

Apprenticeship Training Programme

Phase 1: *With Employer*

Induction Training
Introduction to Health & Safety Training
Introduction to Tools & Equipment
Introduction to Basic Skills

Phase 2: *Delivered in Training Centre (20 weeks)*

Course Content:

Induction
Body Electrics
Engine Mechanical
Ignition & Transducers
Petrol Fuel Injection
Transmission
Suspension & Steering
Brakes
Compression Ignition
Workshop Technology
Related Theory

Phase 3: *With Employer*

Work Based Assessments

Phase 4: *Delivered in Educational Colleges (10 weeks)*

Course Content:

Engine Mechanical
Body Electrics
Braking Systems
Transmission
Petrol Fuel Injection
Steering & Suspension
Compression Ignition
Service-Quality & Management
Related Theory

Phase 5: *With Employer*

Work Based Assessments

Phase 6: *Delivered in Educational Colleges (10 weeks)*

Course Content:

Petrol Engine Management System
Steering & Suspension
Brakes
Transmission
Body Electrics
Compression Ignition
Related Theory

Phase 7: *With Employer*

Work Based Assessments

The overall duration of this apprenticeship is a minimum of 4 years provided all phases are successfully completed. On successful completion of the programme the learner is awarded a Level 6 Advanced Certificate Craft – Motor Mechanics.

For further information please contact your
local Education & Training Board Training Centre
or log onto www.SOLAS.ie

The Craft of Motor Mechanics



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 **Apprenticeship**

KNOWLEDGE. SKILL. COMPETENCE

Overview

Motor mechanics are involved with the servicing, maintenance and repair of cars, sports utility vehicles (SVU's) and light vehicles. The work is wide ranging and includes routine servicing in accordance with manufacturers' recommended procedures and the testing and approval of the structural, mechanical and electrical systems of the vehicle for the National Car Test (NCT) or Department of Transport test when required.

Work Activities

Motor mechanics carry out the routine servicing and repair of cars and other light vehicles such as vans and motorcycles. A vehicle may be due for a service after it has travelled a certain number of kilometres or after a certain period of time, according to instructions set out by the vehicle's manufacturers. Mechanics also repair vehicles that have broken down or been involved in accidents.

Servicing involves making routine checks according to a list, finding faults or problems, overhauling or replacing worn or faulty parts, and using special equipment and road tests to make sure the vehicle performs as it should.

Sometimes customers take their vehicles to mechanics to investigate a particular mechanical fault. Solving these problems may involve stripping down the affected part of the car (eg the gearbox) on a bench or in a workshop area, finding the faulty components and replacing them, and then putting all the parts together again. Mechanics tend to replace parts rather than repair them because this is quicker and therefore less costly.

During the course of their work, mechanics also deal with electrical and electronic systems, which are becoming more and more sophisticated on modern vehicles. For example, mechanics may connect laptop computers to a vehicle's electronic control unit, using an on-screen menu to choose the part of the vehicle they want to investigate. The computer is able to find and report back information on the fault, for example, a break in circuit wiring. With older vehicles, mechanics use electrical testing equipment like voltmeters and ammeters to test electric circuits/components.

Some mechanics go out to vehicles that have broken down or been damaged in accidents. They may be able to repair on the roadside, depending on the fault or tow the vehicle back to their work station to assess any damage or unseen problems.

Mechanics are also responsible for pre-delivery inspections. These are done to ensure a vehicle is working well and performing as it should before it is delivered to the customer.

Aspects of Work

- Learning new practical skills
- Learning how machines work
- Good analytical and troubleshooting skills
- Working with vehicles
- Learning and developing new craft-related skills, knowledge and competence.
- Understanding and using physics
- Being responsible for controlling or adjusting equipment
- Understanding technical drawings and diagrams
- Being accurate with numbers in counting, measuring and arithmetic
- Good communications skills
- Practical skills and theoretical knowledge
- Being physically active and on your feet
- Working with electricity or electronics
- Keeping up-to-date with changing technologies
- Enthusiasm to solve problems
- Being well-organised and careful with practical tasks
- Taking responsibility for own learning, including the allocation of study time

Mechanics use specialised equipment to measure things like engine and brake performance, transmission and the accuracy of dashboard indicators. Mechanics also road test vehicles during pre-delivery inspections.

Personal Qualities and Skills

You must have good practical skills and a high level of technical knowledge. You need to be physically fit to cope with bending, lifting and stretching, although you will use ramps and pits, hoists and jacks for heavy work. You will need nimble fingers to handle small parts and hand tools.

You should be logical and patient in tracing faults, and have good organisational skills to prioritise your workload. It is important for mechanics to have good communication skills, because they need to explain faults and repairs clearly to customers.

Opportunities

Opportunities arise from time-to-time for promotion to supervisor level. Many persons use an apprenticeship as a first step in proceeding to such occupations as instructors, teachers, training advisers, managers and owners of businesses.

Where apprentices and crafts persons have the necessary ability, initiative and basic qualifications, opportunities are available for advancement. These include advanced technological and management courses which are available in Institutes of Technology, Schools of Management, Professional Institutes, etc.

People anxious to advance themselves in their careers are advised to discover for themselves what opportunities are available.

Educational Requirements

The minimum age at which the employment of an apprentice may commence is 16 years of age.

The minimum educational requirements are:

1. Grade D in five subjects in the Department of Education & Skills Junior Certificate Examination or an approved equivalent, or
2. The successful completion of an approved Pre-Apprenticeship course or
3. Three years' work experience gained over sixteen years of age in a relevant designated industrial activity as SOLAS shall deem acceptable

You must obtain a job as an apprentice in your chosen occupation. Your employer must be approved to train apprentices and must register you as an apprentice within 2 weeks of recruitment.

In certain crafts, apprenticeship applicants are required to pass a colour vision test approved by SOLAS.