

**SPECIFICATIONS**

Model Numbers ..... 2R72  
 \*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 203230  
 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.

**Part No. 580416 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. |
| 1.4                | .45                | .55  | 35                   | 45   |

**Graham Tester Model 51**

| Maximum Secondary | Maximum Primary | Coil Index | Minimum Coil Test | Gap Index |
|-------------------|-----------------|------------|-------------------|-----------|
| 5500              | 1.2             | 75         | 33                | 70        |

\* 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. - .0022 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.