

**SPECIFICATIONS**

Model Numbers . . . . . 2R74  
 \*Horsepower (B.I.A.-certified) . . . . . 2 HP at 4500 rpm  
 Full throttle operating range . . . . . 4200 to 4800 RPM  
 Test tank with test wheel . . . . . 4000 RPM  
 Test wheel . . . . . Part Number 316021  
 Engine type . . . . . Single cylinder, 2 cycle  
 Bore and stroke . . . . . 1-9/16" bore x 1-3/8" stroke  
 Piston displacement . . . . . 2.64 cubic inches  
 Piston ring sets (2 per set)  
     Standard . . . . . Part Number 383920  
     .030" oversize . . . . . Part Number 384312  
 Diameter of ring . . . . . 1.563 in. (standard)  
 Width of ring . . . . . .0625 - .0615 in.  
 Lbs. compression recommended when compressed . . . . . 1.3 to 2.8 lbs.  
 Piston and rings - standard . . . . . Part Number 384651  
     .030" oversize piston less rings . . . . . Part Number 384666  
 Crankshaft size  
     Top journal . . . . . .7502 - .7497 in.  
     Bottom journal . . . . . .7502 - .7497 in.  
 Connecting rod crank pin . . . . . .6690 - .6685 in.  
 Carburetion . . . . . Single barrel float feed, with high and low-speed adjustments  
 Float level setting . . . . . Flush with casting  
 Inlet needle seat . . . . . .050 - .053 Use a #55 drill as gage  
 Cooling system . . . . . Vari-volume pump  
 Propeller gear ratio . . . . . 12:25  
 Propeller drive pin . . . . . Part Number 316558  
 Propeller . . . . . 7-1/4 x 4-1/2  
 Speed control . . . . . Single lever, synchronized throttle and spark  
 Weight . . . . . 24 lbs.  
 Fuel capacity . . . . . Gravity feed integral tank 1 qt.  
 Starter . . . . . Manual self rewinding  
 Ignition . . . . . Flywheel magneto  
 Spark plug . . . . . AC-M44C, Champion J6J - 14mm  
 Spark plug gap . . . . . .030 inch  
 Spark plug torque . . . . . 17-1/2 - 20-1/2 foot-pounds  
 Breaker point gap . . . . . .020 inch  
 Condenser . . . . . Part Number 580321  
     Capacity . . . . . .18 to .22 Mfd.  
 Coil . . . . . Part No. 580971

**COIL TEST SPECIFICATIONS**

Old Stevens Tester

| Switch | Index Reading |
|--------|---------------|
| A      | 2. to 2.5     |

New Stevens Tester Model No. M.A. -75

| Switch | Index Adjustment |
|--------|------------------|
| A      | 22               |

Merc-O-Tronic

| Operating Amperage | Primary Resistance |      | Secondary Continuity |      |
|--------------------|--------------------|------|----------------------|------|
|                    | Min.               | Max. | Min.                 | Max. |
| 1.7                | .45                | .65  | 35                   | 45   |

Graham Tester Model 51

| Maximum Secondary | Maximum Primary | Coil Index | Minimum Coil Test | Max. Gap Index |
|-------------------|-----------------|------------|-------------------|----------------|
| 5500              | 1.2             | 75         | 33                | 75             |

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

**CLEARANCE CHART**

|                                     |                         |
|-------------------------------------|-------------------------|
| Power head                          |                         |
| Piston ring gap                     | .015 max. - .005 min.   |
| Piston ring - groove                | .0040 max. - .0020 min. |
| Cylinder and piston                 | .0055 max. - .0043 min. |
| Crankshaft                          |                         |
| Upper                               | Needle bearing          |
| Lower                               | Needle bearing          |
| Connecting rod                      |                         |
| Piston end                          | .0011 max. - .0004 min. |
| Crankshaft end                      | Needle bearing          |
| Lower unit                          |                         |
| Driveshaft and bushing in gear case | .0028 max. - .0010 min. |
| Gearcase head and propeller shaft   | .0022 max. - .0007 min. |
| Propeller on shaft                  | .0057 max. - .0032 min. |
| Gearcase bushing to propeller shaft | .0022 max. - .0007 min. |

**TORQUE CHART**

|   |                             |
|---|-----------------------------|
| Power head                                    |                             |
| Flywheel nut                                  | 22 - 25 foot-pounds         |
| Connecting rod screws                         | 60 - 66 inch-pounds         |
| Cylinder head screws                          | 60 - 80 inch-pounds         |
| Manifold to crankcase screws                  | 60 - 80 inch-pounds         |
| Bearing housing to cylinder screws            | 60 - 80 inch-pounds         |
| Spark plug                                    | 17-1/2 - 20-1/2 foot-pounds |
| Lower unit                                    |                             |
| Pull at propeller shaft to tilt up lower unit | 11 - 14 lbs.                |

**SCREW TORQUE**

Torque should be used on the following sizes unless otherwise specified.

**Standard screws**

|        | <u>Inch-Pounds</u> | <u>Foot-Pounds</u> |
|--------|--------------------|--------------------|
| No. 6  | 7-10               |                    |
| No. 8  | 15-22              |                    |
| No. 10 | 25-35              | 2-3                |
| No. 12 | 35-40              | 3-4                |
| 1/4"   | 60-80              | 5-7                |
| 5-16"  | 120-140            | 10-12              |
| 3/8"   | 220-240            | 18-20              |

**NOTE**

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.

Re-torque cylinder head screws and spark plugs after motor has been run and has reached operating temperature, and has cooled comfortable to touch.