

Physical Demands Analysis

## **Heavy Hauler Driver**

# Prepared for: Alberta Construction Association

| Job Title: | Heavy Hauler Driver | Assessment | Edmonton, AB | Data Collection | August 18, 2020 |
|------------|---------------------|------------|--------------|-----------------|-----------------|
|            |                     | Location:  |              | Date:           |                 |

| 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        | Shift Duration: 5 days/week, 10-12 hours/day; may vary depending on volume                   |  |  |
|-------------|--|--|--|
| Schedule:   | Break Schedule: Total of 1 hour break per day / 2-15 minute coffee breaks, 1-30 minute lunch |  |  |
|             | break  |  |  |
|             | Shift Rotation: Not applicable   |  |  |
|             | On call is required: No  |  |  |
|             | Overtime required: Yes; depending on volume and destination (longer days/Saturday)           |  |  |
|             |  |  |  |
| Education / | Education required: Not applicable   |  |  |

| Experience: | Hours required for position: Not applicable; experience driving is beneficial                    |
|-------------|--|
|             | Tickets that may be required (not limited to): Air Brakes, Class 1 Driver's License, WHMIS and   |
|             | Basic Safety Orientation (BSO), knowledge of rules and regulations for hauling equipment- weight |
|             | and load securement.   |

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

| Job<br>Overview: | As a Heavy Hauler Driver, the worker is required to load, unload and transport v<br>equipment such excavators, loaders and crushers from the yard to various const |   |   |
|------------------|--|---|---|
|                  | % of shift   | Job Task  | Task Description  |
|                  | Up to 5%   | Paper work (Field<br>Level Hazard<br>Assessment<br>(FLHA) and log<br>books) | <ul> <li>Identifying and logging hazards, exposures, plans for<br/>hazards and exposures, personal protective equipment<br/>(PPE) required. This is done with a paper and pen.</li> <li>Logging trips and inspection details.</li> </ul>  |
|                  | Up to 5%   | Pre-trip Truck<br>Inspection  | <ul> <li>Checking truck to ensure mechanical fitness, fluids are adequate, controls are working, no mechanical failures or changes in truck from last shift. This requires walking around the truck and reaching to inspect various components on the truck, as well as bending and crawling to inspect under the truck.</li> <li>Reporting any issues to the shop as necessary.</li> </ul> |



| Up to 50% | Loading/unloading<br>equipment,<br>hooking and<br>unhooking heavy<br>hauler trailer, and<br>securing<br>equipment to the<br>trailer | <ul> <li>Operating heavy machinery and driving machinery onto<br/>the trailer (i.e. excavators, loaders, crushers).</li> <li>Using equipment to move large mud mats from the<br/>trailer to the floor on which equipment sits.</li> <li>Securing machinery/equipment to the trailer using half<br/>inch chains.</li> <li>Hooking up and unhooking heavy hauler trailer.</li> </ul> |
|-----------|---|--|
| Up to 75% | Driving to and from sites   | <ul> <li>Driving equipment/machinery back and forth between<br/>the shop and worksites. Number of trips per day varies as<br/>some trips may be 5-6 hours away.</li> <li>Communicating with workers on site and unloading the<br/>equipment at the chosen location on site.</li> <li>Driving to the shop to retrieve another bin.</li> </ul>                                       |
| Up to 5%  | Post Trip Truck<br>Inspection   | <ul> <li>Checking truck to ensure fluids are adequate, controls are working, no mechanical failures or changes in truck from last shift.</li> <li>Reporting any issues to the shop as necessary.</li> </ul>  |

| Heavy Hauler truck and trailer                                    |
|---|
| Heavy equipment ( excavators, haulers, crushers)                  |
| Mud mats ( uses onsite equipment to remove and place on trailers) |
| • Tire and Tie down 1/2" to 3/8" Chains (30- 60 lbs.)             |
| Hand tools (impact gun, electric drill, ratchets) (Up to 10 lbs.) |
| Pen, pencil and clipboard   |
|   |

| Exposures /  | Fumes exposure (exhaust)  |
|--------------|---|
| Environment: | Heat/Cold weather extremes  |
|              | • Dust  |
|              | • Wind  |
|              | Icy/slippery surfaces   |
|              | <ul> <li>Noise and vibration exposure (during loading/unloading)</li> </ul> |

| Personal Protective    | Steel toed boots                       |
|------------------------|--|
| Equipment Required:    | Safety vest or high visibility stripes |
| Personal Protective    | Hard hat                               |
| Equipment as Required: | Gloves                                 |
|                        | Safety glasses                         |
|                        | Long pants                             |



| 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              | Freq | uency / | NOC Stre | ngth L | .evel | Details/ Measurements                            |
|-------------------------|------|---------|----------|--------|-------|--|
|                         | N/R  | R       | 0        | F      | С     |  |
| Material Handling:      |      |         |          |        |       |  |
| Floor to Waist Level    |      | Н       | М        |        |       | Handling and applying tire chains (60 lbs. clean |
| Lifting                 |      |         |          |        |       | and dry, may be heavier with mud and ice),       |
|                         |      |         |          |        |       | handling and applying tie down chains (30 lbs.). |
| Knee to Waist Level     |      | Н       | М        |        |       | Handling and applying tire chains (60 lbs. clean |
| Lifting                 |      |         |          |        |       | and dry, may be heavier with mud and ice),       |
|                         |      |         |          |        |       | handling and applying tie down chains (30 lbs.). |
| Waist to Waist Level    |      | Н       | М        |        |       | Handling and applying tire chains (60 lbs. clean |
| Lifting                 |      |         |          |        |       | and dry, may be heavier with mud and ice),       |
|                         |      |         |          |        |       | handling and applying tie down chains (30 lbs.). |
|                         |      |         |          |        |       | Carrying small tools for minor                   |
|                         |      |         |          |        |       | repairs/inspection (i.e. drill, ratchets).       |
| Waist to Chest Level    |      |         | М        |        |       | Handling and applying tie down chains (30 lbs.)  |
| Lifting                 |      |         |          |        |       | at chest levels.                                 |
| Waist to Shoulder Level |      |         | М        |        |       | Handling and applying tie down chains (30 lbs.)  |
| Lifting                 |      |         |          |        |       | at shoulder levels.                              |
| Waist to Overhead Level |      |         | М        |        |       | Handling and applying tie down chains (30 lbs.)  |
| Lifting                 |      |         |          |        |       | at shoulder levels.                              |
| Front Carry             |      | Н       | М        |        |       | Carrying and applying tire chains (60 lbs. clean |
| -                       |      |         |          |        |       | and dry, may be heavier with mud and ice),       |
|                         |      |         |          |        |       | handling and applying tie down chains (30 lbs.). |
|                         |      |         |          |        |       | Carrying small tools for minor                   |
|                         |      |         |          |        |       | repairs/inspection (i.e. drill, ratchets).       |
| Right / Left-handed     |      |         | М        |        |       | Carrying, handling and applying tie down         |
| Carry (Dominant Hand)   |      |         |          |        |       | chains (30 lbs.), carrying small hand tools.     |



| Shoulder Carry                     | Х |   | Not required   |
|------------------------------------|---|---|--|
| Static<br>Pushing/Pulling (Force)  | Х |   | Not required   |
| Dynamic<br>Pushing/Pulling (Force) |   | Н | Pushing/pulling levers to lift hood of truck for<br>inspections, opening chain storage<br>compartments, shifting gears, pushing various<br>buttons on truck dashboard, fill fluids as<br>required. Unable to get objective push/pull<br>measurements due to shape/size of levers,<br>estimated at a heavy level. |

| Job Demand                          |     | F | requend | cy . |   | Details/Measurements  |
|-------------------------------------|-----|---|---------|------|---|---|
|                                     | N/R | R | 0       | F    | С |   |
| Upper Extremity Work:               |     |   |         |      |   |   |
| Hand Gripping                       |     |   |         |      | X | Gripping the steering wheel, while shifting<br>gears, the lever to open the hood and chain<br>storage compartments, chains, straps, safety<br>rails to get in and out of the truck.   |
| Pinch Gripping                      |     | Х |         |      |   | Checking the truck during inspection, using a pen while writing logs.   |
| Upper Extremity<br>Coordination     |     |   |         |      | X | Operating the steering wheel, shifting gears,<br>and shifting the lever open the truck hood to<br>complete safety check/fill fluids as required.<br>Manipulating chains, straps and various hand<br>tools. Pushing various buttons on truck<br>dashboard. |
| Reaching Forward                    |     |   |         |      | X | Reaching the steering wheel, shifting gears,<br>various buttons on the truck dashboard, during<br>truck and safety check, and while securing<br>equipment to trailer.   |
| Overhead Shoulder Level<br>Reaching |     |   | Х       |      |   | Reaching the safety rail while climbing into the truck, during truck and safety check, manually adjusting chains and straps while securing equipment.   |
| Below Shoulder Level<br>Reaching    |     |   |         |      | X | Reaching the steering wheel, shifting gears,<br>various buttons on the truck dashboard, during<br>truck and safety check, and while securing<br>equipment.  |
| Throwing                            |     |   | Х       |      |   | Throwing chains over equipment to fasten it.  |



| Job Demand                |     | F | requenc | ÿ |   | Details/Measurements                            |
|---------------------------|-----|---|---------|---|---|---|
|                           | N/R | R | 0       | F | С |   |
| Positional Work:          |     |   |         |   |   |   |
| Trunk Flexion (Bending)   |     |   | Х       |   |   | During truck and safety checks (pre/post trip), |
|                           |     |   |         |   |   | while securing equipment with chains,           |
|                           |     |   |         |   |   | applying tire chains if needed.                 |
| Trunk Rotation (Twisting) |     |   |         | Х |   | Checking surroundings in truck while driving    |
|                           |     |   |         |   |   | and during truck and safety checks.             |
| Kneeling                  |     | Х |         |   |   | Checking lower levels of truck during truck and |
|                           |     |   |         |   |   | safety checks (pre/post trip), applying tire    |
|                           |     |   |         |   |   | chains. Dependent on workers preferred          |
|                           |     |   |         |   |   | method.   |
| Crawling                  |     | Х |         |   |   | Checking lower levels of truck during truck and |
|                           |     |   |         |   |   | safety checks (pre/post trip). Dependent on     |
|                           |     |   |         |   |   | workers preferred method.                       |
| Crouching                 |     | Х |         |   |   | Checking lower levels of truck during truck and |
|                           |     |   |         |   |   | safety checks (pre/post trip), applying tire    |
|                           |     |   |         |   |   | chains. Dependent on workers preferred          |
|                           |     |   |         |   |   | method.   |
| Squatting                 |     | Х |         |   |   | Checking lower levels of truck during truck and |
|                           |     |   |         |   |   | safety checks (pre/post trip), applying tire    |
|                           |     |   |         |   |   | chains. Dependent on workers preferred          |
|                           | -   |   |         |   |   | method.   |
| Neck Flexion              |     |   | Х       |   |   | Communicating with workers on sites while in    |
|                           |     |   |         |   |   | truck, safety checks (pre/post trip), securing  |
|                           |     |   |         |   |   | equipment, checking surroundings in mirrors,    |
|                           |     |   |         |   |   | doing paperwork and completing logs.            |
| Neck Extension            |     |   | Х       |   |   | While climbing in and out of truck, safety      |
|                           |     |   |         |   |   | checks (pre/post trip), securing and inspecting |
|                           |     |   |         |   |   | loads.  |
| Neck Rotation             |     |   |         |   | Х | Checking surroundings in truck while driving,   |
|                           |     |   |         |   |   | during truck and safety checks (pre/post trip), |
|                           |     |   |         |   |   | securing and inspecting loads.                  |

| Job Demand      |     | F | requenc | ÿ |   | Details/Measurements   |
|-----------------|-----|---|---------|---|---|--|
|                 | N/R | R | 0       | F | С |  |
| Static Work:    |     |   |         |   |   |  |
| Sitting         |     |   |         |   | X | Driving truck, completing paperwork, for each site, unloading/loading bins.                                      |
| Static Standing |     | Х |         |   |   | Checking various components of truck during truck and safety checks (pre/post trip), filling fluids as required. |



| Balancing |  | Х |  | While entering and exiting truck and getting    |
|-----------|--|---|--|---|
|           |  |   |  | on/off the trailer while securing or inspecting |
|           |  |   |  | loads.  |

| Job Demand              |     | F | requenc | ÿ |   | Details/Measurements                           |  |  |  |
|-------------------------|-----|---|---------|---|---|--|--|--|--|
|                         | N/R | R | 0       | F | С |  |  |  |  |
| Ambulation:             |     |   |         |   |   |  |  |  |  |
| Walking: Level Surfaces |     | Х |         |   |   | While in bays/office at the shop.              |  |  |  |
| Walking: Uneven         |     |   | Х       |   |   | In the yard and various sites for pick up/drop |  |  |  |
| Surfaces                |     |   |         |   |   | off of equipment.                              |  |  |  |
| Walking: Slopes         |     |   | Х       |   |   | Walking on/off trailer.                        |  |  |  |
| Jumping                 | Х   |   |         |   |   | Not required                                   |  |  |  |
| Running                 | Х   |   |         |   |   | Not required                                   |  |  |  |

| Job Demand | Frequency |   |   |   |   | Details/Measurements  |
|------------|-----------|---|---|---|---|---|
|            | N/R       | R | 0 | F | С |   |
| Climbing:  |           |   |   |   |   |   |
| Stairs     |           | Х |   |   |   | To access second level at the office.   |
| Ladder     |           | Х |   |   |   | To check various equipment, loads.  |
| Other      |           |   |   | Х |   | To enter and exit truck and other large<br>equipment, machinery, accessing front end of<br>truck for truck and safety checks. |

Physical Demands Analysis Job Title: **Heavy Hauler Driver** Date Prepared: August 30, 2020 Prepared for: Alberta Construction Association



#### PHOTOS OF TASKS AND WORK ENVIRONMENT



Physical Demands Analysis Job Title: **Heavy Hauler Driver** Date Prepared: August 30, 2020 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,

Erika Job BSc.OT Occupational Therapist



#### **SPECIFIC JOB DEMAND ADDITIONS:**

| Job Demand                | Frequency |   |   |   |   | Details/Measurements   |
|---------------------------|-----------|---|---|---|---|--|
|                           | N/R       | R | 0 | F | С |  |
| Site Specific Job Dema    | nd:       |   |   |   |   |  |
| Vibration                 |           |   |   | Х |   | While driving on site, loading and unloading equipment onto truck. |
| Foot<br>Flexion/Extension |           |   |   |   | Х | While operating truck's foot pedals.                               |



### **Validation Agreement**

| Job Title:            | Heavy Hauler Driver |
|-----------------------|---------------------|
| Data Collection Date: | August 18, 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: | Erika Job BSc.OT            | Lifemark Clinician Name        |
|---------------|-----------------------------|--------------------------------|
| Approved by:  | Corinne Visser, HSE Advisor | Management Representative      |
| Approved by:  |                             | Worker Representative          |
| Approved by:  |                             | Labour Provider Representative |