

MAURITIUS QUALIFICATIONS AUTHORITY

NATIONAL CERTIFICATE

LEVEL 3

IN

TRACTOR

AND

HEAVY VEHICLE MECHANICS

National Certificate Level 3 in Tractor and Heavy Vehicle Mechanics

1. Level of qualification: 3

2. Total Credits: 115

3. Review date: October 2025

4. Access to qualification

4.1 Entry information

National Certificate of Education (NCE)/ 9th Grade of the Nine Year Continuous Basic Education (NYCBE)

or

An alternative qualification at Level 2 of the NQF

4.2 Recognition of Prior Learning (RPL)

Potential candidates holding at least 3 years of working experience in the relevant field may access this qualification through Recognition of Prior Learning (RPL) process.

4.3 Award of qualification requirements

| Unit No. | Unit Standard Title | Level | Credit | | | |
|-------------|------------------------------------------------------------------------------------------------------|-------|--------|--|--|--|
| | Basic Workshop Skills | | | | | |
| 1 | Observe good work habits and perform safe work practices in the Heavy Vehicle and related industries | 3 | 1 | | | |
| 2 | Select and use of appropriate tools, metals and fasteners for an automotive application | 3 | 1 | | | |
| 3 | Carry out Measurement and fits | 3 | 1 | | | |
| 4 | Carry out general engineering fitting tasks | 3 | 3 | | | |
| | Engine Systems | | | | | |
| 5 | Identify the layout and general locations of the different systems on Tractors and Heavy vehicles | 3 | 1 | | | |
| 6 | Familiarize With Instruments and control | 3 | 2 | | | |
| 7 | Working operation of two and four stroke engines | 3 | 1 | | | |

| 8 | Perform a basic tuning on a CI Engine | 3 | 2 | | | |
|---------------------------------------|-----------------------------------------------------------------------------|---|----|--|--|--|
| 9 | Dismantle, Service and Reassemble a four-stroke Compression Ignition engine | 3 | 25 | | | |
| 10 | Perform Soldering Operation and Measure Electrical Quantities | 3 | 1 | | | |
| | Electricity | | | | | |
| 11 | Maintain Batteries | 3 | 1 | | | |
| 12 | Maintain the Charging System | 3 | 1 | | | |
| 13 | Maintain the Starting System | 3 | 1 | | | |
| 14 | Maintain Vehicle Lighting System | 3 | 2 | | | |
| Overhaul a Manual Transmission System | | | | | | |
| 15 | Service a Clutch Release Mechanism | 3 | 2 | | | |
| 16 | Overhaul a Manual Transmissions System | 3 | 6 | | | |
| 17 | Service the Propeller Shaft | 3 | 2 | | | |
| 18 | Overhaul the Rear Axle | 3 | 3 | | | |
| | Steering & Suspension Systems | | | | | |
| 19 | Service wheel, Tyres and wheel bearings | 3 | 1 | | | |
| 20 | Service the steering linkage | 3 | 1 | | | |
| 21 | Service Front Wheel Steering Geometry | 3 | 1 | | | |
| 22 | Service Manual Steering Gear boxes | 3 | 4 | | | |
| 23 | Service Front Axle and Suspension | 3 | 3 | | | |
| 24 | Service the Rear Suspension | 3 | 4 | | | |
| | Brake System | | | | | |
| 25 | Identify different types of Braking Systems | 3 | 1 | | | |
| 26 | Service a Hydraulic Brake System | 3 | 3 | | | |
| 27 | Service a Drum Brake | 3 | 3 | | | |
| 28 | Service a Disc Brake assembly | 3 | 3 | | | |

| Hydraulics & Undercarriage | | | | | |
|----------------------------|-------------------------------------------------------------------------------|---|-----|--|--|
| 29 | Identify a Hydraulic system | 3 | 1 | | |
| 30 | Identify the Undercarriage of a Tractor | 3 | 1 | | |
| | Associated studies | | | | |
| 31 | Demonstrate effective communications skills | 3 | 8 | | |
| 32 | Demonstrate mathematical skills and knowledge | 3 | 4 | | |
| 33 | Demonstrate technical drafting skills | 3 | 8 | | |
| 34 | Demonstrate good work ethics | 3 | 1 | | |
| 35 | Demonstrate knowledge of and apply safety and health measures | 3 | 1 | | |
| 36 | Demonstrate knowledge of entrepreneurship development | 3 | 2 | | |
| 37 | Demonstrate knowledge of sustainable development | 3 | 1 | | |
| 38 | Demonstrate understanding and use of information technology | 3 | 4 | | |
| 39 | Demonstrate knowledge and basic performance skills in two physical activities | 3 | 4 | | |
| Total Credits | | | 115 | | |

5. Purpose

This qualification is intended for people wishing to pursue a career in the tractor and heavy vehicle industry and provides learners with the skills and knowledge required for general heavy vehicle repair and service work.