

National Apprenticeship - Occupational Profile

Apprenticeship Title OEM Engineer

NFQ Level 6

Duration 3 Years

Typical tasks/ responsibilities

The OEM Sector manufactures a range of modern equipment. These contain a range of complex electrical, battery, electro-mechanical, hydraulic, pneumatic and electronic technology. The OEM Engineer is tasked with manufacturing, assembly, testing, servicing and maintaining a range of original, engineered plant and equipment, to include unique & bespoke solutions to customers needs.

While common engineering skills will be developed over the duration of the programme, the OEM Engineer, uniquely, will cultivate the skills necessary to assemble, install, test, commissioning and electronically control engine driven (diesel and gas) and battery powered systems. The OEM Engineer will have the necessary skills to analyse these systems together with electrical wiring systems, hydraulics systems, pneumatic systems and robotics systems to identify specific faults encountered in OEM products. The OEM Engineer will possess the expertise to provide support to customers around the use and maintenance of the products they manufacture.

The OEM Engineer will be required to interpret technical data and use calibration, torquing, and testing instruments for effective product assembly, fault diagnosis and rectification. They will also be responsible for the installation and calibration of sensors and transmitting and controlling devices. The OEM Engineer will be a key member of cross functional teams such as research and development, assembly, manufacturing, testing, customer support, service & installation, product management and marketing/sales.

On successful completion, the OEM Engineer will demonstrate:

Skills

Core Skills

- Equipment assembly using testing procedures, interpretation of technical drawings, schematics, data and relevant OEM standards in a manufacturing environment
- Installation, use, testing and troubleshooting of hydraulic, electro mechanical, pneumatic, electrical wiring and automated control systems in a manufacturing environment

Specialist Skills

- Fault diagnosis and rectification within OEM products across engine driven systems, electrical wiring systems, battery powered systems, hydraulics systems, pneumatic systems and control systems
- Installation, use, testing and troubleshooting of robotics systems, battery powered systems, diesel and gas engines
- Manufacture, installation and commissioning of OEM products
- Customer service and support around the correct use and maintenance of OEM products

Common Skills

- Health and safety procedures, including the selection, safe use of and storage of craft-related tools, plant, equipment, components and materials
- Engineering workshop techniques and practice
- Fitting and torquing of various fasteners, e.g nuts, bolts, hydraulic fittings, electrical connections etc.
- Manufacturing efficiency (LEAN) principles to the OEM workplace
- Mathematical calculations/principles during installation, use, testing and fault diagnosis associated with OEM products
- Use of common computer applications

Personal Skills

- Communications
- Customer service and support
- Ability to work as part of a team
- Ability to work independently
- Critical thinking
- Problem solving
- Time management/planning
- Information gathering
- Report writing