

Standard in development

L2: Lifting technician

Version 1.2

Title of occupation

Lifting technician

UOS reference number

ST0267

Core and options

Yes

Option titles

crawler Crane Operator

mobile Crane Operator

tower Crane Operator

overhead Crane Operator

Level of occupation

Level 2

Occupational maps data

Route: Construction and the built environment

Pathway: Onsite Construction

Cluster: Construction specialist operative or technician

Typical duration of apprenticeship

24 months

Resubmission

No

Does professional recognition exist for the occupation?

No

Regulated occupation

Is this a statutory regulated occupation?

No

Occupational summary

This occupation is found in Construction and the Built Environment and engineering and manufacturing industry.

Lifting technicians work in various settings where heavy machinery, equipment, or materials need to be moved or lifted. These could be construction sites, manufacturing facilities, power plants, transportation infrastructure, aerospace, and aviation.

The broad purpose of the occupation is to ensure the safe and efficient movement of heavy objects, machinery, or materials in various industries and settings.

Lifting technicians follow safety protocols and procedures to prevent accidents, injuries, and damage to property. They ensure that lifting operations comply with safety regulations and standards.

Lifting technicians operate cranes to lift, move, and position heavy loads safely and accurately. They perform routine maintenance and inspections on lifting equipment to ensure that it is in good working condition and meets safety standards.

Lifting technicians are skilled in slinging and load handling techniques, including selecting and attaching lifting accessories such as slings, shackles, and hooks to securely lift and move loads. They communicate effectively with team members, supervisors, customer, and other personnel involved in lifting operations to ensure lifting activities are safe and to avoid accidents.

Lifting technicians work collaboratively with others to troubleshoot and resolve technical issues, equipment malfunctions, and logistical challenges that may arise during lifting operations. They work efficiently to complete lifting tasks on schedule and within time constraints.

In their daily work, an employee in this occupation interacts with a wide range of different stakeholders, including clients, contractors, members of the public, supervisors, and other occupations. Lifting technicians often work under the supervision of managers or team leaders who oversee lifting operations, provide guidance, and ensure adherence to safety protocols and project requirements.

An employee in this occupation will be responsible for facilitating the safe and efficient movement of loads in various industries and settings. Lifting Technicians combine technical skills, safety knowledge, and communication abilities to perform their duties effectively while prioritising the health and safety of personnel and property. This is a core and option apprenticeship standard. Apprentices will be trained and assessed against the core and one option occupation. There are four options.

- Mobile Crane Operators control cranes mounted on vehicles.
- Crawler Crane Operator control cranes that move on tracks or crawlers instead of wheels.

- Tower Crane Operators control tall, fixed position cranes.
- Overhead Crane Operators control cranes with a moveable bridge carrying a moveable or fixed hoisting mechanism travelling on an overhead fixed runway structure.

Typical job titles

Crawler crane technician Mobile crane technician Overhead crane technician Tower crane technician

Are there any statutory / regulatory or other typical entry requirements?

No

Core occupation duties

DUTY	KSBS
Duty 1 Work in compliance with occupational health and safety and environmental legislation, relevant regulations, and recognised industry guidance to ensure the health, safety and wellbeing of self and others always. Report in a timely manner any non-compliances to the appropriate person.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 B1 B2 B3 B4 B5 B6 B7
Duty 2 Deliver work in accordance with lift plans and specifications.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 B1 B2 B3 B4 B5 B6 B7
Duty 3 Communicate effectively with team members to coordinate lifting activities.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 B1 B2 B3 B4 B5 B6 B7
Duty 4 Take appropriate action to resolve problems and minimise disruptions to lifting operations during crane operations.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 B1 B2 B3 B4 B5 B6 B7
Duty 5 Keep accurate records of lifting activities, including equipment inspections, maintenance procedures, safety checks, incidents, and near misses.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16

DUTY	KSBS
	<u>B1 B2 B3 B4 B5 B6 B7</u>
Duty 6 Prepare the work area, checking it is safe and in accordance with method statements and risk assessments and implement the necessary control measures.	<u>K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16</u> <u>B1 B2 B3 B4 B5 B6 B7</u>
Duty 7 Sling and signal the movement of suspended loads during lifting operations.	<u>K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16</u> <u>B1 B2 B3 B4 B5 B6 B7</u>
Duty 8 Maintain a clear and tidy workspace and ensure that waste materials are disposed of in accordance with current legislation and sustainably.	<u>K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16</u> <u>B1 B2 B3 B4 B5 B6 B7</u>
Duty 9 Work to the programme, adapting to changes in schedule and requirements where necessary.	<u>K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16</u> <u>B1 B2 B3 B4 B5 B6 B7</u>
Duty 10 Conduct quality checks against specification and take remedial action where instructed.	<u>K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16</u> <u>B1 B2 B3 B4 B5 B6 B7</u>
Duty 11 Collaborate with stakeholders.	<u>K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16</u> <u>B1 B2 B3 B4 B5 B6 B7</u>
Duty 12 Conduct continuous professional development to maintain knowledge of current and future developments affecting the role.	<u>K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16</u> <u>B1 B2 B3 B4 B5 B6 B7</u>

Option occupation duties

crawler Crane Operator duties

DUTY	KSBS
Duty 18 Position, prepare and configure crawler crane lifting equipment in readiness to conduct lifting activities.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K40 K41 K42 K43 K44 K45 K46 K47 K48 K49 K50 K51 K52 K53 K54 K55 K56 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S32 S33 S34 S35 S36 S37 S38 S39 S40 S41 S42 S43 S44 S45 B1 B2 B3 B4 B5 B6 B7
Duty 19 Conduct pre-operational checks on crawler cranes and lifting equipment to ensure they are in good working condition and meet safety standards.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K40 K41 K42 K43 K44 K45 K46 K47 K48 K49 K50 K51 K52 K53 K54 K55 K56 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S32 S33 S34 S35 S36 S37 S38 S39 S40 S41 S42 S43 S44 S45 B1 B2 B3 B4 B5 B6 B7
Duty 20 Determine the appropriate lifting technique for crawler cranes following lift plans to meet specific work requirements.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K40 K41 K42 K43 K44 K45 K46 K47 K48 K49 K50 K51 K52 K53 K54 K55 K56 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S32 S33 S34 S35 S36 S37 S38 S39 S40 S41 S42 S43 S44 S45 B1 B2 B3 B4 B5 B6 B7
Duty 21 Operate crawler cranes, using controls to lift, lower, and manoeuvre loads.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K40 K41 K42 K43 K44 K45 K46 K47 K48 K49 K50 K51 K52 K53 K54 K55 K56 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S32 S33 S34 S35 S36 S37 S38 S39 S40 S41 S42 S43 S44 S45 B1 B2 B3 B4 B5 B6 B7
Duty 22 Perform routine maintenance on crawler cranes.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K40 K41 K42 K43 K44 K45 K46 K47 K48 K49 K50 K51 K52 K53 K54 K55 K56 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S32 S33 S34 S35 S36 S37 S38 S39 S40 S41 S42 S43 S44 S45 B1 B2 B3 B4 B5 B6 B7

mobile Crane Operator duties

DUTY	KSBS
Duty 13 Position, prepare and configure mobile crane lifting equipment in readiness to conduct lifting activities.	<u>K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K21 K22 K23 K24 K25 K26 K27 K28 K29 K30 K31 K32 K33 K34 K35 K36 K37 K38</u> <u>S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S17 S18 S19 S20 S22 S23 S24 S25 S26 S27 S28 S29 S30 S31</u> <u>B1 B2 B3 B4 B5 B6 B7</u>
Duty 14 Conduct pre-operational checks on mobile cranes and lifting equipment to ensure they are in good working condition and meet safety standards.	<u>K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K21 K22 K23 K24 K25 K26 K27 K28 K29 K30 K31 K32 K33 K34 K35 K36 K37 K38</u> <u>S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S17 S18 S19 S20 S21 S22 S23 S24 S25 S26 S27 S28 S29 S30 S31</u> <u>B1 B2 B3 B4 B5 B6 B7</u>
Duty 15 Determine the appropriate lifting technique for mobile cranes following lift plans to meet specific work requirements.	<u>K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K21 K22 K23 K24 K25 K26 K27 K28 K29 K30 K31 K32 K33 K34 K35 K36 K37 K38 K39</u> <u>S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S17 S18 S19 S20 S21 S22 S23 S24 S25 S26 S27 S28 S29 S30 S31</u> <u>B1 B2 B3 B4 B5 B6 B7</u>
Duty 16 Operate mobile cranes using controls to lift, lower, and manoeuvre loads.	<u>K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K21 K22 K23 K24 K25 K26 K27 K28 K29 K30 K31 K32 K33 K34 K35 K36 K37 K38 K39</u> <u>S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S17 S18 S19 S20 S21 S22 S23 S24 S25 S26 S27 S28 S29 S30 S31</u> <u>B1 B2 B3 B4 B5 B6 B7</u>
Duty 17 Perform	<u>K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K21 K22 K23 K24 K25 K26 K27 K28 K29 K30 K31 K32 K33 K34 K35</u>

DUTY	KSBS
routine maintenance on mobile cranes.	K36 K37 K38 K39 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S17 S18 S19 S20 S21 S22 S23 S24 S25 S26 S27 S28 S29 S30 S31 B1 B2 B3 B4 B5 B6 B7

tower Crane Operator duties

DUTY	KSBS
Duty 23 Prepare and configure tower crane lifting equipment in readiness to conduct lifting activities.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K57 K58 K59 K60 K61 K62 K63 K64 K65 K66 K67 K68 K69 K70 K71 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S46 S47 S48 S49 S50 S51 S52 S53 S54 S55 S56 S57 B1 B2 B3 B4 B5 B6 B7
Duty 24 Conduct pre-operational checks on tower cranes and lifting equipment to ensure they are in good working condition and meet safety standards.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K57 K58 K59 K60 K61 K62 K63 K64 K65 K66 K67 K68 K69 K70 K71 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S46 S47 S48 S49 S50 S51 S52 S53 S54 S55 S56 S57 B1 B2 B3 B4 B5 B6 B7
Duty 25 Determine the appropriate lifting technique for tower cranes following lift plans to meet specific work requirements.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K57 K58 K59 K60 K61 K62 K63 K64 K65 K66 K67 K68 K69 K70 K71 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S46 S47 S48 S49 S50 S51 S52 S53 S54 S55 S56 S57 B1 B2 B3 B4 B5 B6 B7
Duty 26 Operate tower cranes, using controls	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K57 K58 K59 K60 K61 K62 K63 K64 K65 K66 K67 K68 K69 K70 K71 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S46 S47 S48 S49 S50 S51 S52 S53 S54 S55 S56 S57

DUTY	KSBS
to lift, lower, and manoeuvre loads.	B1 B2 B3 B4 B5 B6 B7
Duty 27 Perform routine maintenance on tower cranes.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K57 K58 K59 K60 K61 K62 K63 K64 K65 K66 K67 K68 K69 K70 K71 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S46 S47 S48 S49 S50 S51 S52 S53 S54 S55 S56 S57 B1 B2 B3 B4 B5 B6 B7

overhead Crane Operator duties

DUTY	KSBS
Duty 28 Prepare and configure overhead crane lifting equipment in readiness to conduct lifting activities.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K72 K73 K74 K75 K76 K77 K78 K79 K80 K81 K82 K83 K84 K85 K86 K87 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S58 S59 S60 S61 S62 S63 S64 S65 S66 S67 S68 S69 S70 B1 B2 B3 B4 B5 B6 B7
Duty 29 Conduct pre-operational checks on overhead cranes and lifting equipment to ensure they are in good working condition and meet safety standards.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K72 K73 K74 K75 K76 K77 K78 K79 K80 K81 K82 K83 K84 K85 K86 K87 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S58 S59 S60 S61 S62 S63 S64 S65 S66 S67 S68 S69 S70 B1 B2 B3 B4 B5 B6 B7
Duty 30 Determine the appropriate lifting technique for overhead	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K72 K73 K74 K75 K76 K77 K78 K79 K80 K81 K82 K83 K84 K85 K86 K87 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S58 S59 S60 S61 S62 S63 S64 S65 S66 S67 S68 S69 S70 B1 B2 B3 B4 B5 B6 B7

DUTY	KSBS
cranes following lift plans to meet specific work requirements.	
Duty	
31 Operate overhead cranes, using controls to lift, lower, and manoeuvre loads.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K72 K73 K74 K75 K76 K77 K78 K79 K80 K81 K82 K83 K84 K85 K86 K87 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S58 S59 S60 S61 S62 S63 S64 S65 S66 S67 S68 S69 S70 B1 B2 B3 B4 B5 B6 B7
Duty	
32 Perform routine maintenance on overhead cranes.	K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15 K16 K17 K18 K19 K20 K72 K73 K74 K75 K76 K77 K78 K79 K80 K81 K82 K83 K84 K85 K86 K87 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S58 S59 S60 S61 S62 S63 S64 S65 S66 S67 S68 S69 S70 B1 B2 B3 B4 B5 B6 B7

KSBS

Knowledge

K1: Core: Awareness of health and safety regulations, standards and guidance relevant to the occupation and the crane operator's role and responsibilities.

K2: Core: Lifting industry regulations, guidance, manufacturer's specifications, and employer's guidance.

K3: Core: Personal protective equipment (PPE): types and use.

K4: Core: Methods of interpreting and extracting relevant information from lift plans, method statements, specifications site plans, operator's manual and risk assessments.

K5: Core: Purpose of workplace inductions, tools box talks and team briefings.

K6: Core: Crane electronic read out systems: purpose and use.

K7: Core: Crane inspection and examination documentation requirements: data recording, documentation control, auditable records, insurance, warranty, or other protections, inspection and reporting forms.

K8: Core: How own role contributes and impacts the wider team and project objectives.

K9: Core: Awareness of issues, common symptoms and warning signs of stress, anxiety, and depression, plus where to go for help and the resources available.

K10: Core: Awareness of environmental and sustainability regulations, how to use resources efficiently. Principles of Recycling, reuse, and safe disposal of waste.

K11: Core: Employment types (self-employed and employed), small business startup principles, tax responsibilities, roles, and responsibilities.

K12: Core: Verbal communication techniques.

K13: Core: Team working techniques.

K14: Core: Communication techniques for the movement and placement of loads: verbal commands, visual commands, hand signals and radio.

- K15:** Core: Slings techniques for the attachment of loads: fibre slings, chain slings and specialist equipment - plate clamps, slippers, lifting beams, lifting cells, eye bolts and magnets.
- K16:** Core: Principles of falls of rope and changing falls of rope.
- K17:** Core: Principles and application techniques of SWL (safe working load) limits & WLL (working load limit).
- K18:** Core: Crane operation site safety information: layout of site traffic plans, the working areas, exclusion zones and authorised passages for movement.
- K19:** Core: Lifting accessory inspection: Function and methods of checks, inspections, and reporting forms procedures for lifting accessories.
- K20:** Core: Reporting: importance and methods of reporting hazards and issues.
- K21:** Mobile crane operator: Controls access techniques and industry safety procedures.
- K22:** Mobile crane operator: Mobile Crane manoeuvring configuration principles.
- K23:** Mobile crane operator: Off highway positioning and manoeuvring requirements and techniques for pre and post operations.
- K24:** Mobile crane operator: Highway travel: road travel legislative requirements and local authority requirements.
- K25:** Mobile crane operator: Hazard identification: situational awareness, Ground condition requirements for travelling with mobile cranes, controlling traction on loose surfaces and inclines, Axle loadings for road travel and un-compacted ground, Height restrictions and markings and Limitations of vision when driving and manoeuvring a mobile crane, crane movement legislative requirements.
- K26:** Mobile crane operator: Factors that affect mobile crane stability: ground conditions, inclines, weather and environmental.
- K27:** Mobile crane operator: Setting the mobile crane: Types of and use of the mobile crane outriggers, positioning, plates and matts
- K28:** Mobile crane operator: Lift configuration techniques, including electronic information and operating system configuration.
- K29:** Mobile crane operator: Purpose and use of mobile crane electronic information and operating systems for lifting operations.
- K30:** Mobile crane operator: Hook positioning components, use and manipulation techniques, including boom extensions and angle and slew.
- K31:** Mobile crane operator: Risks associated with mobile crane when travelling with suspended loads.
- K32:** Mobile crane operator: Techniques to ensure load integrity and stability when lifting loads with mobile cranes, including swing correction.
- K33:** Mobile crane operator: Load lifting, moving and placing techniques.
- K34:** Mobile crane operator: Park, shutdown, isolate and securing methods.
- K35:** Mobile crane operator: Lifting accessory types, preparation and use for mobile cranes.
- K36:** Mobile crane operator: Characteristics of power units, hydraulic systems, counterweights, different chassis types, different steering types, tyres and driving controls.
- K37:** Mobile crane operator: Maintenance: Types, actions and the conducting of regular and non-scheduled checks, maintenance procedures and basic inspections.
- K38:** Mobile crane operator: Extensions and jibs fitting and de-rigging procedures and techniques.
- K39:** Mobile crane operator: Dismantling procedures.
- K40:** Crawler crane operator: Controls access techniques and industry safety procedures.
- K41:** Crawler Crane operator: Manoeuvring configuration techniques.
- K42:** Crawler Crane operator: Positioning and manoeuvring techniques for pre and post site operations.

- K43:** Crawler crane operator: Hazard identification: situational awareness, ground condition requirements for travelling with crawler cranes, controlling traction on loose surfaces and inclines, track loadings for travel and un-compacted and unsuitable ground, and limitations of vision when manoeuvring a crawler crane.
- K44:** Crawler crane operator: Factors that affect crawler crane stability: ground conditions, inclines, weather and environmental.
- K45:** Crawler crane operator: Lift configuration techniques including electronic information and operating system configuration.
- K46:** Crawler crane operator: Purpose and use of crawler crane electronic information and operating systems for lifting operations.
- K47:** Crawler crane operator: Hook positioning components, use and manipulation techniques, including extension boom, and angle and slew.
- K48:** Crawler crane operator: Risks associated with crawler crane travelling with suspended loads.
- K49:** Crawler crane operator: Techniques to ensure load integrity and stability when carrying out lifting operations with crawler crane, including swing correction.
- K50:** Crawler crane operator: Load lifting, moving and placing techniques.
- K51:** Crawler crane operator: Park, shutdown, isolate and securing methods.
- K52:** Crawler crane operator: Lifting accessory types, preparation and use for crawler cranes.
- K53:** Crawler crane operator: Characteristics of power units, hydraulic systems, types of counterweights, different chassis types and different types of tracking controls and steering.
- K54:** Crawler crane operator: Maintenance, types, actions and the conducting of regular and non-scheduled checks, maintenance procedures and basic inspections.
- K55:** Crawler crane operator: Extensions and jibs Fitting and de-rigging procedures and techniques.
- K56:** Crawler crane operator: Dismantling procedures.
- K57:** Tower crane operator: Documentation types, interpretation, and use: operator's manual, ground pressure material and duties charts.
- K58:** Tower crane operator: Characteristics and functions of counterweights and tower bases, including construction and securing.
- K59:** Tower crane operator: Types and functions of tower crane Jibs, trolleys, and associated components.
- K60:** Tower crane operator: Lifting accessory types, preparation and use for tower cranes.
- K61:** Tower crane operator: Maintenance, types, actions and the conducting of regular and non-scheduled checks, maintenance procedures, inspections and predetermined inspections.
- K62:** Tower crane operator: Accessing arrangements for tower cranes: types and use of harnessing equipment, Recovery, and retrieval procedures and safety procedures.
- K63:** Tower crane operator: Types of hook block and configuration methods.
- K64:** Tower crane operator: Lifting indicators, type and set up techniques: rated capacity indicators (RCI), load indicators and distance indicators.
- K65:** Tower crane operator: Methods of lifting for tower cranes including optimising radius and slewing capabilities.
- K66:** Tower crane operator: Hazards identification, situational awareness working in the vicinity of other cranes, zoning systems, Visibility issues and limitations during lifting operations.
- K67:** Tower crane operator: Factors that affect the stability of the tower crane: Centre of gravity, weather, and environment.
- K68:** Tower crane operator: Load moving, and placing techniques, including the use of horizon markers and electronic aids.

- K69:** Tower crane operator: Techniques to ensure load integrity and stability when carrying out lifting operations with tower crane, including swing correction.
- K70:** Tower crane operator: Shutdown and securing procedures including slew mode placement.
- K71:** Tower crane operator: Hook positioning components, use and manipulation techniques including trolley vs jib, radius, and slew.
- K72:** Overhead crane operator: Controls access techniques and industry safety procedures.
- K73:** Overhead crane operator: Configuration methods for travel pre and post operations.
- K74:** Overhead crane operator: Hazard identification, situational awareness, working in the vicinity of other cranes and zoning systems.
- K75:** Overhead Crane operator: Travelling and manoeuvring techniques for pre and post operation.
- K76:** Overhead crane operator: Factors that affect overhead crane stability – ground conditions, infrastructure, weather/environmental, pairing of cranes.
- K77:** Overhead crane operator: Lift configuration techniques including electronic information and operating system configuration.
- K78:** Overhead crane operator: Purpose and use of overhead crane electronic information and operating systems for lifting operations.
- K79:** Overhead crane operator: Hook positioning components, use and manipulation techniques: pairing of two cranes, use of main and auxiliary hoist.
- K80:** Overhead crane operator: Principles of travelling the overhead crane with suspended loads.
- K81:** Overhead crane operator: Risks of travelling with suspended loads.
- K82:** Overhead crane operator: Techniques to ensure load integrity and stability when carrying out lifting operations with an overhead crane, including swing correction.
- K83:** Overhead crane operator: Load lifting, moving and placing techniques.
- K84:** Overhead crane operator: Park, shutdown, isolate and securing methods.
- K85:** Overhead crane operator: Lifting accessory types, preparation and use for overhead cranes.
- K86:** Overhead crane operator: Characteristics of power units, hydraulic systems, counterweights and different control types.
- K87:** Overhead crane operator: Maintenance, types, actions and the conducting of regular and non-scheduled checks, maintenance procedures and basic inspections.

Skills

- S1:** Core: Comply with health and safety regulations, standards, and guidance.
- S2:** Core: Comply with industry regulations, guidance, manufacturer's specifications, and employer's guidance.
- S3:** Core: Identify and use personal protective equipment (PPE).
- S4:** Core: Interpret and use lifting operation information, for example lift plans, method statements, specifications site plans operator's manual and risk assessment.
- S5:** Core: Use crane electronic read systems.
- S6:** Core: Use site safety information.
- S7:** Core: Comply with environmental and sustainability regulations, standards, and guidance. Segregate resources for reuse, recycling, and disposal.
- S8:** Core: Communicate with others verbally for example, internal and external customers, colleagues, and managers.
- S9:** Core: Apply team working techniques.
- S10:** Core: Follow equity, diversity and inclusion legislative guidance and principles.
- S11:** Core: Apply techniques to Direct and guide the movement and placement of loads.

- S12:** Core: Attach loads using slinging techniques for example fibre slings, chain slings and specialist equipment.
- S13:** Core: Ensure loads are within SWL limits and WLL.
- S14:** Core: Inspect lifting accessories.
- S15:** Core: Report hazards for example, equipment defects, general hazards or ground hazards.
- S16:** Core: Escalates issues beyond their level of competence and authority.
- S17:** Mobile crane operator: Access a mobile cranes operating platforms and controls.
- S18:** Mobile crane operator: Configure a mobile crane for manoeuvring.
- S19:** Mobile crane operator: Manoeuvre a mobile crane on site.
- S20:** Mobile crane operator: Identify and mitigate hazards associated with mobile crane operation.
- S21:** Mobile crane operator: Set up a mobile crane for highway travel.
- S22:** Mobile crane operator: Position and set a mobile crane for lifting, including area stability checks and out riggers.
- S23:** Mobile crane operator: Configure a mobile crane for lifting including electronic information or operating systems set up.
- S24:** Mobile crane operator: Use the mobile crane's electronic information or operating systems when carrying out lifting operations.
- S25:** Mobile crane operator: Use and manipulate mobile crane components to position the crane hook for example – boom extensions and angle and slew.
- S26:** Mobile crane operator: Apply techniques to ensure load integrity and stability when carrying out lifting operations with mobile crane, including swing correction.
- S27:** Mobile crane operator: Apply techniques to lift, move and place a load using a mobile crane.
- S28:** Mobile crane operator: Park, shutdown, isolate and secure a mobile crane.
- S29:** Mobile crane operator: Use mobile crane accessories.
- S30:** Mobile crane operator: Conduct regular and non-scheduled checks, maintenance procedures and basic inspections on mobile cranes.
- S31:** Mobile crane operator: Work collaboratively to fit and de-rigg mobile crane extensions and jibs.
- S32:** Crawler crane operator: Access a crawler crane and controls.
- S33:** Crawler crane operator: Configure a crawler crane for manoeuvring.
- S34:** Crawler crane operator: Manoeuvre a crawler crane.
- S35:** Crawler crane operator: Identify and mitigate hazards associated with crawler crane operation.
- S36:** Crawler crane operator: Position and set crawler crane for lifting including area stability checks.
- S37:** Crawler crane operator: Configure a crawler crane for lifting including electronic information or operating systems set up.
- S38:** Crawler crane operator: Use crawler crane's electronic information or operating systems when carrying out lifting operations.
- S39:** Crawler crane operator: Use and Manipulate crawler crane components to position the crane hook, for example – extension boom and angle and slew.
- S40:** Crawler crane operator: Apply techniques to ensure load integrity and stability when carrying out lifting operations with crawler crane, including swing correction.
- S41:** Crawler crane operator: Apply techniques to lift, move and place loads using a crawler crane.
- S42:** Crawler crane operator: Park, shutdown, isolate and secure a crawler crane.
- S43:** Crawler crane operator: Use crawler crane accessories.

- S44:** Crawler crane operator: Conduct regular and non-scheduled checks, maintenance procedures and basic inspections on crawler cranes.
- S45:** Crawler crane operator: Work collaboratively to fit and de-rig crawler crane extensions and jibs.
- S46:** Tower crane operator: Interpret and Use tower crane documentation including operator's manual, ground pressure material and duties charts.
- S47:** Tower crane operator: Use tower crane jibs and trolleys for lifting operations.
- S48:** Tower crane operator: Use tower crane accessories.
- S49:** Tower crane operator: Access tower cranes, including with the use of harnessing equipment.
- S50:** Tower crane operator: Set up tower crane lift indicators: for example, rated capacity indicators (RCI), load indicators and distance indicators.
- S51:** Tower crane operator: Lift loads using the optimum radius and slewing capabilities of a tower crane.
- S52:** Tower crane operator: Identify and mitigate hazards associated with tower crane operation.
- S53:** Tower crane operator: Apply techniques to ensure load integrity and stability when carrying out lifting operations with tower crane, including swing correction.
- S54:** Tower crane operator: Apply techniques to move and place a load, including the use of horizon markers and electronic aids.
- S55:** Tower crane operator: Shutdown and secure a tower crane including placing the crane into free slew mode.
- S56:** Tower crane operator: Use and Manipulate tower crane components to position the crane hook, for example – Trolley vs jib and radius and slew.
- S57:** Tower crane operator: Conduct basic look over inspections.
- S58:** Overhead crane operator: Access an overhead crane and controls.
- S59:** Overhead crane operator: Configure the overhead crane for travelling.
- S60:** Overhead crane operator: Identify and mitigate hazards associated with overhead crane operation.
- S61:** Overhead crane operator: Travel and manoeuvre an overhead crane with and without loads.
- S62:** Overhead crane operator: Position and set overhead crane for lifting including area stability checks.
- S63:** Overhead crane operator: Configure an overhead crane for lifting including electronic information or operating systems set up.
- S64:** Overhead crane operator: Use an overhead crane's electronic information or operating systems when carrying out lifting operations.
- S65:** Overhead crane operator: Use and manipulate components of the overhead crane to position the crane hook, for example – pairing of two cranes, use of main and auxiliary hoist.
- S66:** Overhead crane operator: Apply techniques to ensure load integrity and stability when carrying out lifting operations with overhead crane, including swing correction.
- S67:** Overhead crane operator: Apply techniques to lift, move and place a load using an overhead crane.
- S68:** Overhead crane operator: Park, Shutdown, isolate and secure an overhead crane.
- S69:** Overhead crane operator: Use overhead crane accessories.
- S70:** Overhead crane operator: : Conduct basic look over inspections on overhead cranes.

Behaviours

- B1:** Core: Puts health safety and wellbeing first.

B2: Core: Take ownership of given work within the limits of own competence knowing when to seek advice.

B3: Core: Team-focused to meet work goals.

B4: Core: Committed to continued professional development (CPD) to maintain and enhance competence in their own area of practice.

B5: Core: Considers the environment and sustainability.

B6: Core: Apply equity, diversity, and inclusion principles in dealing with others.

B7: Core: Adapt to new and changing situations.

Qualifications

English and maths

English and maths qualifications must be completed in line with the [apprenticeship funding rules](#).

Does the apprenticeship need to include any mandated qualifications in addition to the above-mentioned English and maths qualifications?

No

Consultation

Both the standard and the EPA plan have been shared with specialists in organisations both in and beyond those of the trailblazer members as well as training providers and EPAOs currently delivering it.

Progression routes

Supporting uploads

Mandatory qualification uploads

Mandated degree evidence uploads

Professional body confirmation uploads

Involved employers

BAE Systems, BAM Nuttall, CITB, CPA, HTC Wolffkran, Laing O' Rourke, Laing O'Rourke, Skanska

Other involved stakeholders

Subject sector area

5.2 Building and construction