

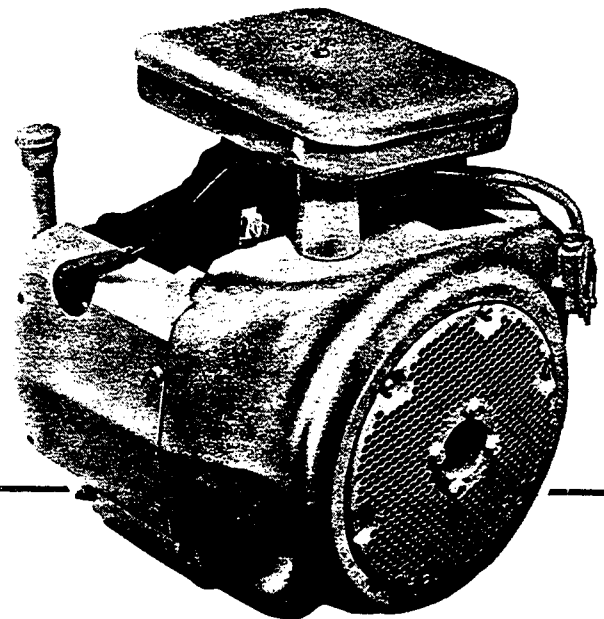
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Onan

Parts Manual

B48G-GA020
B48G-GA019.9

**Industrial
Engines**



965-0256
9-91 (SPEC B-G)
Replaces
4-88 (SPEC B-G)
Printed in U.S.A.

SAFETY PRECAUTIONS

The following symbols are used in Onan manuals to alert users to the potentially dangerous conditions relating to maintenance of the equipment and replacement of parts. Please read and observe.

⚠ DANGER

This symbol warns of immediate hazards which will result in severe personal injury or death.

⚠ WARNING

This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.

⚠ CAUTION

This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.

MODEL IDENTIFICATION

To avoid errors or delay in filling your parts order, always give the MODEL, SPEC NO., and SERIAL NO. from the Onan nameplate.

For handy reference, insert your nameplate information in the spaces below:

MODEL AND SPEC NO.

SERIAL NO.

PRODUCT SAFETY PRECAUTIONS

⚠ WARNING

Contact with USED ENGINE OILS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking or changing engine oils take all necessary precautions not to ingest, breathe the fumes or contact the used oil.

⚠ WARNING

Contact with ASBESTOS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When handling engine gaskets take all necessary precautions not to ingest, breathe or contact the dust from the gaskets! Use adequate ventilation and wear protective gloves, masks and clothing!

⚠ WARNING

Contact with BENZINE and LEAD, found in gasoline, fuel additives and solvents has been identified by a United States federal agency and some USA agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking, draining or adding gasoline and fuel additives, or using solvents take all necessary precautions not to ingest, breathe the fumes, or contact the liquids. Use adequate ventilation and wear protective gloves, masks and clothing!

Introduction

This Catalog applies to the standard B48G-GA019.9 and GA020 Engines. Parts are arranged in groups of related items. Each illustrated part is identified by a reference number corresponding to the same reference number in the parts list for that group. Parts illustrations are typical. Using the Model and Spec No. from the nameplate, select the Parts that apply to your engine. Unless otherwise mentioned in the description, parts are interchangeable between models. Right and left sides are determined by facing the blower end (front) of the engine.

WARNING

This engine is not designed or intended for use in any type of aircraft. Use of this engine in aircraft may result in engine failure and cause serious bodily injury, death and/or property damage.

NOTICE!

Items referenced as Optional indicate part is factory installed and may not be applicable to all models. For field conversions additional parts are usually required.

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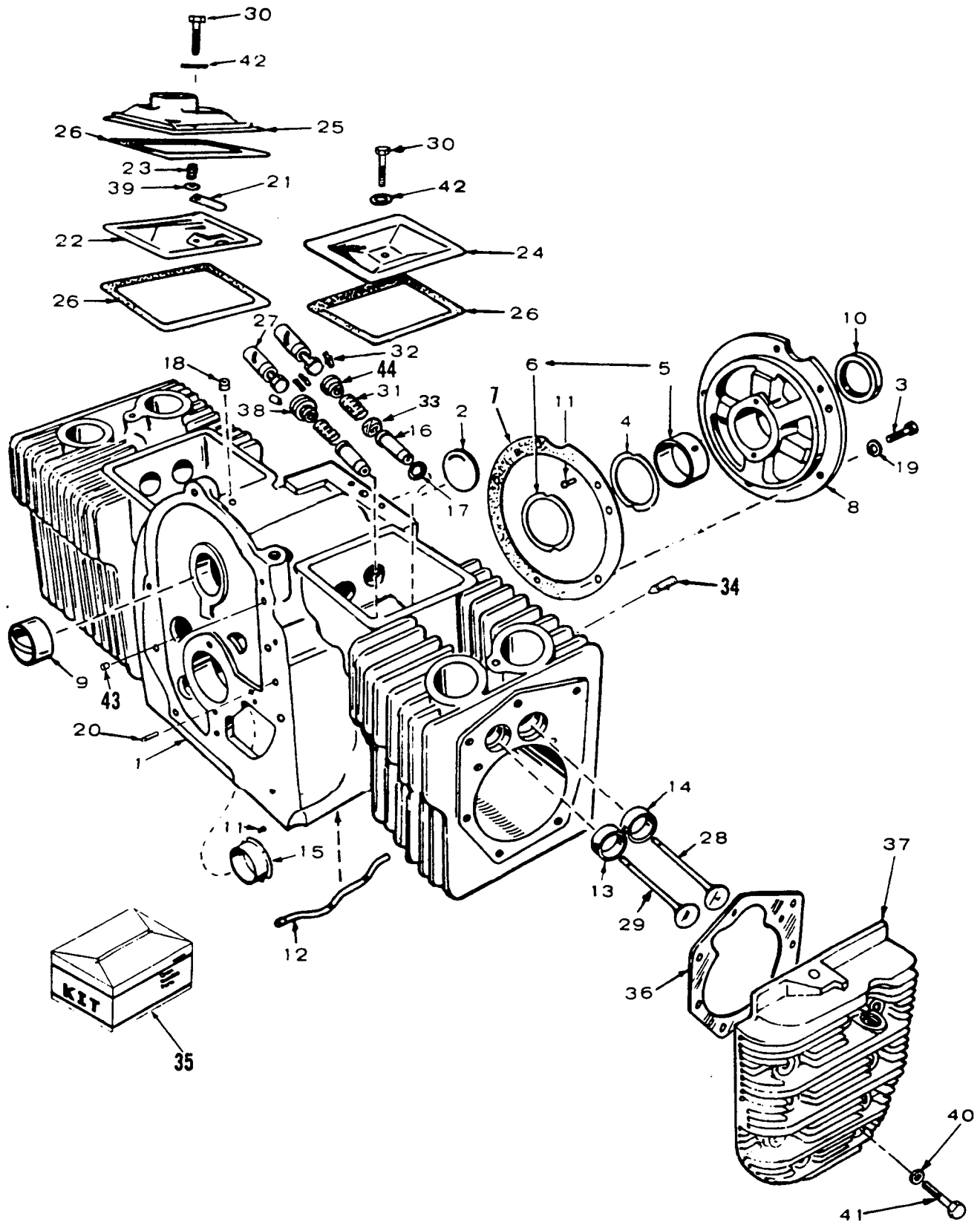
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Cylinder Block



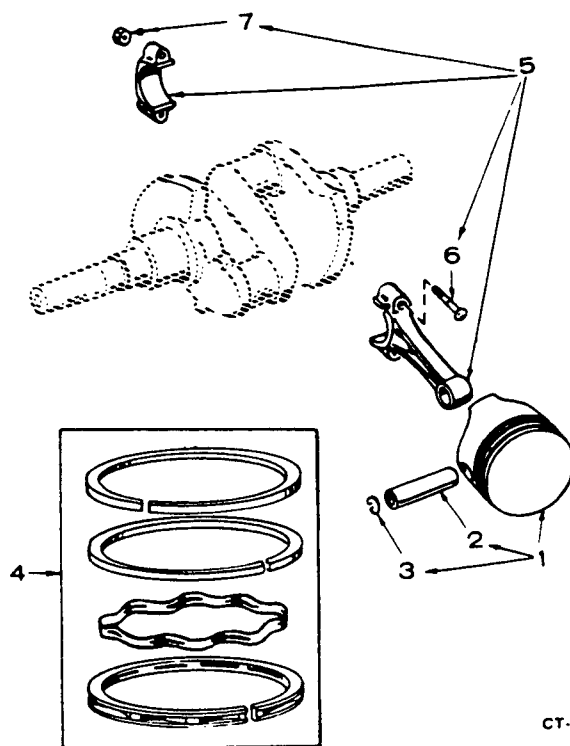
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Cylinder Block

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1		1	Block, Cylinder (See Short Block Catalog #932-0109) (Includes Parts Marked *)	17	110-0068	2	*Gasket, Intake Valve Guide
2	517-0048	1	*Plug, Welch (1-5/8") Camshaft Opening	18	517-0120	1	*Plug, Breather Hole
3	800-0051	5	*Screw, Cap - Hex Head (3/8-16 x 1-1/4")	19	850-0050	5	*Washer, Lock - Spring (3/8")
4	104-0776	AR	*Shim, Crankshaft End Play (.005")	20	516-0141	2	*Pin, Gear Cover Alignment
5			Bearing, Crankshaft - Rear (Includes Thrust Washer)	21	123-1175	1	Reed, Breather Valve
	101-0450	1	*Standard	22	123-1173	1	Baffle, Breather Valve
	101-0450-02	1	.002" Undersize	23	123-1174	1	Spring, Breather Valve
	101-0450-10	1	.010" Undersize	24	110-1879	1	Cover, Valve - RH
	101-0450-20	1	.020" Undersize	25	110-2274	1	Cover, Valve - LH
	101-0450-30	1	.030" Undersize	26	110-1921	3	Gasket, Valve Cover
6	104-0575	2	*Washer, Thrust	27			Tappet, Valve
7	101-0415	1	*Gasket, Bearing Plate		115-0006	4	Standard
8			Plate, Bearing - Rear		115-0006-02	4	.002" Oversize
	101-0439	1	*Standard		115-0006-05	4	.005" Oversize
	101-0551	1	*Optional - 4 Boss	28	110-2368	2	Valve, Intake
	101-0430	1	Optional - SAE B	29	110-1955	2	Valve, Exhaust
	101-0437	1	Optional - SAE A	30	800-0010	2	Screw, Cap - Hex Head (1/4-20 x 1-3/4")
9	101-0405	2	*Bearing, Camshaft	31	110-0539	4	Spring, Valve
10	509-0041	1	*Seal, Oil - Crankshaft Rear	32	110-0639	8	Lock, Valve Spring
11	516-0072	4	*Pin, Drive - Bearing Stop	33	110-3604	2	Seal, Valve - Intake (Optional)
12	120-0735	1	*Tube, Oil - Cylinder Block	34	803-0071	2	Screw, Set (3/8-16 x 5/8")
13			Insert, Valve Seat - Exhaust	35			Kit, Gasket
	110-1824	2	*Standard		168-0189	1	Gasket Kit, Valve Grind/Carbon Removal (Graphoil Head Gaskets)
	110-1824-02	2	.002" Oversize		168-0187	1	Gasket Kit, Complete (Graphoil Head Gaskets)
	110-1824-05	2	.005" Oversize	36			Gasket, Cylinder Head
	110-1824-10	2	.010" Oversize		110-2287	2	Standard
	110-1824-25	2	.025" Oversize		110-3181	2	Optional (Graphoil)
14			Insert, Valve Seat - Intake	37			Head, Cylinder
	110-0197	2	*Standard		110-3214	1	Right Side
	110-0197-02	2	.002" Oversize		110-3213	1	Left Side
	110-0197-05	2	.005" Oversize	38	110-0904	4	Roto Cap - Valve
	110-0197-10	2	.010" Oversize	39	526-0018	1	Washer, Flat (1/4")
	110-0197-25	2	.025" Oversize	40	526-0122	18	Washer, Flat (5/16")
15			Bearing, Crankshaft - Front (Flanged)	41			Screw, Cap - Hex Head (Special)
	101-0432	1	*Standard		800-0540	8	5/16-18 x 1-5/8"
	101-0432-02	1	.002" Undersize		800-0571	10	2" Long
	101-0432-10	1	.010" Undersize	42	526-0063	2	Washer, Flat - Copper (1/4")
	101-0432-20	1	.020" Undersize	43	517-0067	1	*Plug, Core Hole
	101-0432-30	1	.030" Undersize	44	110-0893	2	Washer, Exhaust Valve Spring Retainer - Optional
16			Guide, Valve				
			Engines w/o Intake Valve Seals				
	110-1807	2	Intake				
	110-1807	2	Exhaust				
			Engines with Intake Valve Seals				
	110-1807	2	*Exhaust				
	110-3161	2	*Intake				

* - Parts Included in the Cylinder Block.

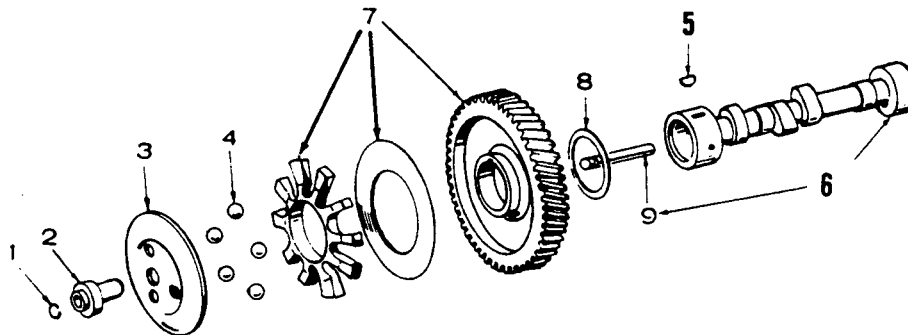
Piston and Rod



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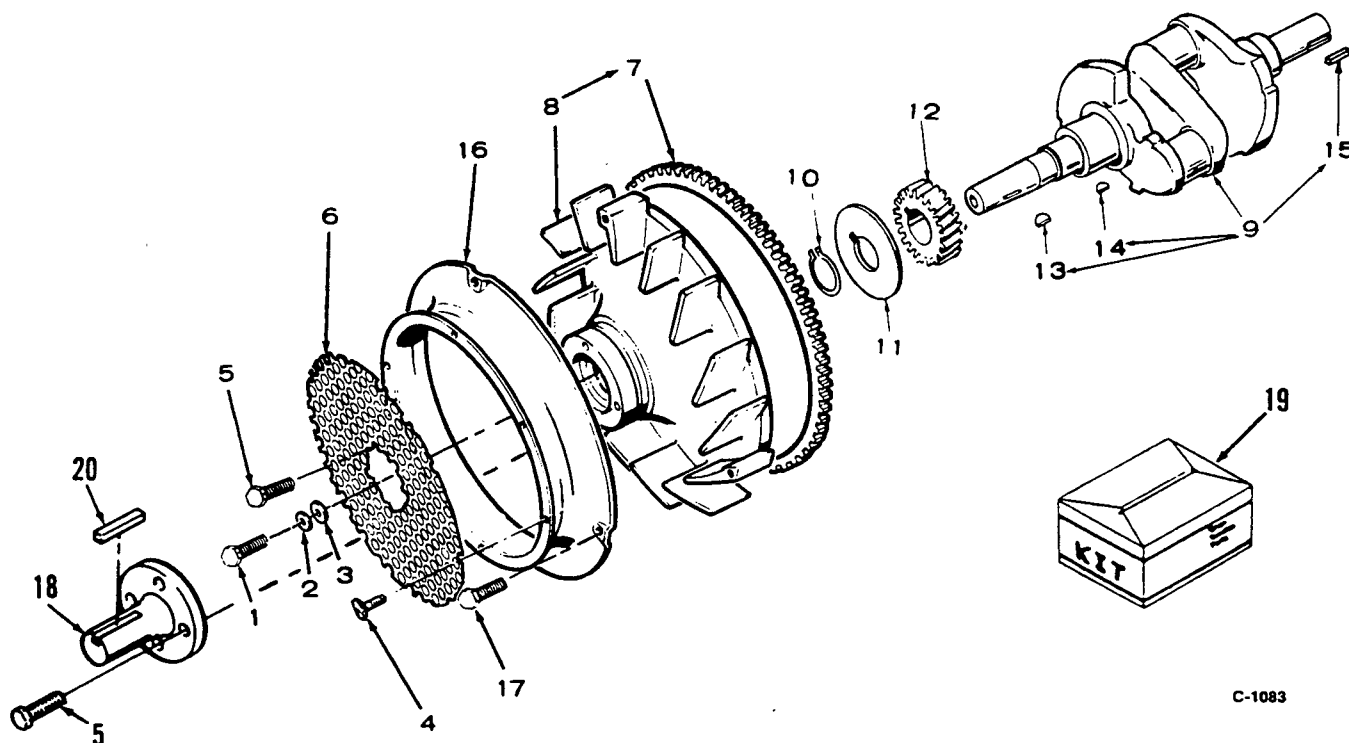
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Piston and Pin (Includes Retaining Rings)	5			Rod, Connecting (Includes Bolt and Nut)
	112-0186	2	Standard		114-0257	2	Standard
	112-0186-05	2	.005" Oversize		114-0257-10	2	.010" Undersize
	112-0186-10	2	.010" Oversize		114-0257-20	2	.020" Undersize
	112-0186-20	2	.020" Oversize		114-0257-30	2	.030" Undersize
	112-0186-30	2	.030" Oversize	6	114-0240	4	Bolt, Connecting Rod (Special)
	112-0186-40	2	.040" Oversize	7	870-0302	4	Nut, Hex - Crown Lock (5/16-24)
2	112-0229	2	Pin, Piston				
3	518-0311	4	Ring, Retaining				
4			Ring Set, Piston				
	113-0189	2	Standard				
	113-0189-05	2	.005" Oversize				
	113-0189-10	2	.010" Oversize				
	113-0189-20	2	.020" Oversize				
	113-0189-30	2	.030" Oversize				
	113-0189-40	2	.040" Oversize				

Camshaft



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	150-0078	1	Ring, Retaining	6	105-0402	1	Camshaft (Includes Center Pin)
2	150-1519	1	Hub, Governor Cup	7	105-0332	1	Gear, Camshaft (Includes Plate and Spacer)
3	150-1520	1	Cup, Governor	8	105-0541	1	Washer, Thrust - Special
4	510-0015	5	Ball, Governor	9	150-0075	1	Pin, Center
5	515-0001	1	Key, Woodruff - Camshaft Gear				

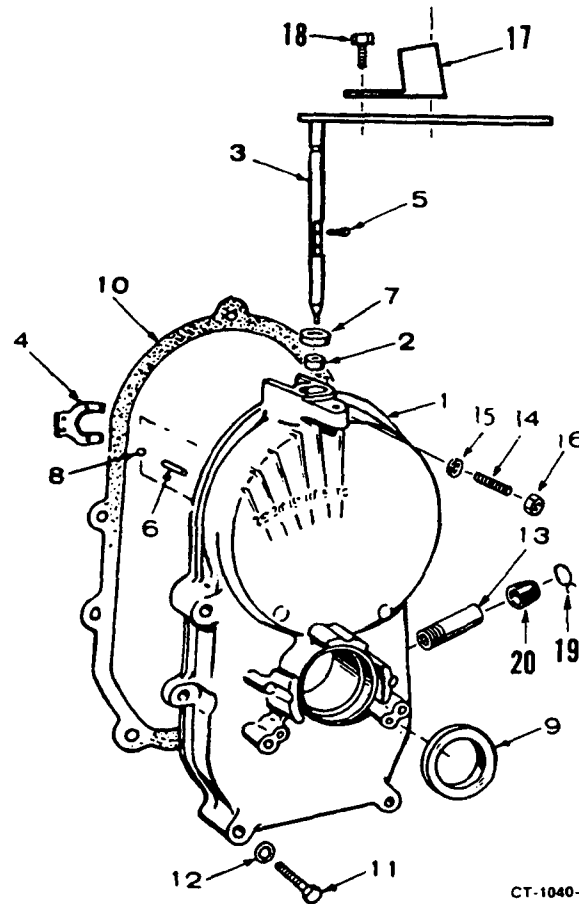
Crankshaft and Flywheel



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	104-0170	1	Screw, Cap - Hex Head (7/16-14 x 4")	10	518-0014	1	Ring, Retaining
2	850-0055	1	Washer, Lock - Spring (7/16")	11	104-0043	1	Washer, Gear Retaining
3	526-0017	1	Washer, Flat (7/16")	12	104-0032	1	Gear, Crankshaft
4	815-0519	6	Screw, Tapping - Hex Washer Head (#10-32 x 1/2")	13	515-0227	1	*Key, Flywheel
5	821-0014	4	Screw, Cap - Hex Head Locking (5/16-18 x 1/2")	14	515-0001	1	*Key, Crankshaft Gear
6	134-4120	1	Guard, Flywheel	15	515-0103	1	*Key, Crankshaft Stub
7	104-0779	1	Gear, Ring	16	134-3847	1	Venturi, Blower Wheel
8	134-4641	1	Flywheel (Includes Ring Gear)	17	821-0010	5	Screw, Cap - Hex Washer Head (1/4-20 x 1/2")
9			Crankshaft (Includes Parts Marked *)	18			Shaft, PTO - Front
	104-1443	1	.986" Diameter Stub x .84" Long - No Taper		190-0546	1	1-7/16"
	104-1575	1	1.125" Diameter Stub x 3" Long - Tapered		190-0687	1	1"
	104-1700	1	1.437" Diameter Stub x 3.06" Long - No Taper	19			Kit, Shaft - Front PTO
	104-1351	1	1.125" Diameter Stub x 2.32" Long - No Taper		190-0577	1	1-7/16" Diameter - 2" Pilot
	104-1364	1	Splined, 13 Tooth		541-0222	1	1" Diameter - 2" Pilot
				20	515-0007	1	Key, Machine (1/4 x 2")

* - Parts Included in Crankshaft Kit.

Gearcase



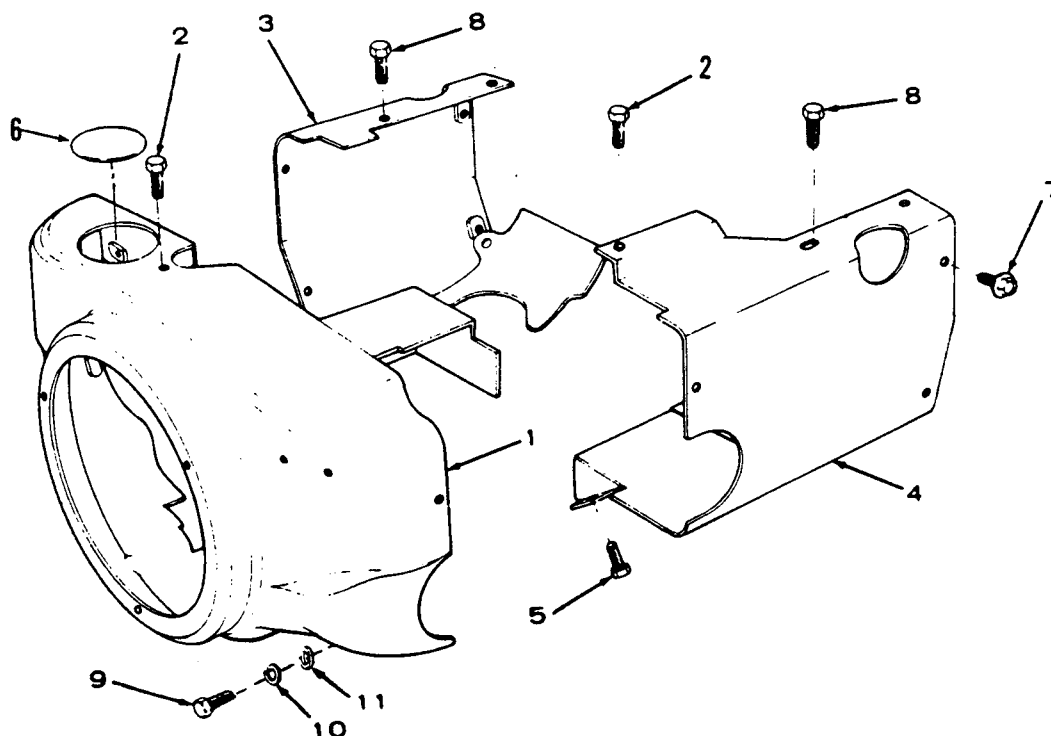
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REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	103-0738	1	Gearcase (Kit) (Includes Parts Marked *)	13	149-1299	1	*Tube, Vacuum Port
2	510-0105	1	*Bearing, Governor Shaft	14	520-0933	1	Stud, Gear Cover - Begin Spec C
3	150-1470	1	*Shaft and Arm, Governor	15	526-0065	1	Washer, Flat - Gear Cover (5/16") - Begin Spec C
4	150-1187	1	*Yoke, Governor Shaft	16	862-0015	1	Nut, Hex (5/16-18) - Begin Spec C
5	815-0046	2	*Screw, Machine - Pan Head (#8-32 x 3/8")	17	150-2090	1	Bracket, Dashpot - Gov. Arm - Begin Spec F
6	516-0130	1	*Pin, Dowel - Governor Cup Stop	18	815-0194	2	Screw, Hex Head - W/ET (10-32 x 3/8")
7	509-0008	1	*Seal, Oil - Governor Shaft	19	503-0301	1	*Clamp, Vacuum Port Cap
8	510-0014	1	*Ball, Bearing - Governor Shaft	20	149-1321	1	*Cap, Vacuum Port
9	509-0040	1	*Seal, Oil - Crankshaft				
10	103-0408	1	Gasket, Gearcase Mounting				
11			Screw, Cap - Hex Head				
	800-0032	4	5/16-18 x 1-3/4"				
	800-0545	1	5/16-18 x 2-3/4" (Special)				
12	526-0065	5	Washer, Flat - Copper (5/16")				

* - Parts Included in 103-0738 Gearcase.

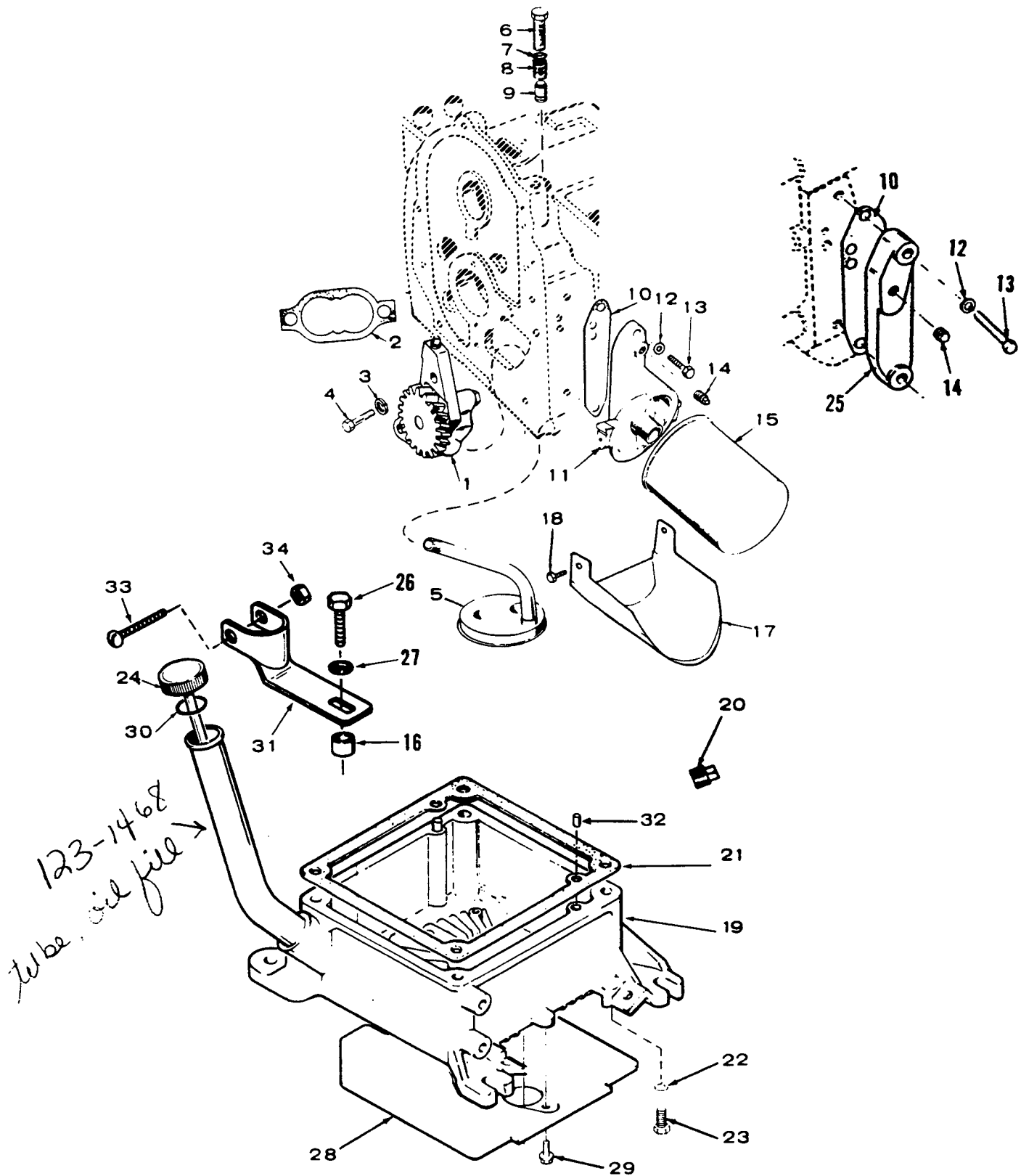
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Air Housing



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	134-4288	1	Housing, Blower (Engines with Remote Air Cleaner Order Qty. 1 #517-0151 Plug)	5	815-0290	2	Screw, Cap - Hex Head (1/4-20 x 5/8")
2	815-0261	2	Screw, Cap - Hex Head (1/4-20 x 7/16") (Use Qty. 1 with 332-1319 Connect) Begin Spec F	6	517-0151	1	Plug, Air (Used Only on Replacement Blower Housings for Remote Air Cleaner Models)
3	134-4265	1	Housing, Cylinder - Left Side	7	821-0008	5	Screw, Hex Washer Head (1/4-20 x 5/16")
4	134-4270	1	Housing, Cylinder - Right Side	8			Screw, Hex Head (5/16-18 x 3/4")
			Engines without Voltage Regulator (9.15" Long)		815-0508	2	Tapping - Specs B and C
	134-4272	1	Engines with Voltage Regulator (8.84" Long)		821-0016	2	Self-Lock - Begin Spec D
	134-4276	1	Engines with Industrial Style Air Housing with Voltage Regulator (8.5" Long)	9	800-0004	2	Screw, Cap - Hex Head (1/4-20 x 5/8")
				10	850-0040	2	Washer, Lock - Spring (1/4")
				11	526-0018	2	Washer, Flat (1/4")

Oil System

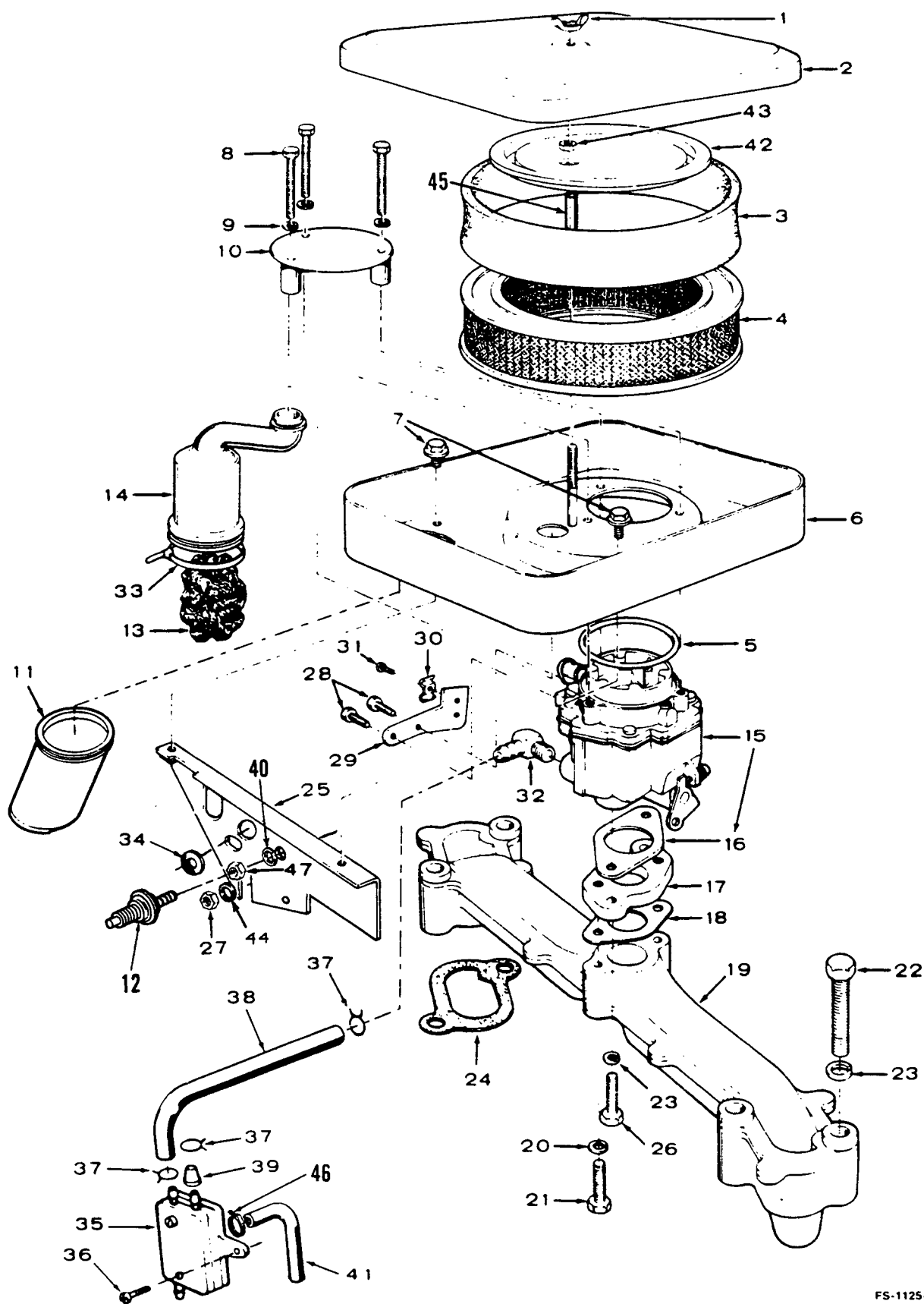


Oil System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	120-0491	1	Pump, Oil (Components Not Sold Separately)	19	102-1220	1	Base, Oil (Includes Parts Marked +)
2	120-0161	1	Gasket Kit, Oil Pump	20	505-0056	1	+Plug, Pipe - Oil Drain (1/2")
3	850-0040	2	Washer, Lock Spring (1/4")	21	102-1200	1	Gasket, Oil Base
4	800-0007	2	Screw, Cap - Hex Head (1/4-20 x 1")	22	850-0050	4	Washer, Lock - Spring (3/8")
5	120-0713	1	Cup, Intake - Oil Pump	23	800-0061	4	Screw, Cap - Hex Head (3/8-16 x 3-3/4")
6	801-0049	1	Screw, Cap - Hex Head (3/8-24 x 7/8")	24	123-1402	1	Cap and Indicator, Oil Fill
7	526-0066	1	Washer, Flat - Copper (3/8")	25	122-0438	1	Cover, Oil Filter Pad - Optional
8	120-0140	1	Spring, Bypass Valve	26	800-0034	1	Screw, Hex Head - Cap (5/16-18 x 2-1/4") - Begin Spec C)
9	120-0398	1	Plunger, Bypass Valve	27	850-0045	1	Washer, Lock (5/16") - Begin Spec C
10	122-0321	1	Gasket, Oil Filter Adapter Use with Adapter 122-0320	28	134-3864	1	Baffle, Oil Base Air
	122-0375	1	Use with Cover 122-0438	29	815-0340	2	Screw, Tapping - Hex Washer Head (#10-32 x 3/8")
11	122-0320	1	Adapter, Oil Filter	30	509-0142	1	O-Ring, Oil Fill Cap
12	526-0065	2	Washer, Flat - Copper (5/16")	31	123-1612	1	Bracket, Fill Tube - Begin Spec C
13	800-0028	2	Screw, Cap - Hex Head (5/16-18 x 1")	32	516-0212	2	+Pin, Dowel - Begin Spec C
14	505-0057	1	Plug, Pipe	33	815-0576	1	Screw, Round Head - (#10 x 1-1/4") - Begin Spec C
15	122-0645	1	Filter, Oil	34	870-0410	1	Nut, Speed - Begin Spec C
16	123-1611	1	Spacer, Fill Tube Bracket - Begin Spec C				
17	122-0360	1	Drain, Oil Filter				
18	815-0194	2	Screw, Cap - Hex Head w/ET (#10-32 x 3/8")				

+ - Parts Included in 102-1220 Oil Base.

Fuel System



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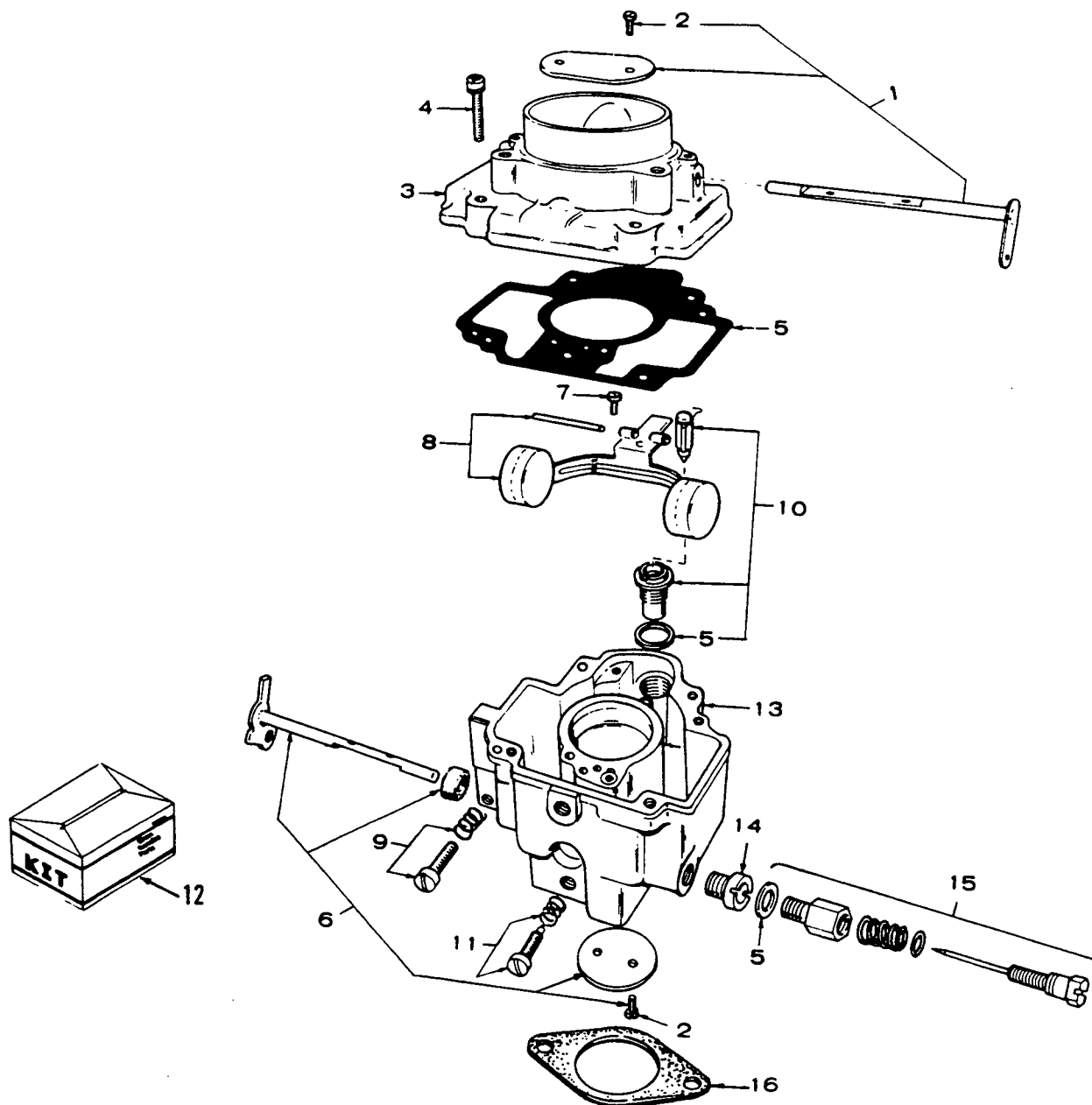
Fuel System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	865-0020	1	Nut, Wing (1/4-20)	26	800-0028	2	Screw, Cap - Hex Head (5/16-18 x 1")
2	140-1663	1	Cover, Air Cleaner				Nut, Hex (5/16-18)
3	140-1496	1	Wrapper, Air Cleaner Element	27	870-0257	1	Self-Lock, Specs B and C
4	140-1228	1	Element, Air Cleaner (Paper)		870-0399	1	†Flanged, Begin Spec D
5	509-0145	1	Seal, O-Ring	28	821-0004	2	Screw, Cap - Hex Washer Head (#10-32 x 5/16")
6	140-1885	1	†Housing, Air Cleaner				Bracket, Choke Cable
7			Screw, Hex Washer Head - Thread, Forming	29	153-0515	1	Clip, Choke Cable
	815-0389	4	Spec B and C (1/4-20 x 1/2")	30	153-0514	1	Screw, Tapping - Slotted Hex Washer Head (#10-32 x 7/8")
	815-0575	2	+Begin Spec D (1/4-20 x 3/8")	31	815-0359	1	Elbow, Hose
8	815-0470	3	Screw, Machine - Hex Head (#10-32 x 1-1/2")	32	502-0313	1	Tie, Breather Tube
9	526-0234	3	Washer, Flat (#10)	33	332-1567	1	Grommet, Rubber (3/4" Hole)
10	145-0521	1	Plate, Air Deflector	34	508-0021	1	Pump, Fuel (Mounted on Blower Housing (Includes Parts Marked *))
11	140-1661	1	Tube, Air Intake	35	149-1982	1	Screw, Tapping Round Head - Specs B and C (#10 x 5/8")
12	150-2091	1	Dashpot - Begin Spec F				Pan Head - Begin Spec D (10-24 x 5/8")
13	123-1417	1	Filter, Breather Tube	37	503-0301	3	*Clamp, Hose (7/16")
14	123-1429	1	Tube, Crankcase Breather	38	503-1199	1	Hose, Fuel
15			Carburetor, Complete (See Separate Group for Components) (Includes Mounting Gasket)	39	149-1321	1	*Cap, Fuel Outlet
	146-0311	1	Spec B and C	40	526-0022	2	Washer, Flat - Dashpot (5/16")
	146-0381	1	Begin Spec D, E	41	503-0663	1	Hose, Fuel Pump Vacuum
	146-0384	1	Begin Spec F	42	140-1692	1	Cover, Element - Optional
	146-0430	1	Begin Spec F - Carburetor with Semi-Automatic Choke	43	864-0001	1	Nut, Hex (1/4-20) - Optional
16	154-0733	1	Gasket, Carburetor to Adapter	44	526-0041	1	†Washer, Flat - Air Cleaner Support (5/16")
17	154-1977	1	Adapter, Carburetor	45	301-0458	1	Spacer, Air Cleaner
18	145-0438	1	Gasket, Adapter to Manifold	46	503-0731	2	Clamp, Hose (1/2")
19	154-2206	1	Manifold, Intake		140-1942	1	Kit, Housing - Air Cleaner (Includes Parts Marked †)
20	850-0040	2	Washer, Lock - Spring (1/4")	47	868-0002	1	Nut, Hex - Jam (5/16-24)
21	800-0023	2	Screw, Cap - Hex Head (1/4-20 x 1-3/8")				
22			Screw, Cap - Hex Head 5/16-18 x 2"				
	800-0033	3	5/16-18 x 2-1/4"				
	800-0034	1	Washer, Lock - Spring (5/16")				
23	850-0045	4	Gasket, Manifold to Block				
24	154-1744	2	Support, Air Cleaner				
25			Specs B and C				
	140-1827	1	†Begin Spec D				
	140-1961	1					

* - Parts Included in 149-1982 Fuel Pump Kit.

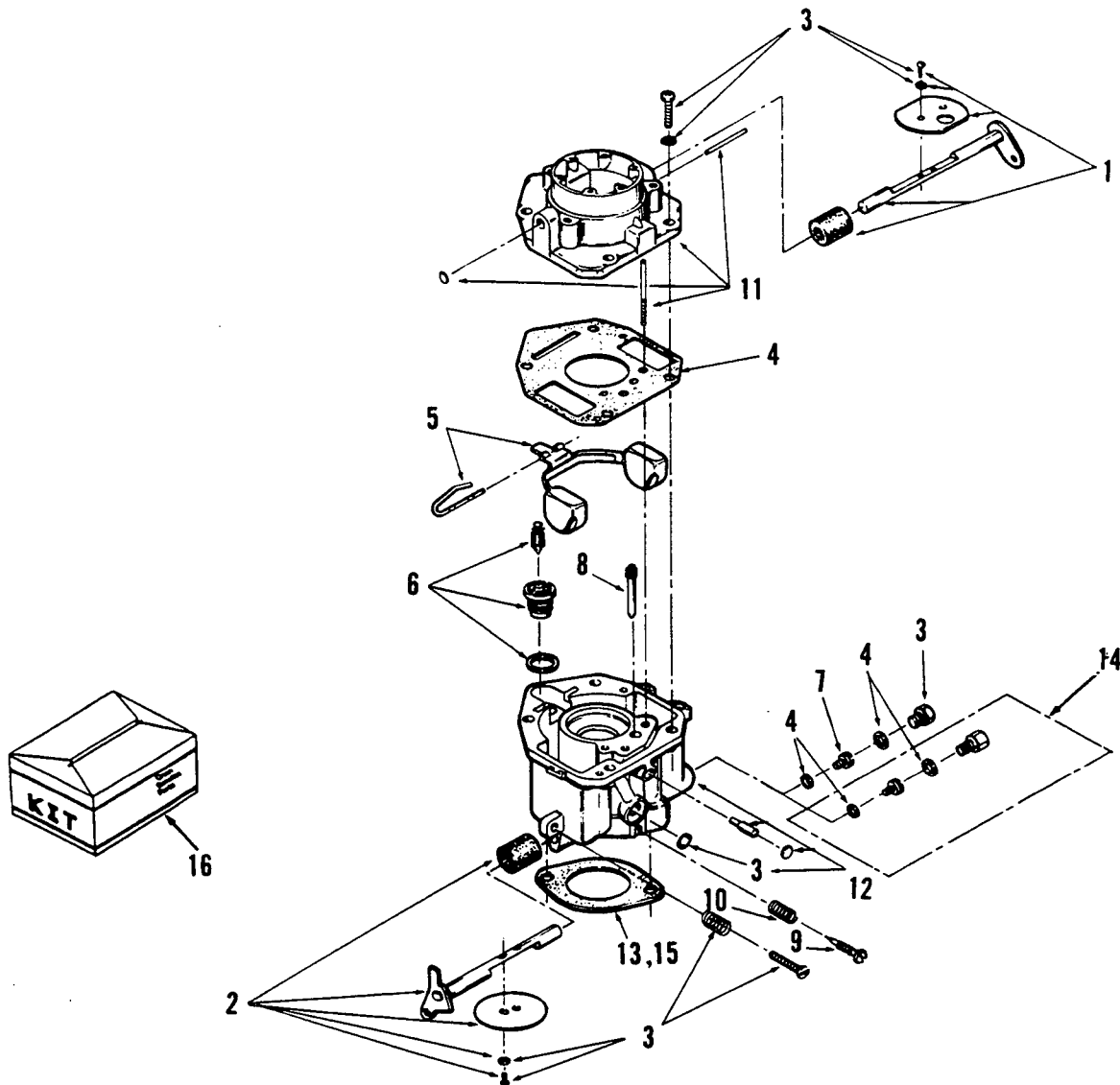
† - Parts Included in 140-1942 Housing Kit.

Carburetor Components (Specs B & C)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	146-0311	1	Carburetor, Complete (Includes Mounting Gasket)	8	146-0262	1	Float Package
1	146-0281	1	Choke Shaft Package	9	146-0261	1	Idle Speed Adjusting Screw Package
2	146-0142	4	Screw, Valve Mounting	10	146-0289	1	Valve and Seat Package
3		1	Intake, Air (Not Sold Separately)	11	146-0209	1	Idle Needle Package
4	146-0247	4	Screw, Body to Intake	12	146-0292	1	Kit, Repair
5	146-0220	1	Gasket Kit	13		1	Body (Not Sold Separately)
6	146-0259	1	Throttle Shaft Package	14	146-0238	1	Jet, Power
7	146-0222	1	Screw, Lever Pin	15	146-0282	1	Power Needle Package
				16	154-0733	1	Gasket, Carburetor Mounting

Carburetor Components (Begin Spec D, E and F)

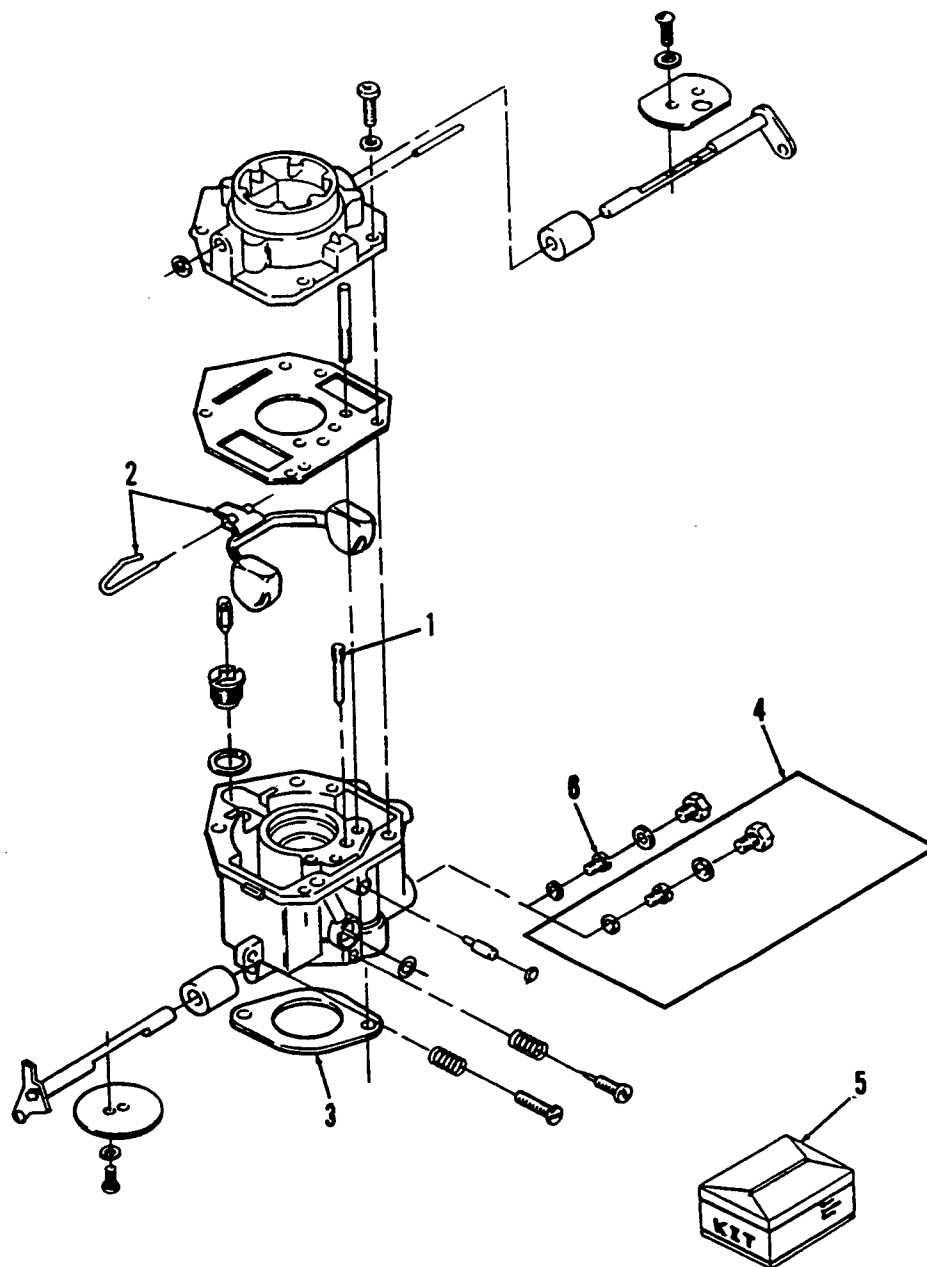


FS-1440

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Carburetor, Complete (Includes Mounting Gasket)	7	146-0391	1	Jet, Power
	146-0381	1	Spec D, E	8	146-0337	1	Jet, Idle
	146-0384	1	Begin Spec F	9	146-0335	1	*Needle, Idle Adjusting
1	146-0377	1	Kit, Choke - Shaft	10	146-0331	1	*Spring, Idle Adjusting Needle
2			Kit, Shaft - Throttle	11		1	Intake, Air (Not Sold Separately)
	146-0324	1	Spec D, E	12		1	Body (Not Sold Separately)
	146-0393	1	Begin Spec F	13	154-0733	2	*Gasket, Carburetor Mounting
3	146-0322	1	*Kit, Screw and Plug	14	146-0347	1	Jet, Fixed - Optional (High Altitude Application)
4	146-0326	1	*Kit, Gasket	15	145-0438	1	*Gasket, Carburetor Mounting
5	146-0325	1	Kit, Float	16	146-0356	1	Kit, Repair (Includes Parts Marked *)
6	146-0329	1	*Kit, Valve and Seat				

* - Parts Included in 146-0356 Repair Kit.

Carburetor Components with Semi-Automatic Choke

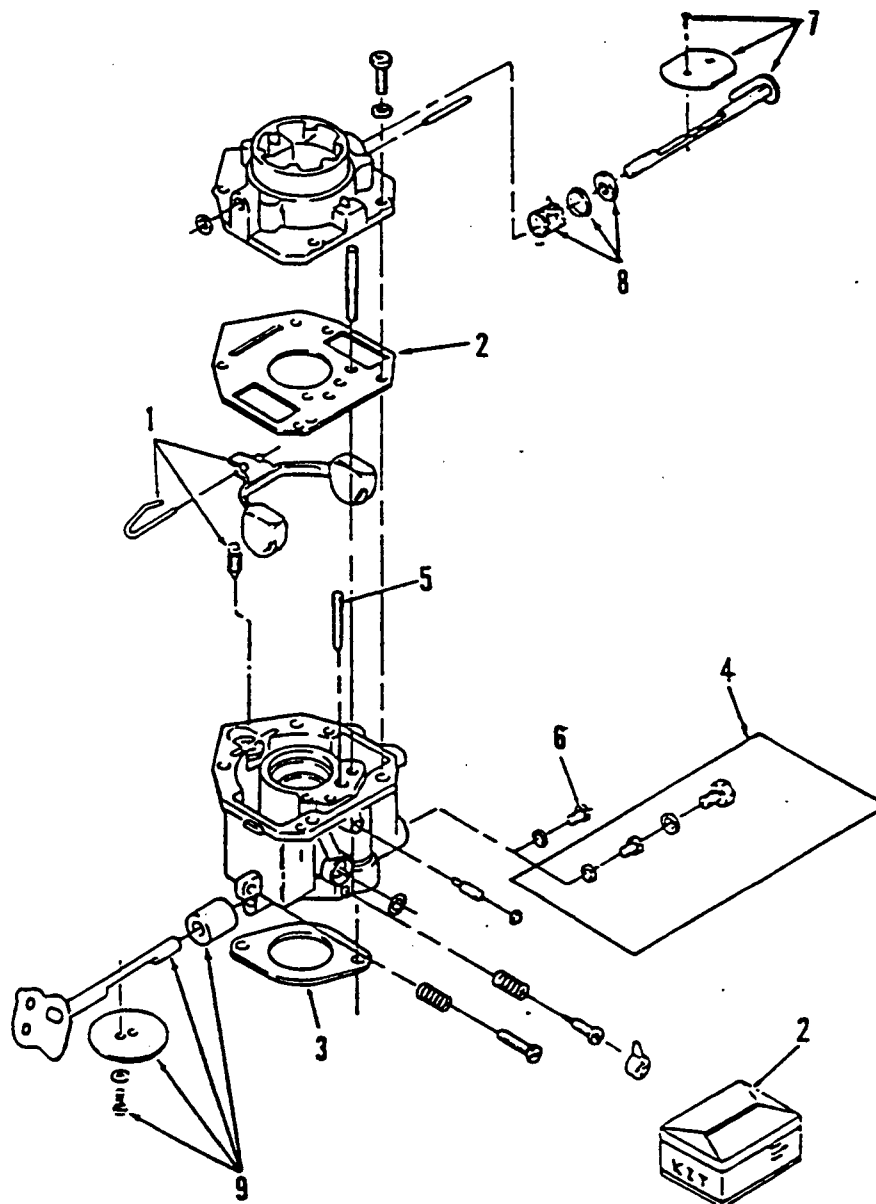


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	146-0430	1	Carburetor, Complete (Includes Mounting Gasket) With Semi-Automatic Choke
1	146-0425	1	Jet, Idle
2	146-0437	1	Float Package - Carburetors with Semi-Automatic Choke
3	154-0733	2	+Gasket, Carburetor Mounting

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
4	146-0347	1	Jet, Fixed - Optional (High Altitude Application)
5	146-0432	1	Kit, Repair - Carburetors with Semi-Automatic Choke (Includes Parts Marked +)
6	146-0391	1	Jet, Power - Carburetors with Semi-Automatic Choke

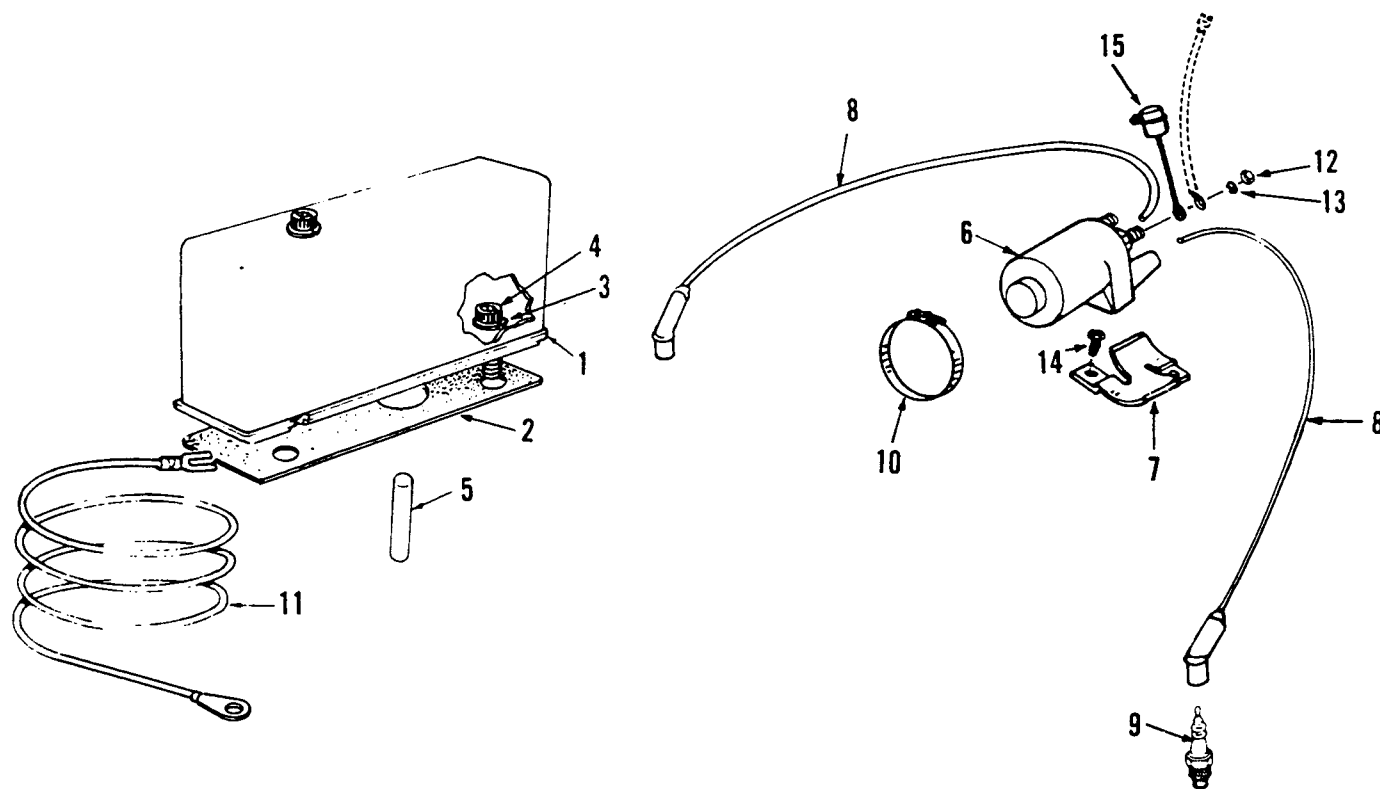
+ - Parts Included in 146-0432 Repair Kit.

Carburetor Components (Gasoline)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Carburetor, Complete (Includes Mounting Gasket)	6		1	Jet, Power
	146-0495	1	Spec B,C		146-0396	1	Spec B,C
	146-0496	1	Begin Spec D		146-0391	1	Begin Spec D
1	146-0437	1	Kit, Float (Includes Float, Pin And Valve)	7	146-0433	1	Kit, Shaft-Choke (Includes Choke Valve, Valve Set Screw and Air Filter)
2	146-0500	1	Kit, Repair (Includes Screw And Plug Package, Gasket Package, Float Valve, Idle Adjust Needle And Spring, Mounting Gaskets, Idle Limit Cap)	8		1	Kit, Lever-Choke (Includes Choke Lever Ring, Choke Spring And Choke Collar)
3	154-0733	2	Gasket, Carburetor Mounting		146-0434	1	Spec B,C
4			Jet, Power - Fixed - Optional (High Altitude Application)		146-0435	1	Begin Spec D
	146-0458	1	Spec B,C	9	146-0503	1	Kit, Shaft-Throttle (Includes Valve Set Screw, Air Filter And Throttle Valve)
	146-0347	1	Begin Spec D				
5		1	Jet, Idle				
	146-0425	1	Begin Spec B,C				
	146-0420	1	Begin Spec D				

Ignition System



ES-1180

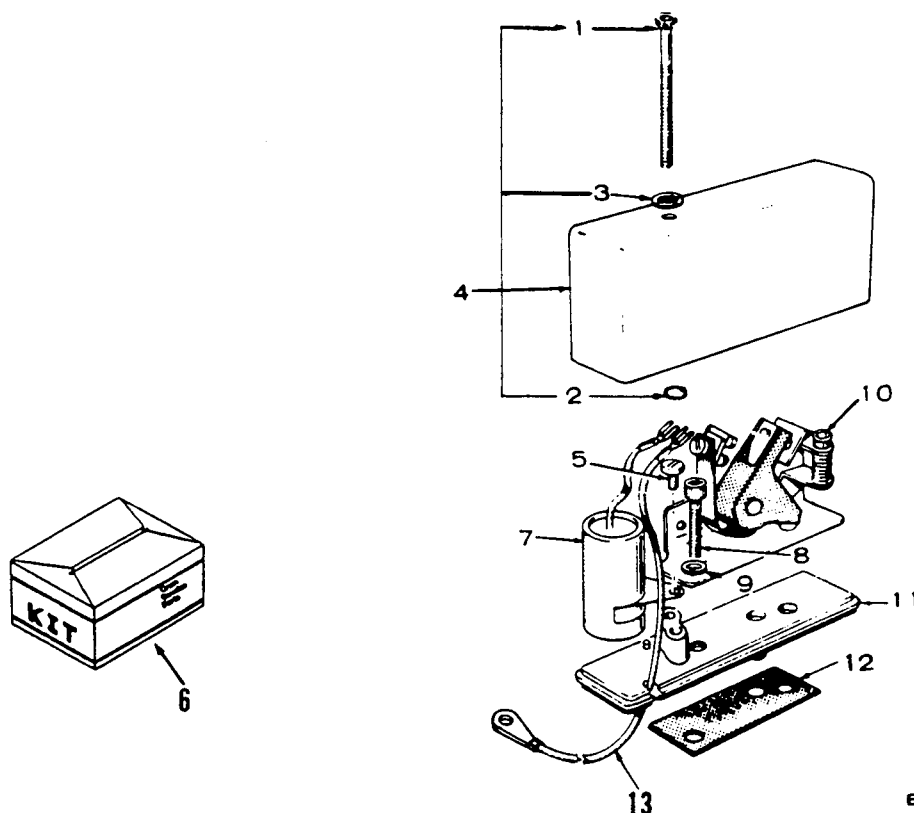
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	160-1303	1	Box, Breaker (See Separate Group for Components) (Includes Mounting Gasket)
2	160-1150	1	Gasket, Breaker Box Mounting
3	850-0038	2	Washer, Lock - Spring (1/4")
4	802-0034	2	Screw, Socket Head (1/4-20 x 3/4")
5	160-1151	1	Plunger, Breaker Points
6	166-0772	1	Coil, Ignition
7	166-0741	1	Bracket, Ignition Coil
8	167-1602	2	Cable, Spark Plug
9			Plug, Spark
	167-0291	2	Specs B thru E
	167-0263	2	Begin Spec F
10			Clamp, Coil
	166-0588	1	Specs B and C
	503-0311	1	Begin Spec D

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
11	336-2378	1	Lead, Breaker Box to Coil
12	166-0554	2	Nut, Hex (Special)
13	850-2005	2	Washer, Lock - Spring
14			Screw, Hex Washer Head - Coil Clamp
	815-0261	1	Tapping - Specs B and C (1/4-20 x 1/2")
	815-0389	2	Thread Forming - Begin Spec D (1/4-20 x 3/8")
15			Capacitor, Ignition Coil
	312-0255	1	Attached to Air Cleaner Support
	312-0256	1	Attached to Coil Bracket

160-1303 1 Kit, Electrical
Converts breaker
ignition to electric

166-0588 1

Breaker Box

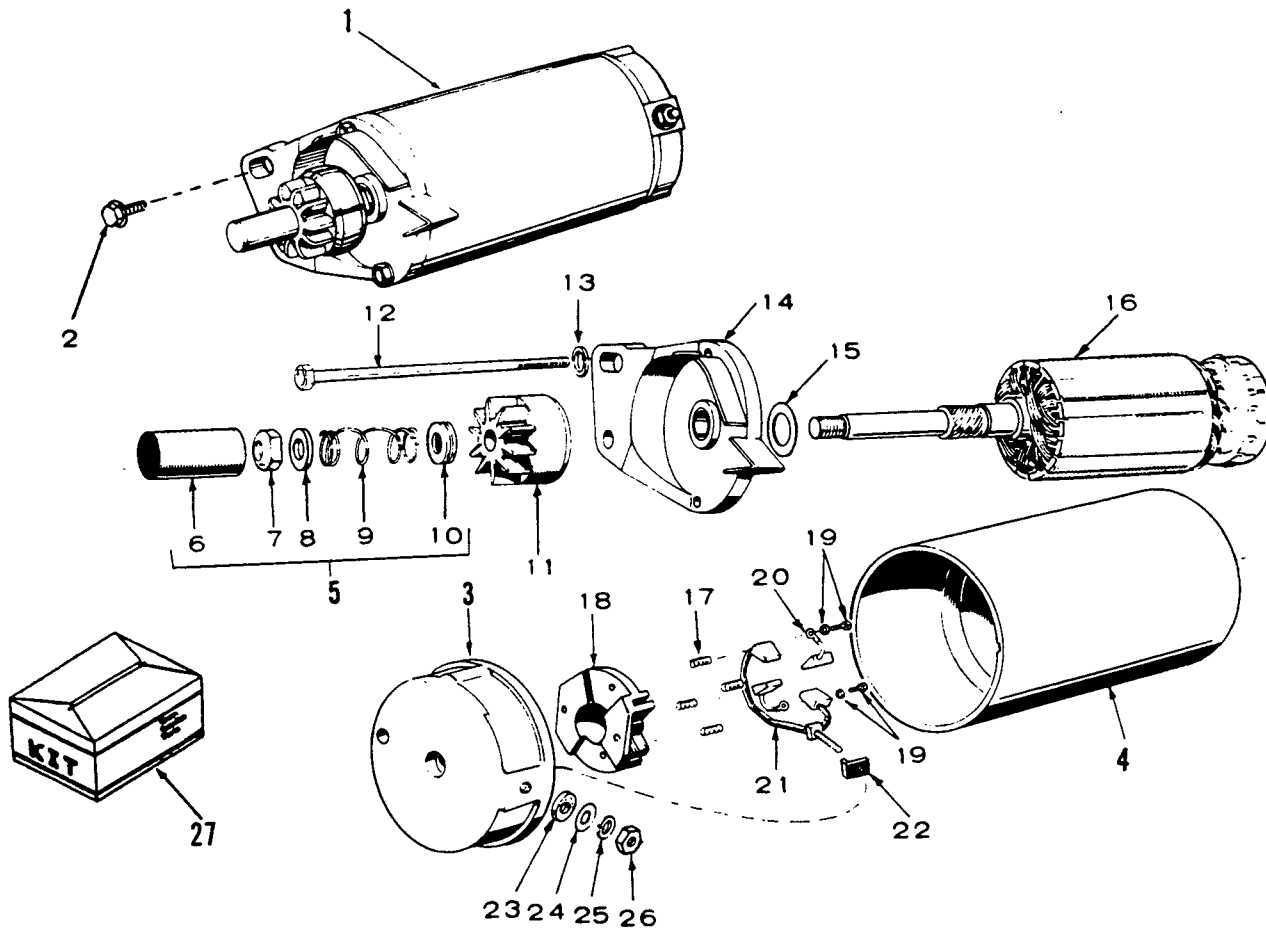


ES-1217

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	160-1303	1	Breaker Box (Includes Parts Marked *)	7	312-0246	1	*Condenser
1	802-0022	1	*Screw, Cap - Hex Socket (#10-24 x 1-1/2")	8	802-0034	2	*Screw, Cap - Socket Head (1/4-20 x 3/4")
2	509-0065	1	*Retainer ("O" Ring)	9	850-0040	2	*Washer, Lock (1/4")
3	526-0008	1	*Washer, Flat (#10)	10	160-1183	1	*Point Set, Breaker
4	160-1285	1	*Cover, Breaker Box	11	160-1219	1	*Base, Breaker
5	815-0358	1	*Screw, Cap - Slotted (#8-32 x 5/16")	12	160-1150	1	*Gasket, Breaker Box
6	160-1311	1	Kit, Tune Up (Includes Points and Condenser)	13	336-2378	1	Lead, Breaker Box to Coil

* - Parts Included in 160-1303 Breaker Box.

Starter Motor Components - Spec B



ES-1216

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	191-1255	1	Motor, Starter (Complete)	15	191-1038	1	Washer, Armature Thrust
2	815-0570	2	Screw, Cap - Hex Washer Head (5/16"-18 x 1")	16	191-1039	1	Armature
3	191-1040	1	Cap, Commutator (Includes Parts Marked †)	17	§	4	†*Spring, Brush
4	§	1	Housing, Starter Motor	18	§	1	†Brush Holder
5	191-1359	1	Dust Cover (Includes Parts Marked #)	19	§	2	†Screw and Lockwasher
6	§	1	#Cover, Dust	20	§	2	†*Brush, Ground
7	§	1	#Nut, Stop	21	§	1	†*Stud and Brush, Input
8	§	1	#Washer, Stop Nut	22	§	1	†Bushing, Insulation - Input Stud
9	§	1	#Spring, Anti-drift	23	§	1	†Washer, Insulation - Input Stud
10	§	1	#Spacer, Dust Cover	24	§	1	†Washer, Flat - Input Stud
11	191-1036	1	Drive	25	§	1	†Washer, Lock - Input Stud
12	191-1048	2	Screw, Hex Cap	26	§	1	†Nut, Securing - Input Stud
13	850-0040	2	Washer, Lock	27	191-1041	1	Kit, Repair - Brush, Spring and Stud (Includes Parts Marked *)
14	191-1597	1	Cap, Drive End				

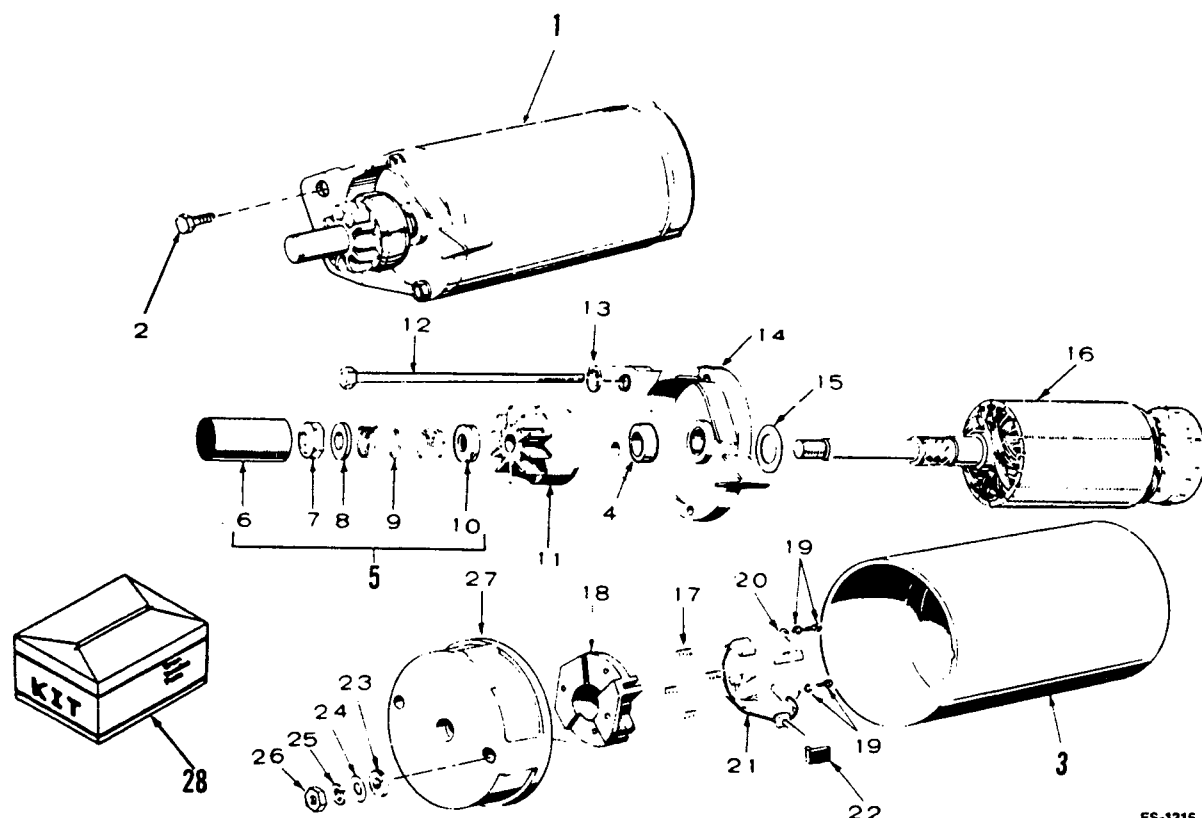
† - Included in the 191-1040 Cap.

* - Included in the 191-1041 Brush, Spring, and Stud Kit.

§ - Not Sold Separately.

- Included in the 191-1359 Dust Cover.

Starter Motor Components - Begin Spec C



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	191-1567	1	Motor, Starter (Complete)
2	815-0570	2	Screw, Cap - Hex Washer Head (5/16"-18 x 1")
3	§	1	Housing, Starter Motor
4	191-1534	1	Cap, Dust - Drive End
5	191-1359	1	Dust Cover (Includes Parts Marked #)
6	§	1	#Cover, Dust
7	§	1	#Nut, Stop
8	§	1	#Washer, Stop Nut
9	§	1	#Spring, Anti-draft
10	§	1	#Spacer, Dust Cover
11	191-1036	1	Drive
12	191-1048	2	Screw, Hex Cap
13	850-0040	2	Washer, Lock
14	191-1597	1	Cap, Drive End
15	191-1038	1	Washer, Armature Thrust

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
16	191-1039	1	Armature
17	§	4	†Spring, Brush
18	§	1	†Brush Holder
19	§	2	†Screw and Lockwasher
20	§	2	†Brush, Ground
21	§	1	†Stud and Brush, Input
22	§	1	†Bushing, Insulation - Input Stud
23	§	1	†Washer, Insulation - Input Stud
24	§	1	†Washer, Flat - Input Stud
25	§	1	†Washer, Lock - Input Stud
26	§	1	†Nut, Securing - Input Stud
27	191-1532	1	Cap, Commutator (Includes Parts Marked †)
28	191-1533	1	Kit, Repair - Brush, Spring and Stud (Includes Parts Marked *)

† - Included in the 191-1532 Cap.

* - Included in the 191-1533 Brush, Spring, and Stud K

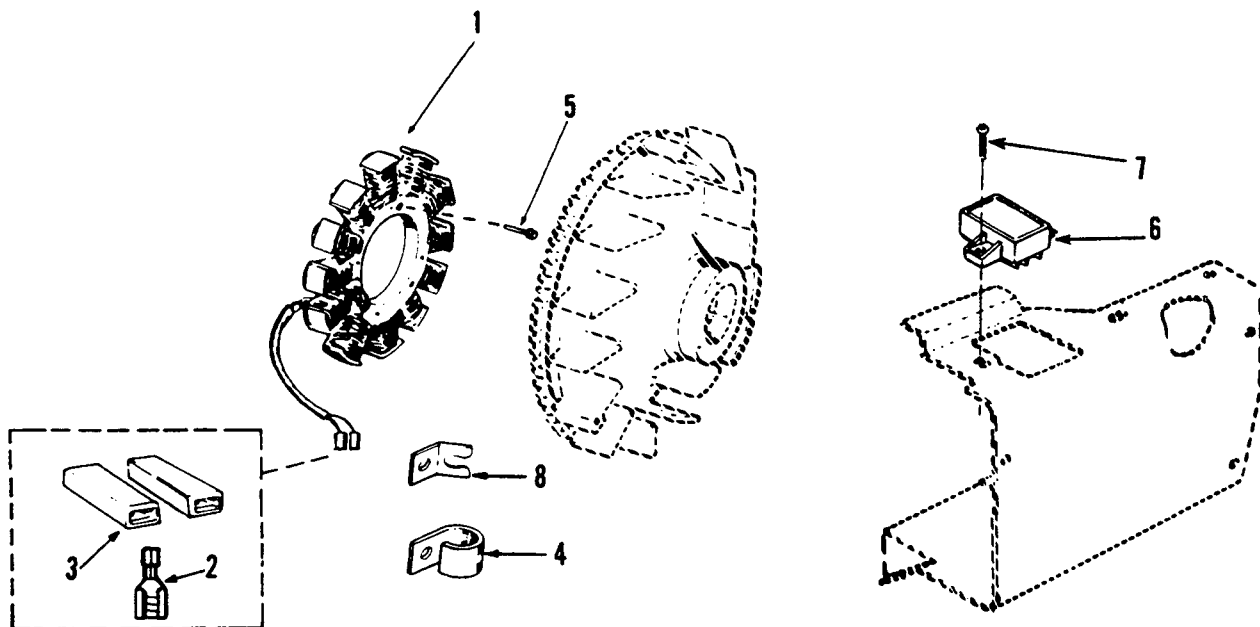
- Included in the 191-1359 Dust Cover.

§ - Not Sold Separately.

OPTIONAL EQUIPMENT SECTION

This section contains illustrated parts listing of factory installed options for these industrial engines. Options may not be applicable to all models; for field conversions additional parts are usually required. Optional parts listed in this section are in addition or in place of those shown in the standard engine parts section.

Option 1
Flywheel Alternator - 20 Ampere (Phelon)



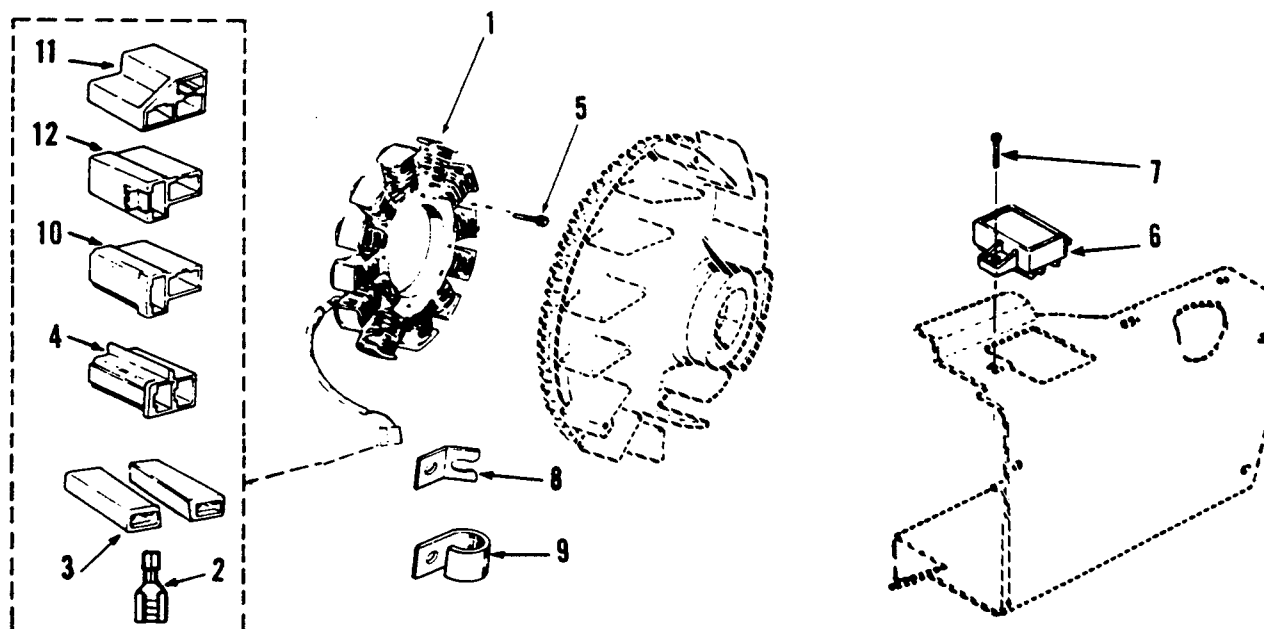
ES-1353

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	191-1276	1	Stator (Includes Terminals and Connector Bodies)
2	332-2423	3	*Terminal, Stator Leads
3	323-1257	2	Kit, Connector - Body and Terminal (Includes Parts Marked *)
4	332-2319	1	Clamp, Wire - Alternator Leads

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
5	815-0470	3	Screw, Machine - Hex Head - Self-Lock (#10-32 x 1-1/2")
6	191-1275	1	Regulator, Voltage
7	821-0007	1	Screw, Cap - Hex Washer Head (1/4-20 x 1/4")
8	167-0188	1	Clip, Cable

* - Parts Included in 323-1257 Alternator Connector Body Kit.

Option 2
Flywheel Alternator - 15 Ampere (Phelon)



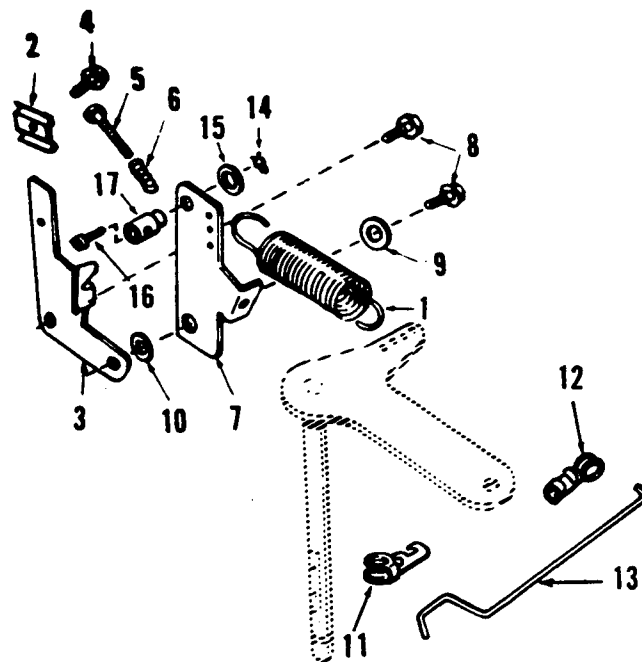
ES-1354

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	191-1256	1	Stator (Includes Terminals and Connector Bodies)
2	332-2423	3	*Terminal, Stator Leads
3	323-1257	2	Kit, Connector - Body and Terminal (Includes Parts Marked *)
4	323-0890	1	Body, Terminal Connector
5	815-0593	3	Screw, Machine - Hex Head - Self-Lock (#10-32 x 1-3/8")
6	191-1206	1	Regulator, Voltage

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	821-0007	1	Screw, Cap -- Hex Washer Head (1/4-20 x 1/4")
8	167-0188	1	Clip, Cable
9	332-2319	1	Clamp, Wire - Alternator Leads
10	323-0892	1	Body, Terminal Connector
11	323-0853	1	Body, Terminal Connector
12	323-1085	1	Body, Terminal Connector

* - Parts Included in 323-1257 Alternator Connector Body Kit.

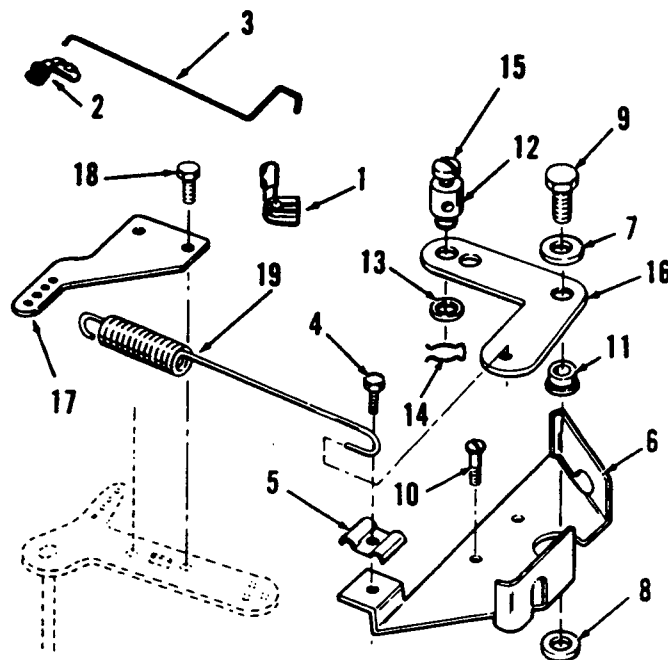
Option 3
Governor Control - Variable Speed
(Side Pull)



FS-1274

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	150-1214	1	Spring, Governor	9	526-0021	2	Washer, Flat (1/4")
2	153-0514	1	Clamp, Cable	10	150-1269	1	Bushing, Control Arm
3	150-1725	1	Bracket, Cable	11	518-0406	1	Clip, Retaining - Control Rod to Governor Shaft
4	815-0359	1	Screw, Tapping - Hex Head (#10-32 x 7/8")	12	518-0004	1	Clip, Retaining - Control Rod to Carburetor
5	815-0510	1	Screw, Tapping - Hex Head (#6-32 x 5/8")	13	150-1924	1	Rod, Governor Control
6	150-1398	1	Spring, Idle Setting	14	516-0059	1	Pin, Cotter
7	150-1345	1	Arm, Governor Control Use with Swivel	15	526-0006	1	Washer, Flat (#12)
	150-1576	1	Use without Swivel	16	815-0104	1	Screw, Machine - Fillister Head (#8-32 x 5/16")
8	815-0436	2	Screw, Cap - Hex Washer Head (1/4-20 x 1/2")	17	152-0155	1	Swivel, Cable Holding

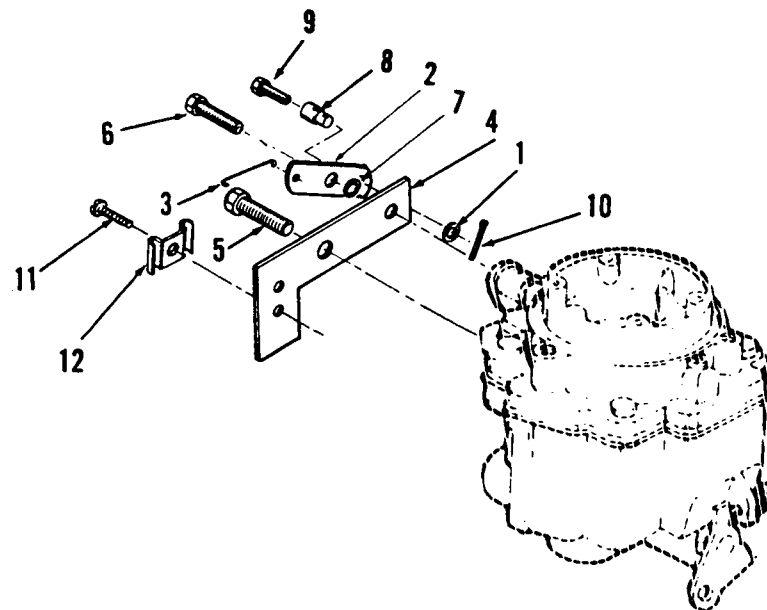
Option 4
Governor Control - Variable Speed
(Front Pull)



FS-1138

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	518-0406	1	Clip, Retaining - Control Rod to Governor Arm	10	815-0439	3	Screw, Tapping - Hex Washer Head (8-15 x 1/2")
2	518-0004	1	Clip, Retaining - Control Rod to Carburetor	11	150-1727	1	Bushing, Governor Control
3	150-1924	1	Rod, Control	12	152-0155	1	Swivel, Throttle Lever
4	815-0359	1	Screw, Tapping - Hex Head (#10-32 x 7/8")	13	526-0006	1	Washer, Flat (#12)
5	153-0514	1	Clamp, Throttle Cable	14	516-0059	1	Pin, Cotter
6	150-1726	1	Bracket, Governor Control Mounting	15	815-0104	1	Screw, Machine - Fillister Head (#8-32 x 5/16")
7	526-0021	1	Washer, Flat (1/4")	16	150-1366	1	Link, Governor Control
8	850-0040	1	Washer, Lock - Spring (1/4")	17	150-1754	1	Adapter, Governor Arm
9	800-0007	1	Screw, Cap - Hex Head (1/4-20 x 1")	18	815-0181	2	Screw, Tapping - Hex Head w/ET (#10-32 x 1/2")
				19	150-1755	1	Spring, Governor

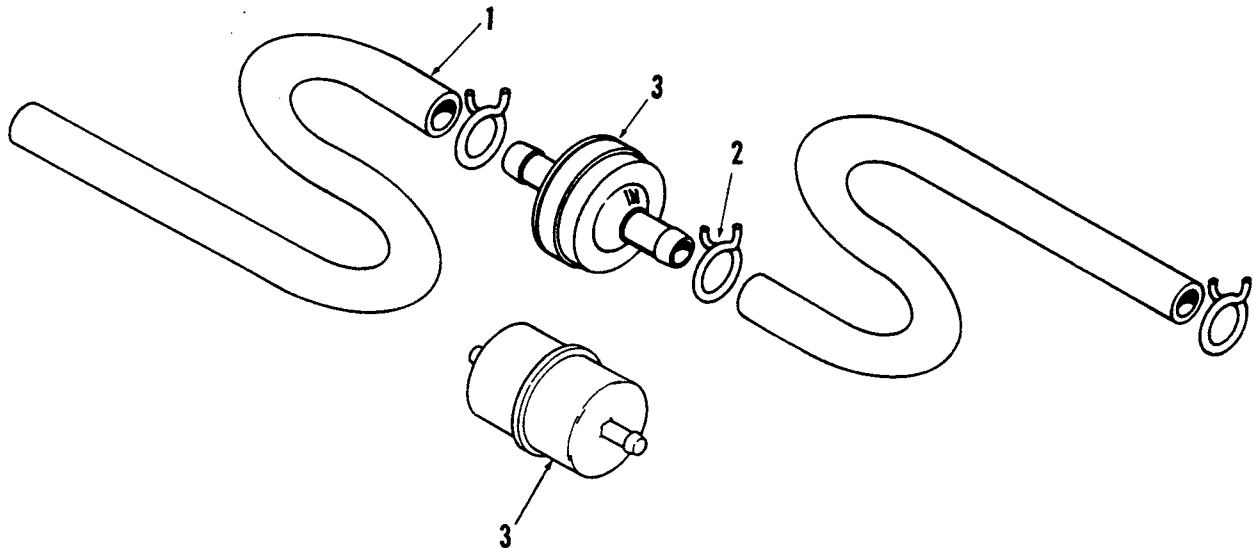
Option 5
Choke Control (Front Pull)



FS-1131R

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	526-0140	1	Washer, Flat (#10)	7	854-0010	1	Washer, Lock - IT (#10)
2	153-0523	1	Lever, Choke	8	152-0155	1	Swivel, Choke Lever
3	153-0500	1	Link, Choke	9	815-0693	1	Screw, Machine - Hex Head (#8-32 x .31")
4	153-0524	1	Bracket, Choke Cable	10	516-0059	1	Pin, Cotter
5	821-0002	1	Screw, Cap - Hex Washer Head (#10-32 x 1/4")	11	815-0359	1	Screw, Tapping - Slotted Hex Washer Head (#10-32 x 7/8")
6	815-0480	1	Screw, Shoulder (#10-32 x .34")	12	153-0514	1	Clip, Choke Cable

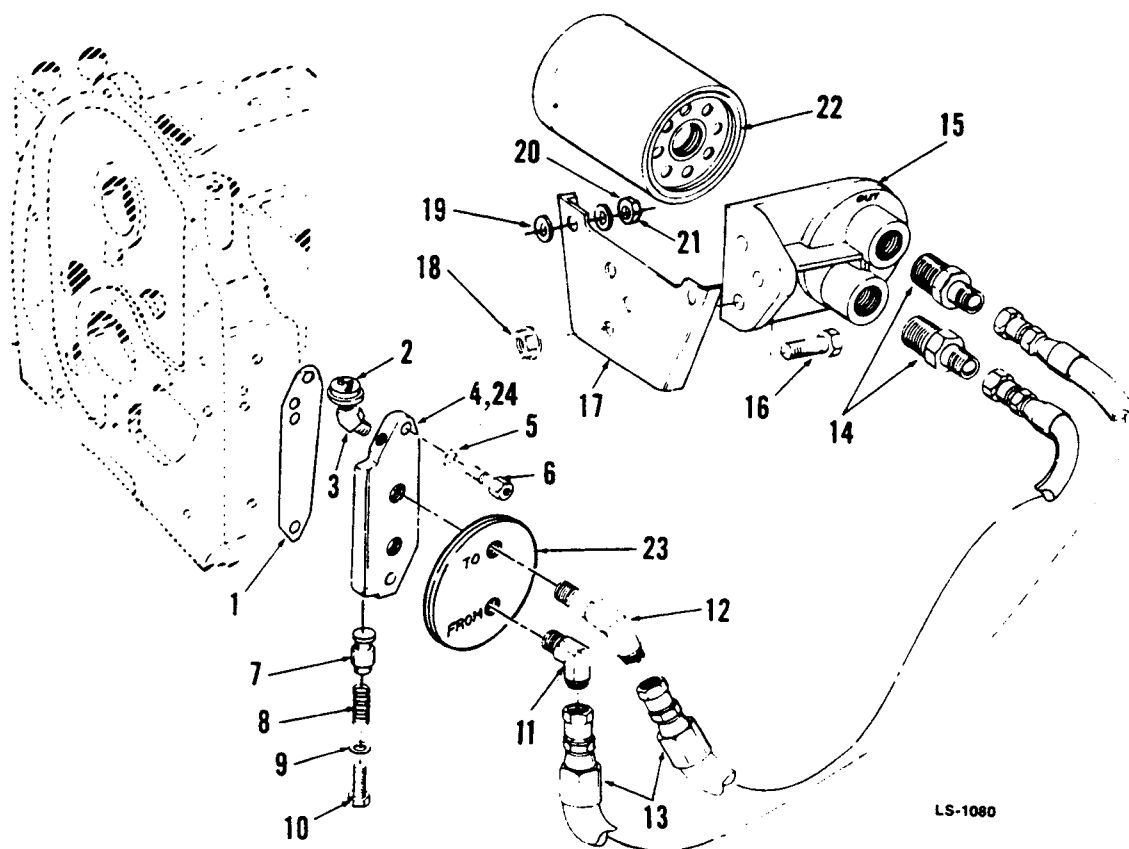
Option 6 Fuel Line Filter



FS-1522

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0707	2	Hose (1/4" ID x 7/16" OD x 12" Long)	3	149-2005	1	Filter, Fuel
2	503-0301	3	Clamp, Hose (7/16")		149-2005	1	Spec B thru E
							Begin Spec F

Option 7 Remote Oil Filter



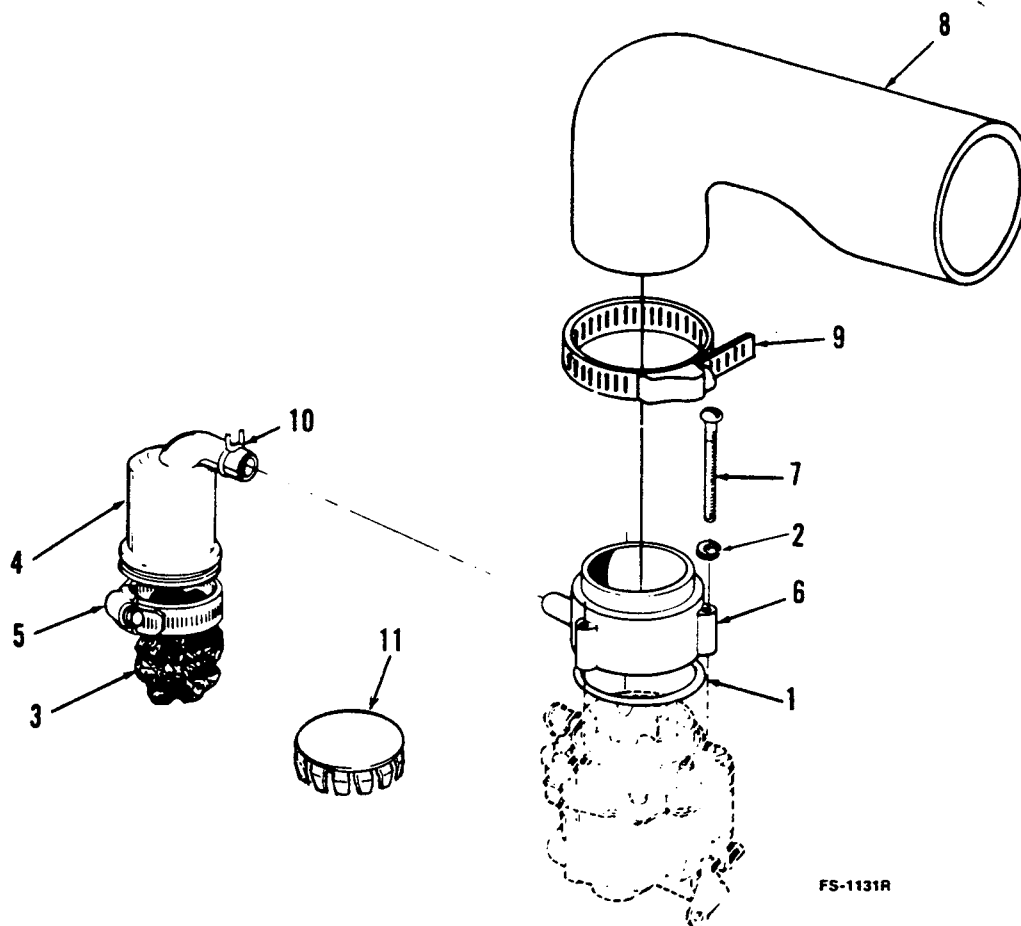
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	122-0554	1	Kit, Adapter - Remote Oil Filter (Includes Parts Marked *)
1	122-0375	1	*Gasket, Oil Filter Adapter
2	309-0105	1	Switch, Low Oil Pressure
3	502-0053	1	Elbow, Street (45°)
4	122-0369	1	*Adapter, Oil Filter
5	526-0065	2	*Washer, Flat - Copper (5/16")
6			Screw, Cap - Socket Head
	802-0057	2	Prior to 6/86 (5/16-18 x 1-1/2")
	802-0056	2	Begin 6/86 (5/16-18 x 1-1/4")
7	120-0398	1	+Valve, Bypass Plunger
8	120-0140	1	+Spring, Bypass
9	526-0066	1	*Washer, Flat (3/8")
10	801-0047	1	+Screw, Cap - Hex Head (3/8-24" x 5/8")

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
11	502-0805	1	Elbow, Male (From Filter)
12	502-0806	1	Elbow, Male (To Filter)
13	501-0440	2	Hose, Oil
14	502-0804	2	Connector, Male
15	122-0476	1	*Base, Remote Oil Filter
16	800-0027	3	Screw, Cap - Hex Head (5/16"-18 x 7/8")
17	122-0559	1	Bracket, Remote Oil Filter
18	870-0257	3	Nut, Self-Lock (5/16-18")
19	526-0030	2	Washer, Flat (3/8")
20	526-0174	2	Washer, Flat (.406)
21	862-0003	2	Nut, Hex (5/16-18")
22	122-0469	1	Filter, Oil
23	508-0184	1	*Grommet, Air Seal
24	122-0473	1	*Adapter, Remote Oil Filter (Includes Parts Marked +)

* - Parts Included in 122-0554 Remote Oil Filter Adapter Kit.

+ - Parts Included in 122-0473 Adapter Assembly.

Option 8 Remote Air Cleaner Adapter



FS-1131R

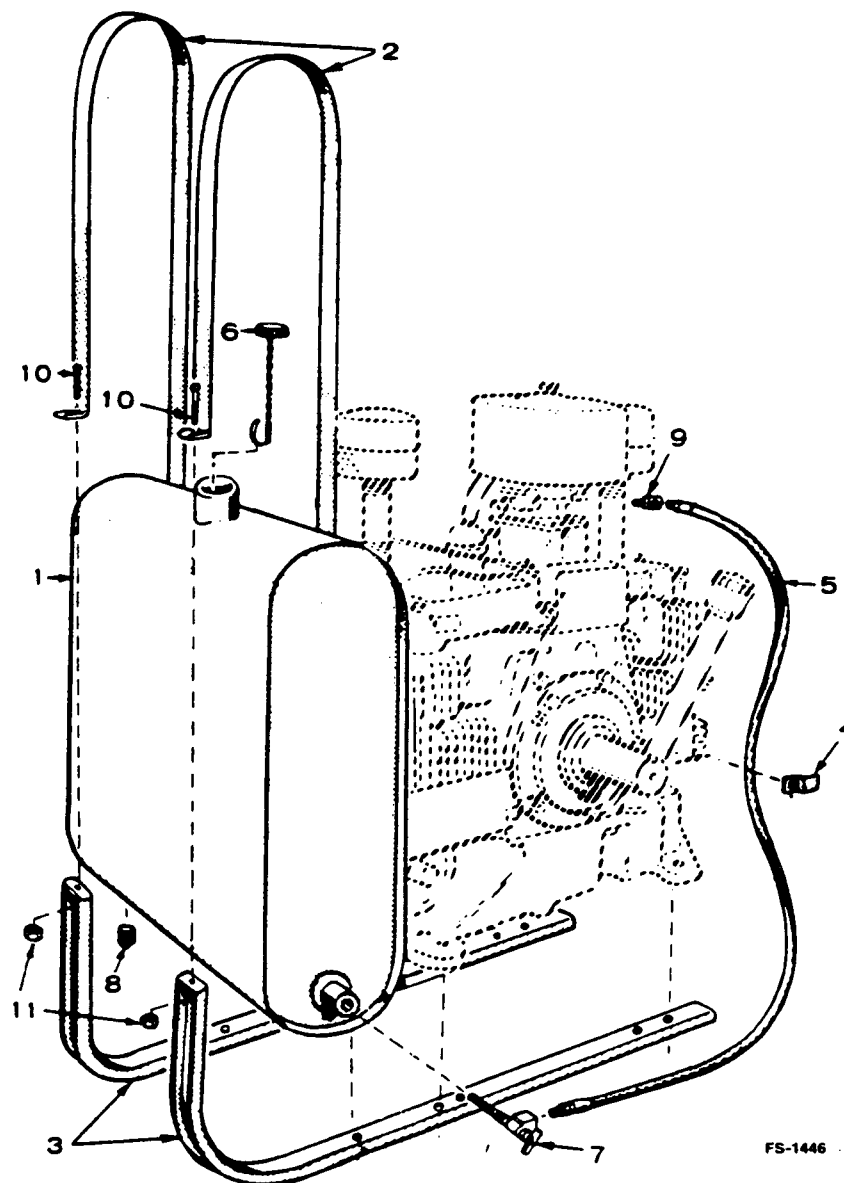
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	140-1915	1	Kit, Remote Air Cleaner Adapter (Includes Parts Marked *)
1	509-0145	1	Seal, O-Ring
✓2	850-0030	3	*Washer, Lock-Spring (#10)
✓3	123-1417	1	*Filter, Breather Tube
✓4	123-1539	1	*Tube, Crankcase Breather
5	503-0107	1	Clamp, Breather Tube

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
✓6	140-1714	1	*Adapter, Carburetor Air Intake
✓7	813-0106	3	*Screw, Machine - Round Head (#10-32 x 1-1/8")
8	145-0504	1	*Elbow, Air Intake
9	503-0274	1	*Clamp, Hose - Air Intake
✓10	503-0171	1	*Clamp, Hose
✓11	517-0151	1	*Plug, Dot Button - Blower Housing Air Hole

* - Parts Included in 140-1915 Remote Air Cleaner Adapter.

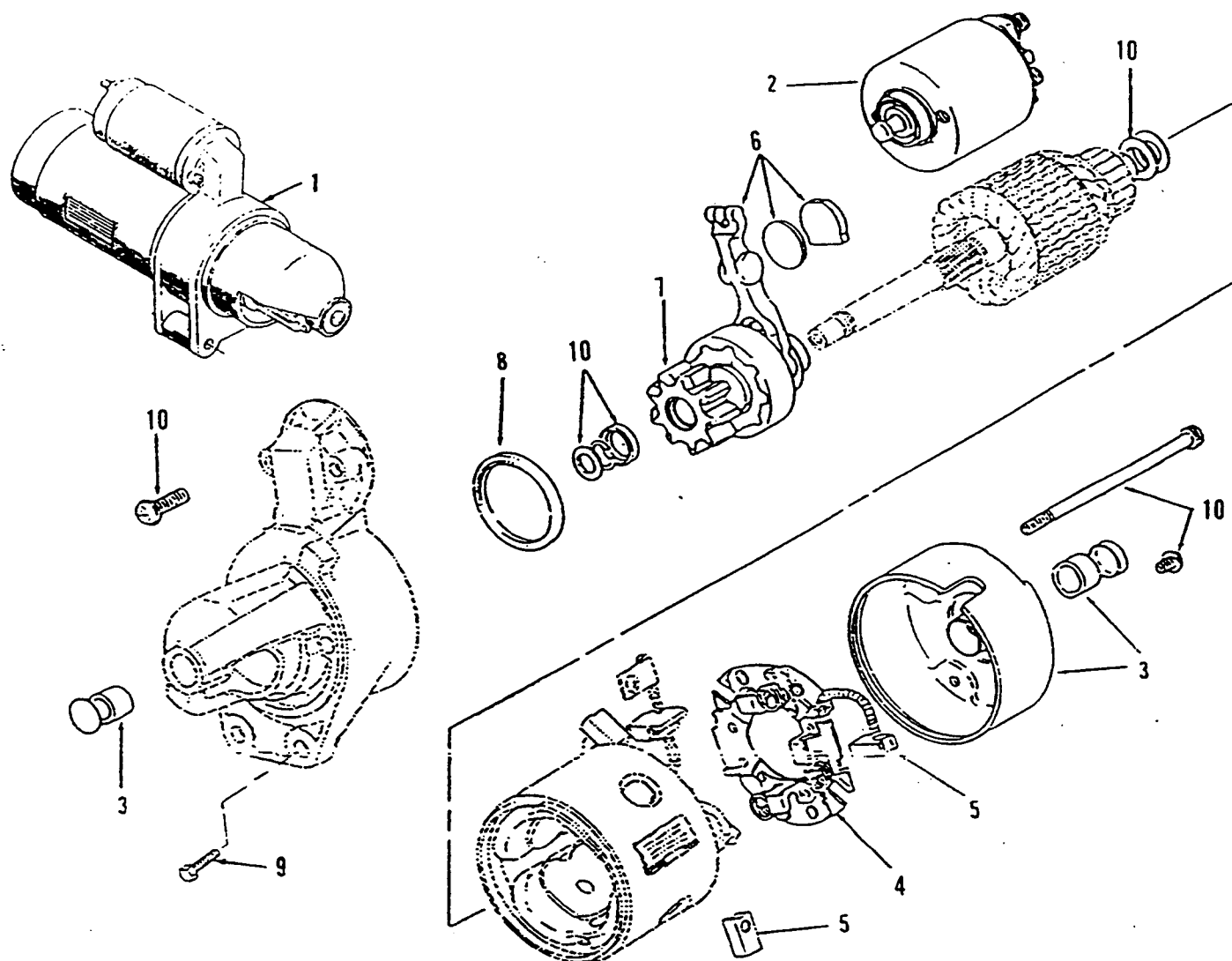
Items 8 & 9 No longer In kit
Per ER 10,895

Option 9
Fuel Tank (Side Mounted)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	159-0597	1	Kit, Fuel Tank - Complete	7	504-0013	1	Valve, Shut-off
1	159-0981	1	Tank, Fuel (Less Cap)	8	505-0057	1	Plug, Tank Drain
2	159-0596	2	Strap, Fuel Tank	9	502-0020	1	Elbow, Carburetor Inlet
3	159-0595	2	Bracket, Fuel Tank	10	813-0108	2	Screw, Machine - Round Head (#10-32 x 1-1/2")
4	134-0599	1	Clip, Fuel Line	11	870-0053	2	Nut, Hex (#10-32)
5	501-0008	1	Line, Fuel				
6	159-0020	1	Cap, Fuel Tank				

Option 10
Starter Components - Solenoid Shift



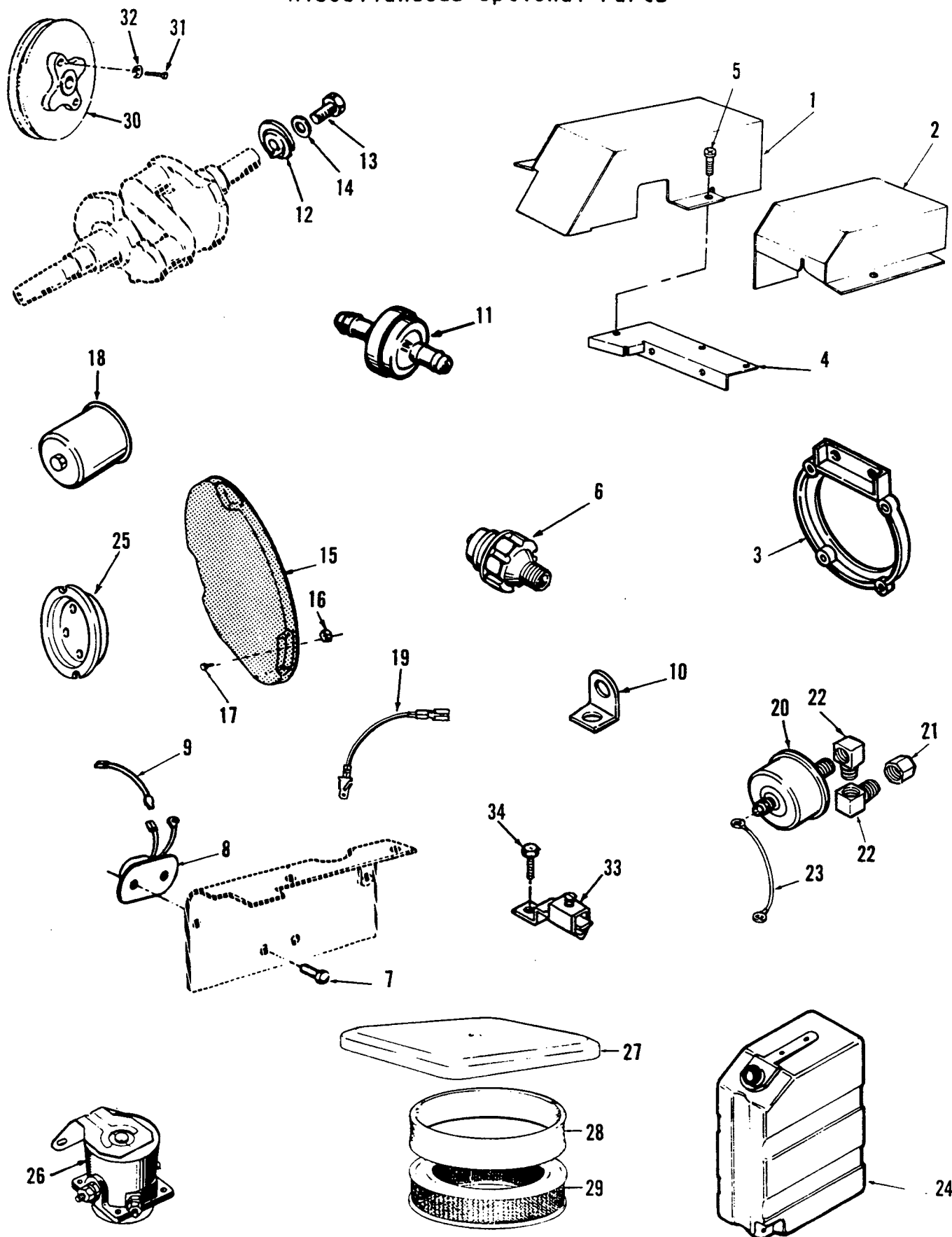
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	191-1949-01		Starter, Solenoid Shift
2	191-1809	1	Kit, Solenoid - Starter (Includes Solenoid and Spring Plunger)
3	191-1762	1	Kit, Bushing - Starter (Includes Rear Cap with Bushing and Front Bushing)
4	191-1951	1	Holder, Brush (Includes Negative Brush)
5	191-1951	1	Kit, Brush - Starter (Includes (2) Negative and (1) Positive Brushes)
6	191-1766	1	Kit, Shift Lever - Starter (Includes Lever, Wear Plate and Rubber Plug)

NOTE: Onan Part Number Stamped on the Starter Nameplate for Identification

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	191-1810	1	Clutch Starter (Includes Pinion Gear)
8	191-1811	1	Seal, Dust (Used on 191-1808-01 Only)
9	815-0570	2	Screw, Cap - Hex Washer Head Starter Mount (5/16-18 x 1")
10	191-1765	1	Kit, Hardware - Starter (Includes (2) Solenoid Mtg Screws, 2 Thru Bolts, Armature Shims, Pinion Collar and Retaining Ring)

NOTE: Phantom Items Not For Sale. For Replacement Order Complete Starter.

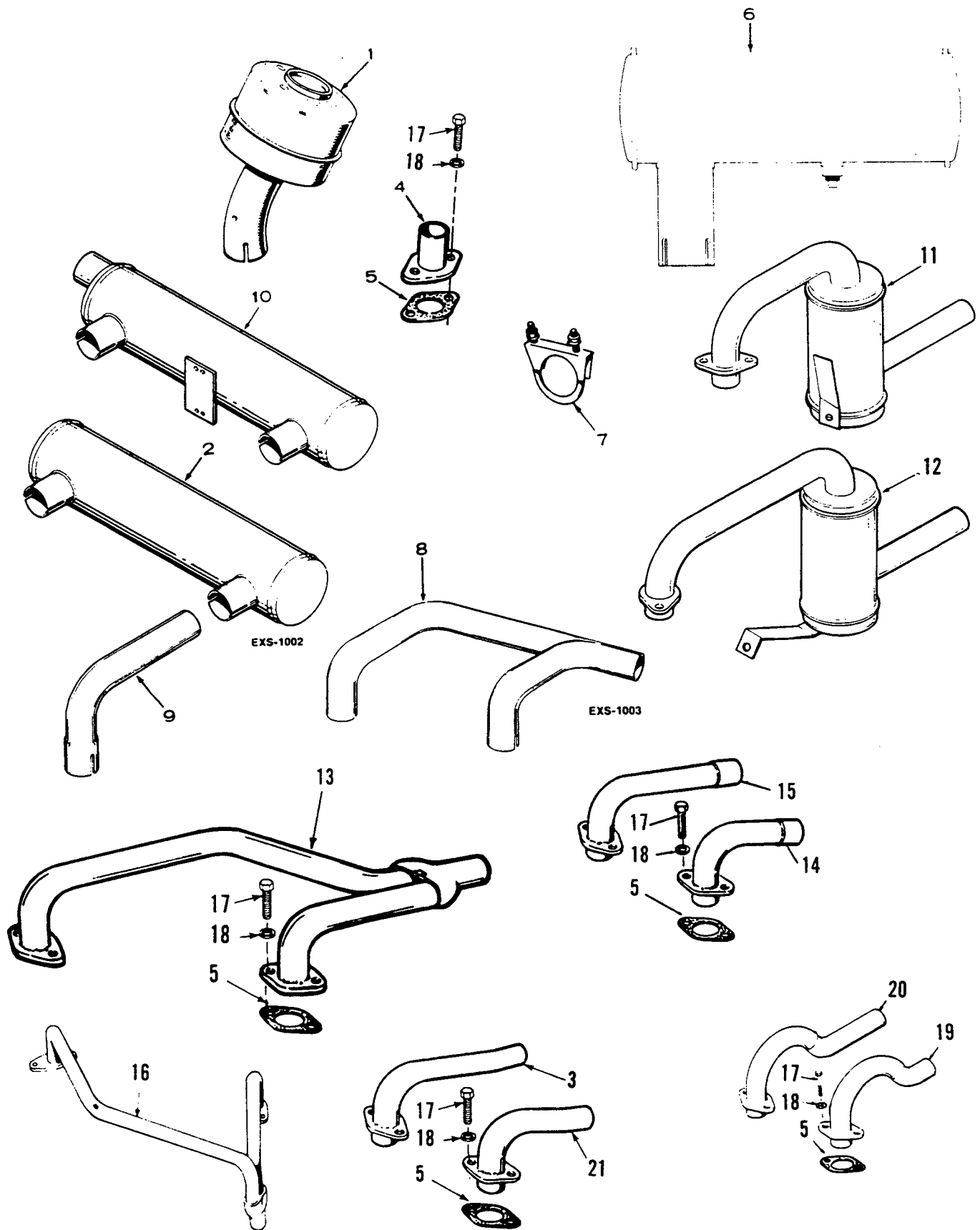
Miscellaneous Optional Parts



Miscellaneous Optional Parts

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	134-4028	1	Cover, Exhaust - LH Use with 154-2129 Exhaust Adapter	14	850-0050	1	Washer, Lock - Spring (3/8")
	134-4254	1	Use with 154-2344 Exhaust Adapter	15	134-3875	1	Screen, Flywheel (Stationary)
	134-3891	1	Use with 154-2159 Exhaust Adapter	16	134-3868	3	Spacer, Flywheel Screen
2	134-3890	1	Cover, Exhaust - RH Use with 154-2128 Exhaust Adapter	17	815-0359	3	Screw, Tapping - Hex Washer Head (#10-32 x 7/8")
	134-4655	1	Use with 154-2343, and 154-2158 Exhaust Adapters	18	122-0406	1	Filter, Oil (With Hex Nut) 4" Long
3	190-0597	1	Adapter, Clutch Electric		122-0469	1	5.19" Long (Heavy Duty)
	101-0372	1	Mechanical	19	336-6580	1	Lead, Lopko
4	134-3905	1	Support, Exhaust Cover Use with 134-3890, 134-4028 Exhaust Covers	20	193-0108	1	Sender, Electric Oil Pressure Gauge
	134-4445	1	Use with 134-4254, 134-4341 Exhaust Covers	21	502-0175	1	Adapter, Pipe
5	821-0009	2	Screw, Lock HD (1/4-20 x 3/8")	22	502-0020	2	Elbow, Street - 90°
6	309-0237	1	Switch, Low Oil Pressure Close at 8-10 PSI at Lowering Pressure	23		1	Lead Assy, Sender - Oil Pressure Gauge - #16 Wire, 12" Lg.
	309-0510	1	Open at 4.5-7.5 PSI on Increasing Pressure	24	159-1150	1	Tank, Fuel - Plastic (3.5 Gal. Cap.)
7	818-0076	2	Rivet, Switch (1/8")	25	192-0398	1	Sheave, Rope - Manual Start
8	309-0497	1	Switch, High Air Temperature	26	307-1031	1	Relay, Start Solenoid
9	336-9501	1	Lead, High Air Temperature Switch	27	140-1913	1	Cover, Air Cleaner - High Capacity
10	403-1523-01	2	Bracket, Lifting	28	140-1912	1	Wrapper, Filter Element - High Capacity
11	149-1867	1	Filter, Fuel	29	140-1911	1	Element, Air Cleaner - High Capacity
12	104-1156	1	Weight, Balance (3.5 oz.)	30	191-1210	1	Pulley, Drive - Alternator
13	801-0050	1	Screw, Cap - Hex Head (3/8-24" x 1")	31	800-0032	2	Screw, Hex Head Cap (5/16-18 x 1-3/4")
				32	850-0045	2	Washer, Lock (5/16")
				33	332-1319	1	Terminal, Solderless - Begin Spec F
				34	815-0261	1	Screw, Tapping - Hex Washer Head (1/4-20 x 7/16")

Miscellaneous Exhaust Options



M-1435

Miscellaneous Exhaust Options

NOTE: Various exhaust options are used on B48G industrial engines. Select according to illustration.

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	155-1570	2	Muffler, Exhaust	11	155-1722	1	Muffler, R.H.
2	155-1692	1	Muffler, Exhaust	12	155-1723	1	Muffler, L.H.
3	154-2344	1	Adapter, Exhaust - Left (1-15/64" OD Outlet)	13			Manifold, Exhaust
4	154-1958	2	Adapter, Exhaust (Flange Type)		154-2243	1	Crossover (Rear Back Outlet)
5	154-1725	2	Gasket, Exhaust Adapter		154-2613	1	Right Rear Outlet
6			Muffler, Exhaust - Raygun	14	154-2128	1	Adapter, Exhaust - Right (1-1/4" OD Outlet)
	155-1697	2	With Spark Arrestor	15	154-2129	1	Adapter, Exhaust - Left (1-1/4" OD Outlet)
	155-1693	2	Without Spark Arrestor	16	154-2178	1	Manifold, Exhaust - (Right Rear Downward Outlet)
7			Clamp, Muffler	17	800-0026	4	Screw, Cap - Hex Head (5/16-18" x 3/4")
	155-1256	2	1-1/4"	18	850-0045	4	Washer, Lock - Spring (5/16")
	155-1257	2	1-3/8"	19	154-2158	1	Adapter, Exhaust - Right (1-1/8" OD Outlet)
8			Manifold, Exhaust - Crossover	20	154-2159	1	Adapter, Exhaust - Left (1-1/8" OD Outlet)
	154-1986	1	Left Rear Outlet	21	154-2343	1	Adapter, Exhaust - Right (1-15/64" OD Outlet)
	154-1669	1	Left Front Outlet				
	154-1986	1	Right Front Outlet				
	154-1669	1	Right Rear Outlet				
9			Pipe, Exhaust (90°)				
	155-1703	1	Left				
	155-1704	1	Right				
10	155-1848	1	Muffler, Crossover				

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