



**MANUFACTURING
SERVICES FOR DEFENCE
PROGRAMMES**

DEFENCE MANUFACTURING SERVICES

Pearson Engineering can provide extensive manufacturing, assembly integration and test (M-AIT) services. We are a proven, reliable partner and through our dedicated facility we can offer rapid project mobilisation.



VEHICLE BUILD

Pearson Engineering offers sub-contract full vehicle assembly, integration & test services for tracked, wheeled, light, medium and heavy armoured vehicles, based at the site of manufacture for the current British Army heavy armoured fleet.

Ready now for sub-contract armoured vehicle assembly.

DEFENSIVE STRUCTURES

Our fully equipped facility provides customers with a single location for fabrication, welding, machining and finishing of armoured hulls, turrets and structures

Unique heavy armour manufacturing capability in the UK.

PROGRAMME MANAGEMENT

With over 30 years of experience in delivering Combat Engineering systems to countries worldwide, Pearson Engineering understands defence programmes and contracting with both end-users and primes.

Complex project management capability with small company agility.

SUPPORT & MRO SERVICES

Proven complex defence services including repair and integration, modification, inspection and upgrade.

End-to-End defence manufacturing services for armoured fleets.

SMALL COMPANY AGILITY, LARGE COMPANY CAPABILITY

Our facility, people and processes allow us to provide low-cost, low-risk and proven, configurable solutions to our customers.

FLEXIBILITY

The flexibility inherent in our site and resources means that Pearson Engineering can provide adaptable, scalable and optimised solutions to meet the many different needs of our customers. From small scale support to large scale production to meet the needs of UORs and national vehicle programmes, Pearson Engineering's proven capability provides low-risk, adaptable solutions.

SIMPLICITY

We retain small company agility, whilst delivering large company capability. The direct and straight-forward nature of our decision making, relationships and processes have delivered successfully against customer requirements for more than 30 years.

SKILLS

Our broad range of experience and projects, from delivering 1000s of mine-rollers throughout the world to providing AIT services to the British Army and delivering our own mine clearance vehicles, provides us with a vast range of skill types. We have experience and expertise across a broad range of vehicle engineering, quality control and project management disciplines.

QUALITY

Our brand integrity ensures that quality is assured throughout the customer experience. We have successfully delivered against global customer requirements for more than 3 decades and have developed a reputation based on trust, quality and the strength of our relationships.

READINESS

We have successfully crafted a place for Pearson Engineering in the challenging defence sector, based on a thorough understanding of requirements, operational demands, processes and stakeholders. We know where we can add value through our facility, people and capability.

HERITAGE

We put our customers first and have developed long-lasting relationships in more than 40 countries as a result. We scale our support according to their requirements and provide them with what they need to successfully realise their projects. We have experience in setting up international subsidiaries and to opening up our facility to our customers.

CROSS-SECTOR CAPABILITY AND SUPPORT

As part of Reece Group, a holding company for a range of innovative engineering businesses, our foundations are firmly planted in engineering. With access to skills and capabilities from the defence, security, oil and gas, subsea and civil sectors, we bring the best procedures, techniques and processes together for our customers.

**WE DRAW UPON OTHERS WITHIN
REECE GROUP INCLUDING:**

**RESPONSIVE
ENGINEERING**

A world-class contract manufacturer using their 33,300m² facilities to provide a full range of turn-key manufacturing services.

**REECE
INNOVATION**

Combining high-end engineering and innovative thinking to develop and support game-changing, disruptive innovations.



OUR PEOPLE

Pearson Engineering's Programme Managers, with a track record of planning and managing complex projects, have experience in delivering exceptional design, manufacture and support. Our experience includes working with Prime contractors on AFV programmes, delivering manned and unmanned vehicles and providing Tier 1 manufacturing services.

Our Programme Managers are supported by Production Planners, AIT specialists, Engineers and Quality Assurance Managers and together have over 500 man years of AFV production experience.



The integration of MineWolf manned and unmanned vehicles into our product offering provides us with inherent vehicle design, manufacture and test capability.



PROGRAMME MANAGEMENT

Our Programme Management process is clear, simple and adaptable. We have experience in working within highly formalised, customer defined and structured programmes as well as those where our expertise is sought to provide guidance. Our adaptability and agility ensures the customer is at the centre of our operations and clear communication is maintained throughout through nominated single points of contact.

We prove our ability to rapidly mobilise, adapt and deliver during recent Urgent Operational Requirements. Pearson Engineering quickly scaled production to deliver thousands of counter-mine rollers to global customers.



PRECISION ARMoured STRUCTURE FABRICATION, WELDING AND MACHINING

We have significant manufacturing expertise, with over 10,000 man years of production know-how.

Welding is to ISO3834 certification standard. We use in-house weld engineering and the capability to fabricate, weld, machine and paint armoured structures including thick plate, single pass and multi-pass welding of armoured MBT sized steel structures. Our Armoured Structure fabrication and Def-Stan cutting, preparation and weld capability includes:

WE INCLUDE:

17,000m² production area

50 tonne crane capacity

Reconfigurable fabrication space

3 x large capacity precision machining centres

600 tonne levelling press

20 tonne weld manipulators

400 tonne press brake

2 x waterjet cutting machines

70 weld bays



PRODUCTION PLANNING

We have a unique level of AFV manufacturing capability. We use a full suite of production planning processes and tools to plan, execute and complete production effectively. A shared, overarching manufacturing plan enables us to work intimately with our customer to plan a low-risk and smooth transition to production whilst identifying, assessing and mitigating risks throughout.

WE INCLUDE:

Production Readiness Review

Manufacturing Data Pack

Process Flow, Routings and Layouts

Process Plans

PFMEA

Logistics Plans



STORES AND LOGISTICS

Our adaptable facility ensures that sufficient space is made available to set-up a dedicated stores and logistics facility for your project. Raw material for armoured structures can be bought to order and utilised immediately in production.

An overall procurement plan guides optimum order quantities and scheduling for effective supply chain management. Kitting is carried out at each build stage and parts are delivered by a dedicated logistics team.



SUPPLY CHAIN

Newcastle upon Tyne's heritage in the production of AFVs has created and sustained a regional supply chain, which ensures that the Armstrong Works is an efficient location to build armoured vehicles.



ASSEMBLY AND INTEGRATION

Our facility is ready to mobilise to provide AIT to vehicle programmes. Our mechanical, vehicle and electrical fitters work in our 16,000m² of reconfigurable AIT space supported by over-head cranes, electrical and compressed air services, vehicle inspection pits, test facilities and exhaust extraction systems.

They also have immediate access to paint booths, sub-assembly areas and workshops capable of activities classified as Secret.

Pearson Engineering was chosen, in competition, to provide structural assessment services to more than 60 Challenger 2 vehicles based on our facilities, capability and know how.



TEST AND ACCEPTANCE

Scalable access to in-line testing equipment and specialist tools, supported by a full range of experts, experienced in sub-system and full system testing.

Our broad range of local, offsite facilities can also be used for further development, test and high speed driving. We use QAR and have personnel experienced in working with customer acceptance and fielding for AFV programmes.

ON-SITE FACILITIES INCLUDE:

Dip text

Break Test Ramp

Slide Slope

Neutral Test Turn

FFBWN EMC Facility



EVALUATION

Working with our customer, we develop a full-range of in-process test and FAT documentation to control and monitor production.

We welcome our customers onsite, to establish an office of their own for the effective management and evaluation of their programmes.



LOCATION

Pearson Engineering is conveniently located close to the UK's motorway network, major transport hubs, test facilities, an exceptional armoured vehicle equipment supply chain and close to major garrison areas.

PRODUCTION

- Armstrong Works

TEST

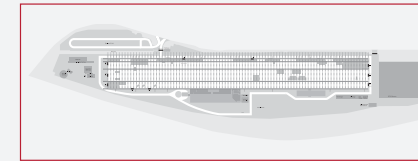
- Armstrong Works
- Alberarle & Otterburn
- Maidens Hall Farm
- Blyth Beach
- Old Tranwell Airfield
- Caterpillar Proving Ground
- Kirkcudbright

CUSTOMER

- Catterick



SITE PLAN

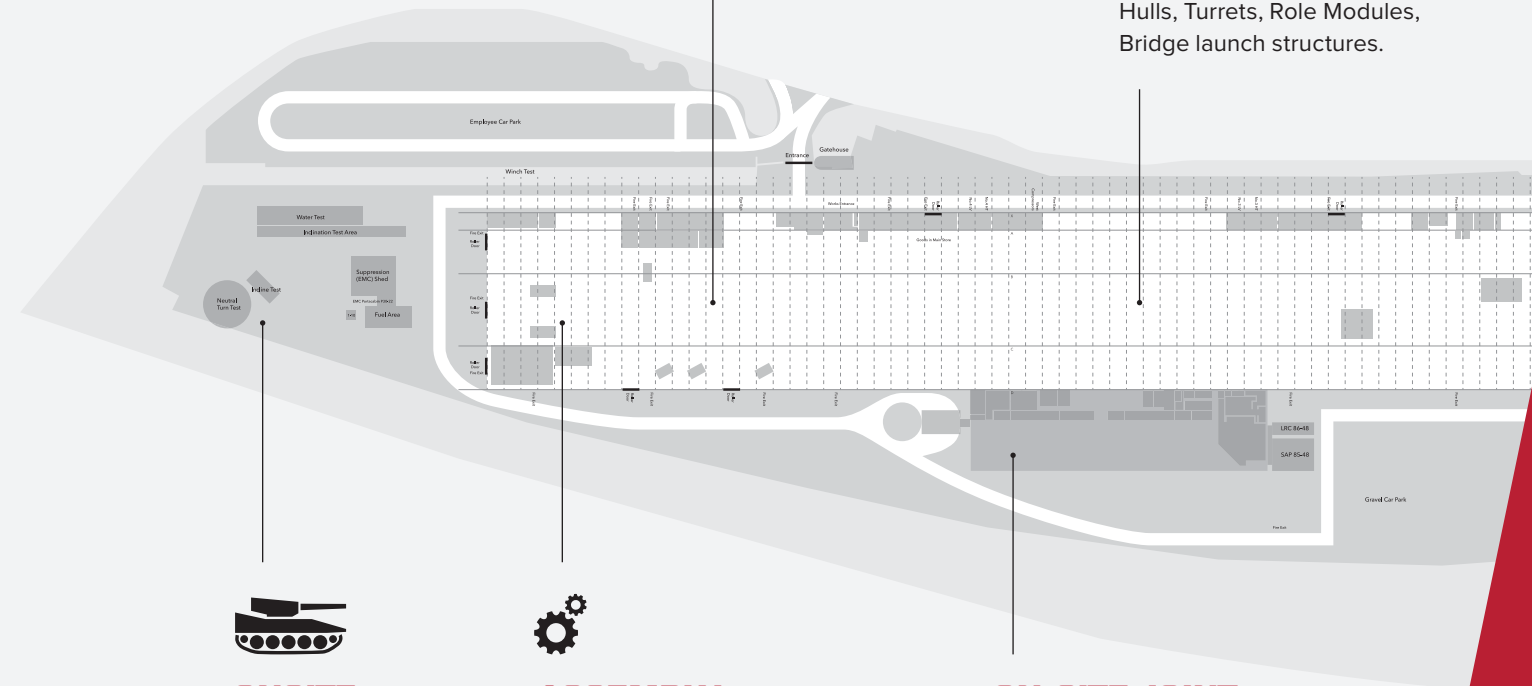


STORES & LOGISTICS



FABRICATION

Armoured Structure fabrication, welding, machining & painting - Hulls, Turrets, Role Modules, Bridge launch structures.



ONSITE TEST ZONE



ASSEMBLY, INTEGRATION & TEST

16,000m² reconfigurable & secure AIT & Onsite production test facilities.

ON-SITE JOINT MANAGEMENT OFFICE



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