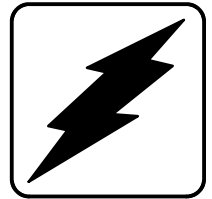


Parts Catalog

Standby Generator Sets



Model:
6.5RMY

KOHLER[®]
POWER SYSTEMS

SPECIFICATION SERIES 140

TP-5628 9/98

Table of Contents

SUBJECT	PAGE	SUBJECT	PAGE
Introduction	1	Group 29: Oil Filter	17
Number Significance	1	Group 32: Low Oil Pressure Switch	17
How to Find Part Numbers	1	Group 42: Short Block Group	18
Hardware Grades	1	Gasket Set	18
Hardware References	1	Group 101: Air Intake	20
Specification Number Index	2	Group 103: Fuel System	24
Group 2: Baffles and Shroud	4	Group 104: Cooling System	28
Group 3: Breather and Vent	5	Group 105: Engine	30
Group 4: Camshaft and Valves	6	Group 107: Nameplate and Decals	32
Group 7: Crankcase	7	Group 109: Skid and Plant Mounting	34
Group 8: Crankshaft	8	Group 112: Starter	36
Group 9: Cylinder Head	8	Group 116: Exhaust System	37
Group 10: Dipstick	8	Group 201: Generator and Mounting	38
Group 11: Starter	9	Group 301: Controller and Mounting	42
Group 12: Exhaust	10	Group 501: Housing and Mounting	47
Group 13: Flywheel	10	Group 701: Literature	48
Group 14: Fuel Pump	12	Accessories	49
Group 18: Ignition	14	Appendix	A-1
Group 21: Oil Pan	14	A. Glossary of Abbreviations	A-1
Group 22: Piston and Rod	15	B. Common Hardware Application Guidelines	A-2
Group 25: Oil Pump	15	C. General Torque Specifications	A-3
Group 26: Gear Cover	16	D. Common Hardware Identification	A-4
		E. Common Hardware List	A-5

Introduction

This manual contains a list of generator and some engine service replacement parts for Kohler industrial 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 controller and cooling system kits (by model) and their parts. See Parts Catalog TP-5707 for parts lists of optional accessory kits installed on the generator set.
- **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. Variation numbers in the column heading of the group page correspond to variations found in the Specification Number Index. Find the description of the part you need in the description column. The intersection of the description row with the variation column identifies the quantity of that part used in that group. Find the part number to order to the left of the description in the part number column.

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:

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

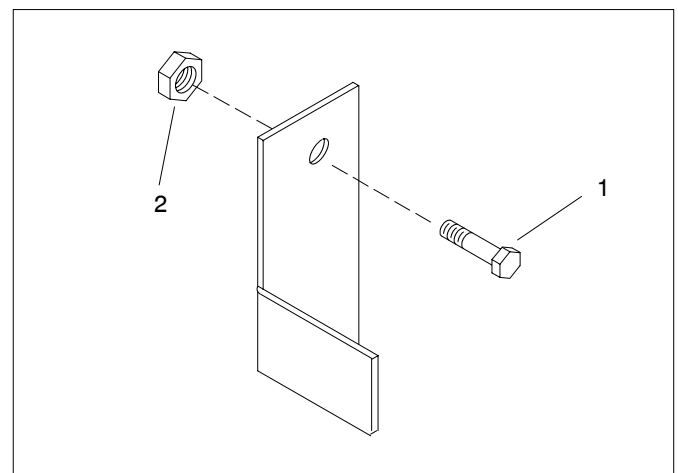


Figure 1. Hardware References

Specification Number Index

GROUP TITLE and NUMBER	Baffles and Shroud	Vent and Valve Cover	Camshaft and Valves	Crankcase	Crankshaft	Cylinder Head	Dipstick	Electric Start	Intake and Exhaust	Flywheel	Fuel Pump	Ignition	Oil Pan	Piston and Rod	Oil Pump	Gear Cover	Oil Filter	Oil Pressure Cutout	Short Block Group
	2	3	4	7	8	9	10	11	12	13	14	18	21	22	25	26	29	32	42
SPEC NO.	VARIATION NUMBER																		
140116	63	12	10	84	54	12	16	69	83	85	53*	70	34	10	6	13	13	11	—
140117	63	12	10	84	54	12	16	69	83	85	53*	70	34	10	6	13	13	11	—
140118	63	13	10	87	54	12	16	69	83	85	53*	70	34	10	6	14	13	11	22
140119	63	13	10	87	54	12	16	69	83	85	53*	70	34	10	6	14	13	11	22
140120	63	13	10	87	54	12	16	69	83	85	53*	70	34	10	6	14	13	11	22
140121	63	13	10	87	54	12	16	69	83	85	53*	70	34	10	6	14	13	11	22
140124	63	13	10	87	54	12	16	69	83	85	53*	70	34	10	6	14	13	11	22
140125	63	13	10	87	54	12	16	69	83	85	53*	70	34	10	6	14	13	11	22
140126	63	13	10	87	54	12	16	69	83	85	53*	70	34	10	6	14	13	11	22
140127	63	13	10	87	54	12	16	69	83	85	53*	70	34	10	6	14	13	11	22
140128	63	13	10	87	54	12	16	69	83	85	53*	70	34	10	6	14	13	11	22
140129	63	13	10	87	54	12	16	69	83	85	53*	70	34	10	6	14	13	11	22
140130	63	13	10	87	54	12	16	69	83	85	53*	70	34	10	6	14	13	11	22
140131	63	13	10	87	54	12	16	69	83	85	53*	70	34	10	6	14	13	11	22

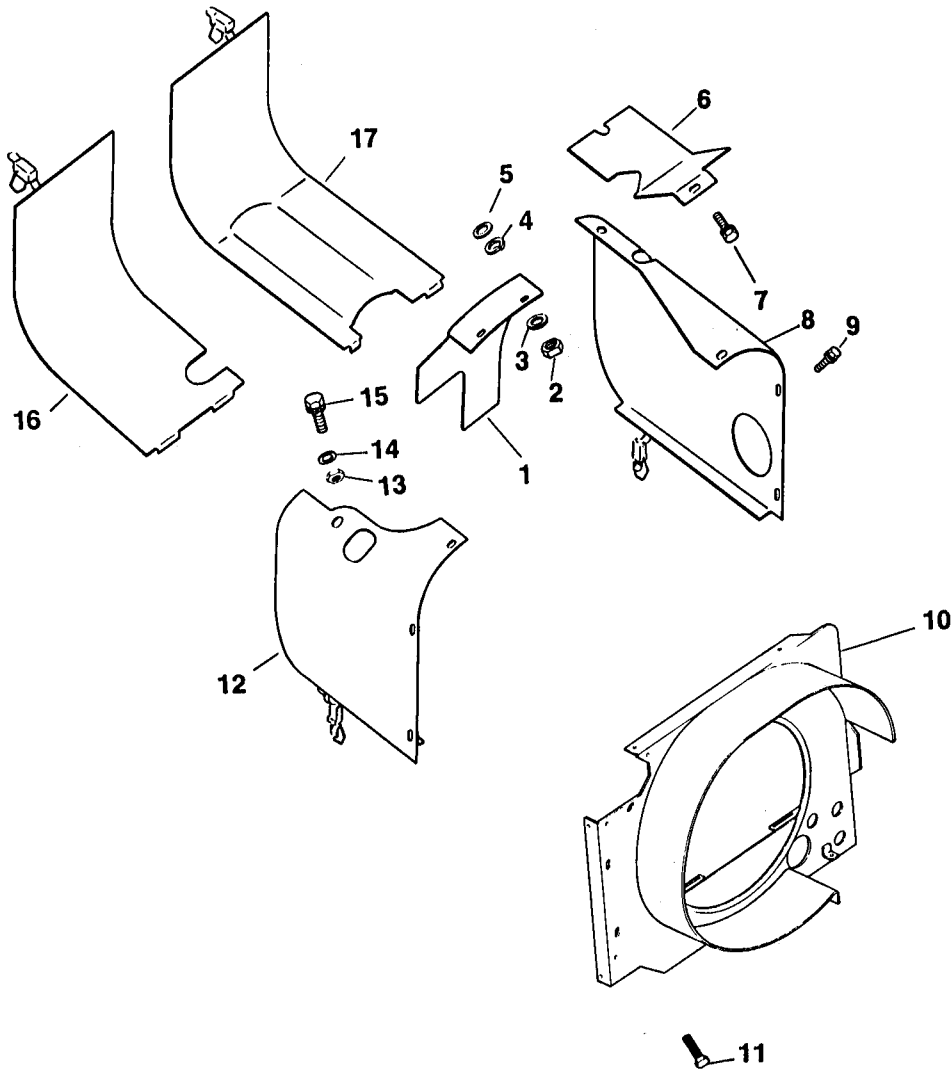
* Variation 53 shows a gasoline carburetor. See Group 103 for the natural gas/LP carburetor.

SPECIFICATION NUMBER INDEX

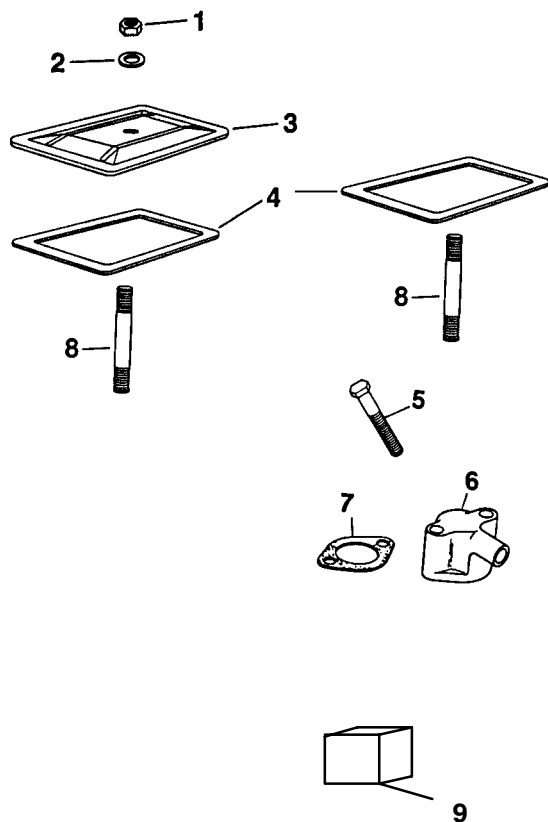
GROUP TITLE & NUMBER												
	<i>Air Intake</i>	<i>Fuel System</i>	<i>Cooling System</i>	<i>Engine</i>	<i>Nameplate & Decals</i>	<i>Skid & Plant Mounting</i>	<i>Starter</i>	<i>Exhaust</i>	<i>Generator & Mounting</i>	<i>Controller & Mounting</i>	<i>Housing</i>	<i>Literature</i>
	101	103	104	105	107	109	112	116	201	301	501	701
SPEC NO.	VARIATION NUMBER											
140116	–	–	2	13	47	48	12	20	92	–	7	7
140117	12	22	2	13	47	48	12	20	92	58	7	7
140118	15	26	2	18	47	48	12	20	93	81	8	7
140119	15	*	2	18	47	48	12	20	93	*	8	7
140120	15	*	2	18	47	48	12	20	101	*	8	7
140121	15	26	2	18	47	48	12	20	101	92	8	7
140124	15	*	2	18	47	48	12	20	101	*	8	7
140125	15	*	2	18	47	48	12	20	93	*	8	7
140126	15	26	2	18	47	48	12	20	93	81	8	7
140127	15	26	2	18	47	48	12	20	101	92	8	7
140128	15	26	2	18	59	48	12	20	93	81	8	7
140129	15	26	2	18	59	48	12	20	101	92	8	7
140130	15	26	2	18	60	48	12	20	93	81	8	7
140131	15	26	2	18	60	48	12	20	101	92	8	7

* Some modular generator specs listed in the Specification Number Index require a fuel system or controller kit. Refer to the generator set nameplate to identify the kit number installed on your generator set. Find the parts list for your kit number in the *Accessories* section on pages 49–50.

Group 2: Baffles and Shroud



Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.
1	1	Baffle, top cyl., barrel no. 1 63	48 063 27	10	1	Scroll assembly 63	48 539 04
2	1	Nut, hex, 1/4-20 63	X-81-1	11	2	Screw, 1/4-20 x 7/16 63	X-176-1
3	1	Washer, plain, 1/4 63	X-25-53	12	1	Baffle, no. 1 cylinder head 63	48 063 26
4	1	Washer, lock, 1/4 63	X-20-1	13	1	Nut, hex, 3/8-16 63	X-83-6
5	1	Washer, plain, 1/4 63	X-25-73	14	1	Washer, plain 63	48 468 03
6	1	Baffle, top cyl., barrel no. 2 63	48 063 29	15	3	Screw, hex, wash. hd., 1/4-20 x 7/16 63	X-67-83
7	1	Screw, hex wash. hd. 1/4-20 x 7/16 63	X-67-83	16	1	Baffle, no. 1 barrel 63	277048
8	1	Baffle, no. 2 cylinder head 63	48 063 28	17	1	Baffle, no. 2 barrel 63	48 063 24
9	3	Screw, hex wash. hd., 1/4-20 x 7/16 63	X-67-83	18	1	Plug, grommet (not shown) 63	48 139 02

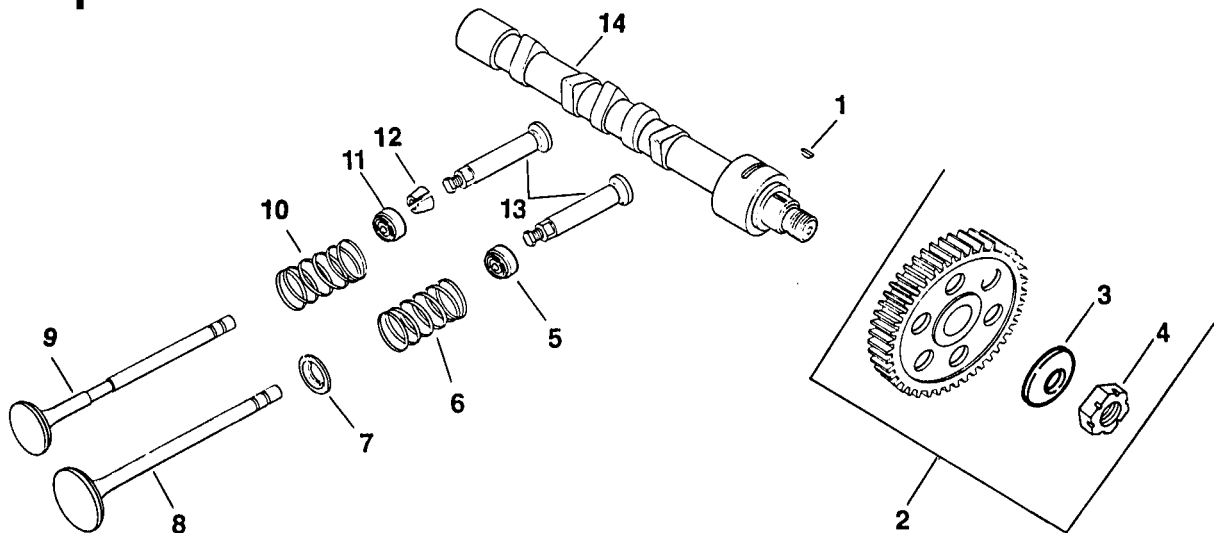


For variation 13, use p/n 277313 with p/n 48 096 14, and use p/n 220386 with p/n 270036.

Group 3: Breather and Vent

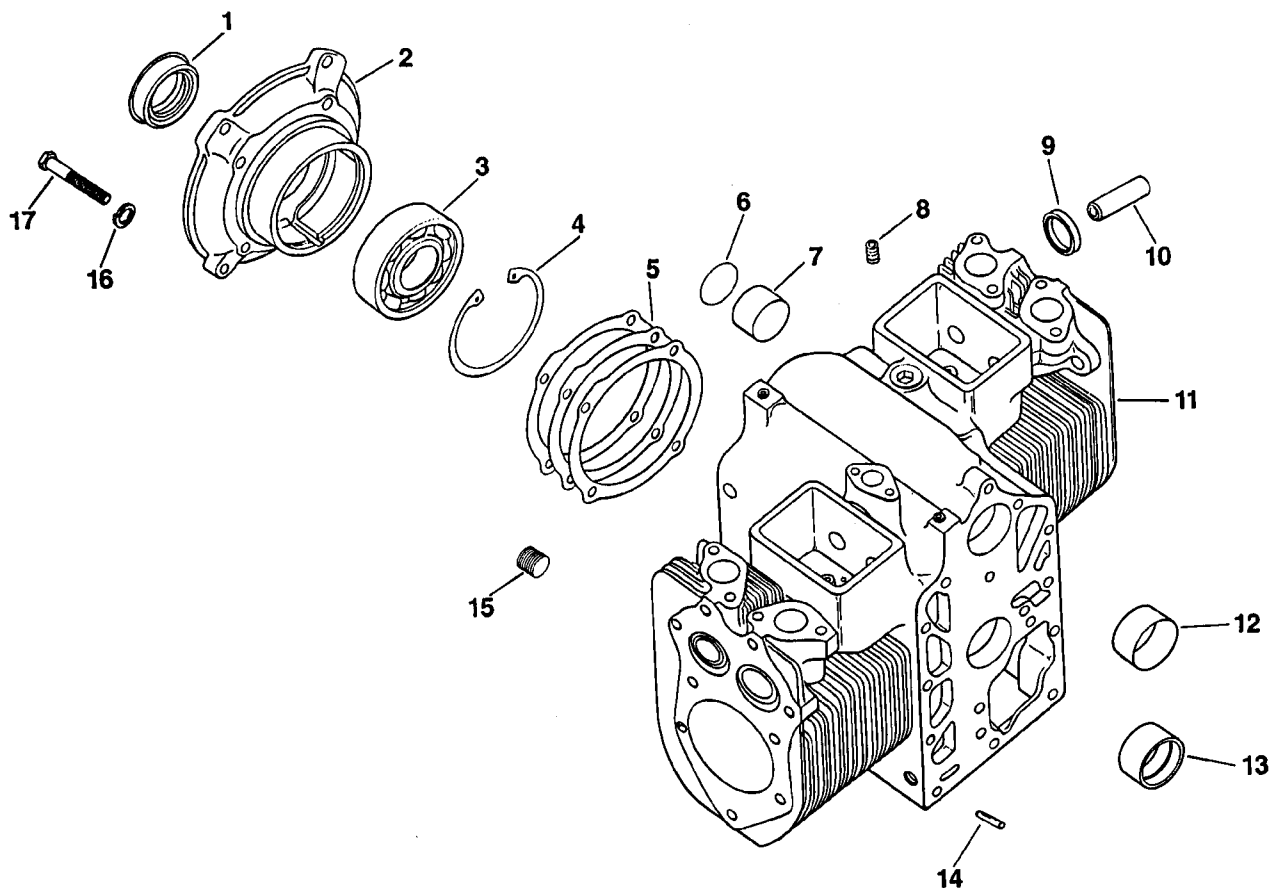
Item	Qty.	Description Variation	Part No.
1	4	Nut, hex, 1/4-20 12, 13	X-81-1
2	5	Washer, plain 1/4 12, 13	X-25-12
3	2	Cover, valve 12, 13	270036 48 096 14
	1	Cover, valve 13	270036
4	2	Gasket, valve cover 12, 13	270034
5	1	Screw, 1/4-20 x 2 3/4 12	48 086 17
	2	Screw 13	X-465-3
6	1	Breather 12	A-277905
	1	Breather Assembly 13	48 033 01
7	1	Gasket, breather 12, 13	277073
8	2	Stud, valve cover 12	220368
	1	Stud 13	277313
	1	Stud 13	220368
9		Filter, breather 13	231419

Group 4: Camshaft and Valves



Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.
1	1	Key, woodruff 10	X-43-1	8	2	Valve, intake 10	235582
2	1	Kit, camshaft gear (includes 3-4) 10	48 755 34	9	2	Valve, exhaust 10	237672
3	1	Washer 10	48 468 04	10	2	Spring, exhaust valve 10	235168
4	1	Nut 10	48 100 04	11	4	Rotator, exhaust valve 10	52 413 01
5	2	Rotator, intake valve 10	52 413 01	12	4	Kit, retainer 10	41 755 10
6	2	Spring, intake valve 10	235168	13	4	Tappet, valve 10	D-277031
7	4	Retainer, valve spring 10	235011	14	1	Camshaft 10	48 012 01

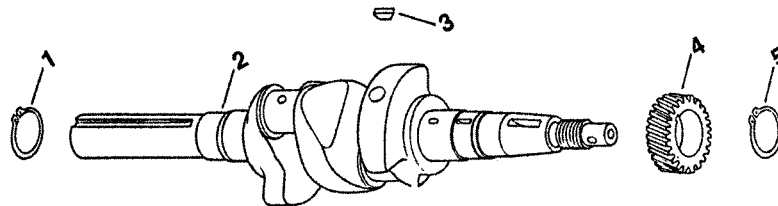
Group 7: Crankcase



Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.
1	1	Seal, rear oil 84, 87	277065	10	4	Guide, valve 84, 87	235007-S
2	1	Plate, rear closure 84, 87	48 009 01	11	1	Crankcase assembly (Includes 9, 10) 84	48 005 06
3	1	Bearing, ball 84, 87	277062		1	Crankcase assembly (Includes 9, 10) 87	48 005 06
4	1	Ring, retaining 84, 87	X-269-31	12	1	Bushing 84, 87	48 158 03
5	1	Gasket, closure plate 84, 87	277087	13	1	Bearing, main (std) 84, 87	48 030 06
	1	Gasket, closure plate .005 84, 87	277103		1	Bearing, main (0.010) 84, 87	48 030 07
	1	Gasket, closure plate .010 84, 87	277115		1	Bearing, main (0.020) 84, 87	48 030 08
6	1	Plug, welch 1 1/2 84, 87	160037	14	2	Pin, drive 3/16 x 5/8 84, 87	X-599-2
7	1	Bushing 84, 87	277039	15	2	Plug, pipe 84, 87	47 139 01
8	4	Plug, hex ctsk. 1/8 NPTF 84, 87	X-75-23	16	4	Washer, lock 3/8 84, 87	X-22-1
9	2	Insert, intake valve 84	230265	17	4	Screw, 3/8-16 x 1 1/4 84, 87	270956

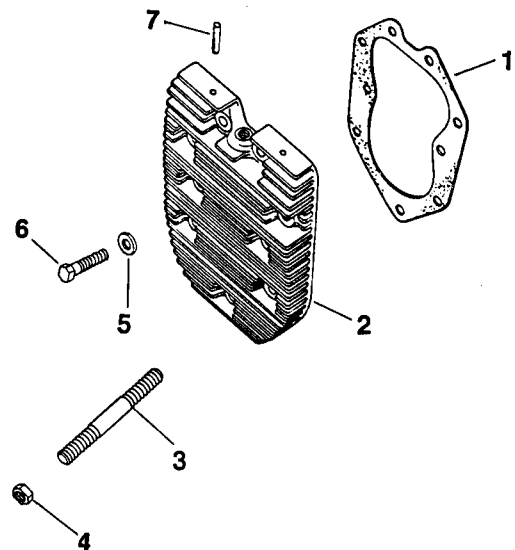
Group 8: Crankshaft

Item	Qty.	Description Variation	Part No.
1	1	Ring, retaining, 1 5/8 ID 54	X-269-30
2	1	Crankshaft 54	48 014 14
3	1	Key, woodruff 54	X-42-15
4	1	Gear, crankshaft 54	48 043 15
5	1	Ring, retaining 1 7/16 ID 54	X-269-32



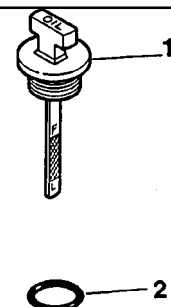
Group 9: Cylinder Head

Item	Qty.	Description Variation	Part No.
1	2	Gasket, cylinder head 12	48 041 13
2	1	Head, cylinder #1 12	48 015 03
	1	Head, cylinder #2 12	48 015 04
3	1	Stud 12	48 072 05
4	1	Nut, hex, 3/8-16 12	X-83-2
5	18	Washer, plain, 3/8 12	270889
6	17	Screw, 3/8-16 x 1 1/2 12	270158
7	2	Pin, roll, 3/16 x 1 1/8 12	48 133 03

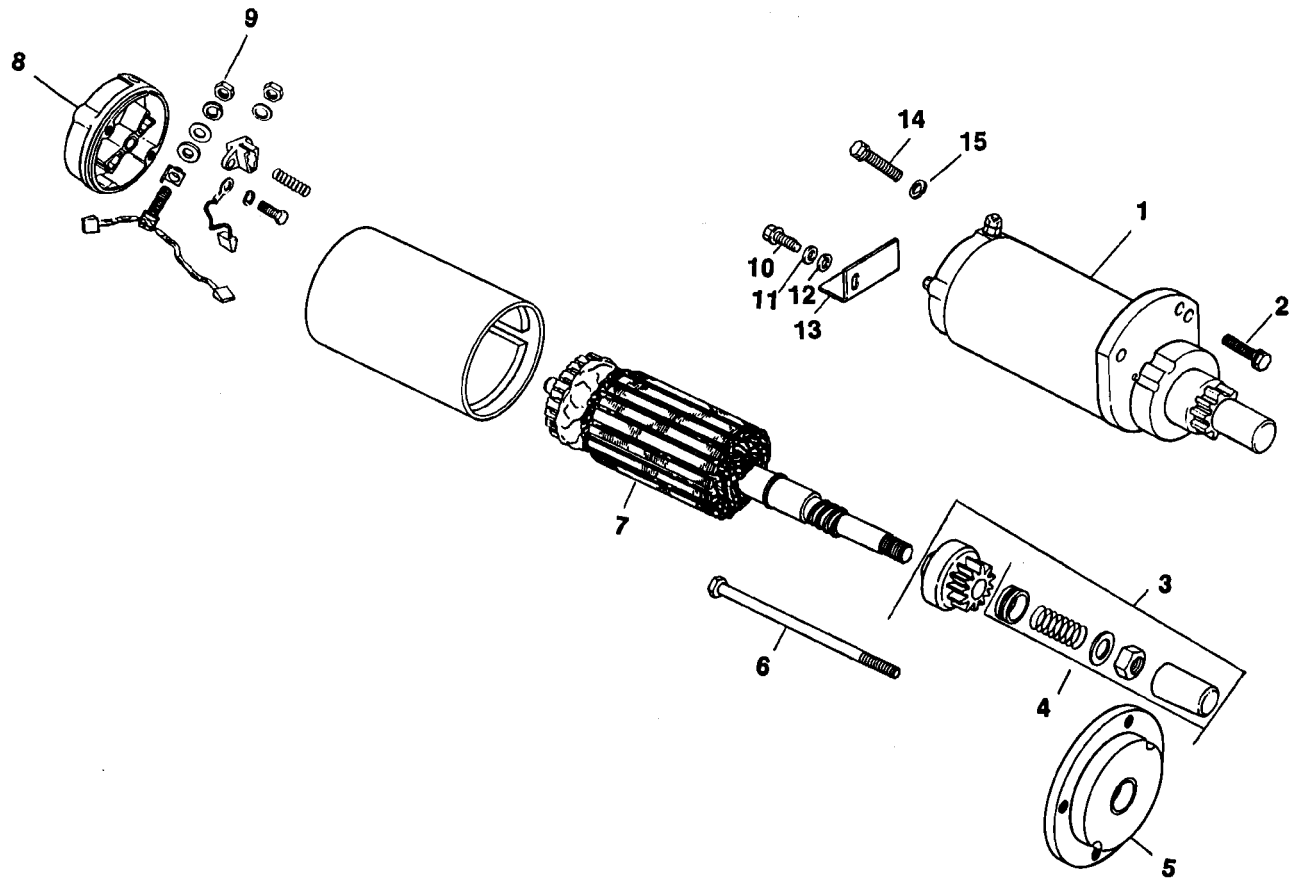


Group 10: Dipstick

Item	Qty.	Description Variation	Part No.
1	1	Dipstick 16	48 038 02
2	1	O-ring 16	48 153 03



Group 11: Starter

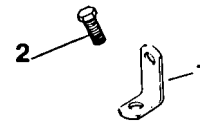


Item	Qty.	Description Variation	Part No.
1	1	Starter Assembly (includes items 3–9) 69	48 098 01
2	2	Screw, 5/16-18 x 1 69	X-154-2
3	1	Kit, drive (includes item 4) 69	48 755 02
4	1	Kit, drive parts 69	48 755 13
5	1	Cap, drive end 69	48 227 02
6	2	Thrubolt 69	48 211 01
7	1	Armature 69	277605
8	1	Cap, commutator end (includes item 9) 69	48 227 04

Item	Qty.	Description Variation	Part No.
9	1	Kit, brush 69	52 755 15
10	1	Screw, 5/16-18 x 3/4 69	X-6-11
11	1	Washer, lock, 5/16 69	X-21-1
12	1	Washer, plain 3/4 69	X-25-20
13	1	Bracket, starter 69	48 161 04
14	1	Screw, hex wash. hd. 1/4-20 x 3/4 69	X-67-62
15	2	Washer, plain, 3/8 69	X-25-41
16		Lubricant, starter (not shown) 69	52 357 01

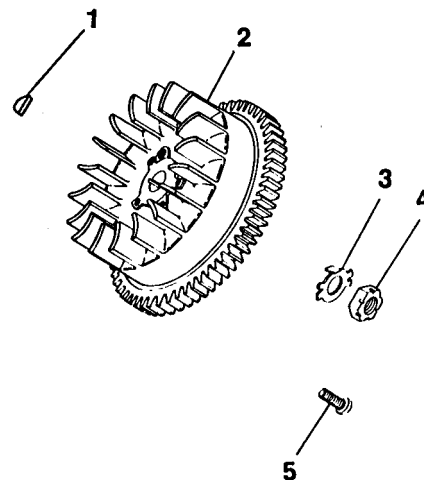
Group 12: Exhaust

Item	Qty.	Description	Part No.
		Variation	
1	2	Strap, lifting 83	52 445 02
2	2	Screw, 5/16-18 x 5/8 83	X-6-12



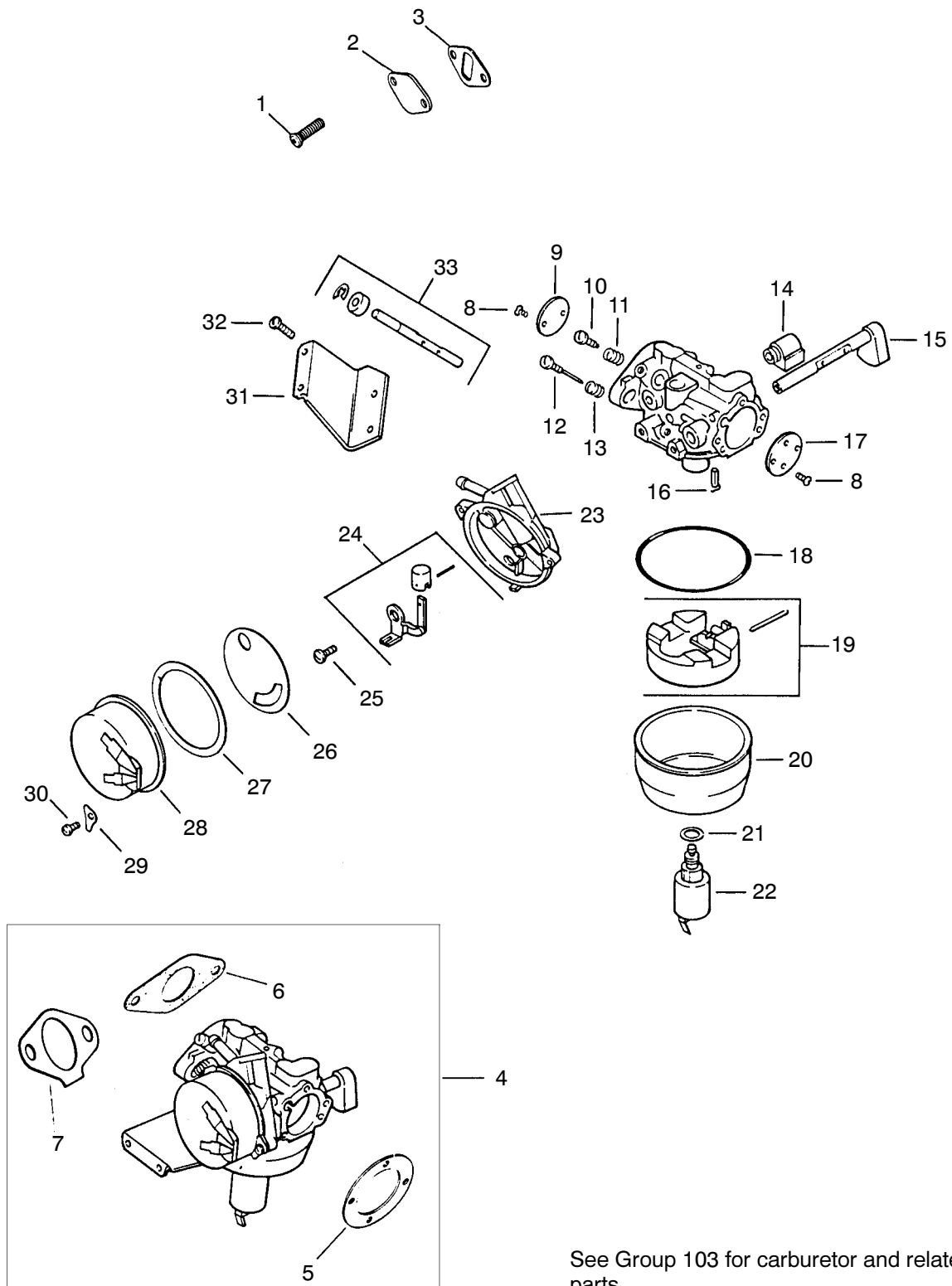
Group 13: Flywheel

Item	Qty.	Description	Part No.
		Variation	
1	1	Key, woodruff 1/4 x 1 85	X-45-3
2	1	Flywheel 85	48 025 29
3	1	Nut, lock 85	277595
4	1	Nut, hex, 1-14 85	X-80-1
5	1	Screw, trigger 85	48 086 16



This page intentionally left blank.

Group 14: Fuel Pump



See Group 103 for carburetor and related parts.

Group 14: Fuel Pump, continued

Item	Qty.	Description Variation	Part No.
1	1	Gasket, pump 53	25 041 05
2	1	Cover, pump pad 53	240282
3	2	Screw, 1/4-20 x 5/8 53	47 086 08
4	1	Kit, carburetor (includes 5, 6, 7 and Carburetor assembly 48 053 39*) [Includes 8–33] 53	48 853 02
5	1	Gasket, elbow 53	41 041 11
6	1	Gasket, flange 53	210223
7	1	Gasket, thermister 53	52 041 22
8	4	Screw, throttle and choke plate 53	25 086 27
9	1	Plate, throttle 53	25 146 05
10	1	Needle, idle 53	25 368 02
11	1	Spring, idle needle 53	25 089 02
12	1	Needle, high speed adj 53	52 368 03
13	1	Spring, high speed adj needle 53	25 089 02
14	1	Elbow, male 53	52 054 45
15	1	Shaft, throttle 53	52 144 22
16	1	Needle and seat (available only in Carburetor repair kit 52 757 04)	
17	1	Plate, choke 53	52 146 10

Item	Qty.	Description Variation	Part No.
18	1	Gasket, fuel bowl 53	25 041 04
19	1	Kit, float assembly 53	25 757 09
20	1	Bowl, fuel 53	25 104 01
21	1	Gasket, bowl screw 53	25 041 03
22	1	Solenoid Assembly 53	52 435 06
23	1	Assembly, choke heater 53	52 175 03
24	1	Assembly, choke lever 53	277272
25	1	Screw, 6-32 x 1/4" 53	X-170-2
26	1	Plate, baffle 53	277297
27	1	Gasket, air cleaner 53	277281
28	1	Housing, choke assembly 53	52 081 05
29	1	Retainer, thermostat 53	277275
30	1	Screw, 8-32 x 1/4" 53	X-14-6
31	1	Bracket 53	52 126 20
32	2	Screw, tapping 53	52 086 18
33	1	Shaft, choke assembly 53	52 144 20

Following parts not shown:

Carburetor repair kit
(Includes Needle and Seat,
5, 6, 7, 18, 21, and 53) 52 757 04

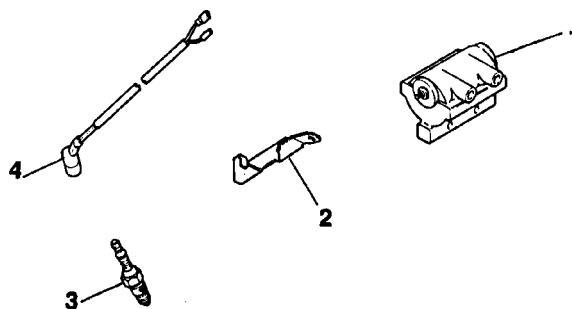
* Note: Carburetor assembly is not available separately.

Listing is for information only.

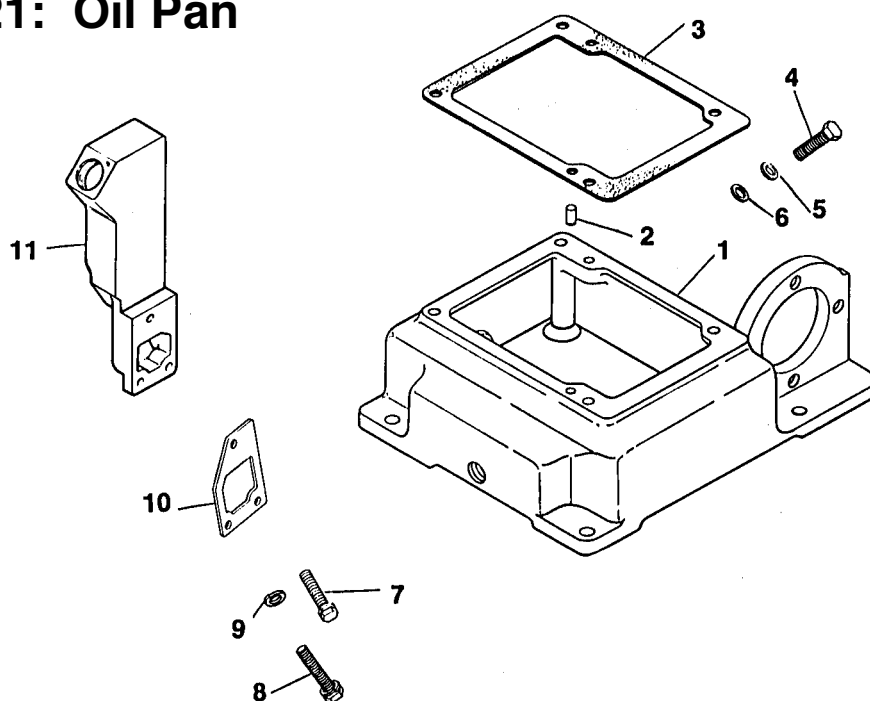
See Group 103 for carburetor and related parts.

Group 18: Ignition

Item	Qty.	Description Variation	Part No.
1	1	Coil, ignition 70	278904
2	1	Bracket, trigger 70	48 126 19
3	2	Plug, spark 70	235041-S
4	1	Coil, trigger 70	48 519 05



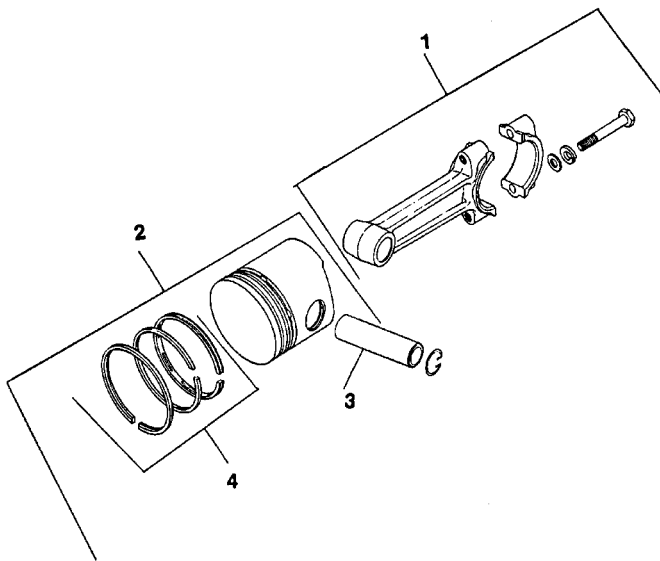
Group 21: Oil Pan



Item	Qty.	Description Variation	Part No.
1	1	Oil pan 34	48 199 35
2	2	Shaft, governor 34	230125-S
3	1	Gasket, oil pan 34	277014
4	4	Screw, 3/8-16 x 2 7/8 34	X-159-5
5	3	Washer, 3/8 34	270889
6	1	Washer 34	47 468 07

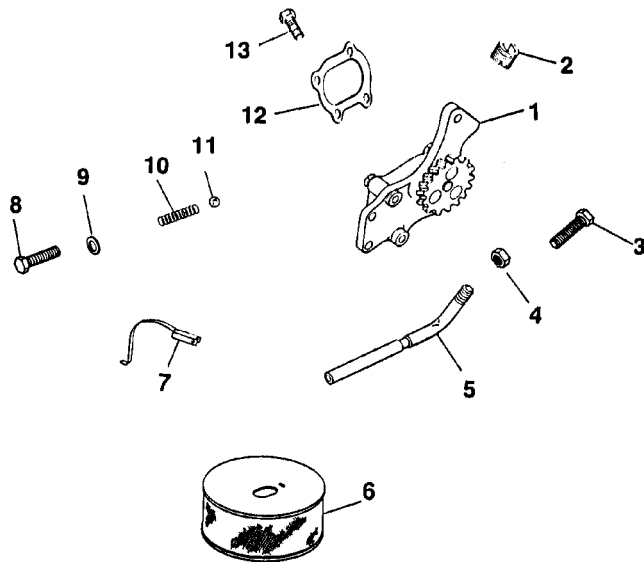
Item	Qty.	Description Variation	Part No.
7	2	Screw, 5/16-18 x 1 3/4 34	X-154-3
8	1	Screw 34	X-6-22
9	1	Washer, lock, 5/16 34	X-21-1
10	1	Adapter, oil fill 34	48 029 11
11	1	Gasket, oil fill adapter 34	48 041 09

Group 22: Piston and Rod



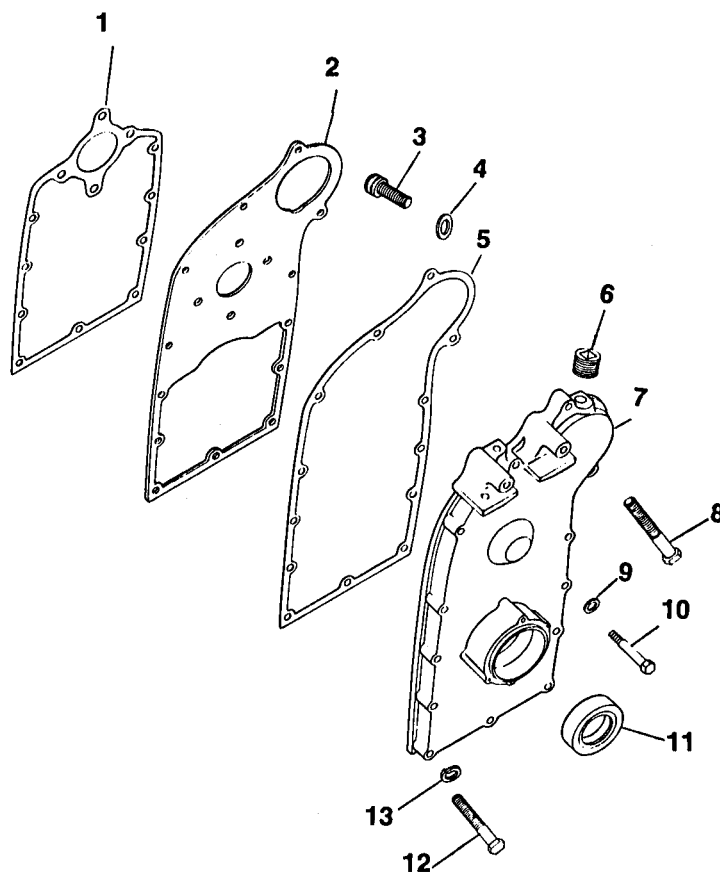
Item	Qty.	Description Variation	Part No.
1	2	Connecting rod (std)	
	10		48 067 16
	2	Connecting rod (0.010)	
	10		48 067 17
2	2	Piston w/ring set (std.)	
	10		47 874 21
	2	Piston w/ring set (0.003)	47 874 22
	2	Piston w/ring set (0.010)	47 874 23
	2	Piston w/ring set (0.020)	47 874 24
	2	Piston w/ring set (0.030)	47 874 25
3	4	Retainer, piston pin	47 018 01
	10		
4	2	Ring set (std. and 0.003)	
	10		47 108 05
	2	Ring set (0.010)	47 108 06
	2	Ring set (0.020)	47 108 07
	2	Ring set (0.030)	47 108 08

Group 25: Oil Pump



Item	Qty.	Description Variation	Part No.
1	1	Pump, oil	
	6		48 393 23
2	1	Plug, hex ctsk. 1/8	
	6		X-75-23
3	1	Screw, 5/16-18 x 3/4	
	6		X-154-5
4	1	Palnut, 1/8-27	
	6		X-629-1
5	1	Tube, oil inlet	
	6		48 123 03
6	1	Strainer, oil	
	6		277202
7	1	Clip, oil tube	
	6		270085
8	1	Screw, 5/16-18 x 1	
	6		X-154-2
9	1	Washer, plain, 7/16	
	6		X-25-94
10	1	Spring, relief valve	
	6		48 089 03
11	1	Ball, steel	
	6		X-212-3
12	1	Gasket, oil pump	
	6		48 055 02
13	3	Screw, 1/4-20 x 1	
	6		X-132-4

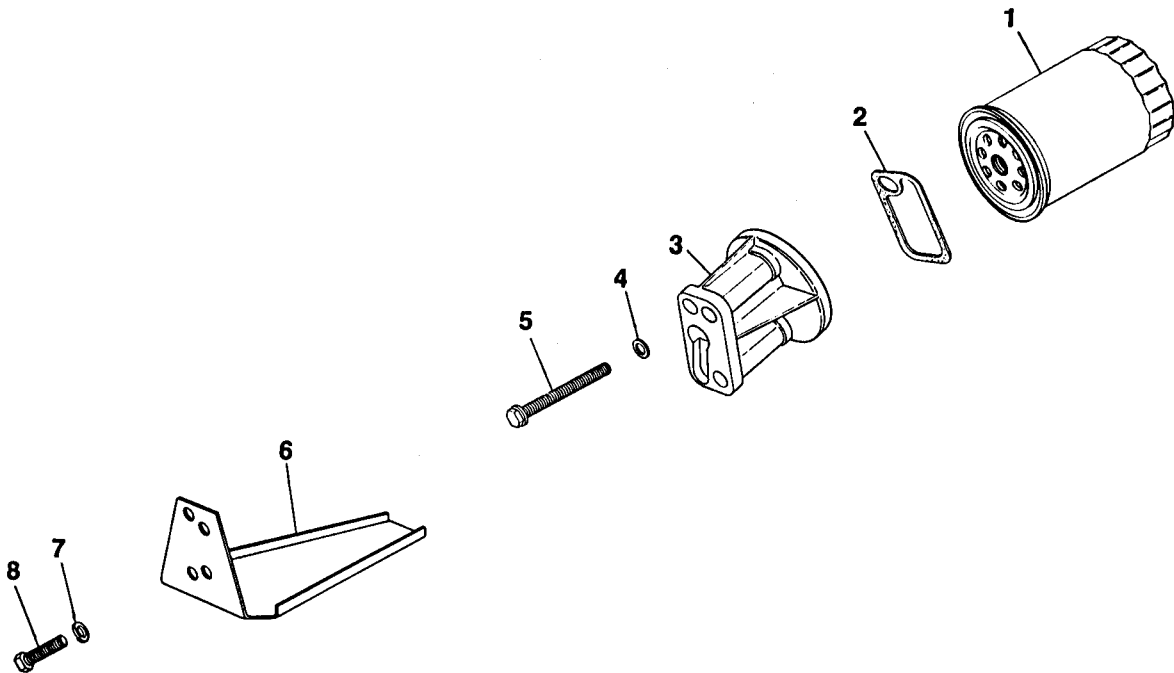
Group 26: Gear Cover



Item	Qty.	Description Variation	Part No.	Item	Qty.	Description Variation	Part No.
1	1	Gasket, gear cover plate 13, 14	277022	9	2	Washer, plain, 5/16 13, 14	X-25-5
2	1	Plate, gear cover 13	48 146 09	10	2	Screw, 5/16-18 x 1 3/4 13, 14	277086
	1	Plate, gear cover 14	48 146 10	11	1	Seal, front oil 13, 14	52 032 08
3	1	Screw, hex socket head 5/16-18 x 3/4 13, 14	X-55-6	12	7	Screw, 5/16-18 x 1 3/4 13, 14	X-6-22
4	1	Washer, plain, 3/4 13, 14	X-25-20	13	14	Washer, lock 5/16 13, 14	X-21-1
5	1	Gasket, gear cover 13, 14	277020	Following parts not shown:			
6	1	Plug, hex ctsk. 1/4 NPTF 13, 14	X-75-38	14	2	Washer, copper 17/64 14	X-25-12
7	1	Cover, gear 13, 14	48 096 13	15	1	Nut, hex 14	X-81-1
8	6	Screw, 5/16-18 x 3/4 13	X-6-11	16	1	Screw, h.c. 1/4-20 14	X-465-3

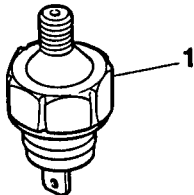
Group 29: Oil Filter

Item	Qty.	Description	Part No.
		Variation	
1	1	Filter, oil 13	277233
2	2	Gasket, oil filter 13	48 041 03
3	1	Adapter, oil filter 13	48 180 03
4	2	Washer, plain 13	X-25-44
5	2	Screw, socket head 13	X-55-9
6	1	Trough 13	48 459 03
7	1	Washer, lock #10 13	X-22-9
8	1	Screw, hex wash. hd. 10-24 x 3/8 13	X-67-97



Group 32: Low Oil Pressure Switch

Item	Qty.	Description	Part No.
		Variation	
1	1	Switch, oil pressure 11	48 099 07



Group 42: Short Block Group

Item	Qty.	Description	Part No.
		Variation	
1	1	Short block 22	48 522 45

Gasket Set

Item	Qty.	Description	Part No.
		Variation	
1	1	Gasket Set w/seals all	48 755 33

This page intentionally left blank.

On some specs, Group 103 lists items 1, 2, 3, 7, 8, 14, 17, 18, 19, 23, and 28-32.

This exploded view diagram illustrates the assembly of a mechanical component, likely a bracket or support structure. The parts are numbered 1 through 34. The assembly includes a main L-shaped bracket (22) with a mounting flange (23) and a base plate (27). A central rectangular plate (11) is mounted on the bracket using screws (32) and washers (33). A smaller rectangular plate (12) is also shown. A curved arm (19) is attached to the bracket. A cylindrical component (16) is shown with a ring (1) and a cap (15). A small rectangular plate (20) is shown with a screw (25). A small rectangular plate (21) is shown. A small rectangular plate (24) is shown. A small rectangular plate (26) is shown. A small rectangular plate (28) is shown. A small rectangular plate (29) is shown. A small rectangular plate (30) is shown. A small rectangular plate (31) is shown. A small rectangular plate (34) is shown. The diagram uses dashed lines to indicate the assembly sequence and alignment of the parts.

TP-5628 9/98

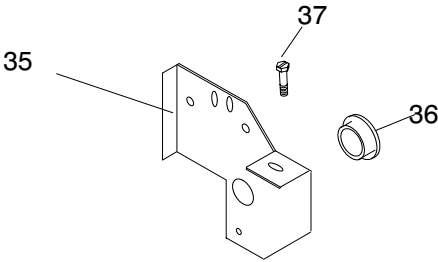
Group 101: Air Intake, continued

Item	Qty.	Description Variation	Part No.
1	3	Clamp, hose 1"-2" 11	X-426-19
	1	Clamp, hose 1"-2" 12	X-426-19
	1	Clamp, hose 15	X-426-20
2	1	Clamp, hose 0.63"-1.50" 11, 12	X-426-20
3	3	Screw, 8-32 11, 12	X-51-9
	3	Washer, lock no. 8 (not shown) 12	X-22-7
4	1	Screw, hex flange 1/4-20 11, 12, 15	X-6217-4
5	1	Washer, 1/4 15	*
6	2	Hardware 1/4-20 11, 12	*
7	1	Nut, well 11, 12, 15	277418
8	1	Gasket, adapter 11	278583
	1	Gasket, adapter 12	227635
9	1	Adapter, carburetor 11, 12	278608
10	1	Base, air cleaner 11	227543
	1	Base, air cleaner 12, 15	278855
	1	Damper, air cleaner 11	227544
	1	Washer, curved spring 11	278447
	1	Nut, elastic stop 8-32 11	X-101-11
11	1	Cover, plastic 11, 12	227463
12	1	Filter 11, 12, 15	278857
13	1	Element, filter 11, 12, 15	278858
14	4	Clip, air cleaner 11, 12, 15	278862

Item	Qty.	Description Variation	Part No.
15	1	Hose, air intake 11, 12	227828
16	1	Adapter, hose 11	227545
17	1	Duct, carb. preheater 11	227549
18	1	Clamp, hose 12	X-426-10
19	1	Line, breather 11	227577
	1	Line, breather 12	227827
20	1	Insulation, sleeve 11	227578
	1	Insulation, sleeve 15	227574
21	1	Decal, winter/summer (gasoline only) 11	227546
22	1	Plate, closure 12, 15	278982
23	1	Tube, air intake 11	227553
24	1	Screw, self-tapping 1/4-20 11, 12	X-67-115
	2	Screw, #10-24 15	X-6216-1
25	2	Screw, #10-24 11	X-6216-1
26	1	Plate, holddown 11	227582
27	1	Bracket, air cleaner 11, 12, 15	227429
28	2	Gasket, intake manifold 11, 12, 15	278988
29	1	Bracket, manifold support 11, 12	278915
30	4	Screw, soc. hd. 5/16-18 x 1 11, 12, 15	X-55-27
31	4	Washer, plain 0.312 x 0.625 x 0.094 11, 12, 15	X-25-33
32	1	Adapter, hose 11, 12	278805
33	1	Hose 11, 12	X-422-28

* Common hardware; procure locally

Group 101: Air Intake, continued



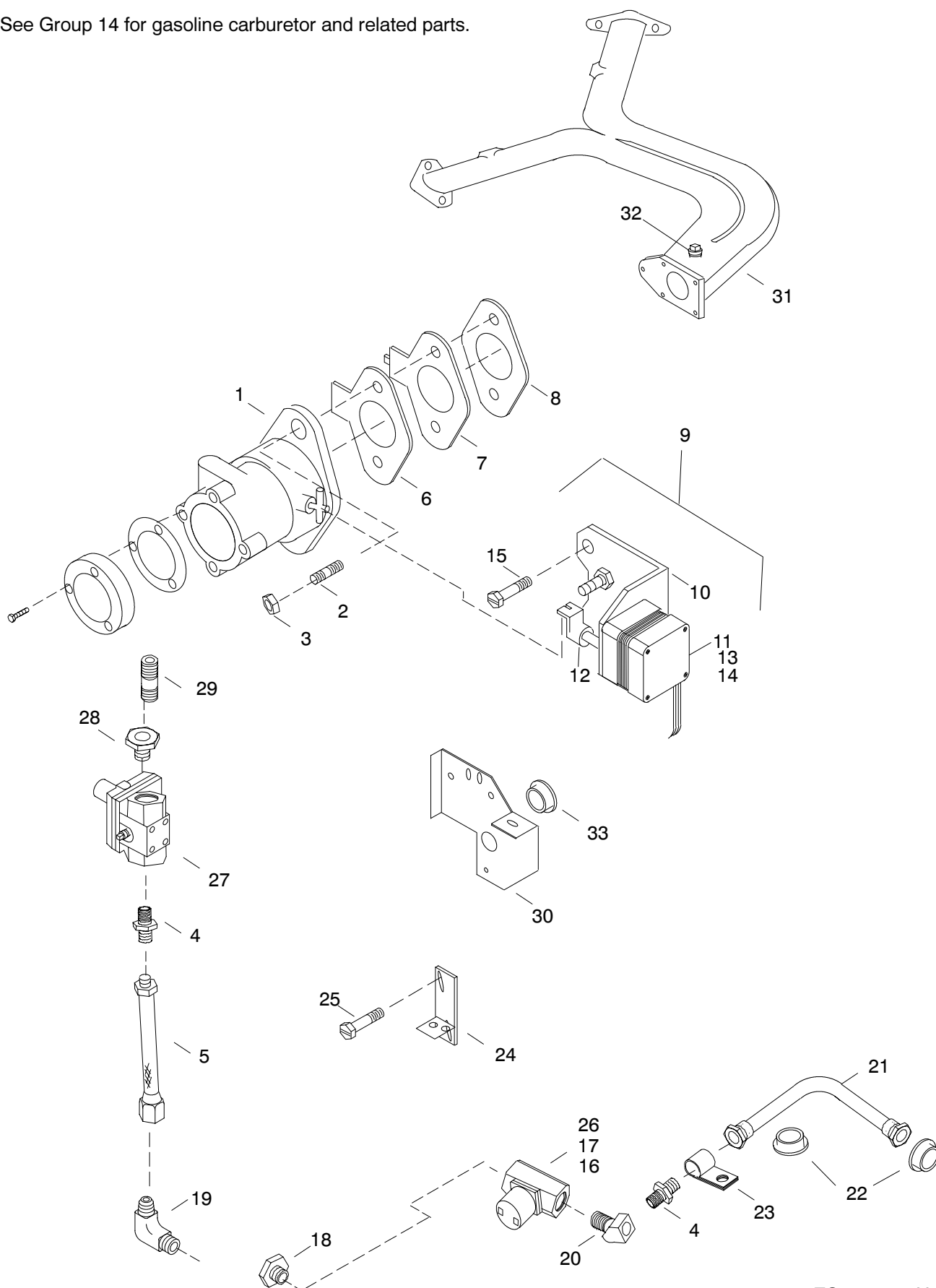
Group 101: Air Intake, continued

Item	Qty.	Description Variation	Part No.
34	1	Shield, heat 11, 12	227756
35	1	Bracket, fuel pump 15	227467

Item	Qty.	Description Variation	Part No.
36	1	Bushing, nylon 15	X-634-16
37	2	Screw, self-tapping 15	X-67-115

Group 103: Fuel System

See Group 14 for gasoline carburetor and related parts.



ES-277000-H

Group 103: Fuel System, continued

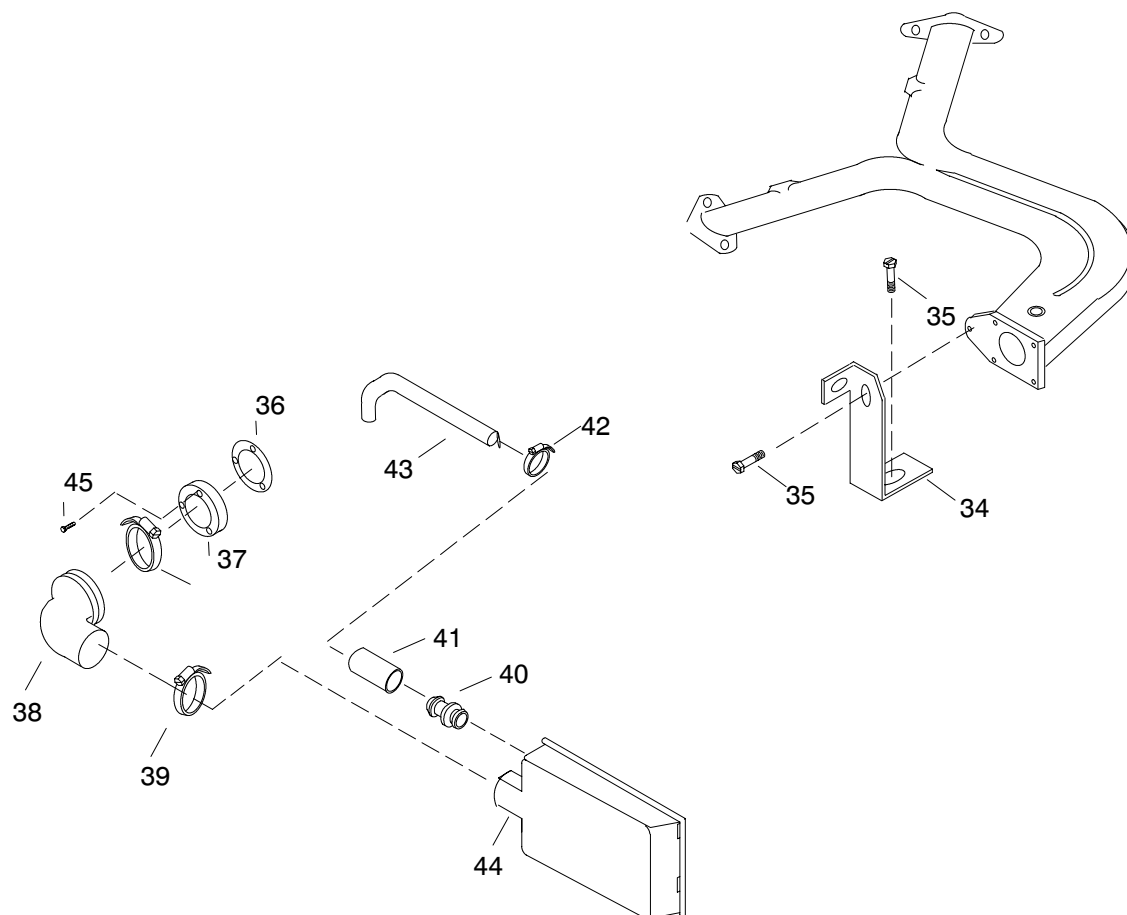
Item	Qty.	Description Variation	Part No.
1	1	Carburetor Assembly, Gasoline 22, 26	A-227958
2	2	Stud 22, 26	X-352-90
3	3	Nut, hex, 1/4-20 22, 26	X-76-2
4	2	Connector, 1/2 union 22, 26	X-296-10
5	1	Line, fuel 22, 26	227636
6	1	Gasket, Positive Temperature Coefficient (PTC) 22, 26	278570
7	1	Positive Temperature Coefficient Assembly 22, 26	278542
8	1	Gasket, carburetor 22, 26	278869
9	1	Actuator Assembly (includes items 10–14) 22, 26	A-227638
10	1	Bracket, actuator 22, 26	227637
11	1	Actuator 22, 26	278672
12	1	Coupling, governor 22, 26	278671
13	4	Screw, 4-40 x 1/4 22, 26	X-49-43
14	1	Washer, lock #10 22	X-22-49
15	3	Screw, tapping 1/4-20 x 0.75 22	X-67-114
	2	Screw, tapping 1/4-20 x 0.75 26	X-67-114
16	1	Screw, 10-24 22, 26	X-50-42

Item	Qty.	Description Variation	Part No.
17	1	Valve, gas 22, 26	227648
18	1	Bushing, reducer 22, 26	X-202-28
19	1	Elbow, 45° 22, 26	X-6289-2
20	1	Elbow, 45° flare 22, 26	227642
21	1	Line, flexible fuel 22, 26	227730
22	2	Bushing, nylon 22, 26	X-634-14
23	1	Clamp, insulated 22, 26	X-672-13
24	1	Bracket, valve mounting 22	227632
25	3	Screw, tapping 1/4-20 x 0.50 22	X-67-115
	2	Screw, tapping 1/4-20 x 0.50 22, 26	X-67-115
26	1	Harness, wiring 22, 26	227738
27	1	Regulator kit, gas 22, 26	226691
28	1	Bushing, reducer, 1/4 22, 26	X-202-12
29	1	Nipple, pipe, 1/4 x 7/8 22, 26	X-220-5
30	1	Bracket, fuel pump 22	227467
31	1	Manifold, intake 22, 26	227634
32	1	Plug, pipe 22	X-75-23
33	1	Bushing 22	X-634-16

Note: See Group 14 for gasoline carburetor and related parts.

Group 103: Fuel System, continued

On some specs, Group 101 lists the parts illustrated on this page.



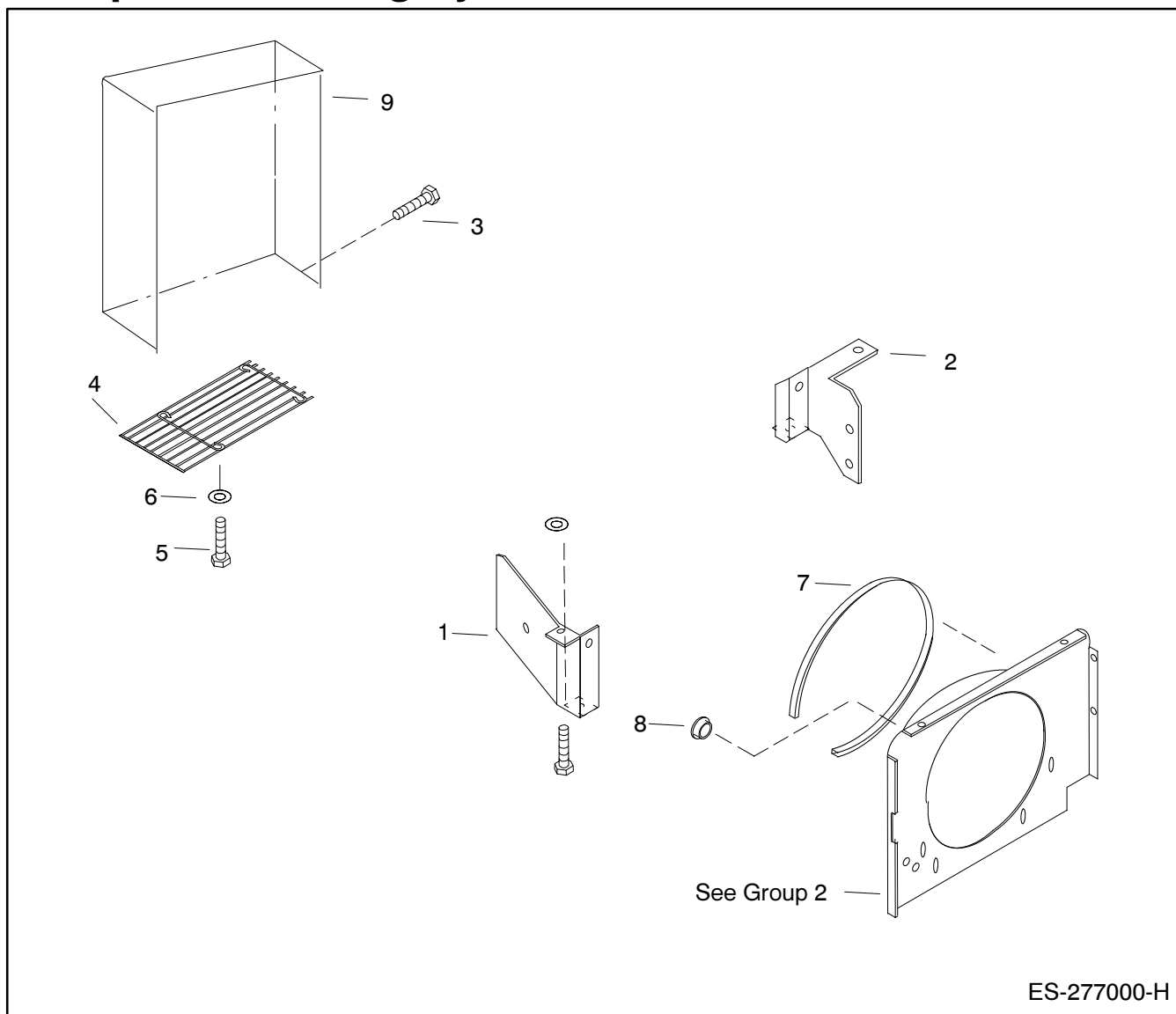
ES-277000-H

Group 103: Fuel System, continued

Item	Qty.	Description Variation	Part No.
34	1	Bracket, manifold support 26	278915
35	2	Screw, self-tapping 26	X-67-115
36	1	Gasket, adapter 26	278583
37	1	Adapter, carburetor 26	278608
38	1	Hose, air intake 26	227828
39		Clamp, hose 1"-2" 26	X-426-19

Item	Qty.	Description Variation	Part No.
40	1	Adapter, hose 26	278805
41	1	Hose 26	X-422-28
42	1	Clamp, hose 26	X-426-10
43	1	Line, breather 26	227864
44	1	Cover, plastic 26	227463
45	3	Screw, 8-32 26	X-51-9

Group 104: Cooling System

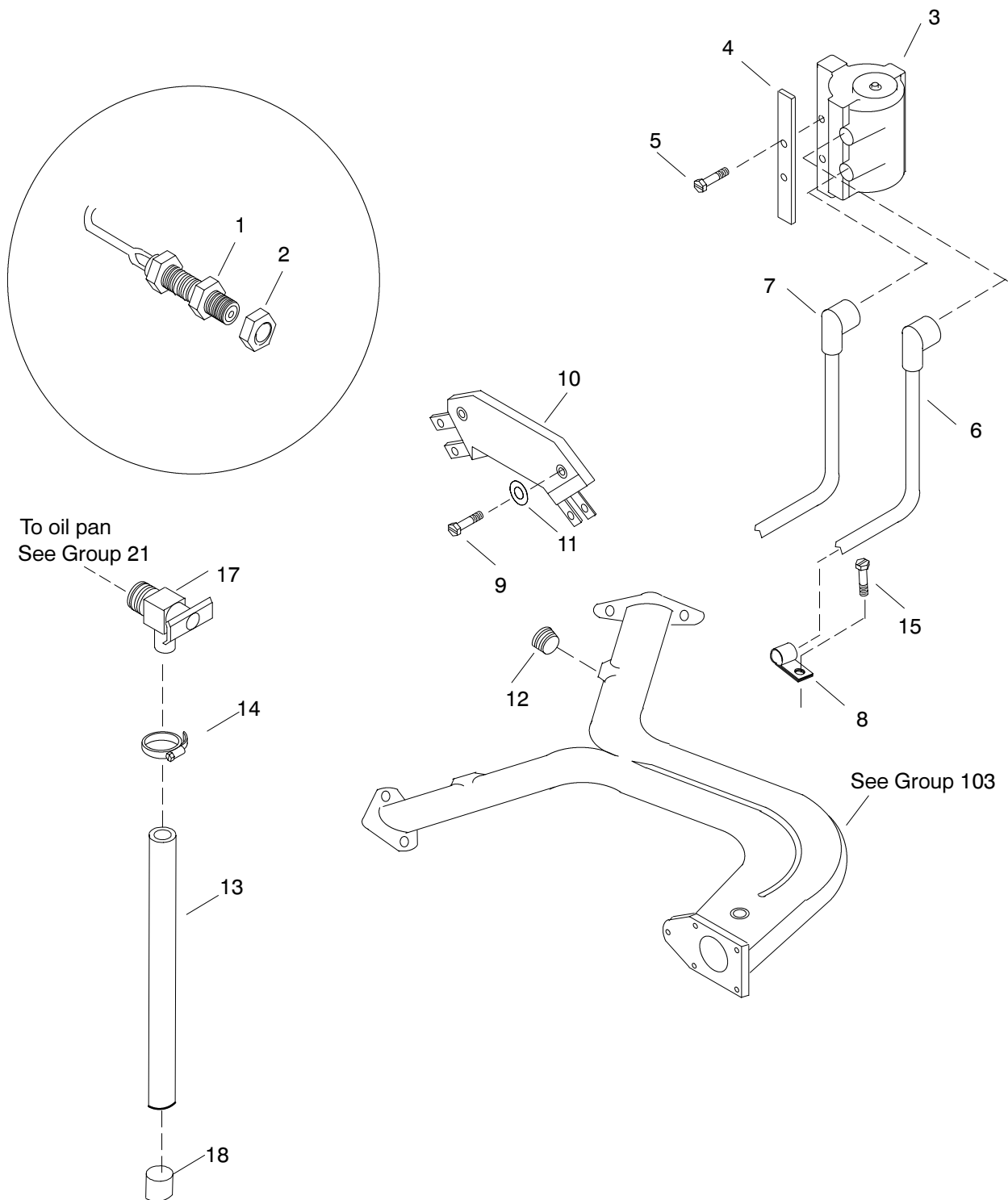


Item	Qty.	Description Variation	Part No.
1	1	Bracket, hood mtg. (left side) 2	227755
2	1	Bracket, hood mtg. (right side) 2	278987
3	6	Screw, tapping 1/4-20 2	X-67-115
4	1	Guard, fan 2	278888
5	4	Screw, hex hd. 10-24 x 1/2 2	X-67-52

Item	Qty.	Description Variation	Part No.
6	4	Washer, plain 0.210 x 0.750 x 0.060 2	X-25-45
7	1	U-channel 2	X-6047-10
8	1	Bushing 2	248896
9	1	Shroud, fan 2	227566
10	2	Washer, plain 2	X-25-33
11	2	Screw, h.c. socket head 5/16-18 2	X-55-27

This page intentionally left blank.

Group 105: Engine



ES-277000-H

Group 105: Engine, continued

Item	Qty.	Description Variation	Part No.
1	1	Sensor Assembly, mag. 13, 18	A-278782
2	1	Nut, hex M12 x 1.25 13, 18	X-6053-8
3	1	Coil, ignition 13, 18	278904
4	4	Plate, coil mounting 13, 18	278423
5	2	Screw, hex flange 1/4-20 13	X-6217-4
	2	Washer, lock, 1/4 ID 18	X-22-11
	2	Bolt, h.c. 1/4 x 20 18	X-465-8
6	1	Lead, ignition 10 in. 13, 18	278908
7	1	Lead, ignition 20 in. 13, 18	278909
8	1	Clamp, insulator 13, 18	X-672-15
9	2	Screw, self-tapping 8-32 13, 18	X-67-132
10	1	Module, control 13, 18	278903

Item	Qty.	Description Variation	Part No.
11	2	Washer, lock #8 13, 18	X-22-7
12	2	Plug, pipe 3/4 13, 18	X-75-18
13	1	Hose 13, 18	X-651-32
14	1	Clamp, hose 1/2-1 13/32 13, 18	X-426-3
15	2	Screw, tapping 1/4-20 13, 18	X-67-115
16	1	Engine Assembly, Kohler engine spec no. 36389 (not shown) 13	A-278716
	1	Engine Assembly, Kohler engine spec no. 39396 (not shown) 18	A-227865
17	1	Valve, drain 13, 18	278905
18	1	Cap 13, 18	227572

Group 107: Nameplate and Decals

Nameplate and Decals are not illustrated.

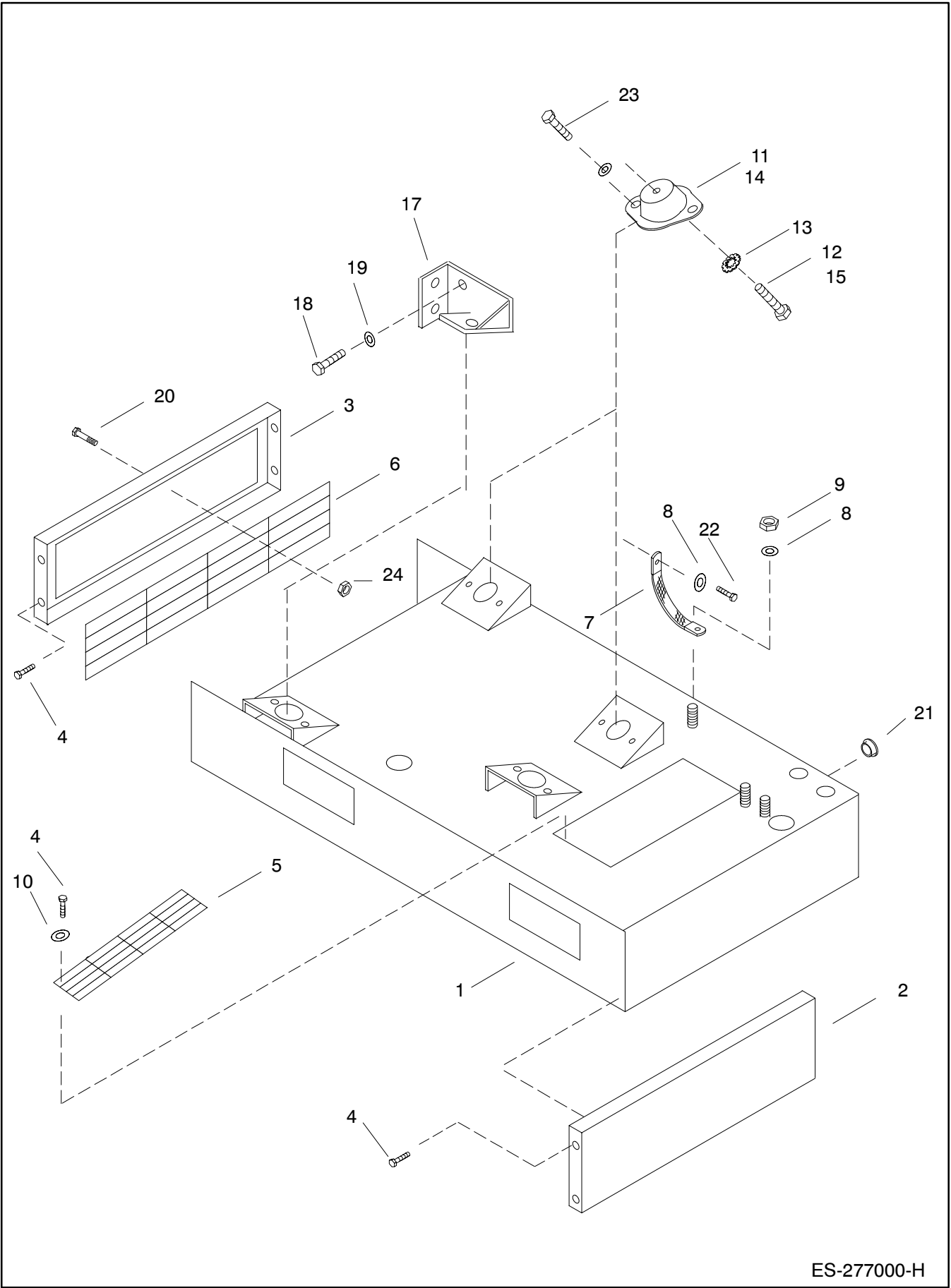
ES-277000-H

Item	Qty.	Description Variation	Part No.
1	1	Decal, ground 47, 59, 60	238575
2	1	Decal, warning rotating parts 47, 59, 60	249808
3	1	Decal, warning hot engine 47, 59, 60	249809
4	1	Decal, instruction 47, 59, 60	278911
5	1	Decal, service 47, 59, 60	278912
6	1	Decal, warning hazardous voltage 47, 59, 60	258815
7	1	Decal, stripe 47, 59, 60	X-6232-4
8	1	Decal, 1-800 number 47, 59, 60	224233
9	1	Nameplate, generator 60 Hz 47	282905
	1	Nameplate, generator 50 Hz 47	282904
	1	Nameplate 59, 60	239573

Item	Qty.	Description Variation	Part No.
10	4	Rivet, pop 47, 59	X-793-3
11	2	Decal, connection 47, 59, 60	238162
12	1	Decal, warning moving rotor 47, 59, 60	257438
13	1	Decal, warning carbon monoxide 47	239796
14	2	Decal, Kohler 47, 59, 60	X-6275-1
15	1	Decal, Kohler 47, 59, 60	X-6276-1
16	1	Decal, emissions 59	227970
	1	Decal, emissions 60	227971
17	1	Decal, flag 59, 60	227620

This page intentionally left blank.

Group 109: Skid and Plant Mounting



ES-277000-H

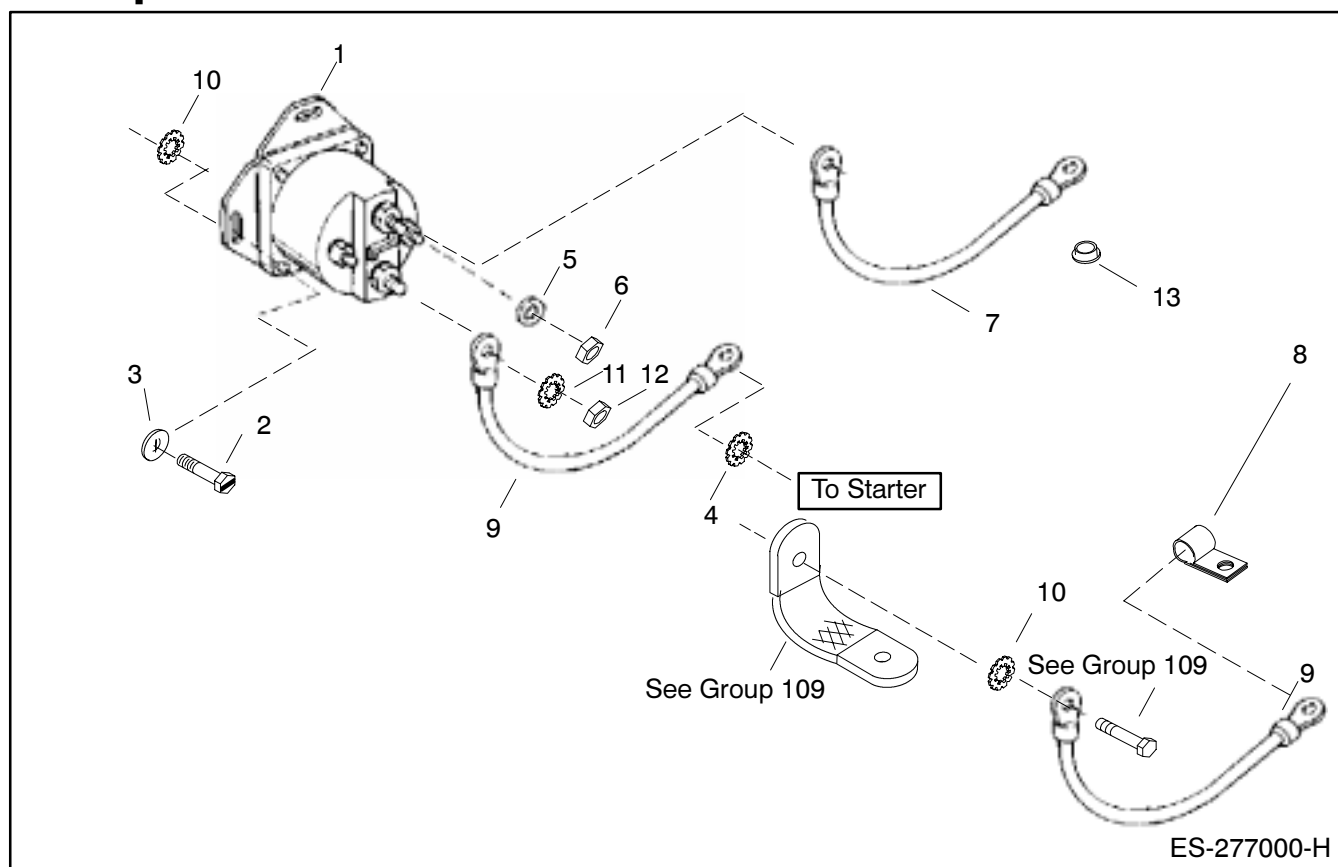
Group 109: Skid and Plant Mounting, continued

Item	Qty.	Description Variation	Part No.
1	1	Skid 48	227425-KCB
2	1	Plate, generator end 48	227532
3	1	Plate, engine end 48	227533
4	18	Screw, drill hex, 1/4-14 48	X-794-1
5	1	Screen, cover 48	227470
6	1	Screen, cover 48	227580
7	1	Strap, ground 48	X-6046-1
8	2	Washer, shakeproof, 1/4 48,	X-22-12
9	1	Nut, 1/4-20 48	*
10	1	Washer, 1/4 48	*
11	2	Vibromount, (gen. end) 48	258659
12	2	Screw, 3/8-16 x 1.75, ref. (gen. end vibromount) 48	X-6238-1
13	2	Washer, lock, shakeproof 3/8 48	X-22-10

Item	Qty.	Description Variation	Part No.
14	2	Vibromount, (eng. end, white) 48	225124
15	2	Screw, 3/8-16 x 2, ref. (engine end vibromount) 48	X-6238-6
16	2	Washer, lock, shakeproof, 3/8 48	X-22-10
17	1	Bracket, mounting 48	278870
18	2	Screw, 3/8-16 x 0.75, ref. 48	X-6238-10
19	2	Washer, 3/8 48	*
20	8	Screw, 10-24 x 1/2 48	X-50-15
21	1	Bushing 48	X-634-16
22	1	Screw, self tapping 1/4-20 48	X-67-115
23	8	Hardware, 5/16-18 48	*
24	8	Nut, whiz lock, 10-24 48	X-6210-5

* Common hardware; procure locally

Group 112: Starter

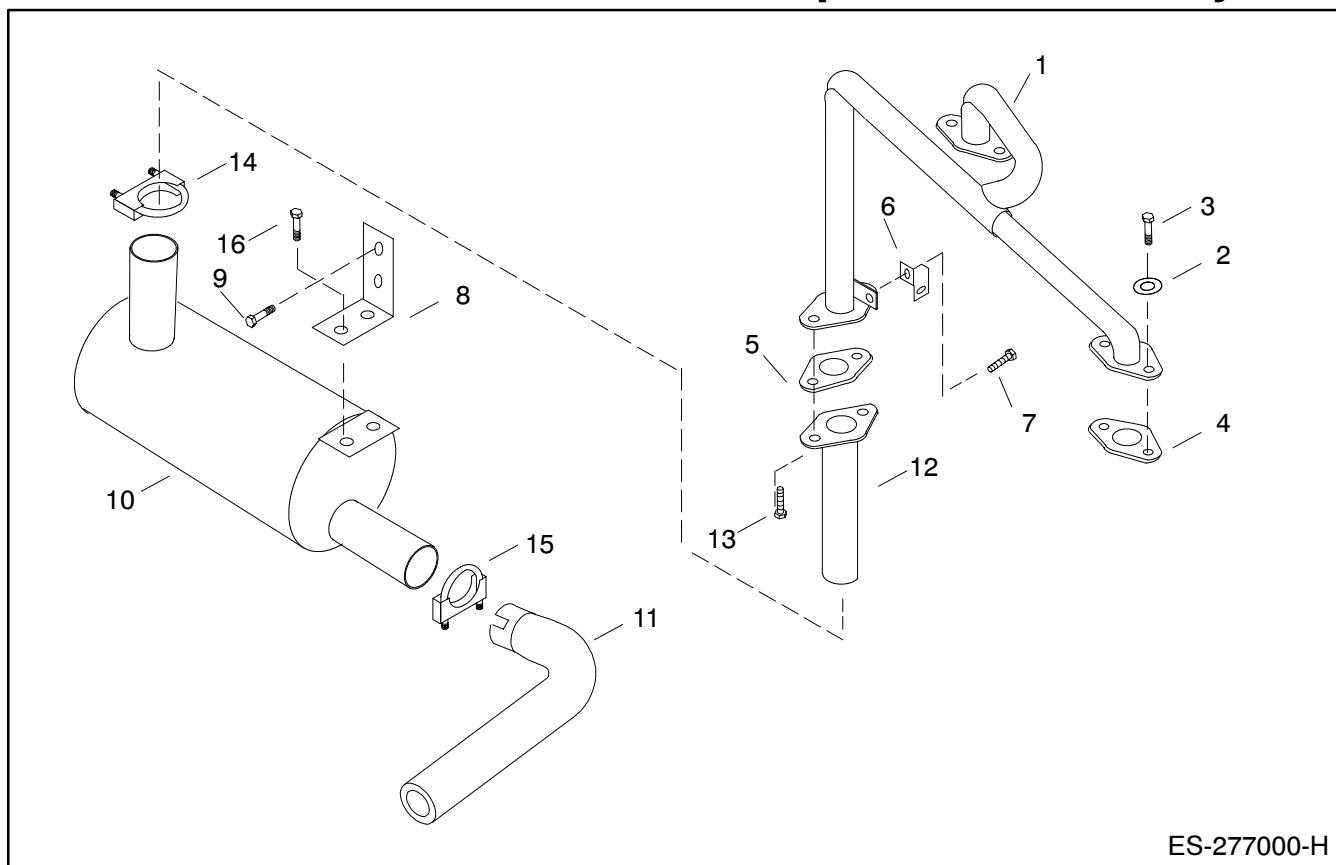


Item	Qty.	Description Variation	Part No.
1	1	Switch, relay 12	278973
2	2	Screw, self-tapping 1/4-20 12	X-67-115
3	2	Washer, 1/4 12	*
4	3	Washer, lock, shakeproof 1/4 12	X-22-11
5	1	Washer, lock, shakeproof #10 12	X-22-9
6	1	Nut, #10-32 12	*
7	1	Cable, battery (red positive) 12	X-545-83
8	1	Clamp, Insulating 12	X-672-7

Item	Qty.	Description Variation	Part No.
9	2	Boot, cable end (not shown) 12	238915
1	1	Cable, battery (relay to starter) 12	X-545-88
1	1	Cable, battery (black neg.) 12	X-545-93
10	4	Washer, lock shakeproof 1/4 12	X-22-12
11	2	Washer, lock shakeproof 5/16 12	X-22-5
12	2	Nut, 5/16-18 12	*
13	1	Bushing 12	X-634-9
14	1	Nut, hex (not shown) 12	X-81-8

* Common hardware; procure locally

Group 116: Exhaust System



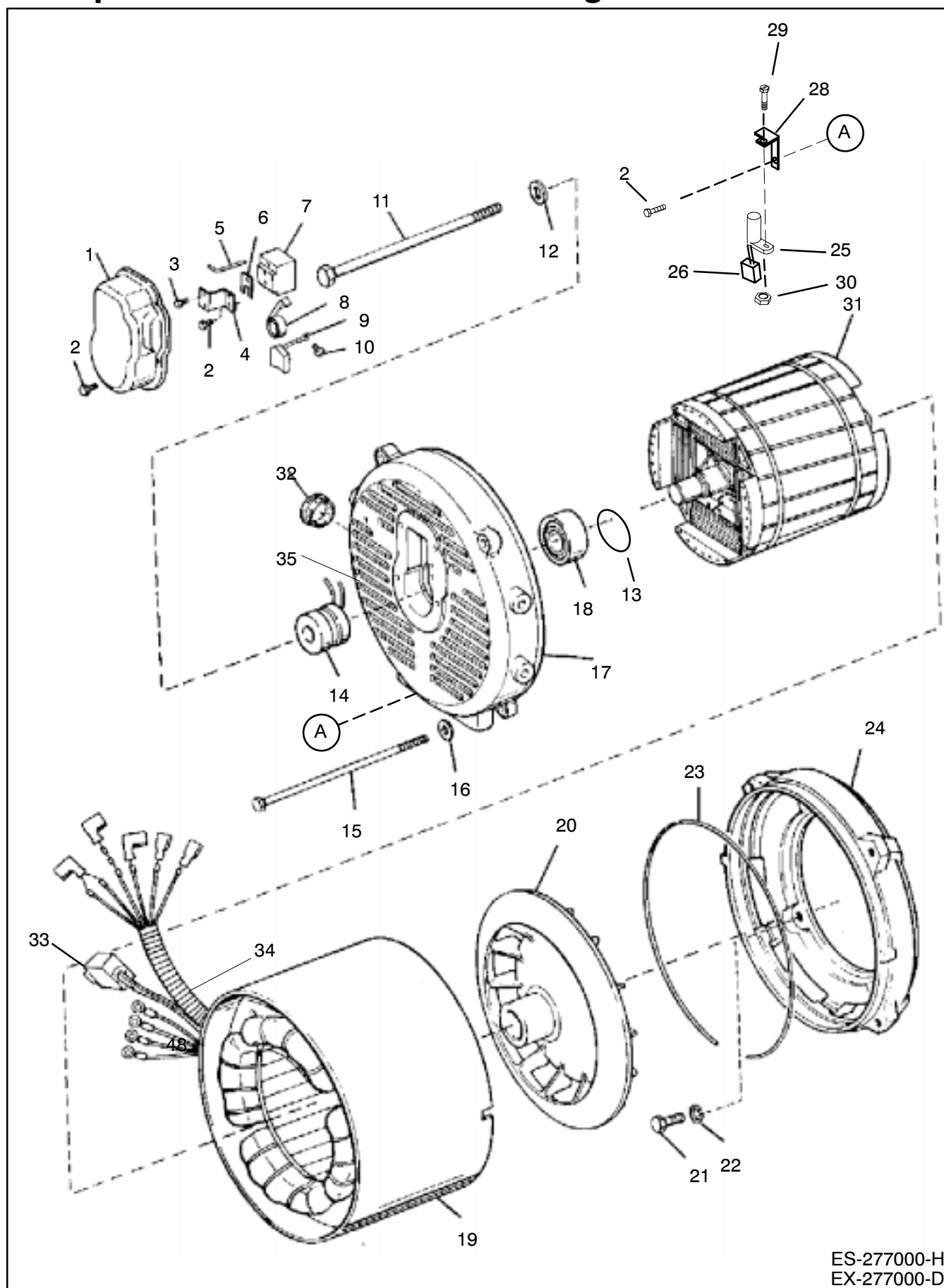
ES-277000-H

Item	Qty.	Description Variation	Part No.
1	1	Manifold, exhaust 20	278867
2	2	Washer, plain 0.312 x 0.625 x 0.094 20	X-25-33
3	2	Screw, hex cap head 5/16-18 x .75 20	X-55-6
4	2	Gasket, manifold 20	278200
5	1	Gasket, exhaust 20	278320
6	1	Bracket, exhaust manifold 20	278859
7	2	Screw, self-tapping 1/4-20 x 0.50 20	X-67-115
8	1	Bracket, muffler mounting 20	227426

Item	Qty.	Description Variation	Part No.
9	2	Screw, self-tapping 1/4-20 x 0.75 20	X-67-114
10	1	Muffler 20	227536
11	1	Pipe, exhaust 20	227535
12	1	Adapter, exhaust 20	227534
13	2	Screw, hex flange 5/16-18 20	X-6217-1
14	1	U-clamp 20	X-722-8
15	1	Clamp, muffler 20	237548
16	2	Bolt, 3/8-16 20	*

* Common hardware; procure locally

Group 201: Generator and Mounting



ES-277000-H
EX-277000-D

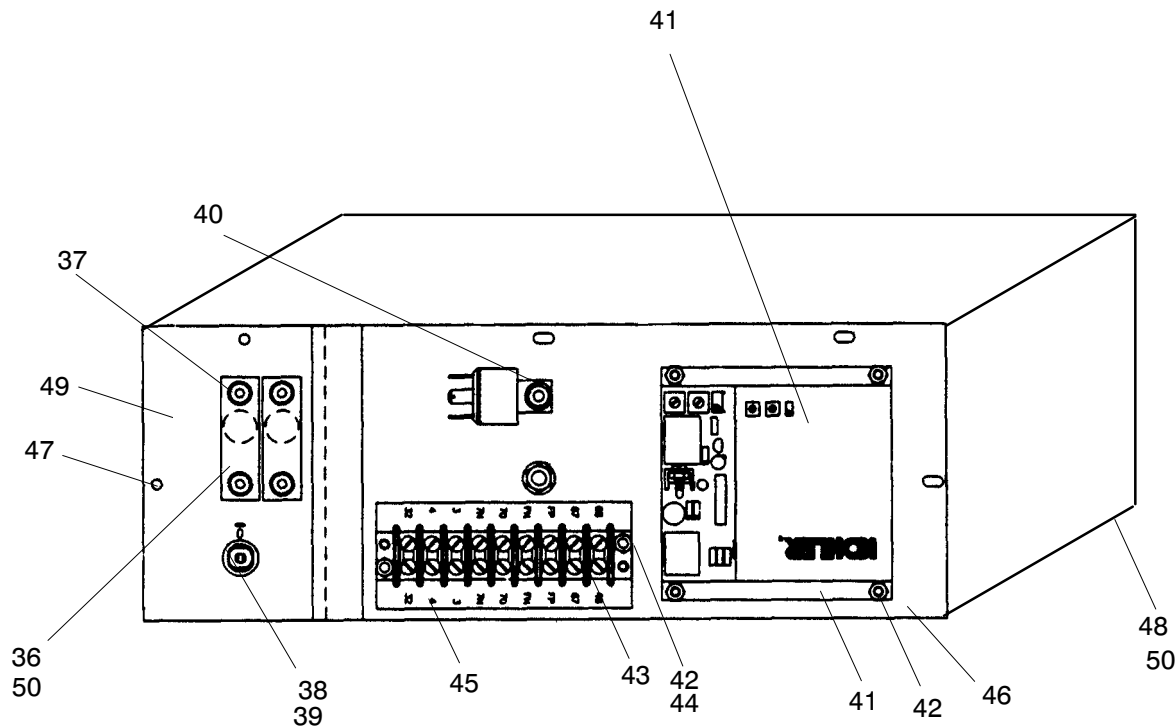
Group 201: Generator and Mounting, continued

Item	Qty.	Description Variation	Part No.
1	1	Cover, brush holder 92, 93, 101	227473
	1	Bushing, nylon (not shown) 92	X-634-22
2	8	Screw, self-tapping 10-32 92	X-67-113
	4	Screw, self-tapping 10-32 101	X-67-113
3	2	Screw, hex hd. machine 92, 93	X-97-13
	2	Washer, lock shakeproof 92, 93, 101	X-22-9
4	1	Bracket, brush holder 92, 93, 101	229335
5	1	Retainer, wire 92, 93, 101	238247
6	3	Shim, brush holder 92, 93, 101	238248
7	1	Holder, brush 92, 93, 101	239247
8	2	Spring 92, 93, 101	238150
9	2	Brush 92, 93, 101	239282
10	8	Screw, 6-32 x 5/16 92	X-49-1
	6	Screw, 6-32 x 5/16 93, 101	X-49-1
	2	Washer, lock #6 92, 93, 101	X-22-6
11	1	Thrubolt, 92, 93, 101	278342
12	1	Actuator, magnetic 92, 93, 101	227471
13	1	O-ring 92, 93, 101	256466
14	1	Ring, collector 92, 93, 101	241671
15	4	Overbolt, 92, 93, 101	238525
16	4	Washer, special 0.281 ID 0.62 OD 93, 101	229239
	4	Washer, 7/16 92	*

Item	Qty.	Description Variation	Part No.
17	1	Bracket, end 92, 101	278428
	1	Bracket, end 93	227621
18	1	Bearing, ball 92, 93, 101	X-758-1
19	1	Stator Assembly (Includes items 32 & 33) 92	227569
	1	Stator Assembly 93	227898
	1	Stator Assembly 101	227856
20	1	Fan, generator 92, 93, 101	238204
21	4	Screw, 7/16-14 x 1 ref. 92, 93, 101	X-6024-2
22	4	Washer, 7/16 92, 101	*
	4	Washer, special 0.281 ID 0.62 OD 93	229239
23	1	Guard, generator fan 92, 93, 101	238214
24	1	Adapter, generator 92, 93, 101	277937
25	1	Sensor Assembly, speed (Includes items 26 & 27) 92, 93, 101	254842
26	1	Connector 92, 93, 101	239411
27	3	Pin, connector (not shown) 92, 93, 101	239516
28	1	Bracket, sensor mounting 92, 93, 101	227472
29	1	Screw, 10-24 x 5/8 92, 93, 101	X-50-8
30	1	Nut, whiz lock, 10-24 92, 93, 101	X-6210-5
31	1	Rotor Assembly (includes items 14 & 18) 92, 93, 101	B-278340

* Common hardware; procure locally

Group 201: Generator and Mounting, continued

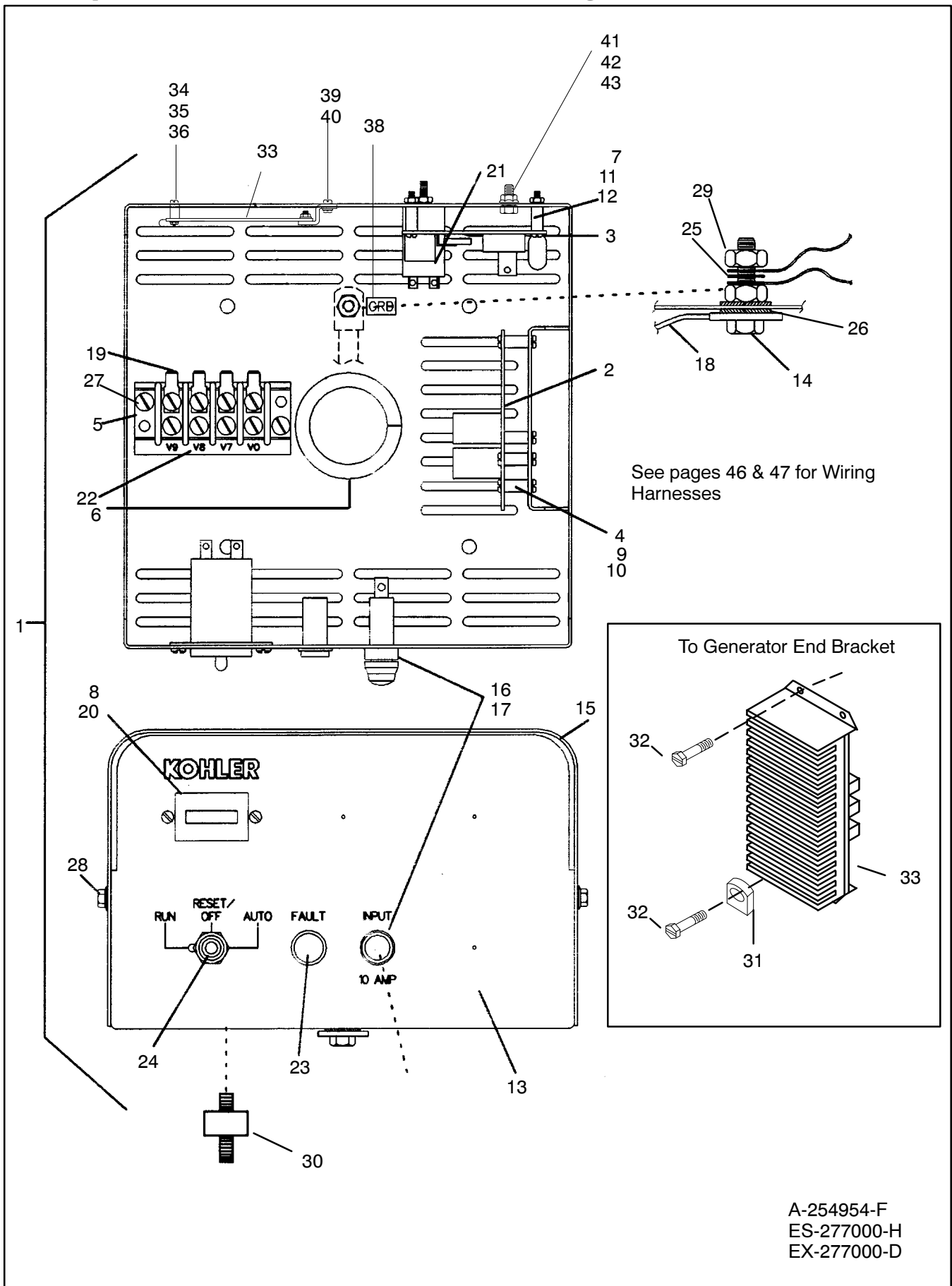


Group 201: Generator and Mounting, continued

Item	Qty.	Description Variation	Part No.
32	1	Bushing 92, 101	X-634-12
	1	Bushing 93	X-634-22
33	1	Connector, 4-pin 92	239408
		Pin, female gold plated 92, 93, 101	241606
34	1	Conduit, convoluted 93	X-6003-35
	1	Conduit, convoluted 101	X-6003-80
35	1	Grommet, nylon (not shown) 93	X-6090-3
36	2	Plate, cover 92, 93, 101	227593
37	6	Screw, 6-32 x 5/16 92	X-49-1
	4	Screw, 6-32 x 5/16 93, 101	X-49-1
38	1	Fuse, 5 amp 92, 93, 101	239298
39	1	Holder, fuse 92, 93, 101	267996
40	1	Relay 92, 93, 101	259391
41	1	Governor Assembly 92, 93, 101	D-278670

Item	Qty.	Description Variation	Part No.
42	6	Nut, hex 6-32 92	X-71-2
	6	Nut, hex 6-32 93, 101	X-101-24
43	1	Block, terminal 92, 93, 101	295313
44	2	Screw, 6-32 92, 93, 101	X-49-26
45	1	Marker, strip 92, 93, 101	254821
46	1	Plate, closure 92	227427
	1	Cover, silkscreen 93, 101	225950
47	5	Screw, drill #8-18 92	X-794-2
	2	Screw, drill #8-18 93, 101	X-794-2
48	1	Box, junction 92	227428
		Box, junction 93, 101	227903
49	1	Plate, closure 92	227538
	1	Plate, closure 93, 101	227905
50	3	Screw, drill, #8-18 93, 101	X-794-2

Group 301: Controller and Mounting



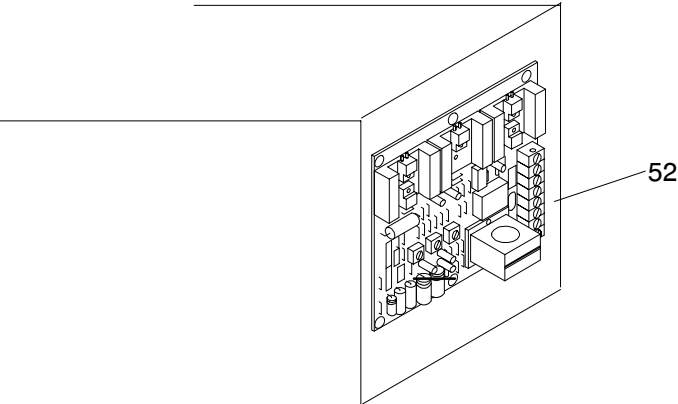
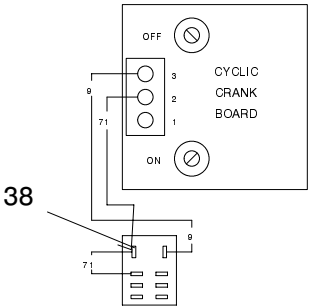
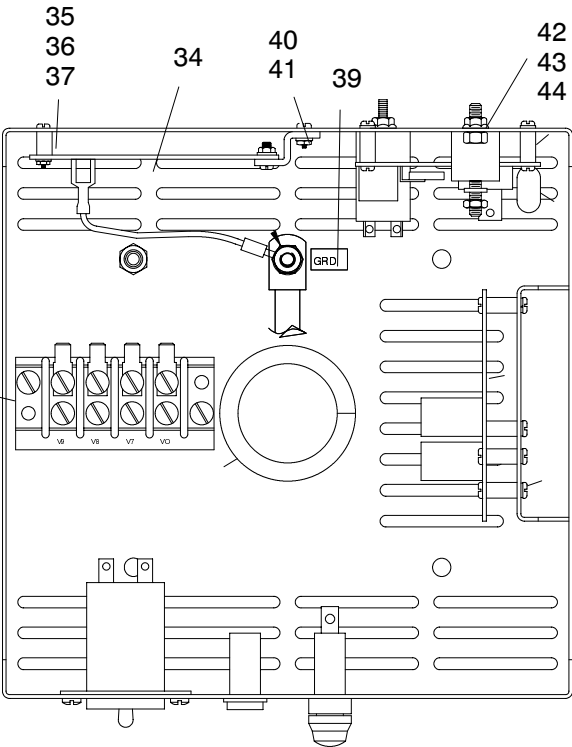
Group 301: Controller and Mounting, continued

Item	Qty.	Description Variation	Part No.
1	1	Controller Assembly (relay) (includes items 2–29, 33–43) 58 81, 92	A-227600 A-227857
2	1	Circuit Board Assembly Relay 58, 81, 92	F-254717
3	4	Circuit Board Assembly, cyclic cranking 58, 81, 92	C-284507
4	5	Spacer, circuit board 58, 81, 92	287948
5	1	Strip, terminal 58, 81, 92	292940
6	1	Grommet, nylon 58, 81, 92	X-6033-6
7	4	Spacer 58	X-712-9
	4	Spacer, 0.25 x 0.50 6-32 81, 92	287948
8	2	Screw, pan head 58, 81, 92	X-49-39
9	5	Washer, #6 58, 81, 92	*
10	10	Screw, #6-32 x 0.25 58, 81, 92	X-49-25
11	4	Screw, #4-40 x 0.875 58	X-49-35
	8	Screw, #6-32 x 0.25 81, 92	X-49-25
12	4	Nut, hex #4-40 58	X-74-6
	4	Washer, #6 81, 92	*
13	1	Box, silkscreened 58	254953
	1	Box, silkscreened 81, 92	227858
14	1	Screw, special, 1/4-20 58, 81, 92	267491
15	1	Cover, controller 58, 81, 92	254800
16	1	Fuse, 10 amp 58, 81, 92	223316
17	1	Holder, fuse 58, 81, 92	238426

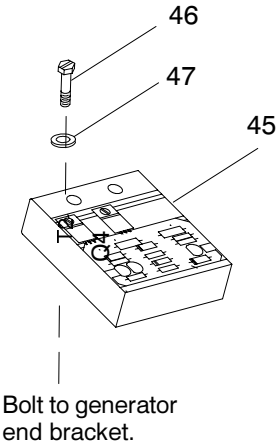
Item	Qty.	Description Variation	Part No.
18	1	Lead, ground 58, 81, 92	230857
19	1	Terminal 58	238582
	4	Terminal 81, 92	238582
20	1	Meter, hour 58, 81, 92	238736
	2	Nut, hex 6-32 81, 92	X-71-2
	2	Washer, lock #6 81, 92	X-22-6
21	1	Relay 58, 81, 92	241736
22	1	Marker, strip 58, 81, 92	254822
23	1	Lamp 58, 81, 92	269373
24	1	Switch, toggle 58, 81, 92	287812
25	1	Washer, lock, 1/4 58, 81, 92	X-22-11
26	2	Washer, shakeproof 1/4" 58, 81, 92	X-22-12
27	2	Screw, #10-24 58, 81, 92	X-50-3
28	4	Screw, #10-24 58, 81, 92	X-6216-1
29	1	Nut, hex (green) 58, 81, 92	X-81-8
30	4	Mount, controller 58, 81, 92	241769
31	1	Tie, cable nylon 58, 81, 92	X-468-3
32	3	Screw, self-tapping 10-32 x 0.375 58, 92	X-67-113
	1	Screw, self-tapping 10-32 58, 81, 92	X-67-118
33	1	Voltage Regulator (PBIIE) 58, 92	E-278598

* Common hardware; procure locally

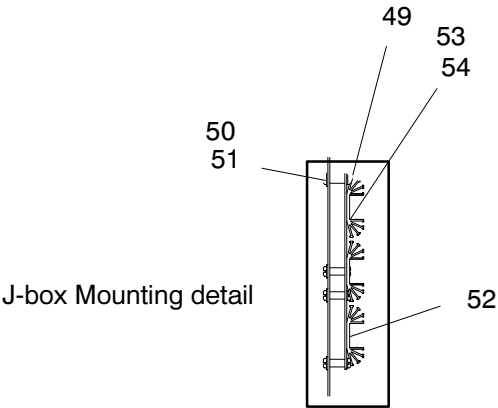
Group 301: Controller and Mounting, continued



Inside View of Junction Box



Bolt to generator end bracket.



J-box Mounting detail

A-254954-F
ES-277000-H
EX-277000-D

Group 301: Controller and Mounting, continued

Item	Qty.	Description Variation	Part No.
34	1	Governor Assembly, electronic 81, 92	A-249922
35	1	Screw, r.h.m. 6-32 x 0.50 81, 92	X-49-6
36	1	Washer, lock #6 81, 92	X-22-6
37	1	Nut, hex 6-32 81, 92	X-71-2
38	1	Tubing 1" 0.25 ID 81, 92	X-748-21
39	1	Tab, ID "GRD" 81, 92	201620-15
40	3	Screw r.h.m. 8-32 81, 92	X-51-5
41	3	Nut, #8-32 81, 92	*
42	1	Breaker, Circuit 81, 92	241879
43	2	Screw, pan head 81, 92	X-50-15
44	2	Nut, #10-24 81, 92	*
45	1	Charger Assy., battery 81, 92	B-278660
46	2	Screw. self-tapping 10-24 81, 92	X-67-125
47	2	Washer, plain 0.208 ID 0.344 OD 81, 92	X-25-74
48	1	Conduit, convoluted (not shown) 81, 92	X-6003-113
49	6	Spacer 81	229357
50	6	Washer, lock, #8 81	X-22-7
51	6	Screw, pan head, 8-32 81	X-51-12
52	1	PCB Assembly (PB-5) 81	B-258296
53	1	Washer, nylon 0.192 ID 0.322 OD 81	239665

Item	Qty.	Description Variation	Part No.
54	6	Screw 81	X-51-8
55	1	Wiring harness, junction box (includes the following, not shown)	227468
	1	Diode, 6 amp, 100V	233959
	2	Connector, 4-pin	239408
	1	Jack, 4-pin	239411
	1	Connector, 12-pin	241605
	6	Terminal	241606
	1	Connector, 6-pin	269190
	1	Connector, 15-pin	269366
	1	Connector, 20-pin	278775
	1	Connector, 2-pin 58, 92	292371
	1	Wiring harness, junction box (includes the following not shown)	227899
	1	Diode 6 amp 100V	233959
	2	Connector, plug 4-pin	239408
	1	Connector, plug 12-pin	241605
	6	Terminal female	241606
	1	Connector, plug 12-Pin	254852
	1	Connector, plug 15-pin	269366
	1	Connector, plug 20-pin 81	278775
56	1	Wiring harness, controller (includes the following not shown)	227469
	3	Pin	239516
	1	Connector, jack 15-pin	239671
	3	Terminal	241606
	1	Connector, 15-pin 58, 92	269366
	1	Wiring harness, controller (includes the following not shown)	227802
	1	Terminal	X-283-4
	1	Terminal	X-431-27
	1	Terminal	X-431-42
	2	Terminal, push-on 1/4	X-431-52
	1	Connector, jack 15-pin	239671
	3	Terminal, female gold	241606
	1	Connector, plug 15-pin 81	269366

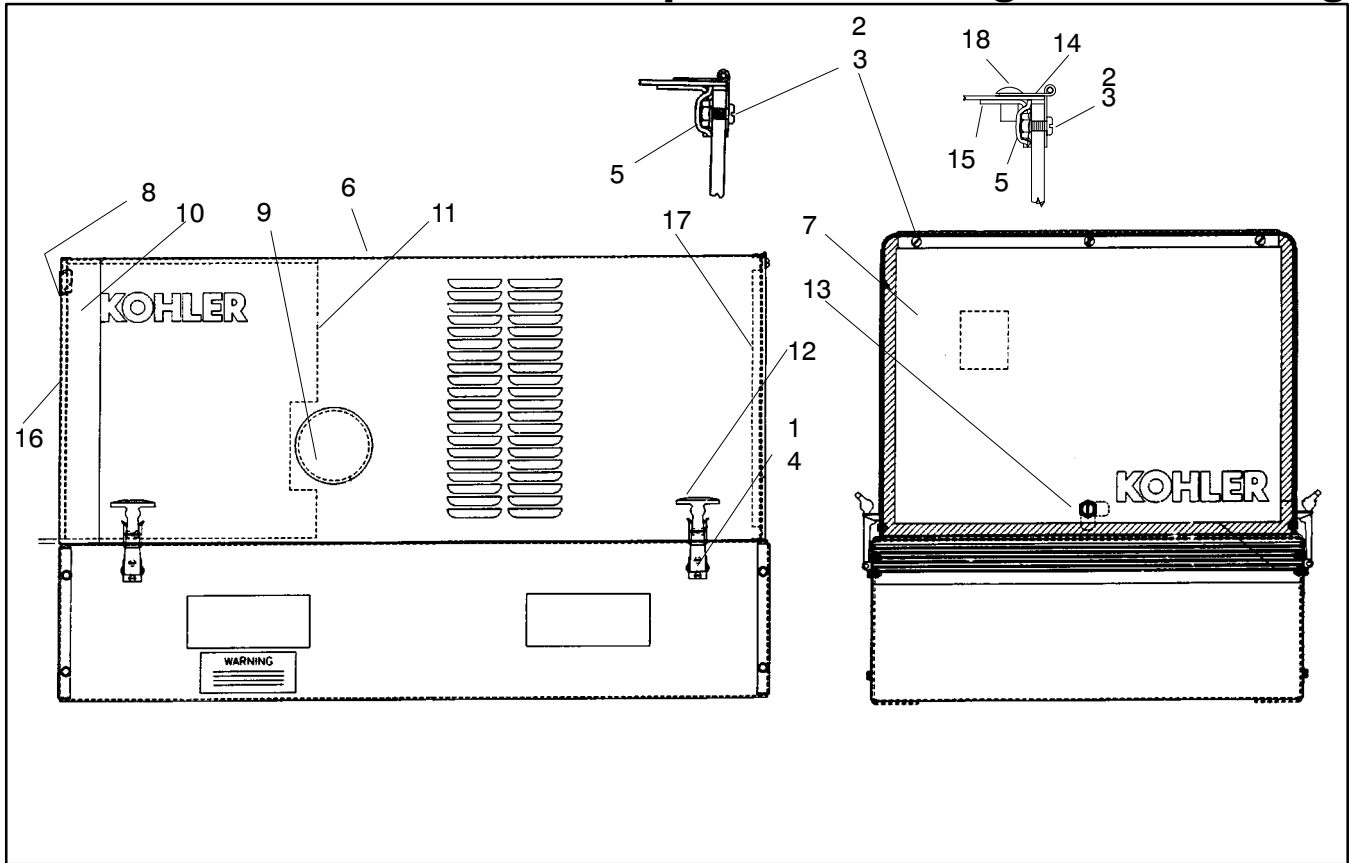
* Common hardware; procure locally

Group 301: Controller and Mounting, continued

Item	Qty.	Description Variation	Part No.
57	1	Harness, engine wiring (includes the following not shown)	227599
	1	Diode, 6 amp, 100V	233959
	1	Connector, 6-pin	269190
	1	Connector, 20-pin 58	278774

Item	Qty.	Description Variation	Part No.
	1	Harness, engine wiring (includes the following not shown)	227852
	1	Diode, 6 amp, 100V	233959
	1	Connector, plug 6-pin	269190
	1	Connector, jack 20-pin 81, 92	278774

Group 501: Housing and Mounting



Item	Qty.	Description Variation	Part No.
1	16	Nut, elastic stop 10-2 7	X-101-9
	8	Nut, elastic stop 10-2 8	X-101-9
2	3	Washer, lock #6 7, 8	X-22-6
3	3	Screw, 6-32 x 3/8 7, 8	X-49-2
4	16	Screw, 10-24 x 1/2 7	X-50-15
	8	Screw, 10-24 x 1/2 8	X-50-15
5	3	Nut, hex 6-32 7, 8	X-71-2
6	1	Enclosure 7	227430-KCB
	1	Enclosure 8	227901
7	1	Door, enclosure 7	227465
	1	Door, enclosure 8	227906

Item	Qty.	Description Variation	Part No.
8	1	Handle 7, 8	227567
9	1	Plug 7, 8	227568
10	1	Liner, reflective 7, 8	227589
11	1	Liner, reflective 7, 8	227590
12	4	Latch, flex draw 7, 8	273244
13	1	Lock 7, 8	288969
14	1	Hinge, door 8	227466
15	1	Brace, door 8	227869
16	1	Cover, panel 8	227902
17	2	Brace, door 8	227868
18	4	Rivet, pop 8	X-781-15

Group 701: Literature

Item	Qty.	Description Variation	Part No.
1	1	Operation Manual generator 7	TP-5631
2	1	Service Manual 7	TP-5632
3	1	Parts Catalog 6.5RMY 7	TP-5628
4	1	Service Manual, Kohler engine 7	ENS-607

Item	Qty.	Description Variation	Part No.
5	1	Installation Manual 7	ES-420/ TP-5700
6	1	Operation Manual Kohler K-582 7	TP-2123
7	1	Wiring Diagram 6.5 RMY 7	TP-5815

Accessories

Qty.	Description	Kit/Part No.
------	-------------	--------------

Engine Gauge Kits

Engine Gauge Kit 227805

1	Nipple, pipe, 1/8 x 3/4	X-217-6
1	Plug, pipe, 1/8	X-75-1
1	Cross, pipe, 1/8 black iron	164037
1	Voltmeter	253329
1	Sender, oil pressure gauge	264390
1	Elbow, 45° street	267428
1	Gauge, oil pressure	282897

Exhaust Kits

Flexible Exhaust Kit PA-227731

1	Clamp, U	X-722-5
1	Hose, flex exhaust	X-787-36
1	Clamp, muffler	237548

Fuel System Kits

LP Vapor/Natural Gas Fuel Kit 227720

1	Carburetor assembly	A-227617
1	Actuator assembly	A-227638
1	Bushing, reducer 1/4	X-202-12
1	Bushing, reducer 3/8	X-202-28
2	Washer, lock 1/4	X-22-11
3	Washer, lock #8	X-22-7
1	Nipple, pipe 1/4 x 7/8	X-220-5
4	Washer, plain	X-25-33
2	Connector, 1/2 union	X-296-10
1	Clamp, hose	X-426-10
1	Clamp, hose	X-426-19
1	Clamp, hose	X-426-20
1	Screw, 10-24 x 2 1/4	X-50-42
3	Screw, 8-32 x 5/8	X-51-9
4	Screw, socket head	X-55-27
1	Connector, hose	X-582-14
1	Screw, hex. flange	X-6217-4
1	Elbow, 45° flanged	X-6289-2
2	Bushing, nylon	X-634-14
1	Bushing	X-634-16
2	Screw, self tapping	X-67-114
2	Screw, self tapping	X-67-115
1	Clamp, insulated	X-672-13
1	Plug, pipe - repair	X-75-23
1	Nut, well	227418
1	Bracket, air cleaner	227429
1	Bracket, fuel pump	227467
1	Sleeve, carburetor	227618

Qty.	Description	Kit/Part No.
------	-------------	--------------

1	Bracket, valve mount	227632
1	Manifold, intake	227634
1	Gasket, adapter	227635
1	Line, fuel	227636
1	Elbow, 45° street	227642
1	Valve, gas	227648
1	Regulator, gas	227649
1	Line, flexible fuel	227730
1	Harness, wiring	227738
1	Positive Temperature Coefficient Assy.	278542
1	Gasket, positive temperature coefficient	278570
1	Base, air cleaner	278855
1	Cover, plastic	278856
1	Filter	278857
1	Element, filter	278858
4	Clip, air cleaner	278862
1	Hose, pleated	278863
1	Gasket, carburetor	278869
1	Bracket, intake support	278915
1	Hose, breather	278967
1	Plate, closure	278982
2	Gasket, intake manifold	278988

Gasoline Fuel Kit 227627

1	Actuator Assembly	A-278779
1	Nut, elastic stop 8-32	X-101-11
1	Screw	X-129-51
4	Washer, plain	X-25-33
2	Washer	X-25-97
1	Grommet, 1/2 x 13/16	X-284-15
1	Clip, wire, 5/16	X-339-3
2	Stud	X-352-90
1	Connector, hose	X-380-1
1	Line, flexible fuel	X-386-35
1	Line, flexible fuel	X-386-46
1	Line, fuel	X-386-98
1	Connector, hose	X-391-1
3	Clamp, hose	X-426-19
1	Clamp, hose	X-426-20
4	Clamp, hose	X-426-9
1	Tie, cable	X-468-4
1	Screw, pan head	X-49-40
3	Screw, 8-32 x 5/8	X-51-9
1	Screw, pan head	X-49-40
1	Plug, cap 1/4	X-519-6
4	Screw, socket head	X-55-27
2	Screw	X-6216-1
1	Screw, hex flange	X-6217-4
2	Bushing, nylon	X-634-14
2	Bushing	X-634-16
4	Screw, self tapping	X-67-115
1	Clamp	X-672-10
2	Nut, hex	X-76-2
1	Nut, well	227418
1	Bracket, air cleaner	227429
1	Bracket, fuel pump	227467

Accessories, continued

Qty.	Description	Kit/Part No.
1	Base, air cleaner	227543
1	Damper, air cleaner	227544
1	Adapter, hose	227545
1	Duct, carburetor preheater	227549
1	Tube, air intake	227553
1	Line, breather	227577
1	Insulation, sleeve	227578
1	Plate, hold down	227582
1	Manifold, intake	227656
1	Pump assy., fuel	227739
1	Filter, fuel	228269
1	Elbow, 45° street	267428
1	Washer, curved spring	278447
1	PTC assembly	278542
1	Gasket, positive temperature coefficient	278570
1	Gasket	278583
1	Adapter, carburetor	278608
1	Elbow, 45°	278770
1	Cover, plastic	278856
1	Filter	278857
1	Element, filter	278858
4	Clip, air cleaner	278862
1	Hose, pleated	278863
1	Carburetor	278868
1	Gasket, carburetor	278869
1	Line, fuel	278895
1	Bracket, intake support	278915
2	Gasket, intake manifold	278988

LP Vapor/Natural Gas Fuel Kit

227880

1	Actuator Assembly	A-227638
1	Carburetor Assembly	A-227958
1	Bushing, reducer, 1/4 x 1	X-202-12
1	Bushing, reducer, 3/8	X-202-28
1	Nipple, pipe 1/4 x 7/8	X-220-5
2	Connector, 1/2 union	X-296-10
1	Plug, button	X-301-20
2	Stud	X-352-90
1	Hose, fuel line	X-422-28
1	Clamp, hose	X-426-10
1	Clamp, hose	X-426-19
1	Screw, r.h.m. 10-24 x 2	X-50-42
3	Screw, r.h.m. 8-32 x 518	X-51-9
1	Elbow, 45° flare	X-6289-2
2	Bushing, nylon .938 ID	X-634-14
2	Screw, self tapping	X-67-114
4	Screw, self tapping	X-67-115
1	Clamp, insulated	X-672-13
2	Nut, hex	X-76-2
1	Tag, instruction	226682
1	Cover, plastic	227463
1	Bracket, valve mounting	227632
1	Manifold, intake	227634
1	Line, fuel	227636

Qty.	Description	Kit/Part No.
1	Elbow, 45° street	227642
1	Valve, gas	227648
1	Regulator, gas	227649
1	Line, flexible fuel	227730
1	Harness, wiring	227738
1	Hose, air intake	227828
1	Line, breather	227864
1	PTC Assembly	278542
1	Gasket, PTC	278570
1	Gasket	278583
1	Adapter, carburetor	278608
1	Adapter, nylon hose	278805
1	Gasket, carburetor	278869
1	Bracket, intake support	278915

LP Gas Fuel Kit

227986

1	Actuator Assembly	A-227638
1	Carburetor Assembly	A-227958
1	Bushing, reducer 1/4 x 1	X-202-12
1	Bushing, reducer 3/8	X-202-28
1	Nipple, pipe 1/4 x 7/8	X-220-5
2	Connector, 1/2 union	X-296-10
1	Plug, button	X-301-20
1	Stud	X-352-90
1	Hose, fuel line	X-422-28
1	Clamp, hose	X-426-10
1	Clamp, hose	X-426-19
1	Screw, r.h.m. 10-24 x 2	X-50-42
3	Screw, r.h.m. 8-32 x 518	X-51-9
1	Elbow, 45° flare	X-6289-2
2	Bushing, nylon .938 ID	X-634-14
2	Screw, self-tapping	X-67-114
4	Screw, self-tapping	X-67-115
1	Clamp, insulated	X-672-13
2	Nut, hex	X-76-2
1	Tag, instruction	226682
1	Cover, plastic	227463
1	Bracket, valve mounting	227632
1	Manifold, intake	227634
1	Line, fuel	227636
1	Elbow, 45° street	227642
1	Valve, gas	227648
1	Regulator, gas	227649
1	Line, flexible fuel	227730
1	Harness, wiring	227738
1	Hose, air intake	227828
1	Line, breather	227864
1	Decal, emissions	227971
1	PTC Assembly	278542
1	Gasket, PTC	278570
1	Gasket	278583
1	Adapter, carburetor	278608
1	Adapter, nylon hose	278805
1	Gasket, carburetor	278869
1	Bracket, intake support	278915

Accessories, continued

Qty.	Description	Kit/Part No.
Gasoline Fuel Kit		227881
1	Actuator Assembly	A-278779
1	Clip, wire 5/16	X-339-3
2	Stud	X-352-91
1	Connector, hose 1/8	X-380-1
1	Line, flex fuel	X-386-35
1	Line, flex fuel	X-386-46
1	Line, fuel	X-386-98
1	Connector, hose 1/8	X-391-1
4	Clamp, hose	X-426-9
1	Terminal	X-431-21
1	Screw, pan head 4-40 x 0.375	X-49-40
1	Plug, cap 1/4 inches	X-519-6
3	Screw, socket head cap	X-55-32
2	Screw,	X-6216-1
2	Bushing, nylon .938 ID	X-634-14
4	Screw, self tapping	X-67-115
4	Screw, tapping 8-32	X-67-59
1	Clamp	X-672-10
2	Nut, hex	X-76-2
1	Hose, air cleaner	227654
1	Manifold, intake	227656
1	Pump Assy, fuel	227739
1	Line, fuel	227753
1	Bracket, intake support	227764
1	Line, breather	227861
1	Sink assy, potted heat	227866
1	Thermostat, low temp.	227867
1	Filter, fuel	228269
1	Fuse 5A 250V 0.25 x 1.25	239298
1	Elbow, 45° street	267428
1	Holder, fuse 0.25 x 1.25	267996
1	Elbow, 45°	278770
1	Cover, plastic	278856
1	Carburetor	278868
1	Gasket, carburetor	278869
Natural Gas Fuel Kit		227985
1	Actuator Assembly	A-227638
1	Carburetor Assembly	A-227958
1	Bushing, reducer 1/4 x 1	X-202-12
1	Bushing, reducer 3/8	X-202-28
1	Nipple, pipe 1/4 x 7/8	X-220-5
2	Connector, 1/2 union	X-296-10
1	Plug, button	X-301-20
2	Stud	X-352-90
1	Hose, fuel line	X-422-28
1	Clamp, hose	X-426-10
1	Clamp, hose	X-426-19
1	Screw, r.h.m. 10-24 x 2	X-50-42
3	Screw, r.h.m. 8-32 x 0.625	X-51-9
1	Elbow, 45° flare	X-6289-2
2	Bushing, nylon 0.938 id	X-634-14
2	Screw, self tapping	X-67-114
4	Screw, self tapping	X-67-115

Qty.	Description	Kit/Part No.
1	Clamp, insulated	X-672-13
2	Nut, hex	X-76-2
1	Tag, instruction	226682
1	Cover, plastic	227463
1	Bracket, valve mountin	227632
1	Manifold, intake	227634
1	Line, fuel	227636
1	Elbow, 45° street	227642
1	Valve, gas	227648
1	Regulator, gas	227649
1	Line, flexible fuel	227730
1	Harness, wiring	227738
1	Hose, air intake	227828
1	Line, breather	227864
1	Decal, emissions	227970
1	PTC Assembly	278542
1	Gasket, PTC	278570
1	Gasket	278583
1	Adapter, carburetor	278608
1	Adapter, nylon hose	278805
1	Gasket, carburetor	278869
1	Bracket, intake support	278915
Electric Fuel Pump Kit		PA-225208
1	Pump, electric fuel	247076
Gas Strainer Kit		PA-290275
1	Strainer, gas	292485
Auxiliary Fuel Pump 12vdc,		PA-324405
1	Pump, fuel	229051
2	Lead, wire	229056
Battery System Kits		
Battery Bracket Kit		227628 and PA-227628
2	Nut, whiz	X-6210-2
1	Bracket, holddown	238725
2	Bolt, angle	253307
Battery Heater Kit		256980 and PA-256980
1	Tie, cable	X-468-4
1	Heater, battery	258780
Battery		PA-239102
1	Battery	239102

Accessories, continued

Qty.	Description	Kit/Part No.
Battery Trickle Charger Kit PAA-248952		
1	Charger Assembly	A-248952
2	Washer, lock #6	X-22-25
1	Terminal	X-283-8
2	Block, terminal	X-405-2
1	Terminal	X-431-27
9	Terminal	X-431-28
1	Screw, 6-32 x 1/2	X-49-26
6	Screw, 8-32 x 3/8	X-51-12
4	Screw, 8-32 x 5/8	X-51-9
2	Connector, nonmetal	X-567-1
4	Screw, hex slotted hd.	X-67-43
4	Screw, drill	X-794-2
1	Tab, ident	201620-122
1	Tab, ident	201620-152
1	Tab, ident	201620-85
1	Tab, ident	201620-86
1	Holder, fuse	238426
1	Cord, power	246185
1	Cover, battery charger	246604-KCB
1	Box, battery charger	248951-KCB
1	Ammeter, DC	269202
1	Transformer	269204
4	Spacer, screen	270833
1	Fuse, 1/5 amp	291207
1	Lamp	291208
1	Resistor, 0.56 ohm 2 W	291209
1	Switch, slide DPDT	291210
1	Switch, slide DPDT	291211
1	Diode, 6A 100V	291212
1	Resistor	291213
1	Cable	291215
1	Cable	291216
1	Nameplate	291220
1	Nameplate	291221
1	Breaker, circuit	291265
1	Rheostat	291975

Charger Assy., Battery Float 12 PAC-292862		
1	Charger Assembly	C-292862
1	Circuit board, 12V charger	C-262377
2	Washer, shakeproof	X-22-18
3	Washer, lock #6	X-22-25
2	Terminal	X-283-1
2	Terminal	X-283-11
3	Terminal	X-283-2
8	Screw, 6-32 x 1/4	X-49-25
4	Screw, 6-32 x 1/2	X-49-26
3	Screw, pan head 6-32 x 3/8	X-49-39
2	Screw, 6-32 x 3/4	X-49-6
2	Screw, 10-32 x 1/2	X-50-1
2	Screw, 10-24 x 3/4	X-50-3
1	Screw, pan head 10-32 x 1/4	X-50-68
2	Screw, 8-32 x 3/4	X-51-11
2	Screw, 8-32 x 1/2	X-51-15

Qty.	Description	Kit/Part No.
4	Screw, 1/4-20 x 3/4	X-51-30
1	Screw, 8-32 x 5/8	X-51-9
2	Tube, heat shrink	X-6081-3
1	Nameplate, battery charger	233961
1	Door, silkscreen	233965
1	Decal, connection	233966
1	Fuse, 5 amp	239298
1	Fuse, 25 amp	262389
1	Transformer	262394
1	Decal, warning	262397
1	Box, battery charger	262398
1	Clip, cable	262399
2	Holder, fuse	263156
4	Spacer, circuit board	287948
1	Lamp	291208
1	Decal	292387
1	Sink, heat	292938
1	Strip, terminal	292940
1	Ammeter, DC	292941
1	Voltmeter, DC	292942
1	Module, SCR	292945
1	Resistor, power	292947
1	Fuse	292948
1	Harness, wiring	292958
1	Marker, strip	292961
1	Marker, strip	292962
1	Decal, UL	292975
1	Decal, CSA	292976
1	Retainer	295010
1	Block, terminal	295314
4	Nut, captive	298810

Charger Assy., Battery Float 12 PAC-292863		
1	Charger Assembly	C-292863
1	Circuit board, alarm	B-262374
1	Circuit board, control	C-262377
2	Washer, shakeproof #6	X-22-18
3	Washer, lock #6	X-22-25
2	Terminal	X-283-1
2	Terminal	X-283-11
3	Terminal	X-283-2
2	Terminal	X-431-23
16	Screw, 6-32 x 1/4	X-49-25
4	Screw, 6-32 x 1/2	X-49-26
3	Screw, pan head 6-32 x 3/8	X-49-39
2	Screw, 6-32 x 3/4	X-49-6
2	Screw, 10-32 x 1/2	X-50-1
2	Screw, 10-24 x 3/4	X-50-3
1	Screw, pan head 10-32 x 3/4	X-50-68
2	Screw, 8-32 x 3/4	X-51-11
2	Screw, 8-32 x 1/2	X-51-15
4	Screw, 1/4-20 x 3/4	X-51-30
1	Screw, 8-32 x 5/8	X-51-9
2	Tube, heat shrink	X-6081-3

Accessories, continued

Qty.	Description	Kit/Part No.
1	Nameplate, battery charger	233962
1	Door, silkscreen	233965
1	Decal, connection	233966
1	Fuse, 5 amp	239298
1	Fuse, 25 amp	262389
1	Transformer	262394
1	Decal, warning	262397
1	Box, battery charger	262398
1	Clip, cable	262399
2	Holder, fuse	263156
8	Spacer, circuit board	287948
1	Lamp	291208
1	Decal	292387
1	Sink, heat	292938
1	Strip, terminal	292940
1	Ammeter, DC	292941
1	Voltmeter, DC	292942
1	Module, SCR	292945
1	Resistor, power	292947
1	Fuse	292948
1	Harness, wiring	292958
1	Marker, strip	292961
1	Marker, strip	292962
1	Decal, UL	292975
1	Decal, CSA	292976
1	Retainer	295010
1	Block, terminal	295314
4	Nut, captive	298810

Circuit Breaker Kits

Circuit Breaker Kits 227624 and PA-227624

4	Screw, 6-32 x 5/16	X-49-1
4	Screw, 6-32 x 1/4	X-49-25
2	Breaker, circuit, 2 pole, 25 amp	278784

Circuit Breaker Kits 227625 and PA-227625

4	Screw, 6-32 x 5/16	X-49-1
4	Screw, 6-32 x 1/4	X-49-25
2	Breaker, circuit, 2 pole, 30 amp	278190

Circuit Breaker Kits 227708 and PA-227708

6	Terminal	X-283-8
5	Terminal	X-283-9
6	Screw, 6-32 x 1/4	X-49-25
3	Plate, closure	227804
3	Breaker, circuit, 3 pole, 25 amp	X-506-54

Circuit Breaker Kits 227709 and PA-227709

6	Terminal	X-283-8
5	Terminal	X-283-9
6	Screw, 6-32 x 1/4	X-49-25
3	Plate, closure	227804
3	Breaker, circuit, 3 pole, 15 amp	X-506-56

Qty.	Description	Kit/Part No.
------	-------------	--------------

Circuit Breaker Kits 227710 and PA-227710

6	Terminal	X-283-8
5	Terminal	X-283-9
6	Screw, 6-32 x 1/4	X-49-25
1	Plate, closure	227804
3	Breaker, circuit, 3 pole, 10 amp	X-506-55

Circuit Breaker Kits 227711 and PA-227711

6	Terminal	X-283-8
5	Terminal	X-283-9
6	Screw, 6-32 x 1/4	X-49-25
3	Plate, closure	227804
3	Breaker, circuit, 3 pole, 20 amp	X-506-10

Controller Kits, 5-light

Controller Kit 227807

1	Controller Assembly	A-227464
1	Charger Assembly, battery	B-278660
1	PCB Assembly	E-278598
1	Nipple, pipe, 1/8 x 3/4	X-217-6
2	Tie, cable nylon	X-468-3
3	Screw, self-tapping	X-67-113
1	Screw, self-tapping	X-67-118
2	Screw, h.c. 10-24	X-67-52
1	Plug, pipe, 1/8	X-75-1
2	Screw, drill h.c.	X-794-1
1	Cross, pipe 1/8	164037
1	Bracket, CT mounting	225161
1	Harness, J-box wiring	227810
1	Harness, wiring	227852
2	Transformer, current	254786
1	Sender, oil pressure gauge	264390
1	Elbow, 45° street	267428

Controller Kit 227908

1	Controller Assembly	A-227464
1	PCB Assembly	B-258296
1	Charger Assembly	B-278660
1	Nipple, pipe, 1/8 x 3/4	X-217-6
2	Washer, plain	X-25-74
2	Tie, cable nylon	X-468-3
6	Screw, pan head, 8-32	X-51-12
6	Screw	X-51-8
1	Conduit, convoluted	X-6003-113
2	Screw, self tapping	X-67-125
2	Screw, h.c.	X-67-52
1	Plug, pipe 1/8	X-75-1
2	Screw, drill h.c.	X-794-1
1	Cross, pipe 1/8	164037
1	Bracket, CT mounting	225161
1	Harness, wiring	227852
1	Harness, wiring	227900
6	Spacer	229357
6	Washer, nylon	239665
3	Transformer, current	254786

Accessories, continued

Qty.	Description	Kit/Part No.
1	Relay, tab 20A, 12vdc	259391
1	Sender, oil pressure	264390
1	Elbow, 45° street	267428

Duct Flange Kits

Duct Flange Kit **227860 and PA-227860**

1	Frame, air duct	227859
---	-----------------	--------

Relay Controller Kits

Relay Controller Kit **227626**

1	Controller Assembly	A-227600
1	Circuit board assy., sm. stby. relay	C-254717
1	Circuit board assy., cyclic crank	C-284507
1	Washer, lock 1/4	X-22-11
2	Washer, shakeproof	X-22-12
2	Washer, lock #6	X-22-6
10	Screw, 6-32 x 1/4	X-49-25
4	Screw, 4-40 x 7/8	X-49-35
2	Screw, pan head 6-32 x 1/2	X-49-39
2	Screw, 10-24 x 3/4	X-50-3
1	Grommet, nylon	X-6033-6
1	Tube, heat shrink	X-6081-3
4	Screw	X-6216-1
4	Spacer	X-712-9
4	Nut, hex 4-40	X-74-6
1	Tube, heat shrink	X-748-21
1	Nut, hex 1/4-20	X-81-8
1	Tab, ident	201620-152
1	Fuse, 10 amp	223316
1	Lead, ground	230857
1	Holder, fuse	238426
4	Terminal	238582
1	Meter, hour	238736
1	Relay	241736
1	Cover, controller	254800
1	Marker, strip	254822
1	Box, silkscreened	254953
1	Screw, special	267491
1	Lamp	269373
1	Switch, toggle	287812
5	Spacer, circuit board	287948
1	Strip, terminal	292940
1	Voltage regulator, (PBIIIIE)	D-278598
1	Tie, cable	X-468-3
3	Screw, self tapping 10-32 x 3/8	X-67-113

Qty.	Description	Kit/Part No.
1	Screw, self tapping 10-32 x 5/8	X-67-118
2	Screw, h.c. 10-24 x 1/2	X-67-52
1	Harness, wiring	227468
1	Harness, wiring	227469
1	Harness, engine wiring	227599
4	Mount, controller	241769

Relay Controller Kit

227907

1	Controller Assembly	A-227857
1	PCB Assembly	B-258296
1	Charger Assembly, battery	B-278660
6	Washer lock #8	X-22-7
2	Washer, plain	X-25-74
2	Tie, cable nylon	X-468-3
6	Screw, pan head 8-32	X-51-12
6	Screw	X-51-8
1	Conduit, convoluted	X-6003-113
2	Screw, self-tapping	X-67-125
2	Screw, h.c. 10-24	X-67-52
1	Harness, wiring	227802
1	Harness, wiring	227852
1	Harness, wiring	227899
6	Spacer	229357
6	Washer, nylon	239665
4	Mount, controller	241769
1	Cover, controller	254800

Relay Controller Kit

227855

1	Controller Assembly	A-227857
1	Charger Assembly, battery	B-278660
1	PCB Assembly	E-278598
2	Washer, plain	X-25-74
2	Tie, cable nylon	X-468-3
1	Conduit, convoluted	X-6003-113
3	Screw, self-tapping	X-67-113
1	Screw, self-tapping	X-67-118
2	Screw, self-tapping	X-67-125
2	Screw, h.c. 10-24	X-67-52
1	Harness, wiring	227468
1	Harness, wiring	227469
1	Harness, wiring	227852
4	Mount, controller	241769
1	Cover, controller	254800

Accessories, continued

Qty.	Description	Kit/Part No.
Overvoltage Kit 291746 and PA-291746		
1	Circuit board Assy., overvoltage	G-291739
4	Washer, plain	X-25-11
2	Spacer	292372
Common Fault Relay Kit 256882 and PA-256882		
1	Circuit board assembly, diode	A-256884
1	Circuit board assy., 1 relay	C-294301
7	Spacer	X-712-9
2	Screw, h.c.	X-97-3
1	Bracket, mounting	256877
1	Harness, wiring	256883
Common Failure Relay Kit 225196		
1	PCB Assembly, diode	A-256884
1	PCB Assy, 1 relay dry	C-294301
7	Washer lock #8	X-22-7
7	Spacer	X-712-9
7	Nut, h.c. 8-32 zinc plated	X-72-4
2	Screw, slotted h.c.	X-97-3
1	Bracket, mounting	225195
1	Harness, wiring	256883
Run Relay Kit 273743 and PA-273743		
2	Screw, 6-32 x 1/2	X-49-26
1	Relay Assembly	273705
2	Terminal	X-431-43
1	Tube, shrink	X-748-29
1	Diode	233868
1	Relay	248362
16 Light Panel (SM) Kit PA-256471		
1	Panel Assembly	A-256472
1	Panel Assy., annunciator	A-258782
1	assy., 16 light	A-292885
1	Grommet, 1-3/8	X-284-3
2	Screw, 6-32 x 1/2	X-49-26
4	Screw, h.c. slotted	X-67-43
6	Screw, drill	X-794-2
1	Bracket, wall mounting	253346
1	Panel, front	253350
1	Decal, marker	258832
1	Nameplate	258834
1	Harness, wiring	258890
1	Block, terminal	258891
2	Panel, side	287798
1	Terminal, 16-14 wire	X-283-32
1	Terminal	X-283-4
1	Terminal	X-283-5

Qty.	Description	Kit/Part No.
Audio/Visual Alarm Kit PA-292856		
1	Panel assembly	A-292887
1	Assy., 1 light NFPA	A-292883
4	Stud, self-clinching	X-6205-3
4	Spacer	X-712-9
1	Lens, red	253241
4	Screw, mounting	292828
1	Plate, silkscreened	292936
Anticipatory Alarm Kit 227806		
1	Switch, pressure	271425
Chime Alarm Kit PA-292496		
1	Plate assembly	A-292497
1	Circuit board assembly	A-292493
4	Stud, self-clinching	X-6205-3
4	Spacer	X-712-9
1	Lens, red	253241
4	Screw, mounting	292828
1	Plate	292499
Remote Annunciator Panel Kits		
Remote Annunciator Panel Kit PA-293991		
1	Panel Assy, annunciator	A-258782
1	Contact Assembly	A-293983
1	Instruction, installation	TT-1023
1	Terminal	X-283-32
1	Terminal	X-283-4
1	Terminal	X-283-5
4	Screw, pan head	X-50-72
4	Nut hex 6-32 zinc	X-71-2
1	Panel, front annunciator	293992
2	Bracket, mounting	293993
Remote Emergency Stop Kit		
Remote Emergency Stop Kit PA-293906		
1	Switch, emergency stop	A-222654
1	Install, remote e-stop	TT-940

Accessories, continued

Qty.	Description	Part No.
Transfer Switches		
Manual Transfer Switch PA-320676		
1	Switch, manual transfer	320669
Automatic Transfer Switch PA-320677		
1	Switch, automatic transfer	320670
Automatic Transfer Switch PA-320678		
1	Switch, automatic transfer	320671

Qty.	Description	Part No.
Automatic Transfer Switch PA-320679		
1	Switch, automatic transfer	320672
Automatic Transfer Switch PA-320680		
1	Switch, automatic transfer	320673
Automatic Transfer Switch PA-320681		
1	Switch, automatic transfer	320674
Automatic Transfer Switch PA-320682		
1	Switch, automatic transfer	320675

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

Appendix B. Common Hardware Application Guidelines

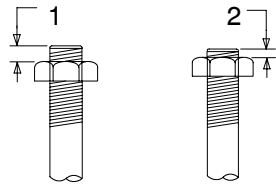
Use the information below and on the following pages to identify proper fastening techniques when no specific reference for reassembly is made.

Bolt/Screw Length: When bolt/screw length is not given, use NO TAG 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.

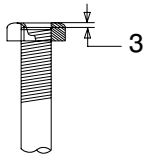
Washers and Nuts: Use split lock washers as a bolt locking device where specified. Use SAE flat washers with whiz nuts, spiralock nuts, or standard nuts and preloading (torque) of the bolt in all other applications.

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

Preferred Nut/Bolt Clearance



Unacceptable Nut/Bolt Clearance



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

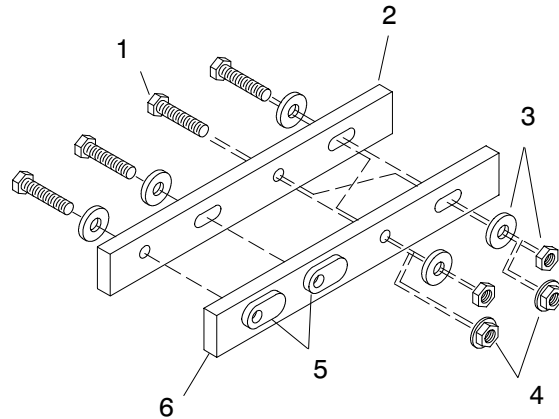
Figure 2. Acceptable Bolt Lengths

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			Assembled into Aluminum
		Grade 2	Grade 5	Grade 8	Grade 2 or 5
8-32	in. lbs. (Nm)	16 (1.8)	20 (2.3)	—	16 (1.8)
10-24	in. lbs. (Nm)	26 (2.9)	32 (3.6)	—	26 (2.9)
10-32	in. lbs. (Nm)	26 (2.9)	32 (3.6)	—	26 (2.9)
1/4-20	in. lbs. (Nm)	60 (6.8)	96 (10.8)	132 (14.9)	60 (6.8)
1/4-28	in. lbs. (Nm)	72 (8.1)	108 (12.2)	144 (16.3)	72 (8.1)
5/16-18	in. lbs. (Nm)	120 (13.6)	192 (21.7)	264 (29.8)	120 (13.6)
5/16-24	in. lbs. (Nm)	132 (14.9)	204 (23.1)	288 (32.5)	132 (14.9)
3/8-16	in. lbs. (Nm)	18 (24)	28 (38)	39 (53)	18 (24)
3/8-24	ft. lbs. (Nm)	20 (27)	31 (42)	44 (60)	20 (27)
7/16-14	ft. lbs. (Nm)	29 (39)	44 (60)	63 (85)	
7/16-20	ft. lbs. (Nm)	32 (43)	50 (68)	70 (95)	
1/2-13	ft. lbs. (Nm)	44 (60)	68 (92)	96 (130)	
1/2-20	ft. lbs. (Nm)	49 (66)	76 (103)	108 (146)	
9/16-12	ft. lbs. (Nm)	60 (81)	98 (133)	138 (187)	
9/16-18	ft. lbs. (Nm)	67 (91)	109 (148)	154 (209)	
5/8-11	ft. lbs. (Nm)	83 (113)	135 (183)	191 (259)	
5/8-18	ft. lbs. (Nm)	94 (128)	153 (208)	216 (293)	
3/4-10	ft. lbs. (Nm)	147 (199)	240 (325)	338 (458)	
3/4-16	ft. lbs. (Nm)	164 (222)	268 (363)	378 (513)	
1-8	ft. lbs. (Nm)	191 (259)	532 (721)	818 (1109)	
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)					Fasteners Assembled Into Aluminum
Size (mm)	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)

$1/4-20 \times 1$
 Length In Inches (Screws and Bolts)
 Threads Per Inch
 Major Thread Diameter In Fractional Inches Or Screw Number Size

Metric (Screws, Bolts, Studs, and Nuts)

$M8-1.25 \times 20$
 Length In Millimeters (Screws and Bolts)
 Distance Between Threads In Millimeters
 Major Thread Diameter In Millimeters

Plain Washers

$9/32 \times 5/8 \times 1/16$
 Thickness
 External Dimension
 Internal Dimension

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	Type
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
X-85-3	5/8-11	Std. Nut
X-88-12	3/4-10	Std. Nut
X-89-2	1/2-20	Std. Nut

WASHERS

Part No.	ID	OD	Thickness	Bolt/ Screw
X-25-46	.125	.250	.022	#4
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

KOHLER® POWER SYSTEMS

KOHLER CO. Kohler, Wisconsin 53044
Phone 920-565-3381, Web site www.kohlergenerators.com
Fax 920-459-1646 (U.S.A. Sales), Fax 920-459-1614 (International)
For the nearest sales and service outlet in U.S.A. and Canada
Phone 1-800-544-2444

Kohler® Power Systems
Asia Pacific Headquarters
7 Jurong Pier Road
Singapore 619159
Phone (65)264-6422, Fax (65)264-6455

TP-5628 9/98

© Kohler Co., 1993, 1998 All rights reserved.