

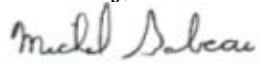
CAMBRIAN COLLEGE
SCHOOL OF SKILLS TRAINING/SKY TECH
COURSE OUTLINE

COURSE NAME: A.B.A. Equipped Brake Systems
COURSE NUMBER: DIE 1030
CREDIT VALUE: 0
SEMESTER:
PROGRAM STANDARDS DEVELOPED: Yes No Implemented: Yes No

PROGRAM(S): Heavy Equipment & Truck and Coach Technician Upgrading

COURSE DESCRIPTION:

This course will introduce the technician to the different A.B.A. (Automatic brake Application) brake systems encountered on Heavy Duty Equipment. The technician will learn the basic hydraulic brake systems used in Heavy Duty applications. The technician will be introduced to the hydraulic applied wet brakes and the (SAHR) spring applied hydraulic released brake circuits. They will be introduced to interpreting brake schematics on the different designs and how to troubleshoot each circuit.

Date: May, 2006
Reviewed by: Bob Huzij, ext. 7854
Approved by: 

Dean

PREREQUISITES: Employed as HDET or Truck & Coach Technician

EQUIVALENCIES: Not applicable

RESOURCES REQUIRED: Student Handouts

Web CT Computer based training material.

Course Outline:

The Technician is able to demonstrate repair procedures following manufacturers' recommendations and safe work practices on heavy duty A.B.A. equipped hydraulic and SAHR brake systems.

The Technician is able to recommend testing and servicing on heavy duty A.B.A. equipped hydraulic and SAHR brake systems following manufacturers' recommendations and safe work practices.

Learning Outcomes:

Upon successful completion, the Technician is able to:

Define the fundamentals of A.B.A. equipped hydraulic and SAHR brake systems.

Describe the composition, construction features, types, styles, and application of A.B.A. equipped hydraulic and SAHR brake systems.

Explain the principles of operation of A.B.A. equipped hydraulic and SAHR brake systems

Identify the inspection, testing, and diagnostic procedures for A.B.A. equipped hydraulic And SAHR brake systems

Identify the repair and service procedures for A.B.A. equipped hydraulic and SAHR brake systems

Course Outline:

Define the fundamentals of A.B.A. equipped hydraulic and SAHR brake systems

- hydraulic brake schematics
- wheel ends

Describe the construction, composition features, types, styles, and application of A.B.A. equipped hydraulic and SAHR brake systems

- system components
- wheel components

Explain the principles of operation of A.B.A. equipped hydraulic and SAHR brake systems

- system components
- wheel end

Perform demonstration of inspection, testing, and diagnostic procedures following manufacturers' recommendations and safe work practices and demonstrate assigned operations on A.B.A. equipped hydraulic and SAHR brake systems

- check and adjust charge pressures (kick-in/out)
- check accumulator charge pressure
- charge accumulator
- interpret hydraulic brake schematics
- interpret potential malfunctions using manufacturers' diagnostic troubleshooting procedures
- interpret test results and performance problems
- check and adjust wheel end brake pressure
- check and adjust wheel end lubrication and cooling pressure

Recommend reconditioning or repairs following manufacturers' recommendations and
Demonstrate assigned operations of A.B.A. equipped hydraulic and SAHR brake systems

- identify corrective repair actions according to manufacturers' recommended procedures
- Demonstrate disassembly and assembly of wheel end assembly

Fieldwork/Placement: None

Delivery Mode: Theory session, Practical in shop session.

PLA/Transfer Credit. This course is not eligible for Prior Learning

General Education Designation: None

Delivery Mode:

| | |
|--------------|-----|
| Theory | 50% |
| Lab | 50% |

EVALUATION METHODS:

Attendance at schedule test and shop session.

50%=1 Theory test.

50%=Shop task and shop evaluation.

Grading Scheme:

| | |
|--------------------|---------|
| A..... | 80-100% |
| B..... | 70-79% |
| C..... | 60-69% |
| F (Below 60%)..... | Failure |