

## Abstract

The use of a common rail injection system is more and more common with smaller diesel engines. Therefore, it was interesting for me to make my thesis about this.

This thesis focuses on the conversion of the conventional injection system to the common rail system. I will describe the advantages, disadvantages and difficulties I encountered throughout the year and how I have solved these problems.

In order to provide a complete picture of what is involved with the use of common rail, various aspects will be discussed. These aspects clarify the structure of common rail. In the 1<sup>st</sup> part, I explain the operation of the conventional injection system so that the changes that are needed are also clear where they come from. The second part deals with the operation of the common rail and in the 3<sup>rd</sup> part I explain the conversion of a conventional injection system to a common rail injection system. Then I briefly explain the electrical and electronic aspects in part 4 and finally the mechanics are explained in the 5<sup>th</sup> part.