## SPECIFICATIONS

| | |
|---|---|
| Model Numbers | 125ESL71 (20" transom) |
| *Horsepower (B.I.A.-certified) | 125 hp at 5000 rpm |
| Full throttle operating range | 4500 to 5500 rpm |
| Tank test with test wheel part number 384933 | 5400 rpm |
| Engine type | 90° V-type, 4 cylinder, 2 cycle |
| Bore and stroke | 3-1/2" bore x 2-19/32" stroke |
| Piston displacement | 99.6 cubic inches |
| Piston ring sets (2 per set) standard | Part Number 384539 |
| .020" oversize | Part Number 384982 |
| .030" oversize | Part Number 384980 |
| Diameter of ring | 3.500 in. (standard) |
| Width of ring | Upper .0895 - .0900 in. |
| | Lower .0615 - .0625 in. |
| Piston ring lbs. compression recommended when compressed | Upper 3.600 min. lbs. |
| | Lower 3.300 - 4.900 lbs. |
| Piston less rings | |
| Standard | Part Number 384516 |
| .020" oversize | Part Number 384981 |
| .030" oversize | Part Number 384979 |
| Crankshaft size | |
| Top journal | 1.4980 - 1.4975 |
| Center journals | 1.3752 - 1.3748 |
| Bottom journal | 1.1815 - 1.1810 |
| Connecting rod crank pin | 1.1828 - 1.1823 |
| Carburetion | 2 carburetors - Float feed with low-speed adjustment |
| | Automatic, manual lever and remote control choke |
| Float level setting | Remove float bowl, turn carburetor upside down so weight of float closes needle; float should now be parallel to gasket surface. |
| Carburetor orifice plug | Part Number 314893 Hole size .065 |
| Inlet needle seat | .065 - .062 Use a #52 drill as gage |
| Cooling system | Thermostatically controlled recirculating system |
| Propeller gear ratio | 13:26 |
| Propeller supplied with motor | Aluminum 3 blade, 12-3/4" dia. 21" pitch |
| Alternate propellers | Aluminum 3 blade, 13-1/4" dia. x 17" pitch |
| | Aluminum 3 blade, 14" dia. x 11" pitch |
| | Aluminum 3 blade, 14" dia. x 13" pitch |
| | Aluminum 3 blade, 13-3/4" dia. x 15" pitch |
| | Aluminum 3 blade, 13" dia. x 19" pitch |
| | Aluminum 3 blade, 12-3/4" dia. x 23" pitch |
| | Bronze 2 blade, 13-3/4" dia. x 21" pitch |
| | Bronze 2 blade cupped, 13-3/4" dia. x 21" pitch |
| | Bronze 2 blade cupped, 13-3/4" dia. x 23" pitch |
| | Stainless steel 3 blade, 13" dia. x 19" pitch |
| | Stainless steel 3 blade, 12-3/4" dia. x 21" pitch |
| | Stainless steel 3 blade, 12-3/4" dia. x 23" pitch |
| Speed control | Remote control - synchronized throttle and spark |
| Gear shift control | Hydro-Electric - forward, neutral, reverse - remote control |
| Shift solenoids | 5-6 ohms (lo ohms scale) |
| Weight (without fuel tank) | 252 lbs. |
| | (Fuel tank weight 11 lbs. net) |
| Fuel capacity | 6 gallons |
| Starter | Electric and emergency rope |
| Electrical system | 9 amp flywheel alternator |
| Starter amp draw when cranking | 185 amperes maximum |
| Ignition (CD breakerless) | Battery - Power Pulse |
| Spark plug | Champion L-77V |
| Spark plug torque | 17-1/2 - 20-1/2 foot-pounds |
| Sensor air gap | .028 in. |

Part No. 580740 Coil Test Specifications - New Stevens Tester Model No. M.A. - 75 **Use Model CD-1 Adapter

| Switch | Coil | Index Adjustment |
|---|---|---|
| **A | 580740 | 20 |

*Horsepower established at sea level. Allow 2% reduction per 1000' above sea level.

| Merc-O-Tronic with Capacitor Discharge Adapter Model 55-980 | | |
|---|---|---|
| Operating Amperage | Primary Resistance | Secondary Continuity |
| Min. - Max. | Min. - Max. | Min. - Max. |
| 1.4 | | 22 - 26 |

Graham Tester Model 51

| | |
|---|---|
| Secondary Continuity | 3000 ohms maximum |
| Primary Continuity | 1.2 ohms maximum |
| Coil Index | 60 |
| Coil Test (Normal) | 9 minimum |
| Coil Test (Amplified) | 80 minimum |
| Gap Index | 50 maximum |

## CLEARANCE CHART

| | |
|---|---|
| Power head | |
| Piston and wrist pin - loose end | .0006 max. - .0001 min. |
| Piston ring gap | .017 max. - .007 min. |
| Lower piston ring groove clearance | .004 max. - .002 min. |
| Cylinder and piston skirt | .0045 max. - .0030 min. |
| Crankshaft bearings | |
| Upper | Roller type |
| Center | Roller type |
| Lower | Ball type |
| Crankshaft end play | .0336 max. - .0006 min. |
| Connecting rod bearings | |
| Piston end | Roller type |
| Crankshaft end | Roller type |
| Lower unit | |
| Gearcase head and propeller shaft | Roller type |
| Driveshaft to gearcase - upper | Roller type |
| Pinion to gearcase | Roller type |
| Propeller shaft to oil pump | Roller type |
| Front gear bushing to propeller shaft | .002 max. - .001 min. |
| Propeller on shaft | spline |

## TORQUE CHART

| | |
|---|---|
| Power head | |
| Flywheel nut | 70-85 ft.-lbs. |
| Connecting rod screws | 348-372 in.-lbs. (29-31 ft.-lbs.) |
| **Cylinder head screws | 168-192 in.-lbs. (14-16 ft.-lbs.) |
| Crankcase to cylinder screws and nuts | |
| Upper | 144-168 in.-lbs. |
| Center | 162-168 in.-lbs. |
| Lower | 144-168 in.-lbs. |
| Spark plugs | 17-1/2-20-1/2 ft.-lbs. |
| Lower journal bearing retainer plate screws | 96-120 in.-lbs. |
| Distributor cap and stator screws | 48-60 in.-lbs. |
| Crankcase head screws | |
| Upper | 120-144 in.-lbs. (10-12 ft.-lbs.) |
| Lower | 96-120 in.-lbs. (8-10 ft.-lbs.) |
| Starter thru-bolts | 110-122 in.-lbs. |
| Starter drive assembly locknut | 25-30 ft.-lbs. |
| Driveshaft pinion nut | 60-65 ft.-lbs. |

**Retorque to 18-20 ft.-lbs. or 216-240 in.-lbs. after motor test.

**CAUTION**

When tightening two or more screws on the same part, DO NOT tighten screws completely, one at a time. To avoid distortion of the part, first tighten all screws together to one-third of specified torque, then to two-thirds of specified torque, then torque down completely.