



- (a) mechanical noises due to maladjustment or wear;
  - (b) lubrication system faults;
  - (c) cooling system faults;
  - (d) cylinder-related faults, eg. pistons, valves, gaskets, etc. Sources of test information.
3. method of recording and interpreting test results.
4. appropriate repair procedures for common mechanical faults.
- Methods of inspecting faulty components to determine repair requirements.
5. safe working practices when working with running engines.

Suggested Learning and Teaching Approaches

This module should be taught in a workshop situation with students working on a range of spark/compression ignition engines.

Service information must be available for all the units being tested. Emphasis should be placed on the ability to select and use test equipment in diagnostic situations.

After demonstrations, students should be assigned to test procedures and introduced gradually to the full range of tests.

Students should compare test results with standards and report findings.

Assessment Procedures

All learning outcomes must be validly assessed.

The student must be informed of the tasks which contribute to summative assessment. Any unsatisfactory aspects of performance should, if possible, be discussed with the student as and when they arise.

Acceptable performance in the module will be satisfactory achievement of the performance criteria specified for each learning outcome.

The following abbreviations are used below:

LO Learning Outcome  
IA Instrument of Assessment  
PC Performance Criteria

LO1

IA Assignment report.

PC The student:

- (a) correctly identifies obvious visual/audible defects;
- (b) carries out appropriate test preparation work.

LO2

IA Observation checklist.

PC The student:

- (a) selects suitable test equipment;
- (b) uses the equipment correctly;
- (c) records accurate test results.

LO3

IA Assignment report.

PC The student correctly interprets test results.

LO4

IA Assignment report.

PC The student selects suitable repair procedures for faults.

LO5

IA Observation checklist.

PC The student consistently:

- (a) wears all necessary safety clothing and equipment;
- (b) behaves in a manner appropriate to the working environment;
- (c) uses tools and equipment safely.