

Able

Industries Engineering

A Member of The Able Group



DEPENDABLE
RELIABLE
CAPABLE

DEFENCE

COMPLETE ENGINEERING SOLUTIONS

Able Industries Engineering has over 30 years engineering experience in the manufacturing industry and is an Australian owned and operated engineering company.

At Able Industries Engineering we offer fabrication and engineering services from concept through to production using the latest in CNC technology.

We call this our 'Complete Engineering Solution'.

Project management is at the core of this 'Complete Engineering Solution' saving you money by delivering your project on time and on budget.

CONCEPT > PRODUCTION > COMPLETION

- Project management
- CNC Punching, Plasma Cutting, Laser Cutting
- 8-Axis Robotic & Specialised Welding
- Specialised Precision Fabrication
- 2D/3D CAD/CAM Facilities
- CNC Machining, Turning
- Precision Spot Welding all materials (Mil Spec)
- CNC Pressing 9 Axis
- Ballistic Armour Manufacturing
- Section/Plate Rolling
- Custom Built Jigging
- CNC Pressing
- Rapid Acquisition
- Prototyping - Pre Production Runs
- Design/F.E.A.

Our experience makes Able Industries Engineering the ideal choice where quality workmanship and cost effective solutions are required to deliver on demanding schedules.

Talk with Able Industries Engineering to develop innovative, timely and low cost solutions to meet your engineering challenges-

ABLE INDUSTRIES ENGINEERING PTY LTD ABN 31 213 464 545

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Quality
ISO 9001

SAI GLOBAL



Department of Defence

One Small Step

One Large Engineering Challenge

- Computer Aid Design
- Finite Element Analysis
- Design Review
- Prototype Development
- Production

When faced with a complex challenge, the saying “one step at a time” rings true for the solution achieved by Able Industries Engineering.

➤ The problem

Once a rear seat, rollover protection and cargo storage containers had been fitted to the Army's fleet of Landrovers, access through the rear cargo tray became hazardous under operational conditions including darkness. The adjacent tow pintle eye was not a safe stepping point for entry and exit points from the rear cargo tray as it could rotate and had protruding features. The upgrade of the spare wheel carrier covered the original rear step.

The design brief

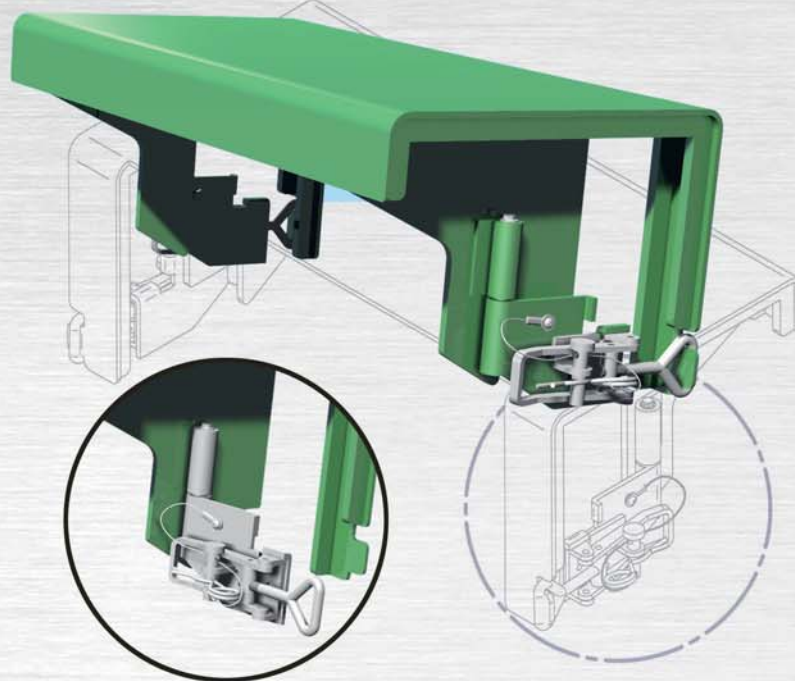
The proposal was to manufacture a rear step which could be used for the rear cargo tray seat access when a trailer was not being towed to reduce the risk of crew members falling or impacting on the pintle eye when entering or exiting the rear cargo tray of the vehicle. Being able to withstand weights of up to 135kgs on the outer most lip, the rear step was to be removed and detachable from the vehicle using no or minimum amount of tools. The final and most important point was that no change be made to the base vehicle configuration.

The solution

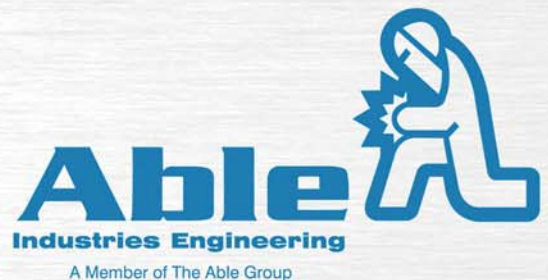
The experienced and capable engineering team at Able Industries set to work on multiple concepts to prove the design intent. The method of fastening had a huge bearing as bolts needed both modifications to the vehicle and tools to remove and detach the step from the vehicle. Other factors soon became apparent apart from the points in the design brief such as vibration, size and location. After investing many hours of design input the first prototype concepts started to take shape.

The outcome

The final rear step design had the strength and the size to suit the application and ticked all the boxes regarding the design brief. The mounting mechanism can securely hold the step in place but also be quickly moved when attaching a trailer. The fixing solution was a toggle clamp arrangement that has the strength and flexibility to hold the step in position and be quickly removed when required. Able Industries Engineering eliminated any use of tools when removing the rear step exceeding one of the main design objectives. In field testing provided the ultimate conclusion that both functional design and strict engineering principles can provide the desired outcome.



“Able Industries Engineering quickly understood the issues and applied sound engineering principles to overcome many problems along the way. Timing was the critical factor as this problem needed fast turnaround. Able Industries demonstrated design and manufacturing capabilities in bringing this project together on time and on budget”.



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