



154 Meadowlark Health Centre
156 Street & 87 Avenue
Edmonton, Alberta T5R 5W9
Tel (780) 429-4761
Fax (780) 425-4274
Toll Free 1-800-493-5446

Physical Demands Analysis

Heavy Equipment Operator - Loader

Prepared for:
Alberta Construction Association

Job Title:	Heavy Equipment Operator – Loader	Assessment Location:	Burnco	Data Collection Date:	November 2, 2020
-------------------	-----------------------------------	-----------------------------	--------	------------------------------	------------------

Completed By:	Ryan Pauls	Submitted on:	April 6, 2021
----------------------	------------	----------------------	---------------

Disclaimer:	The Physical Demands noted in this report may vary depending on company and location. Please contact the company directly to confirm this physical demands analysis is an accurate representation of the specific job title for the specific location.
--------------------	--

Work Schedule:	Shift Duration: 12 hours/day, 5 days/week; may vary Break Schedule: Total of 1 hour break per day Shift Rotation: Not applicable On call is required: No Overtime required: No; but may be available
-----------------------	---

Education / Experience:	Education required: No formal education, on job training Hours required for position: Tickets that may be required (not limited to): Fall protection, H2S Alive, Wildlife awareness, Ground Disturbance, Elevated Work Platform (EWP) machinery use, Confined Space, First Aid, WHMIS, Construction Safety Training Systems (CSTS) and Basic Safety Orientation (BSO).
--------------------------------	---

Labour Provider:	N/A
-------------------------	-----

Job Overview:	As a Loader Operator, he worker is required to complete the following tasks:		
	% of shift	Job Task	Task Description
	1-5%	Equipment check	<ul style="list-style-type: none">Equipment walk around to identify any obvious issues (tires, leaks, fluid levels, etc).
	67-100%	Loader operation	<ul style="list-style-type: none">Loader works in the “pit”, collecting material and “feeding” the plant.Operation includes use of joysticks, levers, buttons, foot pedals, etc.
	6-33%	Maintenance/Groundwork	<ul style="list-style-type: none">Checking and changing screens.Changing rollers.Cone liner change (this would be a longer task however, is completed infrequently)
	1-5%	Pit Maintenance	<ul style="list-style-type: none">Road maintenance (grading, filling pot holes, etc.)Maintaining burms on either side of road.

	1-5%	Servicing Loader	<ul style="list-style-type: none"> Greasing, checking fluid levels, re-fueling, checking wear, changing teeth if needed, checking for leaks, etc.
--	------	------------------	--

Equipment/ Tools:	<ul style="list-style-type: none"> Loader Grease gun Various wrenches Pry bar Grinder Impact Air compressor Broom Shovel
------------------------------	---

Exposures / Environment:	<ul style="list-style-type: none"> Weather (cold, heat) Silica/dust Chemicals Vibration Noise Pinch points
-------------------------------------	--

Personal Protective Equipment Required:	<ul style="list-style-type: none"> Hard hat Steel toed boots Gloves Foam safety eyewear (fectoggle) Safety vest or high visibility stripes Long sleeves and pants Ear protection
Personal Protective Equipment as Required:	<ul style="list-style-type: none"> Faceshield Coveralls Respirator

NOC STRENGTH LEVEL KEY	
Strength Level	Definition
Limited (Lim)	Up to 5 kg (11 pounds)
Light (L)	5 kg to 10 kg (11 – 22 pounds)
Medium (M)	10 kg to 20 kg (22 – 44 pounds)
Heavy (H)	Greater than 20 kg (44 pounds plus)

**Strength Level Key based on the National Occupational Classification*

FREQUENCY KEY		
Frequency	% of Workday	Hours – Based on 8 hour Workday
Not Required (N/R)	0%	0
Rarely (R)	1 – 5%	<25 min/day
Occasionally (O)	6 – 33%	25 min to 2 hours 40 min/day
Frequently (F)	34 – 66%	2 hours 41 min to 5 hours 17 min/day
Constantly (C)	67 – 100%	5 hours 18 min to 8 hours/day

**Frequency Key based on WCB Alberta Recommendations*

Job Demand	Frequency / NOC Strength Level					Details/ Measurements
	N/R	R	O	F	C	
Material Handling:						
Floor to Waist Level Lifting			H			Replacing loader teeth/segments.
Knee to Waist Level Lifting			H			As above.
Waist to Waist Level Lifting			H			General tools and equipment, maneuvering loader teeth.
Waist to Chest Level Lifting		M				Pail of oil for oil changes. Lifting rollers.
Waist to Shoulder Level Lifting		M				Lifting rollers, wrenches for maintenance, greasing loader.
Waist to Overhead Level Lifting		H				Belt maintenance.
Front Carry		H				Carrying/changing loader teeth, carrying tools, equipment.
Right / Left-handed Carry (Dominant Hand)		M				Tool bag, pails, etc.
Shoulder Carry	X					
Static Pushing/Pulling (Force)	X					
Dynamic Pushing/Pulling (Force)		M				During maintenance/groundwork.

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Upper Extremity Work:						
Hand Gripping					X	Operating loader controls, tools, equipment, etc.
Pinch Gripping		X				Nuts/bolts
Upper Extremity Coordination					X	Loader operation.

Reaching Forward		X				Maintenance/groundwork.
Overhead Shoulder Level Reaching		X				As above.
Below Shoulder Level Reaching		X				As above.
Throwing	X					As above.

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Positional Work:						
Trunk Flexion (Bending)		X				Groundwork/maintenance
Trunk Rotation (Twisting)		X				As above
Kneeling		X				Under loader inspection
Crawling	X					
Crouching		X				Under loader inspections, some groundwork
Squatting		X				Under loader inspections, some groundwork
Neck Flexion					X	Driving
Neck Extension			X			Driving
Neck Rotation					X	Driving

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Static Work:						
Sitting					X	Loader operation.
Static Standing		X				Groundwork/maintenance
Balancing		X				Climbing into equipment

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Ambulation:						
Walking: Level Surfaces		X				Throughout plant and during groundwork/maintenance.
Walking: Uneven Surfaces		X				As above.
Walking: Slopes		X				As above.
Jumping	X					
Running	X					

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Climbing:						
Stairs		X				Getting into and out of loader.
Ladder		X				As above.

Other						
-------	--	--	--	--	--	--

PHOTOS OF TASKS AND WORK ENVIRONMENT

Figure 1: Loader



Figure 2: Ladder/steps into loader



Figure 3: Loader teeth which must be changed periodically.



Figure 4: Loader controls



Physical Demands Analysis
Job Title: Heavy Equipment Operator - Loader
Date Prepared: January 8, 2021
Prepared for: Alberta Construction Association



If you have any questions, and/or would like to discuss this assessment and report further, I can be reached at (780) 429-4761.

Sincerely,

Ryan Pauls MSc, CEP
Clinical Exercise Physiologist

Validation Agreement

Job Title:	Heavy Equipment Operator – Loader
Data Collection Date:	November 2, 2020

We the undersigned have reviewed the Physical Demands Analysis for this position and agree that the physical demands documented in this report are representative of the true demands of the tasks associated with the job title as assessed on the date listed above.

Completed by:	Ryan Pauls MSc, CEP Clinical Exercise Physiologist	Lifemark Clinician Name and Credentials
Approved by:		Management Representative
Approved by:		Worker Representative
Approved by:		Labour Provider Representative