

# Lifting Technician Apprenticeship Crawler Crane

## End-point Assessment

### Practical Skills Test

### Guidance Notes and Discussion 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 crawler cranes in a variety of situations and able to perform static and pick-and-carry duties.

##### Slinging/signalling

The lifting technician will, as part of the role attaches and secures loads, signals the movement of suspended loads to guide them to an agreed destination, and leaves 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><b>Introduction</b></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><b>End-point Assessment Components</b></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"> <li>- Practical test – Crane pre-use checks</li> <li>- Practical test – Crane operation</li> <li>- Practical test – Slinger/signaller</li> <li>- Written (theory) – lifting operations.</li> <li>- Professional interview - Experience</li> </ul>
<p><b>Entry Requirements</b></p>	<p>To be eligible for the end-point assessment, applicants must have:</p> <ul style="list-style-type: none"> <li>- achieved the NVQ Level 2 Diploma Plant Operations Diploma – endorsed crawler crane, and the NVQ Level 2 Diploma in Controlling Lifting Operations – endorsed Slinger Signaller All occupations</li> <li>- attained the minimum number of criteria identified with the Lifting Technician EPA Portfolio</li> <li>- met the minimum time requirement working as an apprentice with an employer as stipulated within apprenticeship operating rules.</li> </ul>
<p><b>Apprentice EPA Portfolio</b></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 discussion</p> <p>The portfolio for crawler crane can be downloaded free of charge from <a href="http://www.cpa.uk.net/trailblazer-downloads">www.cpa.uk.net/trailblazer-downloads</a></p>
<p><b>Assessment delivery</b></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><b>Approved organisations</b></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>

# Lifting technician

## Practical skills test – Crawler crane

### Notes for employers and assessment organisations (*cont'd*)

<b>Theory Testing</b>	<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"><li>- Crane preparation and inspections</li><li>- Stability</li><li>- Environmental factors</li><li>- The lifting team</li><li>- Planning and supervising requirements</li><li>- Issues relating to slinging and signaling</li><li>- Communication</li><li>- Extracting and using information sources</li><li>- Hazards and causes of incidents and accidents</li><li>- Ground support and loadings</li><li>- Training and competencies</li></ul>
<b>Practical Testing</b>	<p>The practical test requires the apprentice to demonstrate practical ability using a crawler crane and undertaking slinging/signalling activities. The test is divided into three elements of:</p> <ul style="list-style-type: none"><li>- Crane checks</li><li>- Crane operating</li><li>- Slinging and signalling</li></ul> <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>
<b>Test elements</b>	<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>
<b>Test times</b>	<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>

### Practical Test - Notes for assessors and assessment organisations

#### Occupational expertise and qualification requirements for Assessors

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).

Assessors MUST have sufficient, verifiable, relevant current industry experience, and knowledge and understanding of lifting operations involving crawler cranes, slinging and signalling.

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.

All assessors must have sufficient occupational expertise and have up to date experience, knowledge and understanding of lifting operations with crawler 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.

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.

The assessor's experience, knowledge and understanding must be verified (and recorded and available for audit) by at least several of the following:

- 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.

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):

- 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

or hold one of the following:

- A1 Assess candidates using a range of methods
- D32/33 Assess candidate performance, using differing sources of evidence

*Note: Holders of A1 and D32/33 must assess to the current National Occupational Standards (NOS) for Learning and Development.*

All assessors for the end-point assessment must be prepared to participate in all relevant activities for their continued professional development.

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

<p><b>Quality Control and Auditing</b></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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# Lifting technician

## Practical skills test – Crawler crane

### Apprentice details

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<b>Apprentice</b>	Apprentice name:	Apprentice Ref no:
	Employer Details:	

### Test Details – Crane pre-use checks

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<b>Test</b>	Test ref:	Date of test:
	Crane make/model:	Start time of test:
	Test location:	Duration:
	Assessor name	

### Test Details – Crane operations

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<b>Test</b>	Test ref:	Date of test:
	Crane make/model:	Start time of test:
	Test location:	Duration:
	Assessor name	

### Test Details – Slinging/signalling

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<b>Test</b>	Test ref:	Date of test:
	Crane make/model:	Start time of test:
	Test location:	Duration:
	Assessor name	

# Lifting technician

## Practical skills test – Crawler crane

### Resources required – Crane pre-use checks

<b>Machine</b>	<ul style="list-style-type: none"><li>• Suitable and functional crawler crane</li></ul>
<b>Area</b>	<ul style="list-style-type: none"><li>• Flat area to allow pre-use checks and weekly checks to take place</li></ul>
<b>Equipment / resources</b>	<ul style="list-style-type: none"><li>• Appropriate tools and equipment to undertake all checks</li><li>• Appropriate access equipment for working at height requirements</li><li>• Health and safety control equipment such as PPE etc.</li><li>• Operator's manuals and other manufacturers documentation to provide sufficient information for pre-use and weekly checks</li><li>• Crane checks log document</li></ul>

### Activity instructions – Crane pre-use checks

<b>Sequence</b>	<ul style="list-style-type: none"><li>• To be undertaken as listed</li></ul>
<b>Preparing for work</b>	<ol style="list-style-type: none"><li>1. Using the operator's manual, convey (to the assessor) the pre-use or daily checks and weekly checks stipulated by the crane manufacturer</li><li>2. Undertake and complete all manufacturers' pre-start checks with a supporting commentary</li><li>3. Undertake and complete running checks and prepare the crane for travel</li><li>4. Undertake and complete full pre-use and running checks and configure and prepare the crane for lifting operations</li><li>5. Undertake and complete weekly checks and inspections.</li><li>6. Complete the cranes/organisational checks/inspection log</li></ol>
<b>Notes</b>	<ul style="list-style-type: none"><li>• The apprentice must provide a running commentary to pre-start checks being carried out in order to provide supporting information to visual checks (e.g. components) and physical checks (e.g. checking travel limits) being made. The assessor may prompt the apprentice to outline specific information but not ask direct questions that requires a technical answer.</li><li>• The operator's manual and any other supporting documentation must be referenced during activities 2 - 3</li><li>• All pre-use checks must conform to BS 7121 and manufacturer's instructions.</li></ul>

# Lifting technician

## Practical skills test – Crawler crane

### Activity grading – Crane pre-use checks

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<b>Mandatory</b>		<b>Standard met during the test?</b>	<b>Y/N</b>
<b>Preparing (activity)</b>	1 All pre-start and running checks identified from operator's manual		
	2 Full pre-start checks carried out		
	3 Full pre-use and running checks carried out including all crane operations		
	4 Full weekly checks carried out		
<b>Preparing (narrative)</b>	5 Sufficient narrative of visual, pre-operational and weekly checks		
	6 Technically accurate during narrative of visual checks		
<b>Grading</b>	Passed in this section – yes/no?		

Note: Standards met means all activities have been correctly carried out in accordance and conforming with manufacturer's instructions, legislative requirements, good working and safety practices



# Lifting technician

## Practical skills test – Crawler crane

### Resources required – Crane operations

<b>Lifting equipment</b>	<ul style="list-style-type: none"><li>• A crawler crane having at least a lifting capacity of 40 tonnes and able to carry out pick-and-carry duties</li></ul>
<b>Area</b>	<ul style="list-style-type: none"><li>• Facilities for crane travel and parking</li><li>• Flat area to allow lifting and placing of loads</li><li>• Facilities for out-of-sight lifts to take place</li></ul>
<b>Other equipment / resources</b>	<ul style="list-style-type: none"><li>• Measuring tape for measuring the maximum radius of the crane</li><li>• Appropriate lifting accessories for all loads</li><li>• Radio communication</li><li>• Equipment to facilitate out-of-sight lifts</li></ul>
	<ul style="list-style-type: none"><li>• Slinger and Signaller assistance</li></ul>
<b>Loads</b>	<ul style="list-style-type: none"><li>• <b>LOAD 1</b> 1 x load being a minimum 50% load at 75% full radius of the crane</li><li>• <b>LOAD 2</b> 1 x load being within the duties chart for 2 falls of rope</li><li>• <b>LOAD 3</b> 1 x load being within the duties chart for 3 falls of rope</li><li>• <b>LOAD 4</b> 1 x load being a tube or structure not less than 6 metres in length able to be stood on one of its ends. (Care must be taken to ensure that the lifting gear for Load 4 is secure from horizontal to upright)</li></ul>
<b>Notes</b>	<ul style="list-style-type: none"><li>• The machine selected for the test must meet the specification for the required endorsement, be in serviceable condition and conform with current legislation</li><li>• The operator's manual must be with the crane</li><li>• Duties charts for the crane being used for the test must be available for use</li><li>• The crane and all lifting accessories must be fit-for-purpose and have a thorough examination certificate (or declaration of conformity)</li><li>• The weight of all loads must be known</li><li>• The person selected for slinger and signaller duties must be certificated and competent</li><li>• The assessor may NOT undertake the role of slinger/signaller</li></ul>

### Activity instructions – Crane operations

<b>Sequence</b>	<ul style="list-style-type: none"> <li>• Activities 7 – 11 can be undertaken in any order</li> <li>• Activities 11, 12 and 13 may be incorporated with activities 7 – 10</li> <li>• Activity 14 must be undertaken at the end of the test</li> </ul> <p>The test must be completed within a given time. The specifications' section gives further information</p>
<b>Preparing for work</b>	<ol style="list-style-type: none"> <li>1. Ensure working area hazards controlled effectively and trip hazards identified</li> <li>2. Ensure working area is suitable segregated</li> </ol>
<b>Travelling &amp; manoeuvring</b> <i>(refer to specifications)</i>	<ol style="list-style-type: none"> <li>3. Travel the crane to the area of operations</li> <li>4. Manoeuvre the crane through a restriction</li> </ol>
<b>Setting up for work</b>	<ol style="list-style-type: none"> <li>5. Prepare and set the crane for each lift</li> <li>6. Change the number of falls on the hook block from 2 to 3 or 3 to 2</li> </ol>
<b>working tasks</b> <i>(refer to specifications)</i>	<ol style="list-style-type: none"> <li>7. Lift <b>Load 1</b> which must be at 75% of maximum radius, and land at a designated place at minimum radius. Once landed, move back to at least 75% of maximum radius and rotate for at least 360 degrees. Land the load at mid-radius at a designated place</li> <li>8. Lift <b>Load 3</b> using three falls of rope, rotate for at least 270 degrees and land at a designated place</li> <li>9. Lift <b>Load 4</b> which must be at ground level and at minimum radius and rotate for a minimum of 360 degrees maintaining minimum radius. Land at a designated place</li> <li>10. Lift <b>Load 2</b> using two falls of rope from a designated position and travel with the load suspended for at least 10 metres. Whilst travelling, execute a 90 degree angle turn</li> <li>11. Lift <b>Load 4</b> to stand within several degrees of vertical on one of its ends. When vertical to the satisfaction of the assessor, replace back to horizontal</li> <li>12. Recover simulated 2 metre load swings</li> <li>13. Lift a load from a given position, and land in a designated place out-of-sight of the apprentice</li> <li>14. Ensure all loads are safe following each activity</li> <li>15. On completion of all lifting activities, configure the crane for travel</li> </ol>
<b>Shutting down</b>	<ol style="list-style-type: none"> <li>16. Park the crane and carry out shut-down and securing procedures</li> </ol>

### Activity instructions – Notes

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<b>Notes</b>	<ul style="list-style-type: none"><li>• The assessor must check that the apprentice has programmed the RCI correctly before carrying out each activity</li><li>• On activities 7 to 10, the load must follow the ground contours and be able to be handled by the slinger/signaller</li><li>• On activity 7, the line must be angled so that both slew and radius change functions are used simultaneously</li><li>• Activity 12 shall consist of a minimum of 2 x swings in a left to right plane and a minimum of 1 x swing in a forward to reverse plane</li><li>• Activity 13 must be undertaken twice – once using hand signals and once using radio communication. All other lifts may be undertaken using either radio or hand signals</li><li>• For the purposes of the test, all hand signals shall conform with BS 7121 Part 1:2006</li></ul>
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### Activity measurements

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<b>Reversing specification</b>	<ul style="list-style-type: none"><li>• No wider than the width of the crane plus 600 mm</li></ul>
<b>Load placing</b>	<ul style="list-style-type: none"><li>• To be landed within 80 mm of a designated place</li></ul>
<b>Load swing</b>	<ul style="list-style-type: none"><li>• To be corrected within 3 moves</li></ul>
<b>Test timings</b>	<ul style="list-style-type: none"><li>• The test must be completed within 1 hour and 45 minutes</li></ul>

# Lifting technician

## Practical skills test – Crawler crane

### Activity grading – Crane operations

<b>Mandatory</b>	<b>Standard met during the test?</b>	<b>Y/N</b>
<b>Travelling</b>	1 Crane mounting and dismounting	
	2 Crane set for travel	
	3 Restrictions cleared	
	4 Full observation before moving and reversing	
	5 Full observation whilst travelling	
	6 Encountered hazards and structures/objects cleared during travelling	
<b>Setting up</b>	7 Area checked and safe prior to setting up for lifting and depositing loads	
	8 Crane positioned prior to lifting loads	
	10 Ensured crane was level prior to lifting loads	
	11 RCI programmed for all lifting duties	
	12 Hook blocked re-reeved to requested number of falls	
	13 Communication arrangements confirmed with the signaller	
<b>Working</b>	14 Turntable locked/braked prior to travelling with a suspended load	
	15 SWL not exceeded at all times	
	16 Load integrity and stability maintained at all times	
	17 Loads did not contact any obstructions	
	18 Lifting accessories kept clear of the ground	
	19 Lifted, moved and lowered all loads in a controlled manner	
	20 Load swings kept within 0.5 of a metre / rectified swinging	
	21 All loads placed at the given points within the given tolerance	
	22 Load just lifted sufficiently for the checking of load integrity	
	23 All loads vertically lifted (hoist rope)	
	24 Sequence of using hydraulic/lifting controls	
	25 Smooth use of the tracking/steering and hydraulic controls	
	26 Route assessed and travelled with the suspended load in a controlled manner	
<b>Completing</b>	27 All instructions conformed with	
	28 Ensured load handler was clear of the crane's path when travelling with a load	
	29 Full observation before slewing the upper structure	
<b>Shutdown</b>	30 Crane re-configured from lifting to travelling duties	
	31 Parked in appropriate place	
<b>Other</b>	32 All shutdown and securing procedures	
	33 Legislation, manufacturers' and health and safety requirements complied with	
<b>Grading</b>	34 Test completed within the given time	
	Passed in this section – yes/no?	

**Note: Standards met means all activities have been correctly carried out in accordance and conforming with manufacturer's instructions, legislative requirements, good working and safety practices**

# Lifting technician

## Practical skills test – Crawler crane

### Resources required – Slings/signalling

<b>Lifting Equipment</b>	<ul style="list-style-type: none"><li>• Crane</li></ul>
<b>Area</b>	<ul style="list-style-type: none"><li>• Ground, clear of hazards with:<ul style="list-style-type: none"><li>- sufficient area of at least the maximum operating radius of the lifting equipment</li><li>- sufficient area to allow the undertaking of pick and carry duties</li><li>- structure or below-ground level location for placing a load out-of-sight of the lifting equipment operator</li><li>- a flat area to allow lifting and placing of loads</li><li>- a zone of exclusion around each lifting operation area</li></ul></li></ul>
<b>Other equipment</b>	<ul style="list-style-type: none"><li>• Measuring tape for measuring the maximum radius of the lifting equipment</li><li>• Applicable lifting accessories for all loads with appropriate certification</li><li>• Radios for verbal communication</li><li>• A vehicle bed or trailer which may be simulated but having the same dimensions (appropriate bed access and egress systems must be in place)</li><li>• Examples of the following for the identification activity:<ul style="list-style-type: none"><li>- 2 x unserviceable and 1 x serviceable web sling</li><li>- 1 x unserviceable and 1 x serviceable chain sling</li><li>- 1 x unserviceable and 1 x serviceable wire rope</li><li>- 1 x out-of-date certificate</li></ul></li><li>• Marking equipment or tags to identify unserviceable lifting accessories</li><li>• Chain slings with shortening clutches, tag lines and other appropriate intermediate connecting accessories</li></ul>
<b>Loads</b>	<ul style="list-style-type: none"><li>• <b>LOAD 1</b> 1 x balanced</li><li>• <b>LOAD 2</b> 1 x unbalanced</li><li>• <b>LOAD 3</b> 1 x bundled at least 4 metres in length</li><li>• <b>LOAD 4</b> 1 x load being a tube or structure not less than 6 metres in length able to be lifted onto one of the ends. (Care must be taken to ensure that the lifting gear for Load 4 is secure from horizontal to upright)</li></ul>

### Resources required – Slings/signalling (Cont'd)

<b>Notes</b>	<ul style="list-style-type: none"><li>• The lifting equipment selected for the test must be in serviceable condition and be equipped with:<ul style="list-style-type: none"><li>- a drum hoist and rope</li><li>- have 360-degree slew capability on a turntable</li><li>- able to vary the operating radii from minimum to maximum</li><li>- have the capability to carry out pick and carry duties</li><li>- have a minimum operating radius of 20 metres</li></ul></li><li>• have a minimum underhook height of 24 metres</li><li>• Lifting equipment being used for the test must meet current legislation requirements for lifting operations</li><li>• The lifting equipment must be approved for pick-and-carry duties</li><li>• The operator's manual must be with the lifting equipment</li><li>• Maximum radius equates to the configuration of the lifting equipment being used for the test</li><li>• For static lifting duties, additional area clear of hazards external to the operating radius must be available to allow a safe zone (3m) for the apprentice and others involved in the test</li><li>• For pick-and-carry lifting duties, there should be sufficient ground to allow travel movement of the lifting equipment machine where a straight-line travel distance of not less than 25 metres can be carried out.</li><li>• The structure or below-ground level location chosen for the out-of-sight lift must be suitable for landing the load, but must be of sufficient height or depth so that the whole of the load and portion of the lower part of the lifting accessory cannot be seen from the lifting equipment operating position. If a below-ground landing place is chosen, it must be a safe environment for the slinger/signaller to handle</li><li>• The lifting equipment operator must be certificated and competent</li><li>• For the test to be effective, the lifting equipment operator must follow the exact instructions (verbal and signals) given by the apprentice, and only make all movements according to instructions given. The assessor must maintain close observation of all activities and stop all movements when the apprentice has failed to retrieve a situation for which the load (or machine) will contact structures/objects or be put into an unsafe situation</li><li>• All lifting accessories for LOADS 1, 2 and 3 must be fit for purpose, certificated and made available to the apprentice</li><li>• The unserviceable lifting accessories selected for the identification activity must have at least one visual defect</li></ul>
	<ul style="list-style-type: none"><li>• The weight of all loads must be known</li></ul>

### Resources required – Slings/signalling (*Cont'd*)

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<p><b>Notes</b> <i>(Continued)</i></p>	<ul style="list-style-type: none"><li>• If additional personnel are used to relay signals or control loads, they must be competent in all activities</li><li>• A lift plan for all activities must have been constructed by a competent person and communicated to all those within the lifting team. Information within the plan that may assist the apprentice during the test and compromise skills and understanding may be withheld at the discretion of the assessor</li><li>• A hand or tag line must be used to control at least one of the loads on the test and may be used on all loads if deemed appropriate. The risk assessment and method statement must stipulate that:<ul style="list-style-type: none"><li>- the rope is at least 16mm in diameter</li><li>- is free of knots, kinks, fraying or any form of damage</li><li>- is of a suitable length allowing easy control of the load but with minimal excessive free length</li><li>- is attached to the load and cannot unintentionally become free, with the parts of the rope secured by a shackle/ karabiner or other device with a sprung latch, and not tied in a knot</li><li>- the free end of the rope does not have an eye or loop (although the secured end may require an eye to accommodate the shackle)</li><li>- the free end is not wrapped around the hands or parts of the body</li></ul></li></ul>
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### Activity instructions - Slings/signalling

<b>Sequence</b>	<ul style="list-style-type: none"> <li>• Activities 2 and 3 can be undertaken at any time during the test</li> <li>• Activities 9 - 16 can be undertaken in any order</li> </ul> <p>The test must be completed within a given time. The specifications' section gives further information</p>
<b>Preparing for work</b>	<ol style="list-style-type: none"> <li>1. Check all lifting equipment for function and serviceability</li> <li>2. From two or more examples each of a web sling, chain sling and wire rope, identify the correct type of accessory and impound all unserviceable items</li> <li>3. From at least two examples of lifting equipment certification, identify certification not meeting current legislation or regulations</li> </ol>
<b>Setting up for work</b>	<ol style="list-style-type: none"> <li>4. Establish the weight and features of each load prior to lifting</li> <li>5. Establish communication methods (visual and with radios) with the lifting equipment operator</li> <li>6. Select the relevant lifting accessory for the load to be lifted</li> <li>7. Ensure and maintain an exclusion zone around the lifting operation</li> </ol>
<b>Working tasks</b> <i>(refer to specifications)</i>	<ol style="list-style-type: none"> <li>8. Attach the selected lifting accessory and prepare each load for each lifting activity</li> </ol> <p><b>Static duties</b></p> <ol style="list-style-type: none"> <li>9. Lift LOAD 2 from ground level, guide to maximum radius of the lifting equipment, slew for at least 180 degrees and land at a designated place which is at mid-radius. When landed, detach the accessory</li> <li>10. Lift LOAD 2 from ground level. The load is to be landed on the vehicle bed. When landed, detach the accessory.</li> <li>11. Lift LOAD 3 from ground level, guide to minimum radius of the lifting equipment, slew for at least 360 degrees and land at a designated place which involves a change of radius. When landed, detach the accessory</li> <li>12. Lift LOAD 4 from ground level to within several degrees of vertical on one of the ends. When vertical to the satisfaction of the Assessor, replace back to horizontal</li> </ol> <p><b>Pick-and-carry duties</b></p> <ol style="list-style-type: none"> <li>13. Guide the machine to LOAD 1. Lift the load from ground level and set to the machine's suspended load travel position. Guide the load over a given route which includes a right or left-hand turns. On completion, land at a given point and detach the accessory</li> <li>14. Guide the machine to LOAD 3. Lift the load from ground level and set to the machine's suspended load travel position. Guide the load for a minimum travel distance of 10 metres. On completion, land the load, detach and guide the machine clear of the load</li> </ol>



# Lifting technician

## Practical skills test – Crawler crane

### Activity instructions - Slings/signalling (Cont'd)

	<p><b>Out-of-sight lifts</b></p> <p>15. Lift LOAD 1 from ground level, and land in a designated place out of sight of the lifting equipment operator. When landed, detach the load – the hook (static) or lifting equipment (crawler) must be moved away from the area before reattaching the load</p> <p>16. Attach LOAD 1 from the out of sight area and return the load to the original start point, land at a designated place and detach the accessory</p>
<b>Completing work</b>	<p>17. All loads to be made safe following each activity</p> <p>18. Collect and store all lifting accessories</p>
<b>Notes</b>	<ul style="list-style-type: none"><li>• Each load must be lifted using a different type of lifting accessory.</li><li>• At least one lift shall be undertaken using radio communication and at least one lift using hand signals</li><li>• For the purposes of the test, all hand communication shall conform with BS 7121: Part 1 2000</li><li>• For activity 11, the minimum radius need not be less than 4 metres</li><li>• The travel distance for activity 13 must be at least 15 metres</li><li>• Load 3 must be slung using the double wrap method</li><li>• For activities 13 and 14, the apprentice will be provided with the lifting equipment's required radius and configuration for travel prior to the lift being carried out by the lifting equipment operator</li><li>• The out-of-sight lift (activities 15 and 16) must be such that the lifting equipment operator is unable to see the top of the load or lower half of the accessories</li><li>• For activities 15 and 16, the lift shall be conducted using radios to place the load and hand signals to retrieve the load, or vice versa.</li><li>• The assessor may during the test ask the apprentice to identify the type of lifting accessory being used</li><li>• The assessor cannot be involved in providing or relaying signals during the test except in emergency situations</li></ul>

### Activity measurements

<b>Load placing</b>	<ul style="list-style-type: none"><li>• To be landed within 80 mm of a designated place</li></ul>
<b>Test timings</b>	<ul style="list-style-type: none"><li>• The test must be completed within 1 hour and 30 minutes</li></ul>

# Lifting technician

## Practical skills test – Crawler crane

### Activity grading – Slinging/signalling

Mandatory		Standards met during the test?	Y/N
Preparing	1	Checked all accessories for function and serviceability	
	2	Checked certification is in-date and applied to relevant accessory	
	3	Unserviceable accessories identified	
	4	Unserviceable accessories impounded/clearly marked	
	5	Certification not in date identified	
Setting up	6	Landing positions checked and safe prior to lifting and landing loads	
	7	Correct lifting accessory identified on request	
	8	Intended load travel route (Inc. pick-and-carry duties) clear of hazards	
	9	Communication procedures established with others involved with the lift	
	10	Weight and C of G of each load established	
	11	Relevant lifting accessories selected for each load	
Working tasks	12	Lifting accessories attached to each load	
	13	SWL or WLL of lifting accessories not exceeded at all times	
	14	Load integrity and stability maintained at all times	
	15	Full observation before moving the load	
	16	Full observation whilst guiding and landing the load	
	17	Loads did not contact any obstructions or the machine	
	18	Communication clear, precise and understood by all involved	
	19	Lifting equipment hoist line vertical as each lift commences (A and B)	
	20	Loads not damaged during lifting, moving and placing	
	21	Load kept under control during lifting, movement and travel	
	22	Loads secure and stable after removing accessories	
	23	Personnel kept clear of underside of loads	
	24	Load handler clear of moving machine during pick and carry duties	
	25	Exclusion zone maintained	
	26	Load placing at the given points within the given tolerance	
	27	Lifting accessories kept clear of ground	
	28	Each load checking for integrity prior to moving ( <i>by weight of load taken but not raised above ground level</i> )	
	29	Loads level during lifting and moving	
	30	Hand lines correctly fitted and used	
Completing work	31	Lifting accessories removed and stored	
Other	32	Legislation, manufacturers' and health and safety requirements complied with	
	33	Test completed within the given time	
Grading	Passed in this section – yes/no?		

Note: Standards met means all activities have been correctly carried out in accordance and conforming with manufacturer's instructions, legislative requirements, good working and safety practices

# Lifting technician

## Practical skills test – Crawler crane

### Test Results

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<b>Activity: Pre-use checks</b>	<p>I confirm that I, the assessor have carried out the test in accordance with the test requirements and that the apprentice has:</p> <p style="text-align: center;"><b>Passed</b> <input type="checkbox"/> <b>Not passed</b> <input type="checkbox"/> <i>(Please tick the relevant box)</i></p> <p>Assessor Signature: .....Date: .....</p> <p>Centre Auditor.....: .....Date: .....</p>
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<b>Activity: Crane operating</b>	<p>I confirm that I, the assessor have carried out the test in accordance with the test requirements and that the apprentice has:</p> <p style="text-align: center;"><b>Passed</b> <input type="checkbox"/> <b>Not passed</b> <input type="checkbox"/> <i>(Please tick the relevant box)</i></p> <p>Assessor Signature: .....Date: .....</p> <p>Centre auditor:.....Date: .....</p>
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<b>Activity: Slinging/ signalling</b>	<p>I confirm that I, the assessor have carried out the test in accordance with the test requirements and that the apprentice has:</p> <p style="text-align: center;"><b>Passed</b> <input type="checkbox"/> <b>Not passed</b> <input type="checkbox"/> <i>(Please tick the relevant box)</i></p> <p>Assessor Signature: .....Date:.....</p> <p>Centre Auditor: .....Date: .....</p>
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### Assessor feedback – all activities

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