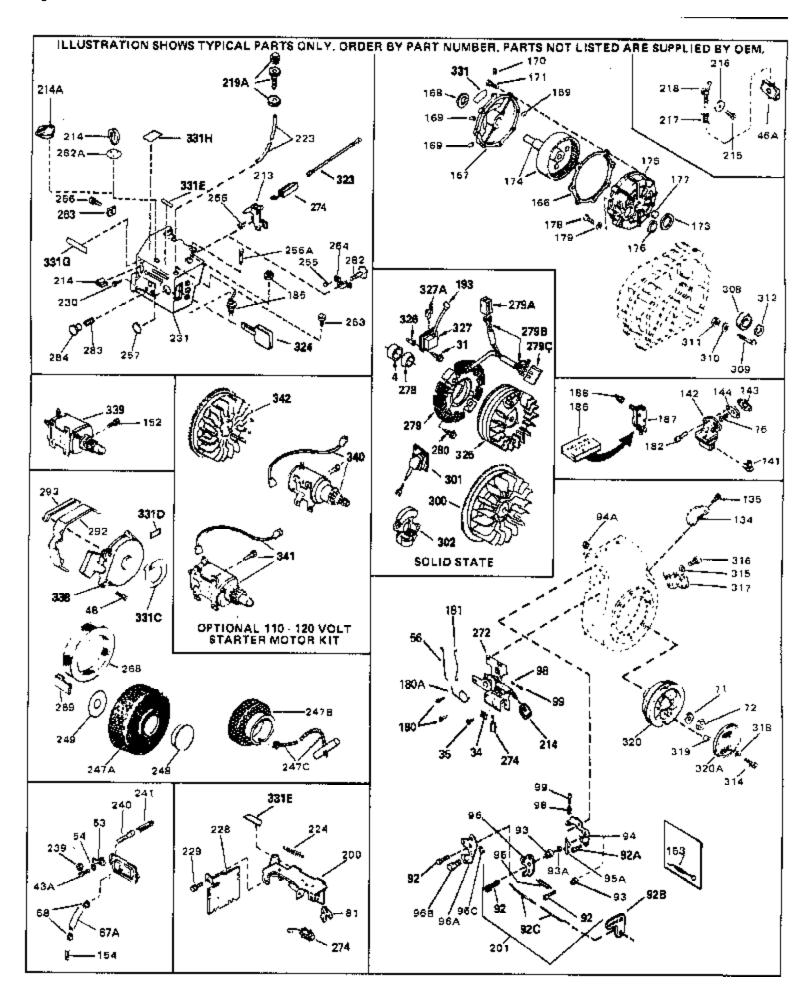


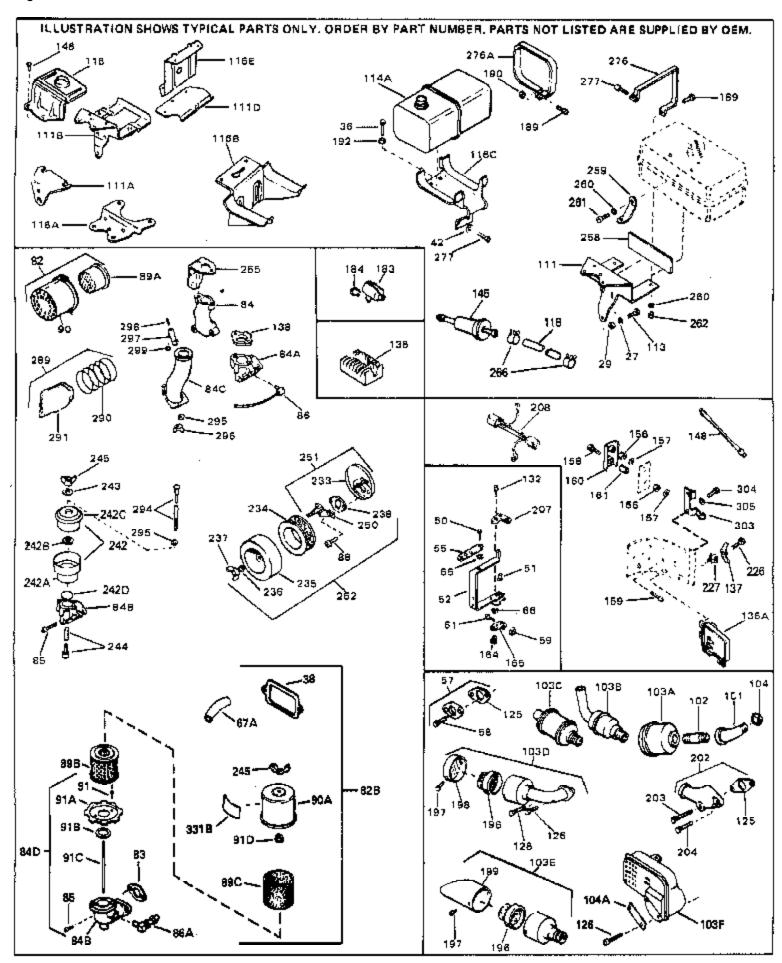
| Ref # | Part Number | Qtv | Description  |
|-------|-------------|-----|--|
|       | 32586C      |     | Cylinder (Incl. 2, 3, 4 & 76) (2-3/4" Bore)              |
|       | 27652       |     | Pin, Dowel   |
|       | 27642       |     | Plug, Oil drain  |
|       | 32630       |     | Seal, Oil  |
|       |             |     | ·  |
|       | 32783       |     | Intake Valve (Std.) (Incl. 9)                            |
|       | 32784       |     | Intake Valve (1/32" OS) (Incl. 9)                        |
|       | 27878A      |     | Exhaust Valve (Std.) (Incl. 9)                           |
|       | 27880A      |     | Exhaust Valve (1/32" OS) (Incl. 9)                       |
|       | 20810       |     | Pin, Valve spring retainer (Use as re quired)            |
| 7     | 27882       |     | Cap, Upper valve spring                                  |
| 8     | 27881       |     | Spring, Valve  |
| A8    | 27881       |     | Spring, Valve  |
| 9A    | 32581       |     | Cap, Lower valve spring                                  |
|       | 32581       |     | Cap, Lower valve spring                                  |
|       | 32590       |     | Plate, Lock & Oil dipper (This plate may be replaced by  |
| 10/ ( | 02000       |     | 34242 oil dipper but 650662C screw must be used.)        |
|       |             |     | ,  |
|       | 34242       |     | Dipper, Oil  |
| 11    | 32587       |     | Crankshaft (Incl. 12 & 13)                               |
| 12    | 29783       |     | Crankshaft Gear Pin (Early production )                  |
| 13    | 27884       |     | Gear, Crankshaft (Used in early production) This gear is |
|       |             |     | servicable onlywhen it is pinned to the crankshaft.      |
| 144   | 32592B      |     | Piston & Pin Ass'y. (Std.)(2-3/4")(In cl.16)             |
|       | 32593B      |     | Piston & Pin Ass'y. (.010" OS) (Incl. 16)                |
|       | 32594B      |     | Piston & Pin Ass'y. (.020" OS) (Incl. 16)                |
|       |             |     |  |
|       | 34517       |     | Piston, Pin & Ring Set (Std.) (2-3/4" Bore)              |
|       | 34518       |     | Piston, Pin & Ring Set (.010" OS)                        |
|       | 34519       |     | Piston, Pin & Ring Set (.020" OS)                        |
|       | 32595       |     | Ring Set (Std.) (2-3/4" Bore)                            |
|       | 32596       |     | Ring Set (.010" OS)                                      |
|       | 32597       |     | Ring Set (.020" OS)                                      |
|       | 27888       |     | Ring, Piston pin retaining                               |
| 17    | 32591C      |     | Rod Assy., Connecting (Incl. 10 & 18)                    |
| 18    | 650662C     |     | Screw, Connecting rod (2 each)                           |
| 21    | 32115       |     | Camshaft (MCR)   |
| 22    | 34034       |     | Lifter, Valve  |
|       | 31303B      |     | Cover, Cylinder (Incl. 24, 106 & 279)                    |
|       | 31546       |     | Bushing, Crankshaft (Use as required)                    |
|       | 28427       |     | Seal, Oil  |
|       | 31297       |     | Dipstick, Oil (Incl. 30)                                 |
|       | 30684       |     | * Gasket, Cylinder cover                                 |
|       | 650488      |     | Screw, 1/4-20 x 1-1/4"                                   |
|       | 29673       |     | * Gasket, Oil filler                                     |
|       |             |     |  |
|       | 650489      |     | Screw, 1/4-20 x 5/8"  * Coolean Culinder bood            |
|       | 32631A      |     | * Gasket, Cylinder head                                  |
|       | 30938A      |     | Head, Cylinder   |
|       | 27793       |     | Clip, Conduit (Use as required)                          |
|       | 28942       |     | Screw, 10-32 x 3/8" (Use as required)                    |
|       | 650697A     |     | Screw, 5/16-18 x 2-1/2" (Use as requi red)               |
|       | 650695A     |     | Screw, 5/16-18 x 2-1/4" (Use as requi red)               |
|       | 650694A     |     | Screw, 5/16-18 x 2" (Use as required)                    |
| 37    | 33636       |     | Resistor Spark Plug (RJ-8C)                              |
|       | 34251       |     | Resistor Spark Plug                                      |
|       | 27896A      |     | * Gasket, Breather cover                                 |
|       | 28423       |     | Body, Breather   |
|       | 28424       |     | Element, Breather  |
|       | 28425       |     | Cover, Valve spring                                      |
|       | 26073       |     | Washer (Use as required)                                 |
| 42    | 20010       |     | vidorior (Obe do required)                               |

| Ref #       | Part Number | Qty | Description   |
|-------------|-------------|-----|---|
| 42          | 650691      | ·   | Washer, Flat (Use as required)  |
|             | 650690      |     | Washer, Belleville (Use as required)  |
|             | 650128      |     | Screw, 10-24 x 1/2"   |
| 45          | 27915A      |     | * Gasket, Intake  |
| 46          | 34712       |     | Flange Carburetor   |
|             | 30196       |     | Screw, 5/16-18 x 3/4"   |
| 48          | 29716       |     | Screw, 1/4-28 x 7/16"   |
| 50          | 650548      |     | Screw, 8-32 x 5/16"   |
|             | 33454       |     | Lever Assy., Governor   |
|             | 34662       |     | Link, Throttle  |
|             | 29216       |     | Nut, Lock, 10-32  |
|             | 650152      |     | Screw, 8-32 x 3/8"  |
|             | 29826       |     | Screw, 10-32 x 3/4"   |
|             | 29642       |     | Ring, Retaining   |
| 63          | 30699B      |     | Governor Rod Ass'y. (This one-piece governor rodis no longer                    |
|             |             |     | used. It is replaced by 30699C ass'y.,Ref. no. 63A)                             |
| 63A         | 30699C      |     | Rod Assy., Governor (Incl. 64 & 65)   |
|             | 30700       |     | Yoke, Governor  |
|             | 650494      |     | Screw, 6-40 x 5/16"   |
| 66          | 29918       |     | Lockwasher, #8 E.T.   |
| 67          | 35350       |     | Tube, Breather  |
| 69          | 29747B      |     | Screw, 5/16-24 x 21/32"   |
| 70          | 32158E      |     | Blower Housing (For elec.star.)(Incl. 134,135)                                  |
| 71          | 650815      |     | Washer, Belleville  |
| 72          | 8116        |     | Nut, Hex  |
| 73          | 29536       |     | Blower Housing Baffle (without electric starter knock-out)                      |
|             |             |     | (Use as required)   |
| 73          | 35256A      |     | Blower Housing Baffle (with electric starter knock-out) (Use                    |
|             |             |     | as required) (Point Ignition)   |
| 74          | 650561      |     | Screw, 1/4-20 x 5/8"  |
|             | 31688A      |     | * Gasket, Carburetor  |
|             | 650517      |     | Screw, 1/4-20 x 27/32"  |
|             | 730164      |     | Air Cleaner Ass'y. (Incl. 60, 83, 87, 88, 89, 90A & 331B)                       |
| <b>32</b> ( | 700101      |     | (Use as required)   |
| 00          | 070704      |     | . ,   |
|             | 27272A      |     | * Gasket, Air cleaner   |
| 87          | 31691       |     | Bracket, Air cleaner NOTE: 130010 thru 10C & 11 used in                         |
|             |             |     | early production only.  |
|             | 28820       |     | Screw, 10-32 x 1/2"   |
| 89          | 30727       |     | Element, Air cleaner  |
|             | 31715       |     | Body, Air cleaner   |
|             | 31342       |     | Spring, Compression   |
|             | 650549      |     | Screw, 5-40 x 7/16"   |
|             | 29538       |     | Base, Engine mounting   |
|             | 32401       |     | Muffler   |
|             | 31845       |     | Shaft, Mechanical governor  |
|             | 30591       |     | Gear Assy., Governor (Incl. 109)  |
|             | 30588A      |     | Spool, Governor   |
|             | 30590A      |     | Washer, Flat  |
|             | 29193       |     | Ring, Retaining   |
|             | 34158       |     | Bracket, Fuel tank  |
|             | 650561      |     | Screw, 1/4-20 x 5/8"  First Table (last 445 8 800) NOTE: Thosa tools were built |
| 114         | 34186A      |     | Fuel Tank (Incl. 115 & 266) NOTE: These tanks were built                        |
|             |             |     | with different size fuel inlet openings. Tanks with the 1-3/16"                 |
|             |             |     | I.D. opening use fuel cap 33032 or 34210. Tanks with the                        |
|             |             |     | 1-1/2" I.D. opening use fuel cap 35355 or 35650.                                |

| 115  | Part Number<br>410144B<br>33032  | Qty | Description Fuel Cap (White Plastic)(Std)(As requ ired) Fuel Cap (Charcoal Plastic) (Spurt resistant, Low profile) (Use as required)   |
|--|--|-----|--|
| 115  | 34210  |     | Fuel Cap (Red Plastic) (Spurt resistant, High profile) (Use as required)   |
| 116D<br>118<br>118<br>118<br>120<br>121<br>124<br>125<br>126<br>127<br>128<br>129<br>130<br>131<br>133<br>149<br>150<br>151<br>193<br>205<br>209<br>246<br>247<br>266<br>270<br>271<br>274<br>287<br>331A<br>331<br>332<br>333 | 35355 34159 29774 30705 30962 650128 30622A 650542 27930A 30196 26073 650694A 32589 31843A 650836 650493 30747 650890 650665 610118 650561 30939A 32125 590417 26460 31461 33876 610973 27275 34246 34346 550223 30547A 30548B 631021 631453 |     | Fuel Cap (Use as required) Plate, Fuel tank mounting Fuel Line (Braided 8-1/4" 21 cm) (Use as req.) Fuel Line (Braided 16") (41 cm) (Use as req.) Fuel Line (Braided 32") (81 cm) (Use as req.) Fuel Line (Braided 32") (81 cm) (Use as req.) Screw, 10-24 x 1/2" (Use as required) Extension, Blower housing Screw, 5/16-18 x 3/4" Gasket, Exhaust Screw, 5/16-18 x 3/4" Washer (Use as required) Screw, 5/16-18 x 2" (Use as required) Key, Flywheel Bracket, Governor gear Screw, 10-24 x 1/2" Screw, 1/4-20 x 1-3/4" Clip, Shorting Lockwasher Screw, 1/4-15 x 7/8" Cover, Spark plug (Use as required) Screw, 1/4-20 x 5/8" (Use as required) Cover, Cylinder head Cup, Starter Screen, Starter cup Clamp, Fuel line Bushing, Crankshaft (Use as required) Gasket, Stator Terminal Ass'y. (As req. on late prod uction) Clip, Hi-tension wire (Use as required) Decal, Instruction Decal, Name Contact Assy., Breaker Condenser Inlet Needle, Seat & Clip Assy. Carburetor (Incl. 75) (Refer to Division 5, Section A, page 100 |
| 337  | 610689A  |     | for breakdown)  Magneto NOTE: The complete magneto is not available as an assembly. The magneto number is shown for reference purposes only. Order component parts individually, as show in parts list. (Refer to Division 5, Section B, page 24 for breakdown)  |
| 338  | 590420   |     | Rewind Starter (Refer to Division 5, Section C, page 25 for breakdown)   |
| 343  | 33239A   |     | Gasket Set (Incl. items marked*)   |
|  |  |     |  |



| Ref # | Part Number Qt | y D                 | Description   |
|-------|----------------|---------------------|---|
| 31    | 650489         |                     | Screw, 1/4-20 x 5/8"  |
| 34    | 27793          | С                   | Clip, Conduit (Use as required)   |
| 35    | 28942          | S                   | Screw, 10-32 x 3/8" (Use as required)   |
| 43A   | 650128         |                     | Screw, 10-24 x 1/2"   |
| 48    | 29716          | S                   | Screw, 1/4-28 x 7/16"   |
| 56    | 34662          | Li                  | ink, Throttle   |
| 71    | 650815         | W                   | Vasher, Belleville  |
| 72    | 8116           | Ν                   | lut, Hex  |
| 98    | 31342          | S                   | Spring, Compression   |
|       | 650549         | S                   | Screw, 5-40 x 7/16"   |
| 180A  | 34663          | S                   | Spring, Speed control   |
| 180   | 650821         | S                   | Screw, 10-32 x 1/2"   |
| 181   | 34661          |                     | ink, Governor   |
|       | 610118         |                     | Cover, Spark plug (Use as required)   |
|       | 650764         |                     | lut, "U" Type (Use as required)   |
|       | 34664          |                     | Control Bracket (Incl. 98, 99, 180A & 274)  |
|       | 610973         |                     | erminal Ass'y. (As req. on late prod uction)  |
|       | 550223         |                     | Decal, Name   |
| 338   | 590420         |                     | Rewind Starter (Refer to Division 5, Section C, page 25 for reakdown)   |
| 340   | 33328D         | m<br>ad<br>bd<br>nu | Starter Motor Kit (110-120 Volt) This 110-120 volt starter notor kit may have been added to this engine. It can be added only if cylinder hasdrilled and tapped starter mounting cosses and a ring gear flywheel (see#342). Refer to service number stamped on end cap of motor, or on decal, for dentifica |
| 342   | 30811A         |                     | lywheel (Ring gear flywheel requiredon engines using 10-120 volt starter kits listed above)   |
| 342   | 611042         | ig                  | Tywheel (Used on Type letters H and above) (Std. Point gnition) (Ring gear flywheel required on engines using 10-120 volt starter kits listed above)  |
| 342   | 611085         | us                  | Tywheel (Minimum ring gear flywheel required on engines sing 110-120 volt starter kits listed above) (Use withSolid State ignition)   |
|       |                |                     |   |



| Defi | Dart Number | O+ - | Description  |
|------|-------------|------|--|
|      | Part Number | Uty  | Description  |
|      | 27513       |      | Lockwasher, 1/4" (Use as required)                             |
|      | 650697A     |      | Screw, 5/16-18 x 2-1/2" (Use as requi red)                     |
|      | 650695A     |      | Screw, 5/16-18 x 2-1/4" (Use as requi red)                     |
|      | 650694A     |      | Screw, 5/16-18 x 2" (Use as required)                          |
|      | 27896A      |      | * Gasket, Breather cover                                       |
|      | 26073       |      | Washer (Use as required)                                       |
| 42   | 650691      |      | Washer, Flat (Use as required)                                 |
| 50   | 650548      |      | Screw, 8-32 x 5/16"  |
| 51   | 30319       |      | Rivet, Split (Used in early productio n)                       |
| 52   | 33454       |      | Lever Assy., Governor  |
| 57   | 730130      |      | Exh.Adap.Kit (Incl. 58 & 125) (Use as req.)                    |
| 58   | 30196       |      | Screw, 5/16-18 x 3/4" (Use as require d)                       |
|      | 29216       |      | Nut, Lock, 10-32   |
|      | 29826       |      | Screw, 10-32 x 3/4"  |
|      | 29918       |      | Lockwasher, #8 E.T.  |
|      | 730561      |      | Air cleaner kit (Incl. 38, 67A, 83, 84B, 85,89B, 89C, 90A, 91, |
| 025  | 700001      |      | 91A, 91B, 91C, 91D, 245 & 331B) (Use only on engines with      |
|      |             |      | an externally vented fully adjustable carburetor)              |
|      |             |      | an externally vertica fally adjustable carburetory             |
| 82   | 730127      |      | Air Cleaner Ass'y. (Incl. 60, 83, 87, 88, 89A, 90, 238 &       |
|      |             |      | 331B) (Use as required)  |
| 02   | 27272A      |      | * Gasket, Air cleaner  |
|      | 34819       |      | Air Cleaner Elbow (Incl. 84B, 86A, 91, 91A, 91B & 91C) (Use    |
| 040  | 34019       |      |  |
|      |             |      | in 730561 assembly only)                                       |
| 88   | 28820       |      | Screw, 10-32 x 1/2"  |
| 90   | 31715       |      | Body, Air cleaner  |
| 103E | 391026      |      | Opt. Spark Arrest Muffler (Incl.196,1 97,199)                  |
|      | 650561      |      | Screw, 1/4-20 x 5/8"   |
|      | 29774       |      | Fuel Line (Braided 8-1/4" 21 cm)(Use as req.)                  |
|      | 30705       |      | Fuel Line (Braided 16") (41 cm) (Use as req.)                  |
|      | 30962       |      | Fuel Line (Braided 32") (81 cm) (Use as req.)                  |
|      | 27930A      |      | Gasket, Exhaust  |
|      | 30196       |      | Screw, 5/16-18 x 3/4"  |
|      | 650694A     |      | Screw, 5/16-18 x 2" (Use as required)                          |
|      | 650548      |      | Screw, 8-32 x 5/16" (Early production )                        |
|      | 34067       |      | Wire Assy., Alternator adapter (4-1/4 ")                       |
|      | 34069       |      | Wire Assy., Alternator adapter (4-7/4 ")                       |
|      | 30322       |      | Nut & Lockwasher (Early Prod. Only)                            |
|      | 29916       |      | Clamp, Governor lever (Early Prod. On ly)                      |
|      |             |      |  |
|      | 31288       |      | Exh. Adaptor Kit (Incl.125,203,204) ( As req.)                 |
|      | 650697A     |      | Screw, 5/16-18 x 2-1/2" (Use as requi red)                     |
|      | 6021A       |      | Screw, 5/16-18 x 1-1/2" (Use as requi red)                     |
| 266  | 26460       |      | Clamp, Fuel line   |
|      |             |      |  |