

## Demonstrate knowledge of hand tools and workshop equipment for motor industry applications

**Level** 2

**Credits** 2

**Purpose** This theory-based unit standard is for people wishing to enter the automotive repair industry, or when initially employed, to carry out tasks in any automotive or collision repair application. People credited with this unit standard are able to demonstrate knowledge of hand tools and workshop equipment, and maintaining workshop tools and equipment.

**Subfield** Motor Industry

**Domain** Motor Industry - Introductory Skills

**Status** Registered

**Status date** 27 July 2005

**Date version published** 25 July 2007

**Planned review date** 31 December 2009

**Entry information** Open.

**Replacement information** This unit standard and unit standard 21859 replaced unit standard 228 and unit standard 3880.

**Accreditation** Evaluation of documentation by NZQA.

**Standard setting body (SSB)** NZ Motor Industry Training Organisation (Incorporated)

**Accreditation and Moderation Action Plan (AMAP) reference** 0014

This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

---

### Special notes

- 1 Hand tools and workshop equipment vary between businesses and between occupations. This unit standard is not intended to encompass all variants available on the market, but to indicate basic tools and equipment required to complete the various mechanical jobs in an automotive and collision repair workshop. The NZ Motor Industry Training Organisation Training Manuals for the relevant occupations list recommended tools and equipment for particular unit standards.

- 2 Terminology of hand tools and workshop equipment can vary between manufacturers and between countries.
- 3 Legislation relevant to this unit standard includes but is not limited to – Health and Safety in Employment Act 1992, Resource Management Act 1991.
- 4 Definition  
*Company requirements* refer to instructions to staff on policy and procedures which are documented in memo or manual format and are available in the workplace. These requirements include but are not limited to – company specifications and procedures, work instructions, manufacturer specifications, product quality specifications, and legislative requirements.
- 5 Assessment  
 This unit standard may be assessed against in either the workplace or a provider environment. When assessment is conducted in a provider environment the company requirements of an actual workplace must be used.

## Elements and performance criteria

### Element 1

Demonstrate knowledge of hand tools and workshop equipment.

#### Performance criteria

- 1.1 Hand tools and their uses are described in accordance with manufacturer specifications and company requirements.
- Range includes but is not limited to – adjustable wrenches, Allen keys, bars, chisels, files, hacksaw, hammers; inspection mirror, magnet, pliers; punches, riveter, screwdrivers, socket sets, spanners, wire brushes.
- 1.2 Power and pneumatic tools and their uses are described in accordance with manufacturer specifications and company requirements.
- Range includes but is not limited to – drills, grinders, polisher, sanders, screwdriver, wrenches and sockets.
- 1.3 Workshop equipment and their uses are described in accordance with manufacturer specifications and company requirements.
- Range includes but is not limited to – air compressor, buff, clamps, cleaning equipment, computer system, drills, extractors, fault finding diagnostic equipment, floor creeper, grease gun, grinder, hoist, inspection light, jacks, lifting equipment, measuring equipment, multimeter, parts trays, press, protective covers, pullers, soldering equipment, stands, straight edge and surface plate, thread restoring and cutting tools, vehicle alignment equipment, welding equipment, work bench and vice, workshop manuals and/or service information.

- 1.4 Measuring equipment and their uses are described in accordance with manufacturer specifications and company requirements.
- Range includes but is not limited to – tapes, dial test indicators, feeler gauge, gap gauges, micrometers, torque wrenches, vernier callipers.
- 1.5 Procedures to use the recommended tools for the job to enable the task to be completed without undue time being lost, componentry damage, or injury to people are described in accordance with manufacturer specifications and company requirements.
- 1.6 Safety procedures when using tools and equipment are described in accordance with equipment manufacturer specifications and company requirements.
- Range checking prior to use, during use; personal safety, safety of others, vehicle safety, no damage to tools and equipment.

## Element 2

Demonstrate knowledge of maintaining workshop tools and equipment.

### Performance criteria

- 2.1 Safe working procedures when maintaining tools and equipment are described in accordance with manufacturer specifications and legislative requirements.
- Range personal safety, safety of others, no damage to tools and equipment.
- 2.2 Procedures to clean, lubricate, and store workshop tools and equipment for easy access, and without damage and loss are described in accordance with manufacturer specifications and company requirements.
- 2.3 Procedures to keep workshop hand tools maintained in a safe working condition are described in accordance with manufacturer specifications and company requirements.
- Range includes but is not limited to – adjustable wrenches, chisels, files, hacksaw, hammers, punches, screwdrivers, spanners.
- 2.4 Procedures to keep measuring instruments in a safe condition and to ensure accuracy before use are described in accordance with equipment manufacturer specifications and company requirements.
- Range includes but is not limited to – feeler gauges, micrometers, torque wrenches.

### **Please note**

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

---

### **Comments on this unit standard**

Please contact the NZ Motor Industry Training Organisation (Incorporated) [janet.lane@mito.org.nz](mailto:janet.lane@mito.org.nz) if you wish to suggest changes to the content of this unit standard.