

ATOE-2620: BACKHOE PRACTICE

Cuyahoga Community College

Viewing: ATOE-2620 : Backhoe Practice

Board of Trustees:

2001-03-22

Academic Term:

Spring 2019

Subject Code

ATOE - Appd Ind Tech-Operating Engin.

Course Number:

2620

Title:

Backhoe Practice

Catalog Description:

Study of standard features, standard procedures, tools, inspection, and controls of backhoes. Topics include attachments, terminology, inspection, and controls.

Credit Hour(s):

3

Lecture Hour(s):

3

Lab Hour(s):

0

Requisites

Prerequisite and Corequisite

ATOE-1700 Paving, Tractor, Backhoe Operations, or departmental approval.

Outcomes

Course Outcome(s):

N/A

Objective(s):

1. Identify safety considerations for backhoes.
2. Conduct a normal pre-operation inspection.
3. Demonstrate knowledge of signals by directing a backhoe in operation.
4. Operate equipment using standard operation procedures.
5. Demonstrate knowledge of maintenance by troubleshooting broken equipment.
6. Discuss proper investigation of utility lines.
7. Discuss proper transportation of equipment.

Methods of Evaluation:

1. Quizzes
2. Exams
3. Classroom participation

Course Content Outline:

1. Safety considerations for backhoes
 - a. Precautionary procedures
 - b. Personal considerations

- c. Equipment considerations
- d. Operational considerations
- 2. Pre-operation inspection
 - a. Equipment inspection
 - b. Site inspections
- 3. Signals
 - a. Hand signals
 - b. Load commands
 - c. Movement commands
- 4. Operate equipment
 - a. Moving the unit
 - b. Arm lift
 - c. Controls and foot swing
 - d. Trenching
 - e. Sloping
- 5. Maintenance
 - a. Daily maintenance
 - b. Warm up and cool down routines
 - c. Greasing
 - d. Hoses and fittings
 - e. Tires
 - f. Systems checks
 - i. electrical
 - ii. hydraulic
 - iii. braking
- 6. Utility lines
 - a. Finding lines
 - b. Stages of alert
 - c. Pipe detection
- 7. Transportation of equipment
 - a. Loading
 - b. Hauling
 - c. Lifting the unit
 - d. Securing the unit
 - e. Loading on a lowboy trailer
 - f. Loading a clamshell machine

Resources

International Union of Operating Engineers, Local #18--Apprenticeship and Training. "Training for Operating Engineers, First Year"

International Union of Operating Engineers, Local #18--Apprenticeship and Training. "Training for Operating Engineers, Second Year, Book Two"

International Union of Operating Engineers, Local #18--Apprenticeship and Training. "Operating Engineers, Second Year Student Workbook, Book One"

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