

# New APC mats relieve fatigue factor for commanders and troops

## PRODUCTS & SERVICES

- Armoured vehicle track links - both single and dual pin, design, manufacture and refurbishment.
- Armoured vehicle road wheels, design, manufacture and refurbishment.
- Track shrouds for Armoured vehicle.
- Anti-vibration/shock mounts for surface and sub-surface vessels.
- Hand fabrication of rubber products ie; gas sealing membranes for submarines, rubber fume/fluid ducts etc.
- Anechoic materials for sub-surface vessels.
- Missile and Silo components ie; conductive and high temperature seals, silo closures, shock mounts etc

## CAPABILITIES

- Finite Element Analysis used in design concepts and validation of products
- Unigraphics CAD design drafting system.
- NATA certified laboratory
- Full range of rubber manufacturing processes.

## QUALITY ASSURANCE

- ISO 9001, ISO1401
- QS9000

Comments made by commanders of the Army M113 armoured personnel carrier have resulted in a leading defence contract manufacturer applying new technology to overcome an operational fatigue problem.

Mackay Defence Technologies, a specialist rubber compound manufacturer which has been manufacturing products for the defence industry since 1940, was challenged to find a solution to the problem of leg and foot fatigue suffered by vehicle commanders while on duty in the turret of the M113 APC vehicle.

High frequency vibration in the all-metal turret platform has been overcome with the development of a simple raised button mat with a hollow section under each button.

“The design allows the hollow button to act as a cushion, absorbing the vibration and at the same time providing the commander with much greater under foot stability and traction,” said Rohan James, Mackay’s Defence Sales Engineer.

Each mat is designed to fit precisely over the turret platform with a return that holds it securely in place.



The rubber formulation is a fire retardant material with a high resistance to oil.

“Following on from the success of this development new matting is now being produced for the troop carrier section of the vehicle,” said Mr James.

“The new button matting will not only reduce the vibration in the cabin area but also reduce noise levels for the personnel.”

## Excellence in Design