

Crimson Engine Study Guide

The purpose of this study guide is to prepare you for the process of becoming a Montgomery County Crimson Engine (aeCAFS) driver. This guide will list and explain the components of the check off process. Its purpose is to combine the multiple sources of information. This guide is merely notes taken from the source list. If you do not fully understand a concept discussed in this guide it is imperative that you go to the source. The required information for the testing process is not limited to this guide.

The following is the source list for the Montgomery County Crimson Engine testing process:

- PSTA Engine Book (revised 2015)
- MFRI Pump Operators book 1 and 2
- Crimson Engine Study Guide (this book)
- Policy 24-07 AMII
- Policy 808
- FCGO 10-03
- FCGO 14-10
- General knowledge of the specific Crimson Engine that you drive
- Knowledge of the inventory on a Crimson Engine Company and how to use it
- Knowledge of the Pump and capabilities
- Knowledge of the capabilities of the hand lines on a Crimson Engine
- Knowledge of the capabilities of Montgomery County's CAFS systems
- Knowledge of proper preventative maintenance procedures
- Troubleshooting procedures

It is the candidate's responsibility to know what source the information came from.

The PAGS in the back of this book are the same sheets that your test evaluator will use while testing you.

Crimson Engine General Knowledge

- Stock number? _____ (unit specific)
- GVW = 47,000 LBS
- Front axle weight = 20,000 LBS
- Rear axle weight = 27,000 LBS
- Vehicle height? _____ (unit specific)
- Vehicle length? _____ (unit specific)
- Vehicle width? _____ (unit specific)
- Tire PSI: Front = 120 PSI Rear = 120 PSI
- Engine oil (type and quantity)? _____
- Antifreeze (type and quantity)? _____
- Transmission fluid (type and quantity)? _____
- Power steering fluid (type and quantity)? _____
- Hub oil front (type and quantity)? _____
- Rear axle oil (type and quantity)? _____
- Cab tilt Fluid (type and quantity)? _____
- Generator oil (type and quantity)? _____

Brakes

Rear Brakes

- S cam drum brakes
- must have at least 1/4" brake shoe
- dual chamber
- operate off primary air tank

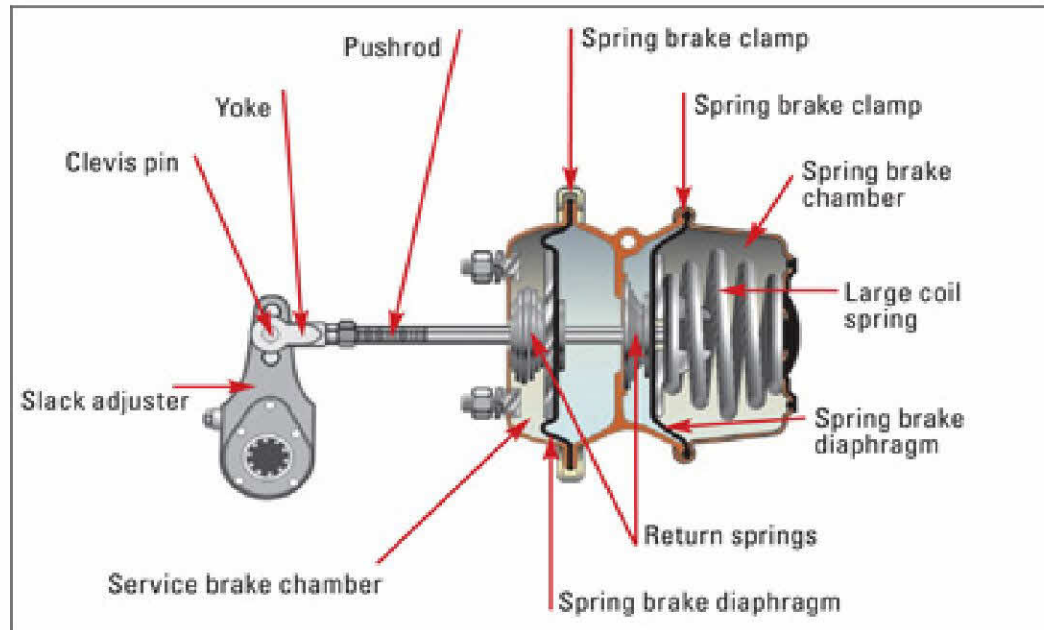


Figure 1 Brake Assembly

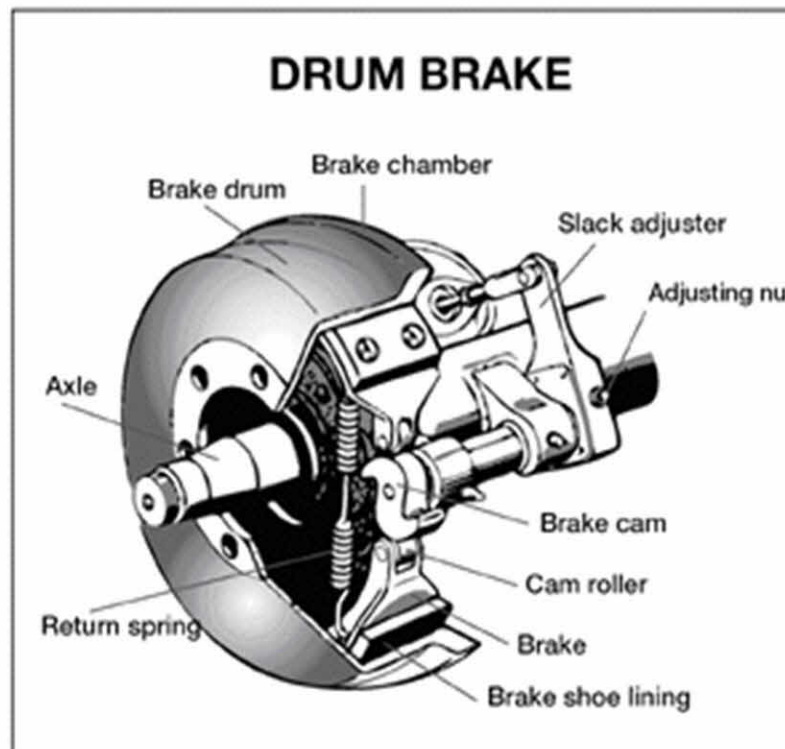


Figure 2 Drum Brake

Front Brakes

- disk brakes
- must have at least 1/8" pad each
- single chamber
- when indicator pin is flush, pads need to be replaced

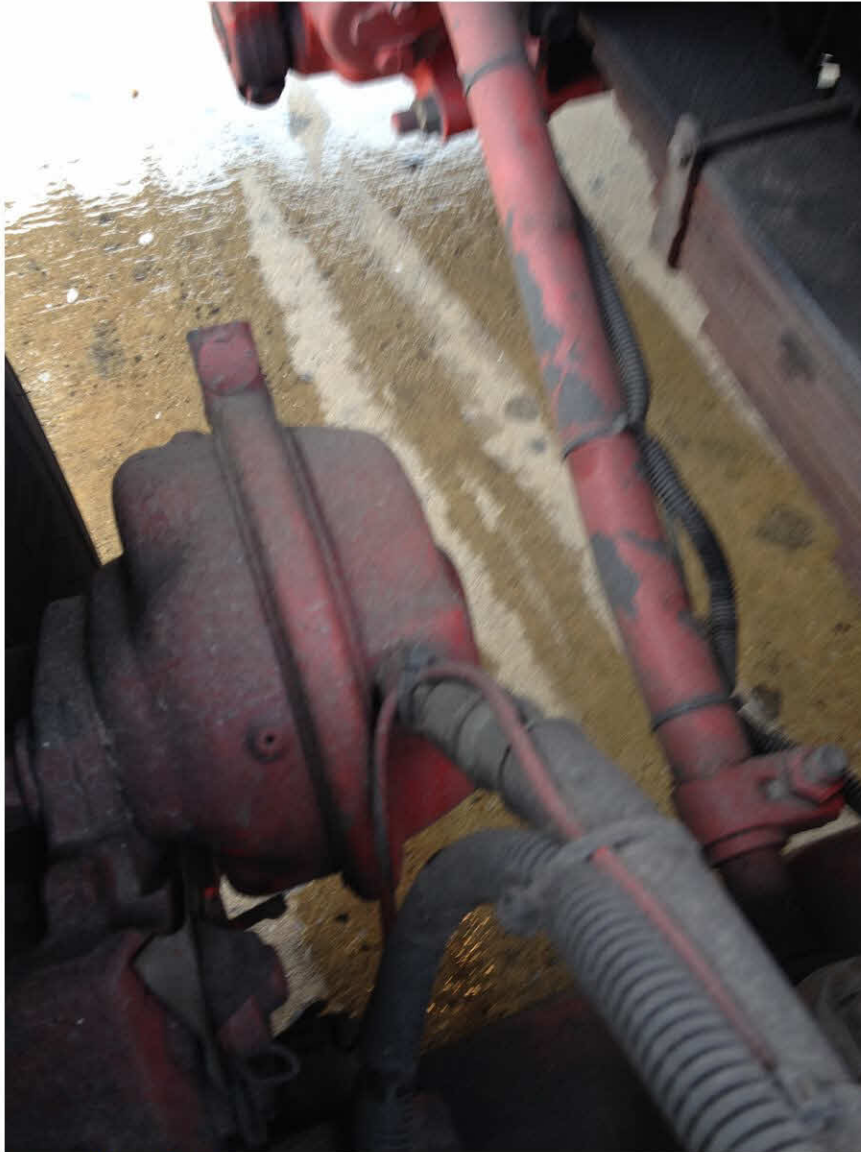


Figure 3 Front Brake

Rotor

- No heat checks greater than half the diameter
- No heat checks that your fingernail will get stuck in
- Free of grease and debris

-spring brake: operates when the APV is pulled, uses air pressure to disengage brakes

-service brake: operates when you push on the brake pedal, uses air pressure to apply the brakes

