HYDRAULIC HOSE MANUFACTURING – ASSEMBLY (MANULI HOSE ASSEMBLIES)

3	App	APR 13, 2022	Approved	A. Brule	J. Owens	T. Siver
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Rev	**Status**	**Rev. Date**	**Status Description**	**Prepared by**	**Reviewed by**	**Approved by**

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 manufacturing of hydraulic hoses, so it is done in a manner that minimizes risk to people, equipment, production, and the environment.

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

- Pinch points for hands.
  - Make sure that when clamping hose that the hand supporting the hose is well back from the hose clamping area of the machine.

- Contact from steel wire braid from hose
  - Cut all loose wires with side cutters and make sure to position hands away from exposed wires (wear appropriate leather gloves)

- Straining the upper limbs, Shoulders, or back
  - Support and move heavy hose by; establishing good body positions and utilize proper lifting mechanics

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
- ☐ 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

North American Construction Group (NACG) divisions, departments, or subsidiaries.

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

(a) Lubricate inside of hose.

(b) Lubricate insert fitting and place insert fitting into the holding jaws of the hose pusher. Make sure that the insert fitting is clamped securely.

(c) Install crimp shell unto the outside of the hose by hand and visually inspect that the hose is fully inserted into the shell.

(d) Open the hose clamp and push hose unto the insert fitting. Hold onto hose outside of the hose clamp area. Make sure hands are not in the clamping area and then close the clamp unto hose

(e) Push double tie down air valves one with each hand and then push air over hydraulic foot pump with one of your feet to hydraulically push the insert fitting into the hose.

(f) Once insert fitting is fully inserted into the hose then open hose clamp and then open the jaws on the hose pusher and release fitting and remove hose assembly from the machine

(g) Mark shell location with paint marker

(h) If you don't have access to a hose pusher, place hose in a vice

(i) Install ferrule (crimp shell) unto the outside of the hose

(j) Mark shell location with a paint marker

(k) Lubricate inside of the hose and fitting

(l) Use rubber mallet(hammer) and gently tap fitting in place

(m) Make sure that the fitting is all the way in

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.

8.0 REFERENCES

- Manufacturer's Operation Manual
- Alberta Occupational Health and Safety Act, Regulation and Code 2009 Part 3 Section 12
- OEM Parts Manufacturer's (i.e., Manuli) repair and service manuals
- 950C-C-025 – Hand Tools Code
- 950C-C-050 – PPE General Code
- 960C-SOP-020 – Selection and Use of Mechanical / Manual lifting Aids and Positioning Devices
- 960C-SOP-504 – Hand Tools; Use of
- 960C-SOP-505 - Hand Tools Powered Use
- 960C-SOP-112 - Air Line Control and Dangers

9.0 APPENDICES

- No appendices.