

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 Telescopic Handler.

Module ICT 17 Telescopic Handler

Industrial telescopic	(Endorsement A)
Telescopic handler up to 9 metres	(Endorsement B)
Telescopic handler all sizes excluding 360° slew	(Endorsement C)
Telescopic handler all sizes including 360° slew	(Endorsement D)

To successfully complete this module, the trainee with a telescopic handler 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 i.e. load charts and applicable legislation.
3. Explain all relevant documentation.
4. Carry out pre-use and running checks.
5. Configure the telescopic-handler for site and road travel.
6. Travel over differing types of terrain, including rough undulating ground (not applicable to industrial telescopic) and substantial inclines, both with and without a load.
7. Manoeuvre in confined areas using forward and reverse direction, both with and without a load.
8. Set the telescopic handler in order to lift various loads.
9. Lift various loads within the full working range of the telescopic handler.
10. Ensure load integrity and security.
11. Transport loads.
12. Place and retrieve loads accurately at various points.
13. Place and retrieve loads from vehicle bed or trailer.
14. Explain precautions to be taken for overhead services and other hazards.
15. Keep within safe working parameters.
16. Place the machine in an out-of-service condition.
17. Explain the loading and unloading procedure 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.

	Subject	References
MOD 1	Introduction to the Industry: <ol style="list-style-type: none"> 1. Construction industry structure. 2. The role of the plant operator. 3. Finding and using information relevant to a specific task. 4. Construction registration schemes. 5. Qualifications and continuous professional development. 6. Trained Operator Achievement Test. 	Manufacturer's instructions, machine handbooks, test and thorough examination certificates. Awarding Body and scheme handouts. Qualification literature.
MOD 2	Site Safety Awareness: <ol style="list-style-type: none"> 1. Principles and aims of health and safety at work. 2. Employee's duties and responsibilities under law. 3. Safety signs. 4. Dealing with hazards. 5. Accident prevention and control. 6. Selection and use of personal protective equipment. 7. Handling plant-related harmful substances. 8. Trained Operator Achievement Test. 	Current legislation, Approved Codes of Practice and Government body guidance.
ICT 17	Telescopic Handler: <ol style="list-style-type: none"> 1. Basic construction, names of components and the purpose and use of all controls and gauges. 2. Use of the operator's handbook, other information sources, Approved Codes of Practice and legislative documents. 3. Operator documentation, certificates, method statements, lift plans, duties charts etc. 4. Pre-use, start, running checks and close-down procedure. 5. Preparing the tele-handler for site and road travel. 6. Travelling the tele-handler over different terrain including rough undulating ground (not industrial telescopic) and substantial inclines while unloaded and loaded. 7. Manoeuvring progressing to confined spaces in a forward and reverse direction with and without loads. 8. Setting the tele-handler to lift and move different loads. 9. Load characteristics, integrity and security while picking, moving and landing, including landing loads in high places. 10. Lifting, moving and placing various loads accurately including loading and unloading a vehicle or trailer. 11. Precautions and actions for overhead services and other hazards. 12. How to stay within safe working parameters. 13. Placing the tele-handler in an out-of-service condition. 14. Loading and unloading procedures on and off a transporter. 15. Trained Operator Achievement Test. 	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 telescopic handler which meets current legislation and has:
 - a) standard forks
 - b) a ROPS, FOPS and seatbelt
 - c) rough terrain capability (not applicable for industrial telescopic endorsement).With the operator's manual.
2. Loads of known weights to consist of:

Load A: 1 x load not less than 50% of the forklift's rated capacity
Load B: 3 x similar size palletised loads suitable for stacking safely
Load C: 1 x load of a weight less than the tele-handler's lift capacity at full horizontal reach.
3. Lorry bed equipped with a headboard (this may be simulated but **must** have the same dimensions including the ground/bed height).
4. Loading out tower not less than 75% of tele-handler's maximum lift height, able to safely support **Load A**.
5. An area which must have:
 - a) level ground
 - b) rough, uneven terrain (not applicable for industrial telescopic)
 - c) a slope(s) not less than 18% (1:5.5) incline with sufficient manoeuvring area both at top and bottom
 - d) a straight run of at least 20 metres.
6. Cones/materials etc., to create restrictions for travelling and manoeuvring.

Exercise specification

Note: Prior to the start of the test, the instructor must ensure that the forks are set to the widest position.

The candidate is required to:

1. Carry out full pre-use checks as required by the manufacturer.
2. Prepare the forklift for travel, and travel to the location of **Load A**. The route is to include:
 - a) travelling up and down the slope(s)
 - b) travelling over rough, uneven terrain
 - c) passing through a chicane executing full right- and left-hand turns in a forward and reverse direction. There must be a clearance of no more than 300 mm or 10% of the machine's width (whichever is the greater) between the chicane sides and the forklift, when executing each turn.
3. Pick up **Load A** and travel the route again as in item 2. Whilst travelling up the incline, stop and re-start the forklift (the chicane may be adjusted to compensate for load width).

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TRAINED OPERATOR ACHIEVEMENT TEST**Exercise specification continued**

4. Place **Load A** onto the loading out tower. When placed, manoeuvre the forklift away from the tower.
5. Retrieve **Load A** and lower to ground level.
6. Travel with **Load A**, in reverse, in a straight line for a minimum distance of 20 metres. When completed place the load at a given point.
7. Place 3 x **Load B** onto the vehicle bed with 2 loads squared up to the headboard, following a sequence of loading the vehicle bed fully. There must be no more than 75 mm clearance between the loads, and the loads and vehicle headboard.
8. Remove 3 x **Load B** from the vehicle bed and stack vertically on top of one another. The stacking place must be at least 20 metres from the vehicle bed.
9. On completion of item 8, de-stack 3 x **Load B** and place alongside each other with no more than 75 mm clearance between each load.
10. Pick up **Load C** and place at ground level at a given point, which can only be accessed by using full horizontal reach of the tele-handler. 360° slew tele-handlers must undertake this task whilst employing the stabilisers, with **Load C** placed at 90° from the pick up point.
11. Demonstrate undercutting by both lifting and placing a load.
12. Travel the tele-handler to a park position, shut down and secure.

Note: Item 11 may be incorporated with any of the lifting manoeuvres.

TRAINED OPERATOR ACHIEVEMENT TEST MARKING FORM

Candidate name: Signature:

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

Machine make and model:

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

- | | | | |
|----------------------------------|--------------------------|---|--------------------------|
| 17A – Industrial telescopic | <input type="checkbox"/> | 17B – Tele-handler up to 9 metres | <input type="checkbox"/> |
| 17C – Tele-handler exc. 360°slew | <input type="checkbox"/> | 17D – Tele-handler all sizes inc. 360° slew | <input type="checkbox"/> |

Section A: During the test did the candidate?

Yes No

	Yes	No
1. Carry out pre-start and running checks		
2. Clear any restrictions encountered whilst travelling and reversing		
3. Keep clear of all hazards whilst travelling		
4. Travel the forklift correctly on inclines in a loaded and unloaded state		
5. Restart correctly on inclines with no opposite movement from the intended direction		
6. Keep limbs or body inside the confines of the forklift when working		
7. Keep the forklift in a straight line during the specified reversing exercise		
8. Ensure all loads secure whilst on the forks and after placing		
9. Assess loads for weight and integrity prior to entry		
10. Place/remove the loads onto/from the vehicle bed using the appropriate sequence		
11. Ensure that loads/pallets etc., were not damaged whilst handling		
12. Space the forks to match the loads		
13. Keep within the safe working load during all lifts		
14. Apply the parking brake and select neutral prior to lifting and placing loads		
15. Carry out undercutting correctly		
16. Keep the machine stable at all times		
17. Correctly carry out shut-down and securing procedures		
18. Conform with legislation and manufacturers' instructions		
To be successful in this section the candidate must achieve all the items		

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TRAINED OPERATOR ACHIEVEMENT TEST

Section C: Knowledge test Telescopic Handler		Assessor's mark (Possible mark)
Part 1: Safety awareness associated with this category		
Q1.	List FOUR visual observations the operator should make when travelling around the site.	(4 marks)
A.	..... ..... ..... .....
Q2.	What is the minimum recommended distance that any part of the forklift must be from power lines mounted on wooden poles?	(1 mark)
A.	.....
Part 2: The use of this category within construction		
Q3.	Give at least TWO examples of where you would find the correct grade of engine oil for your machine.	(2 marks)
A.	..... .....
Q4.	List at least THREE of the documents you would expect to find on a serviceable telescopic handler.	(3 marks)
A.	..... ..... .....

Section C: Knowledge test Telescopic Handler		Assessor's mark (Possible mark)
Part 3: Operator knowledge		
Q5.	When carrying a load on the forks, where should the load be positioned?	(2 marks)
A.	..... .....
Q6.	When should you test the rated capacity indicator (RCI)?	(1 mark)
A.	.....
Q7.	A telescopic handler's rated load is 500 mm centres. If the load centre was lengthened, what effect would it have on the carrying capacity of the machine?	(1 mark)
A.	.....
Q8.	When leaving a machine unattended, list at least SIX precautions you should take.	(6 marks)
A.	..... ..... ..... ..... ..... .....
Q9.	In what position should the forks be when travelling with a load?	(2 marks)
A.	..... .....

Section C: Knowledge test Telescopic Handler		Assessor's mark (Possible mark)
Q10.	When travelling an unladen telescopic handler up a steep gradient, in which direction must the machine be driven and why?	(3 marks)
A.	..... .....
Q11.	Name any FIVE causes of a telescopic handler tipping over sideways.	(5 marks)
A.	..... ..... ..... .....
Q12.	When lowering a load from maximum height, what must the operator first do?	(1 mark)
A.	.....
Q13.	List any SIX considerations for loading and unloading a telescopic handler on and off a transporter.	(6 marks)
A.	..... ..... ..... ..... ..... .....

Section C: Knowledge test Telescopic Handler		Assessor's mark (Possible mark)
Q14.	List TWO things you must do if you have to descend a steep hill with a load with a torque converter transmission.	(2 marks)
A.	..... ..... .....
Q15.	Where should you find the safe working load (SWL) of a loading tower?	(1 mark)
A.	.....
Total possible marks = 40 Pass marks = 32 <div style="text-align: right;">Candidate total</div>		

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*):

17A – Industrial telescopic

17B – Tele-handler up to 9 metres

17C – Tele-handler exc. 360°slew

17D – Tele-handler all sizes inc. 360° slew

Section C: 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

