



Tooling and Resource List

Workshop equipment

General

- Waste disposal and recycling facilities
- Exhaust extraction equipment
- Machinery lifts – lifting & jacking equipment suitable for the range of tasks to include trolley & bottle jacks, axle stands, engine & wheel cranes, lifting slings & chains
- Separate working stations with work bench and access to writing areas, surface/ benches with fixed vice
- Hydraulic press
- Mechanical measuring equipment to i.e. vernier, micrometre, feeler gauges, DTI, pressure gauges; pneumatic and hydraulic, measuring jugs & funnels
- Electrical measuring equipment i.e. volt meter, ohm meter, ammeter
- General servicing tools to include, brake fluid boiling point and antifreeze testers
- Torque wrench
- Inspection lamp
- Hand tools to include a range of suitable; spanners, sockets/ ratchets, hammers, screwdrivers, soldering equipment etc. for the range of plant and machinery
- Pry bars
- Basic engineering tools to support cutting, filing, joining and drilling activities
- Cleaning materials; cleaning cloths, tissues, sweeping brushes, shovel, spillage materials, waste bin suitable for the range of tasks
- Workshop sundries, a range of; insulation tape, sealants, electrical wire & connectors, split pins, nuts, bolts & washers,
- Fluids, lubricants and drainage equipment for; engine, driveline and hydraulic systems
- PPE equipment; safety glasses, gloves, hard hats, respiratory masks, hand washing facilities

Specialised

- Emission analysis equipment (CI)
- Diagnostic equipment capable of reading fault codes and providing live data and code resetting ability
- Engine cylinder leakage tools
- Engine cooling system pressure tester
- Pressure testers for; mechanical equipment, fuel & hydraulic fluids
- **Manufacturer's specialist tools for engine, chassis, and transmission, hydraulic and electrical diagnostic and repairs (if required).**
- Battery tester & charger
- Parts washer
- Workshop cleaning materials as required per task
- Spare parts catalogues



Technical data required for all machinery, equipment and testing rigs within the workspace

- Manuals or technical data to cover all tolerances, adjustments, repair time and manufacturer's specifications
- Wiring diagrams
- Hydraulic system schematic diagrams
- Service / inspection schedules

Machinery, equipment and testing rigs

- A range of machinery with braking systems that include:
 - Discs and drums
 - Hydraulic systems
- A range of machinery or rigs with serviceable hydraulic systems for maintenance, testing and diagnostic purposes to include; fixed displacement gear / vane hydraulic pumps, hydraulic rams & replacement seals.
- A range of machinery or rigs with serviceable pneumatic systems for maintenance, testing and diagnostic purposes
- A range of machinery or rigs with modern engine management systems which must include:
 - Multi point injection
 - Common rail diesel
 - Emission reduction catalyst systems
 - Exhaust gas recirculation systems
 - Diagnostic plug in
- A range of machinery or rigs with electrical systems which must include:
 - Manual or automatic wiper systems
 - Electrically controlled systems
 - Safety Restraint Systems (SRS)
 - Lighting systems
 - Starting systems
 - Charging systems
 - Comfort and convenience systems
 - 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>



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