# PHYSICAL DEMANDS ASSESSMENT

COACH MENTOR ASSESSOR



## **PHYSICAL DEMANDS ASSESSMENT (PDA)** COACH MENTOR ASSESSOR

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: Coach | Mentor | Assessor

#### Coach:

A driver assigned to work with a newly-trained driver over a short period of time (several weeks), providing them with additional, in-cab training on skills development and on the application of policies and procedures; also provides hands-on instruction and guidance.

#### Mentor:

A driver assigned to work with other newly-hired (experienced) drivers over a longer period of time (several months), sharing their knowledge and experience. The term "mentor" is informal in nature and is more of an assumed role.

#### Assessor:

An individual who is responsible for assessing the skill level of newly-trained and newly-hired drivers, making recommendations on hiring new drivers and providing feedback on skills that require additional training. The individual may also provide this training. Assessors also conduct continuous assessments of more experienced drivers.

#### Most physical aspects of the job:

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

#### **RARELY** Performed Actions:

- Lifting and Lowering
  - Floor to Bench
  - Bench to Shoulder
  - Floor to Shoulder
  - Above Shoulder
- Carrying
- Pushing/Pulling
  - Up/Down
  - Unilateral
  - Bilateral

#### Physical strength requirements (maximum and usual):

- Lifting and Lowering:
  - All Maximum 24 kg (53 lb.); Usual up to 4.5 kg (10 lb.);
- Carrying Maximum Distance 22 meters (72 ft.); Usual up to 6 meters (20 ft.)

- Pushing/Pulling:
  - Up/Down (two-handed) Maximum 39.9 kgf (88 lbf); usual 19.8 kgf (44 lbf)
  - Unilateral (one-handed) Maximum 13.6 kgf (30 lbf); usual 5.0-13.6 kgf (11-30 lbf)
  - Bilateral (two-handed) Maximum 36.3 kgf (80 lbf); usual 6.8-10 kgf (15-22 lbf)

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

#### FREQUENTLY Performed Actions:

- Sitting
- Gripping
- Foot Action

#### OCCASIONALLY Performed Actions:

- Walking
- Climbing (ladders)
- Neck movements
- Reaching (Forward/Up and Down)
- Elbow Movements
- Wrist Movements
- Pinching

#### RARELY Performed Actions:

- Standing
- Climbing (Stairs)
- Crouching/Squatting
- Low Back Movements
- Reaching (To the Side)
- Fine Finger Movements (e.g. Keying)

#### Legend:

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#### **ESSENTIAL JOB FUNCTIONS:**

Essential job functions are the fundamental duties required of Coaches/Mentors/ Assessors. 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 Coach/Mentor/Assessor are:

- Assessing Driver performance
- Demonstrating duties to student drivers

Coaches/Mentors/Assessors spend upwards of 60% of their day assessing drivers and 40% of their day demonstrating duties and tasks.

#### **ESSENTIAL PHYSICAL JOB REQUIREMENTS**

To be a Coach/Mentor/Assessor, 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 accredited and/or certified 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**:

- Lifting and lowering use of levers, pulleys, jacks and other assistive devices
- **Carrying** use of hand-trucks, dollies or two-person lift
- Pushing and pulling use of assistive pulleys, levers or tools (situation specific)

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

- Sitting ergonomically-fitted air-ride seat
- Gripping steering wheel grips, adaptors or knobs
- **Foot action** hand controls for accelerator and/or brakes (if automatic transmission)
- 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 heck 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	Coach/Mentor/Assessor	NOC
Report Completed By	CBI Workplace Solutions	

#### **JOB OBJECTIVE:**

The Coach/Mentor/Assessor, when not performing normal duties as a Commercial Vehicle Operator, facilitates the on-the-job learning and assessment of new drivers. The Coach/ Mentor/Assessor ensures competence and confidence of new drivers, assists with safety enforcement and may also conduct assessments and road tests.

#### **KEY PHYSICAL JOB TASKS**

#### 1. Personalize coaching

- a. Introduce trainee to truck
  - i. Introduce trainee to inside of the truck
  - ii. Introduce trainee to outside of the truck

#### 2. Reinforce over-the-road skills

- a. Demonstrate and reinforce driving skills:
  - i. Reinforce backing maneuvers
  - ii. Reinforce lane management techniques
  - iii. Reinforce mirror skills
  - iv. Reinforce shifting patterns and procedures
  - v. Reinforce cornering skills
- b. Demonstrate and reinforce vehicle inspection and maintenance
  - i. Instruct trainee to follow regular maintenance schedule
  - ii. Instruct trainee to perform pre- and post-trip inspection
  - iii. Instruct trainee to perform mid-trip inspection
  - iv. Instruct trainee to perform circle checks when taking breaks
  - v. Instruct trainee to maintain cleanliness
- **c.** Demonstrate and reinforce proper communication using information management systems
  - i. Instruct trainee to talk with local dispatch, office manager, shop vehicle manager, customs specialists, and safety managers
  - ii. Instruct trainee to utilize satellite systems, if available

- d. Demonstrate and reinforce handling cargo and securing loads
  - i. Instruct trainee to use safe work procedures
  - ii. Demonstrate handling and securing techniques
- e. Provide training
  - i. Demonstrate proper techniques

#### 3. Prepare trainee for trucking lifestyle

- a. Educate trainee about personal safety and security
- **b.** Educate trainee about seating and posture
  - i. Instruct trainee on how to reduce major injuries and fatigue
- c. Encourage physical activity

#### 4. Assess driver

- a. Prepare for skill assessment
- **b.** Conduct skill assessment
- c. Prepare progress reports
- d. Conduct road test
  - i. Assess trainee in compliance with company policy and government (federal and provincial) regulations
  - ii. Initiate corrective interventions in compliance with company policy and government (federal and provincial) regulations

EQUIPMENT	PERSONAL PROTECTIVE EQUIPMENT
Truck and trailer; GPS; CB radio	Safety boots; safety vest; safety gloves

STRENGTH R	EQUIREMENTS		Fr	equen	су		Mass	Mass (KG) Task #		Comments	
			R	0	F	С	Max	Usual			
Lifting/Lowering Floor to Bench (0-88 cm)		1					24	=4.5</td <td>1,3,7</td> <td><ul> <li>Tools – tire thumper, hammer, wrenches [2.2-4.5 kg]</li> <li>Fluid containers – up to 4.5 kg – 109 cm</li> </ul></td>	1,3,7	<ul> <li>Tools – tire thumper, hammer, wrenches [2.2-4.5 kg]</li> <li>Fluid containers – up to 4.5 kg – 109 cm</li> </ul>	
	Bench to Shoulder (89-149 cm)		1							• Load lock – 24 kg – 101 cm	
	Floor to Shoulder (0-149 cm)		1							Some loads may require handling cargo (hand bombing cases, moving product) – occurrence is seldom.	
	Above Shoulder (>150 cm)		1								
Carrying	Weight						24	=4.5</td <td>1,2</td> <td>• Light boxes, tools, fluids carried with one</td>	1,2	• Light boxes, tools, fluids carried with one	
	Distance (meters)						6.1	15.2		or both hands. • Carrying load lock (24.0 kg) in localized area. 101.6 cm hand grip height on the load lock.	
Pushing/Pulling (Force)	Up/Down		1				39.9	19.8	1,2	<ul> <li>Pull to open hood [39.9 kg]. Hand height 142.4 cm-167.6 cm.</li> <li>Push down to raise pallet jack: Force = [19.8 kg].</li> </ul>	
	Unilateral						13.6	5.0- 13.6	1,2	<ul> <li>Open trailer swing doors: Force = 11.8 kg Hand height = 147.3 cm.</li> <li>Disengage air brakes on a control panel using pincer grip: Force = 5.0 kg, Hand horizontal distance = 18".</li> <li>Push to engage air brakes on control panel: Force = 13.6 kg, Hand distance = 48.3 cm.</li> <li>Pull to disengage parking break: Force = 5.0 kg.</li> <li>Push/pull to windup landing gear: Force = &lt; 9.1 kg.</li> </ul>	

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STRENGTH REQUIREMENTS Frequency			Mass	(KG)	Task #	Comments			
	s	R	0	F	C	Max	Usual		
Bilateral			•			36.3	6.8-10.0	1,2	<ul> <li>Pull pin to disengage 5th wheel when offloading trailer: Force = 18.1 kg, Hand height = 116.8 cm, Pin puller length = 94 cm.</li> <li>Pull hand jack to rotate/stage pallets inside the trailer: Force = 36.3 kg.</li> <li>Push/pull hand jack loaded with product, up to 26.8 kg initial force, 11.8 kg sustained (depending on load), Hand height = 121.9 cm.</li> <li>Push/pull gear shifts: Force = 6.8-10 kg, Hand height = 66 cm (some trucks are automatic).</li> <li>Push/pull to open trailer roller doors: Force = 27.2-29.5 kg, Hand height = 188 cm.</li> <li>Pull/push to place power chock to secure trailer wheels while parked at the docks: Force = 17 kg.</li> </ul>

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MOBILITY	AND POSTURAL		Fr	equen	су		Task #	Comments	
REQUIRE	MENTS	S	R	0	F	C			
Standing			1				1,2,3,4	<ul> <li>Standing is intermittent with walking when performing inspection of truck/trailer and during handling of cargo as needed.</li> <li>Opportunities to change posture are available during waiting periods throughout the shift or when assessing drivers perform inspection duties.</li> <li>Standing, walking and sitting are under the discretion of the driver during wait times.</li> </ul>	
Walking				1			1,2,3,4	• Walking is intermittent with standing when performing inspection of truck and during handling of cargo as needed.	
Sitting					1		1,2,3,4	<ul> <li>Sitting is performed when assessing the driver in-cab. Whole body vibration may be present during this time.</li> <li>However, passenger air-ride seat with an air lumbar support may be present.</li> </ul>	
Climbing	Stairs		1				1,2	• All drivers are trained to use 3-point technique to climb three steps into and out of cab of truck (43.2 cm/94.0 cm/127.0 cm), and trailer (55.9 cm/83.8 cm/114.3 cm).	
	Ladders			1			1,2	<ul> <li>43.2 cm from ground to first step onto the tractor cabin.</li> <li>94 cm from ground second step.</li> <li>127 cm from ground cabin entrance.</li> </ul>	
	Other							Not Required.	
Balancing							1,2	May be required in emergency situations.	
Kneeling							1,2	May be required in emergency situations.	
Crouching/Sc	quatting			~			1,2	Pulling pin to disengage 5th wheel (demonstrating or observing).	
Crawling							1,2	May be required in emergency situations.	
Neck Movem	ents			1			1,2,4	<ul> <li>Dynamic neck flexion and extension required to perform multiple job processes.</li> <li>Dynamic neck rotation to monitor for safety while driving and backing.</li> </ul>	

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MOBILITY AND POSTURAL REQUIREMENTS			Frequency					Comments	
		S	R	0	F	C			
Low Back Mo	vements		1				1,2,4	<ul> <li>Visual inspection of the trailer. 116.8 cm from ground to the bottom of the trailer.</li> <li>Usually able to crouch to work at low levels.</li> <li>Stooping required when forward reach is too great to crouch.</li> </ul>	
Reaching	Horizontal (Forward)			1			1,2,3,4,7	<ul> <li>Average 38.1 cm reach to the steering wheel, maximum up to 48.3 cm may be required on occasion.</li> <li>Steering wheel is positioned within close reach from the seat. 41.9 cm from the chain lumbar support to the front of the wheel.</li> </ul>	
Vertical (Up/Down)			1			1,2,3,4	• The Driver is required to reach to multiple levels. Vertical reach heights range from 15.2 cm – 188 cm" from floor level.		
							General • Fluid storage – 109.2 cm (antifreeze, oil, windshield washer fluid).		
								<ul> <li>Truck/Trailer</li> <li>Steering wheel height 63.5 cm-94 cm", positioned at an anterior tilt to the driver.</li> <li>Cabin door handle height 152.4 cm.</li> <li>Landing gear - 88.9 cm - 139.7 cm.</li> <li>Trailer pin - 116.8 cm.</li> <li>Connecting cable from trailer to truck - 76.2 cm - 142.2 cm.</li> <li>Fuel tank cap - 94 cm.</li> <li>Hood lock - 142.2 cm.</li> <li>Rear door latch - 147.3 cm.</li> <li>Grab bar - 139.7 cm - 185.4 cm.</li> <li>Storage compartment - 129.5 cm.</li> <li>Latches/locks trailer door -149.9 cm - 167.6 cm.</li> <li>Gear shifter - 66 cm.</li> <li>Dash board controls - 61 cm - 81.3 cm.</li> </ul>	
								Horn pull cord – 111.8 cm.	

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MOBILITY A	ND POSTURAL		Fr	equen	icy	1	Task #	Comments		
REQUIREM	ENTS	S	R	R O		С				
								Lift Truck • Grab bar – 144.8 cm.		
	Extension (Behind)							Not Required.		
	Lateral (Side)		1				1,2	Truck dashboard controls – 55.9 cm.		
Elbow moveme	nts			1			1,2,3,4	Intermittent non-neutral elbow posture may be required e.g. pronation/supination to operate vehicle		
Wrist movemer	nts			1			1,2,3,4	Intermittent non-neutral wrist postures may be required.		
Gripping					1		1,2,4	<ul> <li>Closed grip: carts, door handle, steering wheels, rear door latch, vehicle controls, belts, hoses, reservoir caps, etc.</li> <li>Open grip: cases (seldom), steering wheel, mobile device, assessor clipboard.</li> </ul>		
Pinching				1			1,2,4	Tip/palmar pinch: belts, hoses, paperwork, pen, small controls, hood lock, oil dipstick, etc.		
Fine finger mov (e.g. keying)	rements		1				1,2,3,4	• Operate equipment controls, bay door, dock controls, electronic log mobile application, preparing driver assessments.		
Striking with ha	ind		1				1,2	• Using hammer to check air pressure in tires when demonstrating pre/post trip inspection.		
Foot action					1		1,2,4	<ul> <li>Foot pedals while operating vehicle pedals (gas, brake, clutch with standard transmission): Force = 3.7 kg.</li> <li>Horizontal distance from pedal to the front of the seat = 48 cm.</li> <li>Load lock pedal: Force = 6.8 kg.</li> </ul>		

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ADDITIONAL CONCEI	RNS A	ND DEMANDS			Comments
Environmental Conditions	$\checkmark$	Hot	✓ ✓	Adequate lighting	Coach/Mentor/Assessor is required to
	$\checkmark$	<ul> <li>Cold</li> <li>Outdoor</li> <li>Indoor</li> <li>Dry</li> <li>Humid</li> <li>Noise</li> <li>Vibration</li> <li>Glare</li> </ul>		Moving objects Working at heights Slippery surface Congested area Sharp edges Fumes/vapours/gases Electromagnetic fields	administer training indoors, outdoor and in truck.
	$\checkmark$				<ul> <li>Conditions may vary with the weather.</li> <li>Noise and vibration present with vehicle operation and during in vehicle instruction.</li> </ul>
	1				
			1		
	$\checkmark$				
	$\checkmark$				
Psychological/Mental Demands		Work under pressure (deadlines)	$\checkmark$	Influence people	Coach/Mentor/Assessor may be required to develop and/or follow a competency-based training plan and evaluate participant's performance.
Demanas	1	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	$\checkmark$	Reading	
	$\checkmark$	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	$\checkmark$	Smell	
	$\checkmark$	Near vision		Taste	
	$\checkmark$	Far vision			