

## SPECIALISED PLANT AND MACHINERY OPERATIONS

It is important that the instructors/trainers/assessors read all the information provided in the Guidance Notes prior to commencing any instruction, training and/or assessment.

### TRAINING OUTCOMES

A module credit will be awarded to the candidate for the successful completion of this module. Instruction, training and/or assessment of mandatory modules MOD 1 and MOD 2 must be undertaken and the CITB Health and Safety Test must be successfully completed (after appropriate training) for the issue of the Specialised Plant and Machinery Operations Intermediate Certificate for Forward Tipping Dumper.

#### Module ICT 09 Forward Tipping Dumper

Wheeled	(Endorsement A)
Tracked	(Endorsement B)

To successfully complete this module, the trainee with a forward tipping dumper must 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 dumper 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. Position the dumper to receive loads.
9. Comply with loading procedures.
10. Ensure load integrity and security.
11. Discharge loads into trenches or over edges.
12. Place the dumper in an out-of-service condition.
13. Explain the loading and unloading procedures on and off a transporter.

**TRAINING SYLLABUS**

It is recommended that mandatory modules MOD 1 and MOD 2 be completed before delivery of this module. As stated in the Guidance Notes, instructors/trainers/assessors are encouraged to integrate subjects from each module in the development of programmes for candidates with little or no experience.

	<b>Subject</b>	<b>References</b>
<b>MOD 1</b>	<b>Introduction to the Industry:</b> <ol style="list-style-type: none"> <li>1. Construction industry structure.</li> <li>2. The role of the plant operator.</li> <li>3. Finding and using information relevant to a specific task.</li> <li>4. Construction registration schemes.</li> <li>5. Qualifications and continuous professional development.</li> <li>6. Trained Operator Achievement Test.</li> </ol>	Manufacturer's instructions, machine handbooks, test and thorough examination certificates. Awarding Body and scheme handouts. Qualification literature.
<b>MOD 2</b>	<b>Site Safety Awareness:</b> <ol style="list-style-type: none"> <li>1. Principles and aims of health and safety at work.</li> <li>2. Employee's duties and responsibilities under law.</li> <li>3. Safety signs.</li> <li>4. Dealing with hazards.</li> <li>5. Accident prevention and control.</li> <li>6. Selection and use of personal protective equipment.</li> <li>7. Handling plant-related harmful substances.</li> <li>8. Trained Operator Achievement Test.</li> </ol>	Current legislation, Approved Codes of Practice and Government body guidance.
<b>ICT 09</b>	<b>Forward Tipping Dumper:</b> <ol style="list-style-type: none"> <li>1. Basic construction, names of components and the purpose and use of all controls and gauges.</li> <li>2. Use of the operator's handbook, other information sources, Approved Codes of Practice and legislative documents.</li> <li>3. Pre-use, start, running checks and close-down procedure.</li> <li>4. Preparing the dumper for site and road travel.</li> <li>5. Travelling the dumper over different terrain including rough, undulating ground while unloaded and loaded.</li> <li>6. Travelling up and down substantial inclines in a loaded and unloaded state.</li> <li>7. Manoeuvring progressing to confined spaces in a forward and reverse direction.</li> <li>8. Positioning the dumper to receive loads.</li> <li>9. Loading procedures.</li> <li>10. Load characteristics, integrity and security.</li> <li>11. Discharging loads into trenches and over edges.</li> <li>12. Placing the dumper in an out-of-service condition.</li> <li>13. Loading and unloading procedures on and off a transporter.</li> <li>14. Trained Operator Achievement Test.</li> </ol>	Manufacturer's instructions, machine handbooks, test and thorough examination certificates. Current legislation, Approved Codes of Practice and Government body guidance.

**TRAINED OPERATOR ACHIEVEMENT TEST****Equipment specification**

1. Serviceable tracked or wheeled dumper that meets current legislation and must be:
  - a) not less than 2 tonne load capacity
  - b) ROPS and seatbelt equipped
  - c) with the operator's manual.
2. A means of loading the dumper. i.e. loader, excavator, conveyer.
3. A designated unloading area, being a trench or an edge, at least 0.5 of a metre deep, and a minimum of 2 x the width of the dumper, with appropriate edge protection.
4. A driving area which must include:
  - a) uneven, rough terrain
  - b) a slope(s) not less than 18% (1:5.5) incline with sufficient manoeuvring room at the top and bottom
  - c) a straight run at least 30 metres in length.
5. Cones/materials etc., to create restrictions for travelling and manoeuvring.

**Exercise specification**

The candidate is required to:

1. Carry out full pre-start and running checks as required by the manufacturer.
2. Prepare the dumper for travel, and drive to the loading area to be loaded. The route must include travelling up and down the incline(s).
3. When fully laden, travel to the unloading area. The route must include:
  - a) passing through a restriction being no more than the width of the dumper plus 600mm, in a forward and reverse direction
  - 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 uneven, rough terrain.
4. Whilst loaded, reverse the dumper in a straight line for a minimum of 30 metres.
5. Discharge the load into the excavation or edge.
6. Travel the dumper back to the loading area to receive a fresh load.
7. When fully laden travel to the tipping point and discharge the load. This load is to be adjacent to the previous tipping point.
8. Travel to a park position, shut down and secure.



**TRAINED OPERATOR ACHIEVEMENT TEST MARKING FORM**

Candidate name: ..... Signature: .....

Registration No.: ..... Date/time of test : ..... /...../200 .....am/pm

Machine make and model: .....

Endorsement (*please tick **one** only*):

09A – Wheeled

09B – Tracked

**Section A: During the test did the candidate?**

Yes No

1. Carry out pre-start and running checks		
2. Lock the skip prior to travelling (where applicable)		
3. Clear any restrictions encountered whilst travelling		
4. Keep clear of all hazards whilst travelling		
5. Dismount and stand in a safe area prior to and during loading		
6. Travel the dumper correctly on the inclines in a laden and unladen state		
7. Maintain full control of the vehicle when climbing and descending inclines		
8. Restart correctly on inclines with no opposite movement from the intended direction		
9. Keep the dumper in a straight line during the specified reversing exercise		
10. Approach the tipping point using the appropriate speed		
11. Use the appropriate edge protection prior to tipping the load		
12. Apply the parking brake prior to tipping the load		
13. Select neutral prior to tipping the load		
14. Reverse the dumper after tipping to clear material from the skip		
15. Fully lower the body prior to moving away from the tipping point		
16. Correctly carry out shut-down procedures		
17. Conform with legislation and manufacturers' instructions		
<b>To be successful in this section the candidate must achieve all the items</b>		

**Section B: During the test the candidate did not:**No of  
faults

Penalty

Penalty  
points

1. Mount and dismount the dumper correctly		x2	
2. Carry out full observation before moving the dumper		x3	
3. Maintain full observation when travelling the dumper		x3	
4. Carry out full observation before reversing the dumper		x5	
5. Engage transmission drive smoothly when moving vehicle from rest		x2	
6. Use the appropriate gear ratios when travelling		x2	
7. Position the dumper correctly for loading		x4	
8. Position the dumper square to the edge prior to tipping		x4	
9. Use the steering/braking/hydraulic controls correctly		x3	
10. Park the vehicle correctly		x4	
<b>To be successful in this section the candidate must not exceed 10 penalty points</b>		Total penalty points	



**TRAINED OPERATOR ACHIEVEMENT TEST**

**NB:** Endorsement questions must be answered correctly to achieve that endorsement.

Answer questions 1 to 13 and miss question 14 for endorsement **A**.

Answer questions 1 to 11 and 14 and miss questions 12 and 13 for endorsement **B**.

<b>Section C: Knowledge test Forward Tipping Dumper</b>		<b>Assessor's mark (Possible mark)</b>
<b>Part 1: Safety awareness associated with this category</b>		
<b>Q1.</b>	<b>Why should suitable gloves be worn when handling diesel oil?</b>	<b>(1 mark)</b>
A.	.....	
<b>Q2.</b>	<b>Who should operate plant and equipment?</b>	<b>(1 mark)</b>
A.	.....	
<b>Part 2: The use of this category within construction</b>		
<b>Q3.</b>	<b>Give at least FIVE reasons why it is important to interpret information correctly and maintain plant in accordance with service schedules.</b>	<b>(5 marks)</b>
A.	..... ..... ..... ..... .....	
<b>Q4.</b>	<b>Give at least TWO examples of where you would find the correct grade of engine oil for your machine.</b>	<b>(2 marks)</b>
A.	..... .....	

Section C: Knowledge test Forward Tipping Dumper		Assessor's mark (Possible mark)
<b>Part 3: Operator knowledge</b>		
Q5.  A.	<p>List the SIX actions the operator of a forward tipping dumper should take immediately after discharging a load from the skip.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	(6 marks)
Q6.  A.	<p>Give TWO reasons why it is important not to overload the skip of the dumper.</p> <p>.....</p> <p>.....</p>	(2 marks)
Q7.  A.	<p>State FOUR conditions the dumper must be in when being loaded by an excavator.</p> <p>.....</p> <p>.....</p> <p>.....</p>	(4 marks)

Section C: Knowledge test Forward Tipping Dumper		Assessor's mark (Possible mark)
<p><b>Q8.</b> List at least <b>SIX</b> considerations for loading and unloading a forward tipping dumper on and off a transporter.</p> <p>A. ....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	(6 marks)	
<p><b>Q9.</b> List <b>FOUR</b> safety precautions you should take before discharging material into a trench or excavation.</p> <p>A. ....</p> <p>.....</p> <p>.....</p> <p>.....</p>	(4 marks)	
<p><b>Q10.</b> Name <b>TWO</b> types of skip for a forward tipping dumper.</p> <p>A. ....</p> <p>.....</p>	(2 marks)	
<p><b>Q11.</b> Give <b>THREE</b> reasons why it is important to check and maintain correct tyre pressures.</p> <p>A. ....</p> <p>.....</p> <p>.....</p>	(3 marks)	

<b>Section C: Knowledge test Forward Tipping Dumper</b>		<b>Assessor's mark (Possible mark)</b>
<b>Q12.</b>	<b>State THREE actions you would take to configure the machine for travel on the public highway.</b>	<b>(Endorsement A) (3 marks)</b>
A.	..... ..... .....	
<b>Q13.</b>	<b>How can you check if tyre pressures are correct?</b>	<b>(Endorsement A) (1 mark)</b>
A.	.....	
<b>Q14.</b>	<b>List FOUR checks that should be made to tracks and running gear.</b>	<b>(Endorsement B) (4 marks)</b>
A.	..... ..... ..... .....	
Total possible marks:                      Pass marks: Endorsement <b>A</b> = 40                      Endorsement <b>A</b> = 32 Endorsement <b>B</b> = 40                      Endorsement <b>B</b> = 32		
<b>Candidate total</b>		

**TRAINED OPERATOR ACHIEVEMENT TEST**

Candidate name: ..... Date: .....

**Note:** The candidate has achieved only if successful on all three sections.

**Section A:** Pass / Fail (*Delete as appropriate*)

**Section B:** Penalty points = ..... Pass / Fail (*Delete as appropriate*)

**Sections A and B:**

Endorsement completed (*tick as appropriate*):

09A – Wheeled

09B – Tracked

**Section C:**

Endorsement **A:** Marks = ..... Pass / Fail (*Delete as appropriate*)

Endorsement **B:** Marks = ..... Pass / Fail (*Delete as appropriate*)

**Instructor comments:**

I confirm that I have carried out the test in accordance with Awarding Body and CPCS requirements and that the candidate has:

**ACHIEVED / NOT ACHIEVED**

(*Delete as applicable*)

Instructor/Assessor name: .....

Instructor/Assessor No.: .....

Signature: ..... Date: ..... / ..... / 200

