

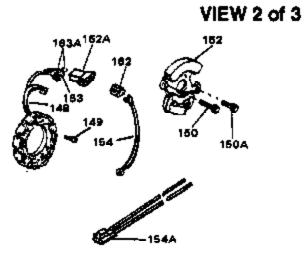
Ref # Part Number				
7 31931 Gear, Crankshaft (Straight) 8 31932 Bearing, Tapered roller Cup, Bearing 11A 32238B Piston & Pin Assy, (Std.)(3-1/2")(In d.12) 11A 32239B Piston & Pin Assy, (O20" COS) (Incl. 12) 11A 32240B Piston & Pin Assy, (O20" COS) (Incl. 12) 11A 3259B Piston & Pin Assy, (O20" COS) (Incl. 12) 11A 34511 Piston, Pin & Ring Set (Std.) (3-1/2" Bore) 11A 34512 Piston, Pin & Ring Set (O10" OS) 11A 34513 Piston, Pin & Ring Set (O10" OS) 11A 34513 Piston, Pin & Ring Set (O20" OS) 11A 34513 Piston, Pin & Ring Set (O20" OS) 11A 34513 Piston, Pin & Ring Set (O20" OS) 11A 34513 Piston, Pin & Ring Set (O20" OS) 11A 34514 Ring Set (Std.) (3-1/2" Bore) 11A 32241 Ring Set (O10" OS) 11A 32242 Ring Set (O20" OS) 11A 33093A Connecting Rod Assy, (Std.) (Incl.15, 1 6 & 17) 11A 34383 Connecting Rod Assy, (O10" US) (Incl. 1 5, 16, 17) 11A 34384 Connecting Rod Assy, (O10" US) (Incl. 1 5, 16, 17) 11A 34384 Connecting Rod Assy, (O10" US) (Incl. 1 5, 16, 17) 11A 34384 Connecting Rod Assy, (O20" US) (Incl. 1 5, 16, 17) 11B 3477 Bolt, Connecting rod 11B 3477 Ring (Exhaust Valve (NR) (Straight) 11B 3477 Camshaft (MCR) (Straight) 11B 3477 Ring (Exhaust Valve (Std.) 11B 3366 Intake Valve (Std.) 11B 3466 Exhaust Valve (Std.) 12B 3367 Spring, Valve 12B 3369 Retainer & Cap Set, Keeper valve 12B 33479 Retainer & Cap Set, Keeper valve 13B 3479 Retainer & Cap Set, Keeper valve 14B 3488 Spool, Governor Gear & Shaft Assy, (Straight) 15B 3479 Retainer & Cap Set, (Ind. 2, 33 & 134) 15B 3489 Spool, Governor 15B 3490 Spool, Governor 15	1 2 2 2 2 2 2 4	33707A 31927 28483 9556 28534 27652	Qty	Cylinder (Incl. 2, 4 & 33) (3-1/2" Bo re) Pipe Plug, 3/8-18 sq. head (Use as re quired) Pipe Plug (3/8-18 hex countersunk) (A s req.) Pipe Plug (3/4-14 sq.hd.)(As req.)(Bu y local) Pipe Plug (1/8-27 sq. hd.) (Use as re quired) Pipe Plug(1/8-27 hex c/sunk headless) (As req) Pin, Dowel Crankshaft (Incl. 6 thru 9, 140 & 141) NOTE: When using this crankshaft to repair older units equippedwith straight cut cam and governor gears,it will be necessary to order 34751 helical governor gear assembly and 34752
35 650492 Screw, 1/4-20 x 2-1/4" 36 32425 Rod Assy., Governor 37 32426 Spacer, Governor rod	7 8 9 11A 11A 11A 11A 11A 11A 11 11 11 11 12 13 13 13 14 14 14 15 16 17 18 19 20 21 21 22 23 24 25A 25 26 27 28 29 29 30 31 32 33 34 35 36	31931 31932 31928 32238B 32239B 32240B 34511 34512 34513 31919 32241 32242 32243 33093A 34383 34384 32077 26073 28264 33470 33472 33471 33505 33645 33506 33646 33507 33508 34410 33509 33510 33473 650745 35479 30590A 31948 31956 630451 650492 32425		Pin, Crankshaft gear Gear, Crankshaft (Straight) Bearing, Tapered roller Cup, Bearing Piston & Pin Ass'y. (Std.)(3-1/2")(In cl.12) Piston & Pin Ass'y. (.010" OS) (Incl. 12) Piston & Pin Ass'y. (.020" OS) (Incl. 12) Piston, Pin & Ring Set (Std.) (3-1/2" Bore) Piston, Pin & Ring Set (.010" OS) Piston, Pin & Ring Set (.020" OS) Ring, Piston pin retaining Ring Set (Std.) (3-1/2" Bore) Ring Set (Std.) (3-1/2" Bore) Ring Set (.020" OS) Ring, Piston pin retaining Ring Set (.020" OS) Ring Set (.020" OS) Connecting Rod Assy.(Std.)(Incl.15, 1 6 & 17) Connecting Rod Assy.(.010" US)(Incl.1 5,16,17) Connecting Rod Assy.(.020" US)(Incl.1 5,16.17) Bolt, Connecting rod Washer, Connecting rod Washer, Connecting rod Nut Assy. Camshaft (MCR) (Straight) Lifter, Valve Rod, Push Intake Valve (Std.) Intake Valve (1/32" OS) Exhaust Valve (Std.) Exhaust Valve (Std.) Exhaust Valve (Std.) Exhaust Valve (I/32" OS) Spring, Valve Retainer & Cap Set, Keeper valve * "O" Ring (Exhaust only) (Also Incl. in 251) * "O" Ring (Intake only) (Also Incl. in 251) Cap, Valve Governor Gear & Shaft Ass'y. (Straigh t) Washer, Flat Washer, Flat Washer, Flat (Use with 35322 spool) Washer, Flat Spool, Governor * Gasket, Cylinder cover Cylinder Cover Ass'y. (Incl. 2, 33 & 134) * Seal, Oil Screw, 1/4-20 x 1" Screw, 1/4-20 x 2-1/4" Rod Assy., Governor

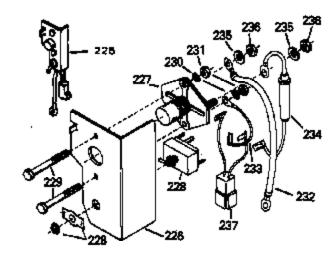
Ref #	Part Number Qty	Description
	650687	Screw, 10-32 x 5/16"
	33495	Cover, Cylinder head
	34225A	* Gasket, Cylinder head
		· ·
	33465	Head, Cylinder
	31980	Pulley, Starter
	32046	Rope Assy., Starter
	33657	Spark Plug (L-82C)
46A	650691	Washer, Flat
46	650690	Washer, Belleville
47	650692	Screw, 5/16-18 x 1-3/4"
47A	650746	Screw, 5/16-18 x 1-3/8"
48	730218	Valve Guide Kit (Incl. 49)
	792035	Ring, Retaining `
	33515A	* Gasket, Intake pipe
	33475	Pipe, Intake
	650378	Screw, Torx T-30, 5/16-18 x 1-1/8"
	792028	
		Screw, 5/16-18 x 7/8" * Cooket Corburator
	33476A	* Gasket, Carburetor
	33477A	Baffle, Air cleaner
	792075	Nut, Lock 5/16-24 (Used in early prod uction)
	33478	Link, Governor lever-to-throttle leve r
	31963	Lever, Governor
59	31964	Clamp, Governor lever
60	650518	Lockwasher, No. 10 E.T.
61	30312	Screw, 10-32 x 1/2"
	650544	Screw, Torx T-25, 10-24 x 7/8"
	7975	Nut, 10-24
	31965	Plate, Governor spring
	31984A	Lever Assy., Control
	28558	Washer, Wave
	31966	
		Bushing, Governor lever
	650597	Screw, 10-24 x 5/8"
	31967	Spring, Governor
	650591	Screw, 10-24 x 2"
	33099	Spring
	32599	"O" Ring (Incl. in 251)
	650666	Washer, Lock
	32579	Baffle, Blower housing
75	650561	Screw, 1/4-20 x 5/8"
76	650592	Key, Flywheel
77A	730201	Trigger Pin Kit (Use as required)
77	610854	Flywheel
	650594	Nut, Flywheel
	610855	Solid State Magneto (Incl. 158, 159 & 160)
	650661	Screw, 1/4-20 x 3/4"
	33479	Extension, Blower housing
	30063	Screw, 1/4-20 x 1/2"
	650751	·
		Screw, 1/4-20 x 7/16" Player Llog (had 249A 240)/For along torter)
	33775A	Blower Hsg.(Incl.218A,219)(For elec.s tarter)
	8274	Washer, Lock
	8274	Washer, Lock
	650595	Screw, 5/16-24 x 3/8"
	650595	Screw, 5/16-24 x 3/8"
87	650752	Screw, 1/4-20 x 7/16"
88	35475	Tube, Push rod
	33481	* "O" Ring (Also Incl. in 251)
	34754	Housing, Rocker arm
	33484	* "O" Ring (Also Incl. in 251)
34		- · · · · · · · · · · · · · · · · · · ·

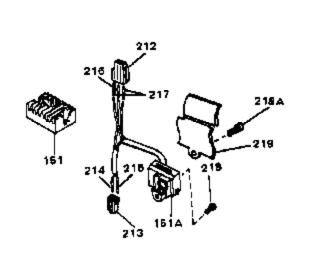
Ref #	Part Number Qt	/ Description
95	650168	Washer, Flat
	32610A	Screw, 1/4-20 x 29/32"
	33485	Arm, Rocker
	33486	Ring, Retaining
	650755	Screw, 1/4-20 x 3/4"
	650864	Nut, Hex, 1/4-20
	650756	Stud, Rocker arm
	33487	* "O" Ring (Also Incl. in 251)
	33488	Cover, Rocker arm
	31958A	* Gasket, Breather (Also Incl. in 251)
	33489	Body Assy., Breather
	33490	Tube, Breather
107	30102	* Screw, 10-32 x 5/8" (Also Incl. in 25 1)
108	650738	Screw, 1/4-20 x 5/8"
111	35471	* Gasket, Air cleaner
112	35472	Bracket, Air cleaner
114	650399	Screw, 10-32 x 5/8"
	32008	Element, Air cleaner
	32810	Cover, Air cleaner
	650513	Nut, Wing
	31992	Spacer, Screen
	33776	Screen, Pulley
	650680	Screw, 1/4-20 x 1-1/2"
	27070	
		Washer, Lock
	650590 33043B	Nut, Conduit Muffler
	32043B	
	32143	Nipple, Exhaust
	650744	Screw, 10-24 x 7/8"
	33467	Tube extension, Oil fill
146	32577	Cover, Cylinder NOTE: Determine the gap between the cover
		and the machined surface on the cylinder, which can be
		from .001" up to .007", in which case no shim gaskets will be
		required. Use of gaskets must be limited to a combined total
		of .010" thick. Steel spacersmust be used as required to eli
1/17	792028	Screw, 5/16-18 x 7/8"
	31971	* Gasket, Shim (.004/.005 thick) NOTE: Determine the gap
133	31971	
		between the cover and the machined surface on the
		cylinder, which can be from .001" up to .007", in which case
		no shim gaskets will be required. Use of gaskets must be
		limited to a combined total of .010" thick. Steel
		spacersmust be used a
156	31972	* Gasket, Shim (.005/.007 thick) NOTE: Determine the gap
100	01072	between the cover and the machined surface on the
		cylinder, which can be from .001" up to .007", in which case
		no shim gaskets will be required. Use of gaskets must be
		limited to a combined total of .010" thick. Steel
		spacersmust be used a
157	32031	* Spacer, Steel (.010 thick) NOTE: Determine the gap
		between the cover and the machined surface on the
		cylinder, which can be from .001" up to .007", in which case
		no shim gaskets will be required. Use of gaskets must be
		limited to a combined total of .010" thick. Steel
		spacersmust be used as re
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	610118	Cover, Spark plug
	610750	Grommet, Lead wire
160	610408	Nut, 8-32

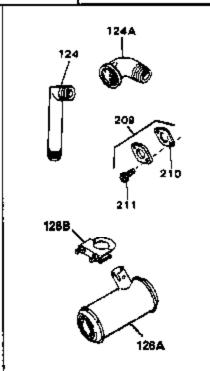
Ref #	Part Number	Qty	Description
169A	27793		Clip, Conduit
170	28942		Screw, 10-32 x 3/8"
171	29634		Fitting, Fuel line
189	33069		Dipstick (Incl. 190)
190	29673		* Gasket, Oil filler
244	34346		Decal, Instruction
244B	31752		Decal, Air cleaner
244A	550223		Decal, Name
244A	32676		Decal, Solid state
246	631687		Valve, Seat & Spring Assy.
247	631680		Carburetor (Incl. 54 & 246) (Refer to Division 5, Section A, page 124 for breakdown)
	33516G 35075		* Gasket Set (Incl. items marked *) "O" Ring Kit (Incl. Nos. items marked +)

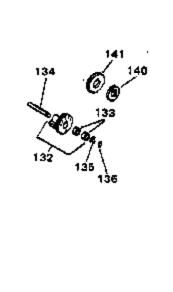
ILLUSTRATION SHOWS TYPICAL PARTS ONLY. ORDER BY PART NUMBER. PARTS NOT LISTED ARE SUPPLIED BY CEM.

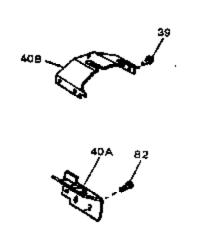


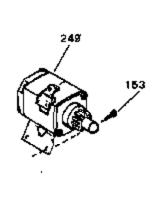


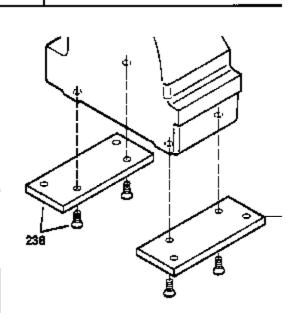






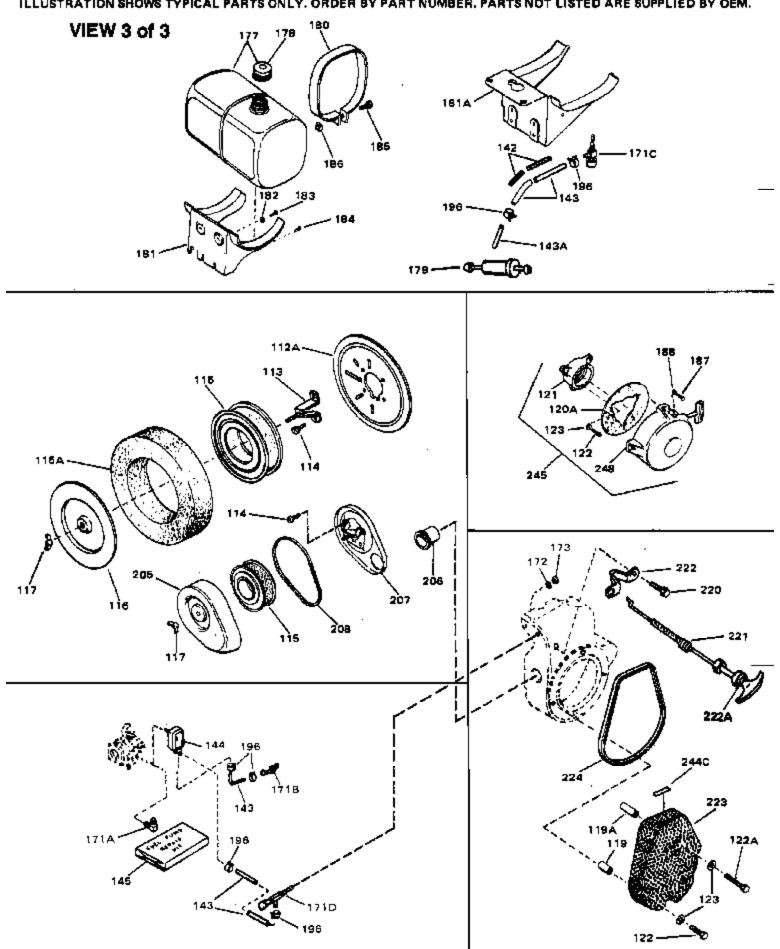






Ref #	Part Number	Qty	Description
82 126A	650687 30063 35731 33500A		Screw, 10-32 x 5/16" Screw, 1/4-20 x 1/2" Muffler (Incl. 126B) Counterbalance Weight Ass'y. Kit (Gears have helical teeth, which replace earlier straight tooth gears) (Incl. 33963 gear & 33965 weights)
134 135 136 140	33501 33502 33503 792017 33499 33963		Bearing, Needle Shaft, Counterbalance Washer, Thrust Ring, Retaining Spacer Gear, Counterbalance weight (Helical teeth) Gear, Counterbalance weight (Straight teeth) (For replacement see Ref. 132. Order correct kit for your enginemodel number.)
149 151 153 153 162 163A 209 210 211	610761 650416 610749 792028 650781 610819 610922 730178 34102B 30196 730212		Alt.Coil Ass'y.(Incl.162A & 163) (10 amp) Screw, 10-32 x 1" Regulator (10 Amp) Screw, 5/16-18 x 7/8"(Use w/32817 str .motor) Screw,5/16-18 x 11/16"(Use w/33835 st r.motor) Connector, Pyramid Terminal Ech.Adapter Kit (Incl.210 & 211)(As r equired) Gasket, Exhaust (Use as required) Screw, 5/16-18 x 3/4" (Use as require d) Adapter Plate Kit (Optional) NOTE: If you are having mounting problems in using a HH100 thru0H180 inplace of a large frame competitivebrand, we would like to call your attention to 730212 adapter plate kit. The kit converts the bottom mounting system found on HH100 thru 0H180 to a top mounting sys
249	33835		Electric Starter Motor (12-Volt) (Refer to Division 5, Section D for breakdown)

ILLUSTRATION SHOWS TYPICAL PARTS ONLY. ORDER BY PART NUMBER, PARTS NOT LISTED ARE SUPPLIED BY DEM.



Ref #	Part Number	Qty Description
114	650399	Screw, 10-32 x 5/8"
115	32008	Element, Air cleaner
117	650513	Nut, Wing
119	31992	Spacer, Screen
122	650680	Screw, 1/4-20 x 1-1/2"
123	27070	Washer, Lock
143	29774	Fuel Line (Braided 8.25")(21 cm)(As r equired)
143	30705	Fuel Line (Braided 16")(41 cm)(As req uired)
143	30962	Fuel Line (Braided 32")(81 cm)(As req uired)
178	410144B	Fuel Cap (White Plastic)(Std)(As required)
178	34210	Fuel Cap (Red Plastic) (Spurt resistant, High profile) (Use as required)
	26460 730134	Clamp, Fuel line (Use as required) Rewind Starter Kit (Incl.120A, 121, 122, 187, 188 & 248) (Use as required)