

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	Press fit
Piston ring gap017 max. - .007 min.
Piston ring groove clearance0040 max. - .0015 min.
Cylinder and piston0060 max. - .0045 min.
Crankshaft bearings	
Upper	Roller type
Center	Roller type
Lower	Ball type
Crankshaft end play0156 max. - .0006 min.
Connecting rod bearings	
Piston end	Needle bearing
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 shaft002 max. - .001 min.
Propeller on shaft	Spline

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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	144-168 in.-lbs.
Lower	144-168 in.-lbs.
Spark plugs	17-1/2-20-1/2 ft.-lbs.
Magneto charge coil and stator screws	48-60 in.-lbs.
Pinion nut, driveshaft	40-45 ft.lbs.
Starter through bolts	54-66 in.-lbs.
Starter drive assembly lock nut	25-30 ft.-lbs.

**Retorque to 16-18 ft. lbs. or 192-216 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.

NOTE

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