

CASE STUDY:

REDESIGN OF MINI STRADDLE CARRIER



Client:

Mobicon Systems
Pty Ltd

Location:

Australia

Services Provided

R&D

Machine Design

Situation:

Mobicon systems produce a unique mini straddle carrier for container handling in small to medium size yards. After feedback from clients and suppliers, they approached Lever to design an updated version of their machine to include various manufacturability and usability improvements.

Challenge:

The design brief was multifaceted. Lower the cost to manufacture by reducing the complexity of fabrication, and by minimising the overall weight of the machine. Reduce material costs and simplify assembly by redesigning the telescopic guides. Improve the machines visual appeal and enhance operator visibility by relocating the engine, redesigning the cabin, engine frame, and fuel and hydraulic tanks. All while ensuring the machine is compliant with the relevant Australian standards.

Solution:

The redesigned machine has seen multiple improvements. Lever was able to remove around 2 tonnes of weight and have simplified the steel frame to reduce fabrication and assembly cost by more than 10%. The telescopic guides are now a consistent design across the whole machine, reducing the stockholding required for replaceable wear items. The wear items are now simpler and cheaper to produce as they require minimal modification from the stock material. The operator now has 360-degree views from the cabin, and the new and improved engine frame, fuel and hydraulic tanks are more integrated into the machine, resulting in much improved aesthetics.

