

Iowa FFA Agricultural Mechanics Career Development Event
2005

State of Iowa
DEPARTMENT OF EDUCATION
Career Education Division
Grimes State Office Building
Des Moines, IA 50319

CONTESTANT NAME _____

CONTESTANT SCHOOL _____

ENERGY SYSTEMS
Small Gasoline Engines
(15 minutes)

I. This small gasoline engine is used on a lawn sprayer to power the sprayer pump. As part of its annual service and maintenance, a number of tasks should be completed. Using the owner's service and maintenance manual, determine the following adjustments and specifications:

1. Engine Model: _____
2. Spark Plug gap: _____ inches
3. Carburetor:
 - a. carburetor type _____
 - b. idle mixture screw _____ turns off seat
 - c. Is the engine governed (yes/no)? _____
4. Ignition armature air gap (two-leg) _____ inches
5. Idle speed (minimum) _____ RPM
6. Cylinder head torque: _____ (in-lbs)

II. Use the engine and tools provided to adjust the spark plug gap to specification above, No. 2.
(NOTE: do not install the spark plug in the engine when completed).

When you are finished, request the judge to come to your station to evaluate your adjustments.

EVALUATION SCORE SHEET

ITEM	POINTS	
	POSSIBLE	EARNED
Specifications, 1 through 6, 2 pts each answer.	16	_____
Spark plug correctly gapped	6	_____
Safety and use of tools.	<u>3</u>	_____
..... TOTAL	25	<div style="border: 1px solid black; width: 50px; height: 30px; margin: 0 auto;"></div>

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I. This small gasoline engine is used on a lawn sprayer to power the sprayer pump. As part of its annual service and maintenance, a number of tasks should be completed. Using the owner's service and maintenance manual, determine the following adjustments and specifications:

- | | |
|--|--------------------------------------|
| 1. Engine Model: | 133412 |
| 2. Spark Plug gap: | 0.030 inches |
| 3. Carburetor: | |
| a. carburetor type | Flo-jet LMS |
| b. idle mixture screw | 1-1/4 to 1-1/2 turns off seat |
| c. Is the engine governed (yes/no)? | YES |
| 4. Ignition armature air gap (two-leg) | 0.010 to 0.014 inches |
| 5. Idle speed (minimum) | 1200 RPM |
| 6. Cylinder head torque: | 140 in-lbs |

II. Use the engine and tools provided to adjust the spark plug gap to specification above, No. 2.
(NOTE: do not install the spark plug in the engine when completed).

When you are finished, request the judge to come to your station to evaluate your adjustments.

EVALUATION SCORE SHEET

ITEM	POINTS	
	POSSIBLE	EARNED
Specifications, 1 through 6, 2 pts each answer.	16	_____
Spark plug correctly gapped	6	_____
Safety and use of tools.	<u>3</u>	_____
..... TOTAL	25	<input type="text"/>