

Name: _____

Two-letter state abbreviation.

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Team number (0301, 0302, - 0350) ↑

Team member number (01, 02, 03, or 04)

Judges, after this skill sheet has been scored and double checked, write the total score for this activity in the blank below.

Skill Activity Score: _____

Judges Initials: _____

Vertical Shaft

Horizontal Shaft

3. According to the specifications listed in the Single Cylinder OHV Air-Cooled Engine repair manual at your station, what is the intake and exhaust valve clearance (**inches**) for the engine model at your station?

Include the unit of measurement for full credit.

Points Possible	Points Awarded
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Intake Valve _____ (min.) _____ (max)

2 pts. _____

Exhaust Valve _____ (min.) _____ (max)

2 pts. _____

4. What is the model number for the pump?

Pump Model Number: _____

1 pt. _____

5. According to the product specifications listed in the Elite Series water pump owner's manual; what is the maximum head discharge lift for the pump model at your station? Include the appropriate unit of measurement for full credit.

Discharge Lift: _____

2 pts. _____

6. According to the product specifications listed in the Elite Series water pump owner's manual; what is the specified displacement of the engine attached to the pump at your station? Include the appropriate unit of measurement for full credit.

Displacement: _____

2 pts. _____

Skill Practicum: Follow the instructions for the reassembly of the head as outlined in the Briggs and Stratton Single Cylinder OHV Air-Cooled Engine repair manual. The push rod cylinder head plate, plate gasket, plastic push rod guides, and rocker arm studs have already been installed on the head.

7. Install exhaust valve; valve in correct location, valve spring and spring retainer correctly installed.

3 pts. _____

8. Install intake valve and stem seal/washer; valve in correct location, stem seal, spring and retainer correctly installed.

3 pts. _____

9. Install cylinder head.

2 pts. _____

10. Install push rods and valve stem caps.

2 pts. _____

11. Install rocker arms and rocker balls.

2 pts. _____

12. Adjust exhaust valve clearance. Correct clearance; set screw snug.

2 pts. _____

Note: Use the wooden dowel to help find TDC

13. Adjust intake valve clearance. Correct clearance; set screw snug.

2 pts. _____

Do not install the valve cover.

Judge's Section – Do not Write in this area

Safety Infractions: All contestants start with two points. Take note here if a safety infraction is witnessed and deduct one point per infraction accordingly.

2 pts. _____

_____ **First Infraction** _____ **Second Infraction**

Total Possible Points for Compact Equipment Skill Activity

30 pts. _____