


STANDARD OPERATING PROCEDURE

Moving Skid Mounted Equipment		Document Number: 962C-SOP-038
Original Approval Date: Oct 25, 2013	Revision Number: 3	Page 1 of 6
Latest Revision Date: June 21, 2022	Next Revision Date: June 21, 2025	Document Approval Level: 4

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MOVING SKID MOUNTED EQUIPMENT

						
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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 moving equipment mounted on skids.

2.0 SCOPE AND APPLICATION

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

3.0 HAZARDS AND CONTROLS

- Uncontrolled movement of skid causing damage to transport equipment and/or personal injuries.
 - Choose the appropriate equipment for the distance the skid is to be moved. Where possible ensure tracked equipment (i.e. dozer) is used to move skids short distances (within the immediate work area or less than 10 meters). Rubber tired equipment (i.e. grader) can be used for intermediate distances (i.e. across pits, dumps, etc.). Skids should be loaded onto trailers when they are being transported long distances (i.e. on mine roads, offsite, etc.).
 - Plan and review the route prior to the move. Where possible ensure that the skid will not be moved uphill or downhill if being transported short or intermediate distances. Ensure there are no sharp turns in the route and that the route has been well sanded and/or scratched such that there are no uncontrolled icy or slippery sections.
 - Skids are to be equipped with slide resistance controls (i.e. cleats, ice lugs, etc.) when being moved during winter surface conditions.
 - When using rubber tired equipment to tow the skid intermediate distances, ensure secured tow cable length is less than 2/3 the width of the skid and that the skid is not closer than 4 feet to the support equipment.
 - Pull the skid in a straight line, whenever possible, and slowly with even force. Do not jerk or put undesired stress on the tow rigging. Towing will be done at a low speed, no faster than 2nd gear (dozer) or 3rd (grader).
 - Push the skid in a straight line, whenever possible, and push in 1st gear only.

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- Ensure that any physical hazards associated with the equipment on the skid that have the potential to damage the transporting equipment are controlled. For example: barrels of scratching posts must be pointed away from the cab of the equipment that is pushing, pulling or lifting it. Ensure that scratching posts are equipped with a tire bumper.
- Follow 960C-SOP-007 Loading and Offloading Materials from Trucks for transporting skids long distances using trailers.
- Inadequate or defective tow rigging and inappropriate anchor or attachment points.
 - Only use wire rope slings of approved load rating for the towing task. Tow sling size will increase depending on size of equipment being towed. Once rigging is used for towing it shall be clearly labelled as "Towing Only" and will not be stored with lifting rigging or used for lifting purposes. Ensure manufacturer's tag has been removed from sling. Do not store tow slings with lifting equipment.
 - Inspect all tow slings for any broken wires, strands, corrosion wear or kinks. If the sling does not meet the requirements for the safety standard applying to its particular use; the sling must be replaced by a sling that meets the requirements. At a minimum, remove sling from service if there are excessive broken wires or strands, evidence of bird caging, kinking, crushing, or displacement of the main strand.
 - Only use approved tow attachment points.
 - All workers involved to be instructed on proper attachment points.
 - Inspect all tow attachment points prior to use. If any damage or abnormal conditions such as cracks, bends, excessive wear, corrosion, deformity or other visible damage is noted it must be reported to the supervisor prior to continuing task. If the supervisor determines that tow attachment point is not safe to use then a JSA must be completed outlining an alternative method to move the equipment.
 - If hooks/eyes are unavailable; attach to the skid at locations rated as tow attachment points.
- Personal injury from handling tow cables.
 - Wear site approved gloves prior to handling tow cables. At a minimum double palmed or Kevlar gloves must be worn.
 - Use proper lifting techniques when lifting tow cables, use more than one person if required.
 - Do not let the cable slide through your hands due to the possibility of broken strands or burrs.
 - Do not place hands in the line of fire or in pinch point areas when attaching tow slings to anchor points and shackles.

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- Never straddle or try to jump over tow cables that have been attached to equipment and are under tension.
- In the event the tow cable breaks or releases suddenly all ground personnel required for the task (i.e., spotter) must be a minimum of 1.5 times the length of the tow sling away from it while the skid is being towed. Do not stand in the line of fire. All non-essential ground personnel must be cleared from the area prior to the task commencing.
- Injury and/or damaged skid mounted powered equipment e.g. (generators, pumps, powered sea-cans, crew/office trailers etc.) due to improperly disconnecting power sources.
 - Follow manufacturer's safety precautions when mobilizing equipment.
 - Qualified electricians to disconnect electrical system, refer to 950C-C-028 Hazardous Energy Isolation Code.
- Metal to metal contact between skid equipment and support equipment due to pushing from support equipment.
 - The practice of pushing on skid mounted equipment results in metal-to-metal contact, which has the potential for extensive equipment damage when performed in an uncontrolled manner.
- Equipment damage due to improper placement of support equipment when pushing on skid equipment.
 - Skid equipment will be pushed in a straight line and not at an angle.
 - Support equipment will be positioned parallel to the skid and ensure the blade does not come into contact with the equipment mounted on the skid, have bumpers in place (where applicable) between equipment.
 - If using a dozer do not use spill guard on blade to push with.
- Equipment damage as a result of pushing.
 - Once the skid equipment has been relocated it must be inspected. Any damages must be reported to supervision and maintenance immediately for assessment and approval to return to work.

4.0 CHECKLIST

- Attend all preparatory meetings (IE: daily PSI; job scope; review of JSA's and SOP's 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.**

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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 Procedure for Towing Skid Equipment

- 1) In all situations the supervisor or designate must be notified prior to task commencing. Pre job meeting to discuss the movement plan.
- 2) Complete FLRA for task and review it will all personnel involved. Designate primary spotter/signal person where required.
- 3) Inspect area where equipment is being relocated for hazards as well as route of travel. The area should be level and accessible for service if the equipment is diesel / gasoline powered e.g. pump, generator etc.
- 4) Review communication plan with all equipment operators and ground personnel. Ensure plan is documented on FLRA.
- 5) Before moving any powered skid mounted equipment, ensure all energy sources have been isolated and or disabled.
- 6) Inspect equipment, tools and rigging prior to attaching to equipment. Ensure tow cables and shackles are adequate size and sufficient load rating for the task. Tow cables will be less than 2/3 the width of the skid and the skid will be no closer than 4 feet to the support equipment.
- 7) Ground personnel will attach tow cable and shackle to the skid equipment. Primary spotter will guide support equipment (i.e. dozer, loader) to the tow cable. Equipment (dozer) operator will drop ripper in eye of tow cable or ground personnel will attach tow cable to approved anchor points (dozer, loader) (note: equipment must be stopped with implements lowered, hydraulic lock applied and operator out of cab prior to ground personnel approaching). If visual contact between spotter and equipment operator is lost the operation must STOP until visual contact is reinstated between the operator and spotter.
- 8) Ensure equipment to be towed is adequately secured if endangered of runaway prior to towing down an incline. Use a piece of equipment of adequate size as an anchor point to prevent undesired movement.
- 9) Clear area of unnecessary personnel; ensure spotter is not in the line of fire (i.e. between equipment, path of travel) and is a minimum of 1.5 times the length of the cable away from it. Upon signal of spotter, the support equipment will slowly remove slack in the tow cable prior to exerting force to pull the skid mounted equipment. Support equipment will not jerk the tow cable.
- 10) Slowly maneuver the skid equipment to a pre-determined position. Do not tow faster than 2nd gear (dozer) or 3rd gear (grader).
- 11) Once the skid equipment is in place, the support equipment will release tension from the tow cable and the equipment must be properly parked (park brake applied, all implements lowered and hydraulic lock applied – if applicable) and operator out of cab prior to ground personnel approaching to disconnect the

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tow cable and shackle. If required wheel chocks of adequate size should be used to assist with the prevention of undesired movement.

6.2 Pushing on Skid Equipment

- 1) Follow steps 1-5 in 6.1 Procedure.
- 2) Clear area of unnecessary personnel; ensure spotter is not in the line of fire (i.e. between equipment, path of travel)
- 3) Position support equipment behind skid equipment.
- 4) Primary spotter will guide support equipment (i.e. dozer, loader) parallel to the contact point.
- 5) Place a bumper (where applicable) between the equipment and ensure corner bits of dozer blade if used, do not come in contact with the skid. (note: equipment must be stopped with implements lowered, hydraulic lock applied and operator out of cab prior to ground personnel approaching) If visual contact between spotter and equipment operator is lost the operation must STOP until visual contact is reinstated between the operator and spotter.
- 6) Once contact has been made and operator has received signal from spotter, using first gear, equipment will commence push.
- 7) Support equipment will not push skid equipment down an incline; skid equipment must be towed down an incline with anchor equipment in place.
- 8) Slowly maneuver the skid equipment to a pre-determined position. Push in 1st only.
- 9) Once the skid equipment has been relocated it must be inspected. Any damages must be reported to supervision and maintenance immediately for assessment and approval to return to work.

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 or Management of Change process. The document must be **APPROVED** by a supervisor before such procedures are implemented.

8.0 REFERENCES

- Alberta Occupational Health and Safety Act, Regulation and Code – Part 12, Section 191 Signalers
- Alberta Occupational Health and Safety Act, Regulation and Code – Schedule 4 Safe Limit of Approach Distances
- 962C-SOP-004 Transport, set up and operation of Light Plants
- 962C-SOP-008 Signaling equipment
- 962C-SOP-009 Manually lifting and carrying
- 962C-SOP-037 Securing disabled or parked equipment in an operating environment
- 950C-C-008 Cranes, Hoists and Rigging Code
- 950C-C-056 Towing Code
- 950C-C-028 Hazardous Energy Isolation Code

9.0 APPENDICES

- No appendices.