

05/06/2020 - 26/07/2020

SKID MANAGEMENT - KOEL

ISHAAN ARYA

INTERN, SUPPLY CHAIN MANAGEMENT

Kirloskar Oil Engines Limited (KOEL) is a company which manufactures various fuel engines to serve multiple industries. This goal of this project was to adopt an integrated logistics approach in packaging and transportation to ensure that KOEL's customers receive —, while reducing packaging and transportation costs.

BACKGROUND

Initially, we closely followed KOEL's current process, identifying that the quality of engines they manufactured was not reaching the customers due to poor packaging and transportation. We found a lot of scope for improvement in the wood packaging used for the engines, drastically reducing customer complaints and minimising costs.

DESIGNING A SOLUTION

We concluded that we had to design an alternative form of packaging that would be compatible with Indian roads and loading/unloading facilities. Therefore, we had to ensure the following:

- The packaging does not let the engines get damaged due to potholes on roads
- The packaging is able to withstand severe jerks and impacts while taking turns along roads with sharp radii
- The packaging is able to survive minor or major accidents and provide protection in all adverse situations
- The packaging has a well designed lashing system

We decided to use skids to transport the engines, reducing the amount of material needed for packaging, allowing for stacking, benefitting the environment by reducing the use of wood and ensuring the engines are safe.

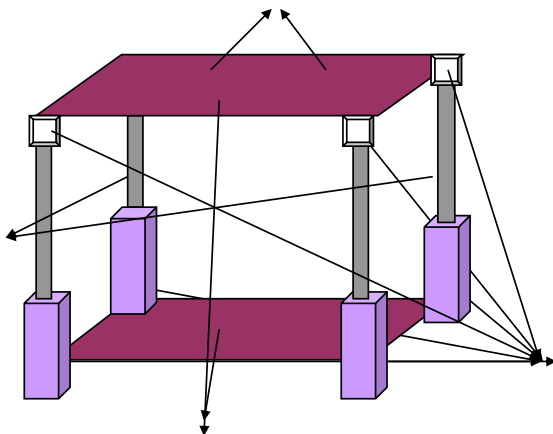


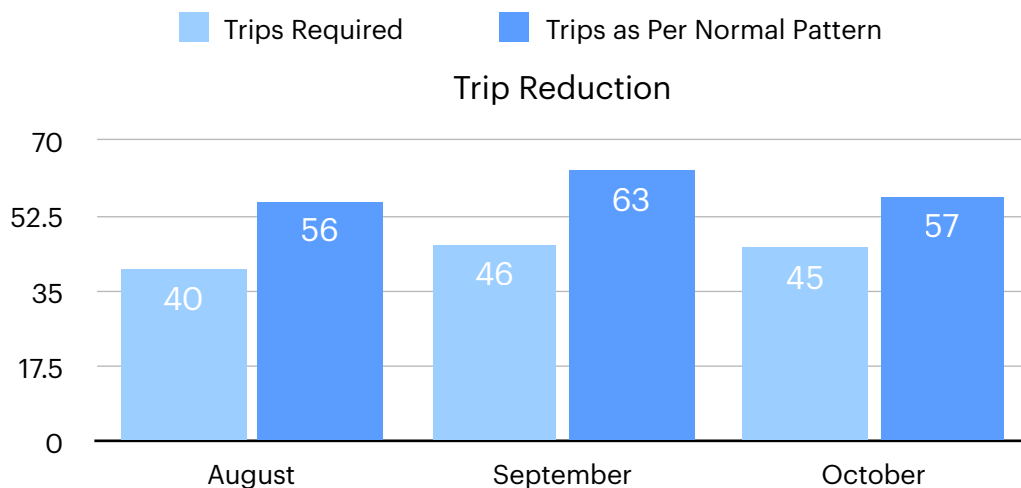
Fig 1: Model of Skid Packaging

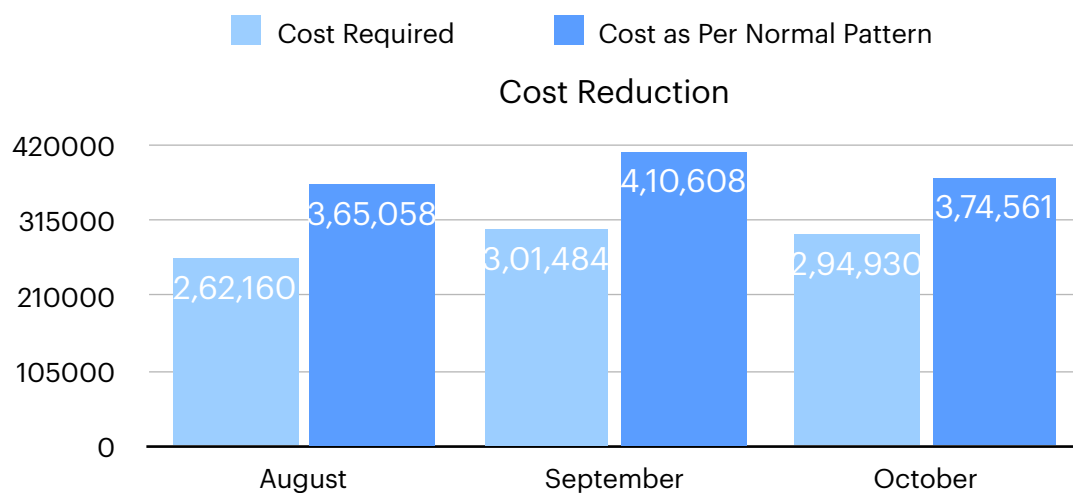
We also designed the entire process to ensure the engines were safely delivered:

- We were responsible for the design and development of skids, optimising them so that more engines can be delivered per vehicle
- We would provide skids to the plant on Just In Time basis
- We would provide facilities for skid repairs
- We would move the skids through full body vehicles
- We numbered the skids according to the engine sizes
- We would manage the complete process after manufacturing, before the engines reach the customer
- We were responsible for the total service quality

RESULTS

In order to assess the effectiveness of our proposal, data from the next three months was collected and compared with the normal pattern.





The following graphs show that using the new skid packaging, allowing for more skids to be packed in vehicles, reduced the number of trips required and costs over the 3 months. Overall, this implied a cost reduction of 25.4% over the 3 months. Hence, the solution was effective at meeting the objectives of the project.