South Central College

AGME 1822 Gas/Diesel Engine Repair I

Common Course Outline

Course Information

Description This course covers overhauling an engine. Students will rebuild gas and diesel heads. Steps covered include grinding valves, seats and rocker arms; replacing worn guides; testing springs and reassembling heads. In addition, students will perform such tasks as engine removal/replacement; and crankshaft, camshaft, sleeve,

Identify tear-down procedure.
Identify proper splitting stand installation.

3. Disassemble engine.

Learning Objectives

Identify component parts to be removed.
Inspect components to aid in engine problem diagnosis.
Keep injectors, lines and pump openings sealed to prevent dirt from entering.
Identify bearing and connecting rod caps by stamping numbers on them.
Identify proper piston removal.

4. Identify proper head repair procedure.

Learning Objectives

Demonstrate cylinder head dis-assembly.
Perform cylinder head cleaning.
Perform warpage and crack detection on head.
Perform valve guide knurling or replacement.
Perform valve seat checking and reconditioning.
Perform valve cleaning and refacing.
Perform valve spring testing.
Perform valve rotator check.
Perform valve seat installation.
Reassemble head.

5. Identify procedures used in inspection, overhaul, and testing of a cylinder block.

Learning Objectives

Perform check of cylinder block top surface.
Perform check of main bearing size for diameter and out of round.
Perform check or recondition cylinder sleeve bores.
Perform cam bearing removal and installation.
Identify removal and replacement of galley plugs expansion plugs, cover plates and oil pressure relief valves.

6. Identify procedure used in inspection of crankshaft.

Learning Objectives

Perform measurement for out-of-roundness on main and rod journaln plugs, cover ma4.4 m90a.i 401q 0 0 m 39.84

Check to see that engine is timed correctly.
Check to see that head gasket and head is installed correctly.
Perform all torquing specifications.
Perform valve lash setting.
Pressurize oil system.
Perform static timing.

10. Identify start-up/break in procedure.

Learning Objectives

Check immediately for oil pressure.
Run engine till it is at operating temperature and re-torque head and recheck valve lash.
Perform dynaometer testing.
Check for leaks.
Wash tractor and and do final inspection.

SCC Accessibility Statement

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