

Ref # Part Number				
7 31931 Gear, Crankshaft (Straight) 8 31932 Bearing, Tapered roller 11 34508 Piston, Pin & Ring Set (Otd.) (3-5/16 * Bore) 11 34509 Piston, Pin & Ring Set (Otd.) OS) 11 34510 Piston, Pin & Ring Set (100° OS) 11 34510 Piston, Pin & Ring Set (100° OS) 11 34510 Piston, Pin & Ring Set (100° OS) 11 34510 Piston, Pin & Ring Set (100° OS) 11 32001C Piston & Pin Assy. (Std.) 35/16/9/(Incl.12) 11 32002B Piston & Pin Assy. (Std.) 35/16/9/(Incl.12) 11 32003B Piston & Pin Assy. (Std.) 35/16/9/(Incl.12) 11 332004 Ring Set (Std.) (3-5/16* Bore) 13 32005 Ring Set (Std.) (3-5/16* Bore) 13 32006 Ring Set (100° OS) 13 32006 Ring Set (100° OS) 14 339934 Connecting Rod Assy. (Std.) (Incl.15, 1 6 & 17) 14 34383 Connecting Rod Assy. (Std.) (Incl.15, 1 6 & 17) 15 32077 Bolt, Connecting Rod Assy. (010° US) (Incl. 1 5, 16, 17) 16 26073 Washer, Connecting rod 17 28264 Washer, Connecting rod 18 33470 Camshaft (MCR) (Straight) 19 33472 Lifter, Valve 10 33471 Rod, Push 11 33605 Intake Valve (Std.) 21 33606 Exhaust Valve (Std.) 22 33606 Exhaust Valve (Std.) 23 33507 Spring, Valve 24 33508 Retainer & Cap Set, Keeper valve 25 33509 "Or Ring (Itake only) (Also Incl. in 251) 26 33510 Cap, Valve 27 33473 Governor Gear & Shaft Assy. (Straight) 28 650745 Washer, Flat 29 35479 Washer, Flat 31 31956B "Gasket, Cylinder cover 29 36604 Screw, 1/4-20 x 1" 20 36045 Screw, 1/4-20 x 1" 20 360508 Screw, 1/4-20 x 1" 21 360508 Screw, 1/4-20 x 2" 21 360508 Screw, 1/4-20 x 2" 22 36060 Screw, 1/4-20 x 2" 23 36060 Screw, 1/4-20 x 2" 24 360508 Screw, 1/4-20 x 2" 25 360508 Screw, 1/4-20 x 2" 26 360508 Screw, 1/4-20 x 2" 27 36060 Screw, 1/4-20 x 2" 28 360508 Screw, 1/4-20 x 2" 38 3606 Screw, 1/4-20 x 2" 38 3607 Screw, 1/4-20 x 2"	1 2 2 2 2 2 2 4	33823A 31927 28483 9556 28534 27652	Qty	Cylinder (Incl. 2, 4 & 33) (3-5/16" B ore) 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) 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 helical camshaft in order
36 32425 Rod Assy., Governor 37 32426 Spacer, Governor rod	7 8 9 11 11 11A 11A 11A 11A 11A 11A 11A 11A	31931 31932 31928 34508 34509 34510 32001C 32002B 32003B 31919 32004 32005 32006 33093A 34383 34384 32077 26073 28264 33470 33472 33471 33505 33645 33506 33646 33507 33508 33509 34410 33510 33473 650745 35479 30590A 31948 31950 650451		Pin, Crankshaft gear Gear, Crankshaft (Straight) Bearing, Tapered roller Cup, Bearing Piston, Pin & Ring Set (Std.) (3-5/16 " Bore) Piston, Pin & Ring Set (.010" OS) Piston, Pin & Ring Set (.020" OS) Piston, Pin & Ring Set (.020" OS) Piston & Pin Ass'y. (Std.)(3-5/16")(I ncl.12) Piston & Pin Ass'y. (.010" OS) (Incl. 12) Piston & Pin Ass'y. (.020" OS) (Incl. 12) Ring, Piston pin retaining Ring Set (Std.) (3-5/16" Bore) Ring Set (.010" 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 Nut Assy. Camshaft (MCR) (Straight) Lifter, Valve Rod, Push Intake Valve (Std.) Intake Valve (Std.) Exhaust Valve (Std.) Exhaust Valve (1/32" OS) Spring, Valve Retainer & Cap Set, Keeper valve * "O" Ring (Intake only) (Also Incl. in 251) * "O" Ring (Exhaust only) (Also Incl. in 251) Cap, Valve Governor Gear & Shaft Ass'y. (Straigh t) Washer, Flat Washer, Flat Washer, Flat Washer, Flat Spool, Governor * Gasket, Cylinder cover Cylinder Cover Assy.(Incl.2,33,36,37 & 38) * Seal, Oil Screw, 1/4-20 x 1"
	37	32426		Spacer, Governor rod

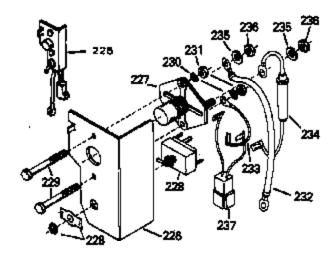
Ref #	Part Number Qt	/ Description
	650736	Screw, 10-16 x 3/8"
	33495	Cover, Cylinder head
	34225A	* Gasket, Cylinder head
	33763	Head, Cylinder
	35552	Spark Plug (RL-82C)
	650690	Washer, Belleville
	650691	Washer, Flat
	650692	Screw, 5/16-18 x 1-3/4"
	650746	Screw, 5/16-18 x 1-3/8"
	730218	Valve Guide 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"
	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
	31964	Clamp, Governor lever
	650518	Lockwasher, No. 10 E.T.
	30312	Screw, 10-32 x 1/2"
	650544	Screw, Torx T-25, 10-24 x 7/8"
63	7975	Nut, 10-24
64	31965	Plate, Governor spring
65	31984A	Lever Assy., Control
66	28558	Washer, Wave
67	31966	Bushing, Governor lever
68	650597	Screw, 10-24 x 5/8"
69	31967	Spring, Governor
70	650591	Screw, 10-24 x 2"
	33099	Spring
	32599	"O" Ring (Incl. in 251)
	650666	Washer, Lock
	32579	Baffle, Blower housing
	650561	Screw, 1/4-20 x 5/8"
	650592	Key, Flywheel
	730201	Trigger Pin Kit (Use as required)
	610909	Flywheel
	650594	Nut, Flywheel
	610906	Solid State Magneto (Incl. 158 thru 1 61)
	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"
	33775A	Blower Hsg.(Incl.218A,219)(For elec.s tarter)
	8274 8274	Washer, Lock
	8274 650505	Washer, Lock
	650595 650505	Screw, 5/16-24 x 3/8"
	650595 650753	Screw, 5/16-24 x 3/8" Screw, 1/4 30 x 7/16"
	650752	Screw, 1/4-20 x 7/16"
	35475	Tube, Push rod
	33481	* "O" Ring (Also Incl. in 251)
	34754	Housing, Rocker arm
	33484	* "O" Ring (Also Incl. in 251)
	650168	Washer, Flat
96	32610A	Screw, 1/4-20 x 29/32"

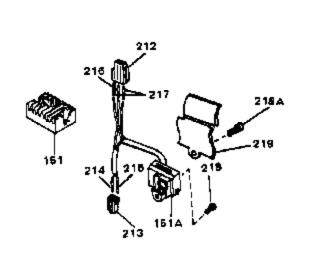
Dof #	Port Number	Ohi	Description
	Part Number 33485	Qıy	Description Arm, Rocker
	33486		Ring, Retaining
	650755		Screw, 1/4-20 x 3/4"
	650864		Nut, Hex, 1/4-20
	650756		Stud, Rocker arm
	33487		·
			* "O" Ring (Also Incl. in 251)
	33488		Cover, Rocker arm  * Cooket Broother (Alex Incl. in 351)
	31958A		* Gasket, Breather (Also Incl. in 251)
	33489		Body Assy., Breather
	33490		Tube, Breather
	30102		* Screw, 10-32 x 5/8" (Also Incl. in 25 1)
	650738		Screw, 1/4-20 x 5/8"  * Cooket Air clopper
	35471		* Gasket, Air cleaner
	650399		Screw, 10-32 x 5/8"
	32008		Element, Air cleaner
	650513		Nut, Wing
	34379		Spacer, Screen
	650808		Screw, 1/4-28 x 1-3/4"
	27070		Washer, Lock
140	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
147	792028		Screw, 5/16-18 x 7/8"
155	31971		* Gasket, Shim (.004/.005 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 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
457	22024		•
10/	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
	610118		Cover, Spark plug
159	610750		Grommet, Lead wire
	610408		Nut, 8-32
	610908		Terminal, Female
	27793		Clip, Conduit
	28942		Screw, 10-32 x 3/8"
	33764		Dipstick (Incl. 190)
190	29985		"O" Ring
191	33468		Tube Assy., Oil filler
	29673		* Gasket, Oil filler tube
244	34346		Decal, Instruction
244A	550223		Decal, Name
246	632024		Valve, Seat & Spring Assy.
			• •

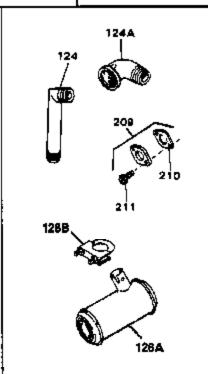
Ref #	Part Number	Qty	Description
247	632032	-	Carburetor (Incl. 54 & 246) (Refer to Division 5, Section A, page 160 for breakdown)
	33516G 35075		* Gasket Set (Incl. items marked *) "O" Ring Kit (Incl. Nos. items marked +)

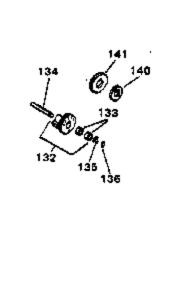
## ILLUSTRATION SHOWS TYPICAL PARTS ONLY. ORDER BY PART NUMBER. PARTS NOT LISTED ARE SUPPLIED BY CEM.

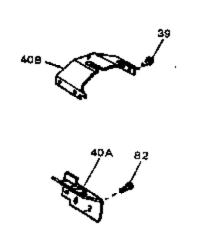
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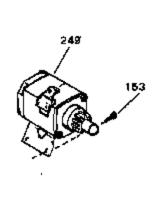


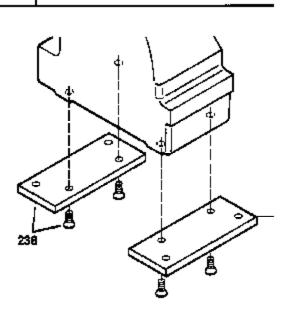






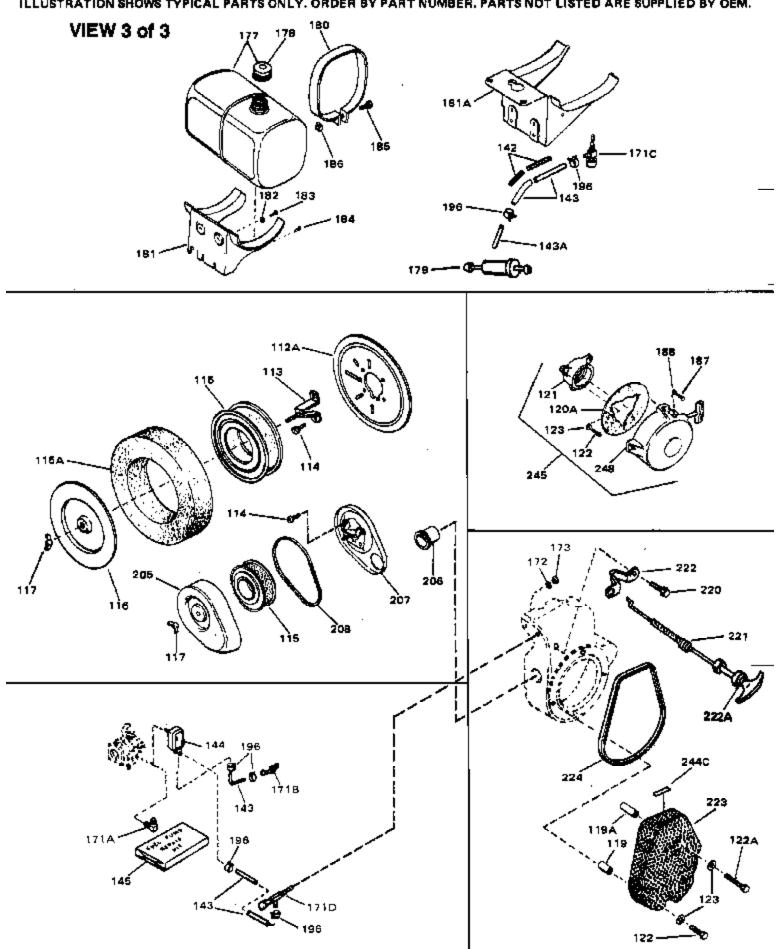






Ref #	Part Number	Qty	Description
82	650736 30063 35731		Screw, 10-16 x 3/8" Screw, 1/4-20 x 1/2" Muffler (Incl. 126B) Gear, Counterbalance weight (Straight teeth) (For replacement see Ref. 132. Order correct kit for your enginemodel number.)
149 151A 153 153 162A 163A 209 210 211 212 213 214 215 216 217	610902 650521 610996 792028 650781 610903 610904 610905 730178 34102B 30196 610990 610921 610922 610989 610992 610992 610991 30063 730212		Alt.Coil Ass'y. (Incl.162,163,163A) ( 20 amp) Screw, 10-32 x 1-1/8" Regulator (20 Amp) (Incl. 212 thru 21 8) 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, Flat Terminal 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) Connector, Male Connector Terminal Terminal Terminal, Female Terminal, Female Screw, 1/4-20 x 1/2" 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
249	33835		top mounting sys  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.



		Description
112A	33777	Bracket, Air cleaner
113	33778	Bracket, Air cleaner
114	650399	Screw, 10-32 x 5/8"
115	32008	Element, Air cleaner
115A	32906	Filter, Pre Air
116	32904	Cover, Air cleaner
117	650513	Nut, Wing
119A	34378	Spacer, Screen
119	34379	Spacer, Screen
122A	650809	Screw, 1/4-28 x 2-9/16"
	650808	Screw, 1/4-28 x 1-3/4"
	27070	Washer, Lock
142	31778	Spring, Fuel line
	29774	Fuel Line (Braided 8.25")(21 cm)(As r equired)
	30705	Fuel Line (Braided 16")(41 cm)(As req uired)
143	30962	Fuel Line (Braided 32")(81 cm)(As req uired)
	32959	Pump, Impulse fuel
	33010	Repair Kit, Impulse fuel pump
	32958	Fitting, Fuel pump
	410144B	Fuel Cap (White Plastic)(Std)(As requ ired)
178	34210	Fuel Cap (Red Plastic) (Spurt resistant, High profile) (Use as
		required)
196	26460	Clamp, Fuel line (Use as required)
	34376	Screen, Blower housing (Incl. 224)
	34377	Seal, Guard
	34387	Decal, Instruction
	730134	Rewind Starter Kit (Incl.120A, 121, 122, 187, 188 & 248)
		(Use as required)