

Small Engine Service and Repair

Curriculum Guide: *Small Engine Service and Repair*

Module: 8. Operation and Maintenance of Small Engines

Unit Objective:

Students will demonstrate an understanding of correct operation procedures for small engines by operating and maintaining a small engine.

Show-Me Standards: 4.7, HP5

References:

Briggs & Stratton Corporation. Accessed January 13, 2004, from <http://www.briggsandstratton.com>.

Kohler Engines. Accessed January 13, 2004, from <http://www.kohlerengines.com/>.

Small Engine Service and Repair. University of Missouri-Columbia, Instructional Materials Laboratory, 1994.

Instructional Strategies/Activities:

- Students will engage in study questions in lesson 1.
- Students will complete the Module 8 evaluation, Maintaining Small Engines.
- Students will complete the following competency profile: Maintenance Procedures.
- Additional activities that relate to the unit objective can be found under the heading "Other Activities" in the following location: pp. 8.7-8.8 (1, 2).

Performance-Based Assessment:

As part of the instructional strategies and activities for this module, students will follow a step-by-step procedure for safely and correctly operating a small gas engine. They will also perform maintenance procedures, such as servicing ignition stop switches, mufflers, and cutter blades, and adjusting "System 2" and "System 4" Consumer Product Safety Commission (CPSC) compliance engines.

Assessment will be based on performance on the module evaluation and the ability to safely and correctly perform the assigned repair and service procedures.

Module 8—Operation and Maintenance of Small Engines Instructor Guide

The instructor should assign the performance-based assessment activity procedures in conjunction with the relevant lesson material outlined in the instructor guide. Students will complete the activity procedures as they progress through the module lessons.

1. Use the Maintenance Procedures Competency Profile to assess student performance. This profile includes the procedures listed below. The page number indicates the location of a checklist for the procedure. The procedures and checklists are found in the student manual.
 - Procedure for Safe Lawn Mower Operation, p. 8
 - Operating Small Engines, p. 14
 - Servicing Cutter Blade, p. 17
 - Servicing Mufflers: Bolt-On and Pipe Thread, p. 23
 - Adjusting “System 2” and “System 4” CPSC Compliance Engines, p. 25
 - Adjusting the Brake for “System 2” and “System 4” CPSC Compliance Engines, p. 28
 - Servicing Ignition Stop Switches, p. 30
2. Have students complete the Module 8 evaluation, Maintaining Small Engines. Answers for the evaluation are found on p. 8.8 of the instructor manual.
3. Because the student manual includes step-by-step instructions and an itemized checklist for each competency procedure, there is no student handout for this performance-based assessment activity. However, there is a scoring guide that can be used, if desired. The scoring guide lists the assessment activity procedures and includes spaces for points possible, points earned, and instructor comments.
4. The final assessment score will be based on the performance on the module evaluation and the ability to safely and correctly perform the assigned repair and service procedures.

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Module 8—Operation and Maintenance of Small Engines Scoring Guide

Name _____

Activity	Criteria	Points Possible	Points Earned	Instructor Comments
Maintenance Procedures Competency Profile	<input type="checkbox"/> Procedure for safe lawn mower operation			
	<input type="checkbox"/> Operating small engines			
	<input type="checkbox"/> Servicing cutter blade			
	<input type="checkbox"/> Servicing mufflers: bolt-on and pipe thread			
	<input type="checkbox"/> Adjusting "System 2" and "System 4" CPSC compliance engines			
	<input type="checkbox"/> Adjusting the brake for "System 2" and "System 4" CPSC compliance engines			
	<input type="checkbox"/> Servicing ignition stop switches			
Module 8 Evaluation	Complete Module 8 evaluation			

Total Points Earned _____

