Multipurpose test bench

INTRODUCTION

- We are a group of students consisting of three mechanical engineers, two electrical engineers, one industrial engineer and one automotive engineer. We are a team that consist of only men. We all come from different parts of Gelderland. The company that we work with is Hyster-Yale they are based in Clevland Ohio. The client from Hyster-Yale that we work with is based in Nijmegen. Hyster-Yale manufactures forklifts and container handlers for various logistical challenges. The company has clients al over the world and is constantly developing and innovating its trucks.

- Our main challenge of this project was understanding what the client wanted. In the project we had a lot of meetings with al kinds of people to really get a good idea of what they wanted in a multipurpose test bench. Once we knew what they wanted we could go and work this out to achieve our goal. That was to make a full design for a multipurpose test bench for a hydraulic and fuel cell system.

JOURNEY & LEARNINGS

- Our journey through this project was some times a bumpy road. In the beginning it was difficult to find exactly out what the client wanted from us. After multiple meetings and asking the right questions we gained a clearer understanding of their requirements. Throughout this project we learned which questions to ask and how to progress when faced with challenges.

- The moment that made us change on how we were thinking about the project was when we where stuck on something. Then we gathered around to discuss what the best way forward was. These meetings changed the way on how we thought about the things that we were getting stuck on.

OUTCOME & IMPACT

- Our final product is a full design of a multipurpose test bench for a hydraulic and fuel cell system that can help Hyster-Yale in testing its trucks and components on the forklift trucks. This design can help Hyster-Yale for testing there components individually so they don't have to test a whole truck.

- The test engineers at Hyster-Yale are greatly benefiting from the project that we have done. With this design they can test more efficiently and effectively helping to solve problems easier and more quickly.

- The thing that we are most excited about and proud of is our final design. We have made a design that meets the requirements that we have established with our client. And they can now use this design to help them with testing their trucks. Also we are proud of how we were able to work with different engineering disciplines to develop a design that has aspects from all our specializations.