

VIEW 1 of 3



| Ref # | Part Number | Qty | Description                                                                                                                                                                                                                                                            |
|-------|-------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | 34291A      |     | Cylinder (Incl. 2, 4 & 33) (3-1/8" Bo re)                                                                                                                                                                                                                              |
| 2     | 31927       |     | Pipe Plug, 3/8-18 sq. head (Use as re quired)                                                                                                                                                                                                                          |
| 2     | 28483       |     | Pipe Plug (3/8-18 hex countersunk) (A s req.)                                                                                                                                                                                                                          |
| 2     |             |     | Pipe Plug (3/4-14 sq.hd.)(As req.)(Bu y local)                                                                                                                                                                                                                         |
| 2     | 9556        |     | Pipe Plug (1/8-27 sq. hd.) (Use as re quired)                                                                                                                                                                                                                          |
| 2     | 28534       |     | Pipe Plug(1/8-27 hex c/sunk headless) (As req)                                                                                                                                                                                                                         |
| 4     | 27652       |     | Pin, Dowel                                                                                                                                                                                                                                                             |
| 5     | 33391B      |     | 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. |
| 6     | 29783       |     | Pin, Crankshaft gear                                                                                                                                                                                                                                                   |
| 7     | 31931       |     | Gear, Crankshaft (Straight)                                                                                                                                                                                                                                            |
| 8     | 31932       |     | Bearing, Tapered roller                                                                                                                                                                                                                                                |
| 9     | 31928       |     | Cup, Bearing                                                                                                                                                                                                                                                           |
| 11    | 34546       |     | Piston, Pin & Ring Set (Std.) (3-1/8" Bore)                                                                                                                                                                                                                            |
| 11    | 34547       |     | Piston, Pin & Ring Set (.010" OS)                                                                                                                                                                                                                                      |
| 11    | 34548       |     | Piston, Pin & Ring Set (.020" OS)                                                                                                                                                                                                                                      |
| 11A   | 34292B      |     | Piston & Pin Ass'y. (Std.)(3-1/8")(In cl.12)                                                                                                                                                                                                                           |
| 11A   | 34293B      |     | Piston & Pin Ass'y. (.010" OS) (Incl. 12)                                                                                                                                                                                                                              |
| 11A   | 34294B      |     | Piston & Pin Ass'y. (.020" OS) (Incl. 12)                                                                                                                                                                                                                              |
| 12    | 31919       |     | Ring, Piston pin retaining                                                                                                                                                                                                                                             |
| 13    | 34297       |     | Ring Set (Std.) (3-1/8" Bore)                                                                                                                                                                                                                                          |
| 13    | 34298       |     | Ring Set (.010" OS)                                                                                                                                                                                                                                                    |
| 13    | 34299       |     | Ring Set (.020" OS)                                                                                                                                                                                                                                                    |
| 14    | 33093A      |     | Connecting Rod Assy.(Std.)(Incl.15, 1 6 & 17)                                                                                                                                                                                                                          |
| 14    | 34383       |     | Connecting Rod Assy.(.010" US)(Incl.1 5,16,17)                                                                                                                                                                                                                         |
| 14    | 34384       |     | Connecting Rod Assy.(.020" US)(Incl.1 5,16.17)                                                                                                                                                                                                                         |
| 15    | 32077       |     | Bolt, Connecting rod                                                                                                                                                                                                                                                   |
| 16    | 26073       |     | Washer, Connecting rod                                                                                                                                                                                                                                                 |
| 17    | 28264       |     | Nut Assy.                                                                                                                                                                                                                                                              |
| 18    | 33470       |     | Camshaft (MCR) (Straight)                                                                                                                                                                                                                                              |
| 19    | 33472       |     | Lifter, Valve                                                                                                                                                                                                                                                          |
| 20    | 33471       |     | Rod, Push                                                                                                                                                                                                                                                              |
| 21    | 33505       |     | Intake Valve (Std.)                                                                                                                                                                                                                                                    |
| 21    | 33645       |     | Intake Valve (1/32" OS)                                                                                                                                                                                                                                                |
| 22    | 33506       |     | Exhaust Valve (Std.)                                                                                                                                                                                                                                                   |
| 22    | 33646       |     | Exhaust Valve (1/32" OS)                                                                                                                                                                                                                                               |
| 23    | 33507       |     | Spring, Valve                                                                                                                                                                                                                                                          |
| 24    | 33508       |     | Retainer & Cap Set, Keeper valve                                                                                                                                                                                                                                       |
| 25    | 33509       |     | * "O" Ring (Intake only) (Also Incl. in 251)                                                                                                                                                                                                                           |
| 25A   | 34410       |     | * "O" Ring (Exhaust only) (Also Incl. i n 251)                                                                                                                                                                                                                         |
| 26    | 33510       |     | Cap, Valve                                                                                                                                                                                                                                                             |
| 27    | 33473       |     | Governor Gear & Shaft Ass'y. (Straigh t)                                                                                                                                                                                                                               |
| 28    | 650745      |     | Washer, Flat                                                                                                                                                                                                                                                           |
| 29    | 35479       |     | Washer, Flat (Use with 35322 spool)                                                                                                                                                                                                                                    |
| 29    | 30590A      |     | Washer, Flat                                                                                                                                                                                                                                                           |
| 30    | 31948       |     | Spool, Governor                                                                                                                                                                                                                                                        |
| 31    | 31956B      |     | * Gasket, Cylinder cover                                                                                                                                                                                                                                               |
| 32    | 32580A      |     | Cylinder Cover Assy.(Incl.2,33,36,37 & 38)                                                                                                                                                                                                                             |
| 33    | 31950       |     | * Seal, Oil                                                                                                                                                                                                                                                            |
| 34    | 650451      |     | Screw, 1/4-20 x 1"                                                                                                                                                                                                                                                     |
| 35    | 650588      |     | Screw, 1/4-20 x 2"                                                                                                                                                                                                                                                     |
| 36    | 32425       |     | Rod Assy., Governor                                                                                                                                                                                                                                                    |
| 37    | 32426       |     | Spacer, Governor rod                                                                                                                                                                                                                                                   |
| 38    | 29193       |     | Ring, Retaining                                                                                                                                                                                                                                                        |

## Engine Parts List #1

| Ref # | Part Number | Qty | Description                                   |
|-------|-------------|-----|-----------------------------------------------|
| 39    | 650736      |     | Screw, 10-16 x 3/8"                           |
| 40    | 33495       |     | Cover, Cylinder head                          |
| 41    | 34302A      |     | * Gasket, Cylinder head                       |
| 42    | 34303       |     | Head, Cylinder                                |
| 43    | 31980       |     | Pulley, Starter                               |
| 44    | 32046       |     | Rope Assy., Starter                           |
| 45    | 33657       |     | Spark Plug (L-82C)                            |
| 46A   | 650691      |     | Washer, Flat                                  |
| 46    | 650690      |     | Washer, Belleville                            |
| 47A   | 650746      |     | Screw, 5/16-18 x 1-3/8"                       |
| 47    | 650692      |     | Screw, 5/16-18 x 1-3/4"                       |
| 48    | 730218      |     | Valve Guide Kit (Incl. 49)                    |
| 49    | 792035      |     | Ring, Retaining                               |
| 50    | 33515A      |     | * Gasket, Intake pipe                         |
| 51    | 33475       |     | Pipe, Intake                                  |
| 52    | 650378      |     | Screw, Torx T-30, 5/16-18 x 1-1/8"            |
| 53    | 792028      |     | Screw, 5/16-18 x 7/8"                         |
| 54    | 33476A      |     | * Gasket, Carburetor                          |
| 55    | 33477A      |     | Baffle, Air cleaner                           |
| 56    | 792075      |     | Nut, Lock 5/16-24 (Used in early production)  |
| 57    | 33478       |     | Link, Governor lever-to-throttle lever        |
| 58    | 31963       |     | Lever, Governor                               |
| 59    | 31964       |     | Clamp, Governor lever                         |
| 60    | 650518      |     | Lockwasher, No. 10 E.T.                       |
| 61    | 30312       |     | Screw, 10-32 x 1/2"                           |
| 62    | 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"                             |
| 71    | 33099       |     | Spring                                        |
| 72    | 32599       |     | "O" Ring (Incl. in 251)                       |
| 73    | 650666      |     | Washer, Lock                                  |
| 74    | 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    | 610967      |     | Flywheel (w/ring gear)                        |
| 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) |
| 85    | 8274        |     | Washer, Lock                                  |
| 86    | 650595      |     | Screw, 5/16-24 x 3/8"                         |
| 86A   | 650624      |     | Screw, 5/16-24 x 9/16"                        |
| 87    | 650752      |     | Screw, 1/4-20 x 7/16"                         |
| 88    | 35475       |     | Tube, Push rod                                |
| 89    | 33481       |     | * "O" Ring (Also Incl. in 251)                |
| 90    | 34754       |     | Housing, Rocker arm                           |
| 91    | 33013       |     | Cover, Starter bubble                         |
| 92    | 650701      |     | Screw, 8-18 x 7/16"                           |

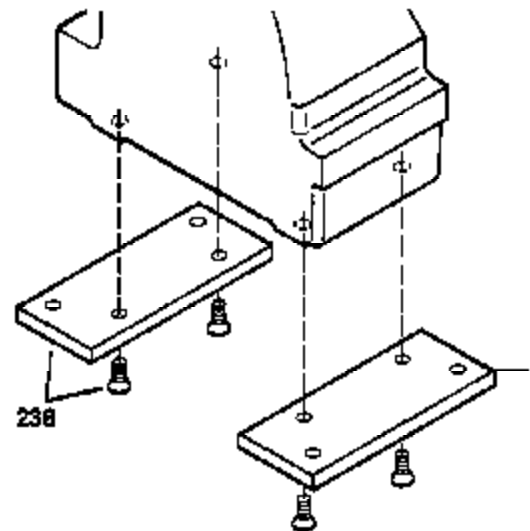
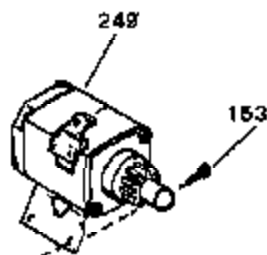
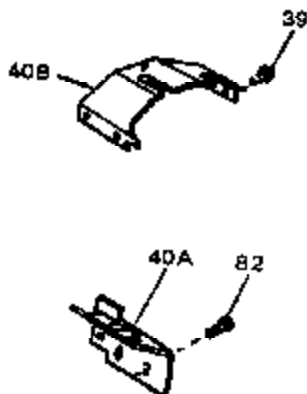
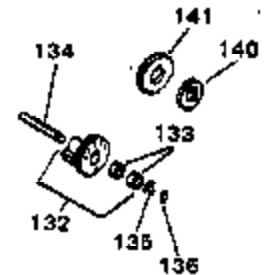
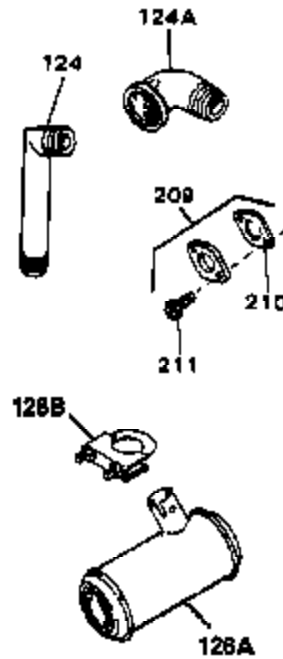
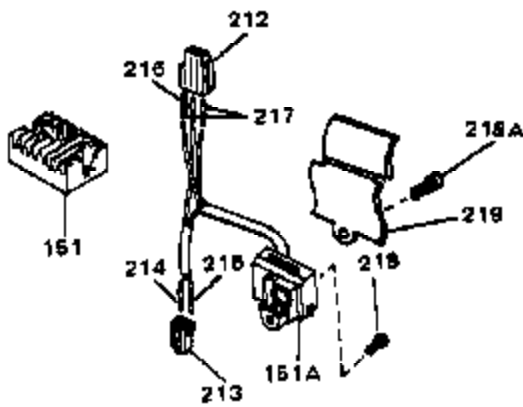
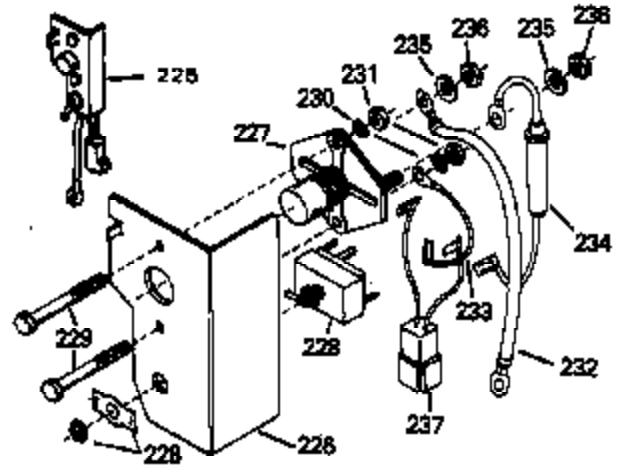
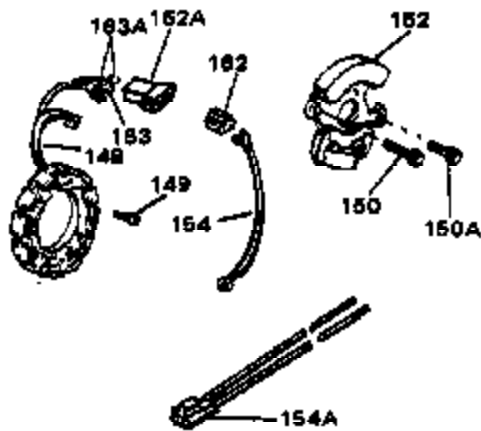
| Ref # | Part Number | Qty | Description                                                                                                                                                                                                                                                                                               |
|-------|-------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 94    | 33484       |     | * "O" Ring (Also Incl. in 251)                                                                                                                                                                                                                                                                            |
| 95    | 650168      |     | Washer, Flat                                                                                                                                                                                                                                                                                              |
| 96    | 32610A      |     | Screw, 1/4-20 x 29/32"                                                                                                                                                                                                                                                                                    |
| 97    | 33485       |     | Arm, Rocker                                                                                                                                                                                                                                                                                               |
| 98    | 33486       |     | Ring, Retaining                                                                                                                                                                                                                                                                                           |
| 99    | 650755      |     | Screw, 1/4-20 x 3/4"                                                                                                                                                                                                                                                                                      |
| 100   | 650864      |     | Nut, Hex, 1/4-20                                                                                                                                                                                                                                                                                          |
| 101   | 650756      |     | Stud, Rocker arm                                                                                                                                                                                                                                                                                          |
| 102   | 33487       |     | * "O" Ring (Also Incl. in 251)                                                                                                                                                                                                                                                                            |
| 103   | 33488       |     | Cover, Rocker arm                                                                                                                                                                                                                                                                                         |
| 104   | 31958A      |     | * Gasket, Breather (Also Incl. in 251)                                                                                                                                                                                                                                                                    |
| 105   | 33489       |     | Body Assy., Breather                                                                                                                                                                                                                                                                                      |
| 106   | 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"                                                                                                                                                                                                                                                                                       |
| 115   | 32008       |     | Element, Air cleaner                                                                                                                                                                                                                                                                                      |
| 116A  | 32810       |     | Cover, Air cleaner                                                                                                                                                                                                                                                                                        |
| 117   | 650513      |     | Nut, Wing                                                                                                                                                                                                                                                                                                 |
| 119   | 31992       |     | Spacer, Screen                                                                                                                                                                                                                                                                                            |
| 120   | 33776       |     | Screen, Pulley                                                                                                                                                                                                                                                                                            |
| 122   | 650680      |     | Screw, 1/4-20 x 1-1/2"                                                                                                                                                                                                                                                                                    |
| 123   | 27070       |     | Washer, Lock                                                                                                                                                                                                                                                                                              |
| 125   | 650590      |     | Nut, Conduit                                                                                                                                                                                                                                                                                              |
| 126   | 32043B      |     | Muffler                                                                                                                                                                                                                                                                                                   |
| 127   | 32143       |     | Nipple, Exhaust                                                                                                                                                                                                                                                                                           |
| 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 spacers must be used as required to eli |
| 147   | 792028      |     | Screw, 5/16-18 x 7/8"                                                                                                                                                                                                                                                                                     |
| 150B  | 650399      |     | Screw, 10-32 x 5/8"                                                                                                                                                                                                                                                                                       |
| 152A  | 610965      |     | Stator Plate Assy.                                                                                                                                                                                                                                                                                        |
| 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 spacers must 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 spacers must 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 spacers must be used as re |
| 158   | 610118      |     | Cover, Spark plug                                                                                                                                                                                                                                                                                         |
| 159   | 610750      |     | Grommet, Lead wire                                                                                                                                                                                                                                                                                        |

## Engine Parts List #1

| Ref # | Part Number | Qty | Description                                                                                                                         |
|-------|-------------|-----|-------------------------------------------------------------------------------------------------------------------------------------|
| 160   | 610408      |     | Nut, 8-32                                                                                                                           |
| 161   | 610908      |     | Terminal, Female                                                                                                                    |
| 164   | 33356       |     | Terminal                                                                                                                            |
| 165   | 650760      |     | Screw, 8-32 x 3/8"                                                                                                                  |
| 166   | 28545       |     | Grommet, Plastic                                                                                                                    |
| 167A  | 26073       |     | Washer, Flat                                                                                                                        |
| 167   | 650890      |     | Washer, Lock                                                                                                                        |
| 168   | 32039       |     | Switch, Stop                                                                                                                        |
| 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                                                                                                                |
| 193   | 29443       |     | Clip, Wire                                                                                                                          |
| 244B  | 31752       |     | Decal, Air cleaner                                                                                                                  |
| 244   | 34346       |     | Decal, Instruction                                                                                                                  |
| 246   | 631687      |     | Valve, Seat & Spring Assy.                                                                                                          |
| 247   | 632021      |     | Carburetor (Incl. 54 & 246) (Refer to Division 5, Section A, page 124 for breakdown) (Refer to Division 5, Section D for breakdown) |
| 250   | 33516G      |     | * Gasket Set (Incl. items marked *)                                                                                                 |
| 251   | 35075       |     | "O" Ring Kit (Incl. Nos. items marked +)                                                                                            |

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

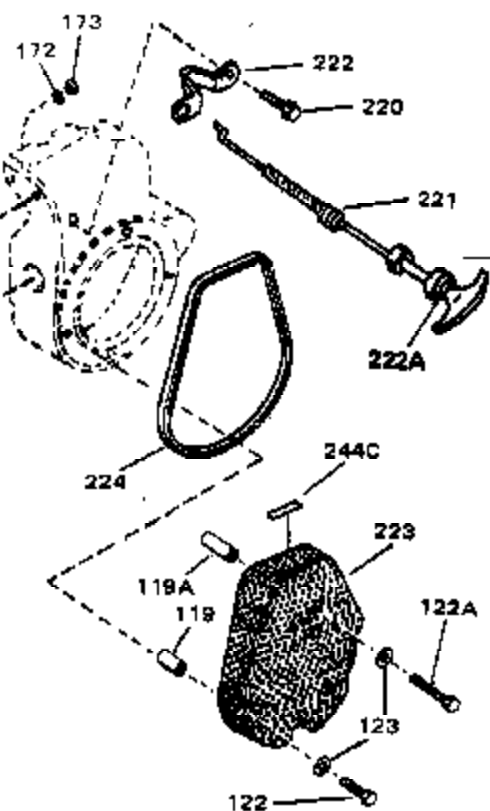
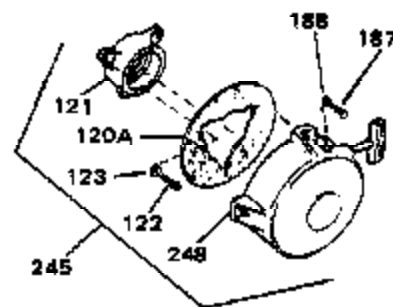
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| Ref # | Part Number | Qty | Description                                                                                                                                                                                                                                                                                                   |
|-------|-------------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 39    | 650736      |     | Screw, 10-16 x 3/8"                                                                                                                                                                                                                                                                                           |
| 82    | 30063       |     | Screw, 1/4-20 x 1/2"                                                                                                                                                                                                                                                                                          |
| 126A  | 35731       |     | Muffler (Incl. 126B)                                                                                                                                                                                                                                                                                          |
| 141   |             |     | Gear, Counterbalance weight (Straight teeth) (For replacement see Ref. 132. Order correct kit for your enginemodel number.)                                                                                                                                                                                   |
| 153   | 792028      |     | Screw, 5/16-18 x 7/8"(Use w/32817 str .motor)                                                                                                                                                                                                                                                                 |
| 153   | 650781      |     | Screw, 5/16-18 x 11/16"(Use w/33835 st r.motor)                                                                                                                                                                                                                                                               |
| 209   | 730178      |     | Ech.Adapter Kit (Incl.210 & 211)(As r equired)                                                                                                                                                                                                                                                                |
| 210   | 34102B      |     | Gasket, Exhaust (Use as required)                                                                                                                                                                                                                                                                             |
| 211   | 30196       |     | Screw, 5/16-18 x 3/4" (Use as require d)                                                                                                                                                                                                                                                                      |
| 238   | 730212      |     | Adapter Plate Kit (Optional) NOTE: If you are having mounting problems in using a HH100 thru OH180 in place of a large frame competitive brand, we would like to call your attention to 730212 adapter plate kit. The kit converts the bottom mounting system found on HH100 thru OH180 to a top mounting sys |

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| 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 requ ired)                                   |
| 178   | 34210       |     | Fuel Cap (Red Plastic) (Spurt resistant, High profile) (Use as required)      |
| 196   | 26460       |     | Clamp, Fuel line (Use as required)                                            |
| 245   | 730134      |     | Rewind Starter Kit (Incl.120A, 121, 122, 187, 188 & 248)<br>(Use as required) |