



South Central College

AGME 2832 Hyd-Assist/Hydrostatic Transmissions

Common Course Outline

Course Information

Description This course covers speed change, power-shift and hydrostatic transmissions. The student identifies transmission operation, traces power flow and diagnoses problems. the student performs dis-assembly, repairing, reassembly, testing and adjusting of various transmissions. The transmissions covered in the course include John Deere 8 &15 speed, International Harvester TA, White 3 speed and 4x4, Case RPS-34, Case I-H Magnum, Ford 16x16, IVT, CVT and Sun-strand/Eaton hydrostatic. *If you have a disability and need accommodations to participate in the course activities, please contact your instructor as soon as possible. (1 Lecture -1 Lab)

Total Credits 2

Total Hours 32

Types of Instruction

Instruction Type

Classroom Presentation

Credits/Hours

Pre/Corequisites

AGME 1821

AGME 1831

Course Outcomes

1. Identify hydrostatic theory

Learning Objectives

- Identify hydrostatic transmission components
- Disassemble hydrostatic pump/motor
- Reassemble hydrostatic pump/motor
- Identify hydrostatic valving operation
- Test hydrostatic transmission
- Diagnose hydrostatic transmission problems

2. Diagram hydraulic clutch application

Learning Objectives

- Explain features of units that start and stop unit motion

Explain points of slippage in failed clutches

3. Explain CVT and IVT operation

Learning Objectives

Use diagrams and video to understand variable transmissions
Understand operation of planetary to make variable motion

4. Identify speed/range transmission

Learning Objectives

Identify planetaries
Identify gear ratios
Check endplays and preloads on shafts
Adjust linkages for proper operation

5. Identify power-shift transmission power-flow

Learning Objectives

Identify power-shift operation
Disassemble power-shift transmission
Reassemble power-shift transmission
Identify power-shift hydraulic circuitry
Pressure test/adjust power-shift transmission
Troubleshoot power-shift transmission

6. Safety

Learning Objectives

Follow safe working procedures in shop
Adhere to safe testing procedures with units
Wear required safety equipment
Use proper lifting and suspension of transmission units

SCC Accessibility Statement

Disability Services provides accommodations and other supports to students with permanent and temporary disabilities that affect their SCC experience. Disabilities may include mental health (anxiety, depression, PTSD), ADHD, learning disabilities, chronic health conditions (migraine, fibromyalgia), sensory disabilities, and temporary disabilities (broken arm, surgery). Common accommodations are extended test time, private room for testing, audiobooks, and sign language interpreter.

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