

STANDARD OPERATING PROCEDURE

Removal and Installation of Tires Using a Picker Truck

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REMOVAL AND INSTALLATION OF TIRES USING A PICKER TRUCK

						
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The following is a step-by-step procedure on how to complete a specific task or meet a facility specific requirement. Standard Operating Procedures (SOPs) are written for all identified critical tasks. By virtue of the hazard or complexity associated with critical tasks it is paramount that the SOP be followed as written. SOPs contain a listing of high-level hazards associated with the task, for detailed hazard analysis reference the applicable Task Hazard Assessments. SOPs do not replace the requirements contained in the company Standards, Codes, and Processes nor does it replace the need to comply with required legislation. Section 8.0 references documentation that the worker shall understand before work commences.

1.0 PURPOSE

- To establish a Company standard to safely and effectively carry out work as it applies to the safe use of a picker truck in the removal or installation of tires.

2.0 SCOPE AND APPLICATION

- This document applies to all Company Heavy Construction and Mining operations. Ensure all site-specific requirements are being met or exceeded before performing the task.

3.0 HAZARDS AND CONTROLS

- Striking people, objects, machines, or structures while maneuvering and making lifts in congested areas.
 - Only make a lift if there is adequate space to set the crane and outriggers properly.
 - If driving through congestion, have multiple spotters; designate primary spotter.
 - Set out barriers through the congestion to keep other persons out of the crane operation area.
 - The ground crew is to double check all conditions and clearances before and during the lift.
 - Use tag lines to control the load.
 - Do not walk under suspended load or lift load over personnel.
- The lift failing because of unclear communication between the operator and the designated signaler.
 - There will be a designated signaler with a clear view of the load and clear communication with the crane operator.
 - Standard crane signals only will be used. A review will be done with the operator and all ground crew before the work starts.
- Creating an unstable load.
 - Rigging will be assembled by a competent rigger.
 - The lift and swing speeds will be smooth and controlled.
- Creating an unstable machine.
 - The operator will perform calculations by the machine's load charts to ensure the weight, reach, and height of the lift are within the specifications of the crane and vehicle.
 - The outriggers will be fully deployed and the crane leveled before the lift.

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- Ensure the ground will remain stable and support the machine and load.
- Tipping and/or damaging picker truck.
 - Only competent operators are permitted to operate the truck mounted crane (picker).
 - Never exceed the rated capacity of the crane. Know the weight of the lift and the capacity of the crane prior to beginning the task.
 - Operators will adhere to the manufacturer's recommended limits for scope of operation of respective lifting equipment. Operators will review and be familiar with lifting charts for their equipment.
 - Perform an operating radius survey prior to tire-wheel assembly removal or installation.
 - Inspect ground conditions and take appropriate measures to maintain stability of equipment. Use outriggers.
 - Inspect crane prior to use and operate within safety limits. Ensure devices are operational (i.e. anti-two block device, limit switches).
 - Do not use the crane for pulling or dragging an object or vehicle.
 - Do not drag a tire; truck mounted cranes are designed to lift and position.
 - Do not impact-load or hammer-push with the crane.
 - Do not handle tires filled with any ballast. Stability or structural failure may result if the load limit is exceeded.
- Contact with obstacles or overhead hazards.
 - Do a walk around of the area and remove obstacles Ensure operator is aware of location of obstacles that cannot be removed.
 - Use a spotter at all times.
 - Control work area to prevent access from unauthorized personnel.
 - Check work area for overhead hazards such as power lines. Follow 950C-C-042 Overhead Hazards – Limits of Approach Code.
- Uncontrolled work area
 - Keep work area clear of unnecessary tools, equipment, and personnel, erect barriers as required.
- Failed rigging
 - Inspect rigging prior to use; do not use damaged or defective rigging.
 - Only competent personnel will assemble rigging used for lifting.
 - Do not exceed the working load limit of the rigging.

4.0 CHECKLIST

- Attend all preparatory meetings (IE: daily PSI; job scope; review of JSA's and SOPs for the job)
- Complete FLRA cards before starting the work.
- Ensure all personnel involved in the task are aware of the hazards and the controls to be used, as identified in the SOP's; JSA's; and FLRA's

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- Conduct a pre-job inspection of all equipment to be worked on and tools to be used.
- Standard of Training required for working on this job: On-the job training.**

5.0 DEFINITIONS

5.1 Company

Means North American Construction Group Ltd. (NACG) and all directly or indirectly owned subsidiary companies, including joint ventures.

5.2 Company Personnel

Includes the Company's employees, officers, directors, agents, associates, consultants/contractors, temporary employees, and third-party processors.

5.3 HSE

Refers to the Health, Safety & Environment department

6.0 PROCEDURE

6.1 Removal Using Picker

- (a) Inspect the picker and the rigging prior to use.
- (b) Park the picker on level, solid ground.
- (c) Verify the weight of the lift and the distance from the picker to ensure the lift is within the capacities of the picker.
- (d) Ensure the area is clear of overhead obstructions.
- (e) Position the outrigger pads and lower the outriggers. **USE ALL THE OUTRIGGERS EVERY TIME.**
- (f) Refer to 960C-SOP-801 - Jacking Large OTR and Haulage Trucks and 960C-SOP-823 Vertical Mount-Dismount of Tires While on the Vehicle (if applicable) and utilize the recommended precautions and safeguards.
- (g) Rig the tire and/or wheel assembly with the appropriate certified lifting slings ensuring the load is within the rated capacity.
- (h) Designate a primary signal person to direct picker operator. The picker operator will take direction **ONLY** from the designated primary signaller unless a STOP signal is issued.
- (i) Remove the tire and/or wheel assembly continually monitoring for obstructions or contact areas that could damage picker or equipment under maintenance. Use tag lines.
- (j) Place the tire and/or wheel assembly in a safe location and remove the rigging.

6.2 Installation Using Picker

- (a) Complete steps 1-5 of the removal process.

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- (b) Rig the tire and/or wheel assembly with the appropriate certified lifting slings ensuring the load is within the rated capacity.
- (c) Designate a primary signal person to direct the picker operator. The picker operator will take direction **ONLY** from the designated primary signaler unless a STOP signal is issued.
- (d) Refer to the references note in #6 of the Removal steps noted above.
- (e) Install the tire and/or wheel assembly. Continually monitor for obstructions or contact areas that could damage the picker, or the equipment being worked on.
- (f) Once the tire and/or wheel assembly is installed, remove the strain from the picker and remove the rigging.
- (g) Pack up the picker truck; fold and store the boom, being cautious of surroundings. Raise and store outriggers and pads; store all tools and equipment.
- (h) Perform a vehicle walk-around prior to moving the picker truck.

7.0 NOTES

If this task is to be done by a method different than described in this SOP, the work must **STOP**, and the alternate method must be **DOCUMENTED** with an adequate hazard assessment tool such as a JSA. The document must be **APPROVED** by a supervisor before such procedures are implemented.

8.0 REFERENCES

- Picker truck manufacturer's operation manual
- Alberta Occupational Health and Safety Act, Regulation and Code – Part 6, Cranes, Hoists and Lifting Devices
- Alberta Occupational Health and Safety Act, Regulation and Code – Part 12, Section 193, Tire Servicing
- Alberta Occupational Health and Safety Act, Regulation and Code – Part 14, Sections 208 & 209, Lifting and Handling Loads
- Alberta Occupational Health and Safety Act, Regulation and Code – Part 19, Powered Mobile Equipment
- Equipment Manufacturers' Service Manuals – Disassembly and Assembly of Wheels
- 960C-SOP-404 Crane Operation Mobile Type
- 960C-SOP-501 Rad Gun Use
- 960C-SOP-504 Hand Tools; Use of
- 960C-SOP-801 Jacking Large OTR and Haulage Trucks
- 960C-SOP-823 Vertical Mount-Dismount of Tires While on the Vehicle
- 960C-SOP-824 Torqueing of Tire-Wheel Assemblies
- 950C-C-028 Hazardous Energy Isolation Code
- 950C-C-042 Overhead Hazards - Limits of Approach Code
- TIA (Tire Industry Association) Earth Mover Tire Service Training Program

9.0 APPENDICES

- No appendices.