

Name: _____

Period: _____

Serial #: _____ Pg 13

Model/Part #: _____ Pg. 13

Engine Measurement Worksheet

Use the [Service Manual](#) to find all specifications in **Inches**:

- | | | |
|----------------------------|-------|---------|
| 1. Recommended Oil Weight: | _____ | Pg. 13 |
| 2. Bore: | _____ | Pg. 102 |
| 3. Stroke: | _____ | Pg. 102 |
| 4. Displacement: | _____ | Pg. 102 |
| 5. Compression Ratio: | _____ | Pg. 102 |
| 6. Oil Capacity: | _____ | Pg. 102 |

Ignition

- | | | |
|----------------------|-------|---------|
| 1. Spark plug Gap: | _____ | Pg. 102 |
| 2. Armature Air Gap: | _____ | Pg. 102 |

Cylinder Head

- | | | |
|-------------------------|-------|------------------|
| 1. Max out of flatness: | _____ | Pg. 54 (meas. 1) |
|-------------------------|-------|------------------|

Valves and Valve Lifters

- | | | | |
|------------------------------|------------|--------------|--------------------|
| 1. Intake Valve Stem Dia: | Std. _____ | Reject _____ | Pg. 103 (meas.10) |
| 2. Exhaust Valve Stem Dia: | Std. _____ | Reject _____ | Pg. 103 (meas. 11) |
| 3. Intake Valve Guide Bore: | Std. _____ | Reject _____ | Pg. 103 (meas. 12) |
| 4. Exhaust Valve Guide Bore: | Std. _____ | Reject _____ | Pg. 103 (meas. 13) |

Connecting Rod

- | | | | |
|----------------------------|------------|--------------|--------------------|
| 1. Crank Pin Bearing Bore: | Std. _____ | Reject _____ | Pg. 104 (meas. 18) |
|----------------------------|------------|--------------|--------------------|

Crankshaft

- | | | | |
|-------------------------------|------------|--------------|--------------------|
| 1. Crank Pin Journal Diameter | Std. _____ | Reject _____ | Pg. 103 (meas. 19) |
| 2. MAG Side Journal Diameter | Std. _____ | Reject _____ | Pg. 104 |
| 3. PTO Side Journal Diameter | Std. _____ | Reject _____ | Pg. 104 |

Crankcase/Cylinder

- | | | |
|----------------------------|------------|---------------------------------|
| 1. Cylinder Bore Diameter: | Std. _____ | Pg. 106 (meas. 21-23) |
| 2. Max Out of Round: | Std. _____ | Reject _____ Pg. 106 (meas. 27) |

Using your Briggs Engine, Measure or Answer the Following:

1. Cylinder Head Warp: (Yes or No) _____
2. Does the engine have an overhead cam or pushrod design? _____
3. # of Cylinders in engine: _____
4. Height of un-compressed **Intake** valve spring: _____
5. Height of un-compressed **Exhaust** valve spring: _____
6. **Intake** Valve Length: _____
7. **Exhaust** Valve Length: _____
8. **Intake** Valve Diameter: _____
9. **Exhaust** Valve Diameter: _____
10. **Intake** Valve Stem Diameter: **Top** _____ **Middle** _____ **Bottom** _____
11. **Exhaust** Valve Stem Diameter: **Top** _____ **Middle** _____ **Bottom** _____
12. **Intake** Valve Guide Inner Diameter: _____
13. **Exhaust** Valve Guide Inner Diameter: _____
14. **Intake** Valve stem clearance: _____ (Valve guide – valve stem = clearance)
15. **Exhaust** Valve stem clearance: _____ (Valve guide – valve stem = clearance)
16. Piston Diameter #1(Perpendicular to pin): _____
17. Piston Diameter #2 (Across pin): _____
18. Connecting Rod Diameter: _____
19. Crankshaft Journal Diameter: _____
20. Rod to Journal Clearance: _____ (rod – journal = clearance)
21. Cylinder Diameter **Top** _____ **22. Middle** _____ **23. Bottom** _____
24. Block Main Bearing (flywheel side): _____
25. Crankshaft Main Bearing Clearance: _____ (Main Bearing – Crankshaft = clearance)
26. Block Main Bearing (opposite side): _____ (Block Bearing – Crankshaft = clearance)
27. Cylinder Bore Taper: _____ (Largest Cylinder Diameter) - (Smallest)