



ONTARIO COLLEGE OF TRADES

ORDRE DES MÉTIERS DE L'ONTARIO

Apprenticeship
Training Standard

Mobile Crane Operator
Branch 1

Trade Code: 339A

Development Date: August 1998

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Competency Analysis Profile

PREFACE

This training document was developed by the Ministry of Education and Training (MET) in consultation with representatives from the industry. These Training Standards are intended to be used by apprentice/trainee, instructors and companies as a "blueprint" for training or as a prerequisite for Ministry accreditation/certification.

The care and maintenance of this book is the joint responsibility of the apprentice/trainee and the employer. The Training Standards were developed specifically for documenting the apprentice's/trainee's acquisition of skills.

The book becomes the only record of an apprentice's/trainee's training.

IMPORTANT DIRECTIONS TO TRAINERS

The Training Standards identify skills required for this occupation and its related training program.

These Training Standards have been written in concise statements which describe how well an apprentice/trainee must perform each skill in order to become competent.

In using these Training Standards, trainers will be able to ensure that the apprentice/trainee is developing skills detailed for the occupation.

Trainers and apprentices/trainees are required to sign off and date the skills following each successful acquisition.

Employers participating in this training program will be designated as the Signing Authority and are required to attest to successful achievement by signing on the appropriate line included at the end of each unit.

IMPORTANT DIRECTIONS TO THE APPRENTICE/TRAINEE

Apprentice

1. All hours working for each employer(s) should be recorded in the Employer Information section.
2. The "Summary of Hours" should be completed, signed and dated by both the apprentice and employer when either all terms of the contract have been completed or the apprentice leaves the employ of the employer.
3. It is the responsibility of the apprentice to inform the local Apprenticeship Client Services office regarding the following changes:
 - change of employer address;
 - change of apprentice name or address;
 - transfer to a new employer.
4. At the fulfillment of all terms of a Contract of Apprenticeship, the Apprentice/Trainee Completion Form must be completed and signed by the current employer. Present these completed and authorized Training Standards and the Apprentice/Trainee Completion Form to your local Apprenticeship Client Services office.

Trainee

1. Training Reports must be signed for modular trainees by Ministry of Education and Training designated Signing Authority and forwarded to a local Apprenticeship Client Services office.
2. At the completion of training, the Apprentice/Trainee Completion Form must be completed and signed off by the employer/Signing Authority and submitted to the local Apprenticeship Client Services office.

NOTICE OF COLLECTION OF PERSONAL INFORMATION

1. At any time during your apprenticeship training, you may be required to show this training standard to the Ministry of Training, Colleges and Universities (the Ministry). You will be required to disclose the signed Apprenticeship Completion form to the Ministry in order to complete your program. The Ministry will use your personal information to administer and finance Ontario's apprenticeship training system, including confirming your completion and issuing your certificate of apprenticeship.
2. The Ministry will disclose information about your program completion and your certificate of apprenticeship to the Ontario College of Trades, as it is necessary for the College to carry out its responsibilities.
3. Your personal information is collected, used and disclosed by the Ministry under the authority of the Ontario College of Trades and Apprenticeship Act, 2009.
4. Questions about the collection, use and disclosure of your personal information by the Ministry may be addressed to the:

Manager, Employment Ontario Contact Centre
Ministry of Training, Colleges and Universities
33 Bloor St. E, 2nd floor, Toronto, Ontario M7A 2S3
Toll-free: 1-800-387-5656; Toronto: 416-326-5656
TTY: 1-866-533-6339 or 416-325-4084.

Please Note: Apprenticeship Training and Curriculum Standards were developed by the Ministry of Training, Colleges and Universities (MTCU). As of April 8th, 2013, the Ontario College of Trades (College) has become responsible for the development and maintenance of these standards. The College is carrying over existing standards without any changes.

However, because the Apprenticeship Training and Curriculum Standards documents were developed under either the Trades Qualification and Apprenticeship Act (TQAA) or the Apprenticeship and Certification Act, 1998 (ACA), the definitions contained in these documents may no longer be accurate and may not be reflective of the Ontario College of Trades and Apprenticeship Act, 2009 (OCTAA) as the new trades legislation in the province. The College will update these definitions in the future.

Meanwhile, please refer to the College's website (<http://www.collegeoftrades.ca>) for the most accurate and up-to-date information about the College. For information on OCTAA and its regulations, please visit: <http://www.collegeoftrades.ca/about/legislation-and-regulations>

APPRENTICE/TRAINEE RECORD

Apprentice/Trainee Name: _____

Contract Number: _____
(If applicable)

EMPLOYER INFORMATION

Company: _____

Address: _____

Telephone: _____

Summary of Hours:

Dates of Employment: _____
From To

Total hours of training and instruction between dates of employment _____Hours

Employer's
Signature

Date

Apprentice/Trainee
Signature

Date

EMPLOYER INFORMATION

Company: _____

Address: _____

Telephone: _____

Summary of Hours:

Dates of Employment: _____
From To

Total hours of training and instruction between dates of employment _____ Hours

_____ Employer's Signature	_____ Date	_____ Apprentice/Trainee Signature	_____ Date
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EMPLOYER INFORMATION

Company: _____

Address: _____

Telephone: _____

Summary of Hours:

Dates of Employment: _____
From To

Total hours of training and instruction between dates of employment _____ Hours

_____ Employer's Signature	_____ Date	_____ Apprentice/Trainee Signature	_____ Date
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EMPLOYER INFORMATION

Company: _____

Address: _____

Telephone: _____

Summary of Hours:

Dates of Employment: _____
From To

Total hours of training and instruction between dates of employment _____Hours

_____ Employer's Signature	_____ Date	_____ Apprentice/Trainee Signature	_____ Date
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EMPLOYER INFORMATION

Company: _____

Address: _____

Telephone: _____

Summary of Hours:

Dates of Employment: _____
From To

Total hours of training and instruction between dates of employment _____Hours

_____ Employer's Signature	_____ Date	_____ Apprentice/Trainee Signature	_____ Date
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APPRENTICE/TRAINEE COMPLETION FORM

Apprentice/Trainee Name

Print_____
Signature

Social Insurance Number

Training Units when completed should be signed off by Trainer/Signing Authority on the following page and presented with this completion form to your local Apprenticeship Client Services Field Office. Any supporting documentation should also be attached.

In-School completed: Yes () No () Not Applicable ()
(proof to be provided)

Hours completed as
per Contract: Yes () No () Not Applicable ()

Employer Name:

Address:

Telephone:

Signing Authority

Signature**MET USE ONLY:**

Recommended for Exam: Yes () No ()

Signature_____
Consultant/Office Code

You will be required to disclose this signed form to the Ministry of Training, Colleges and Universities in order to complete your program. The Ministry will use your personal information to administer and finance Ontario's apprenticeship training system. For further information please see the notice/declaration for collection of personal information that⁷ is referenced in the table of contents of this training standard.

TRAINING UNIT COMPLETION FORM

TRAINING UNIT	TITLE	SIGNING AUTHORITY
U5318.0	Protect Self and Others	_____
U5319.0	Conduct Pre-Operational Inspection	_____
U5320.0	Prepare and Transport Cranes	_____
U5321.0	Plan Lifts	_____
U5322.0	Assemble and Dismantle the Cranes	_____
U5323.0	Perform Rigging	_____
U5324.0	Set Up Cranes	_____
U5325.0	Operate Hydraulic Cranes	_____
U5326.0	Operate Conventional Friction Cranes	_____
U5327.0	Maintain Cranes	_____

U5318.0 PROTECT SELF AND OTHERS**GENERAL PERFORMANCE OBJECTIVE**

Protect self and others by: wearing and maintaining protective clothing and equipment; maintaining a safe working environment; performing fire safety practices; operating the crane safely; operating the crane safely near high voltage; reporting contact with high voltage; performing emergency exit procedures; communicating with colleagues; servicing machinery guards; and securing unattended cranes.

PERFORMANCE OBJECTIVES

Supervisor's Name (print)

Apprentice's Name (print)

SKILLS

U5318.1 Wear and maintain personal protective clothing and equipment, including hard hat, goggles, and hearing protectors in accordance with company policy and the Ontario Health and Safety Act.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5318.2 Maintain a safe work environment, by ensuring the work site free of hazards and obstructions including overhead and embankment obstacles, in accordance with company procedures and the Occupational Health and Safety Act.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5318.0 PROTECT SELF AND OTHERS -Cont'd

U5318.3 Perform recommended fire safety procedures, including inspecting the workplace and equipment, and using firefighting techniques in accordance with company policy and the Occupational Health and Safety Act.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5318.4 Operate the crane safely, by ensuring safety of personnel and property, reporting accidents to appropriate workplace personnel and completing accident reports, and notifying local utility companies of crane operations, in accordance with the Occupational Health and Safety Act, and manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5318.5 Operate crane safely near high voltage equipment, by following recommended procedures including limits of approach, designating a signaler, use of insulated materials and blankets, grounding, and bonding in accordance with the Occupational Health and Safety Act, utility regulations, and other government legislation.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5318.6 Report crane contact with high voltage, to the work site supervisor, and record in log book in accordance with the Occupational Health and Safety Act, other government legislation and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5318.0 PROTECT SELF AND OTHERS -Cont'd

U5318.7 Perform emergency exit procedures, by following the recommended dismounting procedures, including grounding, and bonding in case of accidental electric contact in accordance with the Occupational Health and Safety Act.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5318.8 Communicate with other workers and tradespersons, before and during lifting operations, by using a designated signal person and other communication devices in accordance with company policy and the Occupational Health and Safety Act.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5318.9 Service machinery guards and covers, by replacing and installing missing or damaged parts and components in accordance with manufactures' recommendations and the Occupational Health and Safety Act.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5318.10 Secure an unattended crane for short periods, by landing load on the ground, securing controls, retracting and stowing the boom, disengaging power take-off and master switch, and removing keys, extending outrigger with jacks, and engaging axle lockouts in accordance with manufacturers' recommendations, the Occupational Health and Safety Act, and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5318.0 PROTECT SELF AND OTHERS -Cont'd

U5318.11 Secure an unattended crane for extended periods, by following recommended procedures which may include landing load on the ground and disconnecting, parking crane on firm and level ground, retracting and stowing the outriggers and stabilizers, applying brakes and locks, disengaging power take-off and master clutch, removing keys and locking doors in accordance with manufacturers' recommendations, the Occupational Health and Safety Act, and company policy.

Date Completed

Supervisor's Signature

Apprentice's Signature

Employer's Name

Employer's Signature

U5319.0 CONDUCT PRE-OPERATIONAL INSPECTION**GENERAL PERFORMANCE OBJECTIVE**

Conduct pre-operational inspection by: reading and interpreting documentation; performing various engine inspections; testing the carrier outrigger and stabilizer assemblies; inspecting the swing bearing and turntable; inspecting and testing the telescopic sections of the hydraulic boom, inspecting the wire rope, assemblies and components; inspecting the hydraulic boom lattice boom, counterweights, safety and hydraulic devices and components; performing preoperational cycle inspection; testing the steering drives, brakes and components; verifying crane operator aids; and completing documentation of the crane log book to ensure machine is operating condition.

PERFORMANCE OBJECTIVES

Supervisor's Name (print)

Apprentice's Name (print)

SKILLS

U5319.1 Read and interpret manufacturers' manuals and government legislation, to identify the sequence of inspection procedures, location and function of controls, and shut down procedures to ensure that pre-operational inspections are conducted in accordance with manufacturers' recommendations, the Occupational Health and Safety Act, and company policy.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5319.2 Perform an engine off inspection of the crane and components, by checking for leaks, damage, corrosion, abnormal wear, and checking that lubrication, fluid levels and alignment are in accordance with manufacturers' recommendations.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5319.0 CONDUCT PRE-OPERATIONAL INSPECTION -Cont'd

U5319.3 Perform an engine start up inspection, by checking that controls and gauges, including air and oil pressure, ampmeter, and warning devices are functioning in accordance with manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5319.4 Perform an engine on inspection of the crane and components, by checking for leaks, damage, corrosion, lubrication, ensuring operating temperatures and pressure gauges are functioning in accordance with manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5319.5 Perform an engine on function test of the carrier and components, including the clutch, brakes, steering, transmission and drive train by engaging the transmission, disengaging park, engaging service brakes, and turning steering left and right, checking for leaks, wear and required adjustments in accordance with manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5319.6 Perform a function test of the outrigger and stabilizer assemblies, by fully extending and retracting outriggers beams and jacks in accordance with manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5319.0 CONDUCT PRE-OPERATIONAL INSPECTION -Cont'd

U5319.7 Inspect the swing bearing and turntable, by checking for loose bolts, adequate lubrication, structural cracks, distortions and damage in accordance with manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5319.8 Inspect telescopic sections of hydraulic boom, by checking for structural damage, cracks, wear, sag, alignments, lubrication and leaks in accordance with manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5319.9 Test the telescopic section of the hydraulic booms, by fully extending and retracting boom sections in accordance with manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5319.10 Inspect wire rope assemblies and components, including rope guides, drums, blocks, hooks, sheaves, wedge and socket termination, by checking for structural cracks, worn bearings, lubrication, operation and installation in accordance with manufacturers' recommendations and the Occupational Health and Safety Act.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5319.11 Inspect wire rope, by checking for frayed cable, excessive wear, "bird caging", and correct installation in accordance with manufacturers' recommendations and the Occupational Health and Safety Act.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5319.0 CONDUCT PRE-OPERATIONAL INSPECTION -Cont'd

U5319.12 Inspect the hydraulic boom and components, including cylinders, wear pads, stress points, pumps, hoses, weld joints, and attachments, by checking for structural damage, alignment, leaks, lubrication, weld joint cracks, sags and worn wear pads in accordance with manufacturers' recommendations and the Occupational Health and Safety Act

Date Completed	Supervisor's Signature	Apprentice's Signature
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_____	_____	_____
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U5319.13 Inspect the lattice boom and components, including pins, keepers, main chords, lacing, guides, locks, hooks and sheaves, by checking for cracks, dents, alignment, corrosion and structural damage in accordance with manufacturers' recommendations and the Occupational Health and Safety Act.

Date Completed	Supervisor's Signature	Apprentice's Signature
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_____	_____	_____
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U5319.14 Inspect counterweights, hydraulic devices and attachments, by checking for structural damage, loose bolts and pins, alignment, function and operation of warning gauges in accordance with manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
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_____	_____	_____
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U5319.15 Perform pre-operational cycle inspection, by raising and lowering the boom, raising and lowering the hoist, swinging the crane left and right, telescoping boom in and out, and articulating the boom to ensure that all operations function safely in accordance with manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
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_____	_____	_____
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U5319.0 CONDUCT PRE-OPERATIONAL INSPECTION -Cont'd

U5319.16 Test steering gear box, by turning the steering wheel checking for excessive play, checking tire wear, checking for loose wheel nuts and bolts, checking for axle and wheel box leaks, and damaged parts so that steering can be performed safely and efficiently, in accordance with manufacturers' recommendations and government legislation.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5319.17 Test air brake system and components, by building up drained air tanks to maximum operating pressure, and checking all low air pressure gauges, warning devices and governor cut out pressure gauges ensuring they are operational and functional, in accordance with manufacturers' recommendations and government legislation.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5319.18 Test parking and service brakes, by checking that the brake system is at maximum pressure, releasing the parking brake control valves, measuring the length of each push rod, and applying full foot valve to ensure service and parking brakes function safely and efficiently in accordance with manufacturers' recommendations and government legislation.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5319.19 Verify crane operator aids are available in the crane, by checking load charts and log book for legibility, visibility, and outstanding maintenance in accordance with company policy and the Occupational Health and Safety Act.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5319.0 CONDUCT PRE-OPERATIONAL INSPECTION -Cont'd

U5319.20 Inspect crane and operator safety devices, including load moment indicator (LMI), anti-two-block devices, boom angle indicators, drum feelers, leveling devices and other warning systems to ensure that the crane and operator safety aids are functioning in accordance with manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5319.21 Complete documentation of the crane log book, by ensuring all entries are legible, clear and concise in accordance with company procedures and the Occupational Health and Safety Act.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

Employer's Name	Employer's Signature
_____	_____

U5320.0 PREP ARE AND TRANSPORT CRANES**GENERAL PERFORMANCE OBJECTIVE**

Prepare and transport cranes by: preparing equipment for transport; inspecting the transporter; loading and securing crane and components; calculating the gross vehicle weight; and obtaining required permits.

PERFORMANCE OBJECTIVES

Supervisor's Name (print)

Apprentice's Name (print)

SKILLS

U5320.1 Prepare wheeled or crawler type cranes for transport, by removing components, boom sections and attachments, and mobilizing or demobilizing upper works, counterweights, outrigger assemblies, hooks and blocks in accordance with manufacturers' recommendations and government legislation.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5320.2 Inspect the transporter, to ensure it is positioned on firm and level ground, and that the blocking, timber, and ramps are in place to support the weight of the crane during loading, so that the crane can be loaded for transportation safely and efficiently, in accordance with company policy.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5320.0 PREPARE AND TRANSPORT CRANES -Cont'd

U5320.3 Load the crane and component parts on to transporter, by following recommended procedures which may include driving crane onto transport, dismantling the crane, hoisting and rigging crane parts on to transport, so that the crane can be loaded safely and efficiently, in accordance with manufacturers' recommendations and government legislation.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5320.4 Secure the crane and components for travel, by blocking the wheels and tracks using chains, binders or other tie down equipment, so that the crane and components do not move during travel, in accordance with manufacturers' recommendations and government legislation.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5320.5 Calculate gross vehicle weight (GVW), by using the registered GVW, number of axles, boom components and attachments, rigging hardware and road restrictions in accordance with manufacturers' recommendations, company policy and the HTA.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5320.6 Obtain and verify required permits and documentation for transport, including logbooks, flags, flashers, warning signs, and road permits in accordance with government legislation.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

Employer's Name	Employer's Signature
_____	_____

U5321.0 PLAN LIFTS**GENERAL PERFORMANCE OBJECTIVE**

Plan lifts by: reading and interpreting documentation; inspecting access to the crane site; calculating all load weights; determining crane configurations; preparing rigging; selecting the crane and attachments; and identifying a signal person, so that pre-lift planning can be conducted in an efficient manner.

PERFORMANCE OBJECTIVES

Supervisor's Name (print)

Apprentice's Name (print)

SKILLS

- U5321.1 Read and interpret documentation, including manufacturer's manuals, load charts, blue prints, engineering drawings, work site specifications, and bills of lading, to identify, select, and calculate crane, configurations and attachments, load weights, gross loads on cranes, gross capacities, working radius and hook height so that pre-lift planning can be performed efficiently.

Date Completed

Supervisor's Signature

Apprentice's Signature

- U5321.2 Inspect access to the crane site, ensuring area is compacted, graded and free from hazards including underground and overhead obstructions, and checking for adequate distances from embankments and structures so that the crane is set up at site in accordance with the Occupational Health and Safety Act, other government legislation, manufacturers' recommendations and company policy.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5321.0 PREPARE AND TRANSPORT CRANES -Cont'd

U5321.3 Calculate all load weights and gross loads, by using the manufacturers' manuals, blue prints, engineering drawings, bills of lading, load charts, calculators and other measuring devices so that lifts can be performed in a safe and efficient manner.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5321.4 Select crane configuration and attachments, required for lift, by using gross capacities chart, calculated gross loads, working radius, hook height, work site condition reports, and manufacturers' manuals so that crane and attachments are configured to perform the lift in a safe and efficient manner.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

05321.5 Prepare rigging, by determining the number of parts of line, and selecting slings and hardware so that rigging procedures can be performed safely and efficiently in accordance with rigging manuals, manufacturers' recommendations and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5321.6 Select crane and equipment, by using manufacturers' manuals, calculated rigging requirements, and crane capacity charts, in accordance with work site requirements, manufacturers' recommendations, and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5321.0 PREPARE AND TRANSPORT CRANES -Cont'd

U5321.7 Identify signal person, by communicating with work site supervisor and crew, and determining types of communication to be used, so that lifts can be performed safely and efficiently in accordance with the Occupational Health and Safety Act and company policy.

Date Completed

Supervisor's Signature

Apprentice's Signature

Employer's Name

Employer's Signature

U5322.0 ASSEMBLE AND DISMANTLE THE CRANES**GENERAL PERFORMANCE OBJECTIVE**

Assemble and dismantle rubber tired, truck mounted, conventional (friction) and hydraulic cranes by: inspecting crane site; reading and interpreting assembly and dismantling procedural manuals and government legislation; unloading the crane; assembling and dismantling lattice and hydraulic (telescopic) booms and assemblies; dismantling crane and components; and inspecting the assembled crane and components.

PERFORMANCE OBJECTIVES

Supervisor's Name (print)

Apprentice's Name (print)

SKILLS

U5322.1 Inspect the crane site, to ensure area is compacted, graded, free of hazards including electrical power lines, overhead and underground hazards, and checking for adequate distances from embankments and structures so that the crane can be set up safely and efficiently.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5322.2 Read and interpret documentation, including manufacturers' manuals, the Occupational Health and Safety Act, government regulations, job specifications and company policy to identify and determine, lattice and hydraulic (telescopic) boom crane assembly, swing clearances, crane capacity, set up and dismantling procedures so that the crane can be assembled and dismantled safely and efficiently.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5322.0 ASSEMBLE AND DISMANTLE CRANES -Cont'd

U5322.3 Unload the crane from the transport, by removing all tie down assemblies and apparatus, and ensuring blocking, timbers and ramps are adequate to support the weight of the crane during unloading operation in accordance with the Occupational Health and Safety Act, other government legislation, manufacturers recommendations and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5322.4 Assemble lattice boom assemblies, including jibs, pendants, and boom extensions, by blocking, slinging, installing jib assemblies, and locating boom sections using hammering pins, bars, keeper pins and bolts in accordance with manufacturers' recommendations, government legislation, job specifications, and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5322.5 Dismantle lattice boom assemblies, including jib and boom extensions, by positioning the crane to allow for adequate swing clearance, lowering the boom to horizontal position, blocking, and removing support pins and pendants in accordance with manufacturers' recommendations, government legislation, and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5322.6 Assemble hydraulic (telescopic) boom assemblies, including jibs, pendants, and boom extensions, by extending and setting outriggers and stabilizers, extending counterweights, blocking, slinging, lifting, installing, and locating boom sections in accordance with manufacturers' recommendations, government legislation, job specifications, and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

US322.0 ASSEMBLE AND DISMANTLE CRANES -Cont'd

U5322.7 Dismantle hydraulic (telescopic) boom assemblies, including jib and boom extensions, by lowering the boom to horizontal position, blocking, removing support pins and pendants, and allowing for adequate swing clearance in accordance with manufacturers' recommendations, government legislation, and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5322.8 Dismantle crane and components, by ensuring integrity of components in accordance with manufacturers' recommendations. .

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5322.9 Inspect assembled crane and components, including *boom*, cable reeving, counterweights, and outriggers, by checking for loose pins, locks, cable keepers, and ensuring wedges, sockets and attachments are installed in accordance with manufacturers' recommendations, the Occupational Health and Safety Act and inspection schedules.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

Employer's Name	Employer's Signature
_____	_____

U5323.0 PERFORM RIGGING**GENERAL PERFORMANCE OBJECTIVE**

Perform various rigging procedures by: reading and interpreting rigging manuals and government legislation; inspecting rigging equipment; performing various rigging and slinging techniques; and maintaining and storing rigging equipment.

PERFORMANCE OBJECTIVES

Supervisor's Name (print)

Apprentice's Name (print)

SKILLS

- U5323.1 Read and interpret documentation, including supplier, manufacturer and rigging manuals, the Occupational Health and Safety Act, and company policy to identify, calculate and determine, rigging hardware and application, sling arrangements and angles, safe working loads (SWL), safety devices, and maintenance procedures so that rigging can be performed in a safe and efficient manner.

Date Completed

Supervisor's Signature

Apprentice's Signature

- U5323.2 Inspect rigging equipment, by checking for frayed, cut, damaged and worn equipment, to ensure that rigging equipment is operational and ready for use in accordance with manufacturer and rigging manuals, the Occupational Health and Safety Act, and company policy.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5323.0 PERFORM RIGGING -Cont'd

U5323.3 Perform rigging and slinging techniques, which may include endless, eye to eye, eye to hook, multiple cables on master link to eyes to hooks, master link to master link, master link to hook, multiple chains on master link or hooks, using rigging hardware and sling arrangement types such as fibre, wire rope, alloy steel chains, shackles, saddle cable clips, eye bolts, slings, turnbuckles, come-alongs, choker hooks, spreader bars, swivels and tag lines, so that lifts can be rigged safely and efficiently, in accordance with manufacturers' and suppliers' recommendations, rigging manuals, the Occupational Health and Safety Act, other government legislation, and company policy.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5323.4 Maintain and store rigging equipment, by lubricating wire rope and chain, cleaning slings and hardware, storing equipment in dry areas away from heat and corrosive chemicals, so that equipment is maintained and stored in a safe manner, in accordance with manufacturer's and supplier's recommendations, rigging manuals, the Occupational Health and Safety Act and company policy.

Date Completed

Supervisor's Signature

Apprentice's Signature

Employer's Name**Employer's Signature**

U5324.0 SET UP CRANES**GENERAL PERFORMANCE OBJECTIVE**

Set up the crane by: inspecting crane site; verifying the gross loads, working radius, and hook height; programming the on board computer; setting the crane on blocking; extending outrigger beams; setting the pads, floats, crawlers and outriggers; setting tire clearances; leveling crane; and locking and chocking crawlers.

PERFORMANCE OBJECTIVES

Supervisor's Name (print)

Apprentice's Name (print)

SKILLS

- U5324.1 Inspect the crane site, by ensuring that the soil is compacted and graded, that there is adequate distances from embankments and structures, and the set up area is free of hazards, including electrical power lines, overhead and underground hazards, so that the crane can be set up safely and efficiently in accordance with company policy and safety regulations..

Date Completed

Supervisor's Signature

Apprentice's Signature

- U5324.2 Verify the crane gross load, working radius and hook height, by ensuring the boom configuration and length is suitable for the lift, in accordance with crane capacity charts and manufacturers' recommendations.

Date Completed

Supervisor's Signature

Apprentice's Signature

- U5324.3 Program the on board computer system, by inputting lift data including outrigger, boom and jib configurations, parts of line, reaving, and blocks so that the crane can be set up safely and efficiently in accordance with manufacturers' recommendations and company policy.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5324.0 SET UP CRANES -Cont'd

U5324.4 Set the crane on firm level blocking, by selecting and positioning the blocking in accordance with pre-site inspection reports, soil conditions, manufacturers' recommendations, the Occupational Health and Safety Act and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
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U5324.5 Extend outrigger beams, by engaging and disengaging controls to ensure that beams are operating and functioning in accordance with manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
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U5324.6 Set the pads, floats, crawlers and outriggers, to provide support during the crane operation, by following recommended procedures in accordance with pre-site inspection reports and manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
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U5324.7 Set the correct tire clearance, for crane operation, by raising or lowering the hydraulic jacks in accordance with manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
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U5324.8 Level the crane, by raising or lowering the outrigger jacks, and blocking, using a leveling device, in accordance with manufacturers' recommendations and the Occupational Health and Safety Act.

Date Completed	Supervisor's Signature	Apprentice's Signature
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U5324.0 SET UP CRANES -Cont'd

U5324.9 Lock and chock crawlers, to ensure against movement during lifting operations, by following recommended procedures, in accordance with safe working practices and manufacturers' recommendations.

Date Completed

Supervisor's Signature

Apprentice's Signature

Employer's Name

Employer's Signature

U5325.0 OPERATE HYDRAULIC CRANES**GENERAL PERFORMANCE OBJECTIVE**

Operate hydraulic cranes by: starting the engine(s); verifying weight loads and crane capacities; performing various hoisting operations; performing specialty lifts and operations; performing picking and carrying operations; operating a crane equipped with a personnel bucket; and driving equipment on work site or public highways.

PERFORMANCE OBJECTIVES

Supervisor's Name (print)

Apprentice's Name (print)

SKILLS

- U5325.1 Starting engine(s), by cranking starter, allowing adequate time for warm up of the engine and components, bringing air and oil pressure to correct operating levels, using required tools and equipment including glow plugs, ether injection systems, aerosols and block heaters, in accordance with manufacturer's recommendations and company policy.

Date Completed

Supervisor's Signature

Apprentice's Signature

- U5325.2 Verify weight of load, by examining the markings on the load, reviewing information from weigh bills or bills of lading, drawings, load weighing devices or load moment indicators (LMIs), charts and calculations so that load weight is verified and can be lifted safely within the crane rated capacity.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5325.0 OPERATE HYDRAULIC CRANES -Cont'd

U5325.3 Verify crane capacity calculations, for boom and boom/jib configurations and lengths, operating quadrants, working radii and job site conditions to operate crane safely and efficiently in accordance with manufacturers' rated capacities.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5325.4 Raise and lower hook, with a load, by engaging and disengaging crane levers and controls so that the load is raised and lowered safely and efficiently in accordance with manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5325.5 Raise and lower boom, with a load, by engaging and disengaging crane levers and controls so that the boom is raised and lowered safely and efficiently in accordance with manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5325.0 OPERATE HYDRAULIC CRANES -Cont'd

U5325.6 Extend and retract telescopic boom sections, with a load, by engaging and disengaging crane levers and controls so that the boom sections are extended and retracted safely and efficiently in accordance with manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5325.7 Swing crane, with a load, by engaging moving levers, releasing the swing brake and stopping the crane so that the swing is performed in a safe and efficient manner in accordance with the manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5325.8 Swing, boom, and hoist loads simultaneously, by using co-ordinated motions, ensuring smooth load and crane movement, while maintaining control of the load, so that lifts are performed in a safe and efficient manner in accordance with manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5325.9 Perform specialty lifts and operations, including multiple crane, precision, heavy and production lifts, by raising and lowering hoist, swinging the crane, raising and lowering the hook, boom and boom|jib|boom extension combinations, telescoping and articulating booms, communicating with work site crew, and identifying a signal person so that specialty lifts can be performed in a safe and efficient manner in accordance with manufacturers' recommendations, the Occupational Health and Safety Act, other government legislation, work site requirements, and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

5325.0 OPERATE HYDRAULIC CRANES -Cont'd

US32S.IO Perform pick and carry operations, by securing the load using taglines, keeping the load close to the ground and the boom as short as possible, determining ground is firm and level for travel, engaging houseslock and swingbrake, extending outrigger with jacks, and engaging axle lockouts in accordance with manufacturers' recommendations, the Occupational Health and Safety Act, other government legislation, work site specifications, and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

US32S.11 Operate a crane equipped with a personnel bucket, by following required procedures including reading and interpreting engineered drawings and an engineered rated load charts in accordance with the Occupational Health and Safety Act.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

US32S.12 Drive the crane carrier on work site or public highways, by ensuring required permits are obtained, complying with laws and regulations, and operating equipment in accordance with manufacturers' recommendations, the Highway Traffic Act, work site requirements and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

Employer's Name	Employer's Signature
_____	_____

U5326.0 OPERATE CONVENTIONAL FRICTION CRANES**GENERAL PERFORMANCE OBJECTIVE**

Operate conventional friction cranes by: starting the engine(s); verifying weight loads and crane capacities; performing various hoisting operations; performing specialty lifts and operations; performing picking and carrying operations; operating a crane equipped with a personnel bucket; and driving equipment on work site or public highways.

PERFORMANCE OBJECTIVES

Supervisor's Name (print)

Apprentice's Name (print)

SKILLS

U5326.1 Start engine(s), by cranking starter, allowing adequate time for warm up of the engine and components, bringing air and oil pressure to correct operating levels, using required tools and equipment including glow plugs, ether injection systems, aerosols and block heaters in accordance with manufacturers' recommendations and company policy.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5326.2 Verify weight of load, by examining the markings on the load, reviewing information from weigh bills or bills of lading, drawings, load weighing devices or load moment indicators (LMIs), charts and calculations so that load weight is verified and can be lifted safely within the crane rated capacity.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5326.0 OPERATE CONVENTIONAL FRICTION CRANES -Cont'd

U5326.3 Verify crane capacity calculations, for boom and boom/jib configurations and lengths, operating quadrants, working radii and job site conditions so that the crane and attachment can be configured in a safe and efficient manner in accordance with manufacturers' rated capacities.

Date Completed	Supervisor's Signature	Apprentice's Signature
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U5326.4 Raise and lower the hook, with a load, by following recommended procedures which may include engaging the hoist lever to the power up position, engaging the clutch, releasing the brake, applying the throttle to raise the load, and disengaging the hoist lever, to the power down position and releasing the brake, so that the hook can be lowered in a safe and efficient manner in accordance with manufacturers' recommendations and safe working practices.

Date Completed	Supervisor's Signature	Apprentice's Signature
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_____	_____	_____
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U5326.5 Raise and lower boom, with a load, by following recommended procedures which may include releasing the boom pawl, engaging the raising and lowering clutch, so that the boom can be raised or lowered in a safe and efficient manner in accordance with manufacturers' recommendations and safe working practices.

Date Completed	Supervisor's Signature	Apprentice's Signature
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_____	_____	_____
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U5326.6 Swing the crane, with a load, by following recommended procedures which may include releasing the swing brake and house lock, engaging the swing clutch, and stopping the crane so that the swing is performed in a safe and efficient manner in accordance with manufacturers' recommendations and safe working practices.

Date Completed	Supervisor's Signature	Apprentice's Signature
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_____	_____	_____
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U5326.0 OPERATE CONVENTIONAL FRICTION CRANES -Cont'd

U5326.7 Swing, boom and hoist loads simultaneously, by using co-ordinated motions, ensuring smooth load and crane movement, while maintaining control of the load, so that lifts are performed in a safe and efficient manner in accordance with manufacturers' recommendations.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5326.8 Travel a conventional crawler friction crane, by following recommended procedures which may include, releasing the travel brake, engaging the travel clutch, and steering the crane so that the crane can be traveled in a safe and efficient manner in accordance with manufacturers' recommendations and safe working practices.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5326.9 Perform specialty lifts and operations, including multiple crane, precision, heavy and production lifts, by raising and lowering hoist with hook loaded and unloaded, swinging the crane, raising and lowering boom and *boom/jibboom* extension combinations, telescoping and articulating booms, communicating with work site crew, and identifying a signal person so that specialty lifts can be performed in a safe and efficient manner in accordance with manufacturers' recommendations, the Occupational Health and Safety Act, other government legislation, work site requirements, and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5326.10 Operate a crane equipped with a personnel bucket, by following required procedures including reading and interpreting engineered drawings and an engineered rated load charts in accordance with the Occupational Health and Safety Act.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5326.0 OPERATE CONVENTIONAL FRICTION CRANES -Cont'd

U5326.11 Perform pick and carry operations, by securing the load using taglines, keeping the load close to the ground and the boom as short as possible, determining ground is firm and level for travel, engaging houselock and swingbrake, extending outrigger with jacks, and engaging axle lockouts in accordance with manufacturers' recommendations, the Occupational Health and Safety Act, other government legislation, work site specifications, and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5326.12 Drive the crane carrier on work site or public highways, by ensuring required permits are obtained, complying with laws and regulations, and operating equipment in accordance with manufacturer' recommendations, Highway Traffic Act, work site requirements and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

Employer's Name	Employer's Signature
_____	_____

U5327.0 MAINTAIN CRANES**GENERAL PERFORMANCE OBJECTIVE**

Maintain cranes by: reading and interpreting maintenance manuals, schedules, and regulations; lubricating crane and components; performing general maintenance on engines, batteries, tires and wheels, hydraulic, and electrical systems and components; and recording results **in** crane log book.

PERFORMANCE OBJECTIVES

Supervisor's Name (print)

Apprentice's Name (print)

SKILLS

U5327.1 Read and interpret documentation, including manufacturer's manuals, operations and maintenance log book, Construction Safety Association manuals, Occupational Health and Safety Act, WHMIS, and company policy to identify, determine and select, approved replacement components, safe and recommended maintenance procedures, types and methods for lubrication, and required tools, so that crane maintenance can be performed safely and efficiently.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5327.2 Lubricate the crane and components, including wire rope, grease fittings, sheaves, turntable, lower track and drive line assemblies, machinery gears and bearings, by using hand operated grease guns and oilers, pneumatic pressurized tools, wrenches and strainers in accordance with manufacturers' recommendations, the Occupational Health and Safety Act and company policy.

Date Completed

Supervisor's Signature

Apprentice's Signature

U5327.0 MAINTAIN CRANES-Cont'd

U5327.3 Maintain engine and components, including brakes, clutches, air and coolant systems, by performing recommended maintenance procedures which may include, cleaning or replacing hoses and filters, replacing oil, coolant and battery fluids, and replacing machinery guards and covers, in accordance with manufacturers' recommendations and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5327.4 Maintain battery and components, by checking fluid levels, cleaning and tightening terminals, replacing damaged cables, conducting hydrometer and load cell tests, and maintaining battery hold down assembly, in accordance with manufacturers' recommendations and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5327.5 Maintain tires and wheels, by keeping tires inflated to correct pressure, tightening wheel lugs, removing debris between tires, and inspecting tires for abnormal wear, cuts, abrasions and other visible damage, in accordance with manufacturers' recommendations and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5327.0 MAINTAIN CRANES-Cont'd

U5327.6 Maintain hydraulic system and components, by following required maintenance procedures which may include checking hydraulic oil levels, replacing oil, filters, damaged hydraulic lines, hoses and fittings, and tightening line and hose connections in accordance with manufacturers' recommendations and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5327.7 Maintain electrical system and components, by following required maintenance procedures which may include, cleaning and securing contacts, replacing damaged wiring, fuses and bulbs, and checking gauges, heaters and fans in accordance with manufacturers' recommendations and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

U5327.8 Record maintenance procedures, by completing the crane log book concisely, completely, and legibly in accordance with the Occupational Health and Safety Act and company policy.

Date Completed	Supervisor's Signature	Apprentice's Signature
_____	_____	_____

Employer's Name	Employer's Signature
_____	_____

**AREAS OF
COMPETENCY**



**COMPETENCY ANALYSIS PROFILE
MOBILE CRANE OPERATOR BRANCH 1**



PROTECT SELF AND OTHERS U5318.0	Wear and maintain personal protective clothing and equipment. U5318.1	Maintain a safe work environment. U5318.2	Perform recommended fire safety procedure U5318.3	Operate the crane safely. U5318.4	Operate crane safely near high voltage equipment. U5318.5
	Report crane contact with high voltage. U5318.6	Perform emergency exit procedures. U5318.7	Communicate with other workers and tradesperson. U5318.8	Service machinery guards and covers. U5318.9	Secure an unattended crane for short periods. U5318.10
	Secure an unattended crane for short periods. U5318.11				
CONDUCT PRE- OPERATIONAL INSPECTION U5319.0	Read and interpret manufacturers' manuals and government legislation U5319.1	Perform an engine off inspection of the crane and components U5319.2	Perform an engine start up inspection. U5319.3	Perform an engine on inspection of the crane and components. U5319.4	Perform an engine on function test of the carrier and components. U5319.5
	Perform a function test of the outrigger and stabilizer assemblies. U5319.6	Inspect the swing bearing and turntable U5319.7	Inspect telescopic sections of hydraulic boom. U5319.8	Test the telescopic section of the hydraulic devices and attachment. U5319.9	Inspect wire rope assemblies and components. U5319.10
	Inspect wire rope U5319.11	Inspect the hydraulic boom and components. U5319.12	Inspect the lattice boom and components. U5319.13	Inspect counter-weights hydraulic devices and attachments. U5319.14	Perform pre-operational cycle inspection. U5319.15
	Test steering gear box. U5319.16	Test air brake system and components. U5319.17	Test parking and service brakes. U5319.18	Verify crane operator aids are available in the crane. U5319.19	Inspect crane and operator safety devices U5319.20

AREAS OF COMPETENCY



**COMPETENCY ANALYSIS PROFILE
MOBILE CRANE OPERATOR BRANCH 1**



CONDUCT PRE-OPERATIONAL INSPECTION Cont'd U5319.0	Complete documentation of the crane log books U5319.21				
PREPARE AND TRANSPORT CRANES U5320.0	Prepare wheeled or crawler type cranes for transport. U5320.1	Inspect the transporter. U5320.2	Load the crane and component parts on to transporter. U5320.3	Secure the crane and components for travel. U5320.4	Calculate gross vehicle weight(GVV). U5320.5
	Obtain and verify required permits and document for transport U5320.6				
PLAN LIFTS U5321.0	Read and interpret documentation. U5321.1	Inspect access to the crane file. U5321.2	Calculate all load weights and gross loads. U5321.3	Select crane configuration and attachments. U5321.4	Prepare rigging. U5321.5
	Select crane and equipment. U5321.6	Identify signal person. U5321.7			
ASSEMBLE AND DISMANTLE THE CRANES U5322.0	Inspect the crane site U5322.1	Read and interpret documentation U5322.2	Unload the crane from the transport. U5322.3	Assemble lattice boom assemblies. U5322.4	Dismantle lattice boom assemblies U5322.5
	Assemble hydraulic (telescopic) boom assemblies U5322.6	Dismantle hydraulic(telescopic) boom assemblies. U5322.7	Dismantle crane and components. U5322.8	Inspect assembled crane and components. U5322.9	

**AREAS OF
COMPETENCY**



**COMPETENCY ANALYSIS PROFILE
MOBILE CRANE OPERATOR BRANCH 1**



PERFORM RIGGING U5323.0	Read and interpret documentation U5323.1	Inspect rigging equipment U5323.2	Perform rigging and slinging techniques U5323.3	Maintain and store rigging equipment U5323.4		
	SET UP CRANES U5324.0	Inspect the crane site. U5324.1	Verify the crane gross load, working radius and hook height U5324.2	Program the on board computer system. U5324.3	Set the crane on firm level blocking U5324.4	Extend outrigger beams. U5324.5
		Set the pads, floats, crawlers and outriggers. U5324.6	Set the correct tire clearance. U5324.7	Level the crane. U5324.8	Lock and chock crawlers U5324.9	
		OPERATE HYDRAULIC CRANES U5325.0	Starting engine(s) U5325.1	Verify weight of load U5325.2	Verify crane capacity calculations U5325.3	Raise and lower hook. U5325.4
Extend and retract telescopic boom. U5325.6	Swing crane U5325.7		Swing, boom, and hoist load simultaneously. U5325.8	Perform specialty lifts and operations. U5325.9	Perform pick and carry operations U5325.10	
Operate a crane equipped with personnel bucket. U5325.11	Drive the crane carrier on work site or public highway. U5325.12					

**AREAS OF
COMPETENCY**



**COMPETENCY ANALYSIS PROFILE
MOBILE CRANE OPERATOR BRANCH 1**



OPERATE CONVENTIONAL FRICTION CRANES U5326.0	Start engine(s) U5326.1	Verify weight of load U5326.2	Verify crane capacity calculation U5326.3	Raise and lower the hook U5326.4	Raise and lower the boom U5326.5
	Swing the crane U5326.6	Swing boom and hoist loads simultaneously U5326.7	Travel a conventional crawler friction crane. U5326.8	Perform specialty lifts and operations U5326.9	Operate a crane equipped with a personnel bucket. U5326.10
	Perform pick and carry operations U5326.11	Drive the crane carrier on work site or public highways U5326.12			
MAINTAIN CRANES U5327.0	Read and interpret documentation U5327.1	Lubricate the crane and components U5327.2	Maintain engine and components. U5327.3	Maintain battery and components U5327.4	Maintain tires and wheels U5327.5
	Maintain hydraulic system and components. U5327.6	Maintain electrical system and components. U5327.7	Read maintenance procedures. U5327.8		