

A21

Wheeled Loading Shovel Intermediate Certificate

Unit A21 Wheeled Loading Shovel

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. Carry out all pre-use and running checks.
4. Set the loading shovel for site and road travel.
5. Travel over differing types of terrain, including rough undulating ground, both in a loaded and unloaded state.
6. Travel up and down substantial inclines in a loaded and unloaded state.
7. Manoeuvre in confined areas using forward and reverse direction in a loaded and unloaded state.
8. Explain precautions to be taken for underground and overhead services and other hazards.
9. Carry out excavations from an embankment of different materials and from stockpiles and ramps.
10. Load various types of materials into receptacles, i.e. vehicles, hoppers etc.
11. Ensure load integrity and security.
12. Backfill, spread and level differing types of material.
13. Place the loading shovel in an out-of-service condition.
14. Explain the loading and unloading procedures on and off a transport.

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 wheeled loading shovel that meets current legislation, fitted with a general purpose excavating bucket, with the operator's manual.
2. Rear tipping dump truck or tipping lorry, which must have a capacity at least equivalent to 4 full bucket loads of the loader being used for the test.
3. A bank or mound of material which can be excavated.
4. An area of ground which must include:
 - a) uneven, rough terrain
 - b) a slope(s) not less than 18% (1:5.5) incline having sufficient manoeuvring room at the top and bottom
 - c) a straight run of at least 30 metres in length.
5. Cones/materials etc., to create restrictions for travelling and manoeuvring.

B. Exercise specification

The candidate is required to:

1. Carry out full pre-start and running checks as required by the manufacturer.
2. Prepare the loading shovel for travel, and travel to the excavating area.
3. Excavate from the bank and, on a flat surface, form an upward ramp. The length of the ramp must be at least 1.5 x the total length of the loader being used for the test, and have an incline of 18% (1:5.5). The width of the ramp must be a minimum of 1 x bucket width of the loader.
4. Using material from the ramp, load the vehicle to capacity. *(At least 8 full bucket loads must be placed into the vehicle before this item is completed. This may mean that the vehicle may need to be loaded more than once.)*
5. Fill the bucket to capacity and travel along a route which must include:
 - a) the incline up and down
 - b) stopping and restarting on the incline in the up direction
 - c) stopping and restarting on the incline in the down direction
 - d) travelling over rough, uneven terrain.
6. Reverse the loading shovel in a straight line for at least 30 metres, and pass through a restriction of no more than the width of the loading shovel plus 800 mm at the end of the run.
7. Clean up the working area.
8. Travel the loading shovel to a park position, shut down and secure.

Note: Items 5 and 6 may be undertaken during any part of the test.

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 35 marks available and the pass mark is 80% (28 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.