

	Part Number	<u> </u>	B 12
1 2 2 2 2 2 2 4 5	33707A 31927 28483 9556 28534 27652 34402A	<u>uty</u>	Description 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 10A 11A 11A 11A 11 11 11 11 12 13 13 14 14 14 15 16 17 18 19 20 21 21 22 22 23 24 25 25 26 27 28 29 30 31	29783 34692 31932 31928 34223 34222 32238B 32239B 32240B 34511 34512 34513 31919 32241 32242 32243 33093A 34383 34384 32077 26073 28264 34752 33471 33505 33645 33506 33646 33507 33508 33509 34410 33510 34751 650745 35479 30590A 31948 31956B 34095		Pin, Crankshaft gear Gear Crankshaft (Helical) Bearing, Tapered roller Cup, Bearing Bearing & Seal Assy., Needle Bearing, Needle Piston & Pin Ass'y. (Std.)(3-1/2")(In cl.12) Piston & Pin Ass'y. (010" OS) (Incl. 12) Piston & Pin Assy. (.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 (.010" OS) Ring, Piston pin retaining Ring Set (.010" OS) 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) (Helical) Lifter, Valve Rod, Push Intake Valve (Std.) Intake Valve (Std.) Exhaust Valve (Std.) Exhaust Valve (Std.) Exhaust Valve (Std.) Spring, Valve Retainer & Cap Set, Keeper valve * "O" Ring (Exhaust only) (Also Incl. in 251) * "O" Ring (Exhaust only) (Also Incl. in 251) Cap, Valve Governor Gear Ass'y. (Helical) Washer, Flat Washer, Flat Washer, Flat Washer, Flat Spool, Governor * Gasket, Cylinder cover Cylinder Cover Ass'y. (Incl. 2, 10, 10A, 33, 36, 37, 38, 93, 194 & 195)
34	31950 650451 650588		* Seal, Oil Screw, 1/4-20 x 1" Screw, 1/4-20 x 2"

Ref #	Part Number Qty	Description
	32425	Rod Assy., Governor
	32426	Spacer, Governor rod
	29193	Ring, Retaining
	650736	Screw, 10-16 x 3/8"
	33495	Cover, Cylinder head
	34225A	
		* Gasket, Cylinder head
	34753	Head, Cylinder
	31980	Pulley, Starter
	32046	Rope Assy., Starter
	35552	Spark Plug (RL-82C)
	650690	Washer, Belleville
	650691	Washer, Flat
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)
49	792035	Ring, Retaining
50	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
64	31965	Plate, Governor spring
65	31984A	Lever Assy., Control
66	28558	Washer, Wave
67	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
	730201	Trigger Pin Kit (Use as required)
	610909	Flywheel
	650594	Nut, Flywheel
	610906	Solid State Magneto (Incl. 158 thru 1 61)
80	650661	Screw, 1/4-20 x 3/4"
81	33479	Extension, Blower housing
83	650751	Screw, 1/4-20 x 7/16"
84	34314B	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"
	650752	Screw, 1/4-20 x 7/16"
	35475	Tube, Push rod
	33481	* "O" Ring (Also Incl. in 251)
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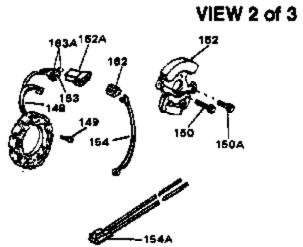
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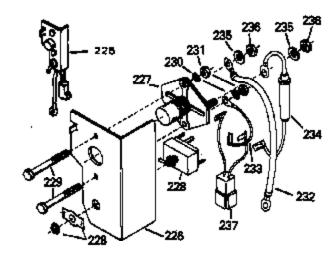
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99 660755 100 660864 Nut, He, 1/4-20 101 650766 Stud, Rocker arm "O" Ring (Also Incl. in 251) Cover, Roxker arm 103 33487 103 33488 Cover, Roxker arm "Gasket, Breather (Also Incl. in 251) 105 33499 106 33490 107 30102 108 650738 Sorew, 1/0-32 x 5/8" (Also Incl. in 25 1) Sorew, 1/0-32 x 5/8" 111 35471 112 35472 Bracket, Air cleaner 112 35472 Bracket, Air cleaner 115 32008 116A 32810 Cover, Air cleaner 117 650513 Nut, Wing 119 31992 Spacer, Screen 120 33776 Screen, 1/4-20 x 1-1/2" 123 27070 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 a 156 31972 157 32031 Sorew, 5/16-18 x 7/8" Gasket, Shim (0004/005 thick) NOTE: Determine the gap between the cover and the machined surface on the cylinder, 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 all spaces which can be from .001" up to .007", in which case no shim gaskets will be required total of .010" thick. Steel spacersmust be used a 157 32031 \$\frac{1}{2}\$ Spacer, Spacers and the machined surface on the cylinder, 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 \$\frac{1}{2}\$ Spacer, Spacers 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 \$\frac{1}{2}\$ 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 \$\frac{1}{2}\$ Spac			·
100 660864 Nut, Hex, 1/4-20			<u> </u>
101 650756 Stud, Rooker arm 102 33487 ""O" Ring (Also Ind. in 251) 103 33488 ""Over, Rooker arm ""O" Ring (Also Ind. in 251) 104 31958A ""Gasket, Freather (Also Ind. in 251) 105 33489 Body Assy., Breather Tube, Breather 107 30102 "Screw, 10-32 x 5/8" (Also Ind. in 251) 108 650738 Screw, 10-32 x 5/8" (Also Ind. in 25 1) 108 650738 Screw, 10-32 x 5/8" (Also Ind. in 25 1) 108 650738 Screw, 10-32 x 5/8" (Also Ind. in 25 1) 108 650738 Screw, 10-32 x 5/8" (Also Ind. in 25 1) 108 650739 Screw, 10-32 x 5/8" 113 32008 Element, Air cleaner 114 650399 Screw, 10-32 x 5/8" 115 32008 Element, Air cleaner 117 650513 Nut, Wing 119 31992 Spacer, Screen 117 650513 Nut, Wing 119 31992 Spacer, Screen 118 20 Screw, 10-12 x 1-1/2" 118 20 x 1-1/2"			
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103 33488			
104 31958A "Gasket, Breather (Also Incl. in 251)			
106 33490 Sody Assy, Breather Tube, Breather Tube, Breather Tube, Breather Tube, Breather Tube, Breather Screw, 10-32 x 5/8" (Also Incl. in 25 1) Screw, 10-32 x 5/8" Also Incl. i			·
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107 30102 Screw, 10-32 x 5/8" (Also Incl. in 25 1)			
108 650738 111 35471 112 35472 114 650399 115 32008 116A 32810 117 650513 119 31992 120 33776 120 560680 120 5676W, 1/4-20 x 1-1/2" 121 35277 122 650680 123 27070 123 27070 124 632577 125 27070 126 27070 127 27070 128 27070 129 27070 120 32776 120 32771 121 32771 122 650680 127 14-20 x 1-1/2" 123 27070 124 27070 125 27070 125 27070 126 27070 127 27070 128 27070 129 27070 120 27070 120 27070 121 27070 122 650680 127 14-20 x 1-1/2" 123 27070 124 27070 125 27070 126 27070 127 27070 128 27070 129 10 207", 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 157 31971 158 31971 169 31972 179 32031 180 31972 180 3197			
111 35471 112 35472 114 650399 115 32008 116 32810 117 650513 119 31992 120 33776 121 650680 121 650680 122 650680 123 7270 124 650680 125 77 126 650680 127			
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Element, Air cleaner			•
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117 650513 119 31992 120 33776 Spacer, Screen Pulley Screen, Pulley 122 650680 Screw, 1/4-20 x 1-1/2" Washer, Lock 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 Screw, 5/16-18 x 7/8" Screw,			·
119 31992 120 33776 122 650680 Screen, Pulley 123 27070 146 32577 Washer, Lock 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 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 156 31972 * 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 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 158 610118 Cover, Spark plug Grommet, Lead wire Nut, 8-32			,
120 33776 122 650880 Screw, 14/20 x 1-1/2" Washer, Lock 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 must be limited to a combined total of .010" thick. Steel spacersmust be used as required to eli S1972 **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 simple spacersmust be used a spacersmust be used as re Cover, Spark plug Grommet, Lead wire Nut, 8-32			
122 650680 123 27070 124 27070 125 27070 126 32577 Screw, 1/4-20 x 1-1/2" Washer, Lock 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 155 31971 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 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 Cover, Spark plug Grommet, Lead wire Nut, 8-32			·
123 27070 146 32577 Washer, Lock 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" * 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 158 610118 Cover, Spark plug Grommet, Lead wire Nut, 8-32			
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159 610750 Grommet, Lead wire 160 610408 Nut, 8-32			spaceisinusi pe useu as re
159 610750 Grommet, Lead wire 160 610408 Nut, 8-32	158	610118	Cover, Spark plug
160 610408 Nut, 8-32	159	610750	
·	160	610408	·
	161	610908	Terminal, Female

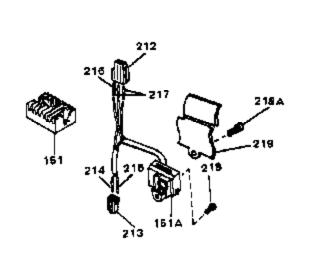
Dipstick (Incl. 190)

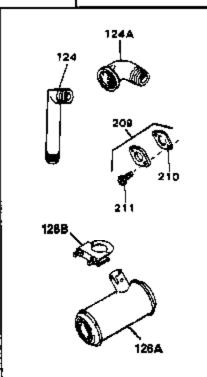
Ref #	Part Number C	ty Description
190	33590	"O" Ring
191	33992A	Tube, Oil filler
244A	34768	Decal, Name
244B	31752	Decal, Air cleaner
244	34346	Decal, Instruction
246	631687	Valve, Seat & Spring Assy.
247	632329	Carburetor (Incl. 54 & 246) (Refer to Division 5, Section A, page 160 for breakdown)
	33516G 35075	* Gasket Set (Incl. items marked *) "O" Ring Kit (Incl. Nos. items marked +)

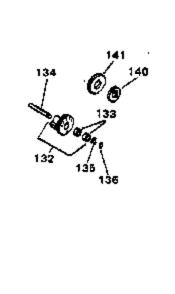
ILLUSTRATION SHOWS TYPICAL PARTS ONLY. ORDER BY PART NUMBER. PARTS NOT LISTED ARE SUPPLIED BY CEM.

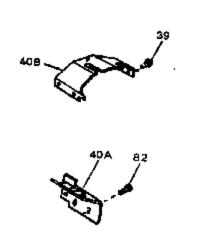


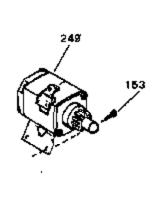


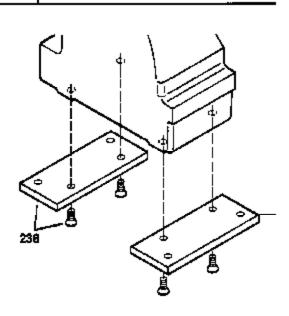






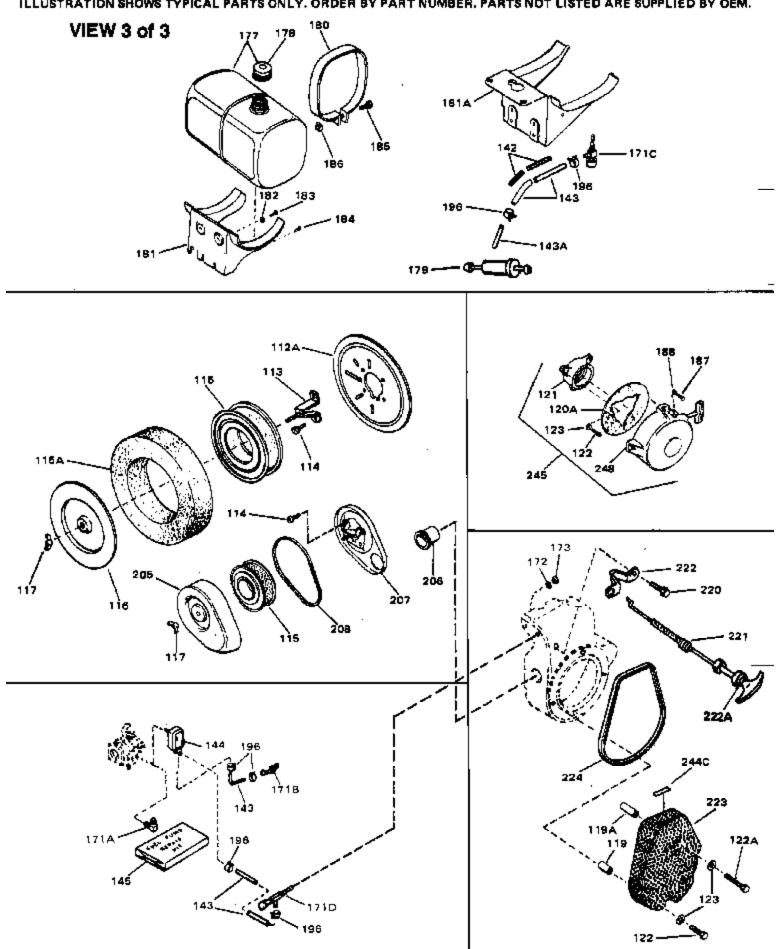






Ref #	Part Number	Qty	Description
	650736 35731	_	Screw, 10-16 x 3/8" Muffler (Incl. 126B) Gear, Counterbalance weight (Straight teeth) (For
141			replacement see Ref. 132. Order correct kit for your enginemodel number.)
149 151A	610902 650521 610996		Alt.Coil Ass'y. (Incl.162,163,163A) (20 amp) Screw, 10-32 x 1-1/8" Regulator (20 Amp) (Incl. 212 thru 21 8)
153	792028 650781		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)
162A	34393 610903		Cord Assy., Alternator adapter Connector, Flat
163A	610904 610905		Terminal Terminal Terminal
210	730178 34102B		Ech.Adapter Kit (Incl.210 & 211)(As r equired) Gasket, Exhaust (Use as required)
212	30196 610990 610921		Screw, 5/16-18 x 3/4" (Use as require d) Connector, Male Connector
214	610921 610922 610989		Terminal Terminal
216	610992 610991		Terminal, Female Terminal, Female
218	30063 730212		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 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)
	34392A		Pump, Impulse fuel
	33010		Repair Kit, Impulse fuel pump
	29683		Valve, Fuel strainer & shut-off
	28566		Fitting, Fuel line
	33979		Fuel Tank (Incl. 178)
	410144B		Fuel Cap (White Plastic)(Std)(As requ ired)
178	34210		Fuel Cap (Red Plastic) (Spurt resistant, High profile) (Use as
			required)
180	33980		Strap, Fuel tank
	33978		Bracket, Fuel tank
	650787		Washer, Belleville
	650786		Screw, 1/4-20 x 5/8"
	650785		Screw, 5/16-18 x 5/8"
	650488		Screw, 1/4-20 x 1-1/4"
186	650456		Nut, Lock
	26460		Clamp, Fuel line (Use as required)
245	730134		Rewind Starter Kit (Incl.120A, 121, 122, 187, 188 & 248)
			(Use as required)