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Physical Demands Analysis

Heavy Equipment Operator - Rock Truck

Prepared for:
Alberta Construction Association

Job Title:	Heavy Equipment Operator – Rock Truck	Assessment Location:	Burnco	Data Collection Date:	November 2, 2020
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Completed By:	Ryan Pauls	Submitted on:	April 6, 2021
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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.
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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
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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).
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Labour Provider:	
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Job Overview:	As a rock truck operator, the 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%	Truck Operation	<ul style="list-style-type: none">Involves driving rock truck to the gravel pit, getting loaded (approx. 10 min.) with material, then proceeding to the dumping area.
	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%	Truck Service	<ul style="list-style-type: none">Refuelling, greasing, checking fluid levels, checking for leaks, etc.

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

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Job Demand	Frequency / NOC Strength Level					Details/ Measurements
	N/R	R	O	F	C	
Material Handling:						
Floor to Waist Level Lifting		H		L		Lifting tools, blocks, pallets, chains, etc.
Knee to Waist Level Lifting		H		L		Lifting tools, blocks, pallets, chains, etc.
Waist to Waist Level Lifting			H	L		Screen changes. Various tools.
Waist to Chest Level Lifting		M				Lifting rollers.
Waist to Shoulder Level Lifting		M				Lifting rollers.
Waist to Overhead Level Lifting		H				Belt maintenance.
Front Carry				L		Carrying various equipment, rollers, tools, etc.
Right / Left-handed Carry (Dominant Hand)				Lim		Shovels, rakes, tools.
Shoulder Carry				Lim		Shovels, rakes.
Static Pushing/Pulling (Force)	X					
Dynamic Pushing/Pulling (Force)				M		Raking material from under conveyer, pushing conveyer.

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Upper Extremity Work:						
Hand Gripping					X	Steering wheel, hand controls in truck, tools for maintenance work.
Pinch Gripping	X					
Upper Extremity Coordination					X	Steering wheel, hand controls in truck, tools for maintenance work.
Reaching Forward					X	Steering wheel.
Overhead Shoulder Level Reaching		X				Changing radio, some maintenance tasks.
Below Shoulder Level Reaching			X			Some groundwork/maintenance tasks.
Throwing	X					

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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 truck inspection
Crawling	X					
Crouching		X				Under truck inspections, some groundwork
Squatting		X				Under truck 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	While driving
Static Standing		X				Groundwork/maintenance
Balancing		X				Ladder into truck

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Ambulation:						
Walking: Level Surfaces		X				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				Groundwork/maintenance
Ladder		X				Ladder into truck
Other						

PHOTOS OF TASKS AND WORK ENVIRONMENT

Figure 1: Rock truck being loaded with material, takes approximately 10 min.



Figure 2: Steps into truck.



Figure 3: Cabin of truck.



Figure 4: Side controls and radio.



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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 – Rock Truck
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