

Safe Work Practice SWP 44

Revised: March 2023 MECHANICAL MOBILE EQUIPMENT OPERATIONS

PURPOSE/APPLICATION

Mechanical mobile equipment must be operated in a way that is in accordance with client and company rules, local laws, Provincial Highways Act, OHS and TDG regulations.

Workers new to a piece of equipment must be given on the job training (review of manufacturer's manual, equipment blind spots, load charts/limits, etc.). This training will be verified using the appropriate Canadian Plain Energy Services (CPES) Competency Assessment by the Site Supervisor or their designate. In some instances, depending on the equipment (telehandler, AWP, aerial lift platforms, bulldozers, backhoes, tracked excavators, cranes, etc.) and according to applicable legislation, workers will require formal classroom training prior to use. Check with your Manager or HSE Representative for more information.

PPE

- As per location and CPES's minimum requirements
- Fall protection for work at heights (e.g. AWP)

TRAINING

Operator training/competency reviews

HAZARDS & CONCERNS

- Motion (equipment damage)
- Equipment collisions
- Congested work areas
- Personal injury (worker struck by equipment)
- Electrical
- Traffic
- Uneven ground
- Noise













PRECAUTIONS

THE DO's

- **DO** Provide workers access to operator's manual for power equipment.
- **DO** Understand the controls and safe operation of the equipment prior to use.
- **DO** Report to the employer any conditions affecting the safe operation of the equipment.
- **DO** Keep the cabs of powered mobile equipment free of objects that could interfere with the operation.
- **DO** Use seatbelts on all mobile powered equipment where equipped.
- **DO** have only workers deemed competent by the CPES Supervisor operate the mobile equipment.
- **DO** Ensure operator does not leave the controls unless the equipment is secured/locked out against unintentional movement.
- **DO** Maintain full control of the equipment at all times and operate the equipment in a safe manner.
- **DO** Verify an internal combustion engine in hazardous locations must have a combustion air intake and exhaust discharge that are equipped with a flame arresting device, remain located outside the hazardous location, or include a risk mitigation plan (hot work permits, continuous monitoring, etc.).
- **DO** Verify back-up alarm, sensors and/or camera are in working condition (where equipped).
- **DO** Whenever possible, plan the work to allow for drive-through operations, reducing the need for vehicles to backup.
- **DO** Reduce foot traffic in areas where mobile equipment is working, equipment to be given the right of way by workers.
- **DO** Establish designated travel routes, parking areas, and distinguish from work areas.
 - Where you have heavy traffic a signal person or traffic spotter should be designated to control traffic movement at the site.
 - Workers on foot should also be trained to recognize driver blind spots and avoid entering these
 areas, this would include the arc of a swinging load for a part of a unit of powered mobile



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equipment.

- **DO** Ensure that the powered mobile equipment is equipped with a suitable cab, screen, or guard to protect the operator from falling objects or projectiles.
- **DO** Verify that all lifting equipment has a load rating chart available to the operator.
- **DO** Verify equipment with lifting booms have valid boom certifications when applicable to the machine.
- **DO** Assign and utilize a spotter when backing or moving equipment in congested areas as per CPES's spotting SWP.
- **DO** Review hand signals with the spotters and operators, and discuss the path of travel prior to moving equipment on site.
- **DO** Stop the equipment when foot traffic is required to pass. When tracked excavators and backhoe are being used, the bucket will be placed on the ground to allow safe passing.
- **DO** Avoid approaching equipment prior to being given the signal to approach by the equipment operator or spotter.
- **DO** Use outriggers when equipped where appropriate. It is recommended to use ground pads as much as practicable.
- **DO** Inspect the ground conditions prior to using the riggers to confirm the stability of the ground will support the weight.
- **DO** Perform all towing of equipment or vehicles in accordance with CPES's towing procedure.
- **DO** Communicate blind spots to all workers on taglines; verify workers stay in site of the operator.
- **DO** Face the direction you are moving to evaluate the ground conditions especially after material has been moved.
- DO Complete an assessment of the area and confirm a visual of the ground conditions. If you are unsure about the ground conditions, get out of the equipment and walk the area (where it is safe to do so).
- **DO** Keep bucket close to the ground to prevent the equipment from tipping if it enters a soft spot.
- **DO** Conduct regular inspections and/or re-certifications to ensure the equipment is in safe operating condition
- **DO** Maintained equipment according to the manufacturer's instructions

THE DON'Ts

- **DON'T** Smoke within 7.5 meters of a vehicle/equipment while it is being refueled or refuel a vehicle when there is a source of ignition within 7.5 meters of that vehicle.
- **DON'T** Use equipment for any use other than intended.
- **DON'T** Modify, adjust, or tamper with equipment or attachments outside of manufacturer's specifications.
- **DON'T** Ride on any part of a piece of equipment other than where designed.
- **DON'T** Operate damaged or compromised equipment, report defects to your supervisor immediately.
- **DON'T** Lift material which may exceed the capacity of the equipment, if you think the load may exceed the capacity of the equipment or are not sure check with your supervisor.
- **DON'T** Lift on uneven or unstable ground, make sure loose loads are secured against falling or rolling
- **DON'T** Leave equipment running unattended.
- **DON'T** Operate equipment if workers are standing in proximity of the equipment.
- **DON'T** Move loads with a forklift if the load projects either above the fork carrier or backrest by more than half the height of the load.

Pre-Use Inspections

- Before operating any powered mobile equipment, the operator must complete a visual inspection of the equipment and the surrounding area to ensure that the equipment is in a safe operating condition.
- Powered mobile equipment must be inspected by a competent worker prior to use including checking all fluid levels (e.g., Hydraulic, oil, antifreeze, etc.)
- Tire and wheel assembly inspection and repair will be completed in accordance with manufacturer's specifications.

Track Hoe



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- Operator must complete a visual inspection of bucket pins and quick attach bolts for tightness.
- Ensure the stick and bucket joints are greased on a regular basis.
- Check tracks for proper tightness as per manufactures recommendations.

Side Boom

 Operator to check all boom components including draw works, pins, and cables daily (prior to use) and document accordingly.

Maintenance and Inspection of Vehicles

CPES HSEMS Section 21.13 identifies the requirements for inspection and maintenance of vehicles and equipment.

Maintenance and Record Keeping

- If an inspection identifies a defect and/or at-risk condition, repairs and/or mitigation of condition shall be completed as soon as reasonably practicable.
- If a defect is determined to be critical and could impact safe operation, equipment shall not be operated until the defect and/or at-risk condition has been repaired and/or corrected.
- Records of the inspections and maintenance carried out on powered mobile equipment are to be kept at the work site or in the electronic system and readily available to operators.

REFERENCES / ADDITIONAL INFORMATION

SWP-34 Cranes, Hoists and Lifting Devices

SWP-75 Vehicle and Equipment Spotting

SWP-04 Cargo Securement and Trailer Use

SJP-19 Towing

Equipment/Vehicle Inspection forms:

CF-S-18 - Daily Pre-Start Inspections

CF-S-30 - Competency Checklist(s)

CF-S-47 - Vehicle Pre-Trip Inspection

REGULATIONS

Alberta OHS Code

Part 19 Powered Mobile Equipment

Saskatchewan OHS Regulation

PART 11 Powered Mobile Equipment

British Columbia OHS Regulation

Part 16 Mobile Equipment

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