Apprenticeship Standard for Land-based Service Engineering (LBSE) "Service Engineer"
Level 2 *Foundation* Apprenticeship Standard

Occupation: The Land-based Service Engineering (LBSE) Service Engineer will be prefixed by the industry sector that they work within, for example; Agricultural Service Engineer, Horticultural Service Engineer, Forestry Equipment Service Engineer, Fixed Plant and Equipment Service Engineer, Outdoor Power Equipment Service Engineer.

Overview of Role: Depending upon the industry sector, LBSE Service Engineers may work upon a diverse range of machinery, plant and equipment. In this role they can expect to work under supervision or where appropriate on their own initiative, for example, preparing new and used machinery requiring the implementation of pre-delivery inspection and preparation procedures. Service Engineers will be called upon to carry out scheduled service and routine maintenance operations, the preparation of equipment for repair which may include dismantling and reassembly of equipment and there component parts. These operations may take place in the workplace or on the customer's site, often outdoors. The nature of the industry will present challenges ranging from simple fabrication to the repair of simple mechanical faults. This requires a diverse blend of manual skills, industry underpinning knowledge and the disciplines required for environmental and safe working practice.

Entry Requirement: Employers will set the selection criteria for their apprentices at their own discretion typically this will be the achievement of English and Mathematics GCSE's at Grade C or equivalent In addition to these subjects it is desirable that the apprentice has a basic understanding of Information and Communication Technology (ICT). Typically the apprenticeship will take 18 to 24 months.

Knowledge: The academic learning required to underpin the vocational knowledge and skills will allow the Service Engineer to demonstrate a thorough understanding of maintenance and repair principles appropriate to their level of apprenticeship and the specific needs of the industry sector. This includes:

- Compliance with environmental, safe working and relevant legislation policies and practices.
- Procedures (company, client, Health & Safety).
- How to communicate effectively.
- The identification and correct application of tools and equipment used in maintenance operations.
- Methods of thermally and chemically joining metals and components.
- Fundamental engineering principles of land-based engineering machinery, plant and equipment.
- Underpinning service, maintenance and repair principles and practices.
- How to access and interpret basic technical data.

Skills: The Service Engineer will apply skills and knowledge in a logical and systematic approach and demonstrate manual dexterity, resourcefulness, and good service engineering practice. In order to do this, they will need to be capable of the following:

- Access and interpret basic technical data and documentation.
- Effective communication and customer care approaches.
- Work efficiently and effectively both under supervision, individually and as a team member.
- Maintain and carry out basic repairs to power units, simple power trains, mechanical equipment, plant and machinery and their components.
- Maintain and conduct basic repairs to hydraulic systems and associated components.
- Maintain and conduct basic repairs to electrical systems and associated components.
- Carry out basic diagnostic tasks on low technology plant, equipment and machinery.
- Maintain, as appropriate to the industry sector; cutting, processing, harvesting, basic chemical and fertiliser application, transport and materials handling, storage, cultivation, and lifting equipment.

Occupational Behaviours: Today's land-based service engineering businesses require staff with a diverse set of occupational skills, knowledge and disciplines that will ensure success both in current and future roles equipping them to meet the overall company objectives. These required disciplines include;

Safety Orientation:	This occupation operates within an industry with a high exposure level to safety critical activities. There has to be strict compliance and a disciplined approach to identifying and avoidance of risk. This applies to safety and the environment.
Strong Work Ethic:	Positive attitude, motivated by service engineering, dependable, ethical, responsible and reliable.
Attentive Learner:	Able to listen and absorb knowledge, to ask questions when instructions are not understood or unclear and to work within the limitations of the authority of the job role
Logical Approach:	Able to apply a logical thought process to enable customer and company expectations to be met.
Quality Focused:	Follows procedures and approved engineering principles to ensure work completed is fit for purpose and inline with manufacturer's specifications. Pays attention to detail and applies approved checks throughout work activities to ensure compliance.
Personal Responsibility:	Motivated to succeed, accountable and committed to completing a task.
Good Communicator:	Able to use a variety of appropriate communication methods to express and receive information accurately in a timely and positive manner.
Team Player:	Not only able to work on own initiative but also able to interact and communicate effectively within a team applying a respectful professional manner.
Contributor to Profitability:	Continuously strives to work efficiency and assist others activities as appropriate to the job role.
Adaptability:	Able to adapt to change in conditions, products, situations and working environments
Self-Motivation:	A motivated self-starter who wants to give their best, relishes new challenges who can work on given instruction and own initiative within the limitations of their job role.
Willingness to Learn:	Wants to stretch and drive their Continuous Professional Development.
Commitment:	Able to commit to the objectives of their employer and to the wider professional standards of the industry.

Training and Development Summary

The LBSE Service Engineer Apprenticeship consists of a blend of off-the-job training and supervised learning in the workplace. The off-the-job training provider will focus on developing the apprentice's underpinning knowledge, core skills and behaviours under supervision in simulated working conditions. The knowledge is built through academic learning and the skills by completion of practical tasks aligned to the industry sector requirements.

Development of the apprentice's vocational competence will be achieved through working under supervision in their employer's workplace enabling practice and application of knowledge and skills. This will lead eventually to working with reduced supervision, or unsupervised as appropriate to the given task and its level of complexity.

Upon completion, the apprentice will gain a Level 2 Diploma in Land-based Engineering in addition to Emergency First Aid and Abrasive Wheels certificates. Professional registration is not available at this point but may be available when the Service Engineer has established a proven and documented track record of experience and learning.

Career Progression:

For those wishing to develop their career, the LBSE Service Engineer apprenticeship will form an integrated platform from which to opt into the advanced apprenticeship without having to start at the beginning. Completion of the advanced apprenticeship will be accepted by the Institution of Agricultural Engineers (IAgrE) as the evidence required for Engineering Technician (EngTech) registration.
For those wishing to advance their career and professional standing the Land-based Engineering Industry offers the opportunity to progress through a career development path known as the Land-based Technician Accreditation Scheme (LTA) and the LTA (MEA) Parloursafe Accreditation Scheme.

Review: The apprenticeship will be reviewed after a maximum of 3 years.