

## CRANE OPERATOR COMPETENCIES

### Folding Boom Truck Crane - 22 Tonnes & Under

K: Indicates that it is a theory competency (knowledge of the crane operator)

W: Indicates that it is a workplace competency (an activity an operator performs)

#### 1. Safety (CS)

- |     |  |                          |
|-----|--|--------------------------|
| 1.1 | Demonstrate knowledge of safe working practices for crane operators (K)    | <input type="checkbox"/> |
| 1.4 | Demonstrate knowledge of power line hazards and high voltage equipment (K) | <input type="checkbox"/> |
| 1.5 | Comply with WorkSafe BC and OH&S regulations (W)                           | <input type="checkbox"/> |

#### 2. Communications (CCOM)

- |     |  |                          |
|-----|--|--------------------------|
| 2.1 | Demonstrate knowledge of personnel involved in crane operations (K)              | <input type="checkbox"/> |
| 2.2 | Demonstrate knowledge of hand signals (K)  | <input type="checkbox"/> |
| 2.3 | Demonstrate knowledge of radio communications (K)                                | <input type="checkbox"/> |
| 2.4 | Demonstrate knowledge of workplace communications (K)                            | <input type="checkbox"/> |
| 2.5 | Use hand signals in the workplace (W)  | <input type="checkbox"/> |
| 2.6 | Use radio communications in the workplace (W)                                    | <input type="checkbox"/> |
| 2.7 | Communicate information clearly and check for understanding in the workplace (W) | <input type="checkbox"/> |

#### 3. Cranes (CC)

- |     |  |                          |
|-----|--|--------------------------|
| 3.1 | Demonstrate knowledge of types of cranes and classifications (K)   | <input type="checkbox"/> |
| 3.3 | Demonstrate knowledge of terminology related to craning and craning concepts (K)                                 | <input type="checkbox"/> |
| 3.6 | Demonstrate knowledge of hoisting terminology, functions and systems (K)   | <input type="checkbox"/> |
| 3.7 | Demonstrate knowledge of regulatory requirements pertaining to cranes (K)  | <input type="checkbox"/> |
| 3.6 | Demonstrate knowledge of components and attachments for boom trucks with folding booms 22 tonnes and under (K)   | <input type="checkbox"/> |
| 3.7 | Demonstrate knowledge of engines and ancillary systems on boom trucks with folding booms 22 tonnes and under (K) | <input type="checkbox"/> |
| 3.8 | Demonstrate knowledge of power transfer for boom trucks with folding booms 22 tonnes and under (K)               | <input type="checkbox"/> |

**4. Rigging (CR)**

- 4.1 Demonstrate knowledge of lifting theory and forces (K)
- 4.2 Demonstrate knowledge of rigging hardware, materials, tools and manuals (K)
- 4.3 Demonstrate knowledge of types and function of wire rope and chains (K)
- 4.4 Demonstrate knowledge of installation, inspection and storage of wire rope (K)
- 4.5 Demonstrate knowledge of rigging techniques (K)
- 4.6 Use rigging hardware and tools in the workplace (W)

**5. Load Charts (CLC)**

- 5.1 Demonstrate knowledge of determining weight loads using fundamental math functions and calculations (K)
- 5.2 Demonstrate knowledge of loading and lifting (K)
- 5.3 Interpret load charts and load study drawings to configure crane for workplace operation (W)

**6. Transportation & Delivery (ATD)**

- 6.1 Demonstrate knowledge of BC Ministry of Transportation - Commercial Transport rules and regulations as they pertain to transportation of cranes (K)
- 6.2 Demonstrate knowledge to prepare and to transport a mobile crane (K)
- 6.3 Demonstrate knowledge of to assemble and disassemble a crane at a worksite (K)
- 6.4 Prepare and transport a mobile crane to a worksite following all highway and traffic rules and regulations (W)
- 6.5 Assemble and disassemble a crane at a worksite (W)
- 6.6 Demonstrate knowledge of BC Ministry of Transportation – Commercial Transport rules and regulations as they pertain to driving of boom trucks with folding booms 22 tonnes and under (K)
- 6.7 Demonstrate knowledge to prepare a boom truck with folding boom 22 tonnes and under for highway / road travel (K)

**7. Site Planning & Crane Positioning (ASPCP)**

- 7.1 Demonstrate knowledge of accurate site assessment tools (K)
- 7.2 Demonstrate knowledge to locate and safely position crane (K)
- 7.3 Conduct an accurate site assessment and safely position a crane in the workplace (W)
- 7.4 Demonstrate knowledge to locate and safely position a boom truck with folding boom 22 tonnes and under using site assessment tools (K)
- 7.5 Conduct an accurate site assessment and safely position a boom truck with folding boom 22 tonnes and under in the workplace (W)

**8. Crane Operations (CO)**

- 8.1 Demonstrate knowledge of pre-operational requirements in crane operations (K)
- 8.4 Demonstrate crane set-up per manufacturer’s instructions (except Task 4 in Mobile) (W)
- 8.7 Demonstrate knowledge of operating a boom truck with folding boom 22 tonnes and under (K)
- 8.8 Operate a boom truck with folding boom 22 tonnes and under to safely lift and place loads in a workplace (W)

**9. Maintenance & Service (CMS)**

- 9.7 Maintain an equipment logbook to retain a permanent written record of maintenance and repairs (W)
- 9.8 Demonstrate knowledge of inspecting engines, monitoring devices and hydraulic systems on boom trucks with folding booms 22 tonnes and under (K)
- 9.9 Demonstrate knowledge of servicing and maintenance procedures on boom trucks with folding booms 22 tonnes and under (K)
- 9.10 Complete maintenance checklists (engine on / engine off) and maintain engines on a boom truck with folding boom 22 tonnes and under to manufacturer’s specifications (W)
- 9.11 Perform routine inspections and maintenance of hydraulic systems on a boom truck with folding boom 22 tonnes and under (W)
- 9.12 Inspect monitoring devices and control mechanisms on a boom truck with folding boom 22 tonnes and under (W)