

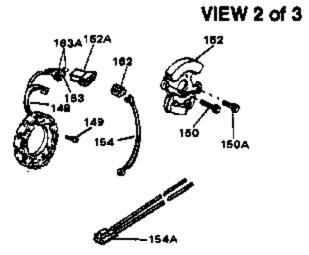
Ref #	Part Number	Qtv	Description
2 2 2 2 2 4	33707A 31927 28483 9556 28534 27652 33393A		Cylinder (Incl. 2, 4 & 33) (3-1/2" Bo re) Pipe Plug, 3/8-18 sq. head (Use as re quired) Pipe Plug (3/8-18 hex countersunk) (A s req.) Pipe Plug (3/4-14 sq.hd.)(As req.)(Bu y local) Pipe Plug (1/8-27 sq. hd.) (Use as re quired) Pipe Plug(1/8-27 hex c/sunk headless) (As req) Pin, Dowel Crankshaft (Incl. 6 thru 9) 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 to the complete the repair.
7 8 9 11 11 11 11 11 11 11 11 11 11 11 11 1	29783 31931 31932 31928 34511 34512 34513 32238B 32239B 32240B 31919 32241 32242 32243 33093A 34383 34384 32077 26073 28264 33470 33472 33471 33505 33645 33506 33646 33507 33508 33509 34410 33510 33473 650745 35479 30590A 31948 31956B		Pin, Crankshaft gear Gear, Crankshaft (Straight) Bearing, Tapered roller Cup, Bearing Piston, Pin & Ring Set (Std.) (3-1/2" Bore) Piston, Pin & Ring Set (.010" OS) Piston, Pin & Ring Set (.020" OS) 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 Ass'y. (.020 " OS) (Incl. 12) Ring, Piston pin retaining Ring Set (Std.) (3-1/2" 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.) Exhaust 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 Use with 35322 spool) Washer, Flat (Use with 35322 spool) Washer, Flat Spool, Governor * Gasket, Cylinder cover
33 34 35 36 37	32580A 31950 650451 650588 32425 32426 29193		Cylinder Cover Assy.(Incl.2,33,36,37 & 38) * Seal, Oil Screw, 1/4-20 x 1" Screw, 1/4-20 x 2" Rod Assy., Governor Spacer, Governor rod Ring, Retaining

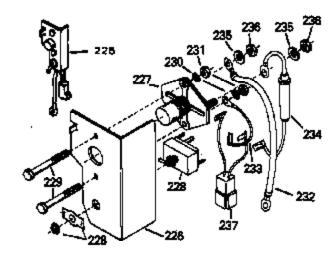
Defi	Dort Number	Description
		Description Scrow 10.32 v 5/16"
	650687	Screw, 10-32 x 5/16"
	33495 34225A	Cover, Cylinder head * Cooket, Cylinder head
		* Gasket, Cylinder head
	33465 33657	Head, Cylinder
	650690	Spark Plug (L-82C)
		Washer, Belleville
	650691 650692	Washer, Flat
	650746	Screw, 5/16-18 x 1-3/4" Screw, 5/16-18 x 1-3/4"
	730218	Screw, 5/16-18 x 1-3/8" Valve Cuido Kit (loc) 40)
	792035	Valve Guide Kit (Incl. 49) 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"
	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
	650561	Screw, 1/4-20 x 5/8"
	650592	Key, Flywheel
77A	730201	Trigger Pin Kit (Use as required)
77	610909	Flywheel
78	650594	Nut, Flywheel
79	610906	Solid State Magneto (Incl. 158 thru 1 61)
80	650661	Screw, 1/4-20 x 3/4"
81	33479	Extension, Blower housing
82	30063	Screw, 1/4-20 x 1/2"
83	650751	Screw, 1/4-20 x 7/16"
84	33775A	Blower Hsg.(Incl.218A,219)(For elec.s tarter)
85A	8274	Washer, Lock
85	8274	Washer, Lock
	650595	Screw, 5/16-24 x 3/8"
	650595	Screw, 5/16-24 x 3/8"
	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"

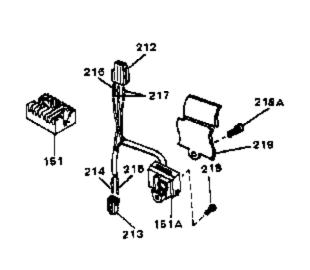
## 84 Manuface	Dof #	Dort Number	Oh.,	Description
98 35486 99 650755 100 650684 Nut, Hex. 1/4-20 x 34" 101 650756 102 30487 103 30488 104 3195804 105 30489 106 303409 107 30102 108 650738 119 36471 129 36472 130 36472 140 650738 151 36472 152 36472 153 36472 164 36573 165 365613 175 30208 186 365013 187 20700 187 20700 188 3577 189 3677 19			Qty	
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101 680756 Stud, Rocker arm 102 33487 "O" Ring (Aso Ind. in 251) 103 33487 "Gasket, Breather (Aso Ind. in 251) 104 31958A "Gasket, Breather (Aso Ind. in 251) 105 33490 Tube, Breather (Aso Ind. in 251) 106 33490 Tube, Breather (Aso Ind. in 251) 107 30102 "Screw, 10-32 x 5/8" (Also Ind. in 251) 108 650738 Screw, 10-32 x 5/8" (Also Ind. in 251) 119 35471 "Gasket, Air cleaner 110 35471 "Gasket, Air cleaner 111 35472 Bracket, Air cleaner 112 35472 Bracket, Air cleaner 115 32008 Element, Air cleaner 116 32510 Cover, Air cleaner 117 650513 Nut, Wing 118 32077 Washer, Lock 129 650516 Screw, 14-20 x 1-1/8" 120 650516 Screw, 14-20 x 1-1/8" 121 27070 Washer, Lock 122 27070 Washer, Lock 123 27070 Washer, Lock 124 7 792028 Screw, 10-32 selected of 101" thick. Steel spacersmust be used as required to eli of 010" thick. Steel spacersmust be used as required to eli of 010" thick she spacersmust be used as required to eli of 101" thick she spacersmust be used as required to eli opportunitation 147 792028 Screw, 5/16-18 x 7/8" 158 31971 "Gasket, Shim (0004/005 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 spacersmust be used as re Cover, Spark plug (Grommet, Lead wife Nut, 8-32 Terminal, Female Cip. Conduit Spacers and the machined surface on the cylinder, which case no shim gaskets will be required. Use				
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103 33488				·
104 319884 "Gasket, Breather (Also Incl. in 251) 105 33489 Body Assy, Breather 106 33480 Tube, Breather 107 30102 "Screw, 10-32 x 58" (Also Incl. in 25 1) 108 650738 Screw, 10-32 x 58" (Also Incl. in 25 1) 118 35471 "Gasket, Air cleaner 119 35472 Bracket, Air cleaner 110 35472 Bracket, Air cleaner 111 352008 Element, Air cleaner 116 32810 Cover, Air cleaner 117 650513 Nut, Wing 118 32870 Cover, Oylinder 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 ell cylinder, which can be from .001" up to .007", in which case no shim gaskets will be remached surface on the cylinder, which can be from .001" up to .007", in which case no shim gaskets will be remached surface on the cylinder, which can be from .001" up to .007", in which case no shim gaskets will be remached 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 "Sacket, Shim (.005/.007 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 "Spacersmust be used a "Spacersmust be used as spacersmust be used as re 158 610118 Cover, Spark plug 159 610750 Grommet, Lead wire 169 610750 Grommet, Lead wire 170 26942 Screw, 10-32 x 38" 170 26942 Screw, 10-32 x 38" 171 Gasket, Oil filler 171 26942 Screw, 10-32 x				* "O" Ring (Also Incl. in 251)
Body Assy., Breather Tube, Breather Tube, Breather Tube, Breather Tube, Breather Tube, Breather Screw, 10-32 x 5/8" (Also Incl. in 25 1) 30102 Screw, 10-32 x 5/8" (Also Incl. in 25 1) Screw, 10-32 x 5/8" Screw, 11-20 x (Screw, 11-20 x 1-1/8" Screw, 11-	103	33488		Cover, Rocker arm
106 33480	104	31958A		* Gasket, Breather (Also Incl. in 251)
106 33490 Tube, Breather 107 30102	105	33489		Body Assy., Breather
107 30102 Screw, 10-32 x 5/8" (Also Incl. in 25 1)	106	33490		
108 650738 Screw, 14-20 x 5/8" 111 35471 "Gasket, Air cleaner 112 35472 Bracket, Air cleaner 114 650399 Screw, 10-32 x 5/8" 115 32008 Element, Air cleaner 116 32810 Cover, Air cleaner 117 650513 Nut, Wing 122 650516 Screw, 1/4-20 x 1-1/8" 123 27070 Washer, Lock 146 32577 Cover, Olinder 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 "Gasket, Shim (.005/.007 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 "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 a "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 157 32031				
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Screw, 5/16-18 x 7/8" *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 *Gasket, Shim (.005/.007 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 *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 *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 *Cover, Spark plug Grommet, Lead wire Nut, 8-32 161 610908 Terminal, Female Clip, Conduit Screw, 10-32 x 3/8" Clip, Conduit Screw, 10-32 x 3/8" Dipstick (Incl. 190) *Gasket, Oil filler Decal, Air cleaner Decal, Name Decal, Solid state				required. Use of gaskets must be limited to a combined total
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161 610908 Terminal, Female 169A 27793 Clip, Conduit 170 28942 Screw, 10-32 x 3/8" 189 33069 Dipstick (Incl. 190) 190 29673 * Gasket, Oil filler 244B 31752 Decal, Air cleaner 244A 550223 Decal, Name 244A 32676 Decal, Solid state	159	610750		Grommet, Lead wire
161 610908 Terminal, Female 169A 27793 Clip, Conduit 170 28942 Screw, 10-32 x 3/8" 189 33069 Dipstick (Incl. 190) 190 29673 * Gasket, Oil filler 244B 31752 Decal, Air cleaner 244A 550223 Decal, Name 244A 32676 Decal, Solid state	160	610408		Nut, 8-32
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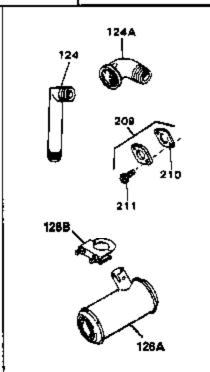
Ref # Part Number	Qty Description
246 631687	Valve, Seat & Spring Assy.
247 631754	Carburetor (Incl. 54 & 246) (Refer to Division 5, Section A, page 124 for breakdown)
250 33516G 251 35075	* Gasket Set (Incl. items marked *) "O" Ring Kit (Incl. Nos. items marked +)

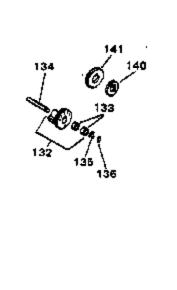
ILLUSTRATION SHOWS TYPICAL PARTS ONLY. ORDER BY PART NUMBER. PARTS NOT LISTED ARE SUPPLIED BY CEM.

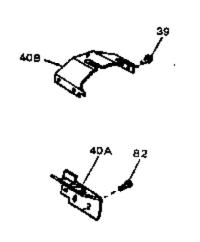


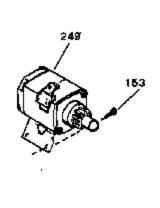


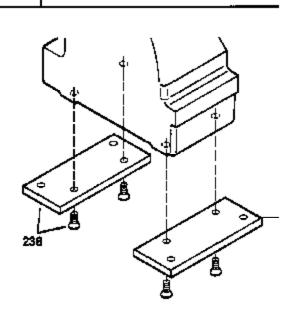






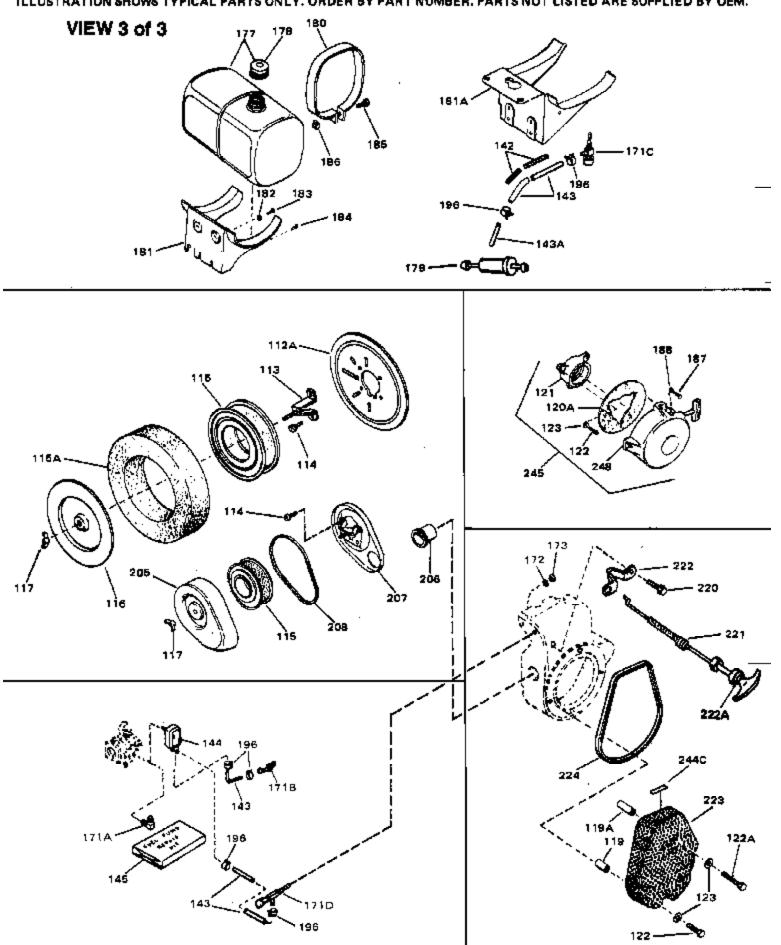






Ref #	Part Number	Qty	Description
82	650687 30063 35731		Screw, 10-32 x 5/16" Screw, 1/4-20 x 1/2" Muffler (Incl. 126B) Gear, Counterbalance weight (Straight teeth) (For replacement see Ref. 132. Order correct kit for your enginemodel number.)
149 151 153 153 162A 163A 163 209 210 211	610902 650521 610907A 792028 650781 610903 610905 610904 730178 34102B 30196 730212		Alt.Coil Ass'y. (Incl.162,163,163A) (20 amp) Screw, 10-32 x 1-1/8" Regulator (20 Amp)(Incl.151A, 154A & 218) 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) 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 C	ty Description
114	650399	Screw, 10-32 x 5/8"
115	32008	Element, Air cleaner
117	650513	Nut, Wing
120A	32049	Screen, Starter hub
121	32048	Hub, Starter
122	650516	Screw, 1/4-20 x 1-1/8"
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)
	30962	Fuel Line (Braided 32")(81 cm)(As req uired)
	32959	Pump, Impulse fuel
	33010	Repair Kit, Impulse fuel pump
	32958	Fitting, Fuel pump
178	410144B	Fuel Cap (White Plastic)(Std)(As requ ired)
178	34210	Fuel Cap (Red Plastic) (Spurt resistant, High profile) (Use as required)
187	650598	Screw, 1/4-28 x 3/4"
	8345	Washer
	26460	Clamp, Fuel line (Use as required)
	730134	Rewind Starter Kit (Incl.120A, 121, 122, 187, 188 & 248)
		(Use as required)
248	590405A	Rewind Starter (Refer to Division 5, Section C, page 24 for breakdown)