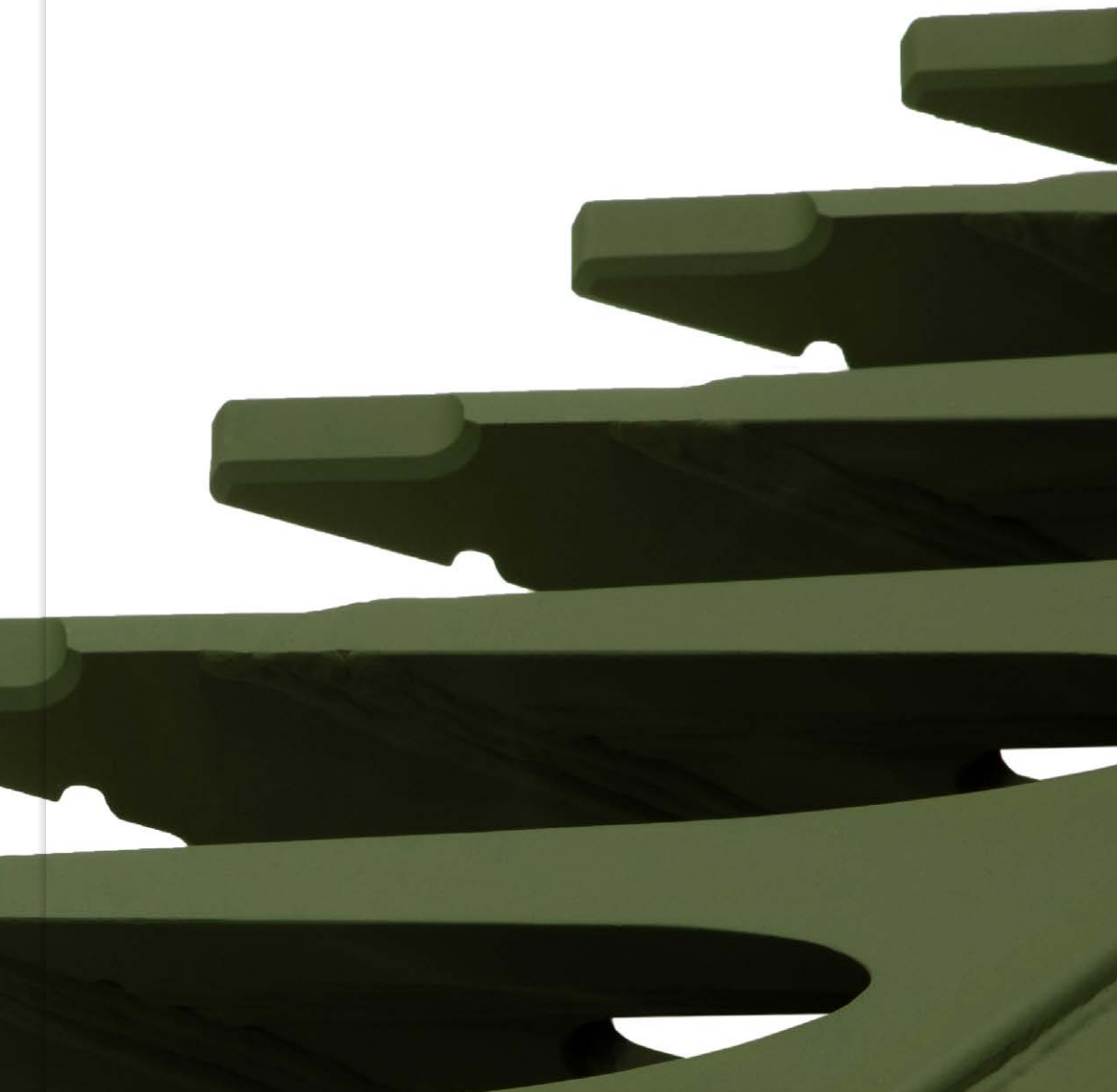
CAPABILITY BROCHURE

PEARSON ENGINEERING

SCALABLE BATTLEFIELD MOBILITY

IMPROVING MOBILITY
PUSHING BOUNDARIES

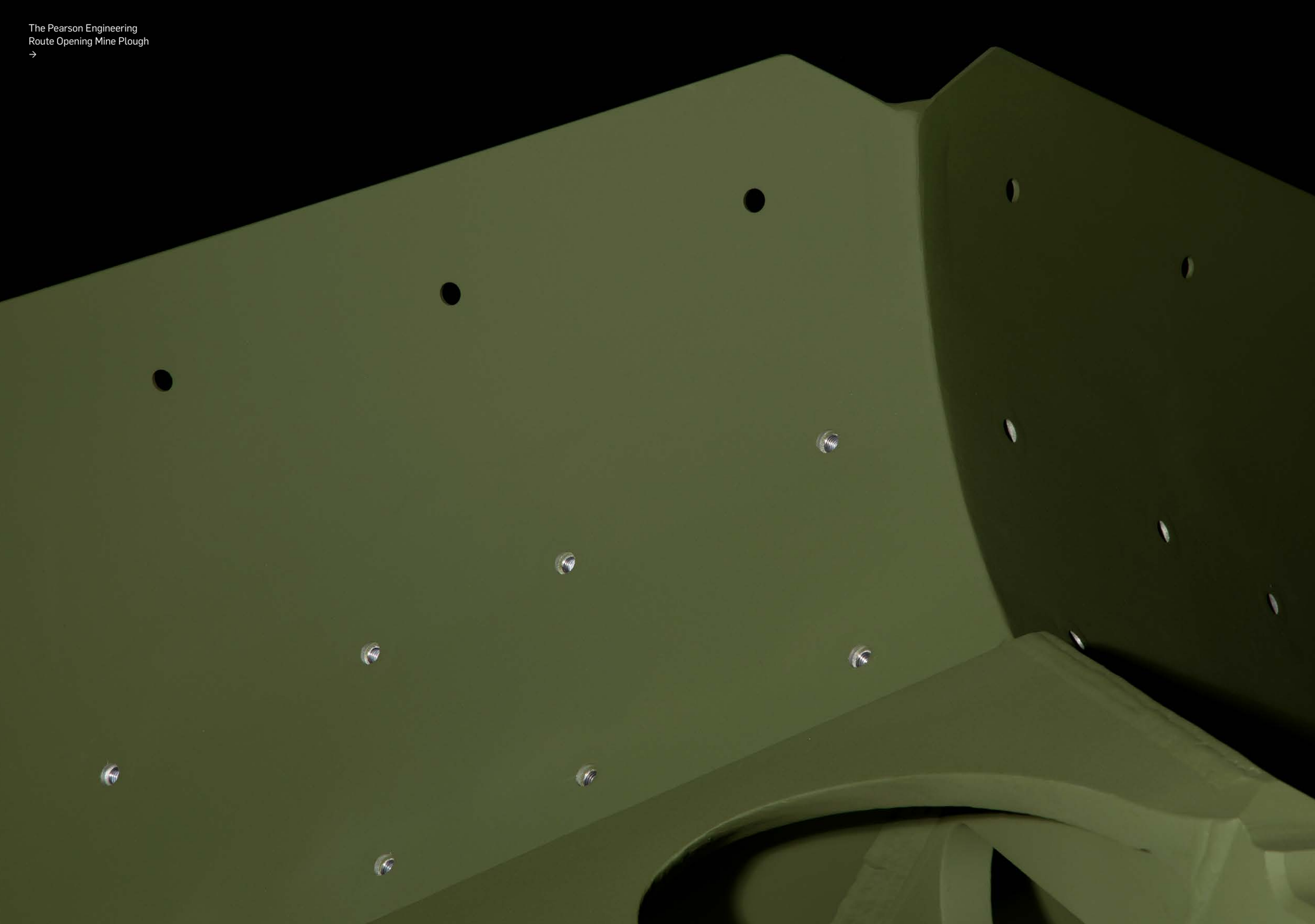


FOR MORE THAN THREE DECADES, PEARSON ENGINEERING HAS PROVIDED ARMED FORCES WITH THE MOBILITY AND COUNTER-MOBILITY EQUIPMENT THEY NEED TO SUCCEED IN THEIR MISSIONS AROUND THE WORLD.

WE HAVE ENABLED COMBAT FORCES TO BREACH MINEFIELDS, TO OVERCOME EXPLOSIVE ORDNANCE AND TO DEFEAT AND CREATE OBSTACLES.

MOST IMPORTANTLY, WE HAVE HELPED PROTECT LIVES AND REDUCE CASUALTIES WHILE PROVIDING OPTIONS DURING COMBAT OPERATIONS AND DURING PEACETIME.

The Pearson Engineering
Route Opening Mine Plough
→



A HISTORY OF KEEPING OUR ARMED FORCES MOVING AND KEEPING THEM SAFE

The Pearson Engineering
Self-Protection Mine Plough
↓

We are the world leader in delivering combat engineering, battlefield mobility and counter-mobility equipment for armoured vehicles. We help them to defend, move and fight, even in the most challenging combat environments.

Based at the iconic Armstrong Works (once dubbed 'The workshop of the world') in Newcastle upon Tyne, England, our expert engineers and project managers have a strong track record of providing equipment for armed forces globally.

PIONEERING PRODUCTS
PROVEN ON THE BATTLEFIELD

Building on our unrivalled heritage, expertise and research capability, we design and manufacture innovative, high quality products and integrated solutions that push boundaries and improve mobility and protection.

Designed to be configurable, interchangeable and to deliver freedom of manoeuvre, our products enhance armoured vehicle agility, tactical flexibility and adaptability.

Our products are proven on the battlefield and have been delivered against the most demanding challenges, including during urgent operational requirement.

INCREASING CAPABILITY IN:

- → MINEFIELD BREACHING
- → SURFACE LAID MINE CLEARANCE
- → PROTECTION AND ROUTE PROVING
- → INTERROGATION
- → OBSTACLE AND EARTH MOVING
- → RECOVERY CAPABILITY
- → EARTH LOADING
- → EXCAVATION
- → ASSAULT GAP CROSSING
- → OBSTACLE MARKING
- → MAGNETIC SIGNATURE DUPLICATION
- → MINE CLEARANCE

The Pearson Engineering
Excavator Manipulator Arm
↓

The Pearson Engineering
Earth Anchor
↓↓

The Pearson Engineering
General Purpose Blade
↓

"WE TAKE THE TRUST PLACED IN US BY ARMED FORCES SERIOUSLY. WE KNOW THAT THE EQUIPMENT WE PROVIDE MAKES A DIFFERENCE ON THE BATTLEFIELD AND WE WORK HARD TO CONTINUE TO DEVELOP INNOVATIVE SOLUTIONS TO MEET THE NEEDS OF TOMORROW'S FIGHT."

→
The Pearson Engineering
MW240

SCALABLE BATTLEFIELD MOBILITY: INTEGRATED SOLUTIONS THAT PUSH BOUNDARIES AND IMPROVE MOBILITY AND PROTECTION.

↗
The Pearson Engineering
Route Proving and Clearance
Multi-Tool

MAXIMISING CAPABILITY
FOR TACTICAL ADVANTAGE

With experience in working with wide ranging tracked and wheeled vehicles, we seamlessly integrate our equipment to adapt host platforms to undertake multiple combat engineering, mobility and counter-mobility tasks, enhancing operational flexibility and reducing the need for dedicated engineering assets.

Integration of our equipment with the vehicle and then the operation and removal of the equipment is made via a Pearson Engineering Vehicle Integration Kit. The most suitable integration method depends on the mission requirements and vehicle capabilities.

Our expert engineers work closely with end-users and vehicle manufacturers to minimise impact on the vehicle and maximise operational capability and tactical advantage.

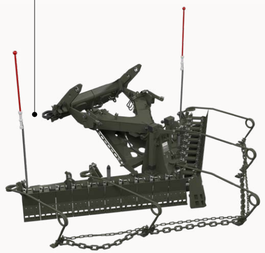
OUR APPROACH

YOUR VEHICLE:

PEARSON ENGINEERING
VEHICLE INTEGRATION KIT

MINEFIELD BREACHING

SURFACE LAID MINE CLEARANCE

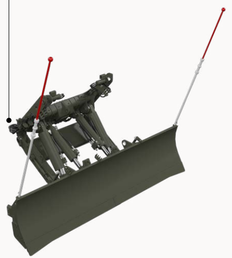


PROTECTION AND ROUTE PROVING

INTERROGATION

OBSTACLE AND EARTH MOVING

RECOVERY



EARTH LOADING

EXCAVATION

ASSAULT GAP CROSSING

WE MAKE PRODUCTS FOR:

Heavy Weight
Tracked Vehicles

Medium Weight
Tracked Vehicles

Medium Weight
Wheeled Vehicles

MRAPs

A PARTNER
YOU CAN TRUST

Pearson Engineering Protection
and Route-Proving.
↓

Working closely with end-users, officers, decision makers and original equipment manufacturers, our solutions are tailored to the mission.

Our products support core combat engineering tasks and mobility for other types of combat vehicle too.

We understand the pressure our clients are under, so we make working together as easy as possible, responding quickly and making sure equipment fits and works as it should.

Our expert engineers are focused on keeping project costs and product weight down.

"WE HAVE WORKED WITH VEHICLE OEMS FROM AROUND THE WORLD AND UNDERSTAND ARMOURED VEHICLES AND THEIR CHARACTERISTICS WELL. WE KNOW THAT OUR EQUIPMENT IS PART OF A BIGGER SYSTEM AND PRIORITISE COLLABORATION TO DELIVER RESULTS."

PROVEN INNOVATION

We invest heavily in research and development to ensure our products are always ready to meet the evolving requirements of the battlefield.

To maintain our leading edge, we keep pace with the latest conflict environments, threats and armoured vehicle developments.

LONG-TERM RELATIONSHIPS

A true partner, all projects include integrated logistics support, including NATO codification where required, maintainer and operator training, spares, repairs, servicing and field service support.

→
The Pearson Engineering Tiller

GLOBAL EXPERTISE

1. USA
2. Canada
3. Brazil
4. Chile
5. Portugal
6. Spain
7. UK
8. France
9. Belgium
10. Netherlands
11. Norway
12. Denmark
13. Switzerland
14. Sweden
15. Germany
16. Italy
17. Finland
18. Greece
19. Romania
20. Israel
21. Jordan
22. Syria
23. Iraq
24. Saudi Arabia
25. Bahrain
26. Qatar
27. UAE
28. Oman
29. Afghanistan
30. Pakistan
31. India
32. Singapore
33. Korea
34. Australia
35. New Zealand

WE HAVE BOOTS ON THE GROUND

Our projects are underpinned by local advisors to enhance our understanding of in-country requirements. Our teams have specialised regional responsibilities ensuring that we understand the forces that impact requirements and decisions in different territories and our Field Service team is available to provide support to our customers wherever they may be.

We are known for our flexibility and for supporting local business wherever possible.

OUR CAPABILITY

MINEFIELD BREACHING

Pearson Engineering's minefield breaching range includes powerful tools to move through even the most challenging terrain to defeat sub-surface explosive ordnance.

Our battle proven mine field breaching products provide armoured vehicles with the capability to defeat anti-tank mines. Whether intended for deliberate breaching or to support 'freedom of manoeuvre' for fighting vehicles, our blast-resistant ploughs give Commanders the option to move unimpeded and in doing so, maintain a battlefield advantage.

Route Opening Mine Plough

Pearson Engineering's Route Opening Mine Plough is a full width mine plough designed for deliberate minefield breaching activities. Ground engaging tines move earth wide and clear of the vehicle to create a cleared route.

Self-Protection Mine Plough

Pearson Engineering's Self-Protection Mine Plough is a track-width mine plough designed to give fighting vehicles the ability to move through minefields when the operation requires it.

SURFACE LAID MINE CLEARANCE

Pearson Engineering's surface laid mine clearance range includes products capable of intelligently detecting and displacing explosive ordnance found within the path of the vehicle. Products are available for combat engineering vehicles and other types of military vehicle.

Surface laid mines represent a rising threat as Armed Forces turn their attention to near peer conflict. Our solutions, each designed to support the missions of dedicated combat engineer vehicles or fighting vehicles, provide a comprehensive detect and displace capability to support deliberate clearance or self-extraction in the face of air delivered scatterable mines.

Surface Clearance Device

Pearson Engineering's Surface Clearance Device provides combat engineer vehicles with purposeful mine clearance capability to create safe routes for following operations.

Threat-Pathway

Pearson Engineering's Threat-Pathway provides urgent self-extraction and in-stride manoeuvre support when surface laid mines are encountered and there is no other option to clear them.

Threat-Sense

Pearson Engineering's Threat-Sense provides any military vehicle with the ability to detect and identify surface laid mines with confidence.

PROTECTION AND ROUTE PROVING

Pearson Engineering's Protection and Route Proving range includes battle proven, ground engaging roller systems to defeat pressure initiated Improvised Explosive Devices. Our highly configurable rollers have saved countless lives, limbs and assets on operations in Iraq and Afghanistan and have succeeded in ensuring 'freedom of manoeuvre' for soldiers around the world.

From small quantity deliveries to large scale urgent operational requirements, the breadth of variants available. Our continued Research & Development provides confidence to those who use them.

Route Proving Roller

Provided as a full-width 'route proving' variant to actively check routes for the presence of Improvised Explosive Devices.

Self-Protection Roller

This product is usually provided as a track-width 'self-protection' variant to enhance survivability in the face of Improvised Explosive Devices.

Route Proving and Clearance Multi-Tool

The RP&C Multi-Tool delivers a scalable and modular suite of RP&C capabilities for use on your existing vehicle fleet. Able to DETECT, PROTECT and DEFEAT a range of explosive threats, both on and off route it enables freedom of manoeuvre and the maintenance of Operational Tempo.

INTERROGATION

Pearson Engineering's interrogation capability includes a nimble, dexterous, and accurate arm suitable for investigating ground sign and other suspicious indicators during Counter-IED route proving operations.

Our interrogation capability is rooted in providing additional capability for Counter-IED and Route Proving operations. To supplement physical detection from ground engaging roller systems, our interrogation arm can be used to further understand the nature of threats and to identify where risks may be present outside of the path of the roller.

Roller Mounted Interrogation Arm

Our interrogation arm can be fitted with a range of tools to support dexterous and accurate exploration of the terrain.

General Purpose Blade

Pearson Engineering's General Purpose Blade can be quickly attached, removed, and interchanged with other equipment to support wide ranging combat engineering tasks.
→

OBSTACLE AND EARTH MOVING

Pearson Engineering's obstacle and earth moving range includes dedicated and multi-purpose blades which are designed to create and defeat deliberate obstacles and to prepare the ground for tactical operations.

Our obstacle and earth moving products include general purpose and multi-purpose dozer blades, designed specifically to meet the needs of different mission sets. Our blades are designed to be tough, robust, and lightweight, enabling a wide range of obstacle and earth moving activities whilst minimising the impact on the vehicle's mobility.

Earth Anchor

A powerful ground-engaging blade sinks into the earth to hold a vehicle static, acting as the force against which the obstacle can be pulled. The same blade can be articulated to provide some obstacle and earth moving capability.

RECOVERY CAPABILITY

Pearson Engineering's recovery capability includes robust and powerful earth anchors and multi-purpose dozer blades designed to hold a vehicle static for winching operations.

Our recovery capability includes a range of dedicated and multi-purpose blades which are primarily designed to support the recovery of other vehicles and the moving of heavy obstacles.

EARTH LOADING

Pearson Engineering's earth loading range includes heavy-duty yet lightweight earth moving buckets. Each are designed specifically for vehicle type and in accordance with the needs of the end-user.

Our earth loading capability delivers a powerful digging and carrying effect, enabling armoured vehicles to transport materials, clear obstacles, dig and fill trenches and to assist in reconstruction tasks. Our loaders can be provided with varying degrees of function and therefore complexity to support different mission sets.

Loader Bucket

Pearson Engineering's loader bucket includes an integral blade with varying pitch to allow earth cutting as well as material dumping.

EXCAVATION

Pearson Engineering's range of excavator manipulator arms provide powerful earth moving capability to combat engineering vehicles. Designed to be fitted with a variety of attachments, our products can be used to move obstacles such as tree abatis as well as to dig and move earth.

Our excavation capability is designed to support combat engineer operations such as digging, demolishing, removing obstacles and filling trenches to support Area Access and Area Denial. mission sets.

Excavator Manipulator Arm

We provide powerful and dexterous capability via a vehicle mounted boom which can be further supported by a dedicated, equipment mounted engine.
→

Bridge Launch Mechanism

Pearson Engineering's Bridge Launch Mechanism enables any suitable combat vehicle to launch and recover bridging from under armour in less than 2 minutes. Pearson Engineering is independent of vehicle and bridge manufacturers, providing complete flexibility to Armed Forces and end-users.
→

ASSAULT GAP CROSSING

Pearson Engineering's range of tactical assault gap crossing capabilities includes products to launch bridges from military vehicles. Our products are designed to provide in-stride capability without the need for dedicated gap crossing vehicle assets.

Like all of Pearson Engineering's products, our assault gap crossing solutions are designed to be modular, to be interchangeable with other mobility and counter-mobility equipment and to support 'freedom of manoeuvre' on the battlefield.

OBSTACLE MARKING

Pearson Engineering's obstacle marking capability provides armoured vehicles with the capability to mark safe lanes and hazardous areas during mine breaching and clearing missions.

Typically used alongside Pearson Engineering's Route Opening Mine Plough, Surface Clearance Device or Route Proving Rollers, our highly configurable obstacle marking systems support battlefield mobility by quickly and reliably marking safe lanes and the edge of hazardous areas.

Obstacle Marking System

Poles with LEDs, flags, colour-coding and other indicators can be selected at time or distance based intervals to effectively communicate the exact location of 'areas of interest' with other Commanders.
→

Magnetic Signature Duplicator

We provide powerful and dexterous capability via a vehicle mounted boom which can be further supported by a dedicated, equipment mounted engine.

MAGNETIC SIGNATURE DUPLICATION

Pearson Engineering's Magnetic Signature Duplication capability has a world-proven ability to disrupt magnetically fused mines at a safe distance from the vehicle.

This capability is often used in combination with Front-End Equipment from Pearson Engineering for mine field breaching, surface laid mine clearance and route proving and clearance.

MINE CLEARANCE

Pearson Engineering's range of mine clearance platforms includes three highly-configurable vehicles, each optimised for specific operational environments. In keeping with the rest of Pearson Engineering's range of equipment, these vehicles can be integrated with a wide range of attachments to complete dedicated counter-mine, counter-explosive ordnance tasks as well as removal of explosive remnants of war. Our approach to adaptability provides tactical flexibility, speed and an ability to optimise equipment for the rapidly evolving challenges of the battlefield.

MW50

This lightweight and nimble remotely controlled vehicle is designed for tasks in hard to access, rugged environments and for operations which require the most delicate approaches.

MW240

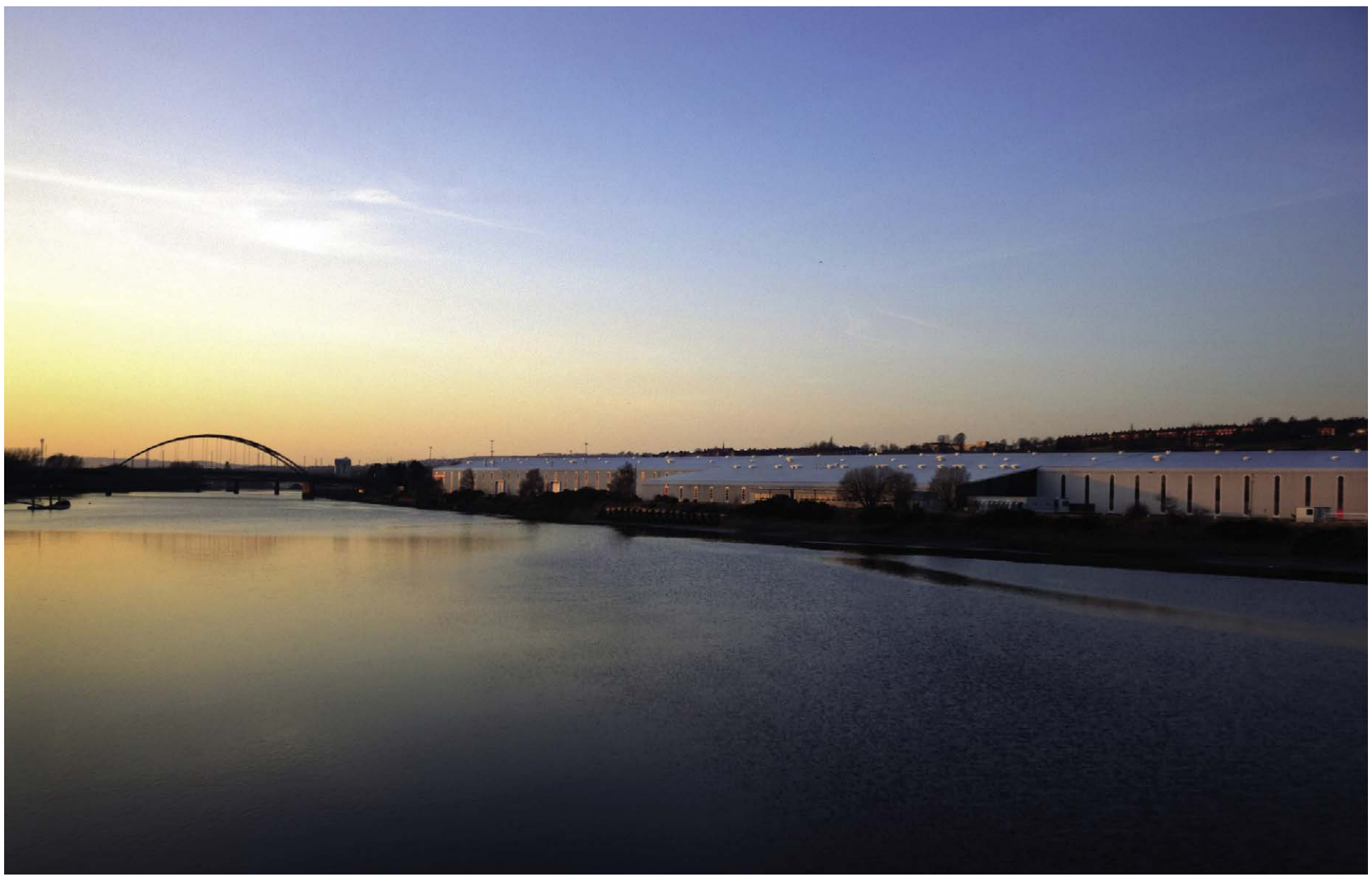
This remotely controlled vehicle has been carefully designed to balance its compact size and weight with its ability to deliver powerful mine clearance capability. It is easily transportable to high-threat areas and offers broad capability from tillers, flails and run-way clearance devices.

MW370

This optionally manned vehicle is optimised for large area mine clearance including up to 30,000m2 of performance per day.

The Pearson Engineering Route Proving Roller →

DELIVERY
EXPERT IN THE DELIVERY OF EQUIPMENT TO DEFENCE PROGRAMMES



From our base in the Armstrong Works, an iconic defence manufacturing facility in Newcastle upon Tyne, our Engineers and Project Managers are expert in the delivery of equipment to defence programmes.

All projects include Integrated Logistics Support (ILS) including NATO codification where required, maintainer and operator training, spares, repairs, servicing and Field Service Support.

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Our Field Service Representatives have Armed Forces backgrounds and know what it takes to keep you moving.

Challenger 2 inspections at Armstrong Works
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HOW CAN WE HELP?

WE HOPE THIS BROCHURE HAS GIVEN YOU AN IDEA OF WHO WE ARE, HOW WE WORK AND HOW OUR EQUIPMENT CAN PROVIDE SCALABLE BATTLEFIELD MOBILITY. IF YOU'D LIKE TO DISCUSS HOW WE CAN HELP YOU MAXIMISE YOUR CAPABILITY, PLEASE CONTACT US.

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