

MOBILE CRANE SETUP

Punch-through, short-rig, tail swing, overhead lines, wrong chart.

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THE JOB

Putting a mobile crane or boom truck on the ground the chart requires. Method: PROVEN-SWP-001, 021, 022. 14.2(5) CSA Z150-1998 or ASME B30.5-2004 or B30.22-2005.

WHO IS EXPOSED

Operator
Oiler / second
People in the jack line or tail-swing arc
Anyone under a boom being raised into lines

A JHA names what can hurt someone and how that risk is controlled. It is not the procedure. Do the work to the matching SWP.

HAZARDS AND RISK

Task is the work being analysed. Controls follow eliminate, substitute, engineer, administer, PPE last. Extreme is the killer with no recovery. High is serious injury or a dropped load you still have a chance to stop.

TASK	HAZARD	LEVEL	RISK	CONTROL
Confirm the machine	Counterweight, boom, software or tyres not as assigned	HIGH	Chart does not apply. Overload without an alarm that matches reality. 14.2, 14.12.	Serial, configuration and chart are the same machine. Manufacturer instructions in the cab.
Walk the pad	Backfill, vaults, slope, buried services, other cranes	EXTREME	Punch-through, overturn, contact with a main. High severity.	Look and ask. Locates. Engineer when the surface is a guess. Mats spread load - they do not invent bearing.
Outriggers and mats	Short-rig without that chart; undersized cribbing; people in the jack line	EXTREME	Overturn. Crush beside a jack. 14.2 to the manufacturer.	Fully extended unless the short-rig chart is in the cab and in use. People clear while jacking. Level within manufacturer limit.
Swing and lines	Tail swing, boom into plant, overhead electrical	EXTREME	Struck-by, arc, step potential. 14.40, 14.52.1.	Swing check before the hook. MAD as a wall. Spotter when the boom can encroach.
Inspect, then lift	Defect that affects lifting, skipped pre-use	MODERATE	Function failure on the first pick. 14.35.	Pre-use this shift, this configuration. Lifting defects: crane down.

RESIDUAL RISK

Ground that looked competent can still give on the first load. Residual is settlement and a crane that is no longer the crane on the chart. Held by mats sized for the reaction, a level check, and treating the first load as a test of the pad. 14.11 support structure. 14.35 pre-use.

THE JOB DOES NOT PROCEED IF

Wrong configuration for the chart in the cab
Ground will not hold the reaction
Outriggers not in the charted position
Overhead lines inside MAD

PPE - LAST LINE

Hard hat
CSA-grade footwear
High-visibility clothing
Eye protection
Task-rated gloves
Hearing protection where required
Fall protection where the work exposes a fall

MATCHING SWP

SWP - MOBILE CRANE SETUP -> <https://sin.ae.org/safety/swp/mobile-crane-setup>

REFERENCES

Workers Compensation Act s. 21(2)(b) - workers made aware of known or reasonably foreseeable hazards
Workers Compensation Act s. 21(2)(e) - information, instruction, training and supervision
OHS Regulation B.C. Reg. 296/97 (in force 15 Apr 1998) Part 3 - program, instruction, inspections (ss. 3.1-3.12)
CCOHS Job Safety Analysis - JSA and JHA are the same method: break the job, name the hazards, select controls
Workers Compensation Act s. 21 - known or reasonably foreseeable hazards; instruction and supervision
OHS Regulation (B.C. Reg. 296/97, in force 15 Apr 1998) Part 3 - OHS program, instruction, inspections
OHS Regulation Part 4 s. 4.13 - risk assessment where rescue or evacuation may arise
OHS Regulation Part 8 - PPE; headwear CSA Z94.1-05 or Z94.1-15
OHS Regulation Part 11 - fall protection
OHS Regulation Part 14 - Cranes and Hoists
14.2(5) - CSA Z150-1998, or ASME B30.5-2004, or ASME B30.22-2005 (articulating boom)
14.2(6) - CSA Z248-2004 for tower, hammerhead and self-erecting tower cranes
14.35 pre-use inspection 14.36 load weight 14.42.1 critical lift 14.44 loads over work areas 14.45 unattended loads
14.47-14.49 signals
OHS Regulation Part 15 - Rigging
Manufacturer load chart, manual and configuration limits
Site lift plan, FLHA and site rules where stricter