



FUNDAMENTALS OF ALIGNMENT

Course Length

1.5 to 3.0 hours

Course Description

This course introduces learners to wheel alignment and directional control, wear and control alignment angles, and diagnostic alignment angles. Learners will receive the preliminary information necessary to become a master alignment technician

Course Topics

Importance of Alignment

- ◆ Overview of wheel alignment

Wear and Control Alignment Angles

- ◆ Caster
- ◆ Camber
- ◆ Toe

Diagnostic Alignment Angles

- ◆ Thrust angle
- ◆ Steering axis inclination
- ◆ Scrub radius
- ◆ Included angle
- ◆ Toe-out on turns

Course Objectives

In this course, users will learn to:

- ◆ Describe alignment and its importance for directional stability
- ◆ Identify common customer complaints related to alignment
- ◆ Define wear and control alignment angles
- ◆ List the different types of wear and control alignment angles
- ◆ Identify the basic types of diagnostic angles
- ◆ Describe the geometric centerline of a vehicle

Course Features

- ◆ Global navigation
- ◆ Practice pages with multiple choice, drag 'n drop, true/false
- ◆ Interactive and animated content pages
- ◆ Glossary and resource links
- ◆ Slide shows
- ◆ Final Assessment



Fundamentals of Alignment

The image displays three overlapping browser windows from the 'Fundamentals of Alignment' courseware. The top window, titled 'Basic Alignment Angles | An Overview', explains that wear and control alignment angles are specific to vehicle types and refer to the wheel and tire positioning. It includes three views of a car: 'Side view', 'Front view', and 'Top view'. The middle window is a 'GLOSSARY' with a list of terms including Galvanized Steel, Cap Insurance, Gas Filled Shock Absorbers, Gear Ratio, Generator, Glow Plug, Glow Plug Resistance Balance Test, Governor, Grabbing Brakes, Grade Markings, Gray Market Vehicle, Grease Gun, Grease Job, Grease Rark, Grease Seal, Gross HP, Greas Injection, and Graveler. The bottom window, titled 'Included Angle | Defining Included Angle', defines the included angle as the sum of camber and SAI. It features a diagram of a wheel assembly with a tire, showing the True Vertical Line (4), SAI (3), Camber (2), and the resulting Included Angle (1).

A selection of pages from CTI's **Fundamentals of Alignment** courseware, featuring global navigation, instructional graphics, and glossary of terms