DIES 1640: Diesel Engine I

A. COURSE DESCRIPTION

Credits: 6
Lecture Hours/Week: 3
Lab Hours/Week: 3
OJT Hours/Week: *
Prerequisites: None
Corequisites: None
MnTC Goals: None

This course is an introduction to the theory, operation, and repair procedures of a diesel engine. The student studies entry level technician requirements to safely disassemble, measure, rebuild, reassemble, and troubleshoot a diesel engine.

B. COURSE EFFECTIVE DATES: 05/19/2014 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Demonstrate proper shop and personal safety practices.
2. Outline service information repair access.
3. Demonstrate industry engine measuring practices.
4. Identify industry fasteners and applications.
5. Demonstrate lifting and hoisting practices.
6. Demonstrate proper engine disassembly procedures.
7. Identify major engine components.
8. Demonstrate major engine repair practices.
10. Identify major engine subcomponent systems.

D. LEARNING OUTCOMES (General)

1. Understand the role of a diesel technician.
2. Demonstrate an understanding of OSHA and MSDS safety guidelines.
3. Demonstrate competence in usage of precision measuring devices.
4. Demonstrate an understanding of the operational theory of a diesel engine.
5. Demonstrate diesel engine disassembly practices.
6. Demonstrate reuse/rebuilt/replacement practices on key diesel engine components.
7. Reassemble a diesel engine to industry standards.
8. Demonstrate knowledge of major engine subcomponents.
9. Demonstrate knowledge of diesel engine troubleshooting practices.
10. Demonstrate the proper and safe use of hand tools.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None
F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted