

Lifting Technician Apprenticeship Tower Crane

End-point Assessment

Professional Interview Guidance Notes and Interview Criteria

Lifting Technician – Occupation description

Categorisation

The standard, training syllabus and achievement through the end-point assessment indicates that the lifting technician has the skills and understanding to safely and proficiently operate a range of tower cranes in a variety of situations and able to undertake the lifting of a variety of loads.

Slinging/signalling

The lifting technician will, as part of the role attach and secure loads, signal the movement of suspended loads to guide them to an agreed destination, and leave the load in a safe condition.

Duties

Slinging: means the ability to safely attach and secure various types of loads to a lifting hook using the relevant lifting accessory and procedures.

Signalling: means the ability to convey information to the lifting equipment operator and others involved in the lift using one or a combination of manual, hand and verbal instructions.

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End Point Assessment - Notes for employers and assessment organisations

<p>Introduction</p>	<p>The Lifting Technician Trailblazer Apprenticeship Group is providing support to approved assessment organisations for the delivery of an end-point assessment.</p> <p>The end-point assessment is a requirement of the current apprenticeship programmes and must be independent of any training and input of work.</p> <p>On successful completion of the end-point assessment, the apprenticeship for lifting technician is considered complete and for which an apprenticeship completion certificate can be awarded.</p>
<p>End-point Assessment Components</p>	<p>The end point assessment constitutes a number of different independent components of which all need to be passed to be successful. They comprise of:</p> <ul style="list-style-type: none"> - Practical test – Crane pre-use checks (luffing and trolley jib) - Practical test – Crane operation (luffing and trolley jib) - Practical test – Slinger/signaller - Written (theory) – lifting operations. - Professional interview - Experience
<p>Entry Requirements</p>	<p>To be eligible for the end-point assessment, applicants must have:</p> <ul style="list-style-type: none"> - achieved the NVQ Level 2 Diploma Plant Operations Diploma – endorsed tower crane (<i>trolley or luffing jib</i>), and the NVQ Level 2 Diploma in Controlling Lifting Operations – endorsed Slinger Signaller All occupations - attained the minimum number of criteria identified with the Lifting Technician EPA Portfolio - met the minimum time requirement working as an apprentice with an employer as stipulated within apprenticeship operating rules.
<p>Apprentice EPA Portfolio</p>	<p>Apprentices need to keep a log of work activities identified within the Lifting Technician EPA Portfolio.</p> <p>The completed portfolio will be used as part of the professional interview</p> <p>The portfolio for tower crane can be downloaded free of charge from www.cpa.uk.net/trailblazer-downloads</p>
<p>Assessment delivery</p>	<p>The practical tests, professional interview and written test will be conducted by an approved organisation conducted by approved assessors who can carry out the relevant components of the end-point assessment.</p>
<p>Approved organisations</p>	<p>Centres and trainers who undertook any part of the training programme are ineligible to conduct any part of the end-point assessment for the apprentice.</p>

Notes for employers and assessment organisations (cont'd)

<p>Theory Testing</p>	<p>The written test comprises of questions relating to lifting operations which will require answers to a set of given questions. Topics will include:</p> <ul style="list-style-type: none"> - Crane preparation and inspections - Access and security - Safe working situations - Environmental factors - The lifting team - Planning and supervising requirements - Issues relating to slinging and signaling - Communication - Extracting and using information sources - Hazards and causes of incidents and accidents - Training and competencies
<p>Practical Testing</p>	<p>The practical test requires the apprentice to demonstrate practical ability using a tower crane and undertaking slinging/signalling activities. The test is divided into three elements of:</p> <ul style="list-style-type: none"> - Crane checks (luffing and trolley jib) - Crane operating (luffing and trolley jib) - Slinging and signalling <p>There are specific criteria and grading that the assessor must follow and ensures consistency of the testing process. Each element must be carried out under a test environment from a start-to-finish basis and cannot be conducted during productive work.</p> <p>Several of the elements have a maximum time which quantifies experience measured against typical industry times to undertake the activities.</p>
<p>Test elements</p>	<p>The practical test is divided into three elements. Each element details the resources required, activities to be undertaken, supporting notes, activity measurements and how the test is graded.</p> <p>The test elements can be undertaken at different times, locations and even on different types of crane providing the resources for each element is followed.</p> <p>However, once each element is started, it must be completed as a single entity.</p>
<p>Test times</p>	<p>The tests for crane operating and slinging/signalling have a maximum time for the test to be completed in. Allowances may be made by the assessor due to circumstances beyond the apprentice's control, such as weather issues. However, the test must not be started unless conditions and other factors will not impinge on the test.</p>

Professional interview - Notes for assessors and assessment organisations

Introduction	This document, devised by the Lifting Technician Trailblazer Apprenticeship Group, outlines the criteria for the professional interview which forms part of the end point assessment.
Interview Criteria	The criteria is based on the national occupational standards (NOS) for the operation of tower cranes and the duties of slinging and signalling
Entry Criteria	<p>The apprentice must have completed the EPA Portfolio (downloadable from www.cpa.uk.net/trailblazer-downloads which requires a minimum number of activities to be completed in a variety of situations and locations.</p> <p>The content of the apprentice’s EPA Portfolio should comprise the basis of the interview. The professional interview cannot be started unless the work log meets the minimum required criteria.</p>
Interview delivery	<p>The interview shall be conducted on a one-to-one basis with the apprentice in a suitable and comfortable environment that allows uninterrupted dialogue during the interview</p> <p>The full interview needs to be recorded electronically and can be reviewed by the apprentice and assessor afterwards, and kept for auditing purposes by the assessment organisation and appointed auditing body</p> <p>There is no timeframe for completion of the interview but a likely time for an applicant to relay their experiences and understanding to the assessor would be between 2 to 3 hours. The interview should be conducted over several sessions as not to create a forced cut-off time.</p> <p>The topic areas need not be delivered in any order and naturally explanations provided by the applicant may cover other areas to be asked in different sections.</p> <p>The assessor may explore that area further in order to satisfy the criteria for that topic area before subsequently returning to the original section.</p> <p>The candidate needs to identify any evidence within the portfolio that underpins and supports the dialogue about work undertaken and issues during work.</p>
Grading	<p>There is no pass or fail mark for the interview and there are no correct or incorrect answers. The applicant needs to provide sufficiency of expertise based on their experiences within the workplace and will not be required to provide answers to direct technical questions.</p> <p>Applicants need to demonstrate through interview to the assessor that they have the minimum required length of experience and are proficient as an operator of tower cranes and the undertaking slinging and signalling duties within the construction or allied sector.</p> <p>The assessor will identify against each topic area whether sufficient experience and expertise has been relayed and demonstrated by the apprentice against the relevant standard.</p> <p>As a guideline, there should have been a level of sufficient responses against all topics in all sections in order to be considered sufficiently experienced and holding sufficient expertise.</p>

Notes for assessors and assessment organisations (Cont'd)

<p>Grading (cont'd)</p>	<p>Response levels should be classified as;</p> <ul style="list-style-type: none"> - not relevant (1) - insufficient (2) - satisfactory (3) <p>Where any responses against the criteria has been judged not relevant or insufficient (2 or below), the apprentice will be required to attain further experience against those areas and be re-assessed against those areas at a later date.</p> <p>The definition of a satisfactory answer is where the apprentice demonstrates and articulates their experiences and understanding against each of the criteria and which conforms to acceptable occupational practices, legislation and good practices.</p> <p>The completion of the work log, the minimum number of activities met and confirmation of the workplace behaviours demonstrated forms part of the grading criteria.</p>
<p>Occupational expertise and qualification requirements for Assessors</p>	<p>Assessment centres must ensure that assessors for all elements of the end-point assessment MUST conform with the Assessment Strategy for Construction and the Built Environment – Plant Operations and Lifting Operations National Vocational Qualifications (NVQs) and Scottish Vocational Qualifications (SVQs).</p> <p>Assessors MUST have sufficient, verifiable, relevant current industry experience, and knowledge and understanding of lifting operations involving tower cranes, slinging and signalling.</p> <p>This experience, knowledge and understanding must be of sufficient depth to be effective and reliable when judging an apprentice’s competence during all aspects of the end point assessment.</p> <p>All assessors must have sufficient occupational expertise and have up to date experience, knowledge and understanding of lifting operations with tower cranes. Assessors must only assess in their acknowledged area of occupational competence and have a sound, in-depth knowledge of, and uphold the integrity of, the sector’s NOS.</p> <p>Assessors must have a sound knowledge of the assessment requirements for the end-point assessment and have the relevant skills to enable the delivery (where applicable) for conducting a professional discussion, practical skills testing, and setting and/or marking to written technical questions.</p> <p>The assessor’s experience, knowledge and understanding must be verified (and recorded and available for audit) by at least several of the following:</p> <ul style="list-style-type: none"> - curriculum vitae and employer endorsement, - references, - possession of a relevant NVQ/SVQ, or vocationally related qualification, - corporate membership of a relevant professional institution, - professional interview.

Practical Test - Notes for assessors and assessment organisations (cont'd)

<p>Occupational expertise and qualification requirements for Assessors (cont'd)</p>	<p>Assessors for the end-point assessment MUST hold a qualification as a minimum as listed within 'Assessing and Assuring Quality of Assessment', either in the Regulated Qualification Framework (RQF), or the Scottish Credit and Qualifications Framework (SCQF):</p> <ul style="list-style-type: none"> - Level 3 Award in Assessing Competence in the Work Environment - Level 3 Award in Assessing Vocationally Related Achievement - Level 3 Certificate in Assessing Vocationally Related Achievement - Level 3 Certificate in Assessing Vocational Achievement - an appropriate Assessor qualification as identified by SQA Accreditation <p>or hold one of the following:</p> <ul style="list-style-type: none"> - A1 Assess candidates using a range of methods - D32/33 Assess candidate performance, using differing sources of evidence <p><i>Note: Holders of A1 and D32/33 must assess to the current National Occupational Standards (NOS) for Learning and Development.</i></p> <p>All assessors for the end-point assessment must be prepared to participate in all relevant activities for their continued professional development.</p>
<p>Quality Control and Auditing</p>	<p>Assessment organisations for the end-point assessment must have in place internal quality assurance procedures that ensures that assessment is both delivered and measured in accordance with the standards and delivered using suitable assessors and supporting staff, and that consistency of assessment is provided to all apprentices on the end-point assessment.</p> <p>Employers when selecting an assessment centre should interrogate the organisation's quality control procedures to ensure that robust processes that ensures effective assessment using experienced assessors and the availability of suitable resources.</p> <p>Many established assessment organisations would likely be accredited under one or more awarding organisations, associations, funding bodies or plant-card schemes, of which the organisation would be subject to regular audits by these bodies.</p> <p>Employers should check with their chosen assessment organisation on how they've complied with the accredited bodies quality control requirements.</p>

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Interview criteria

Response levels: not relevant (1), insufficient (2), satisfactory (3)

Topic	Interview criteria	Response area	Response level
1. Recognising hazards associated with the workplace, and report where needed if not controlled	1.1 For each site/location worked at, what were some of the main hazards at each site?	<i>Location, ground type, terrain, major or prolific proximity hazards</i>	
	1.2 If and when any hazards and or changed circumstances were reported	<i>Types of hazard reported, how and to whom</i>	
	1.3 How they were informed of each hazard and what control measures were used to minimise the risk.	<i>Method of communication, inductions etc. localised control measures.</i>	
2. Complying with workplace health, safety and welfare legislation	2.1 Methods of delivery relating to workplace inductions and typical content and durations	<i>When inductions took place, by whom and what was covered</i>	
	2.2 Complying with general site safety and warning notices	<i>Types of notices, warnings and compliance methods</i>	
	2.3 Complying with site generic risk assessments and method statements	<i>Compliance methods and potential difficulties of maintaining compliance</i>	
	2.4 What safety control equipment/PPE/safety gear was required at each site/location?	<i>Generic (hard hat, hi-vis etc.) and specific (respiration equipment etc.)</i>	
3. Working responsibly to contribute to workplace health, safety and welfare within the lifting operation	3.1 Taking personal responsibility for ensuring health, safety and welfare	<i>Actions taken to relay concerns, stop work or seek alternative methods</i>	
	3.2 Personal conduct of appropriate behaviours and responsible actions		
4. Complying with organisational policies and procedures in contributing to health, safety and welfare	4.1 Encounters with site emergencies, incidents, evacuations etc.	<i>General site issues (fire, structure collapse etc.) but not occupationally specific.</i>	
	4.2 Specific emergency procedures at one of the locations worked at	<i>Fire, evacuation, accident and incidents etc.</i>	
	4.3 Contributions to maintaining health, safety and welfare	<i>Contributions made and for what type and purpose</i>	

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5. Supporting organisational security arrangements and procedures	5.1 Measures taken to help secure their machine/equipment at the end of the working day	<i>Machine positioning, configuration, shut down, securing cabs, storage facilities etc.</i>	
	5.2 Methods used to ensure general site security during and at the end of the working day	<i>Securing cabins, site gates, removal of potential hazards to unauthorised persons on site etc.</i>	
6. Communicating with others in establishing and maintaining productive work practices	6.1 How communication was undertaken, what methods and typical information relayed between all levels of site staff/co-workers	<i>Communication with site employers, supervisors, managers, other trades and supporting staff</i>	
	6.2 Levels and methods of communication for the maintaining of productive and safe working	<i>Relevant to role, level and extent of communication and type of information exchanged with co-workers. Use of communication equipment such as radios etc.</i>	
7. Maintaining good working practices when conforming to productive working practices	7.1 How work relationships were maintained and issues of poor relationships or conflicts	<i>Relationships with co-workers, management, employer, customers and others involved with or near to the operation</i>	
	7.2 How the principles of equality, diversity and inclusion were applied	<i>Working relationships between genders, creeds, disabilities and other nationalities</i>	
8. Interpreting given operating and work information and confirming relevance	8.1 Extracting and interpreting information from a number of sources	<i>Types of information sources inc. manufacturers operator's manuals, decals, drawings lift plans, method statements, other technical information etc.</i>	
	8.2 Complying with and following risk assessments, method statements, lift plan criteria etc.	<i>How compliance was maintained</i>	
	8.3 Issues relating to the adherence of given information	<i>Change of events, external influencing factors, lack of resources, staffing, breakdowns, altered schedules</i>	
9. Organising with others the sequence and way in which work is carried out	9.1 Help of supporting personnel when carrying out work tasks and the duties that others performed	<i>Supporting personnel such as marshallers, slingers, maintenance staff etc.</i>	

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	9.2 Communication methods and dialogue between team members to effectively undertake the lifting operations	<i>Method, frequency and sequence, and factors around continual and timely communication amongst the lifting team</i>	
10. Requesting resources to sustain and complete the programme of work	10.1 When and how resources were identified, selected and used correctly	<i>Resources include oils, lubricants, tools etc. and additional equipment such as slings, attachments etc.</i>	
	10.2 Methods used to request resources and how problems and/or hazards with selection or use were dealt with		
	10.3 Types of calculations undertaken in context of the work	<i>Including pressures, volumes, sizes, weights, amount, time etc.</i>	
11. Preparing for operational performance to comply with contract information	11.1 Types and variations of maintenance and preparation work undertaken	<i>Variations between crane model/manufacturers types, variations between accessories and other equipment</i>	
	11.2 Use of additional equipment and accessories	<i>Types of attachment/equipment fitted and what type of work was undertaken</i>	
	11.3 Issues or difficulties faced with and how dealt with during preparation work	<i>Factors affecting preparation inc. environmental, resource issues, changes in work requirements etc.</i>	
12. Minimising the risk of damage to the work and surrounding areas	12.1 Methods used to protect the equipment, accessories, loads, personnel and surrounding structures/objects	<i>Identification and protection methods</i>	
	12.2 How damage was avoided or minimised and what the potential consequences could have been	<i>Examples of how risks to equipment, load or objects were controlled and minimised</i>	
	12.3 Methods used to maintain clean and tidy work areas and how waste was disposed	<i>Organisational procedures</i>	

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13. Complying with contract information to carry out the required work efficiently to the required specification	13.1 Setting-up arrangements of cranes for various lifting duties	<i>Setting up requirements for static and pick-and-carry duties inc. changes to falls of ropes/lifting hook and other adjustments required</i>	
	13.2 Configuring the crane or load for the working areas or load types	<i>Configuring requirements and factors that needed to be taken into account.</i>	
	13.3 Factors taken into account when working with types of loads	<i>Range of typical loads lifted and placed inc. long, large area, fluid, specialist etc.</i>	
	13.4 Differences in lifting and placing loads in a variety of places	<i>At height, below ground, out of sight of the operator, close to structures/objects</i>	
	13.5 Aspects of operating a range of cranes to safely and efficiently carry out the work	<i>How safe and efficient operation was maintained in a variety of situation and at different sites/locations, following of given instructions and signals</i>	
	13.6 Features of operating cranes undertaking different duties	<i>Lifting operations designated as basic, intermediate and complex</i>	
	13.7 Factors when lifting, transferring and placing loads up to maximum capacities, radius and heights	<i>Full range of crane capabilities for trolley and luffing jib types</i>	
	13.8 Issues working around and near to other cranes and other plant and equipment	<i>What procedures were in place and control measures in place to prevent collisions/near misses</i>	
	13.9 Actions taken when carrying out lifting operations in adverse conditions	<i>Inclement weather, high winds, extreme conditions (cold, heat etc.) and when lifting operations were halted</i>	
	13.10 Differences between attaching loads to a range of lifting equipment	<i>Luffing and trolley types, rail-mounted</i>	
	13.11 Considerations when selecting and using a range of lifting accessories	<i>Rope and chain slings, fibre slings, lifting beams and other specialist equipment, and correct selection for load type</i>	
	13.12 Factors of attaching and preparing a range of loads for movement	<i>Long, loose, bundled, unbalanced, large, containerised and fluid loads,</i>	

	13.13 Methods of ensuring that loads were safe to be lifted and moved	<i>Correct application of accessories for load type, protection of load and accessory, types of fall prevention equipment (netting etc.)</i>	
	13.14 Methods of controlling a range of loads during travel	<i>Use of hand lines, routing of loads around obstacles, prevention of slips, trips and falls, avoiding contact with moving loads and plant/cranes, providing accurate and clear signals</i>	
14. Complete the work within the allocated time	14.1 Methods that ensured that the work was completed in the projected time when deadlines were being approached	<i>Examples of what was undertaken to meet the deadlines</i>	
	14.2 Issues and causes where operations exceeded the given time	<i>Factors that prevented the work being completed on time and what was learnt</i>	

EPA Portfolio completion confirmation

15. Portfolio assessment	15.1 Sufficiency of information of each activity recorded	<i>Information within each portfolio entry against the criteria clearly establishes activity carried out according to given specification and standard.</i>	
	15.2 Minimum number of activities completed within all sections	<i>All activities recorded. Missing activities means this element of the EPA cannot be signed off as achieved.</i>	
16. Behaviours	16. All workplace behaviours fully recorded and confirmed by employer.	<i>Confirmation by employer that all behaviours met.</i>	

Grading criteria

Response levels: not relevant (1), insufficient (2), satisfactory (3)

The apprentice will only have been successful on the professional interview providing that all sections have been graded as satisfactory (3)

Apprentice details

Apprentice	Apprentice name:	Apprentice Ref no:
	Employer Details:	

Assessment details – Professional interview

Test	Ref:	Date of assessment:
	Assessment location:	Start time of interview:
	Assessor name	Duration:

Professional interview - Results

Results confirmation	I confirm that I, the assessor have carried out the professional interview in accordance with the assessment requirements and that the apprentice has through the interview and work log completion:	
	Passed <input type="checkbox"/> Not passed <input type="checkbox"/> <i>(Please tick the relevant box)</i>	
	Assessor Signature:Date:	
Centre Auditor.....:Date:		

Assessor feedback

Note: For feedback purposes, the relevant section number must be identified where insufficient or irrelevant information was given.

