

A42

Crusher

Intermediate Certificate

Unit A42 Crusher

Learning outcomes

On completion of this unit, the candidate will be able to:

1. Identify the basic construction, purpose and function of components and the purpose and use of all controls and gauges.
2. Identify and comply with manufacturers' instructions in accordance with the operator's handbook, other information sources and applicable legislation.
3. Ensure the crusher is sited and set in accordance with the manufacturer's information.
4. Carry out all pre-use and running checks.
5. Set the machine for work.
6. Set and adjust the crusher to produce various sizes of aggregate.
7. Operate the crusher to produce aggregates of various sizes with various given materials.
8. Agree and use appropriate code of signals with operatives.
9. Place the machine in an out-of service condition.
10. Explain the de-rigging and preparation for transportation procedure (applicable to mobile units only).

Evidence requirements

To achieve the learning outcomes the candidate must complete a theory test and a practical test.

Practical Test

A. Equipment specification

1. Serviceable crusher that meets current legislation equipped with conveyer(s), with the operator's manual.
2. An area of level ground suitable for receiving stockpiles of crushed material.
3. A quantity of material suitable for crushing.
4. Suitable equipment for loading the material into the hopper (i.e. loading shovel, excavator 360 , etc.).
5. Additional personnel to assist with the operation i.e. feeding.

B. Exercise specification

The candidate is required to:

1. Ensure the crusher is sited in accordance with company requirements, positioned on firm level ground, secured, supported, and all associated equipment positioned as required by the manufacturer.
2. Carry out full pre-start checks as required by the manufacturer.
3. Confirm the code of signals with any other crew member(s) and the feeder operator (if applicable).
4. Deploy the conveyer(s) as required.
5. Start the crusher and engage all systems.
6. The hopper is to be loaded to start the crushing process. The feed and delivery of material is to be controlled so that:
 - a) no back-ups occur
 - b) conveyers are not overloaded
 - c) minimal material is being discharged under the machine.
7. Operate the machine as a continuous process for 30 minutes.
8. Carry out an emergency stop operation during the crushing process in item 7.
9. On completion of item 7, clear the crusher of crushed and uncrushed materials and carry out shut-down procedures.
10. Leave the machine safe and secure.

Note: For items 6 and 7, the machine must be operated at a minimum of 75% of its working capacity.

The practical test is marked using the Operator Assessment Form (sections A and B). The candidate must also complete a theory test paper which is centrally set by Lantra Awards and marked by the assessor. For this unit, there is a maximum of 30 marks available and the pass mark is 80% (24 or more marks for correct answers). The theory test mark is entered on the Operator Assessment Form (section C). Candidates must pass all three sections to achieve the unit.