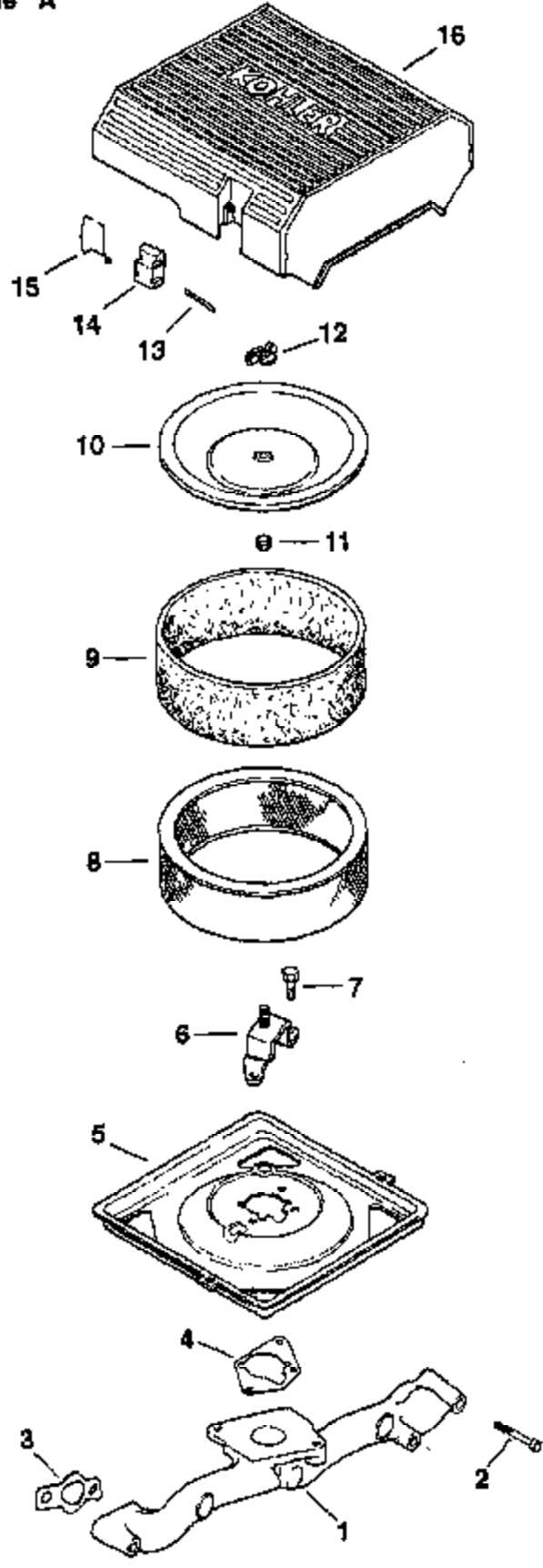
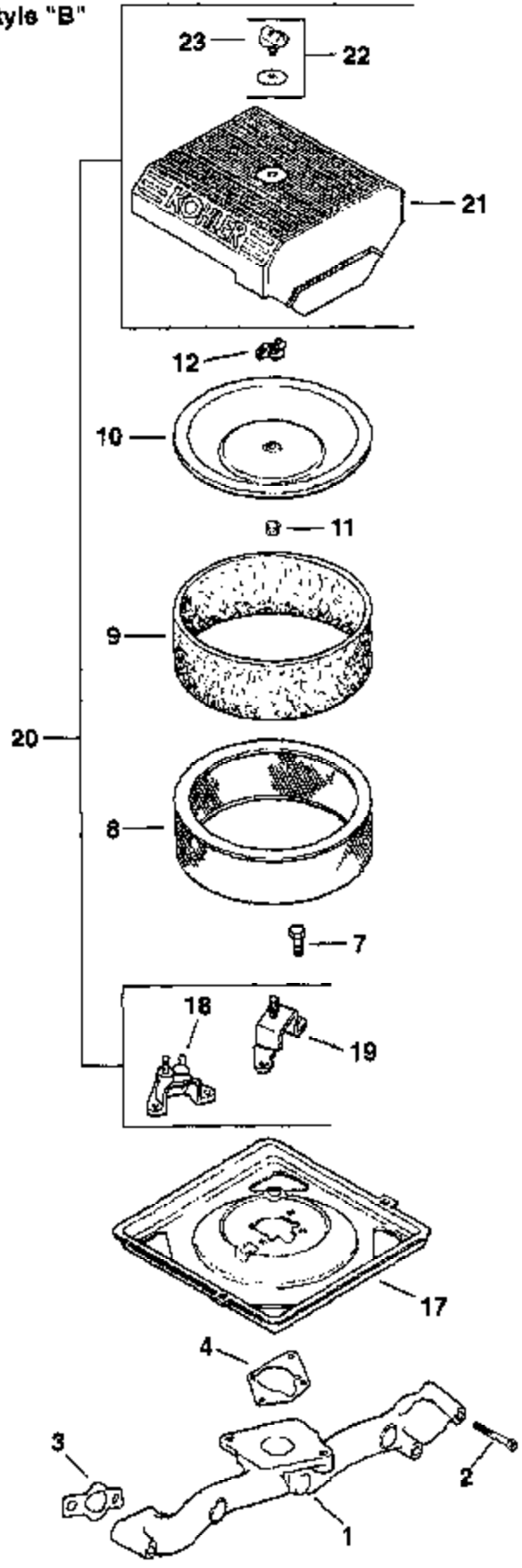


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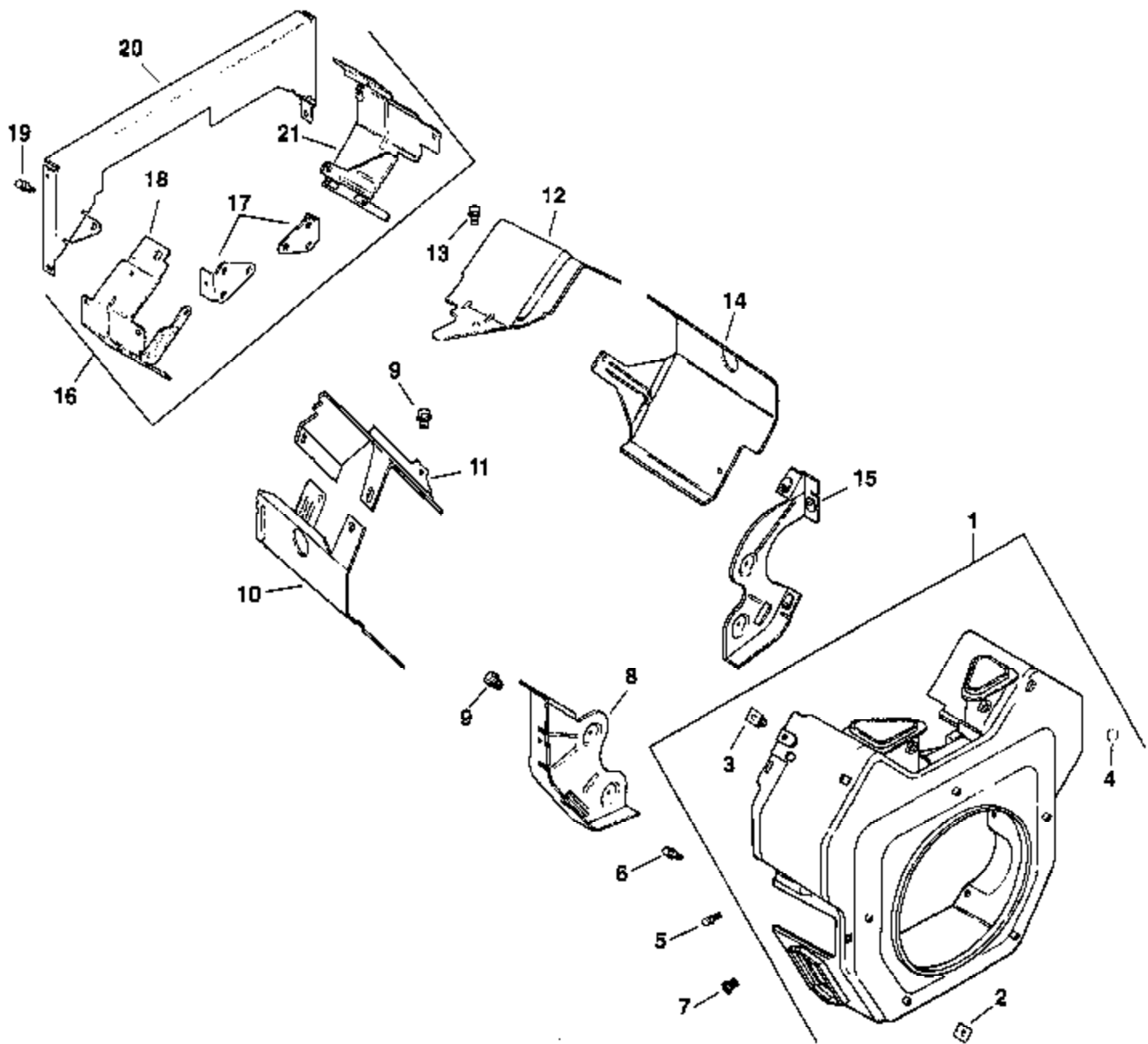


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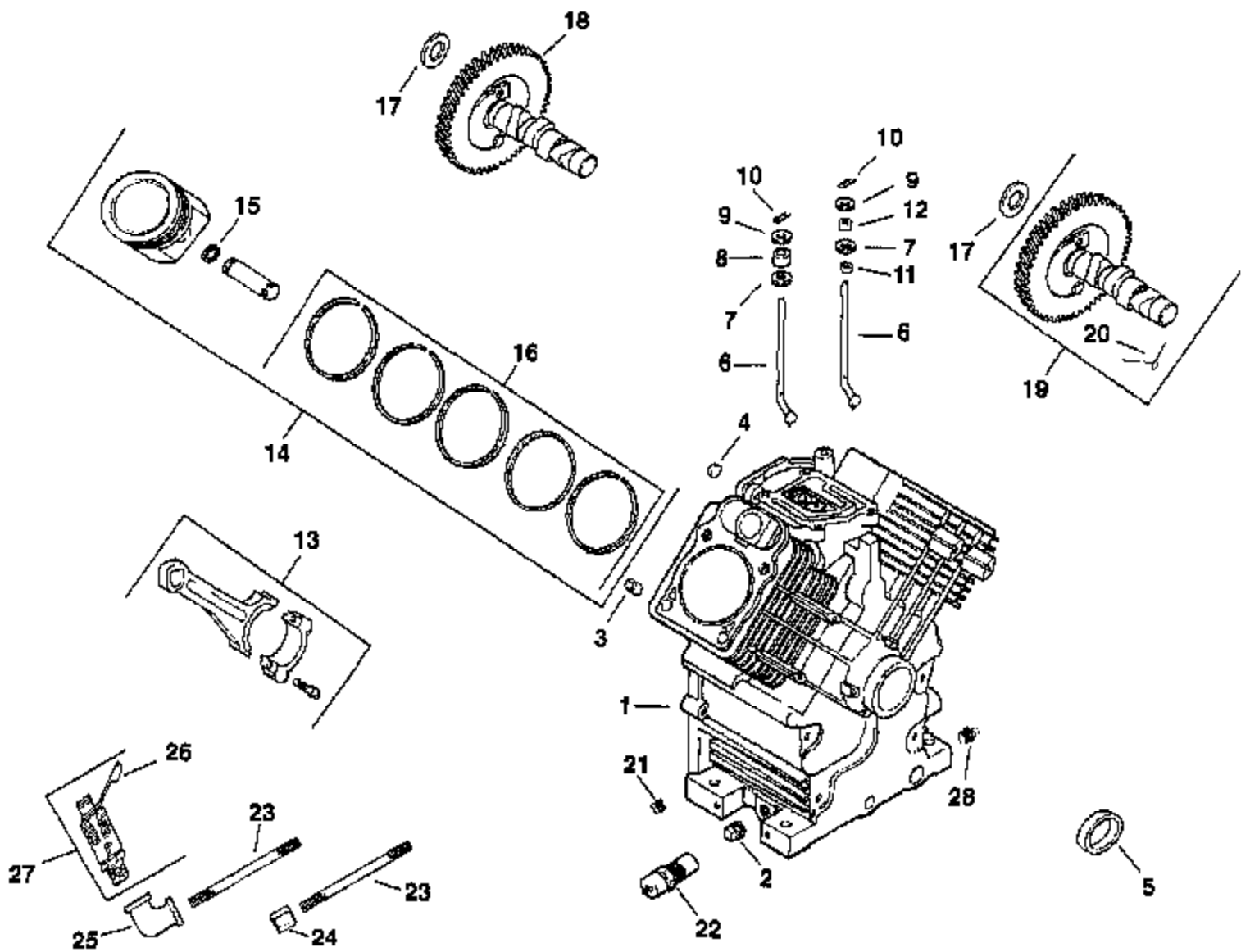
Ref #	Part Number	Qty	Description
1	24 164 14-S	1	Manifold, intake
2	M-0639055	4	Screw, hex. flange M6x1.0x55
3	24 041 01-S	2	Gasket, intake manifold
4	24 041 06-S	1	Gasket, air cleaner base
5	24 094 03-S	1	Base, air cleaner
6	24 126 23-S	1	Bracket, air cleaner (20 mm stud) Use before Serial No. 2422900017
7	M-0639016	3	Screw, hex. flange M6x1.0x16
8	47 083 03-S	1	Element, air cleaner
9	24 083 02-S	1	Element, precleaner
10	24 096 01-S	1	Cover, inner air cleaner
11	24 032 03-S	1	Seal, inner, air cleaner
12	12 100 01-S	1	Nut, wing
13	24 380 03-S	2	Pin, latch lever Use before Serial No. 2422900017
14	24 344 01-S	2	Latch, lever Use before Serial No. 2422900017
15	24 089 04	2	Spring, latch Use before Serial No. 2422900017
16	24 096 03	1	Cover, air cleaner Use before Serial No. 2422900017, for reference only, no longer available separately. Replaced by 24-743-05.
18	24 109 03	1	Cup, fuel spitback 27.5 mm stud CV18-25
19	24 126 21-S	1	Bracket, air cleaner 30 mm stud CH18-22
20	24 743 05-S	1	Kit, air cleaner cover Includes 18,19,21-23. Use before Serial No. 2422900017; after Serial No. 2422900007, or after installation of kit, individual kit components may be ordered for replacement
21	24 096 24-S	1	Cover, air cleaner
22	24 755 91	1	Kit, air cleaner knob w/gasket Includes 23
23	25 341 02	1	Knob, air cleaner cover

CH20-64500 Page 2 of 30  
Air Intake - Pg. 5



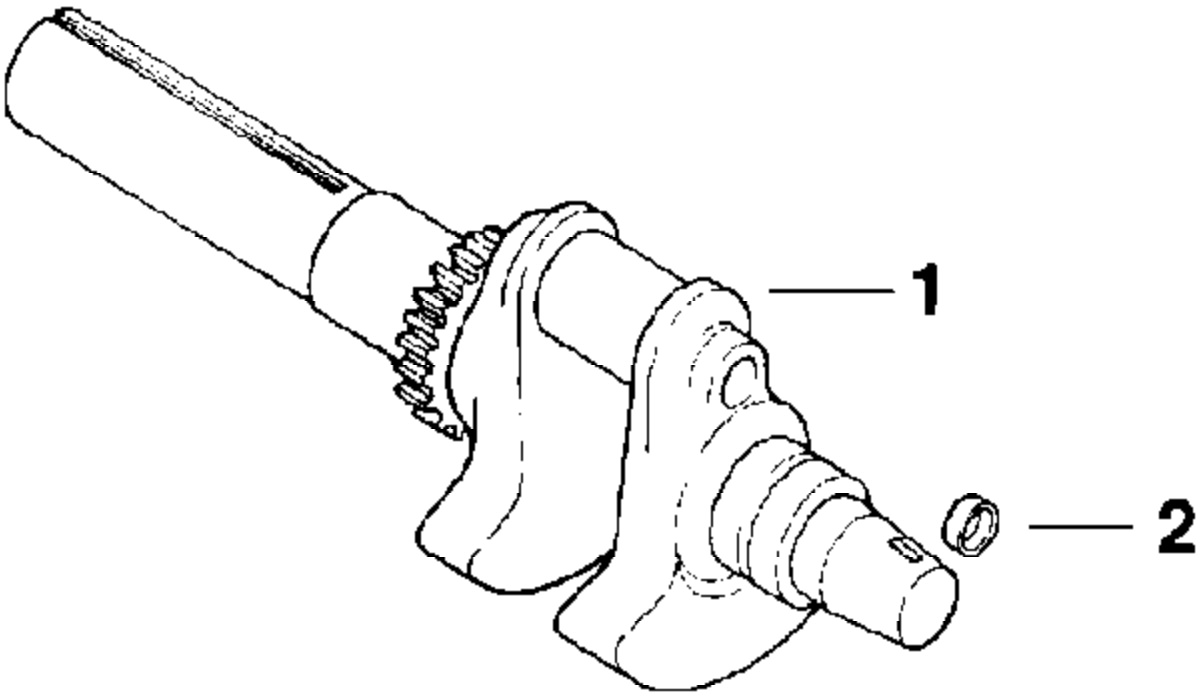
Ref #	Part Number	Qty	Description
1	24 027 20-S	1	Housing, blower Includes 2-4
2	24 100 01-S	3	Nut, plastic
3	24 100 02-S	2	Nut, plastic
4	25 139 16-S	1	Plug, button 9/16"
5	M-0545016	5	Screw, hex. flange M5x0.8x16
6	M-0545020	2	Screw, hex. flange M5x0.8x20
7	M-0551016	1	Screw, hex. flange M5x0.8x16
8	24 146 02	1	Plate, backing - #2 side
9	M-0645016	6	Screw, hex. flange M6x1.0x16
10	24 063 20-S	1	Baffle, cylinder barrel - #2 side
11	24 063 17-S	1	Baffle, valley - #2 side
12	24 063 24-S	1	Baffle, valley - #1 side
13	M-0545010	2	Screw, hex. flange M5x0.8x10
14	24 063 21	1	Baffle, cylinder barrel - #1 side Replaced by 24-063-30
15	24 146 08	1	Plate, backing - #1 side

CH20-64500- Page 4 of 20  
Blower Housing & Baffles - B



Ref #	Part Number	Qty	Description
1		1	Crankcase (Service with Short Block or Miniblock. Refer to Selection Guide TP-2470)
3	12 380 03	6	Pin, dowel locating
4	52 139 09-S	1	Plug, cup
5	24 032 01-S	1	Seal, oil front
6	24 144 01-S	1	Shaft, governor cross
7	X-25-102-S	1	Washer, plain 1/4"
8	12 032 01-S	1	Seal, governor cross shaft
9	X-25-63-S	1	Washer, plain 1/4"
10	12 380 04-S	1	Pin, hitch
13	24 067 01	2	Connecting Rod (Std.) Replaced by 24-067-05
13	24 067 02	2	Connecting Rod (.25) To be replaced by 24-067-06
14	24 874 01-S	2	Piston w/Ring Set (Std.) Includes 15,16
14	24 874 02-S	2	Piston w/Ring Set (.25) Includes 15,16
14	24 874 03-S	2	Piston w/Ring Set (.50) Includes 15,16
15	24 018 01-S	4	Retainer, piston pin
16	24 108 01-S	2	Ring Set (Std.)
16	24 108 02-S	2	Ring Set (.25)
16	24 108 03-S	2	Ring Set (.50)
17	12 422 07-S	1	Shim, camshaft (A.R.) (white) (.02725 - .02875)
17	12 422 08-S	1	Shim, camshaft (A.R.) (blue) (.02925 - .03075)
17	12 422 09-S	1	Shim, camshaft (A.R.) (red) (.03125 - .03275)
17	12 422 10-S	1	Shim, camshaft (yellow) (.03325 - .03475)
17	12 422 11-S	1	Shim, camshaft (A.R.) (green) (.03525 - .03675)
17	12 422 12-S	1	Shim, camshaft (A.R.) (gray) (.03725 - .03875)
17	12 422 13-S	1	Shim, camshaft (A.R.) (black) (.03925 - .04075)
18	24 012 05	1	Camshaft
28	52 139 02-S	2	Plug, hex. hd. 3/8" N.P.T.F.

CH20-64500 Pages 1 of 30  
Crankcase



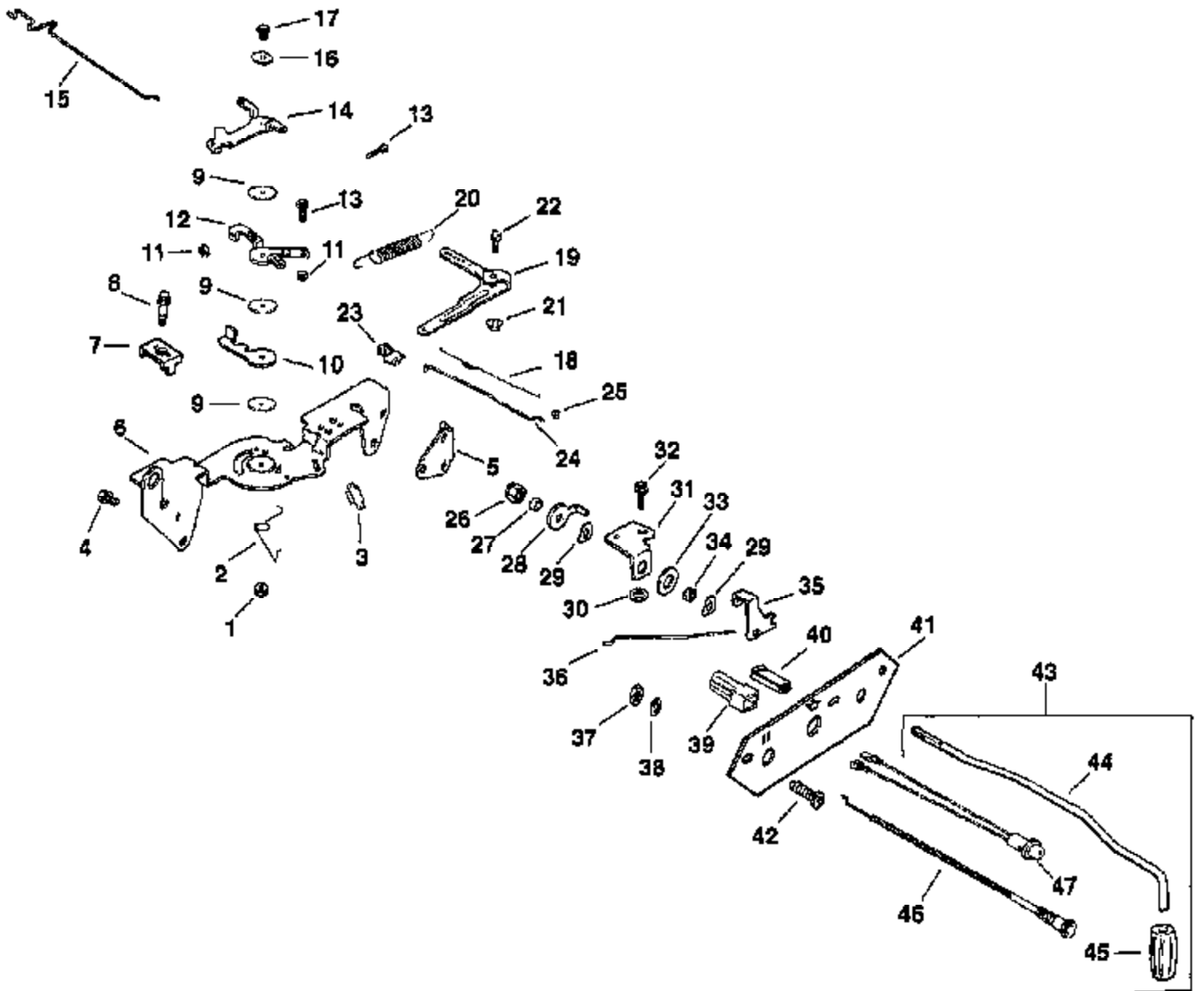
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Ref #	Part Number	Qty	Description
1	24 014 04-S	1	Crankshaft Includes 2
2	52 139 09-S	1	Plug, cup Use on engines with New Design - 16.88 mm, 5/8" diameter
2	12 139 01-S	1	Plug, cup Use on engine with Original Design - 11.40 mm, 7/16" diameter

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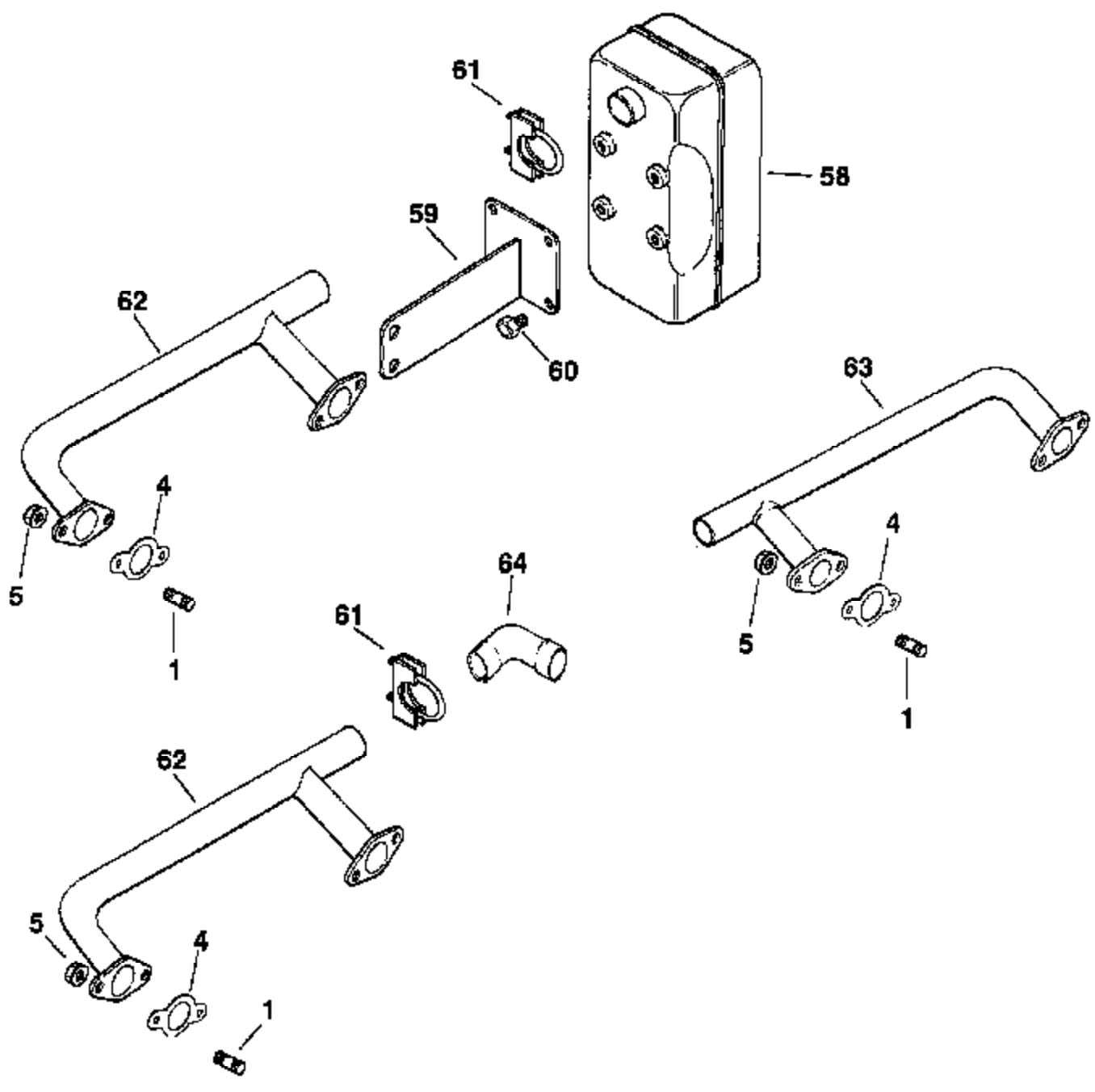
CH20-64500 Page 8 of 30  
Crankshaft





Ref #	Part Number	Qty	Description
1	M-0547050	1	Nut, hex. flange M5x0.8
2	24 089 03-S	1	Spring, choke return
3	25 452 13-S	1	Terminal
4	M-0645016	4	Screw, hex. flange M6x1.0x16
6	24 126 13	1	Bracket, control
7	12 237 01-S	2	Clamp, cable
8	SM-0545016	3	Screw, hex. flange M5x0.8x16
9	24 468 01-S	3	Washer, plain 5 mm
10	24 090 07-S	1	Lever, throttle actuator
11	M-0446030	2	Nut, hex. flange M4x0.7
12	24 090 03-S	1	Lever, throttle control
13	M-0401030	2	Screw, hex. cap M4x0.7x30
14	24 090 05-S	1	Lever, choke
15	24 079 02-S	1	Linkage, choke
16	41 468 03-S	1	Washer, wave
17	SM-0545020	1	Screw, hex. flange M5x0.8x20
18	24 089 01-S	1	Spring, linkage
19	24 090 14-S	1	Lever, governor
20	24 089 15-S	1	Spring, governor
21	M-0641060	1	Nut, hex. flange M6x1.0
22	M-0642025	1	Screw, hex. cap M6x1.0x25
23	25 158 11-S	1	Bushing, linkage - black
24	24 079 01-S	1	Linkage, throttle
25	25 158 08-S	1	Bushing, linkage - natural

CH20-64500 Page 10 of 30  
 Engine Controls Pg. 47

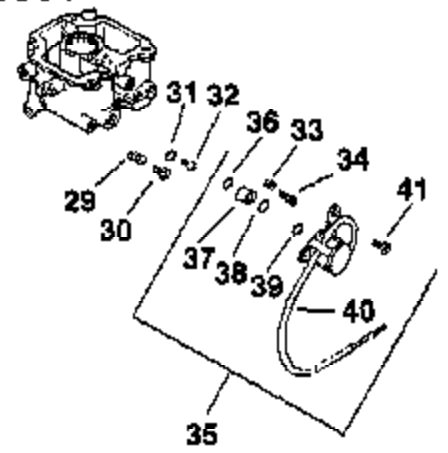
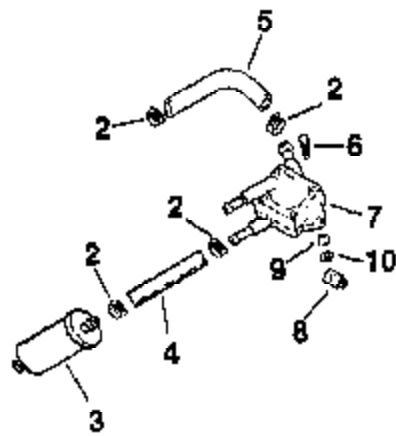
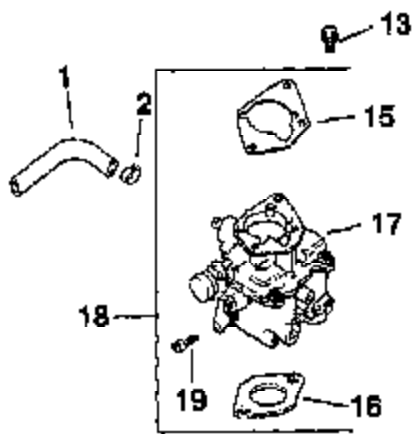
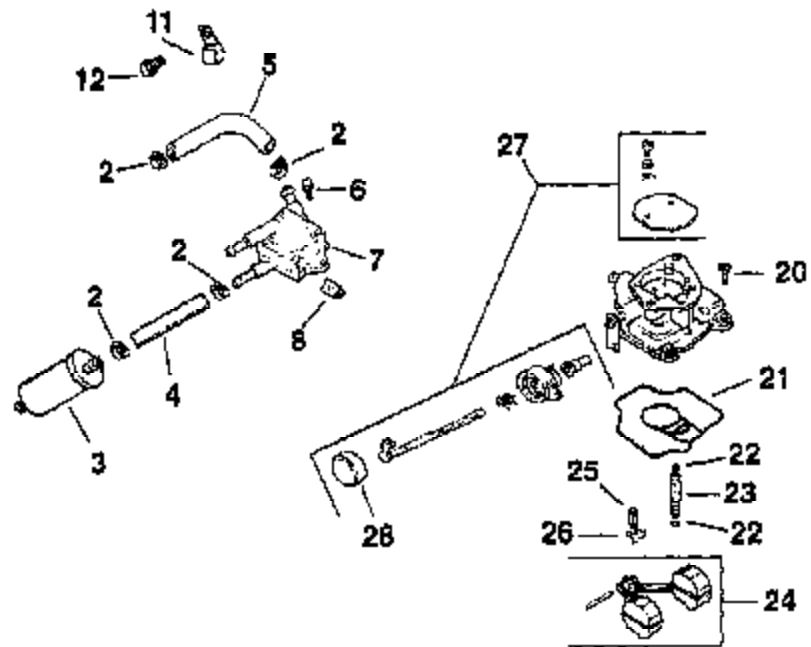
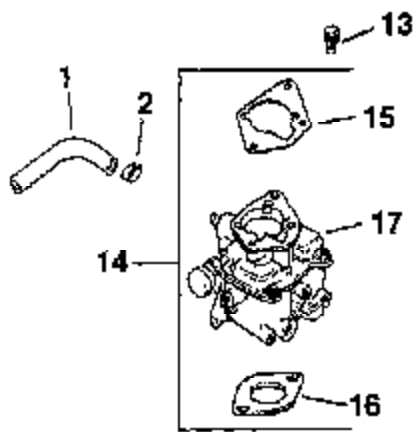


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Ref #	Part Number	Qty	Description
1	M-0829033	4	Stud, exhaust M8x1.25x33

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CH20-64500 Page 12 of 30  
Exhaust - Pg. 70

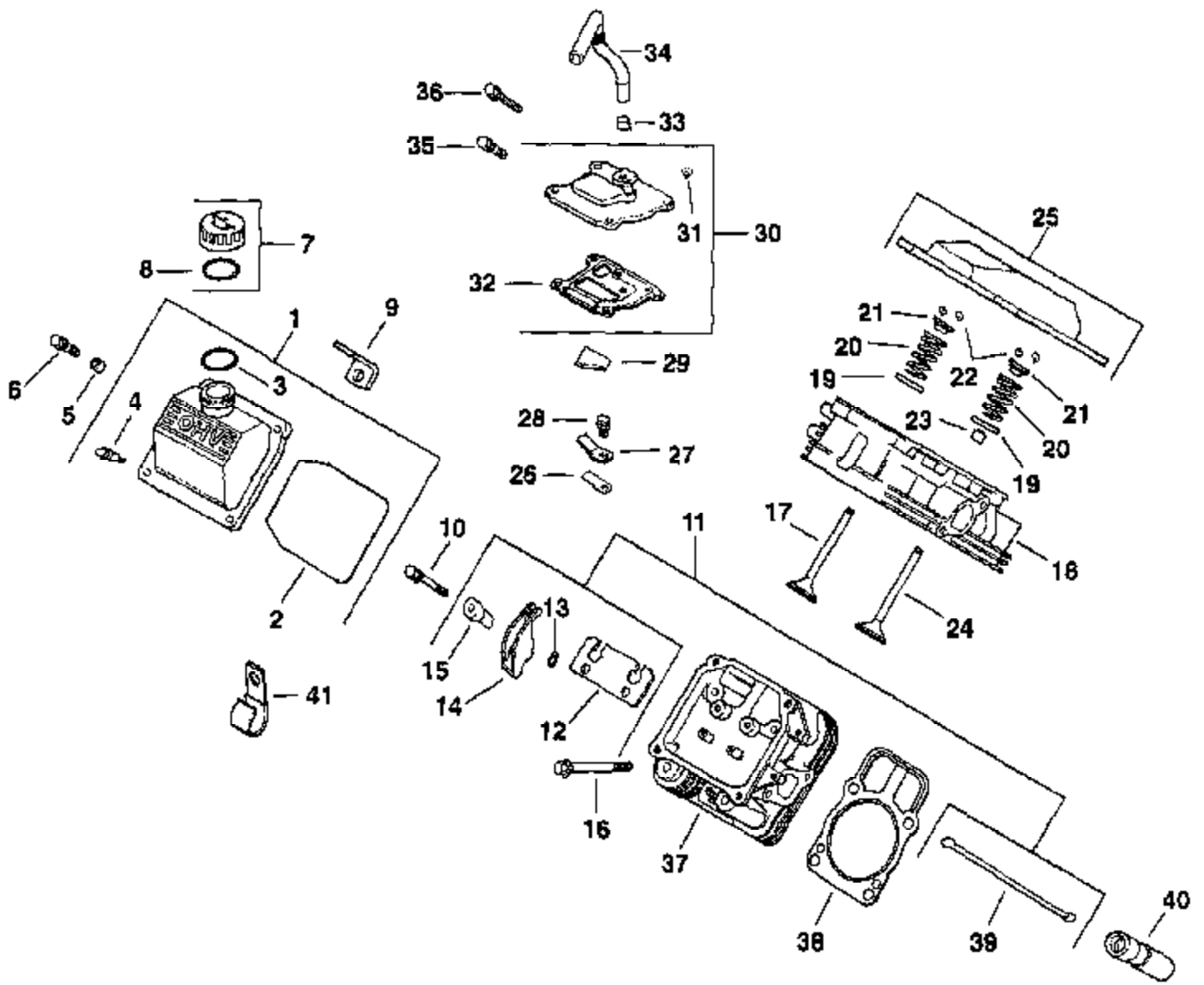


Ref #	Part Number	Qty	Description
1	25 353 10-S	2	Line, fuel 9"
2	X-426-9-S	6	Clamp, hose
3	25 050 03-S	1	Filter, fuel Replaced by 24-050-02
5	24 353 02-S	1	Line, fuel 15-1/2"
6	24 086 12-S	2	Screw, hex. cap 18 mm
7	24 393 04	1	Pump, fuel - pulse
8	24 100 01-S	2	Nut, plastic
11	47 154 01-S	1	Clip Order qty. according to design used on engine
12	M-0650012	1	Screw, hex. flange M6x1.0x10
13	M-0651030	2	Screw, hex. flange M6x1.0x30
14	24 853 02	1	Kit, carburetor Includes 15-17, carburetor assembly 24-053-02
14	24 853 32-S	1	Kit, carburetor Includes 15-17, carburetor assembly 24-053-32
15	24 041 06-S	1	Gasket, air cleaner
16	24 041 17-S	1	Gasket, carburetor
17	24 053 02	1	Carburetor assembly Includes 20-41, carburetor repair kit 24-757-03, high altitude kits 24-755-01 & 24-755-02
17	24 053 32	1	Carburetor assembly Includes 20-41, carburetor repair kit 24-757-03, high altitude kits 24-755-01 & 24-755-02
20	24 086 09-S	4	Screw, sems pan hd. M4x0.7x16
21	24 041 09-S	1	Gasket, carburetor body
22	24 153 02-S	2	O-Ring, slow jet
23	24 337 01-S	1	Jet, slow
24	24 757 02-S	1	Kit, float repair
25	24 462 01-S	1	Valve, inlet needle
26	24 154 01-S	1	Clip, inlet needle valve
27	24 757 07-S	1	Kit, choke repair Includes 28
28	24 173 02-S	1	Cap, choke lever
29	24 089 10-S	1	Spring, idle speed adjusting
30	24 086 10-S	1	Screw, idle speed adjusting
31	24 153 03-S	1	O-Ring, main jet screw
32	24 337 02-S	1	Screw, main jet
33	24 089 11-S	1	Spring, idle adjusting
34	24 368 01-S	1	Needle, idle adjusting
35	24 757 01-S	1	Kit, solenoid assembly Includes 36-41
36	24 153 06-S	1	O-Ring, solenoid
37	24 521 01-S	1	Seat, solenoid
38	24 153 05-S	1	O-Ring, solenoid
39	24 153 04-S	1	O-Ring, solenoid
40	24 435 01-S	1	Solenoid
41	24 086 07-S	2	Screw, sems pan hd. M4x0.7x8

This group for this specification number does not currently have a supporting illustration.

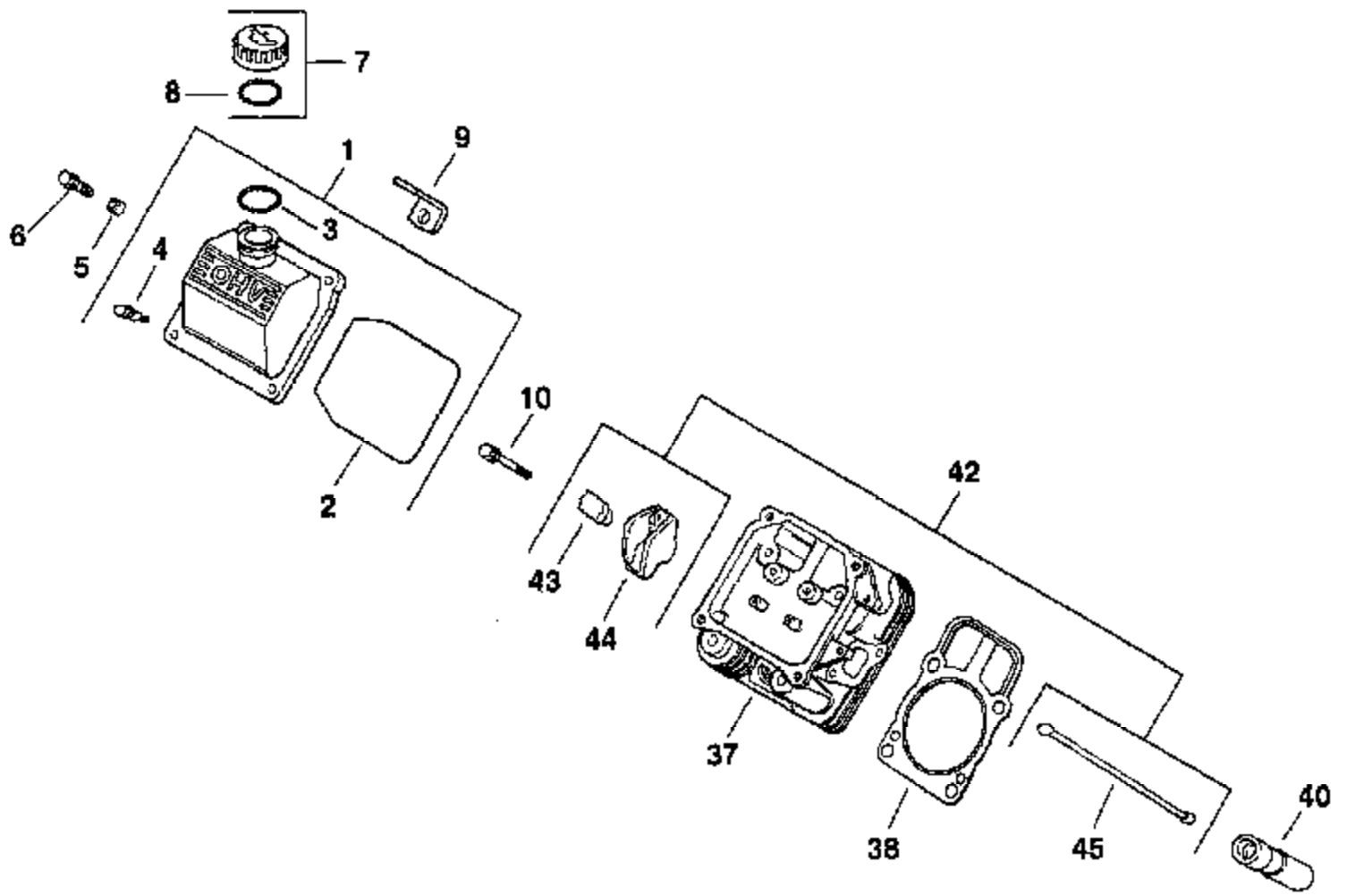
Ref #	Part Number	Qty	Description
	24 755 107-S	1	Gasket Set
	24 050 01-S	1	Filter, breather
	24 041 06-S	1	Gasket, air cleaner base
	24 041 14-S	1	Gasket, air cleaner base
	24 041 23-S	1	Gasket, breather
	24 041 15-S	1	Gasket, carburetor
	24 041 17-S	1	Gasket, carburetor
	24 041 53-S	1	Gasket, carburetor - plastic intake manifold
	24 041 08-S	2	Gasket, cylinder head
	24 041 02-S	2	Gasket, exhaust
	24 041 13-S	1	Gasket, fuel spitback cup
	24 041 01-S	2	Gasket, intake manifold
	24 041 29-S	1	Gasket, oil filter adapter
	24 100 10-S	8	Gasket Set Nut, hex. flange M8x1.25
	24 153 01-S	1	O-Ring 11 mm I.D.
	24 153 08-S	1	O-Ring 14 mm I.D.
	12 153 01-S	1	O-Ring 16 mm I.D.
	25 153 02-S	1	O-Ring 23 mm I.D.
	12 153 02-S	1	O-Ring 35 mm I.D.
	24 153 21-S	1	O-Ring 71 mm I.D.
	24 153 27-S	2	O-Ring, plastic intake manifold
	24 153 23-S	2	O-Ring, valve cover
	24 018 09-S	1	Retainer, ring
	12 086 16-S	8	Screw, hex. flange M10x1.5x90
	24 032 04-S	1	Seal 2 1/4" long
	230046-S	1	Seal, breather
	24 032 01-S	1	Seal, front oil
	12 032 01-S	1	Seal, governor cross shaft
	24 032 03-S	1	Seal, inner air cleaner - 1/4" long
	52 032 08-S	1	Seal, rear oil
	66 032 05-S	2	Seal, valve stem
	24 072 09-S	8	Stud, cylinder head, M8x1.25x20, M10x1.5x33, 105 mm long
	24 468 16-S	8	Washer, flat 8 mm





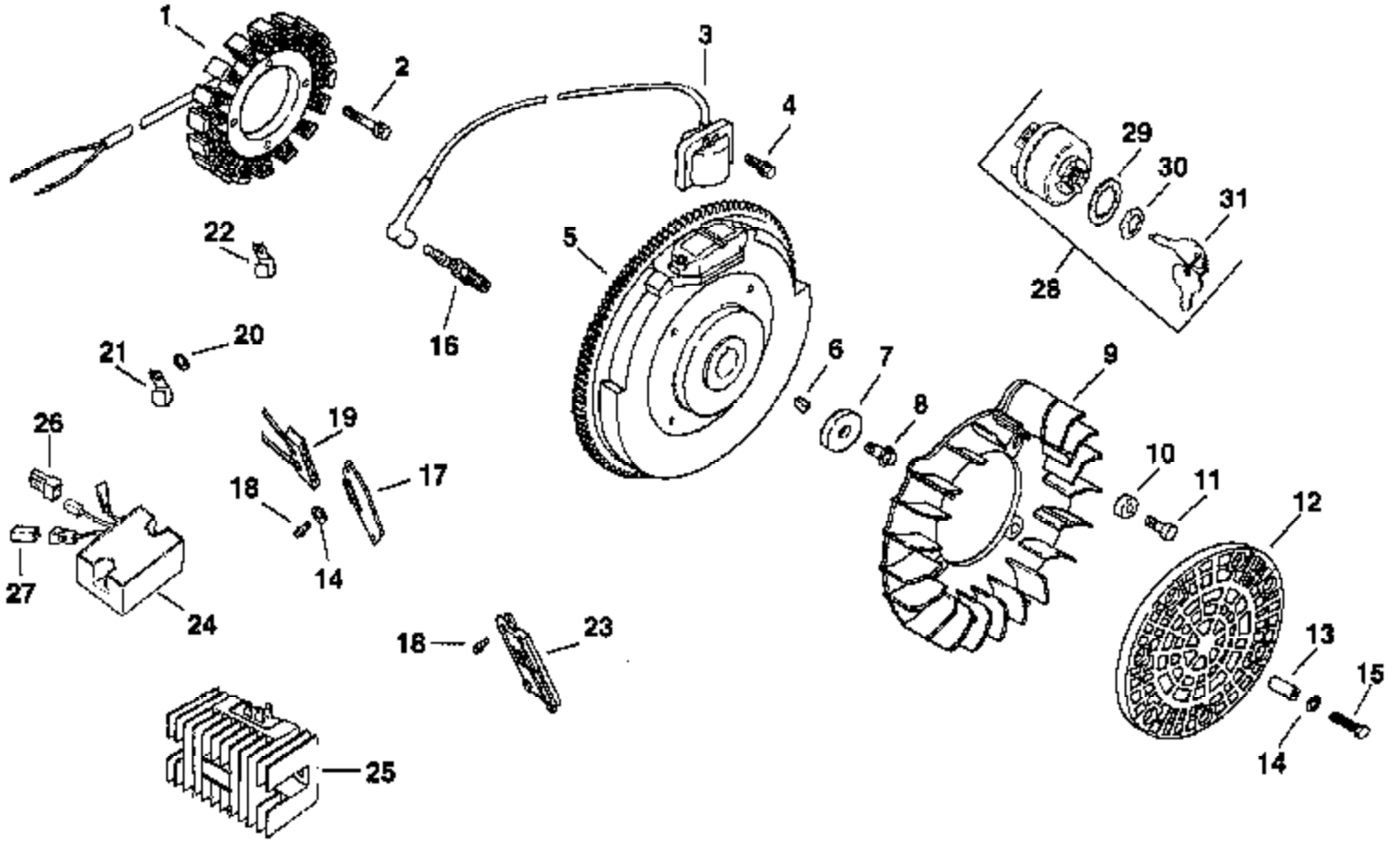
Ref #	Part Number	Qty	Description
1	24 755 75-S	1	Kit, valve cover - oil fill Includes 2-5
2	24 153 12	2	O-Ring
3	24 153 09-S	1	O-Ring
4	24 086 32-S	8	Screw, hex. cap - shoulder M6x1.0x23
7	25 755 13-S	1	Kit, oil fill cap Includes 8
8	12 153 03-S	1	O-Ring
9	24 445 01-S	1	Strap, lifting
10	M-0640034	4	Screw, hex. flange M6x1.0x34
11	24 755 61	1	Kit, valve train Includes 12-15,39. For individual component reference only, before Serial No. 2520800017. Replaced by 24-755-66
12	24 146 09	1	Plate, guide Use before Serial No. 2520800017. Replaced by 24-755-66
13	M-0631005	1	Washer, plain 6 mm Use before Serial No. 2520800017
14	24 186 03	4	Arm, rocker Use before Serial No. 2520800017
15	24 194 02	4	Pivot, rocker arm Use before Serial No. 2520800017. Replaced by 24-755-66
16	12 086 16-S	8	Screw, hex. flange M10x1.5x91
17	24 016 01-S	2	Valve, exhaust (Std.)
17	24 016 02-S	2	Valve, exhaust (.25 O.S.)
18	24 318 09-S	1	Head assembly, #1 cylinder
19	235011-S	4	Retainer, spring
20	24 089 02-S	4	Spring, valve
21	12 173 01-S	4	Cap, valve spring
22	12 755 03-S	4	Kit, retainer
23	24 032 05-S	2	Seal, valve stem
24	24 017 01-S	2	Valve, intake (Std.)
24	24 017 02-S	2	Valve, intake (.25 O.S.)
25	24 755 74-S	1	Kit, valve cover - plain Includes 2,4,5
26	24 402 03-S	1	Reed, breather
27	12 018 01-S	1	Retainer, breather reed
28	M-0545010	1	Screw, hex. flange M5x0.8x10
29	24 050 01-S	1	Filter, breather
30	24 033 01-S	1	Kit, breather w/plug Includes 31,32
31	X-75-23-S	1	Plug, allen hd. 1/8"
32	24 041 23-S	1	Gasket, breather
33	X-426-9-S	1	Clamp, hose
34	24 326 06	1	Hose, breather
35	M-0645020	4	Screw, hex. flange M6x1.0x20
37	24 318 10-S	1	Head assembly, #2 cylinder
38	24 041 08-S	2	Gasket, cylinder head
39	24 411 04	4	Rod, push Use after Serial No. 2424400007. Replaced by 24-755-66
40	12 351 01	4	Lifter, valve

CH20-64500 Page 48 of 90  
Head/Valve Breather - Style'



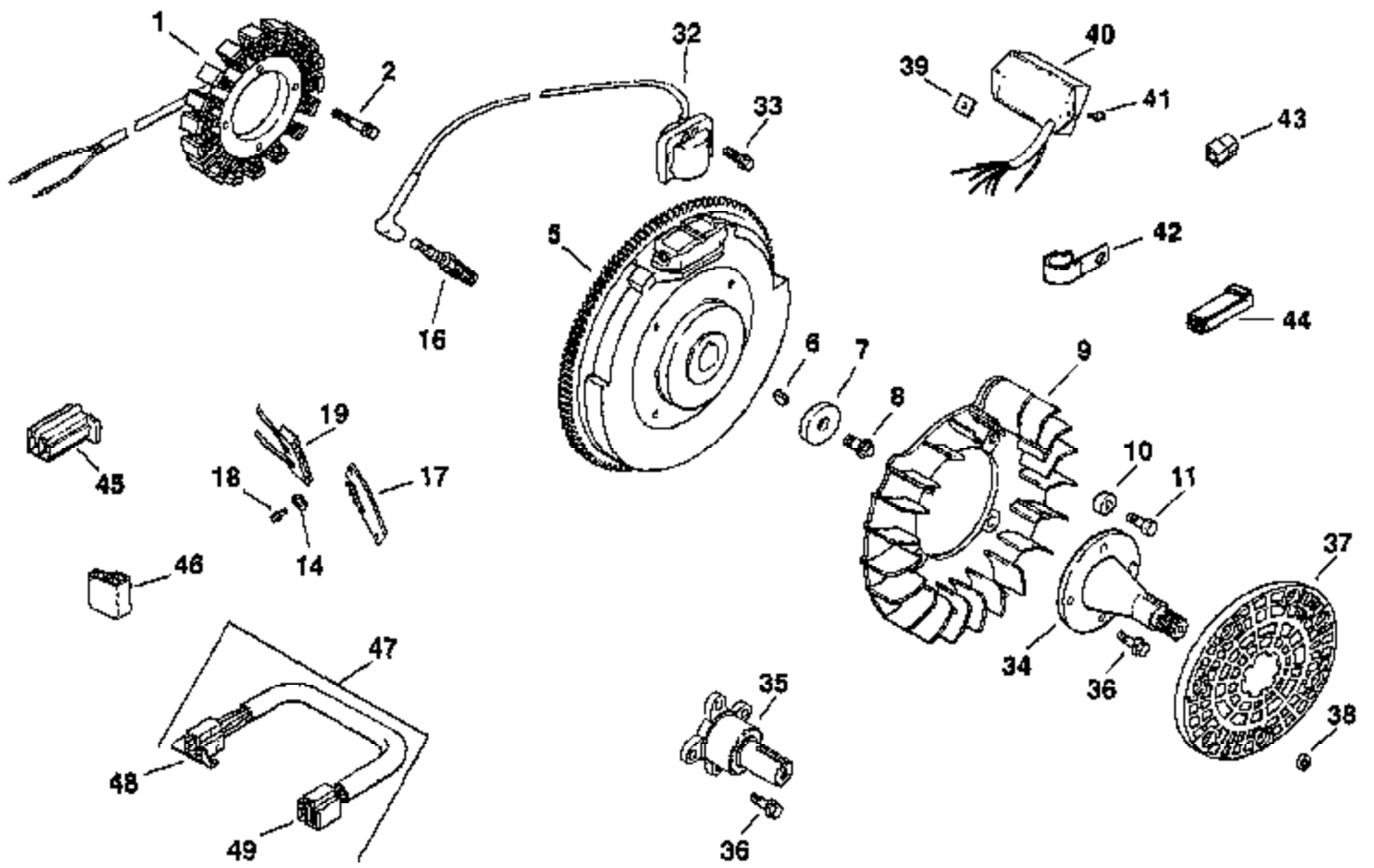
Ref #	Part Number	Qty	Description
1	24 755 75-S	1	Kit, valve cover - oil fill Includes 2-5
2	24 153 12	2	O-Ring
3	24 153 09-S	1	O-Ring
4	24 086 32-S	8	Screw, hex. cap - shoulder M6x1.0x23
7	25 755 13-S	1	Kit, oil fill cap Includes 8
8	12 153 03-S	1	O-Ring
9	24 445 01-S	1	Strap, lifting
10	M-0640034	4	Screw, hex. flange M6x1.0x34
37	24 318 10-S	1	Head assembly, #2 cylinder
38	24 041 08-S	2	Gasket, cylinder head
40	12 351 01	4	Lifter, valve
42	24 755 66-S	1	Kit, valve train Includes 43-45. Use before Serial No. CH20-64500-252080007, after Serial No. 2520800007 or after installation of kit, individual marked* components can be ordered for replacement.
43	24 599 01-S	1	Pivot, cylindrical rocker arm
44	25 186 01-S	1	Arm, rocker
45	24 411 05-S	1	Rod, push

CH20-64500-252080007, after Serial No. 2520800007 or after installation of kit, individual marked\* components can be ordered for replacement.



Ref #	Part Number	Qty	Description
1	24 085 01	1	Stator (15 amp)
2	M-0548025	2	Screw, hex. cap M5x0.8x25
3	24 584 01-S	2	Module, ignition
4	SM-0545020	4	Screw, hex. flange M5x0.8x20
5	24 025 01-S	1	Flywheel
6	X-42-15-S	1	Key
7	12 468 03-S	1	Washer, plain 3/8"
8	12 086 14-S	1	Screw, hex. flange M10x1.5x76
9	24 157 01-S	1	Fan
10	12 112 01	4	Spacer, fan
11	M-0639016	4	Screw, hex. flange M6x1.0x16
12	24 162 03-S	1	Screen, grass
14	X-25-92-S	2	Washer, plain 1/2"
16	12 132 02-S	2	Washer, plain 1/2"
17	25 403 03-S	1	Rectifier-regulator (15 amp)
18	24 086 18-S	2	Screw, hex. cap M10x1.5x61
19	236602-S	1	Connector (3 contact)
20	X-25-63-S	2	Washer, plain 1/4"
21	235173-S	1	Clip
22	48 154 02-S	1	Clip
		1	Harness, wiring Before Serial No. 2307000014 use:
		1	Harness, wiring After Serial No. 2307000004 use:
	24 518 04	1	Lead, green, rectifier-regulator 4" - 18 gauge - terminals: 2 insulated grip barrel eyelets
	24 518 06-S	1	Lead, black 6" - 14 gauge - terminals: 1 uninsulated push on tab, 1 insulated grip barrel eyelet. Use after Serial No. 2329500004

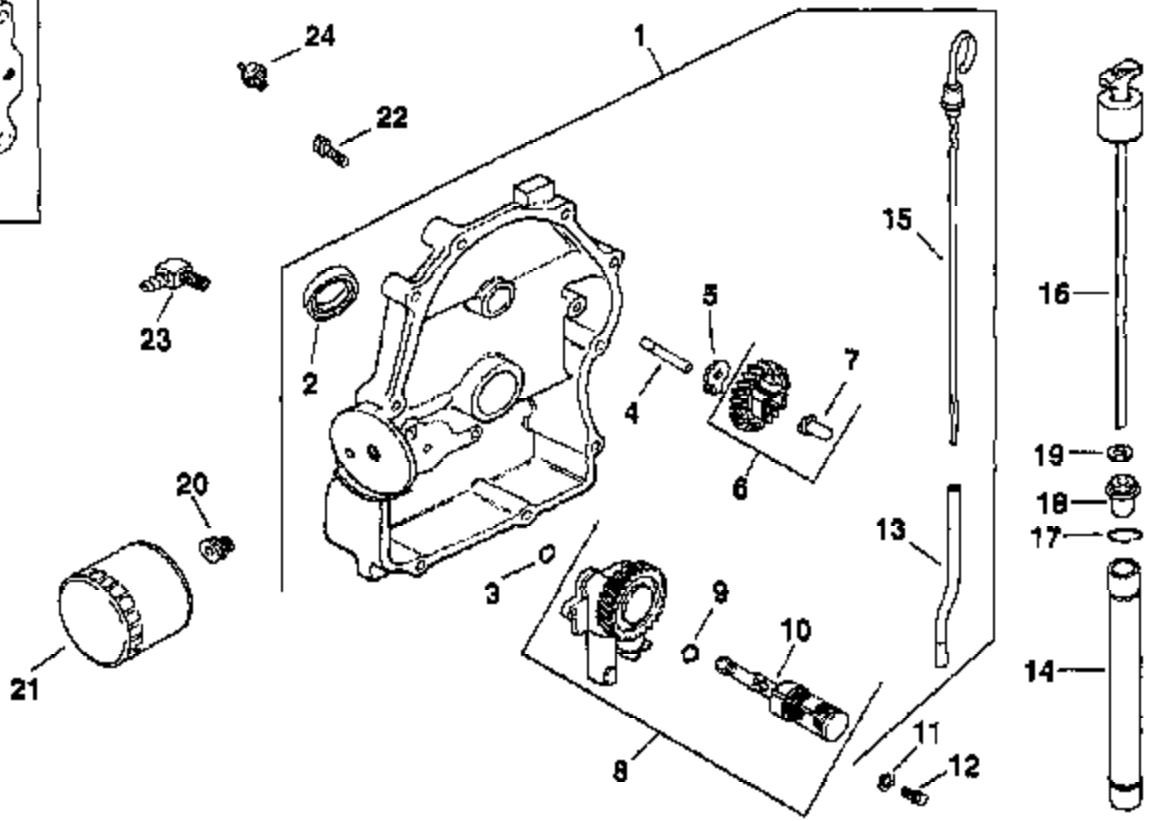
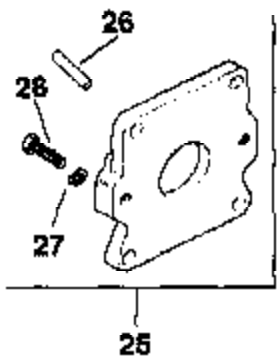
CH20-64500 Page 22 of 30  
 Ignition/Electrical Pg. 23



Ref #	Part Number	Qty	Description
1	24 085 01	1	Stator (15 amp)
2	M-0548025	2	Screw, hex. cap M5x0.8x25
5	24 025 01-S	1	Flywheel
6	X-42-15-S	1	Key
7	12 468 03-S	1	Washer, plain 3/8"
8	12 086 14-S	1	Screw, hex. flange M10x1.5x76
9	24 157 01-S	1	Fan
10	12 112 01	4	Spacer, fan
11	M-0639016	4	Screw, hex. flange M6x1.0x16
14	X-25-92-S	2	Washer, plain 1/2"
16	12 132 02-S	2	Spark plug
17	25 403 03-S	1	Rectifier-regulator (15 amp)
18	24 086 18-S	2	Screw, hex. cap M10x1.5x61
19	236602-S	1	Ignition/Electrical Connector (3 contact)
38	24 018 03-S	3	Retainer
43	15 155 01-S	1	Connector Use after Serial No. 2329500004
44	277563-S	1	Connector Use after Serial No. 2307000004
48	25 155 06-S	1	Connector
		1	Harness, wiring Before Serial No. 2307000014 use:
		1	Harness, wiring After Serial No. 2307000004 use:
	24 518 04	1	Lead, green, rectifier-regulator 4" - 18 gauge - terminals: 2 insulated grip barrel eyelets
	24 518 06-S	1	Lead, black 6" - 14 gauge - terminals: 1 uninsulated push on tab, 1 insulated grip barrel eyelet. Use after Serial No. 2329500004

CH20-64500 - Page 24 of 30  
 Ignition/Electrical Pg. 27

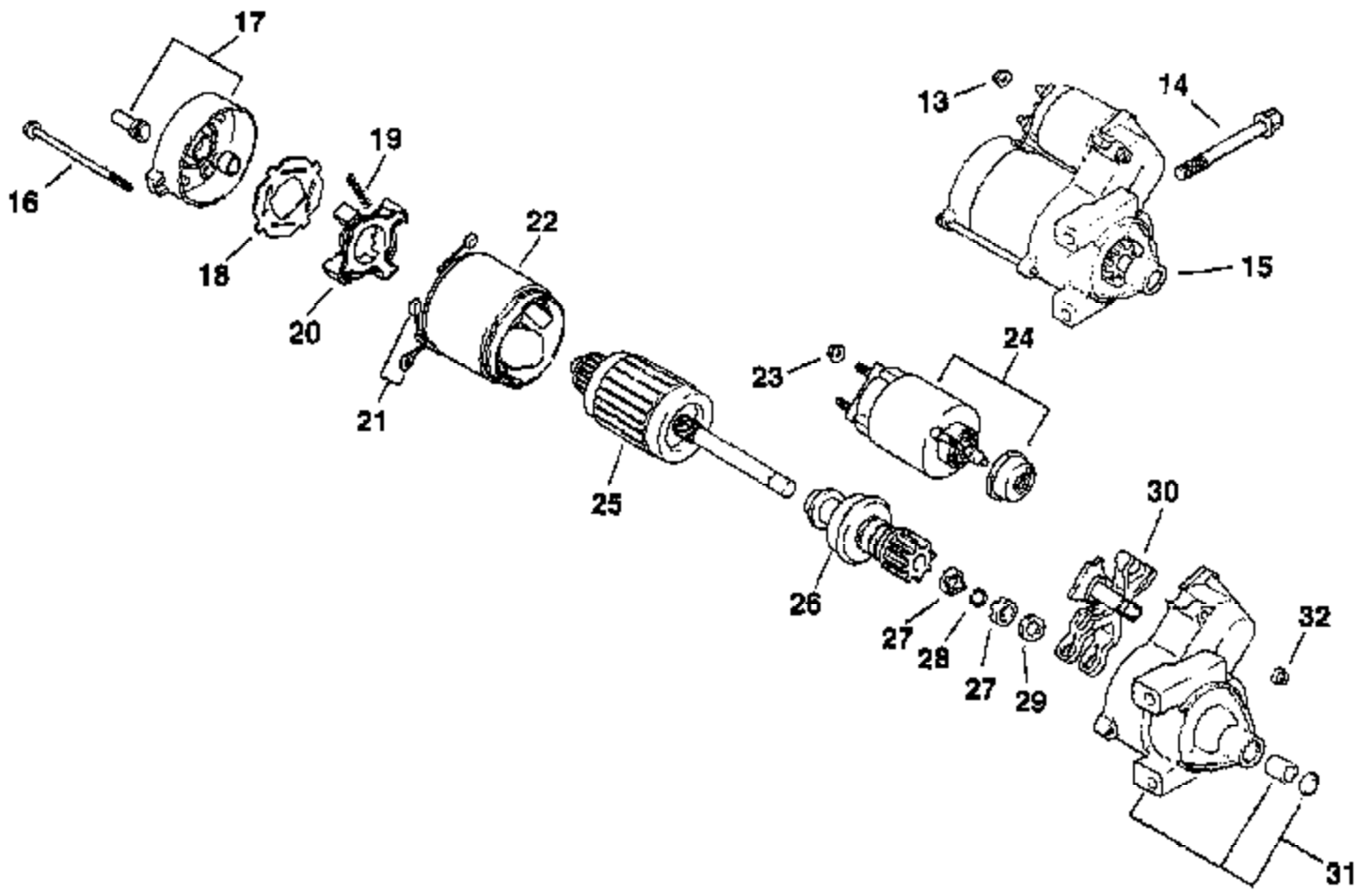




Ref #	Part Number	Qty	Description
1	24 009 82-S	1	Plate assembly, closure Includes 2-10,13,15
2	52 032 08-S	1	Seal, oil (PTO end)
3	24 153 08-S	1	O-Ring
4	12 144 02-S	1	Shaft, governor gear
5	52 448 02-S	1	Tab, locking
6	24 043 12-S	1	Kit, governor gear w/pin Includes 7
7	12 380 01-S	1	Pin, governor regulating
8	24 393 03-S	1	Oil pump assembly Reference No. 24-327-02 stamped on housing. Includes 9,10
8	24 393 10-S	1	Oil pump assembly Reference No. 24-327-03 stamped on housing. Includes 9,10
9	24 153 01-S	1	O-Ring
10	24 381 03-S	1	Pick-up, oil Use with pump assembly 24-393-03
10	24 381 04-S	1	Pick-up, oil Use with pump assembly 24-393-10
11	M-0631005	2	Washer, plain 6 mm
12	M-0645025	2	Screw, hex. flange M6x1.0x25
13	24 123 08-S	1	Tube, dipstick (bent tube)
15	24 038 06-S	1	Dipstick
20	24 136 01-S	1	Nipple, oil filter
21	12 050 01-S	1	Filter, oil
22	24 086 16-S	10	Screw, hex. flange M8x1.25x46
23	25 155 02-S	1	Connector, hose 90° 1/4"
24	52 099 06	1	Switch, oil pressure

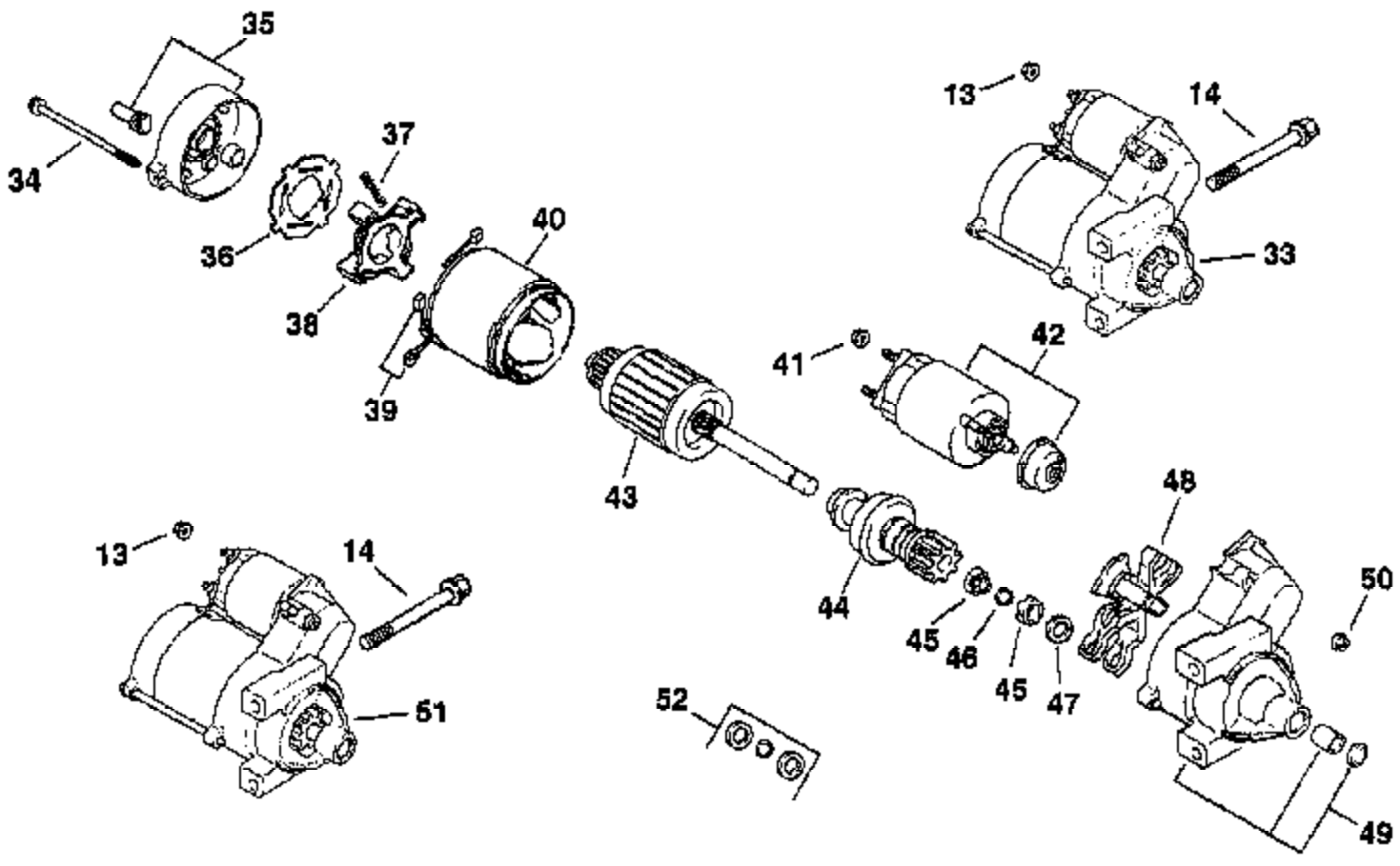
CH20-64500 - Page 26 of 30

Oil Pan/Lubrication - Pg. 25



Ref #	Part Number	Qty	Description
13	M-0841080	1	Nut, hex. flange M8x1.25
14	M-0839080	2	Screw, hex. flange M8x1.25x80.6
15	12 098 03-S	1	Starter, solenoid shift Includes 16-32. Use before Serial No. 2309800017
16	52 211 05-S	2	Bolt, thru M5x0.8x99
17	12 301 01-S	1	Cap, commutator end
18	52 168 01-S	1	Insulator
19	52 089 09-S	4	Spring, brush
20	52 323 03-S	1	Holder, brush
21	52 221 01-S	1	Kit, brush Includes 19
22	12 471 01-S	1	Frame
23	52 100 09-S	1	Nut, starter
24	52 435 02-S	1	Solenoid
25	12 170 03-S	1	Armature
26	12 239 01-S	1	Pinion, drive
27	52 100 08	2	Nut, stop collar
28	52 141 03	1	Ring, retainer
29	52 468 14	1	Washer, thrust
30	12 090 10-S	1	Lever, starter drive
31	12 081 02-S	1	Cap, drive end
32	52 100 10-S	2	Nut, starter

CH20-64500 Page 28 of 30  
Starting System Fig. 37



Ref #	Part Number	Qty	Description
13	M-0841080	1	Nut, hex. flange M8x1.25
14	M-0839080	2	Screw, hex. flange M8x1.25x80.6
33	24 098 01-S	1	Starter, solenoid shift Includes 34-50. Use after Serial No. 2309800007, but before Serial No. 2509000017
34	52 211 05-S	2	Bolt, thru M5x0.8x99
35	24 301 01-S	1	Cap, commutator end
36	52 168 01-S	1	Insulator
37	52 089 09-S	4	Spring, brush
38	52 323 03-S	1	Holder, brush
39	52 221 01-S	1	Kit, brush
40	12 471 01-S	1	Frame
41	52 100 09-S	1	Nut, starter
42	52 435 02-S	1	Solenoid
43	12 170 03-S	1	Armature
44	12 239 01-S	1	Drive pinion
45	52 100 08	2	Nut, stop collar Replaced by 82-755-84
46	52 141 03	1	Ring, retainer Replaced by 82-755-84
47	52 468 14	1	Washer, thrust Replaced by 82-755-84
48	12 090 10-S	1	Lever, starter drive
49	24 081 04-S	1	Cap, drive end
50	52 100 10-S	2	Nut, starter
51	24 098 01-S	1	Starter, solenoid shift Includes 34-44,48-50,52. Use after Serial No. 2509000007
52	82 755 84	1	Kit, starter repair

CH20-64500 Page 30 of 30  
Starting System Fig. 38