

South Central College

AGME 2946 Tractor/Equipment Repair II

Common Course Outline

Course Information

Description This course provides the student with tractor service shop experience in hydraulics, diesel fuel systems, electrical systems, power trains, air conditioning, and engines. Students perform repair services on customer tractors and school units.(Prerequisite: AGME 2945)

3. Adjust components

Learning Objectives

Adjust tractor carburetor
Adjust engine governed speeds
Set fuel systems to standard horsepower with dynamometer
Adjust power train components
Adjust hydraulic system pressures

4. Rebuild engine components

Learning Objectives

Measure internal engine components
Determine reuse of old parts
Obtain new components and reassemble
Weigh out new vs rebuilt costs
Test rebuilt items before returning to customer

5. Perform service on units

Learning Objectives

Change fluids at recommended times
Service filters and check for contamination
Refer to operator manual for proper operation
Clean units

6. Select proper tools and various fasteners.

Learning Objectives

Use of speciality tools from manufacturer of unit
Use of measuring tools for diagnosis and repair to specification
Use proper tools for student and bystander safety
Proper torqueing of hardware

7. Diagnosis and repair farm equipment

Learning Objectives

Listen to customer complaint
Determine the problem
Troubleshoot the cause
Correct the problem

8. Test and repair mechanical power trains

Learning Objectives

Determine cause of complaint
Test for proper operation
Evaluate extent of repair
Estimate cost of repair
Perform power train repair
Complete work order and billing

9. Test and repair power shift and hydrostatic power trains

Learning Objectives

Determine cause of complaint
Test pressures and observe operation
Disassemble unit and inspect components
Estimate cost of repair for customer
Perform repairs and retest
Complete work order and billing

10. Test and repair hydraulic systems

Learning Objectives

- Practice proper safety procedures with high pressure oil
- Determine cause of complaint
- Test pressures and observe operation
- Disassemble and inspect components
- Estimate cost of repair
- Perform repairs and retest
- Complete work order and billing

11. Perform welding and fabrication as needed

Learning Objectives

- Practice safety while welding and cutting
- Perform broken bolt and stud removal