

SPECIFICATIONS


Model	4W72 (weedless gearcase) 4R72 (standard gearcase)	Propeller gear ratio	17:28 4W72 Model 12:25 4R72 Model										
*Horsepower (B.I.A. - certified)	4 hp at 4500 rpm	Propeller drive	Part Number 203230 1/8" x 13/16" stainless steel										
Full throttle op.-range	4000 to 5000 rpm	Propeller	4R72 Models - Standard - 8" diameter x 5-1/2" pitch, 3 blade Optional - 8" x 4-1/2", 3 blade 4W72 Models - 6-1/4" diameter x 5-1/2" pitch, 3 blades										
Test tank rpm with test wheel	4100 rpm Part Number 316021 for 4W72 Part Number 316960 for 4R72	Speed control	Single lever, synchronized throttle and spark										
Engine type	2 cylinder, 2 cycle alternate firing	Weight	4W72 Model - 34.0 lbs. 4R72 Model - 34.5 lbs.										
Bore and stroke	1-9/16" bore x 1-3/8" stroke	Hi Lift vacuum fuel system	3 gal. tank and plug in hose										
Piston displacement	5.28 cubic inches	Fuel capacity	3 gallons										
Piston ring sets (2 per set)		Starter	Swing-Arm, self-rewinding										
standard	Part Number 383920	Ignition	Flywheel magneto										
.030" oversize	Part Number 384312	Spark plug	AC-M44C, Champion J6J, - 14mm										
Diameter of ring	1.563 in. (standard)	Spark plug gap	.030 inch										
Width of ring	.0625 - .0615 in.	Spark plug torque	17-1/2 - 20-1/2 foot-pounds										
Lbs. compression recommended when compressed	1.3 to 2.8 lbs.	Breaker point gap	.020 inch										
Piston and ring assembly		Condenser Capacity	Part Number 580321 .18 to .22 Mfd.										
standard	Part Number 384651	COIL SPECIFICATIONS											
.030" oversize	Part Number 384666	Part No. 580416 Coil Test Specifications:											
Crankshaft size		Old Stevens Tester											
top journal	.7520 - .7515 in.	<table border="1"> <thead> <tr> <th>Switch</th> <th>Index Reading</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>2.0 - 2.5</td> </tr> </tbody> </table>		Switch	Index Reading	A	2.0 - 2.5						
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A	2.0 - 2.5												
center journal	.6854 - .6849 in.	New Stevens Tester Model No. M.A.-75											
bottom journal	.6854 - .6849 in.	<table border="1"> <thead> <tr> <th>Switch</th> <th>Index Adjustment</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>22</td> </tr> </tbody> </table>		Switch	Index Adjustment	A	22						
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A	22												
Connecting rod crank pin	.6255 - .6250 in.	Merc-O-Tronic											
Carburetion	Single barrel float feed, with high and low-speed adjustments manual choke	<table border="1"> <thead> <tr> <th>Operating Amperage</th> <th>Primary Resistance Min. Max.</th> <th>Secondary Continuity Min. Max.</th> </tr> </thead> <tbody> <tr> <td>1.4</td> <td>.45 - .55</td> <td>35 - 45</td> </tr> </tbody> </table>		Operating Amperage	Primary Resistance Min. Max.	Secondary Continuity Min. Max.	1.4	.45 - .55	35 - 45				
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1.4	.45 - .55	35 - 45											
Float level setting	Parallel with casting	Graham Tester Model 51											
Inlet needle seat	.053 - .050 Use a #55 drill as gage.	<table border="1"> <thead> <tr> <th>Maximum Secondary</th> <th>Maximum Primary</th> <th>Coil Index</th> <th>Minimum Coil Test</th> <th>Gap Index</th> </tr> </thead> <tbody> <tr> <td>5500</td> <td>1.2</td> <td>75</td> <td>33</td> <td>70</td> </tr> </tbody> </table>		Maximum Secondary	Maximum Primary	Coil Index	Minimum Coil Test	Gap Index	5500	1.2	75	33	70
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5500	1.2	75	33	70									
Cooling system	Vari-volume (combination positive displacement and centrifugal pump).												

*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	.0020 Max. - .0008 Min.	
Crankshaft - Upper	Needle Bearings .0023 Max. - .0013 Min. .0023 Max. - .0013 Min.	
- Center		
- Lower		
Connecting rod - Piston end	.0011 Max. - .0004 Min.	
- Crankshaft end	.0017 Max. - .0007 Min.	
LOWER UNIT		
	Weedless	Standard
Standard Pinion & Bushing In Gear Case		.0018 Max. - .0005 Min.
Weedless Drive Shaft & Bushing In Gear Case	.003 Max. - .001 Min.	
Gear Housing Cap	.0015 Max. - .0005 Min.	.0020 Max. - .0005 Min.
Propeller On Shaft	.0063 Max. - .0020 Min.	.0055 Max. - .003 Min.
Gear Case Bushing To Propeller Shaft		.0020 Max. - .0005 Min.

TORQUE CHART

POWER HEAD		
Flywheel nut	30 - 40 Foot-pounds	
Connecting rod screws	60 - 66 Inch-pounds	
Cylinder head screws	60 - 80 Inch-pounds	
Crankcase to cylinder screws - upper, center, lower	60 - 80 Inch-pounds	
Spark plugs	17-1/2 - 20-1/2 Foot-pounds	
Pull at propeller shaft to tilt up lower unit	12 - 15 lbs.	
STANDARD SCREWS		
	Inch-Pounds	Foot-Pounds
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		
<p>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.</p> <p>NOTE: Re-check torque on cylinder head screws and spark plugs after motor has been run and has reached operating temperature, and has cooled comfortable to touch.</p>		