

Spanish Fork High School 2014-15

Unit Topics and I Can Statements

Small Engine Repair

Basic Elements of the Small Engine Repair Industry

- ❖ I can identify career opportunities associated with small engine repair.
- ❖ I can identify the fundamentals of working in a small engine shop.
- ❖ I can diagnose basic problems associated with small engines.

Safe Use of Tools and Equipment

- ❖ I can demonstrate the ability to work safely in the shop following general safety rules.
- ❖ I can demonstrate the safe use of the tools and equipment in the shop.
- ❖ I can describe the safe use of hazardous chemicals and sealants in the shop.
- ❖ I can pass a safety test with 100% proficiency and explain these procedures to my instructor.

Workings of the Basic Combustible Engine

- ❖ I can identify and explain the workings of the 4 strokes of the 4-cycle engine.
- ❖ I can explain by listing all of the integral parts of the 4 cycle engine.
- ❖ I can diagnose common problems associated with inoperative small engines.

Basic Math and Measuring Concepts

- ❖ I can read the different measuring tools associated with small vehicle engines.
- ❖ I can use the basic math equations for calculating piston displacement.
- ❖ I can measure using digital and mechanical micrometers including the vernier caliper.
- ❖ I can understand both metric and SAE standard tool systems.

Nuts, Bolts and Adhesives

- ❖ I can understand bolt and nut thread pitch.
- ❖ I can understand the different strengths of hardeners and grades of the bolts.
- ❖ I can demonstrate the difference in using fine or coarse thread bolts.

Cleaning Parts and Surfaces of the Engine

- ❖ I can demonstrate the proper use of tools and chemicals in cleaning.
- ❖ I can demonstrate the proper use of sanding discs and keep in tolerance without damage.
- ❖ I can with confidence, know that I have prepared all surfaces for cleanliness

Rebuilding a Small Vehicle Engine

- ❖ I can hone the cylinder sleeve and deglaze properly.
- ❖ I can clean the piston and install the rings properly.
- ❖ I can reassemble all integral parts of the small vehicle engine.

Reassemble All Non-integral Parts to the Engine Block

- ❖ I can install all electrical points, if applicable, the spark plug and the magneto.
- ❖ I can make all adjustments and specs as needed.
- ❖ I can then install hoses for fuel inlet carburetion and breather.
- ❖ I can then add oil and fuel.
- ❖ I can mount the engine on a stand properly and start the engine.
- ❖ I can properly make adjustments on the engine before installing to the vehicle.

Professional Skills in the Workplace

- ❖ I can demonstrate my learned skills to my employer.
- ❖ I can demonstrate the necessary skills to be successful in the workplace.
- ❖ I can demonstrate professionalism by exhibiting proper dress and grooming standards.