Medium Wheeled Vehicle Products
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Pearson Engineering is a privately owned UK company that develops Combat Engineer systems and equipment to meet the needs of the world’s Armed Forces. Our particular expertise is the supply of specialized Counter-Mine, Counter-IED, Route Proving, Combat Earthmoving and Assault Bridging Equipment for Armoured Fighting Vehicles.

**Assured Mobility**

In the challenging, complex and uncertain land environment, Commanders need more than ever the ability to freely manoeuvre to places at times of their choosing. Our range of vehicle attachments, each optimised for a particular combat engineering role, can be interchanged and configured to deliver Assured Mobility support to combat operations.

**Global Capability**

Our core company values are built around a desire to serve the needs of customers and to provide solutions to their particular requirements. The company supplies equipment and services to many countries throughout the world delivering Global Capability when and where it’s needed, on time, every time.
Products for Medium Wheeled Vehicles

All of our products are designed to be fitted either directly to the host vehicle or via a common interface system which allows for their quick and easy attach and release.

The common interface is suitable for all of our front end equipment and offers the commander the flexibility to adapt to his mission. He can task organise equipment to the mission requirement and choose the best tool for the job. This approach leads to higher levels of mission success by increasing force capability and availability without increasing force structure and manpower.
The Surface Clearance Device suitable for Medium Wheeled Vehicles is known as the SCD(L).

It clears surface laid mines and threats found within the path of the full width of the vehicle from roads, tracks and rough terrain to produce a cleared route for follow-on vehicles. Independent segments of a full width blade follow the ground contours to move threats wide and clear of the vehicle.

The product is battle proven and is in service with, amongst others, the U.S. Army, the U.S. Marine Corps, the U.S. Air Force and the Swiss, Spanish, Swedish, Norwegian and Chilean Armed Forces.

There are two versions of the SCD(L); a Vee-blade optimised for clearing routes and a straight Angle-blade which is optimised for clearing areas.

The robust system comprises easily and rapidly replaceable blade segments to ensure operation ability, even after a blast.

Key Features:

- Clears surface laid mines and ordnance from the full width of the vehicle
- Vee-blade optimised for clearing routes
- Angle-blade optimised for clearing areas
- Proven to operate on a wide range of terrain
- Low maintenance with replaceable blade segments
- Optimised for the host vehicle
The Straight Obstacle Blade suitable for Medium Wheeled Vehicles is known as the SOB.

It is a light weight Combat Dozer Blade which is strong and robust and enables vehicles to rapidly clear rubble and other obstacles and create a clear route for following operations.

The product is battle proven and is in service with, amongst others, the U.S. Army and the Spanish Army.

The SOB is compact and is designed to retain the gravity close to the vehicle structure. Made of high tensile, low carbon steel, the SOB is capable of withstanding the loads generated during light dozing tasks. An extension fitted to the top of the blade prevents soil from spilling over and accumulating on the vehicle.

Key Features:

- Compact design with a centre of gravity near the vehicle to ensure minimum effect on mobility
- Damping cylinders protect the attachment and vehicle against excessive impact loads
- Suitable for clearing rubble and other obstacles
- Creates a clear route for following operations
- It is battle proven
- Capable of withstanding high loads generated
The Light Weight Mine Roller suitable for Medium Wheeled Vehicles is known as the LWMR(L).

It protects vehicles from buried mines and pressure initiated explosive devices using roller gangs, which follow the ground over undulating terrain, to apply pressure to the ground ahead of the host vehicle to detonate a threat before the vehicle and its crew reaches them. The LWMR(L) gives track width protection.

The system is generally used where there is a possibility, rather than the probability of the presence of threats on an intended route.

The product is battle proven and is in service with, amongst others, the U.S. Army and the Canadian Armed Forces.

The LWMR(L) comprises two 4-wheel roller gangs to protect the vehicle tracks. The wheel tyres are puncture proof and are made from a special wear resistant, semi-compliant polyurethane compound.

The system is lightweight yet generates a heavy effect using hydraulic power to transfer a proportion of the vehicle weight onto the roller wheels.

Key Features:

- Light-weight but heavy effect
- Roller wheels follow ground contours providing constant ground contact
- Minimal effect on vehicle mobility
- Roller wheels can be fully raised into a transport position when not in use
- Rapidly repairable
- Solid tyres resist punctures and damage
The Bridge Launch Mechanism suitable for Medium Wheeled Vehicles is known as the BLM(L).

It enables a combat vehicle to launch and recover assault bridging in less than two minutes from under armour without permanently changing the role of the host vehicle.

The BLM(L) is fitted to the front of the vehicle and allows the bridge to be stowed, launched and recovered using a single system. The system is lightweight and is specifically designed to minimise the impact on vehicle mobility by keeping the bridge and bridge launch mechanism low and close to the vehicle hull when in the transport configuration.

Upon launch and recover, the foot of the BLM(L) remains in firm contact with the ground, reducing the load transfer onto the host vehicle and ensuring a stable launch platform.

Key Features:

- Rapid bridge launch and recovery
- Stows compactly when not in use
- Lightweight
- Interchangeable with other Special to Role equipment
- Low impact on mobility
- Foot remains in firm contact with the ground at all times
The Obstacle Marker System (OMS) delivers a payload from a vehicle which can be used to mark safe lanes and areas.

OMS is a Combat Vehicle mounted electro-pneumatic payload dispensing system most commonly used for marking the boundaries of routes and areas. Designed to fire marker poles into the ground at controlled intervals, the OMS gives a host vehicle the capability to clearly mark out hazardous areas such as the edges of a minefield breached lane.

An OMS comprises dispenser units mounted either side of the vehicle, compressor units mounted on the vehicle, an OMS Control Unit (OMSCU) and a set of marker poles.

The dispenser unit enables marker poles to be fired pneumatically, either manually or automatically, into a variety of surfaces from sand and soil to asphalt and concrete at either timed or distance based intervals.

Key Features:

- Provides vehicles with the capability to clearly mark out safe lanes and routes or hazardous areas
- Low weight system
- Can be fitted to a wide variety of combat vehicles
- Various marker poles are available including reflective, fluorescent, day-glow and LED-enhanced
- Capable of manual, distance or time-based firing
- Proven and in service with numerous Armed Forces
The Magnetic Signature Duplicator (MSD) provides a magnetic signature sufficiently in advance of a vehicle to negate the effectiveness of magnetic influence mines.

The MSD increases the effectiveness and survivability of countermine equipment by causing the stand-off detonation of magnetic influence mines at a safe distance ahead of the host vehicle.

The MSD generates a multi-axial magnetic signature optimised for passively fused magnetic influence fused mines.

The system comprises four emitter coils, two associated power boxes and a MSD Control Unit (MSDCU).

The system is in service with the U.S. Army and the French, Swedish, Danish, Swiss and Chilean Armed forces amongst others.

Key Features:

- Provides stand-off detonation of magnetic influence mines at a safe distance
- Product can be integrated onto any of Pearson Engineering’s de-mining and countermine systems
- Enhances operational capability
- Improves survivability
- Provides advanced protection to operations
- Proven and in service with numerous Armed Forces
The Remote Control System (RCS) is designed to take the man out of harm’s way when necessary.

The RCS is a proven, safe and reliable means of operating unmanned military vehicles from a remote command vehicle. Originally developed for use by the British Army, the RCS employs secure digital radio link technology.

RCS operates on the master-slave principle, with the unmanned ‘slave’ vehicle controlled from an Operator Control Unit (OCU) installed inside the ‘master’ command vehicle.

Multiple cameras provide all round vision with images and performance data being relayed to the operator via a high resolution display screen.

Key Features:

- Proven and in service with numerous Armed Forces
- Suitable for use with a wide range of Pearson Engineering products
- Easy to use based on commonly available remote control hardware
- Secure digital radio link technology
- Reduces the risk to human life of Counter-IED and Counter-Mine operations
- Cameras provide all round vision
Pearson Engineering is committed to ensuring that customers are fully supported with spares packages, training and through-life support for their equipment.

A dedicated team of through-life support specialists ensure that customers have everything they need at their disposal to effectively use the equipment and to fully maintain its operational capability.
Field Support

Field Support Representatives provide 24/7 on call assistance, in field repair support, trials support, equipment installation support and New Equipment Training solutions.

Integrated Logistics Support

Pearson Engineering offers its customers a comprehensive range of ILS services that encompass the DEF STAN 00-60 methodology.

Repair and Overhaul

Pearson Engineering has the facilities and key skills required to provide a comprehensive equipment conversion, repair and overhaul service.

Design and Test

Pearson Engineering has a dedicated design office, prototype development and test facility and access to test and trial sites throughout the UK and U.S.
Facilities

Pearson Engineering Ltd’s facilities in Newcastle upon Tyne include the Armstrong Works on Scotswood Road and a design and prototyping facility on Wincombelee Road. These unrivalled facilities give us an immediate on-site dedicated machining, fabrication and assembly capability for the rapid prototyping and production of defence materiel.
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