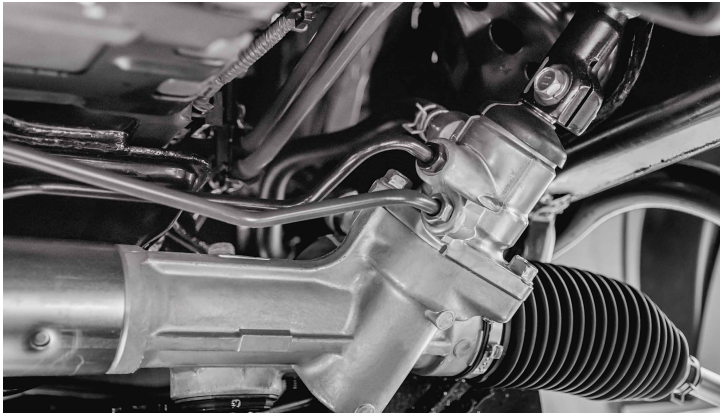


STEERING SYSTEM BASICS

eLearning courses designed to increase productivity and profits



Learning made Simple, Visual, and Interactive

The THORS *Steering System Basics* course reviews the common components used in a steering system, the operating principles of the steering systems, and the various types of steering systems in passenger vehicles. This is an introductory level course that offers an interactive learning experience to allow for an in-depth understanding of various steering systems.

Credit Hours **2.5**

Learning Objectives

- Identify the individual components of a steering system.
- Explain the purpose of each component in an electric steering system.
- Explain the principles that allow a steering system to function.
- Understand how customer input is used to design a steering system.
- Summarize the various types of Electric Power Steering (EPS) systems.
- Describe how a Hydraulic Power Steering (HPS) system functions.

Table of Contents

I. Steering System Components

- Steering Wheel
- Electric Steering System
- Bearings
- Bushings
- Seals
- Tie Rods
- Bellows
- Lubrication
- Steering Knuckles
- Wheel
- Ball Joints

II. Steering System Principles

- Ackermann Geometry
- Rack Force
- Rack Length
- Bending Force
- Cantilever Force
- Rack Guide Bushing Adjustment
- Linear Runout of Rack
- Rotational Runout of Pinion
- Suspension Influence

III. Types of Steering Systems

- Electric Power Steering (EPS) System
- Hydraulic Power Steering (HPS) System
- Conventional Steering System
- Steer-by-Wire System

