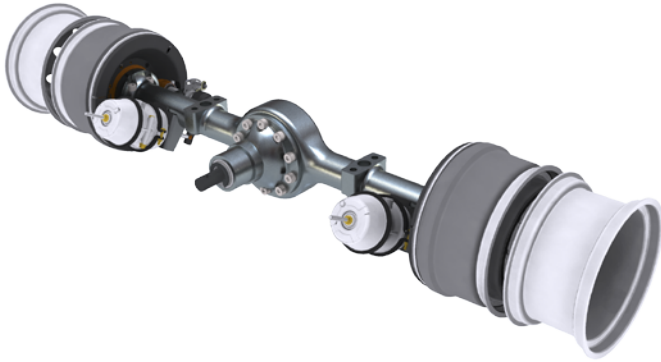


DRIVE AXLES: HEAVY-DUTY COMMERCIAL VEHICLES

eLearning courses designed to increase productivity and profits



Learning made Simple, Visual, and Interactive

This course introduces learners to the key principles of drive axles, the common components that make up drive axles, and the different types of drive axles commonly used in heavy-duty commercial vehicles. Learners in quality, manufacturing, or sales roles in the industry will find value in this course.

Credit Hours **2**

Learning Objectives

- Define the engineering principles associated with drive axles.
- Recognize the common types of drive axles used in heavy-duty commercial vehicles.
- Identify the major components that make up most drive axles.
- Understand the different types of drive axles and their unique components.

Table of Contents

I. Basic Concepts

- **Basic Engineering Principles**
 - o Force
 - o Work
 - o Power
 - o Horsepower
 - o Torque
 - o Tractive Effort
 - o Co-Efficient of Friction
- **Structural Weight**
 - o Gross Axle Weight Rating
 - o Gross Vehicle Weight
 - o Gross Combination Weight

II. Major Drive Axle Components

- **Axle Housing**
 - o Axle Shafts
 - o Differential Carrier
 - o Input Yoke
- **Wheel Ends**
 - o Spindles
- **Planetary Wheel Ends**
 - o Sun Gear
 - o Planetary Gears
 - o Internal Ring Gear

III. Types of Drive Axles

- **Rigid Drive Axle**
- **Drive-Steering Axle**
 - o Steering Arms
 - o Steering Knuckles
 - o Tie Rod

