

EXAMINATION REFERENCE SYLLABUS

FOR THE

CERTIFICATE OF QUALIFICATIONS

MOBILE CRANE AND

BOOM TRUCK OPERATORS

CLASS “A” AND “B”

**EXAMINATION REFERENCE SYLLABUS
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MOBILE CRANE AND BOOM TRUCK**

GENERAL INFORMATION

Introduction:

This Syllabus is intended to assist candidates studying for the Mobile Crane and Boom Truck Operators Certificate Examination. The requirements to qualify are outlined in an Act Respecting Crane Operators and Power Engineers.

Suggested Study Material

Safety Code for Mobile Cranes
CSA-Z150
Canadian Standards Association
178 Rexdale Boulevard
Rexdale, ON M9W 1R3
Phone: (800) 463-6727
Fax: (416) 747-4149

IPT's Crane and Rigging Handbook
Mobile-EOT-Tower Cranes
by Ronald G. Garby
IPT Publishing and Training Ltd.
P.O. Box 9590
Edmonton, AL T6E 5X2
Phone: (888) 808-6763 or (403)962-4819

Mobile Crane Manual
Construction Safety Association of Ontario
21 Voyager Court South
South Etobicoke, ON M9W 5M7
Phone: (800)781-2726

Rigging Manual
Construction Safety Association of Ontario
21 Voyager Court South
South Etobicoke, ON M9W 5M7
Phone: (800)781-2726

Hoisting and Rigging Safety Manuel
Construction Safety Association of Ontario
21 Voyager Court South
South Etobicoke, ON M9W 5M7
Phone: (800)781-2726

Slings
Construction Safety Association of Ontario
21 Voyager Court South
South Etobicoke, ON M9W 5M7
Phone: (800)781-2726

Mobile Craning Today
International Union of Operating Engineering,
Local 793
P.O. Box 636
Morrisburg, ON K0C 1X0
Phone: (613) 543-2911

The American Society of Mechanical
Engineers (ASME)
ASME B30.22 Articulating Boom Crane
Three Park Avenue
New York, NY 10016-5990
Phone: (800)843-2763

Application to Undertake Examination:

A candidate must submit an application and the prescribed fee at least thirty (30) days before the date of examination as shown on the examination schedule.

Examination Instructions:

The examination consists of two papers, each of 3 hours duration.

The candidate is allowed to bring the following items into the examination room:

1. The jurisdictional Act and the applicable Regulations.
2. Non-programmable calculator and drawing instruments.

*** The candidate must show picture I.D. at the examination.**

3 HOUR TIME LIMIT - PART “A”

MORNING PAPER

Determining Crane capacities and how they are effected by:

- ground conditions
- with or without outriggers
- lifting over side, rear or front
- effects of wind
- riggings and tackle combinations
- counter weights
- Boom lengths and angles
- radius of operation
- jibs, straight or offset
- structured strength and stability
- pendulum effect on loads (i.e.) clamshells, concrete buckets, etc.

3 HOUR TIME LIMIT - PART “B”

AFTERNOON PAPER

Equipment Requirements:

- knowledge of codes
- construction of cabs and control stations
- guards and protective structures
- arrangement and action of operating controls
- drum and brake assemblies
- sizing and construction of ropes and rigging
- outriggers
- safety features

Inspections:

- daily
- monthly
- annually
- repairs, who can repair and approval
- removal and replacement of booms and jibs

Operating Procedures:

- pre-operation inspections
- factors affecting capacity
- rigging the load
- electric hazards
- lifting with more than one crane
- signals
- unattended machines
- transporting the machine
- care and maintenance of ropes, rigging, drums, brakes, and drive mechanisms

