

PHYSICAL DEMANDS ASSESSMENT

LICENSED
SHUNT
DRIVER

PHYSICAL DEMANDS ASSESSMENT (PDA)

LICENSED SHUNT DRIVER

As a national organization mandated to identify and support HR needs for Canada's trucking and transportation sector, Trucking HR Canada (THRC) plays a pivotal role in designing and completing projects that directly address HR challenges to support a vibrant and thriving trucking workforce. A key concern is the attraction, recruitment and retention of skilled workers to keep the wheels of the industry turning.

What is the Issue?

Diversity and inclusion lead to strong, skilled workplaces; however, many industries - including the trucking sector - experience difficulties and barriers in engaging and retaining individuals that require accommodations to perform their jobs to their full potential.

How Can Physical Demands Assessments Help Employers?

Physical Demands Assessments are an invaluable HR tool for employers to ensure diverse workplaces in which all workers can effectively perform essential and valuable work.

PDAs help to identify the physical requirements of a position that can then serve as the basis for implementing accommodations to allow workers to perform their jobs effectively and efficiently.

What are Physical Demands Assessments?

Physical Demands Assessments (PDAs) identify the physical job requirements for specific occupations. Once employers are aware of the physical requirements of the job, current employees and new hires can be assessed to determine if they can perform the physical duties. If required, potential accommodations can be put in place to allow workers from various under-represented groups to not only perform, but thrive, in their roles - a mutually beneficial outcome for both workers and employers.

When are Physical Demands Assessments Useful for Employers?

Employers can use Physical Demands Assessments when working with the following diverse groups in the workplace:

- Workers with different physical body strength capabilities than their coworkers in the same role.
- Workers who may not have the same strength, balance, stamina or coordination as their co-workers.
- Employees who are returning to work after experiencing an injury that causes temporary impairment of physical ability or functioning.
- Employees or new hires who have permanent medical restrictions or disabilities that alter the way they perform certain physical tasks.

Physical Demands Assessments are useful for EVERY employee. PDAs promote the consideration of inclusive practices that help all workers to perform their jobs as effectively, safely and comfortably as possible.



PDA OVERVIEW

Job Description: Licensed Shunt Driver

Licensed Shunt Drivers are responsible for moving, or ‘shunting,’ empty and loaded trailers from the loading docks to and from the yard. Depending upon the employer, Licensed Shunt Drivers are required to obtain an applicable license to operate the equipment required to move trailers, which may include: a license to drive straight trucks (i.e., Class D; Class 3); a license to drive articulated trucks (i.e., Class A; Class 1); and an endorsement to drive vehicles equipped with air brakes (i.e., Z or A). They are employed by transportation, manufacturing and distribution, and moving companies.

Most physical aspects of the job:

The most commonly performed actions requiring physical **STRENGTH** include:

OCCASIONALLY Performed Actions:

- Pushing and Pulling
 - Up/Down
 - Unilaterally (one side of the body)

RARELY Performed Actions:

- Lifting and Lowering (Floor to Bench)
- Lifting and Lowering (Bench to Shoulder)

Physical strength requirements (maximum and usual):

- Pushing/Pulling Force:
 - Up/Down – maximum 5.6 kgf (12 lbf); usual 5.6 kgf (12 lbf)
 - Unilateral – maximum 4.5 kgf (10 lbf); usual 4.5 kgf (10 lbf)
 - Bilateral – maximum 22 kgf (49 lbf); usual 4.5 kgf (10 lbf)
- Lifting and Lowering –
 - Floor to Bench – Maximum 5.6 kg (12 lb.); usual 5.6 kg (12 lb.)
 - Floor to Shoulder – Maximum 15.8 kg (35 lb.); usual 2.7 kg (6 lb.)

The most commonly performed actions requiring **MOBILITY AND PHYSICAL POSITIONING** include:

<p>FREQUENTLY Performed Actions:</p> <ul style="list-style-type: none"> • Standing • Walking • Neck Movements 	<p>OCCASIONALLY Performed Actions:</p> <ul style="list-style-type: none"> • Sitting • Crouching/Squatting • Low Back Movement • Reaching (Forward; Up and Down) • Elbow Movements • Wrist Movements • Gripping • Pinching • Fine Finger Movements (e.g. Keying) 	<p>RARELY Performed Actions:</p> <ul style="list-style-type: none"> • Climbing (ladders) • Striking with Hand
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Legend:

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ESSENTIAL JOB FUNCTIONS:

Essential job functions are the fundamental duties required of Licensed Shunt Drivers. In other words, they are the duties that the incumbent **absolutely must be able to do** to perform the job.

The Essential Job Functions of the Licensed Shunt Driver are:

- Preparing Trailers for Shunting
- Driving

Licensed Shunt Drivers spend upwards of 50% of their day preparing trailers for shunting and 50% of their day driving (shunting).

ESSENTIAL PHYSICAL JOB REQUIREMENTS

To be a Licensed Shunt Driver, job incumbents must meet the basic medical and vision standards to obtain a commercial driver's license (CDL) in their province/territory. If these standards are not met, accommodations cannot be made. Medical and vision standards vary by jurisdiction; however, standards may include:

Vision Standards:

- a visual acuity that is not poorer than:
 - 20/30 with both eyes open and examined together
 - 20/100 in the weaker eye, with or without corrective lenses
- a horizontal visual field with both eyes open and examined together of at least:
 - 150 continuous degrees along the horizontal meridian
 - 20 continuous degrees above and below fixation

Hearing Standards:

Drivers whose hearing in one ear is better than in the other:

- must be able to perceive in the better ear a forced whisper at a distance of 1.5 metres, with or without a hearing aid

OR

- must not have a loss in the better ear of more than 40 decibels at 500, 1000 and 2000 hertz (if an audiometer is used to test the driver's hearing)

POTENTIAL ACCOMMODATIONS

Please note that the accommodations referenced are high-level suggestions for employers. However, any individual requiring accommodations to perform their job tasks should be assessed by an authorized professional (e.g. Registered Kinesiologist, Ergonomist, Physio/Occupational Therapist) to develop an accommodation plan that is right for the individual.

Potential accommodations for actions requiring physical **STRENGTH**:

- **Pushing and pulling** – use of assistive pulleys, levers or tools (situation specific)
- **Lifting and lowering** – use of jacks, assistive lifting devices.

Potential accommodations for actions requiring **MOBILITY AND PHYSICAL POSITIONING**:

- **Neck movements** – supportive braces
- **Sitting** – ergonomically-fitted air-ride seat
- **Gripping** – steering wheel grips, adaptors or knobs
- **Elbow/Wrist movements** – supportive braces
- **Reaching** – supportive hooks, bars or grabbing tools

Universal Inclusive Practices and Accommodations:

- Ensuring a low-scent or scent-free environment (e.g. in vehicles, loading/unloading areas and offices)
- Providing frequent breaks to allow workers experiencing non-visible disabilities to conserve energy (e.g. workers experiencing chronic fatigue, chronic pain, needing to take medication, needing to eat at specific times, needing to take more frequent bathroom breaks)
- Using electronic devices (e.g. tablet computers or smartphones with touchscreens) to complete administrative tasks requiring fine finger movements or wrist movement
- Providing ergonomic chairs during periods of sitting or when at rest during breaks
- Providing ice packs or heating pads (in-cab or in-office) to assist in pain management
- Stretching during breaks
- Wearing orthotic footwear
- Outfitting computer monitors with screen protection to prevent glare and prevent headaches
- Ensuring all step ladders, step stools and ladders are equipped with grips to ensure stability and prevent slips and falls, as well as grab grips and vision reflection strips.
- Providing headsets for desk jobs that require wrist movement or neck and neck movement
- Utilizing grip holders for use of devices – such as phones or clipboards – that require an open grip
- Using ear plugs to block out excess noise but maintain hearing ability to assist workers with noise sensitivity, post-concussion or auditory processing issues
- Using sunglasses or darkened lenses to manage light sensitivity issues.

PHYSICAL DEMANDS PROFILE

Job Title	Licensed Shunt Driver	NOC	7511 - Transport Truck Drivers
Report Completed By	CBI Workplace Solutions		

JOB OBJECTIVE:

The licensed shunt driver is responsible for shunting empty and loaded trailers from the loading docks to and from the yard.

KEY PHYSICAL JOB TASKS

1. Perform administrative duties

- a. Administer bills of lading
- b. Complete time sheets
- c. Complete reports
- d. Complete accident/incident reports
- e. Complete shunt trailer moves sheets

2. Prepare trailers for shunting

- a. Quick check trailers and converters
 - i. Conduct quick checks on all trailers arriving post-trip
 - ii. Conduct quick checks on converters
 - iii. Complete company quick check procedure forms
- b. Conduct yard checks
 - i. Check each trailer in every row within the yard
- c. Set up trailers for loading and transfers
 - i. Back trailer up to appropriate dock at required time
 - ii. When transferring loads, park loaded trailer and empty trailer at side-by-side doors (if possible)
 - iii. Once transfer is complete, pull trailers away from the doors
- d. Check locked trailers
 - i. Verify locks on loaded trailers

3. Shunt trailers

- a. Maintain communication with warehouse and dispatch
- b. Hook up to trailers
 - i. Ensure fifth wheel is at proper height
 - ii. Conduct tug test
- c. Shunt trailers
 - i. Shunt trailers in the yard
 - ii. Shunt trailers from yard to yard
 - iii. Record all shunt moves in daily shunt trailer moves sheet
- d. Remove trailers from post-trip area
 - i. Shunt trailers from post-trip area to destination within the yard
- e. Unhook trailers
 - i. Back trailer into appropriate location
 - ii. Lower trailer and ensure proper height
 - iii. Ensure safety of trailer
- f. Park shunt truck
 - i. Park shunt truck in designated areas
 - ii. Place transmission in neutral and apply parking brake

4. Ensure vehicle maintenance

- a. Perform preventative and light maintenance on shunt trucks
 - i. Check, replace and repair lights
 - ii. Check, replace and repair air lines
 - iii. Check tires
 - iv. Check brakes
 - v. Maintain fluid levels
- b. Perform inspections on shunt truck
 - i. Conduct pre-shift inspections
 - ii. Conduct post-trip inspections
- c. Complete general housekeeping of shunt truck
 - i. Ensure interior and exterior maintenance of vehicle
 - ii. Clean and wash shunt truck (interior and exterior) as required
- d. Fuel shunt trucks and trailers
 - i. Fuel shunt truck near end of shift

EQUIPMENT	PERSONAL PROTECTIVE EQUIPMENT
Pallet driver; shunt truck	Safety boots; safety vest; safety gloves

STRENGTH REQUIREMENTS		Frequency					Mass (KG)		Task #	Comments
		S	R	O	F	C	Max	Usual		
Lifting/Lowering	Floor to Bench		✓				5.6	5.6	2	• Lifting open trailer locks while trailer is docked (10 cm) (5.6 kg).
	Bench to Shoulder (89-149 cm)		✓				20 kg	15.8 kg	2,3	• Safety leg removal and placement (90 cm – 140 cm) (15.8 kg). • Connecting trailer to shunt (2.7 kg) (101 - 120 cm).
	Floor to Shoulder (0-149 cm)									Not Required.
	Above Shoulder (>150 cm)									Not Required.
Carrying	Weight									Not Required.
	Distance (meters)									
Pushing/Pulling	Up/Down			✓			5.6	5.6	2	• Pulling on trailer locks (5.6 kg) to verify they are locked properly (10 cm).
	Unilateral			✓			4.5	4.5	2,3	• Pallet inspection (25 cm – 160 cm) – Pulling on straps to ensure that contents are secure. • Shunt inspection- Pulling on components to ensure safety – no excessive motion should be possible: • Hose inspection (160 cm). • Check steering (90 cm). • Check wheels, tires, and brakes (0 to 100 cm). • Check suspension (53 cm).

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STRENGTH REQUIREMENTS	Frequency					Mass (KG)		Task #	Comments
	S	R	O	F	C	Max	Usual		
Bilateral			✓			22	4.5	2,3	<ul style="list-style-type: none"> Swinging open trailer doors (16 – 22 kg depending on condition of doors) (177 cm). Pallet inspection (25 cm – 160 cm) – Pulling on straps to ensure that contents are secure. Shunt inspection- Pulling on components to ensure safety – no excessive motion should be possible (1 – 5 kg): <ul style="list-style-type: none"> Hose inspection (160 cm). Check steering (90 cm). Check wheels, tires, and brakes (0 to 100 cm). Check suspension (53 cm).

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MOBILITY AND POSTURAL REQUIREMENTS		Frequency					Task #	Comments
		S	R	O	F	C		
Standing					✓		2	<ul style="list-style-type: none"> Standing required for most tasks involves shunt inspection, pallet inspection, and ensure safe loading of components.
Walking					✓		2,3,4	<ul style="list-style-type: none"> Shunt truck inspection requires walking around the shunt to visually and physically inspect components. Vehicle maintenance. Check each trailer in every row within the yard to ensure safety compliance as well as to ensure components are visually and physically inspected. Required to reach docks from main staging area and from desk. Required to reach shunts in the parking bay next to the main building. Required to visually and physically pallets. Walking requirements average 5 – 10 km per day.
Sitting				✓			1,3	<ul style="list-style-type: none"> Driving shunt truck. Desk work – Administrative duties 2 – 3 hours/day.
Climbing	Stairs			✓			1,2,3	<ul style="list-style-type: none"> Facility stairs. Stairs between main staging area and parking bay.
	Ladders		✓					<ul style="list-style-type: none"> Sealing doors requires climbing up a very short ladder.
	Other			✓			3	<ul style="list-style-type: none"> Entering shunt (40.6 cm – 33 cm – 38 cm).
Balancing								Not Required.
Kneeling								Not Required.

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MOBILITY AND POSTURAL REQUIREMENTS	Frequency					Task #	Comments
	S	R	O	F	C		
Crouching/Squatting			✓			2,3,4	<ul style="list-style-type: none"> Shunt truck inspection requires crouching for visual and physical inspection: <ul style="list-style-type: none"> Check fluid levels. Check drive belts. Check frame. Check splash guards. Check for leaks. Pallet inspection requires crouching to ensure that straps are secure around the components. Opening trailer door requires crouching to reach trailer latches.
Crawling							Not required.
Neck Movements				✓		2,3,4	<ul style="list-style-type: none"> Shunt truck inspection requires neck movements to visually and physically inspect components: <ul style="list-style-type: none"> Pre- and post- trip inspections. Pallet inspection requires neck movements to visually and physical inspect components. Closing and opening trailer doors requires neck flexion. Ensuring coupling of trailers requires neck flexion and lateral bending. Vehicle maintenance neck movements to visually and physical inspect components. Shunting trailer: <ul style="list-style-type: none"> Reversing into position requires neck twist.

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		S	R	O	F	C		
Low Back Movements					✓		2,3,4	<ul style="list-style-type: none"> Shunt truck inspection requires bending to reach certain components. Pallet inspection requires bending to verify straps are secured. Closing and opening trailer doors requires bending to unlatch trailer locks. Ensure vehicle maintenance requires bending to reach different components: <ul style="list-style-type: none"> Checking and repair components. General housekeeping.
Reaching	Horizontal (Forward)				✓		1,2,3,4	<ul style="list-style-type: none"> Shunt truck inspection (up to 160 cm). Keyboard (14 cm). Phone (40 cm). Glad hands (56 cm). Dipstick (99 cm). Ensure vehicle maintenance: <ul style="list-style-type: none"> Checking and repair components (up to 160 cm). General housekeeping (must be able to generally optimize reaches by moving closer).
	Vertical (Up/Down)			✓			2,3,4	<ul style="list-style-type: none"> Closing trailer door (up to 177 cm). Shunt truck inspection (35 - 180 cm): <ul style="list-style-type: none"> Glad hand rubbers. Wiring. Tires. Brakes. Suspension. Trailer door latch (25.5 cm). Ensure vehicle maintenance: <ul style="list-style-type: none"> Checking and repair components (up to 180 cm). General housekeeping of workstation - Filing and organizing material.

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MOBILITY AND POSTURAL REQUIREMENTS	Frequency					Task #	Comments
	S	R	O	F	C		
Extension (Behind)							Not Required.
Lateral (Side)							Not Required.
Elbow movements			✓			2,3,4	<ul style="list-style-type: none"> • Shunt truck inspection – reaching for components and pulling/pushing to ensure safe operation. • Pallet inspection requires using arm to push/pull to ensure load is secure. • Opening and closing trailer door requires elbow extension. • Ensure vehicle maintenance: <ul style="list-style-type: none"> • Checking and repairing components as required requires manipulation. • General housekeeping.
Wrist movements			✓			2,3,4	<ul style="list-style-type: none"> • Latching and unlatching trailer door requires latch manipulation.
Gripping			✓			2,3,4	<ul style="list-style-type: none"> • Latching and unlatching trailer door requires a closed grip. • Shunt truck inspection requires open and closed grips depending on components being investigated. • Pallet inspection requires gripping of straps with a closed grip. • Ensure vehicle maintenance: <ul style="list-style-type: none"> • Checking and repairing components requires open and closed grips depending on component being investigated. • General housekeeping. • Phones and clipboards require open grips.

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MOBILITY AND POSTURAL REQUIREMENTS	Frequency					Task #	Comments
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Pinching			✓			1,2,3,4	<ul style="list-style-type: none"> • Writing utensils require pinches. • Vehicle controls and buttons. • To open and close dock doors requires pushing buttons.
Fine finger movements (e.g. keying)			✓			1,3	<ul style="list-style-type: none"> • Typing – Administrative duties. • Writing – Administrative duties.
Striking with hand		✓				2,4,5	<ul style="list-style-type: none"> • Pallet inspection requires striking material on pallet. • Shunt inspection requires striking components to ensure they are secure. • Ensure vehicle maintenance by striking components to ensure they are secure.
Foot action			✓			1,3	<ul style="list-style-type: none"> • 3.7 kg foot pedals while operating vehicle pedals (gas, brake, clutch with standard transmission).

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ADDITIONAL CONCERNS AND DEMANDS

ADDITIONAL CONCERNS AND DEMANDS				Comments	
Environmental Conditions	✓	Hot	✓	Adequate lighting	<ul style="list-style-type: none"> • Single fixed axle causes heavy vibration in shunt truck cab. • Plant floor is congested with constant activity.
	✓	Cold	✓	Moving objects	
	✓	Outdoor		Working at heights	
	✓	Indoor	✓	Slippery surface	
	✓	Dry	✓	Congested area	
	✓	Humid	✓	Sharp edges	
	✓	Noise	✓	Fumes/vapours/gases	
	✓	Vibration		Electromagnetic fields	
	✓	Glare			
Psychological/Mental Demands	✓	Work under pressure (deadlines)		Influence people	
	✓	Fast pace work	✓	Confrontation situations	
	✓	Deal with multiple tasks		Incentive/piece work	
		Perform complex and varied tasks		Irregular hours	
	✓	Attain precise standards/attention to detail	✓	Overtime	
	✓	Control of work pace	✓	Reading	
		Direct control/plan of work	✓	Working alone	
	✓	Close supervision		Working in a group	
	✓	Follow instructions		Travelling	
Sensory Demands	✓	Hearing	✓	Spatial perception	
	✓	Speech	✓	Tactile	
	✓	Colour vision	✓	Smell	
	✓	Near vision		Taste	
		Far vision			