



Tooling and Resource List

Workshop equipment

General

- Waste disposal and recycling facilities
- Exhaust extraction equipment
- Vehicle lifts – 2 or 4 post capable of both wheel free and non-wheel free operation
- Additional lifting equipment to include hydraulic jacks and axle stands
- Tyre changing equipment with run flat tyre capability and tyre repair materials
- Wheel balancing equipment
- Working surface/ benches with fixed vice
- Hydraulic press
- Hydraulic/ Pneumatic coil spring compressor
- Mechanical measuring equipment to i.e. vernier, micrometer, feeler gauges, DTI
- Electrical measuring equipment i.e. volt meter, ohm meter, ammeter
- General servicing tools to include brake bleeding, brake fluid boiling point and antifreeze testers
- Torque wrench
- Inspection lamp
- Hand tools to include spanners, sockets/ ratchets, hammers, screwdrivers etc.
- Pry bars
- Basic engineering tools to support cutting, filing, joining and drilling activities

Specialised

- Emission analysis equipment (SI)
- Diagnostic equipment capable of reading fault codes and providing live data and tyre pressure monitoring system (TPMS) code resetting ability
- Oscilloscope (if not within scan/ diagnostic tool capabilities)
- Four wheel alignment equipment with the ability to measure caster and camber
- Manufacturer's specialist tools for engine, chassis, transmission and electrical diagnostic and repairs (if required)
- Refrigerant recovery equipment (F-gas)
- Battery tester
- Workshop cleaning materials as required per task
- Stock/ parts ordering system/ catalogues
- Stock/ parts management system
- Stock/ parts storage area
- Use of IT system to calculate invoices and access technical information



Technical data required for all vehicles and rigs within the workshop

- Manuals or technical data to cover all tolerances, adjustments and manufacturers' specifications
- Wiring diagrams
- Service / inspection schedules

Vehicles and rigs

- A range of vehicles with braking systems that include:
 - Discs and drums
 - Hydraulic systems
 - ABS/EBS
 - Manual handbrake
- A range of vehicles or rigs with serviceable hydraulic power steering systems
- A range of vehicles or rigs with serviceable suspension systems which must include:
 - Coil springs
 - McPherson strut
 - At least two of the following mechanically adjustable (not shims):
 - Front Toe
 - Front Camber
 - Rear Toe or
 - Rear Camber
- A range of vehicles that include:
 - Run flat tyres
 - Tyre pressure monitoring systems (TPMS) that can be reset manually or with a diagnostic tool
- A range of vehicles or rigs with modern engine management which must include:
 - Multi point petrol injection
 - Common rail diesel
 - Emission reduction catalyst systems
 - Exhaust gas recirculation systems
 - Diagnostic plug in
- A range of vehicles or rigs with electrical systems which must include:
 - Manual or automatic wiper systems
 - Electrically controlled mirrors
 - Safety Restraint Systems (SRS)
 - Lighting systems
 - Starting systems
 - Charging systems
 - Comfort and convenience systems which must include air conditioning
 - Diagnostic plug in



Other requirements

- Have sufficient workspace, workshop and candidate facilities which are clean, tidy and well maintained
- Have private and quiet breakout areas
- Maintain a full set of tools and resources as defined above
- Facilities to conduct online assessments in line with IMI Operating Manual
<http://awarding.theimi.org.uk/Centres/Operating-Manuals>