

Truck Fundamentals

Introduction

If you are in any way related to the truck business, this is for you. Maybe you're into sales, purchasing, operations, or maybe you're in management. Maybe you're a driver and you just need to know more about the truck that you're driving. Or perhaps you're just somebody who is interested in the technology of trucks.

So let me tell you about this training course that you're exploring. Please understand that this is not a repair manual. Nor is it a design manual. Really, what it is, is a series of training packages that will teach you the concepts behind a truck and some of the unique technology in its design, and which is used to make it more efficient.

Why do I think I'm able to teach you something here? I am Joe Johansson and I've been involved with all aspects of trucking on three continents for over 45 years. I earned my heavy-duty truck license in South Africa, driving an International F210D and a 13 gearbox back in 1974. I've been involved with trucks ever since.

As we together explore these subjects, you will see that there are a lot of concepts that will allow us to become better at what we do. Each of these 10 packages contains a short video, some written material as well as a quiz that will determine if you understand the lesson. The videos are easy to watch with the intent that you can watch them at home sitting in an easy chair. The written material consists of two parts: the first is an easy-to-read introduction to the topic and the second part is an in-depth discussion with graphics and text.

This is the list of subjects:

Power: What really is power how is it calculated and how is it used?

Power vs torque: What is the difference between power and torque? In vehicle propulsion this two are really two sides of the same coin.

Kinetic energy: What on earth is this, and how does it affect a truck? It's all about braking. Every moving body, including a vehicle possesses kinetic energy. So, what is it really?

Automaticity: The trend today is towards automatic and automated transmissions. It is fully explained in this section.

Engine sweet spot: Why is driving in this sweet spot important and what does it do for you?

Vibration: Why can this be so debilitating for the driver, as well as the mechanical systems on a truck.

Friction: This force can have both good and bad effects in a vehicle. Can you identify them?

Gear ratio: Gears are fundamental to any powertrain. Learn how torque changes through different gear ratios

Transmission power take off: Understand how PTO's are fundamental to any vocational truck

I am passionate about trucks, and I hope I can make you understand some of the technology inherent in today's trucks. Having a good understanding of the fundamentals will certainly give you greater insight and bring you greater benefits in your business. Or just make you a smarter user and consumer.