



ENGINE

PARTS MANUAL

P-248 20 hp.

This parts manual applies to the standard Elite horizontal engine as listed in the Engine Data Table. Parts are arranged in groups of related items and each illustrated part is identified by a reference number corresponding to the same reference number in the parts list. Parts illustrations are typical. Throughout this manual, left and right sides are determined by facing the oil cooler (front) end of the engine.

Using the MODEL and SPECIFICATION NUMBER from the nameplate, consult the SALES OPTION CODE TABLE in the back of the book to identify factory installed parts that are unique to your engine (*Note: The diagonal line (/) in the model and specification number separates engine characteristics from the specification number/letter. The specification number denotes customer requested features. The specification letter advances [A to B, B to C, etc] with major manufacturing changes.)

Engine Data Table

<u>Model/Spec No.</u>	<u>Rating</u>
P216V/	16 Horsepower
P218V/*	18 Horsepower
P220V/*	20 Horsepower
P248V/*	20 Horsepower
OLV18/*	18 Horsepower
OLV20/*	20 Horsepower
LXV770/*	18 Horsepower
LXV790/*	20 Horsepower

Adapter, Breather, 6
 Adapter, LP Gas, 19
 Adapter, Oil Filter, 29
 Arm, Governor, 10
 Arm, Governor Control, 15

 Baffle, Oil Cooler, 12
 Ball, Governor, 7
 Ball, Governor Shaft Bearing, 10
 Base, Oil, 12
 Bearing, Camshaft, 6
 Bearing, Governor Shaft, 10
 Bearing, Lower Crankshaft, 12
 Bearing, Oil Bypass Ball, 12
 Bearing, Upper Crankshaft, 6
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 Bracket, Breather Mounting, 6
 Bracket, Choke Cable, 21, 22
 Bracket, Governor Mounting, 15
 Bracket, Lifting, 9
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 Cap, Solenoid, 27
 Cap, Valve, 6
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 Elbow, LOPKO Street, 29
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 Filter, Oil, 29
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 Gasket, Gearcase Mounting, 10
 Gasket, Intake Manifold, 19
 Gasket, Manifold, 17
 Gasket, Muffler, 32
 Gasket, Oil Base, 12
 Gasket, Oil Cooler, 12
 Gasket, Oil Filter Adapter, 29
 Gasket, Valve Cover, 6
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 Gear, Crankshaft, 8
 Gear, Ring, 9
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 Guide, Valve, 6

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 Hood, Air Cleaner, 25
 Hose, Breather, 6
 Hose, Fuel, 23, 24
 Hose, Fuel Pump Pulse Line, 14
 Hose, LP Regulator, 20
 Housing, Air Cylinder, 15
 Housing, Blower, 14
 Hub, Governor Cup, 7

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 Indicator, Oil Level, 30
 Insulator, Ignition Control, 10

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 Jet, Idle, 18
 Jet, Power, 18

 Key, Camshaft Gear, 7
 Key, Crankshaft Gear, 8
 Key, Flywheel, 9
 Key, Woodruff, 8
 Kit, Accelerator Pump Repair, 17
 Kit, Altitude Jet, 17
 Kit, Carburetor, 19
 Kit, Carburetor Repair, 18
 Kit, Catalyst Muffler, 31
 Kit, Choke Lever, 18

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 Kit, Fuel Shutoff Solenoid, 17
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 Kit, Piston, 6
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 Plug, Camshaft Expansion, 6
 Plug, Core Hole, 6
 Plug, Dowel Pin, 6
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 Regulator, LP, 20
 Regulator, Voltage, 15
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 Ring, Crankshaft Retaining, 8
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 Ring, Piston Retaining, 6
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Sales Option Code Definitions, 37
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 Seal, O'Ring, 12
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 Seal, Oil Drain, 29
 Seal, Oil Fill Tube, 30
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 Solenoid, Fuel Cutoff, 18
 Spacer, Air Cleaner Cover, 25
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 Starter (191-1949-06), 27
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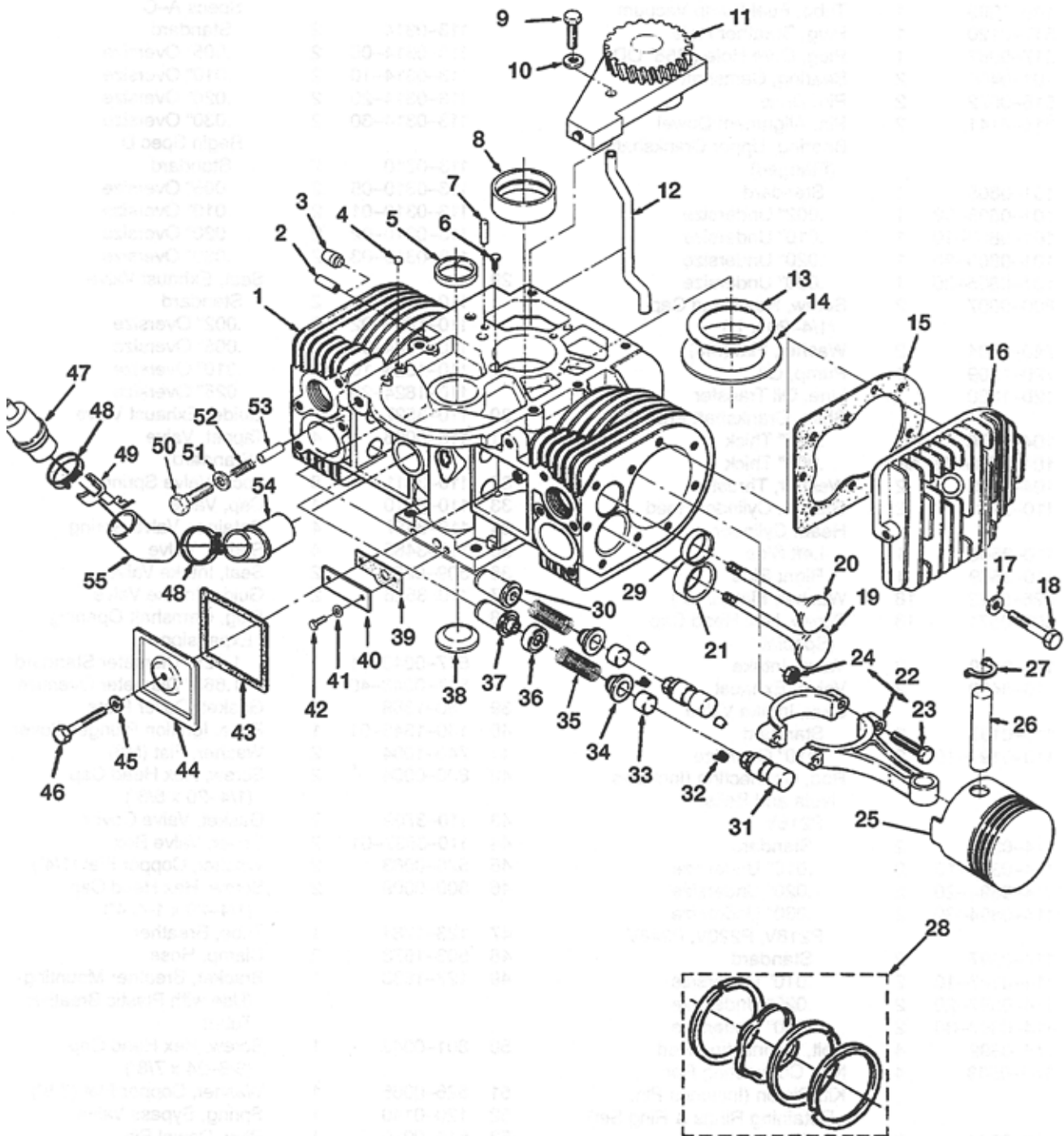
Tube, Fuel Pump Vacuum, **6**
Tube, Oil Fill, **30**
Tube, Oil Pickup, **12**

Valve, Exhaust, **6**
Valve, Fuel Shutoff, **20**
Valve, Intake, **6**
Valve, Oil Drain, **12**

Wrapper, Element, **25**

Yoke, Governor Shaft, **10**

Cylinder Block

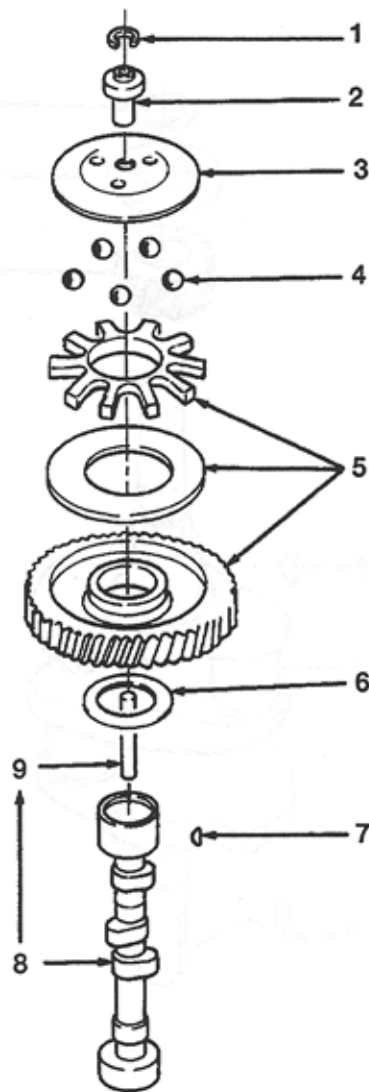


Cylinder Block

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)	27	518-0311	4	Ring, Retaining Kit, Piston Ring Specs A-C
2	149-1299	1	Tube, Fuel Pump Vacuum	28			
3	517-0120	1	Plug, Breather Hole		113-0314	2	Standard
4	517-0067	1	Plug, Core Hole (.258" OD)		113-0314-05	2	.005" Oversize
5	101-0405	2	Bearing, Camshaft		113-0314-10	2	.010" Oversize
6	516-0072	2	Pin, Drive		113-0314-20	2	.020" Oversize
7	516-0141	2	Pin, Alignment Dowel		113-0314-30	2	.030" Oversize
8			Bearing, Upper Crankshaft (Flanged)				Begin Spec D
	101-0805	1	Standard		113-0310	2	Standard
	101-0805-02	1	.002" Undersize		113-0310-05	2	.005" Oversize
	101-0805-10	1	.010" Undersize		113-0310-01	2	.010" Oversize
	101-0805-20	1	.020" Undersize		113-0310-02	2	.020" Oversize
	101-0805-30	1	.030" Undersize		113-0310-03	2	.030" Oversize
9	800-0007	2	Screw, Hex Head Cap (1/4-20 x 1")	29			Seat, Exhaust Valve
					110-1824	2	Standard
10	740-1004	2	Washer, Flat (M6)		110-1824-02	2	.002" Oversize
11	120-1209	1	Pump, Oil		110-1824-05	2	.005" Oversize
12	120-1320	1	Line, Oil Transfer		110-1824-10	2	.010" Oversize
13			Shim, Crankshaft End Play		110-1824-25	2	.025" Oversize
	104-0776	AR	.005" Thick	30	110-3527	2	Guide, Exhaust Valve
	104-0776-01	AR	.003" Thick	31	115-0006	4	Tappet, Valve Standard
14	104-0575	2	Washer, Thrust	32	110-3511	8	Lock, Valve Spring
15	110-3181	2	Gasket, Cylinder Head	33	110-3510	4	Cap, Valve
16			Head, Cylinder	34	110-3487	4	Retainer, Valve Spring
	110-3508	1	Left Side	35	110-3485	4	Spring, Valve
	110-3509	1	Right Side	36	509-0289	2	Seal, Intake Valve
17	526-0122	18	Washer, Flat (5/16")	37	110-3526	2	Guide, Intake Valve
18	800-0571	18	Screw, Hex Head Cap (Special)	38			Plug, Camshaft Opening Expansion
19	110-3479	2	Valve, Intake		517-0048-01	1	1.625" Diameter Standard
20	110-3480	2	Valve, Exhaust		517-0048-40	1	1.665" Diameter Oversize
21			Seat, Intake Valve	39	160-1368	1	Gasket, Cover Plate
	110-0197	2	Standard	40	160-1345-01	1	Plate, Ignition Plunger Cover
	110-0197-10	2	.010" Oversize	41	740-1004	2	Washer, Flat (M6)
22			Rod, Connecting (Includes Nuts and Bolts)	42	800-0004	2	Screw, Hex Head Cap (1/4-20 x 5/8")
			P216V	43	110-3709	2	Gasket, Valve Cover
	114-0394	2	Standard	44	110-3637-01	2	Cover, Valve Box
	114-0394-10	2	.010" Undersize	45	526-0063	2	Washer, Copper Flat (1/4")
	114-0394-20	2	.020" Undersize	46	800-0009	2	Screw, Hex Head Cap (1/4-20 x 1-3/4")
	114-0394-30	2	.030" Undersize				
			P218V, P220V, P248V	47	123-1784	1	Tube, Breather
	114-0397	2	Standard	48	503-1673	2	Clamp, Hose
	114-0397-10	2	.010" Undersize	49	123-1838	1	Bracket, Breather Mounting (Use with Plastic Breather Tube)
	114-0397-20	2	.020" Undersize				
	114-0397-30	2	.030" Undersize				
23	114-0392	4	Bolt, Connecting Rod	50	801-0049	1	Screw, Hex Head Cap (3/8-24 x 7/8")
24	870-0533	4	Nut, Connecting Rod	51	526-0066	1	Washer, Copper Flat (3/8")
25			Kit, Piston (Includes Pin, Retaining Rings & Ring Set)	52	120-0140	1	Spring, Bypass Valve
				53	516-0230	1	Plug, Dowel Pin
	112-0264	2	Standard	54	123-1834	1	Adapter, Breather
	112-0264-05	2	.005" Oversize	55	503-1646	1	Hose, Breather
	112-0264-01	2	.010" Oversize				
	112-0264-02	2	.020" Oversize				
	112-0264-03	2	.030" Oversize				
26	112-0229	2	Pin, Piston				

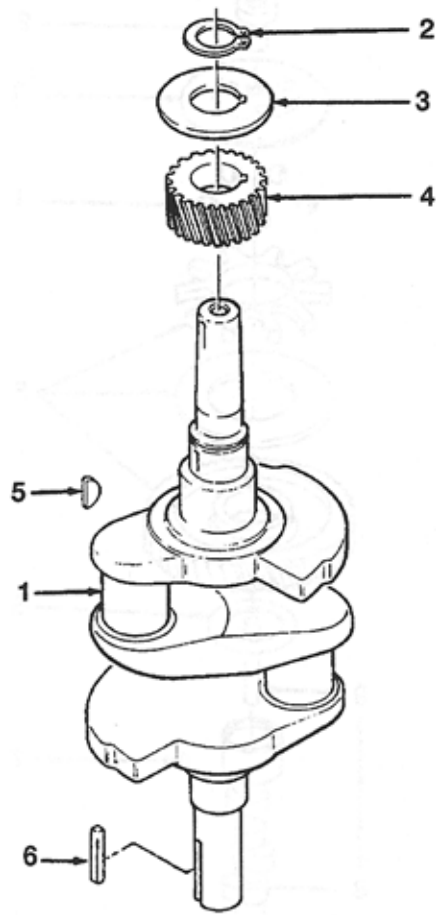
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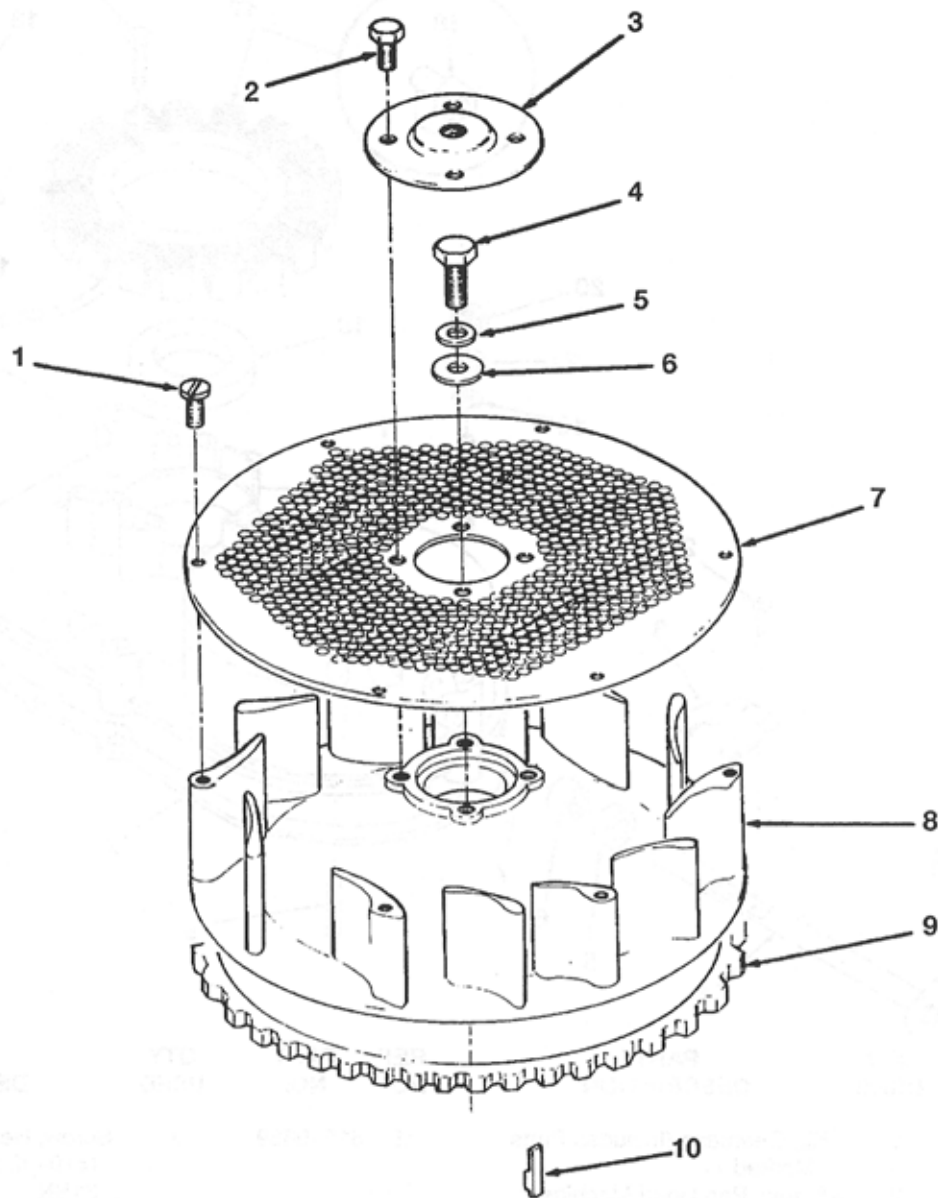
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	150-0078	1	Ring, Retaining
2	150-1519	1	Hub, Governor Cup
3	150-1520	1	Cup, Governor
4	510-0015	5	Ball, Governor
5	105-0700	1	Gear Assy (Includes Spacer and Plate)
6	105-0541	1	Washer, Thrust

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	515-0001	1	Key, Camshaft Gear
8			Camshaft Assy (Includes Center Pin)
	105-0637	1	P216V, P218V
	105-0639	1	P220V, P248V
9	150-0075	1	Pin, Center

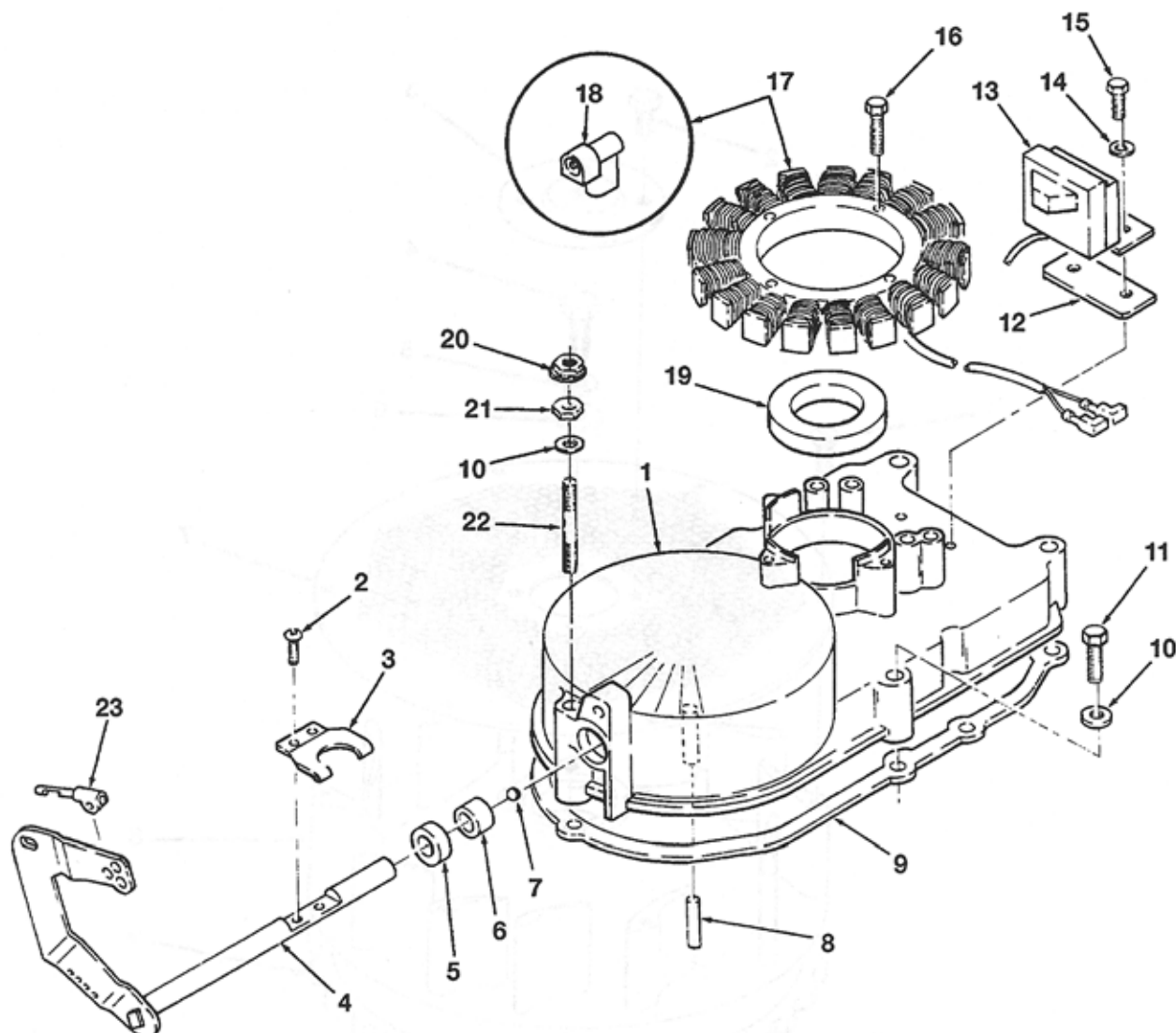


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Crankshaft (Code 45DV)
	104-1707	1	P216V
	104-1708	1	P218V, P220V, P248V
2	518-0014	1	Ring, Retaining
3	104-0043	1	Washer, Gear Retaining

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
4	104-0032	1	Gear, Crankshaft
5	515-0001	1	Key, Crankshaft Gear
6	515-0103	1	Key, Woodruff (1/4 x 1/4 x (Code 45BW)



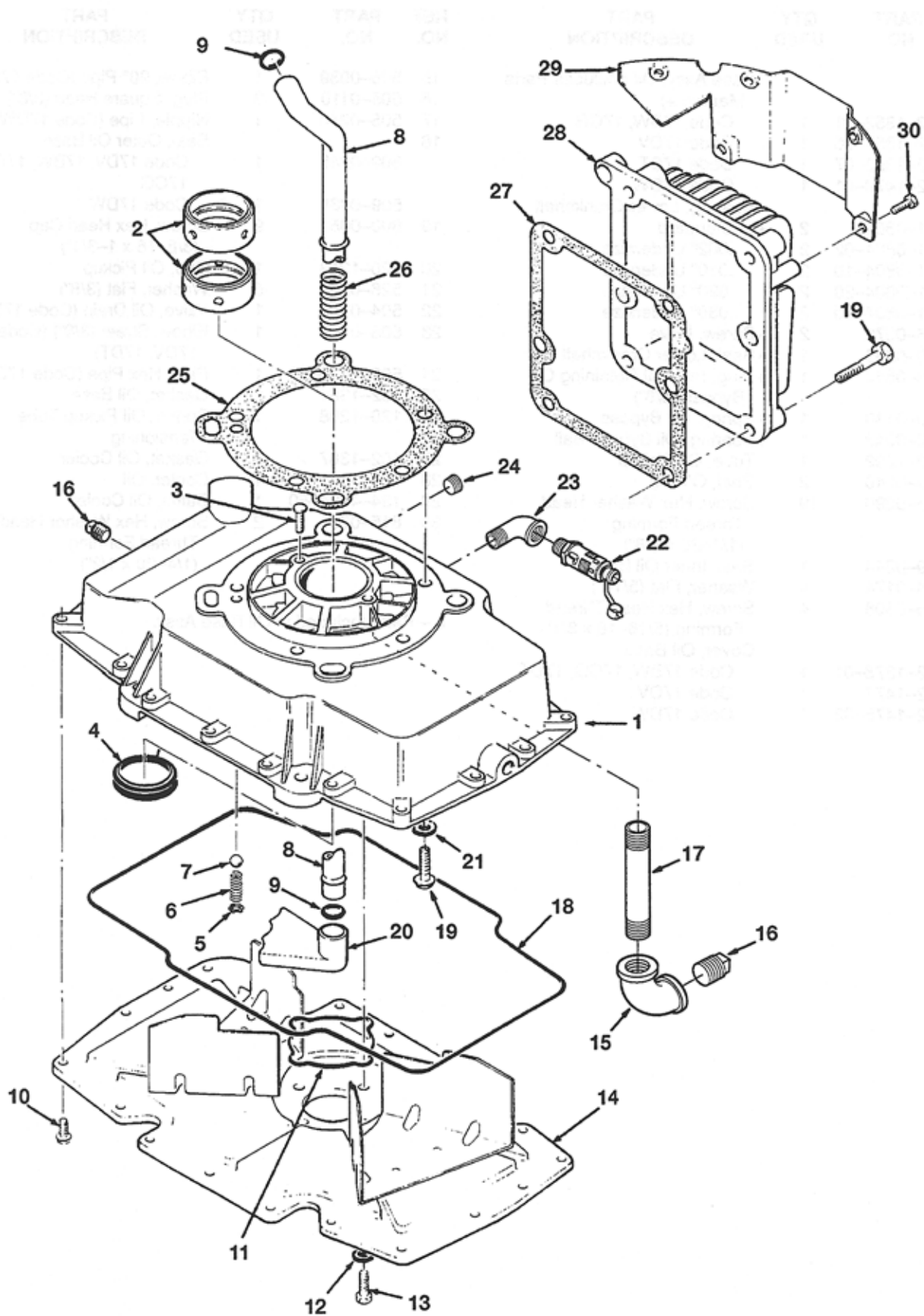
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0687	6	Screw, Locking Head Flange Torx Drive (#10-24 x 3/8")	6	526-0017	1	Washer, Flat (7/16")
2	821-0014	4	Screw, Self-Locking Hex Washer Head (5/16-18 x 1/2")	7	134-4553-50	1	Screen, Air Inlet
3	403-2860-01	1	Bracket, Lifting	8	134-4633	1	Flywheel (Includes Ring Gear Code 31AZ, 31BD)
4	104-0170	1	Screw, Hex Head Cap (Special)		134-4633-02	1	Code 31BN
5	526-0356	1	Washer, Flat (7/16")	9	104-0779	1	Gear, Ring
				10	515-0284	1	Key, Flywheel



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	103-0806	1	Kit, Gearcase (Includes Parts Marked +)
2	815-0046	2	+Screw, Pan Head Machine (#8-32 x 3/8")
3	150-1187	1	+Yoke, Governor Shaft
4	150-2265	1	+Shaft and Arm, Governor
5	509-0008	1	+Seal, Governor Shaft Oil
6	510-0105	1	+Bearing, Governor Shaft
7	510-0014	1	+Ball, Governor Shaft Bearing
8	516-0130	1	+Pin, Governor Cup Stop Dowel
9	103-0810	1	Gasket, Gearcase Mounting
10	526-0065	5	Washer, Copper Flat (5/16")
11	800-0032-01	4	Screw, Hex Head Cap (5/16-18 x 1-3/4")
12	166-0786	1	+Insulator, Ignition Control
13	166-0785	1	+Control, Ignition
14	854-0010	2	+Washer, IT Lock (#10)
15	815-0340	2	+Screw, Hex Washer Head Thread Forming (#10-32 x 3/8")

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
16	815-0659	3	Screw, Hex Head Machine (#10-32 x 1") Code 31AZ, 31BN
17	191-1456	1	Stator, 20 Amp (Includes Terminals) Code 31AZ, 31BN
18	332-2572	2	Terminal, Stator Leads (90°)
19	509-0040	1	+Seal, Upper Crankshaft Oil
20	870-0399	1	Nut, Self-Locking (Flange) (5/16-18)
21	862-0015	1	Nut, Hex (5/16-18)
22	520-0933	1	Stud, Mounting
23	518-0004	1	Clip, Retaining (Control Rod to Governor Shaft)

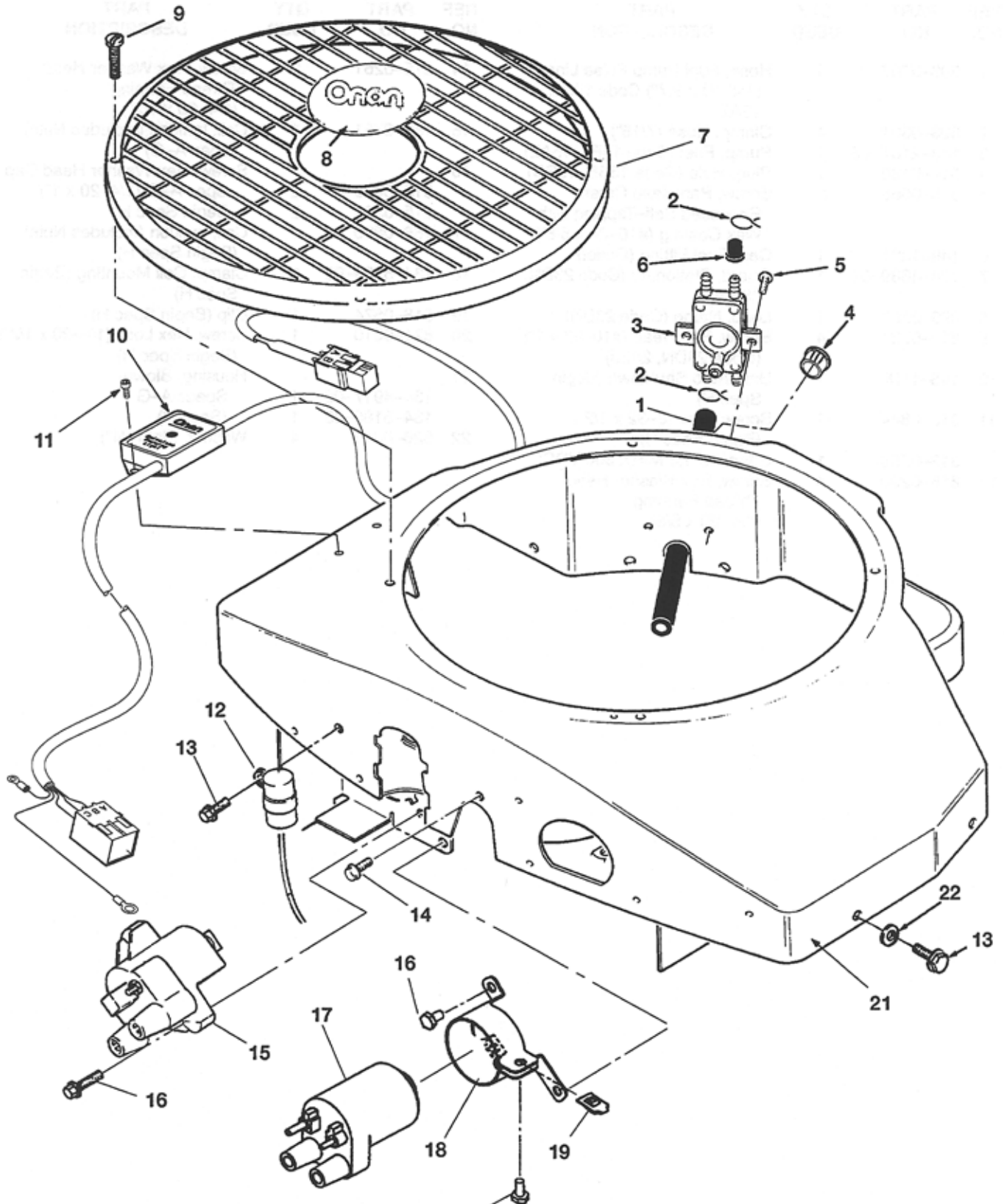
+ - Parts Included in Gearcase Kit.



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Base Assy, Oil (Includes Parts Marked +)	15	505-0039	1	Elbow, 90° Pipe (Code 17DW)
	102-1352-01	1	Code 17BW, 17CG	16	505-0110	3	Plug, Square Head (3/8")
	102-1352-06	1	Code 17DV	17	505-0240	1	Nipple, Pipe (Code 17DW)
	102-1352-07	1	Code 17DT	18			Seal, Outer Oil Base
	102-1470-01	1	Code 17DW		509-0245	1	Code 17DV, 17BW, 17DT, 17CG
2			Bearing, Lower Crankshaft		509-0338	1	Code 17DW
	101-0804	2	+ Standard	19	800-0053	9	Screw, Hex Head Cap (3/8-16 x 1-3/4")
	101-0804-02	2	.002" Undersize	20	120-1213	1	Cup, Oil Pickup
	101-0804-10	2	.010" Undersize	21	526-0250	5	Washer, Flat (3/8")
	101-0804-20	2	.020" Undersize	22	504-0186	1	Valve, Oil Drain (Code 17DT)
	101-0804-30	2	.030" Undersize	23	505-0120	1	Elbow, Street (3/8") (Code 17DV, 17DT)
3	516-0072	2	+Screw, Drive	24	505-1516-03	1	Plug, Hex Pipe (Code 17DW)
4	509-0239	1	+Seal, Lower Crankshaft Oil	25	102-1381	1	Gasket, Oil Base
5	518-0560	1	+Ring, Internal Retaining Oil Bypass (3/8")	26	120-1208	1	Spring, Oil Pickup Tube Tensioning
6	120-0140	1	+Spring, Oil Bypass	27	102-1387	1	Gasket, Oil Cooler
7	510-0043	1	+Bearing, Oil Bypass Ball	28	110-3605	1	Cooler, Oil
8	120-1202	1	Tube, Oil Pickup	29	134-4794-50	1	Baffle, Oil Cooler
9	509-0240	2	Seal, O'Ring	30	815-0261	2	Screw, Hex Washer Head Thread Forming (1/4-20 x 1/2")
10	815-0290	19	Screw, Hex Washer Head Thread Forming (1/4-20 x 5/8")				
11	509-0244	1	Seal, Inner Oil Base				
12	526-0174	4	Washer, Flat (5/16")				
13	815-0508	4	Screw, Hex Head Thread Forming (5/16-18 x 3/4")				
14			Cover, Oil Base				
	102-1378-01	1	Code 17BW, 17CG, 17DT				
	102-1477	1	Code 17DV				
	102-1475-02	1	Code 17DW				

+ - Parts Included in Oil Base Assy.

Blower Housing



Blower Housing

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0707	1	Hose, Fuel Pump Pulse Line (1/4" ID x 9.7") Code 15BL, 15AZ	14	815-0261	2	Screw, Hex Washer Head Thread Forming (1/4-20 x 1/2")
2	503-0301	4	Clamp, Hose (7/16")	15	166-0761	1	Coil, Ignition (Includes Nuts) (Spec A-G)
3	149-2187-03	1	Pump, Fuel (Code 15BL, 15AZ)	16			Screw, Hex Washer Head Cap
4	517-0136	1	Plug, Hole (Code 15BB, 15BC)		815-0650	2	Spec A-G (1/4-20 x 1")
5	815-0555	2	Screw, Pan Head Cross Recessed Self-Tapping with Wax Coating (#10-24 x 5/8")		815-0261	2	Begin Spec H
6	149-1321	1	Cap, Fuel Fitting (Outlet)	17	166-0820	1	Coil, Ignition (Includes Nuts) (Begin Spec H)
7	134-4689-01	1	Guard, Stationary (Code 23DN, 23EJ)	18	134-5129-02	1	Clamp, Coil Mounting (Begin Spec H)
8	099-2393	1	Logo, Name (Code 23DN)	19	518-0574	1	Clip (Begin Spec H)
9	815-0721	4	Screw, Pan Head (#10-32 x 1") (Code 23DN, 23EJ)	20	821-0010	1	Screw, Hex Lock (1/4-20 x 1/2") (Begin Spec H)
10	148-1116	1	Unit, Auto Shutdown (Begin Spec H)	21			Housing, Blower
11	815-0844	2	Screw, Torx (8-32 x 1/2") (Begin Spec H)		134-4917-02	1	Specs A-G
12	312-0256	1	Capacitor (.3 MFD, 300 VDC)		134-5180-03	1	(Spec H)
13	815-0290	4	Screw, Hex Washer Head Thread Forming (1/4-20 x 5/8")	22	526-0018	4	Washer, Flat (1/4")

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