

STANDARD OPERATING PROCEDURE

Manipulator Use: Loading, Unloading and Handling Tires

Document Number: 960C-SOP-805

Original Approval Date: Jun 09, 2010

Revision Number: 5

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Latest Revision Date: Mar 28, 2025

Next Revision Date: Mar 28, 2028

Document Approval Level: 4

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MANIPULATOR USE: LOADING, UNLOADING AND HANDLING TIRES



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Rev	Status	Rev. Date	Status Description	Prepared by	Reviewed by	Approved by

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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 using a tire manipulator to load, unload and handle tires.

2.0 SCOPE AND APPLICATION

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

3.0 HAZARDS AND CONTROLS

- Tires falling during loading, unloading, and positioning tasks.
 - Do not lift more than one tire at a time.
 - Grip tire at the widest point of the outside diameter of the tire.
 - Carry tire at lowest practical height from ground.
 - Ensure all personnel are clear from fall zone and in operator's line of sight when moving tires.
 - Ensure all personnel not involved in task are clear from area, use barricades and flagging as required.
 - Transport trailers to be parked on firm level ground in an area away from general traffic and personnel.
 - Use a spotter to assist in loading / unloading tires from trailer. Ensure spotter is not in fall zone of tire.
 - When stacking tires on a transport trailer or vehicle, tires are to be centred evenly over each other.
 - All tires are to be secured on trailer using appropriately rated tie down straps.
- Limited visibility while moving tires.
 - Use a spotter; designate primary spotter and ensure communication plan has been agreed upon prior to task.
- Improper equipment operation.
 - Carry tire at the lowest practical height.
 - Stack tires so centers are aligned.
 - Use appropriately rated tie down straps to secure tires loaded for transport.

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- Uncontrolled work area.
 - Keep work area clear of unnecessary tools, equipment, and personnel.
 - Erect barriers as required

4.0 CHECKLIST

- ☐ Attend all preparatory meetings (i.e. 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.
- ☐ 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

5.4 Tire Manipulator

Mobile equipment designed to safely load, unload, handle and position large rubber tires over rough terrain. Manipulator functions allow for pad rotation (tilt forward or back), body rotation (Left/Right) or side shift capabilities to perform the required tasks.

6.0 PROCEDURE

- 1) Complete hazard assessment for task. Follow up with supervisor if unsure of tasks or if hazards cannot be controlled.
- 2) Conduct pre operation inspection of equipment. Notify supervision if equipment is damaged or defective.
- 3) Grip tire to be lifted at the widest point of the outside diameter of the tire.
- 4) Lift no more than one tire at a time.
- 5) Carry tire at the lowest practical height.
- 6) Stack tires so centers are aligned.
- 7) Use appropriately rated tie down straps to secure tires loaded for transport.

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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

- Tire manipulator equipment manual
- 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 12, Section 189, Securing Equipment and Materials
- Alberta Occupational Health and Safety Act, Regulation and Code – Part 19, Powered Mobile Equipment

9.0 APPENDICES

- No appendices.