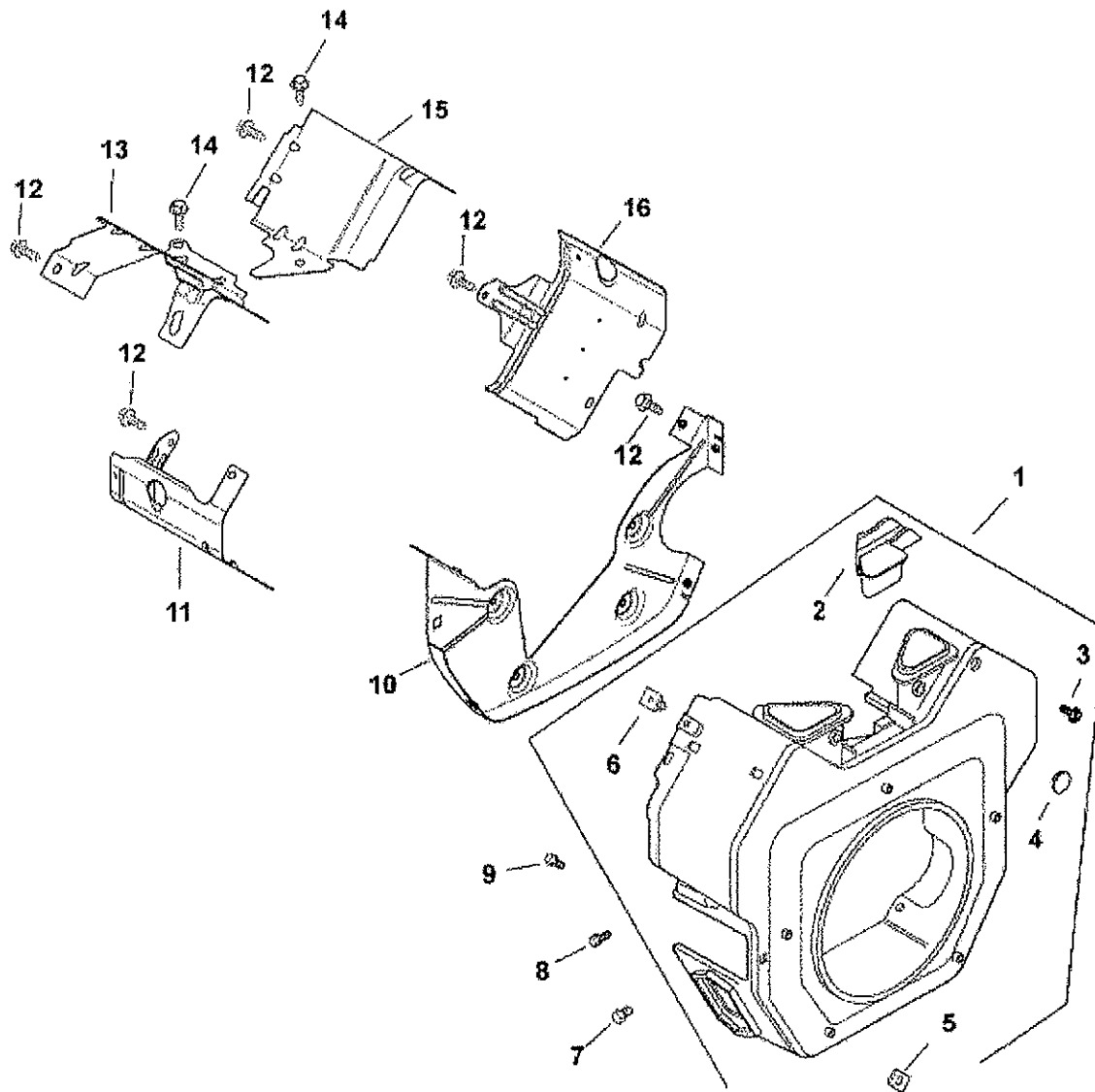


AVANT 220

VARAOSAKIRJA

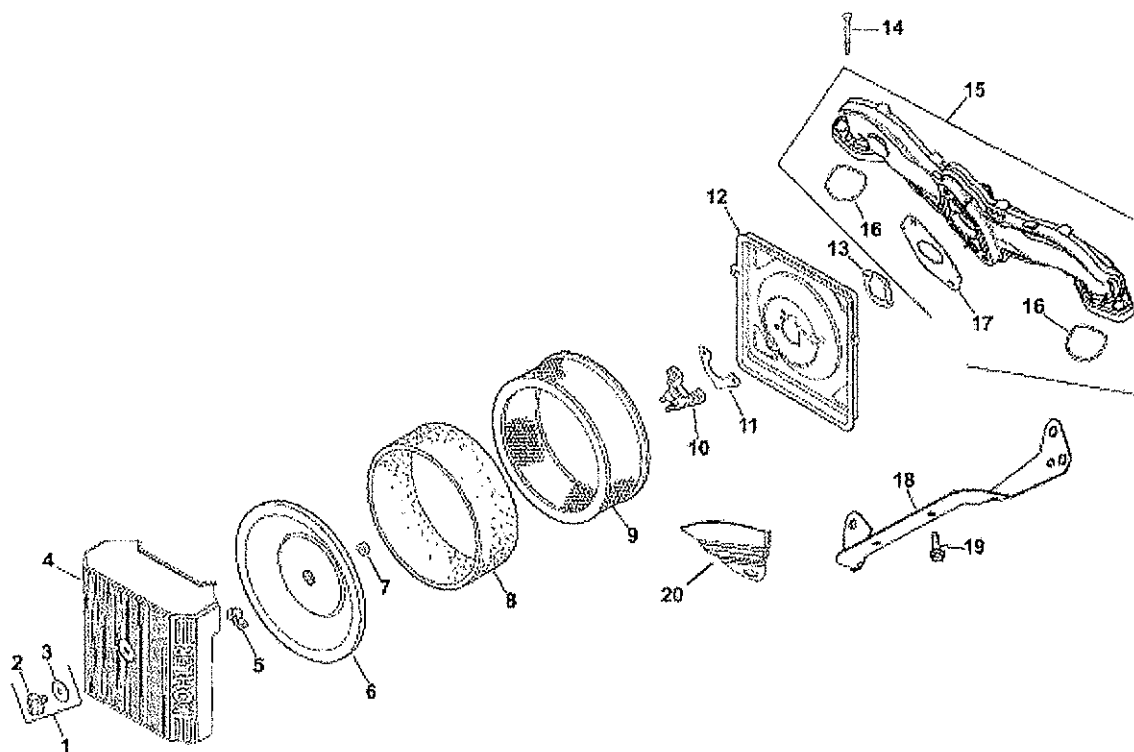
KOHLER CV20S

KOHLER®
ENGINES



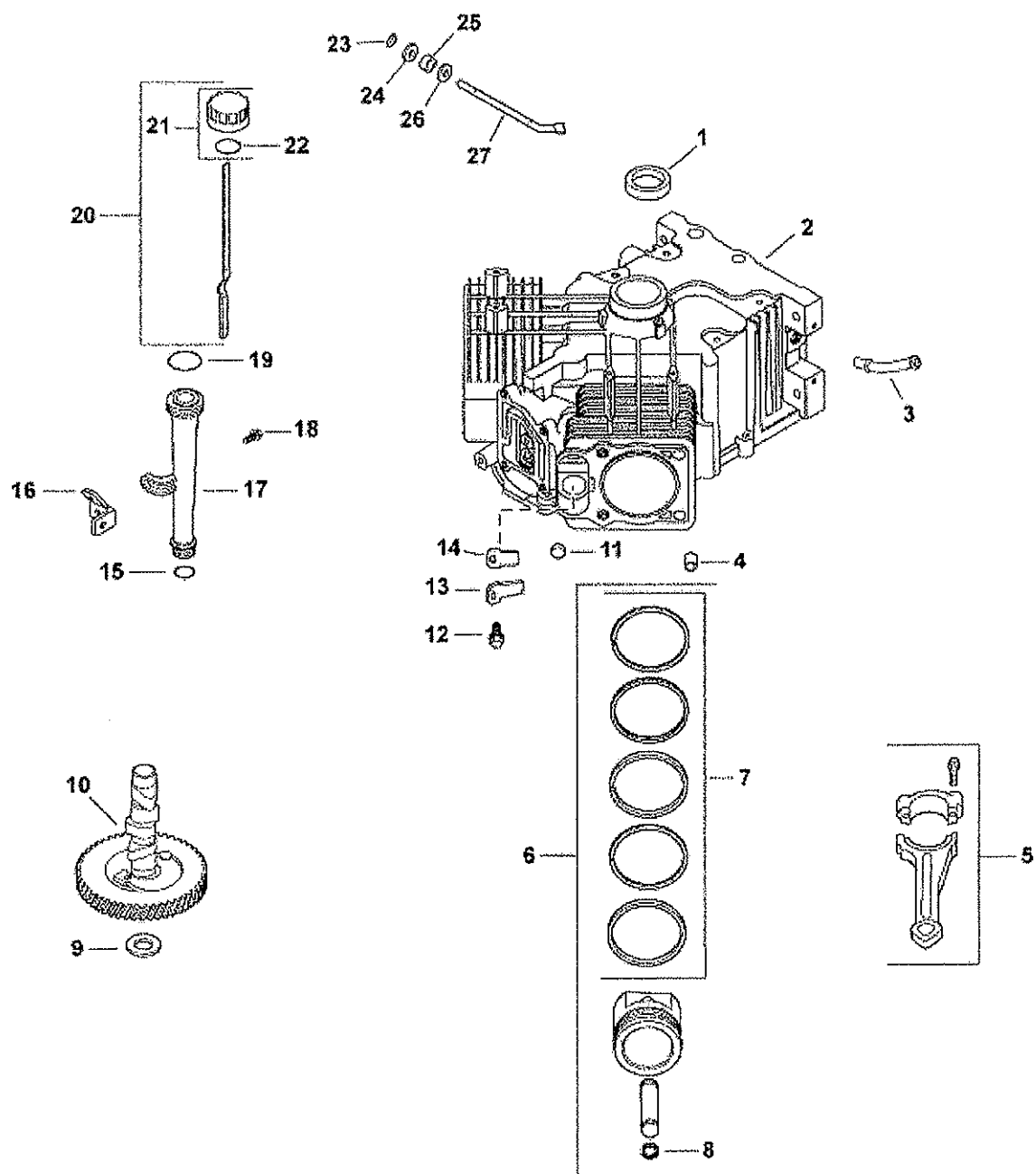
Blower Housing & Baffles

Ref #	Part	Description	Qty
1	24 027 195-S	BLOWER HOUSING ASSEMBLY (includes 2-6)	1
2	24 096 85-S	COVER, BLOWER HOUSING	1
3	25 086 91-S	SCREW, TAPPING #10-16x1/2 NOT ILLUSTRATED	1
4	25 139 16-S	PLUG, BUTTON 9/16	1
5	24 100 02-S	NUT, PLASTIC	2
6	24 100 02-S	NUT, PLASTIC	3
7	M-561016-S	SCREW, FLG THD FRM M5X.8X16	1
8	M-545016-S	SCREW	4
9	M-545020-S	SCREW, FLG THD FRM M5X.8X20	4
10	24 146 53-S	KIT, BACKING PLATE	1
11	24 063 39-S	BAFFLE, LEFT BARREL	1
12	M-645016-S	SCREW, FLG THD FRM M6X1.0X16	4
13	24 063 69-S	BAFFLE, VALLEY #2 SIDE	1
14	M-545010-S	SCREW, FLG THD FRM M5X.8X10	2
15	24 063 60-S	BAFFLE, VALLEY #1SIDE	1
16	24 063 58-S	BAFFLE, CYL BARREL #1 SIDE	1
	25 154 11-S	CLIP, REPAIR (SPEED NUT) NOT ILLUSTRATED	1



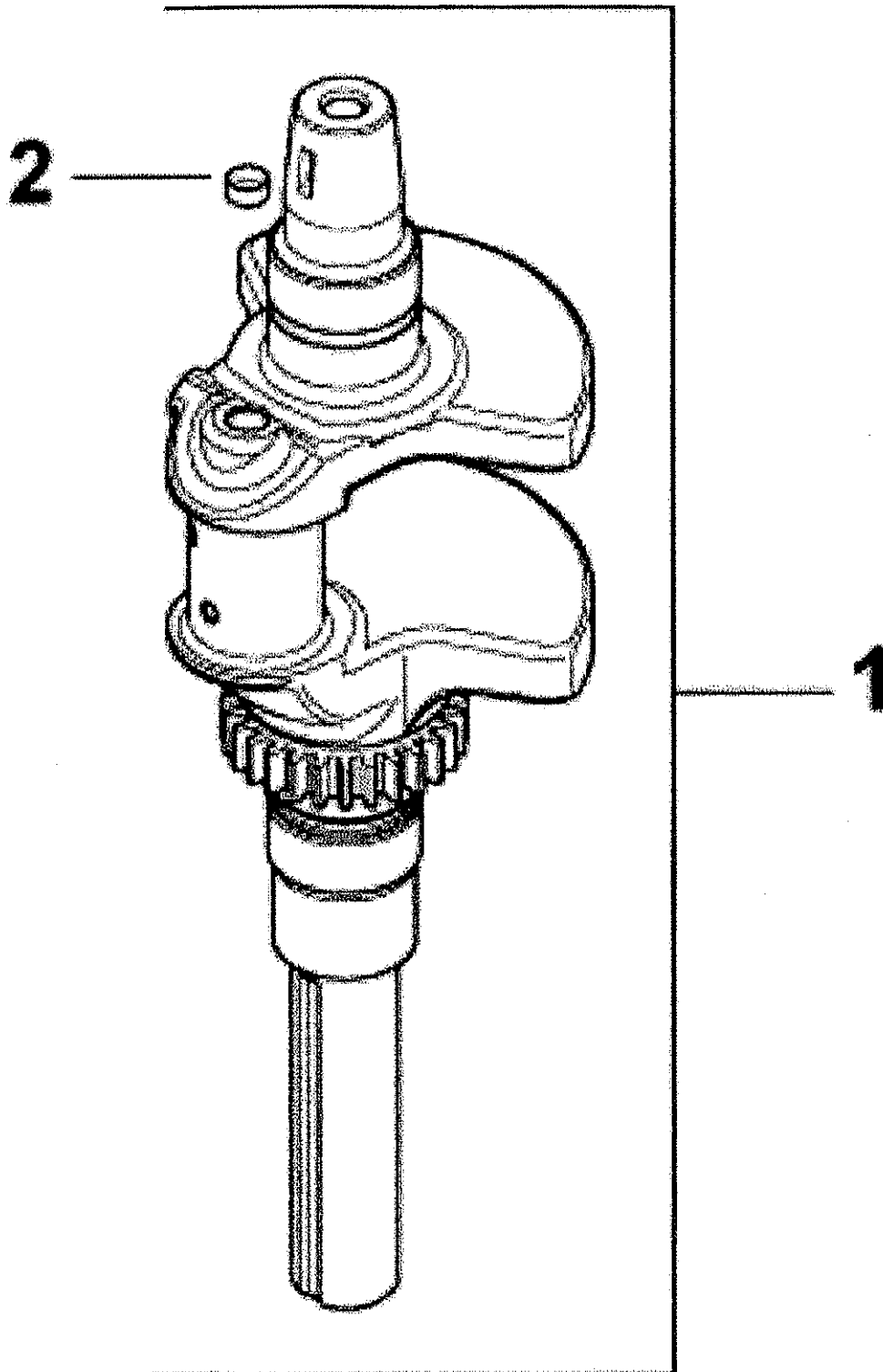
Air Intake/Filtration

Ref #	Part	Description	Qty
1	54 755 01-S	KIT, KNOB W/SEAL (Includes 2,3)	1
2	20 341 01-S	USE 25 341 04-S	1
3	24 153 20-S	O-RING	1
4	24 096 70-S	COVER, AIR CLEANER	1
5	12 100 01-S	NUT, WING	1
6	24 096 01-S	COVER, INNER AIR CLEANER	1
7	24 032 03-S	SEAL, INNER AIR CLEANER	1
8	24 083 02-S	ELEMENT, PRECLEANER	1
9	47 083 03-S	ELEMENT, AIR CLEANER	1
10	24 109 10-S	USE 24 109 26-S	1
11	24 041 13-S	GASKET, FUEL SPITBACK CUP	1
12	24 094 33-S	USE 24 094 43-S	1
13	24 041 14-S	GASKET, AIR CLEANER BASE	1
14	24 164 51-S	MANIFOLD, INTAKE (Includes 15,16)	1
15	24 041 52-S	GASKET, CARBURETOR	1
16	24 153 27-S	O-RING, INTAKE PORT	2
17	M-651040-S	SCREW, FLG M6X1.0X40	4
18	24 126 130-S	BRACKET, AIR CLEANER BASE	1
19	M-545010-S	SCREW, FLG THD FRM M5X.8X10	2
20	24 063 51-S	BAFFLE, SPIT-BACK CUP	1



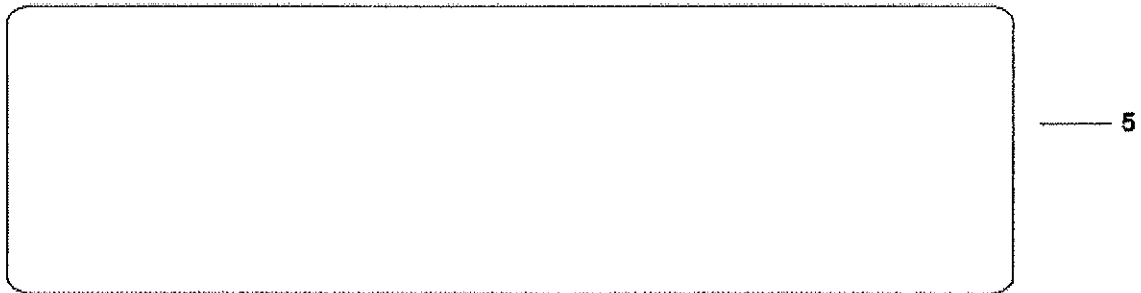
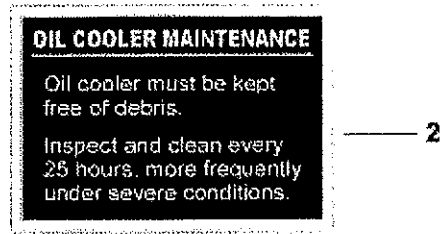
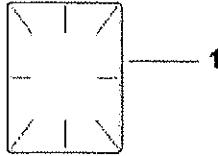
Crankcase

Ref #	Part	Description	Qty
1	24 032 01-S	SEAL, OIL	1
2		Crankcase USE Short Block or Miniblock	
3	24 294 13-S	FITTING	1
4	24 380 16-S	PIN, LOCATING	6
5	24 067 20-S	CONNECTING ROD - USE 24 067 16-S	2
	24 067 14-S	CONNECTING ROD (.25) - USE 24 067 17-S	2
6	24 874 17-S	KIT, PISTON W/RING SET STD	2
	24 874 18-S	KIT, PISTON W/RING SET (.25)	2
	24 874 19-S	KIT, PISTON W/RING SET (.50)	1
7	24 108 11-S	RING SET (STD & .08)	2
	24 108 12-S	RING SET (.25)	2
	24 108 13-S	RING SET (.50)	2
8	24 018 01-S	RETAINER, PISTON PIN	4
9	12 422 07-S	SHIM, CAMSHAFT (WHITE .028")	1
	12 422 08-S	SHIM, CAMSHAFT (BLUE .03")	1
	12 422 09-S	SHIM, CAMSHAFT (RED .032")	1
	12 422 10-S	SHIM, CAMSHAFT (YELLOW .034")	1
	12 422 11-S	SHIM, CAMSHAFT (GREEN .036")	1
	12 422 12-S	SHIM, CAMSHAFT (GRAY .038")	1
	12 422 13-S	SHIM, CAMSHAFT (BLACK .04")	1
10	24 012 10-S	CAMSHAFT	1
11	52 139 09-S	PLUG, CUP	1
12	M-545010-S	SCREW, FLG THD FRM M5X.8X10	2
13	24 018 04-S	RETAINER, BREATHER REED	2
14	24 402 05-S	REED, BREATHER	2
15	12 153 01-S	O-RING, LOWER OIL FILL TUBE	1
16	24 126 19-S	BRACKET, OIL FILL TUBE	1
17	12 123 04-S	KIT, OIL FILL TUBE	1
18	M-545016-S	SCREW, FLG THD FRM M5X.8X16	1
19	12 153 02-S	O-RING, UPPER OIL FILL TUBE	1
20	24 038 04-S	DIPSTICK, ASSY	1
21	24 755 46-S	KIT, OIL FILL CAP	1
22	25 153 02-S	O-RING, DIPSTICK	1
23	24 018 09-S	RETAINER, RING	1
24	M-931010-S	WASHER, FLAT 9 MM	1
25	28 032 09-S	SEAL, GOVERNOR CROSS SHAFT	1
26	24 468 15-S	WASHER, FLAT 11/32"	1
27	24 144 38-S	SHAFT, GOVERNOR CROSS	1



Crankshaft

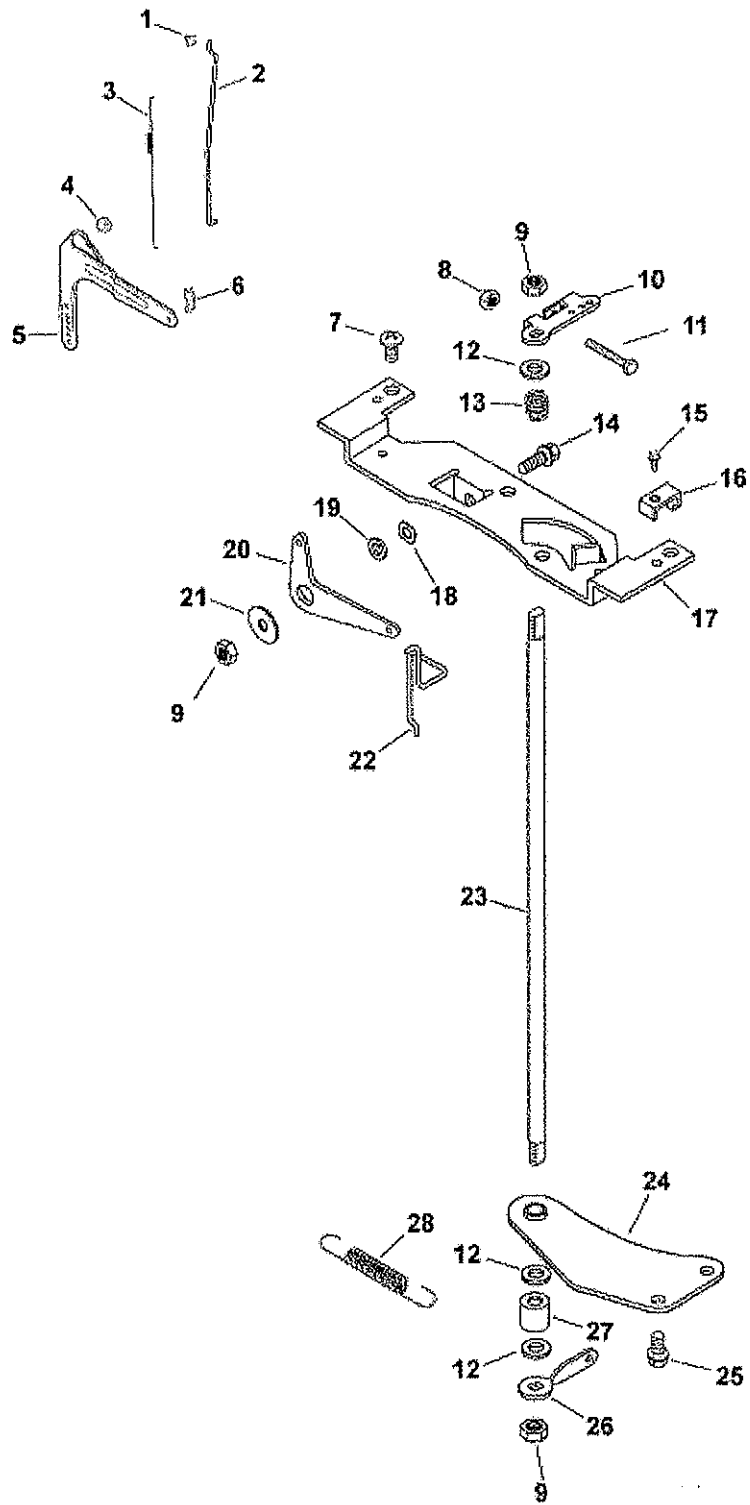
Ref #	Part	Description	Qty
1	24 014 90-S	CRANKSHAFT ASSEMBLY	1
2	52 139 09-S	PLUG, CUP	1



Artwork is representative.
Actual labels may differ depending on model and specification number.

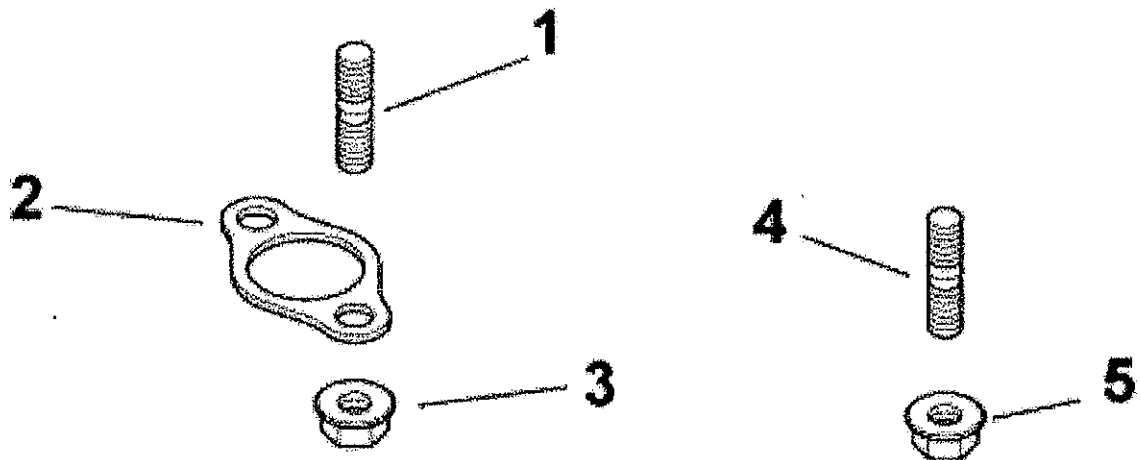
Decals

Ref #	Part	Description	Qty
1	25 113 39-S	DECAL, CLEAR LAMINATE	1
2	24 113 25-S	DECAL, OIL COOLER	1
3	25 113 05-S	DECAL, OIL SENTRY	1
4	25 113 17-S	DECAL, STOPPING INSTRUCTION	1
5	24 113 95-S	DECAL, HP (20)	1



Ref #	Part	Description	Qty
1	25 158 08-S	BUSHING, LINKAGE RETAINING	1
2	24 079 04-S	LINKAGE, THROTTLE	1
3	24 089 01-S	SPRING, LINKAGE	1
4	M-641060-S	NUT, FLG M6X1.0	1
5	24 090 33-S	LEVER, GOVERNOR	1
6	25 158 11-S	BUSHING, THROTTLE LINKAGE	2
7	24 086 06-S	SCREW, PHL HD 11-16X3/4"	2
8	M-446030-S	NUT, M4X.7	1
9	M-647060-S	NUT, LOCK M6X1.0	1
10	24 090 09-S	LEVER, THROTTLE CONTROL	1
11	M-401030-S	SCREW, CAP M4X.7X30	1
12	X-25-52-S	WASHER, FLAT 1/4"	1
13	24 089 20-S	SPRING, THROTTLE SHAFT	1
14	M-639016-S	SCREW, FLG M6X1.0X16	1
15	M-545016-S	SCREW, FLG THD FRM M5X.8X16	2
16	12 237 01-S	CLAMP, CABLE	2
17	24 126 111-S	BRACKET, CONTROL	1
18	277341-S	WASHER, SPRING 3/8"	1
19	25 431 01-S	SPACER	1
20	24 090 20-S	LEVER, CHOKE	1
21	X-25-52-S	WASHER, FLAT 1/4"	1
22	24 079 10-S	LINKAGE, CHOKE	1
23	24 144 11-S	SHAFT, THROTTLE	1
24	24 126 17-S	BRACKET, THROTTLE SHAFT - USE 24 126 162-S	1
25	M-645016-S	SCREW, FLG THD FRM M6X1.0X16	1
26	24 090 12-S	LEVER, THROTTLE CONTROL	1
27	24 112 10-S	SPACER	1
28	24 089 49-S	SPRING, GOVERNOR	1
	24 211 03-S	BOLT, RD HD SQ NECK M6X1.0X25 NOT ILLUSTRATED	1

Exhaust



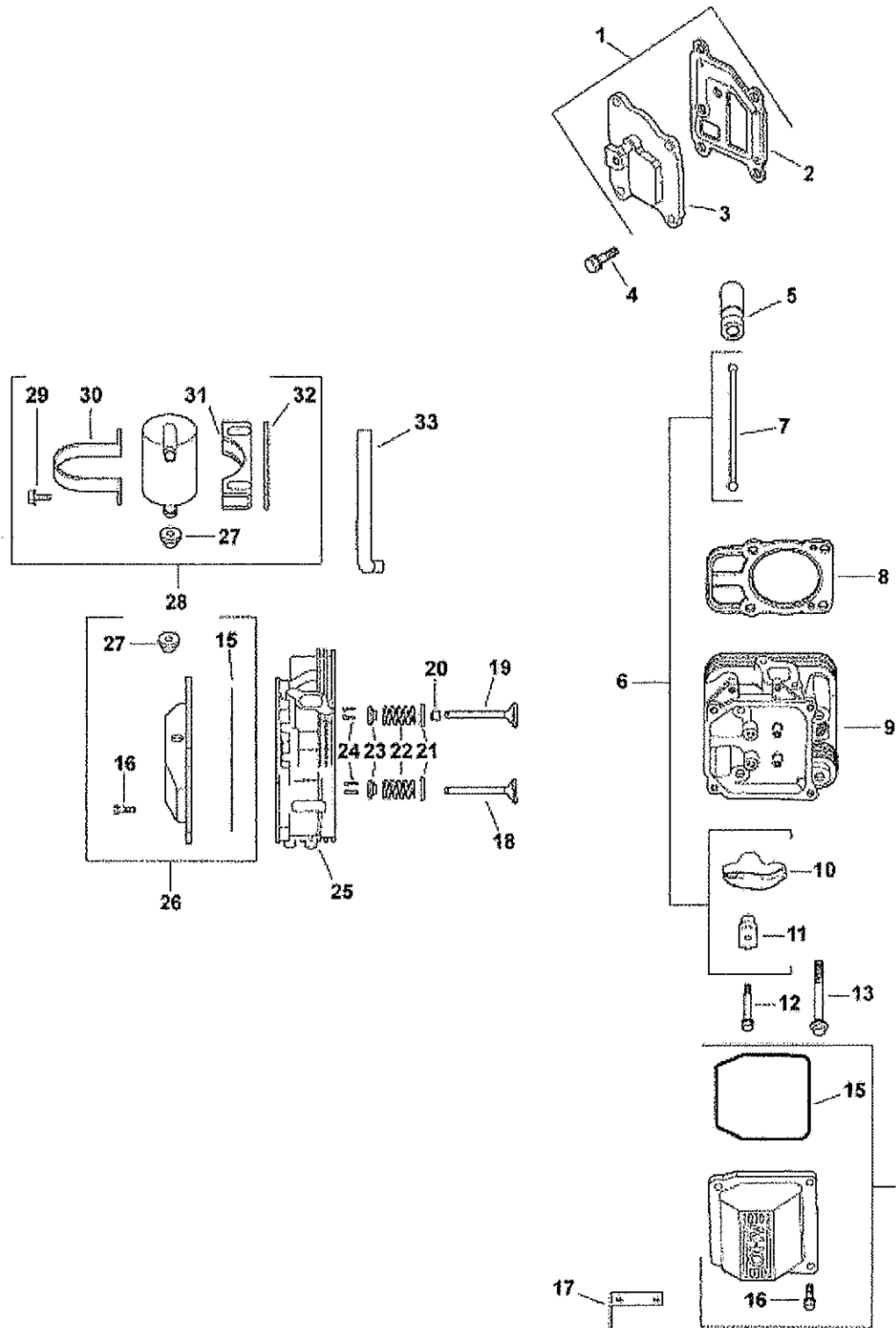
Exhaust

Ref #	Part	Description	Qty
1	25 072 04-S	STUD, M8X1.25X33	4
2	24 041 49-S	GASKET, EXHAUST MANIFOLD	2
3	M-841080-S	NUT, FLG M8X1.25	4
4	24 072 08-S	STUD, THREAD ROLLING	2
5	M-641060-S	NUT, FLG M6X1.0	2

[illegible]

1. **PROPOSED** **PROCESSES**

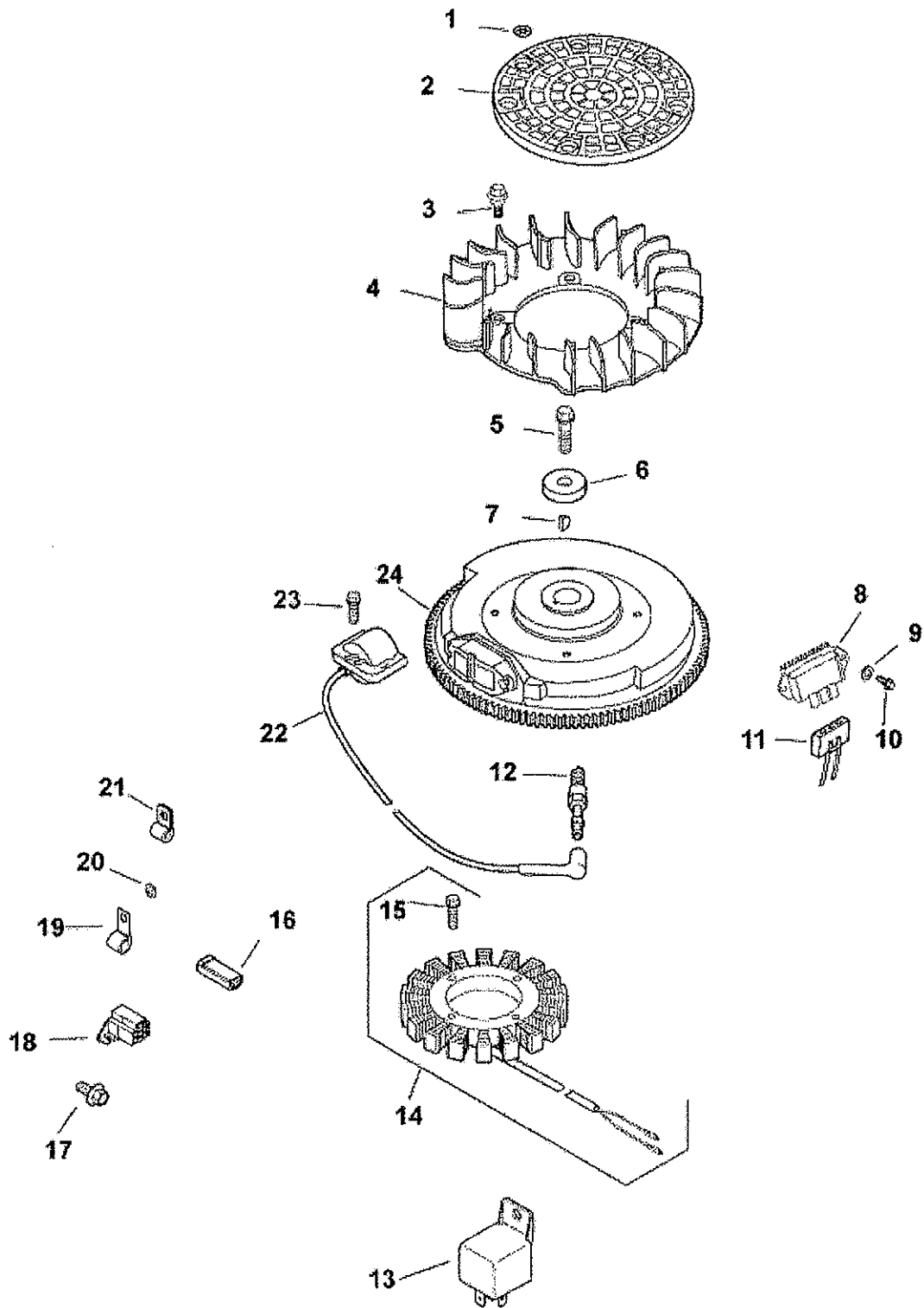
Head/Valve/Breather



Head/Valve/Breather

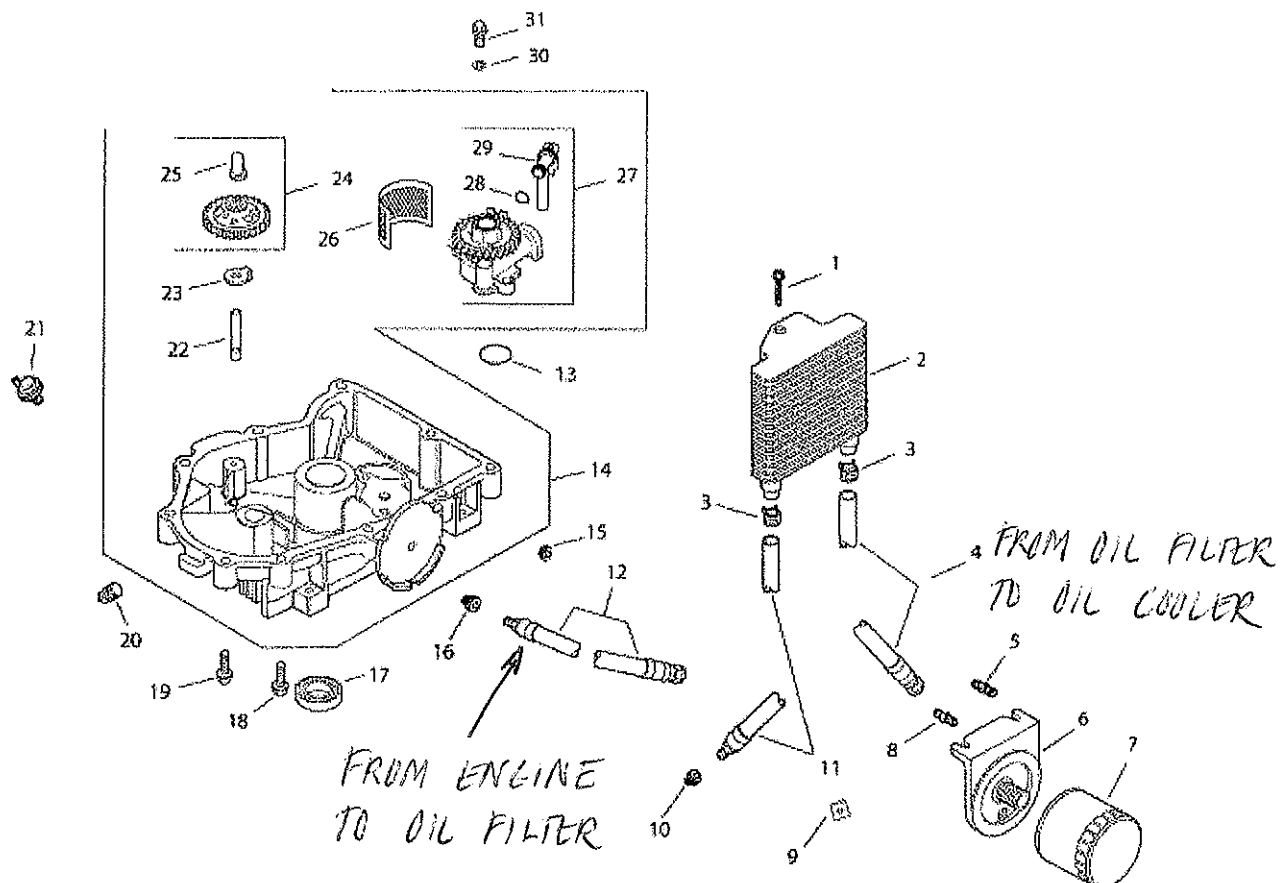
Ref #	Part	Description
1	24 033 03-S	KIT, BREATHER COVER W/GASKET (includes 2,3)
2	24 041 51-S	GASKET, BREATHER
3	24 096 87-S	COVER, BREATHER
4	M-645020-S	SCREW, FLG THD FRM M6X1.0X20
5	25 351 04-S	KIT, HYDRAULIC VALVE LIFTER
6	24 755 66-S	KIT, VALVE TRAIN
7	24 411 05-S	ROD, PUSH
8	24 841 01-S	KIT, CYLINDER HEAD GASKET (includes 7,10,11)
9	24 318 70-S	KIT, HEAD #2
10	25 186 01-S	ARM, ROCKER
11	24 599 02-S	PIVOT, ROCKER ARM
12	M-640034-S	SCREW, FLG M6X1.0X34
13	12 086 16-S	SCREW, FLG M10X1.5X90
14	24 755 141-S	KIT, PLAIN ROCKER COVER (includes 15,16)
15	24 153 28-S	O-RING, VALVE COVER
16	M-651030-S	SCREW, FLG M6X1.0X30
17	24 445 01-S	STRAP, LIFTING
18	24 016 01-S	VALVE, EXHAUST (STD)
	24 016 02-S	VALVE, EXHAUST (.25)
19	24 017 01-S	VALVE, INTAKE (STD)
	24 017 02-S	VALVE, INTAKE (.25)
20	66 032 05-S	SEAL, VALVE STEM
21	235011-S	RETAINER, SPRING
22	24 089 02-S	SPRING, VALVE
23	12 173 01-S	CAP, VALVE SPRING
24	12 755 03-S	KIT, RETAINER
25	24 318 67-S	KIT, HEAD #1
26	24 755 142-S	KIT, BREATHER ROCKER COVER (includes 15,16,27)
27	25 313 03-S	GROMMET, RUBBER
28	24 755 57-S	KIT, BREATHER SEPARATOR (includes 27,29-32)
29	M-545016-S	SCREW, FLG THD FRM M5X.8X16
30	24 445 02-S	STRAP, BREATHER
31	24 126 44-S	BRACKET, BREATHER SEPARATOR
32	24 112 12-S	SPACER
33	24 326 74-S	HOSE, BREATHER - USE 24 326 93-S
	24 755 147-S	KIT, CYLINDER HEAD HARDWARE NOT ILLUSTRATED(SERVICES 1 HEAD. QUANTITIES LISTED ARE FOR BOTH HEADS)(INCLUDES

Ignition/Electrical



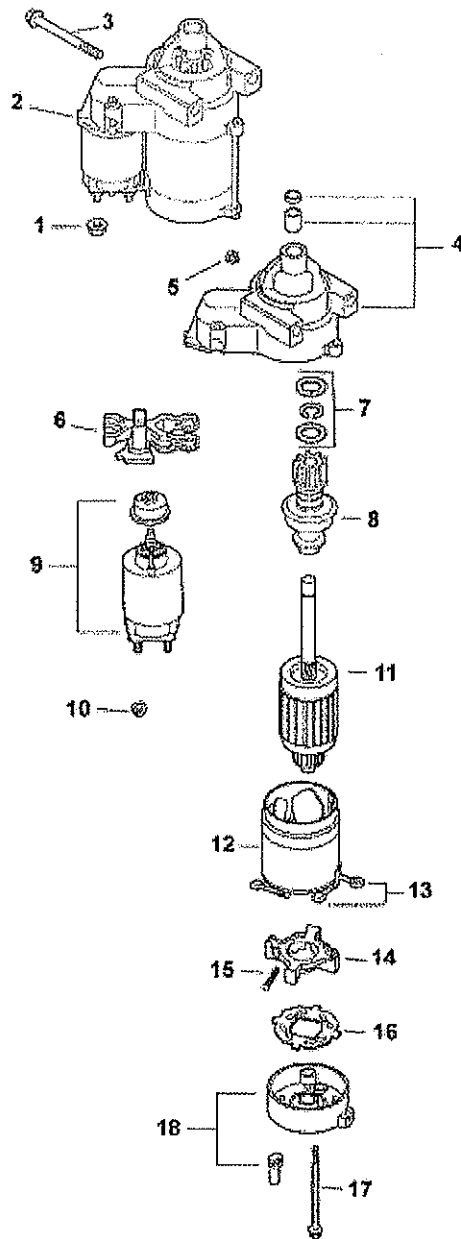
Ignition/Electrical

Ref #	Part	Description	Qty
1	24 018 03-S	RETAINER	3
2	24 162 03-S	SCREEN, GRASS	1
3	25 086 47-S	BOLT, SHOULDER	4
4	24 157 01-S	FAN	1
5	12 086 14-S	SCREW, FLG M10X1.5X45	1
6	12 468 03-S	WASHER, FLAT 13/32"	1
7	X-42-15-S	KEY, 3/16" X 5/8"	1
8	25 403 05-S	REGULATOR/RECTIFIER	1
9	X-25-92-S	WASHER, FLAT 3/16"	2
10	24 086 18-S	SCREW, PHL HD #11-16X7/8"	2
11	236602-S	CONNECTOR (3 CONTACT)	1
12	25 132 12-S	PLUG, SPARK	2
13	25 404 01-S	RELAY	1
14	54 755 09-S	KIT, 15 AMP STATOR - USE 237878-S (includes 15)	1
15	M-548025-S	SCREW, THD FRM M5X.8X25	2
16	277563-S	CONNECTOR, 1 (CONTACT)	1
17	M-651012-S	SCREW, FLG M6X1.0X12	1
18	25 155 06-S	CONNECTOR	1
19	12 154 01-S	CLAMP, INSULATED	1
20	X-25-63-S	WASHER, FLAT 1/4"	1
21	235173-S	CLIP, CABLE	1
22	24 584 01-S	MODULE, IGNITION - USE 24 584 45-S	2
23	M-545020-S	SCREW, FLG THD FRM M5X.8X20	4
24	24 025 04-S	FLYWHEEL	1
	24 126 137-S	BRACKET, GROUND STRAP NOT ILLUSTRATED	1
	25 468 07-S	WASHER, FLAT 7/32" NOT ILLUSTRATED	1
	24 176 112-S	HARNESS, WIRING NOT ILLUSTRATED	1
	24 518 09-S	LEAD, OIL SENTRY NOT ILLUSTRATED	1
	25 454 03-S	TIE, WIRE NOT ILLUSTRATED	2
	25 454 05-S	TIE NOT ILLUSTRATED	1
	25 518 34-S	LEAD NOT ILLUSTRATED	1
	52 176 18-S	HARNESS, WIRING NOT ILLUSTRATED	1

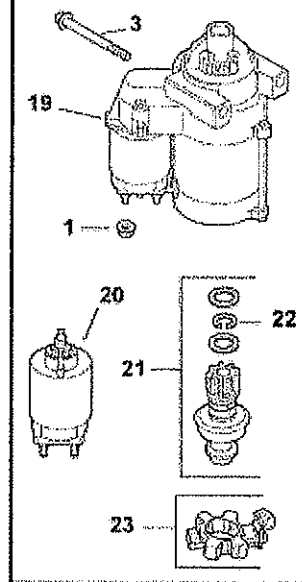


Ref #	Part	Description	Qty
1	24 086 12-S	SCREW, TAP M6X1.7X18	2
2	24 594 12-S	COOLER, OIL	1
3	24 237 10-S	CLAMP, OIL COOLER HOSE	2
4	24 326 11-S	HOSE, OIL <i>AVANT MANUF. HOSE AY6663</i>	1
5	52 136 02-S	NIPPLE	1
6	25 029 01-S	ADAPTER	1
7	52 050 02-S	FILTER, OIL	1
8	52 155 03-S	CONNECTOR	1
9	24 100 01-S	NUT, PLASTIC	2
10	25 158 13-S	BUSHING, REDUCING	1
11	24 326 12-S	HOSE, OIL	1
12	12 326 05-S	HOSE <i>AVANT MANUF. HOSE AY6662</i>	1
13	24 153 08-S	O-RING	1
14	24 199 08-S	OIL PAN ASSEMBLY	1
15	25 139 62-S	PLUG, PIPE CTSK 3/8"	1
16	25 158 18-S	BUSHING, REDUCING	1
17	52 032 08-S	SEAL, OIL (PTO END)	1
18	24 086 17-S	SCREW, FLG M8X1.25X45	1
19	24 086 16-S	SCREW, FLG M8X1.25X45	9
20	25 139 57-S	PLUG, SQ HD PIPE 3/8"	1
21	25 099 27-S	SWITCH, OIL PRESSURE	1
22	12 144 02-S	SHAFT, GOVERNOR GEAR	1
23	24 448 02-S	TAB, LOCKING	1
24	24 043 12-S	KIT, GOVERNOR GEAR W/PIN	1
25	12 380 01-S	PIN, GOVERNOR REGULATING	1
26	24 162 26-S	SCREEN, OIL	1
27	24 393 51-S	KIT, OIL PUMP ASSEMBLY	1
28	24 153 01-S	O-RING, OIL PICK-UP	1
29	24 381 11-S	TUBE, OIL PICK-UP	1
30	M-645025-S	SCREW, FLG THD FRM M6X1.0X25	2
31	M-631005-S	WASHER, FLAT 6 MM	2
	25 454 03-S	TIE, WIRE NOT ILLUSTRATED	1
	25 454 04-S	TIE NOT ILLUSTRATED	1

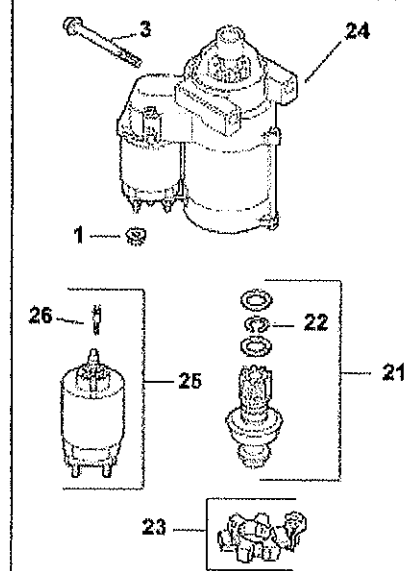
12 098 03-S (Nippondenso)



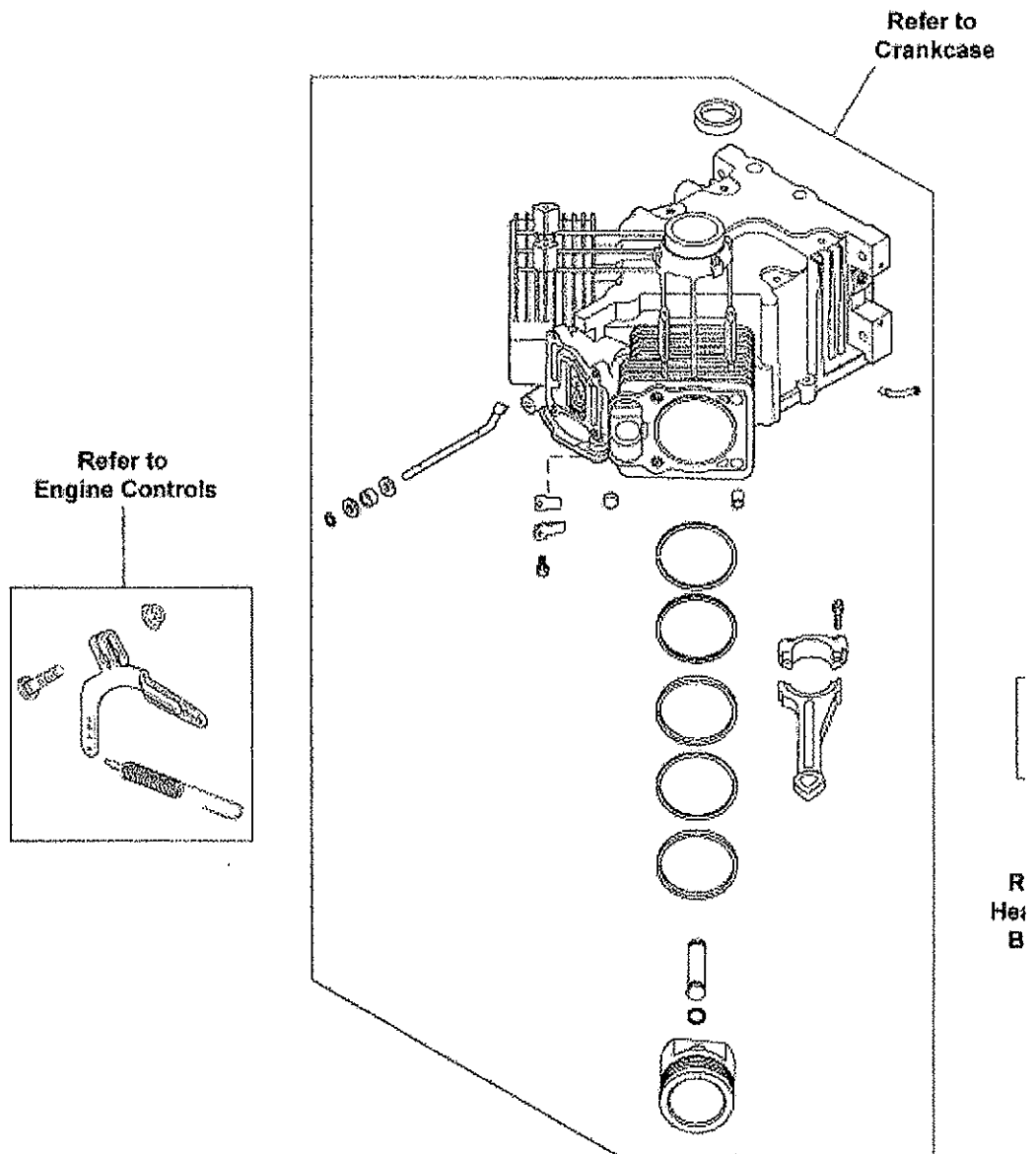
25 098 08-S (Delco)



25 098 09-S (Delco)



Ref #	Part	Description	Qty
1	M-841080-S	NUT, FLG M8X1.25	1
2	12 098 03-S	USE 25 098 09-S	1
3	M-839080-S	SCREW, FLG M8X1.25X80	2
4	12 081 02-S	DRIVE END CAP	1
5	52 100 10-S	NUT	1
6	12 090 10-S	LEVER, DRIVE	1
7	24 755 84-S	KIT, STARTER REPAIR	1
8	12 239 01-S	DRIVE PINION	1
9	52 435 02-S	SOLENOID	1
10	52 100 09-S	NUT	2
11	12 170 03-S	ARMATURE	1
12	12 471 01-S	FRAME W/BRUSHES	1
13	52 221 01-S	BRUSH & SPRING KIT (includes 15)	1
14	52 323 03-S	BRUSH HOLDER	1
15	52 089 09-S	SPRING, BRUSH	4
16	52 168 01-S	INSULATOR	1
17	52 211 05-S	THRU BOLT	2
18	12 301 01-S	COMMUTATOR END CAP	1
19	25 098 08-S	USE 25 098 09-S	1
20	25 435 04-S	SOLENOID	1
21	25 755 33-S	KIT, STARTER PINION (includes 22)	1
22	25 141 05-S	RING, RETAINING	1
23	25 221 01-S	KIT, BRUSH HOLDER	1
24	25 098 09-S	STARTER ASSY, SOLENOID SHIFT	1
25	25 435 06-S	KIT, SOLENOID (includes 26)	1
26	25 086 113-S	SCREW, EXTERNAL TORX HEAD	3



Artwork is representative.
Actual piece parts will differ depending on model and specification number.

Miniblock

Ref #	Part	Description
	24 782 24	CV18/20/22 MINI BLOCK (includes parts shown - artwork is representative - actual piece parts will differ depending on model and specification number)

Gasket Set

Ref #	Part	Description	Qty
	24 755 107-S	GASKET SET (includes the following parts)	1
	230046-S	SEAL	1
	12 032 01-S	SEAL	1
	12 086 16-S	SCREW, FLG M10X1.5X90	8
	12 153 01-S	O-RING, LOWER OIL FILL TUBE	1
	12 153 02-S	O-RING, UPPER OIL FILL TUBE	1
	24 018 09-S	RETAINER, RING	1
	24 032 01-S	SEAL, OIL	1
	24 032 03-S	SEAL, INNER AIR CLEANER	1
	24 032 04-S	SEAL	1
	24 041 01-S	GASKET, INTAKE MANIFOLD	2
	24 041 06-S	GASKET, AIR CLEANER BASE	1
	24 841 01-S	KIT, CYLINDER HEAD GASKET	2
	24 041 13-S	GASKET, FUEL SPITBACK CUP	1
	24 041 14-S	GASKET, AIR CLEANER BASE	1
	24 041 15-S	GASKET, CARBURETOR	1
	24 041 17-S	GASKET, CARBURETOR	1
	24 041 29-S	GASKET, OIL FILTER ADAPTER	1
	24 041 49-S	GASKET, EXHAUST	2
	24 041 51-S	GASKET, BREATHER	1
	24 041 52-S	GASKET, CARBURETOR	1
	24 041 53-S	GASKET, CARBURETOR	1
	24 050 01-S	FILTER, BREATHER	1
	24 072 09-S	STUD, M8X1.25, M10X1.5, 105MM	8
	24 100 10-S	NUT, FLG M8X1.25	8
	24 153 01-S	O-RING, OIL PICK-UP	1
	24 153 08-S	O-RING	1
	24 153 21-S	O-RING, OIL COOLER	1
	24 153 23-S	O-RING	2
	24 153 27-S	O-RING, INTAKE PORT	2
	24 153 28-S	O-RING, VALVE COVER	2
	24 468 16-S	WASHER, FLAT 8.6 MM	8
	25 153 02-S	O-RING, DIPSTICK	1
	28 032 09-S	SEAL, GOVERNOR CROSS SHAFT	1
	52 032 08-S	SEAL, OIL (PTO END)	1
	66 032 05-S	SEAL, VALVE STEM	2