

Military on track with Mackay innovation

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

Melbourne-based Mackay Defence Technologies has developed a dual pin track with grouser (Patent Pending) for the M113 Armoured Personnel Carrier that has worldwide sales potential.

The innovative development provides greater traction for the vehicle, longer operational life, enhanced safety features and full component replacements for servicing resulting in dramatically reduced operating costs.

Taking the original dual pin link, the Mackay development project proposed an alternative dual pin track link as a hybrid, using existing components and incorporating a grouser that provides greater traction and safety.

The successful development was based on input and advice from users and service personnel. Soft soil traction, servicing and safety issues relating to end connector failure were all high priorities to be addressed to reduce logistics issues in the field and overcome apparent dangerous component failures.

The project has been completed within the last six months and the innovative track has undergone preliminary testing by Land Engineering Agency (LEA) Monegeetta Vehicle Testing Course in which results showed an expected life of up to 20,000 km against the existing single pin track with a working life of between 5,000 and 8,000 km.



According to Mackay Defence Technologies defence sales engineer Rohan James, "It is the only known track that has a replaceable drive face (sprocket window) and can incorporate permanent grousers that can be replaced when worn. Our design incorporates the facility to replace all worn components, even in the field, rather than scrap the entire track when worn out. This increases the life of the track and dramatically reduces Total Life Costs," he said.

Mr James commented that the original dual pin track can be economically converted to the dual track with grouser by machining off the sprocket windows.

The development is currently under review by the ADF and a full evaluation trial is planned on the standard M113 APC early in 2005.

Rubber formulations are licensed by Defence Science and Technology Organisation.

Excellence in Design