-49-47	24	1	Fuse, 15 amp. all	283645
12	4	Nut, hex all	X-70-12	25	4	Screw, self-tapping all	X-794-3
13	1	Box, controller 29, 31, 32, 42, 43, 76-88	278972	26	5	Screw, tapping all	X-67-115
	1	Box, controller 62-75, 89-104	227741				
14	1	Grommet 62-66, 68, 70-75, 89-104	X-6033-9	27	5	Washer, lock, 1/4 all	X-22-11
15	1	Clip, wire 62-66, 68, 70-75, 89-104	X-339-6	28	1	Filter, ferrite cage 31, 76-88	227822

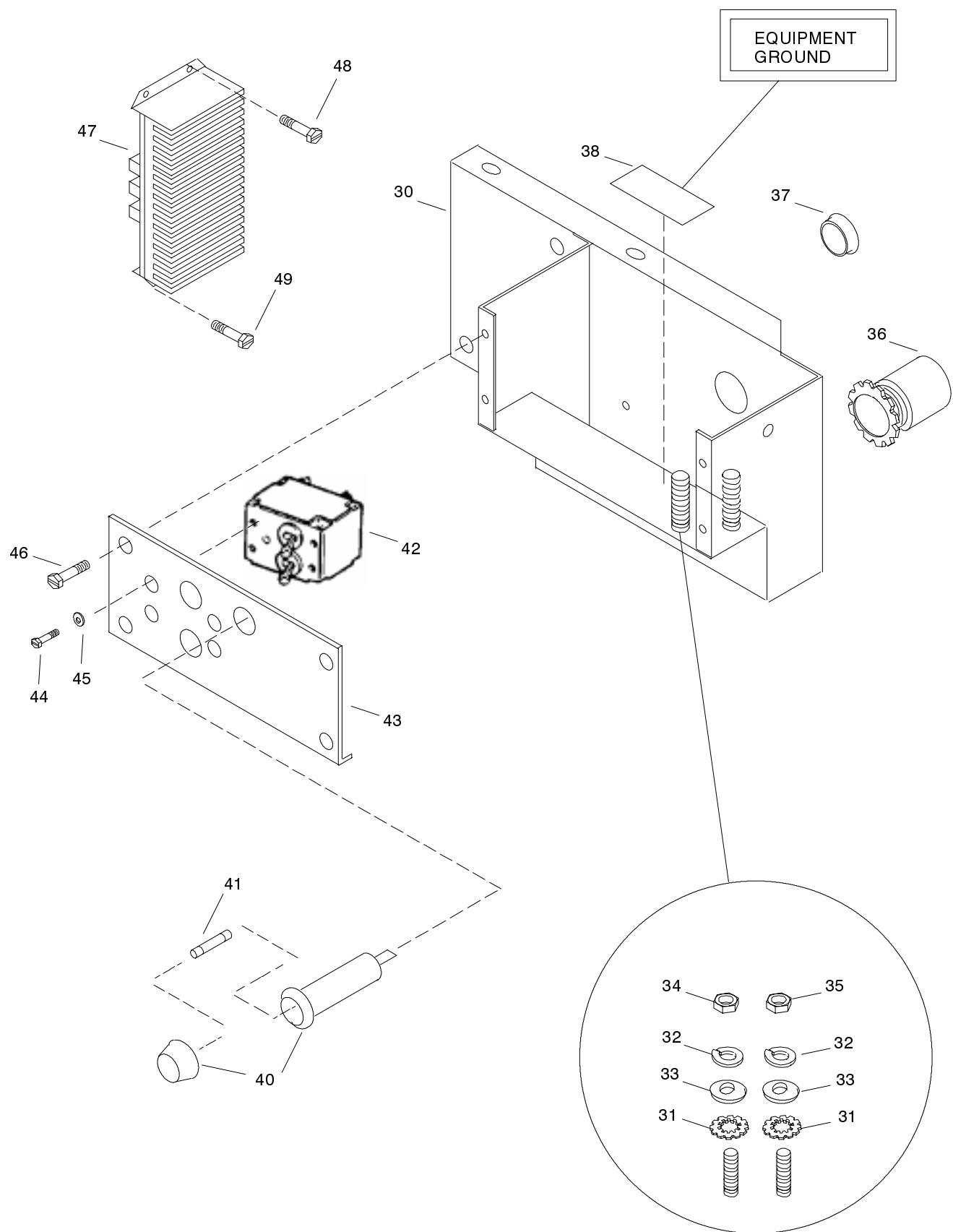
Group 301: Controller and Mounting



Group 301: Controller and Mounting

Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.
29	1	Box assembly, junction (includes items 30-37) 31, 44	B-278577	36	1	Connector, conduit all	X-252-23
	1	Box assembly, junction 31, 76, 79, 81, 84	A-278994	37	1	Bushing, nylon all	X-634-11
	1	Box assembly, junction 32, 43	B-278778	38	1	Decal, ground all	238575
	1	Box assembly, junction 77, 78, 82, 83	A-278995	39	1	Cover assembly (includes items 40-45) 29, 42	A-278755
	1	Box assembly, junction 85	A-227452		1	Cover assembly 31, 76, 79, 80, 81, 84, 99	A-278695
	1	Box assembly, junction 87	A-278787		1	Cover assembly 32, 43, 68, 92	A-278697
	1	Box assembly, junction 80, 88	B-278777		1	Cover assembly 62, 90	A-227733
	1	Box assembly, junction 62, 63, 70, 90, 93, 95, 102	A-227714		1	Cover assembly 63, 70, 75, 93, 95, 97, 102	A-227694
	1	Box assembly, junction 64, 65, 89, 91, 103	A-227719		1	Cover assembly 64, 89	A-227735
	1	Box assembly, junction 66, 67, 94, 101, 104	A-227712		1	Cover assembly 65, 91, 103	A-227699
	1	Box assembly, junction 68, 69, 92	A-227717		1	Cover assembly 66, 94	A-227692
	1	Box assembly, junction 71, 98	A-227713		1	Cover assembly 67	A-227732
	1	Box assembly, junction 72, 96	A-227718		1	Cover assembly 69	A-227734
	1	Box assembly, junction 73, 99	A-227715		1	Cover assembly 71, 86, 98	A-227693
	1	Box assembly, junction 74, 75, 97, 100	A-227716		1	Cover assembly 72, 85, 96	A-227698
	1	Box assembly, junction 86	A-227451		1	Cover assembly 74, 100, 101	A-227696
30	1	Box, junction 29, 31, 32, 42, 43, 76-84, 87, 88	278970		1	Cover assembly 77, 78, 82, 83	A-278966
	1	Box, junction 62-75, 85, 86, 89-103, 104	227849		1	Cover assembly 87	A-278786
31	2	Washer, shakeproof all	X-22-12		1	Cover assembly 88	A-227526
32	2	Washer, lock, 1/4 all	X-22-11		1	Cover assembly 73, 104	A-227930
33	2	Washer, 1/4 all		40	1	Holder, fuse all except 29, 31, 32, 42, 43, 68, 73, 76-84, 87, 88, 92, 99, 104	267996
34	1	Nut, 1/4-20 all			1	Holder, fuse 29, 31, 32, 42, 43, 68, 73, 76-84, 87, 88, 92, 99	238426
35	1	Nut, hex all	X-81-8	41	1	Fuse, 5 amp. all	239298

Group 301: Controller and Mounting



Group 301: Controller and Mounting

Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.	
42	1	Breaker, circuit (30 Amp) 29, 32, 42, 66-69, 92, 94	278190	45	2	Washer, #6 31, 32, 43, 62-70, 73-76, 79-81, 84, 89-95, 97, 99, 100, 104	X-22-6	
	1	Breaker, circuit (20 Amp) 29, 42, 68, 69, 92, 99	278257		4	Washer, #6 29, 42, 77, 78, 82, 83, 87, 88		
2	2	Breaker, circuit (17 Amp) 31, 62, 63, 70, 75, 76 90, 93, 95, 97, 102	227671		6	Washer, #6 71, 72, 85, 86, 96, 98		
	2	Breaker, circuit (25 Amp) 64, 65, 89, 91, 103	278784					
	3	Breaker, circuit (15 Amp, 1 pole) 72, 74, 85, 96, 100, 101	278700	46	4	Screw, self-tapping all variations except 85 & 86	X-794-3	
	3	Breaker, circuit (10 Amp) 71, 86, 98	227673	47	1	Voltage regulator kit all variations except 85 & 86	228605	
	1	Terminal, jumper (not shown) 29, 42, 73, 104	249956		1	Conduit, convoluted (not shown) 31, 32, 42, 76-88	X-6003-109	
	1	Breaker, circuit 73, 104	227936					
43	1	Cover, silkscreen 29, 42	278754	48	3	Screw, hex slotted head 43	X-67-43	
	1	Cover, silkscreen 31, 76, 79, 80, 81, 84, 99	278948		8	Screw, hex slotted head 29, 31, 32, 42, 76, 77, 82-84, 87, 88	X-67-43	
	1	Cover, silkscreen 32, 43, 68, 92	278698		12	Screw, hex slotted head 78, 79, 80, 85, 86	X-67-43	
	1	Cover, silkscreen 77, 78, 82, 83	278965					
	1	Cover, silkscreen 72, 85, 96	227447	49	1	Screw, tapping, 8-32 29, 31, 32, 42, 43, 78-80, 85-88	X-67-60	
	1	Cover, silkscreen 71, 86, 98	227448		1	Tie (not shown) 29, 31, 32, 42, 43, 78-80, 85-88	X-468-3	
	1	Cover, silkscreen 87	278785		50	1	Harness, wiring (not shown) 29, 31, 32, 87, 88	278676
	1	Cover, silkscreen 88	227525			1	Harness, wiring (not shown) 76-80, 85, 86	278952
	1	Cover, silkscreen 74, 100, 101	227688			1	Harness, wiring (not shown) 81-84	278297
	1	Plate, cover (not shown) 74, 100, 101	227893			1	Harness, wiring (not shown) 42, 43	278959
	1	Cover, silkscreen 63, 70, 93, 95, 97, 102	227686					
	1	Cover, silkscreen 64, 65, 89, 91, 103	227691	51	1	Bushing, strain relief (not shown) 63, 65, 66, 68, 70-75, 104	227665	
	1	Cover, silkscreen 66, 67, 94	227684					
	1	Cover, silkscreen 69	227689					
	1	Cover, silkscreen 73, 104	227935					
44	2	Screw, r.h.m., 6-32 32, 66, 67, 94	X-49-25					
	4	Screw, r.h.m., 6-32 all variations except 32	X-49-25					
	6	Screw, r.h.m., 6-32 71, 72, 85, 86, 96, 98	X-49-25					

Group 701: Literature

Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.
1	1	Manual, owner's installation 5		4	1	Service manual, Kohler engine 5	
2	1	Service manual 5		5	1	Guide, safety 5	TP-5251
3	1	Parts catalog 5		6	1	Floor template 5	G25-1

Gasket Set

1	1	Gasket Set (include the following)	52 755 94
1		Oil Seal	
1		Gasket, carburetor	
1		Gasket, air cleaner elbow	
1		Gasket, fuel pump	
1		Seal, breather	
2		Seal, valve stem	
1		Seal, oil rear	
2		Seal oil	
1		Gasket, closure plate	
2		Gasket, intake	
2		Gasket, exhaust	
1		Gasket, oil filter cover	
2		Gasket, cylinder head	
3		Gasket, valve cover	
2		Gasket, air cleaner	
2		Gasket, exhaust	
1		Gasket, fuel pump	

Accessories

Qty.	Description	Part No.
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Exhaust Kits

Note: Muffler system as viewed from service side of generator.

Under Set Mounted

Right Side Outlet

1	Screw, H.C.	X-125-24
1	Washer, plain	X-25-85
1	Nut, whiz 5/16-18	X-6210-7
3	Screw, hex flange	X-6217-1
1	Screw, drill	X-794-3
1	Clamp, muffler	X-722-8
1	Gasket, exhaust	278320
1	Arrester, spark	278621
1	Muffler	278736
1	Adapter, exhaust	278766
1	Strap, muffler mounting	278769
1	Bracket, muffler mounting	278772

Left Side Outlet

1	Screw, H.C.	X-125-24
1	Washer, plain	X-25-85
1	Nut, whiz, 5/16-18	X-6210-7
3	Screw, hex flange	X-6217-1
1	Clamp, U	X-722-8
1	Screw, drill	X-794-3
1	Gasket, exhaust	278320
1	Arrester, spark	278621
1	Muffler	278737
1	Adapter, exhaust	278766
1	Strap, muffler mounting	278769
1	Bracket, muffler mounting	278772

Right Side Outlet*

1	Screw, H.C.	X-125-24
2	Washer, plain	X-25-85
1	Nut, whiz, 5/16-18	X-6210-7
3	Screw, hex flange	X-6217-1
1	Clamp, U	X-722-8
1	Screw, drill	X-794-3
1	Bracket, muffler mounting	227433
1	Adapter, exhaust	227434
1	Gasket, exhaust	278320
1	Arrester, spark	278621
1	Muffler	278736
1	Strap, muffler mounting	278769

Qty.	Description	Part No.
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Left Side Outlet*

2	Screw, H.C.	X-125-23
1	Screw, H.C.	X-125-24
2	Washer, plain	X-25-40
1	Washer, plain	X-25-85
3	Screw, hex flange	X-6217-1
1	Clamp, U	X-722-8
1	Screw, drill	X-794-3
1	Bracket, muffler mounting	227433
1	Adapter, exhaust	227434
1	Gasket, exhaust	278320
1	Arrester, spark	278621
1	Muffler	278737
1	Strap, muffler mounting	278769

***Special application kit used to lower muffler additional 8"**

Set Mounted

Front Outlet

2	Screw, hex flange	X-6217-1
2	Screw, hex flange	X-6217-2
1	Clamp, U	X-722-8
1	Screw, drill	X-794-3
1	Gasket, exhaust	278320
1	Adapter, exhaust	278524
1	Arrester, spark	278621
1	Muffler	278734

Rear Outlet

2	Screw, hex flange	X-6217-1
2	Screw, hex flange	X-6217-2
1	Clamp, U	X-722-8
1	Screw, drill	X-794-3
1	Gasket, exhaust	278320
1	Adapter, exhaust	278524
1	Arrester, spark	278621
1	Muffler	278735

Side Outlet

2	Screw, hex flange	X-6217-1
2	Screw, hex flange	X-6217-2
1	Clamp, U	X-722-8
1	Screw, drill	X-794-3
1	Gasket, exhaust	278320
1	Adapter, exhaust	278524
1	Arrester, spark	278621
1	Muffler, above tray	278733

Accessories

Qty.	Description	Part No.	Qty.	Description	Part No.
	Center Tap Bottom Outlet	PA-278964		Remote Voltage Regulator	PA-227892
2	Screw, hex flange	X-6217-1	1	Harness, wiring	227891
2	Screw, hex flange	X-6217-2	1	Cover, box cover	227888
1	Clamp, U	X-722-8	1	Fuse, 10 amp	223316
1	Screw, drill	X-794-3	5	Screw, crimpitite	X-6216-1
1	Gasket, exhaust	278320	1	Regulator Assembly (includes the following)	A-227889
1	Adapter, exhaust	278524	1	Voltage Regulator	B-258296
1	Arrester, spark	278621	1	Bushing, nylon	X-634-5
1	Muffler	278963	6	Spacer	X-712-9
			6	Nut, hex	X-72-4
			6	Washer, nylon	239665
			1	Box, regulator	227887
Remote Control Kits					
	Illuminated Rocker Switch and Mounting Plate	PAA-278727		Below Floor Mounting Kits	
1	Panel assembly, remote (includes the following)	A-278727		Below Floor Mounting	PA-227840
1	Connector	239408	4	Washer, plain	X-25-37
1	Panel, remote	250796	4	Screw, H.C.	X-6238-10
1	Switch, rocker	269296	1	Tray assembly (includes the following)	A-278717
	Illuminated Rocker Switch, Running Time, and Mounting Plate	PAA-239419	1	Plate, front	278711
1	Screw, sheet metal	X-798-1	1	Cover, side	278712
1	Switch assembly, remote (includes the following)	A-239419	1	Cover, back	278713
1	Meter, hour	238736	1	Base	227829
1	Harness, wiring	239418			
1	Switch, rocker	269296			
1	Panel, remote	269298			
	15-foot Harness	PA-278730			
1	Harness, wiring	278730			
	30-foot Harness	PA-278728			
1	Harness, wiring	278728			
	40-foot Harness	PA-278729			
1	Harness, wiring	278729			
	Adapter Harness, 12 inch Pigtail	PA-278681			
1	Harness, wiring	278681			
	Adapter Harness, 36" 6 pin to 4 pin	PA-278682			
1	Harness, wiring	278682			

Accessories

Qty.	Description	Part No.	Qty.	Description	Part No.
	Below Floor Housing and Hinge Kit	PA-278956		Miscellaneous	
1	Screw, H.C.	X-125-33		Generator Paints	
1	Washer, plain	X-25-40	1	Black Spray Paint	221292
2	Washer, plain	X-25-85		Air Damper Kit	PA-227919
1	Cable, battery	X-545-55	1	Spring, damper	227921
2	Nut, whiz	X-6210-2	1	Decal, position	227920
3	Nut, whiz, 5/16-18	X-6210-7	1	Knob, damper	227917
6	Screw, hex flange	X-6217-1	1	Shaft, air damper	227914
6	Screw, hex flange	X-6217-5	1	Plate, air damper	227913
3	Bushing	X-634-25	1	Bracket, air damper	227912
2	Screw, self-tapping	X-67-114	1	Screw, 6-32	X-49-1
11	Screw, self-tapping	X-67-115	1	Ring, retaining	X-269-49
1	Bracket, support	227490	1	Washer, lock #6	X-22-6
1	Bracket	227491		Anti-icing Kit	227555
1	Decal	227492	1	Base Assembly, air cleaner	A-227547
1	Decal	227587	1	Installation Instructions	TT-867
1	Stud, insulator	227588	1	Hose, fuel line	X-422-28
1	Insulator, panel	233269	1	Clamp, hose	X-426-10
2	Boot	238915	2	Clamp, hose	X-426-19
1	Decal, warning	278850	1	Cover, plastic	227463
1	Shield, heat	278866	1	Adapter, hose	227545
2	Plate, hinge	278924	1	Duct, carburetor preheat	227550
1	Bracket, housing	278934	1	Duct, air cleaner	227552
1	Support, housing	278935	1	Line, breather	227573
1	Tray	278937	1	Insulation, sleeve	227574
1	Panel assembly	A-227487	1	Nameplate	278634
2	Screw, hex flange	X-6217-1	1	Nameplate	278635
5	Screw, hex flange	X-6217-5	1	Decal, service instruction	278831
1	Screw, self-tapping	X-67-115	4	Clip, air cleaner	278862
1	Bracket, right corner	278922	1	Gasket	52 055 01
1	Bracket, left corner	278923			
2	Hinge	278925			
1	Bracket, left center	278926			
1	Bracket, right center	278927			
1	Brace, rear	278929			
1	Panel, rear	278930			
1	Panel assembly	A-227488			
2	Screw, self-tapping	X-67-64			
1	Plate, spacer	227486			
1	Brace, side	278931			
1	Panel, left housing	278932			
1	Panel assembly	A-227489			
3	Bushing	X-634-25			
6	Screw, self-tapping	X-67-64			
1	Panel	227484			
1	Plate, spacer	227485			
1	Bracket, right support	278928			
1	Panel, right housing	278933			

Appendix A. Glossary of Abbreviations

Abbreviations are used throughout this manual. Normally in the text they will appear in complete form with the abbreviation following in parenthesis the first time they are used. After that they will appear in the abbreviated form. The commonly used abbreviations are shown below.

AC	alternating current	gph	gallons per hour	N.C.	normally closed
AISI	American Iron and Steel Institute	gpm	gallons per minute	NEC	National Electrical Code
Amp	ampere	gr.	grade	NEMA	National Electrical
Amps	amperes	grd.	ground	Manufacturers Association	
ANSI	American National Standard Institute	HCHT	high cylinder head temperature	NFPA	National Fire Protection Association
API	American Petroleum Institute	HET	high exhaust (or engine) temperature	Nm	Newton meter, Newton meters
approx.	approximate, approximately	Hg	mercury (element)	no., nos	number, numbers
A/R	as required, as requested	H ₂ O	water	NPT	National Standard taper pipe
A/S	as supplied, as stated, as suggested	HP	horsepower	thread per general use	
ASA	American Standards Association	hr, hrs	hour	N/R	not required
ASME	American Society of Mechanical Engineers	Hz	hertz (cycles per second)	OC	overcrank
assy.	assembly	ID	inside diameter	OD	outside diameter
ASTM	American Society for Testing Materials	IEEE	Institute of Electrical and Electronic Engineers	OEM	original equipment manufacturer
ATDC	after top dead center	in.	inch(es)	OS	overspeed, oversize
aux.	auxiliary	inc.	incorporated	O/S	oversize
AWG	American Wire Gauge	in. lbs.	inch pounds	OSHA	Occupational Safety and Health Act
AWM	appliance wiring material	int.	internal	OV	overvoltage
BBDC	before bottom dead center	int.-ext.	internal-external	oz.	ounce, ounces
BDC	before dead center	ISO	International Standards Organization	PF	power factor
BHP	brake horsepower	J	joule, joules	PMG	permanent magnet generator
bmep	brake mean effective pressure	JIS	Japanese Industry Standard	pot.	potentiometer
Btu	British thermal unit	kg	kilogram, kilograms	ppm	parts per million
°C	Celsius degree	kg/cm ²	kilograms per square centimeter	psi	pounds per square inch
cc	cubic centimeter	kgm	kilogram meter(s)	pt., pts.	pint, pints
CCA	cold cranking Amps.	kJ	kilojoules (btu cal)	PVC	polyvinyl chloride
CEC	Canadian Electrical Code	km	kilometer, kilometers	qt., qts.	quart, quarts
cfh	cubic feet per hour	kPa	kiloPascal, kiloPascals	qty.	quantity
cfm	cubic feet per minute	kph	kilometers per hour	ref.	reference
CID	cubic inch displacement	kV	kilovolt	RFI	radio frequency interference
cm	centimeter, centimeters	kVA	kilovolt amperes	r.h.m.	round-head machine (screw)
cmm	cubic meters per minute	kW	kilowatt, kilowatts	rms	root mean square
co.	company	kWH	kilowatt hour	RPM	revolutions per inch
cont'd.	continued	L	liter, liters	RTV	room temperature vulcanization
CSA	Canadian Standards Association	LxWxH	length x width x height	SAE	Society of Automotive Engineers
CT	current transformer	LED(s)	light emitting diode	SCR	silicon-controlled rectifier
cu. in.	cubic inch, cubic inches	lb., lbs.	pound, pounds	sec.	second, seconds
cyl.	cylinder	L/hr.	liter per hour, liters per hour	spec.	specs, specification
dB	decibel	L/min.	liter(s) per minutes	sq.	square
dBA	decibels (A weighted)	LOP	low oil pressure	sq. cm	square centimeters
DC	direct current	LP	liquefied petroleum	sq. in.	square inch, square inches
DCR	direct current resistance	m	meter, meters	tach	tachometer
deg.	degree	m ³	cubic meter, cubic meters	TDC	top dead center
dept.	department	max.	maximum	tech. pub.	technical publications
dia.	diameter	MCM	one thousand circular mils.	temp.	temperature
e.g.	example given	megger	megohmmeter	TIF	telephone influence factor
EIA	Electronic Industries Association	MHz	megahertz	TP, TPs	technical publications
EMI	electromagnetic interference	mi.	mile, miles	turbo	turbocharger
EPA	Environmental Protection Agency	mil	one one-thousandth of an inch	UHF	ultrahigh frequency
etc.	et cetera (and so forth)	min.	minimum	UNC	Unified coarse thread (was NC)
ext.	external	mJ	millijoule, millijoules	UNF	Unified fine thread (was NF)
°F	Fahrenheit degree	MJ	mega joule, mega joules	UL	Underwriter's Laboratories, Inc.
fl. oz.	fluid ounce, fluid ounces	mm	millimeter, millimeters	U/S	undersize
FM	frequency modulation	m ³ /min	cubic meters per minute	U.S.A.	United States of America
ft.	foot, feet	MPa	megaPascal	v	volt, volts
ft. lbs.	foot pound, foot pounds	mW	milliwatt, milliwatts	vac	volts alternating current
ga.	gauge	MW	megawatt, megawatts	vdc	volts direct current
gal./gals.	gallon, gallons	N/A	not available or not applicable	VHF	very high frequency
		NBS	National Bureau of Standards	W	watt, watts

Appendix B. Common Hardware Application Guidelines

Use the information below and on the following pages to identify proper fastening techniques when no specific reference for reassembly is made.

Bolt/Screw Length: When bolt/screw length is not given, use Figure 2 as a guide. As a general rule, a minimum length of one thread beyond the nut and a maximum length of 1/2 the bolt/screw diameter beyond the nut is the preferred method.

Washers and Nuts: Use split lock washers as a bolt locking device where specified. Use SAE flat washers with whiz nuts, spiralock nuts, or standard nuts and preloading (torque) of the bolt in all other applications.

See General Torque Specifications and other torque specifications in the service literature.

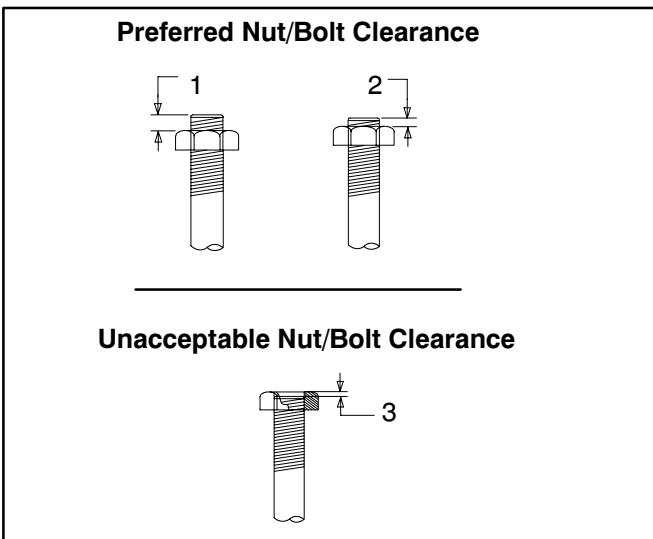
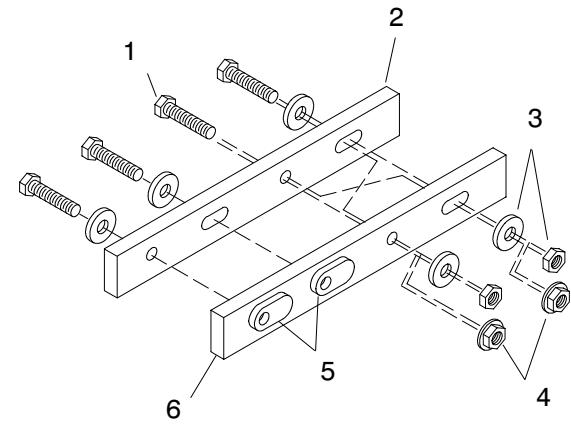


Figure 2. Acceptable Bolt Lengths

1. 1/2 of Bolt Diameter
2. Min. 1 Full Thread Beyond Top of Nut
3. Below Top of Nut

Steps for common hardware application:

1. Determine entry hole type: round or slotted.
2. Determine exit hole type: fixed female thread (weld nut), round, or slotted.
For round and slotted exit holes, determine if hardware is greater than 1/2 inch in diameter, or 1/2 inch in diameter or less. Hardware that is *greater than 1/2 inch* in diameter takes a standard nut and SAE washer. Hardware *1/2 inch or less* in diameter can take a properly torqued whiz nut or spiralock nut. See the diagram below.
3. Follow these SAE washer rules after determining exit hole type:
 - a. Always use a washer between hardware and a slot.
 - b. Always use a washer under a nut (see 2 above for exception).
 - c. Use a washer under a bolt when the female thread is fixed (weld nut).
4. Refer to the diagram below, which depicts the preceding hardware configuration possibilities.



1. Cap screw
2. Entry hole types
3. Standard nut and SAE washer
4. Whiz nut or spiralock: up to 1/2" dia. hardware
5. Weld nuts: above 1/2" dia. hardware
6. Exit hole types

Figure 3. Acceptable Hardware Combinations

Appendix C. General Torque Specifications

SAE Fasteners

Use the following specifications for SAE fasteners when no torque values are given elsewhere in this or the service manual for a specified bolt.

The values given are based on new plated threads. Increase values by 20% if nonplated threads are used.

Size	Torque Measurement	Assembled into			
		Cast Iron or Steel	Grade 2	Grade 5	Grade 8
8-32	in. lbs. (Nm)	16	(1.8)	20	(2.3)
10-24	in. lbs. (Nm)	26	(2.9)	32	(3.6)
10-32	in. lbs. (Nm)	26	(2.9)	32	(3.6)
1/4-20	in. lbs. (Nm)	60	(6.8)	96	(10.8)
1/4-28	in. lbs. (Nm)	72	(8.1)	108	(12.2)
5/16-18	in. lbs. (Nm)	120	(13.6)	192	(21.7)
5/16-24	in. lbs. (Nm)	132	(14.9)	204	(23.1)
3/8-16	in. lbs. (Nm)	18	(24)	28	(38)
3/8-24	ft. lbs. (Nm)	20	(27)	31	(42)
7/16-14	ft. lbs. (Nm)	29	(39)	44	(60)
7/16-20	ft. lbs. (Nm)	32	(43)	50	(68)
1/2-13	ft. lbs. (Nm)	44	(60)	68	(92)
1/2-20	ft. lbs. (Nm)	49	(66)	76	(103)
9/16-12	ft. lbs. (Nm)	60	(81)	98	(133)
9/16-18	ft. lbs. (Nm)	67	(91)	109	(148)
5/8-11	ft. lbs. (Nm)	83	(113)	135	(183)
5/8-18	ft. lbs. (Nm)	94	(128)	153	(208)
3/4-10	ft. lbs. (Nm)	147	(199)	240	(325)
3/4-16	ft. lbs. (Nm)	164	(222)	268	(363)
1-8	ft. lbs. (Nm)	191	(259)	532	(721)
1-12	ft. lbs. (Nm)	209	(283)	582	(789)
					895 (1214)

Metric Fasteners

Use the following specifications for metric fasteners when no torque values are given elsewhere in this manual for a specified bolt. These values are based on new plated threads.

Increase values by 20% if nonplated threads are used. Screws threaded into aluminum must have two diameters of threads engaged and may require 30% or more reduction in the torque.

Torque ft-lb (Nm)

Size (mm)	Fasteners Assembled Into			Aluminum
	5.8	6.8	10.9	
6 x 1.00	5 (7)	6 (9)	9 (12)	5 (7)
8 x 1.25	14 (19)	14 (20)	20 (37)	14 (19)
8 x 1.00	16 (21)	17 (24)	23 (31)	16 (21)
10 x 1.50	25 (35)	27 (37)	38 (51)	25 (35)
10 x 1.25	29 (39)	34 (46)	45 (61)	29 (39)
12 x 1.75	42 (57)	45 (61)	65 (89)	
12 x 1.50	48 (65)	55 (75)	78 (106)	
14 x 2.00	64 (86)	69 (94)	101 (137)	
14 x 1.50	74 (100)	81 (110)	116 (157)	
16 x 2.00	98 (133)	104 (141)	150 (204)	
16 x 1.50	104 (141)	116 (157)	168 (228)	
18 x 2.50	133 (181)	145 (196)	208 (283)	
18 x 1.50	145 (196)	156 (212)	226 (306)	

Appendix D. Common Hardware Identification

Screws/Bolts/Studs	
Head Styles	
Hex. Head or Machine Head	 
Hex. Head or Machine Head with Washer	
Flat Head (f.h.m.)	
Round Head (r.h.m.)	
Pan Head	
Socket Head Cap or Allen Head Cap	
Socket Head or Allen Head Shoulder Bolt	
Sheet Metal Screw	
Stud	
Drive Styles	
Hex.	
Hex. and Slotted	
Phillips	
Slotted	
Hex. Socket	
Hardness Grade	
American Standard	
Grade 2	
Grade 5	
Grade 8	
Grade 8/9	
Metric	
Number stamped on hardware; 5.8 shown	

Nuts	
Nut Styles	
Hex. Head	
Lock Nut or Nylock Nut	
Square Nut	
Cap Nut or Acorn Nut	
Wing Nut	
Nut Hardness Grades	
American Standard	
Grade 2	
Grade 5	
Metric	
Number stamped on hardware	
Washers	
Washer Styles	
Plain	
Split Lock or Spring	
Spring or Wave	
External Tooth Lock	
Internal Tooth Lock	
Internal-External Tooth Lock	

Sample Dimensions

American Standard (Screws, Bolts, Studs, and Nuts)

1/4-20 x 1

 Length in Inches (Screws and Bolts)
 Threads Per Inch

Major Thread Diameter In Fractional Inches Or Screw Number Size

Plain Washers

9/32 x 5/8 x 1/16

 Thickness
 External Dimension
 Internal Dimension

Metric (Screws, Bolts, Studs, and Nuts)

M8-1.25 x 20

 Length In Millimeters (Screws and Bolts)
 Distance Between Threads In Millimeters
 Major Thread Diameter In Millimeters

Lock Washers

5/8

 Internal Dimension

Appendix E. Common Hardware List

The Common Hardware List gives part numbers and dimensions for common hardware items.

HEX BOLTS (GRADE 5)

Part No. Dimensions

X-465-17	1/4-20 x .38
X-465-6	1/4-20 x .50
X-465-2	1/4-20 x .62
X-465-16	1/4-20 x .75
X-465-18	1/4-20 x .88
X-465-7	1/4-20 x 1.00
X-465-8	1/4-20 x 1.25
X-465-9	1/4-20 x 1.50
X-465-10	1/4-20 x 1.75
X-465-11	1/4-20 x 2.00
X-465-12	1/4-20 x 2.25
X-465-14	1/4-20 x 2.75
X-465-21	1/4-20 x 5.00
X-465-25	1/4-28 x .38
X-465-20	1/4-28 x 1.00
X-125-33	5/16-18 x .50
X-125-23	5/16-18 x .62
X-125-3	5/16-18 x .75
X-125-31	5/16-18 x .88
X-125-5	5/16-18 x 1.00
X-125-24	5/16-18 x 1.25
X-125-34	5/16-18 x 1.50
X-125-25	5/16-18 x 1.75
X-125-26	5/16-18 x 2.00
230578	5/16-18 x 2.25
X-125-29	5/16-18 x 2.50
X-125-27	5/16-18 x 2.75
X-125-28	5/16-18 x 3.00
X-125-22	5/16-18 x 4.50
X-125-32	5/16-18 x 5.00
X-125-35	5/16-18 x 5.50
X-125-36	5/16-18 x 6.00
X-125-40	5/16-18 x 6.50
X-125-43	5/16-24 x 1.75
X-125-44	5/16-24 x 2.50
X-125-30	5/16-24 x .75
X-125-39	5/16-24 x 2.00
X-125-38	5/16-24 x 2.75
X-6238-2	3/8-16 x .62
X-6238-10	3/8-16 x .75
X-6238-3	3/8-16 x .88
X-6238-11	3/8-16 x 1.00
X-6238-4	3/8-16 x 1.25
X-6238-5	3/8-16 x 1.50
X-6238-1	3/8-16 x 1.75
X-6238-6	3/8-16 x 2.00
X-6238-17	3/8-16 x 2.25
X-6238-7	3/8-16 x 2.50
X-6238-8	3/8-16 x 2.75
X-6238-9	3/8-16 x 3.00
X-6238-19	3/8-16 x 3.25
X-6238-12	3/8-16 x 3.50
X-6238-20	3/8-16 x 3.75
X-6238-13	3/8-16 x 4.50
X-6238-18	3/8-16 x 5.50
X-6238-25	3/8-16 x 6.50
X-6238-14	3/8-24 x .75
X-6238-16	3/8-24 x 1.25
X-6238-21	3/8-24 x 4.00
X-6238-22	3/8-24 x 4.50
X-6024-5	7/16-14 x .75
X-6024-2	7/16-14 x 1.00
X-6024-8	7/16-14 x 1.25
X-6024-3	7/16-14 x 1.50
X-6024-4	7/16-14 x 2.00
X-6024-11	7/16-14 x 2.75
X-6024-12	7/16-14 x 6.50
X-129-15	1/2-13 x .75

HEX BOLTS (GRADE 5), continued

Part No. Dimensions

X-129-17	1/2-13 x 1.00
X-129-18	1/2-13 x 1.25
X-129-19	1/2-13 x 1.50
X-129-20	1/2-13 x 1.75
X-129-21	1/2-13 x 2.00
X-129-22	1/2-13 x 2.25
X-129-23	1/2-13 x 2.50
X-129-24	1/2-13 x 2.75
X-129-25	1/2-13 x 3.00
X-129-27	1/2-13 x 3.50
X-129-29	1/2-13 x 4.00
X-129-30	1/2-13 x 4.50
X-463-9	1/2-13 x 5.50
X-129-44	1/2-13 x 6.00
X-129-51	1/2-20 x .75
X-129-45	1/2-20 x 1.25
X-129-52	1/2-20 x 1.50
X-6021-3	5/8-11 x 1.00
X-6021-4	5/8-11 x 1.25
X-6021-2	5/8-11 x 1.50
X-6021-1	5/8-11 x 1.75
273049	5/8-11 x 2.00
X-6021-5	5/8-11 x 2.25
X-6021-6	5/8-11 x 2.50
X-6021-7	5/8-11 x 2.75
X-6021-12	5/8-11 x 3.75
X-6021-11	5/8-11 x 4.50
X-6021-10	5/8-11 x 6.00
X-6021-9	5/8-18 x 2.50
X-6239-1	3/4-10 x 1.00
X-6239-8	3/4-10 x 1.25
X-6239-2	3/4-10 x 1.50
X-6239-3	3/4-10 x 2.00
X-6239-4	3/4-10 x 2.50
X-6239-5	3/4-10 x 3.00
X-6239-6	3/4-10 x 3.50
X-792-1	1-8 x 2.25
X-792-5	1-8 x 3.00
X-792-8	1-8 x 5.00

NUTS

Part No. Dimensions

X-6009-1	1-8	Std. Nut
X-6210-3	.6-32	Whiz Nut
X-6210-4	.8-32	Whiz Nut
X-6210-5	10-24	Whiz Nut
X-6210-1	10-32	Whiz Nut
X-6210-2	1/4-20	Spiralock Nut
X-6210-6	1/4-28	Spiralock Nut
X-6210-7	5/16-18	Spiralock Nut
X-6210-8	5/16-24	Spiralock Nut
X-6210-9	3/8-16	Spiralock Nut
X-6210-10	3/8-24	Spiralock Nut
X-6210-11	7/16-14	Spiralock Nut
X-6210-12	1/2-13	Spiralock Nut
X-6210-15	7/16-20	Spiralock Nut
X-6210-14		Spiralock Nut

WASHERS

Part No.	ID	OD	Thickness	Bolt/ Screw
				#4
X-25-46	.125	.250	.022	
X-25-9	.156	.375	.049	#6
X-25-48	.188	.438	.049	#8
X-25-36	.219	.500	.049	#10
X-25-40	.281	.625	.065	1/4
X-25-85	.344	.687	.065	5/16
X-25-37	.406	.812	.065	3/8
X-25-34	.469	.922	.065	7/16
X-25-26	.531	1.062	.095	1/2
X-25-15	.656	1.312	.095	5/8
X-25-29	.812	1.469	.134	3/4
X-25-127	1.062	2.000	.134	1

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