Ministry of Transportation Commercial Safety and Compliance Branch

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#### March 30, 2022

## DIRECTIVE PURSUANT TO SECTION 100.7 OF THE HIGHWAY TRAFFIC ACT

To: All Vehicle Inspection Centres and Technicians

Pursuant to section 100.7 of the *Highway Traffic Act*, I hereby make the following directive regarding inspection procedures, equipment standards and performance standards.

This directive applies to any inspection of a vehicle performed by a registered technician in a Vehicle Inspection Centre for the purpose of determining whether or not to issue an emissions inspection certificate under the *Highway Traffic Act*.

Every registered technician and every Vehicle Inspection Centre shall follow the inspection procedures and apply the equipment and performance standards set out in Schedule 1.

This directive is effective on April 1, 2022.

Jennifi Elliott

Jennifer Elliott Director of Vehicle Inspection Standards

Attachment

# **Emissions** Inspection

# **1. Emissions Inspection Overview**

Ontario Regulation 628 under the Highway Traffic Act requires commercial heavy diesel vehicles, 7 model years or older with a registered gross weight (RGW) of more than 4,500 kg, to pass an emissions Inspection for registration renewal.

The emissions Inspection requirement for ownership transfer applies to most vehicles older than the current model year. It also applies to vehicles brought into Ontario from outside the province. Emissions inspections may also be required in certain other situations under the legislation. Contact ServiceOntario at 1-800-387-3445 for clarification.

# 2. Emissions Inspection Test Types

There are two emissions tests, (Smoke opacity test and the OBD test), that separately or together form the emissions Inspection for diesel vehicles. The combination of tests required for the Inspection is determined by the vehicle model year and GVWR).

## Smoke Opacity Test

Commercial heavy diesel vehicles shall be tested for exhaust smoke opacity using the Society of Automotive Engineers (SAE) J1667 Snap Diesel Test procedure.

## On-Board Diagnostics (OBD) Test

Commercial heavy diesel vehicles model year 2007 and newer with a gross vehicle weight rating (GVWR) up to 6,350 kg, or 2016 and newer with a GVWR over 6,350 kg, must also be tested for OBD.

## Table 41.1 – Medium Duty Diesel Vehicles Emissions Test Types\*

Model Year	GVWR	Opacity Test	OBD Test
2006 and older	up to 6,350 kg	Yes	No
2007 and newer	up to 6,350 kg	Yes	Yes

# Table 41.2 – Heavy Duty Diesel Vehicles Emissions Test Types

Model Year	GVWR	Opacity Test	OBD Test
2015 and older	Over 6,350 kg	Yes	No
2016 and newer	Over 6,350 kg	Yes	Data Collection

# 3. Emissions Standards

The Smoke Opacity test standards and the OBD test standards are set out in Tables 42.1 and 42.2 below.

# Table 3.1 – Diesel Vehicle Smoke Opacity Standards

Vehicle Model Year	Opacity Standard Vehicle Passes inspection	Opacity Standard Vehicle Fails Inspection
1990 and older,	0 - 40%	> 40%
not a school bus		
1990 and older school bus	0 - 30%	> 30%
1991 to 2007	0 - 30%	> 30%
2008 to 2010	0 - 20%	> 20%
2011 and newer	0 - 20%	> 20%
2011 and newer	0 - 10%	> 10%
(Starting July 1, 2023)		

# Table 3.2 – Diesel Vehicle OBD Standards

DTC = Diagnostic Trouble Code

MIL = Malfunction Indicator Lamp / check engine light

Vehicle Model Year	OBD Standard - Vehicle passes	OBD Standard – Vehicle Fails
2006 and older	None	None
	Vehicle passes if:	Vehicle fails if:
2007 and	<ul> <li>MIL off, and</li> </ul>	• MIL on, or
newer, up to	<ul> <li>No DTCs, and</li> </ul>	<ul> <li>1 or more DTCs, or</li> </ul>
GVWR	• 3 or less monitors "not ready".	<ul> <li>More than 3 monitors "not</li> </ul>
		ready"
2016 and	None	None
newer, over		
6,350 kg		
GVWR		

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## 4. Registered Gross Weight (RGW)

RGW is used to define a heavy diesel vehicle for emission Inspection purposes. RGW is not entered into the Tablet at any step of the emissions Inspection.

The RGW is the combined weight of the vehicle and the load it carries. This weight is supplied by the operator of the vehicle to MTO for registration purposes. The RGW can change at times, i.e. seasonal changes such as removing or installing a plow or salter depending on seasons and is not entered into the Tablet.

If there are any questions regarding the RGW and Inspection requirements, ask the vehicle operator to call <u>ServiceOntario</u> at 1-800-387-3445 for clarification.

# 5. Pre-Test Check and Vehicle Rejection

A pre-test check is performed to determine whether the emissions Inspection can proceed. The Technician shall record the reasons for a pre-test rejection. The customer must be informed of the reason for rejection.

## Reasons for Rejection

Any one of the following are reasons for rejection during the pre-test check:

- 1. Visible emissions for more than five seconds in any 'one-minute' period
- 2. Missing fuel cap or fuel cap that fits improperly
- 3. Exhaust system leaks
- 4. VIN is missing or does not match the Vehicle Permit
- 5. Cannot connect to the data link connector
- 6. Inspection may cause a risk to staff health or safety
- 7. Inspection may cause damage to the Inspection Equipment or vehicle
- 8. Tampering of emissions control components or OBD systems.

## 5.1 Visible Emissions (smoke)

Visible emissions for more than 5 seconds in any one-minute period is a violation of Ontario Regulation 169/22, Vehicle Emission, and the vehicle must be rejected from Inspection. Visible emissions may pose both a health hazard and damage Inspection Equipment. If the vehicle is rejected on the grounds of excessive visible emissions, the vehicle operator should be told that vehicle cannot be Inspected until the problem causing the excessive visible emissions is repaired.

## 5.2 Missing or Improperly Fitting Fuel Cap

The vehicle is to be rejected from Inspection if the fuel cap is missing or is improperly fitting. For vehicles with more than one fuel filler inlet, each one must have a proper fitting cap in place. Vehicles manufactured with no fuel caps are not to be rejected.

#### 5.3 Exhaust System Leaks

The exhaust system must be inspected for any leaks. Exhaust leaks must be repaired before an emissions Inspection is conducted.

#### 5.4 VIN Mismatch

If the VIN is missing the motorist is required obtain VIN label from vehicle manufacturer. If the VIN does not match the vehicle permit the motorist is required to correct their vehicle permit.

#### 5.5 Data Link Connector

During the pre-test check, vehicles with data link connectors that are missing, physically damaged, or inaccessible are to be rejected from Inspection. Aftermarket devices connected to the data link connector must be removed by the customer prior to inspection.

For vehicles that are rejected, the Technician is advised to inform the vehicle operator that the data link connector must be repaired prior to being Inspected.

#### 5.6 Potential Health or Safety Risk

Technicians can refuse to conduct an Inspection on a vehicle that presents a potential health or safety risk such as excessive emissions, an exhaust or fuel leak, or any other reason that in the opinion of the Technician that poses a health or safety risk.

#### 5.7 Potential Damage

There are a number of reasons the Technician may decide to reject a vehicle based on potential damage to Inspection Equipment, property, or the vehicle itself. These include any of the following:

- Engine RPM exceeds governed speed
- Engine temperature light is on or the temperature gauge indicates an overheating condition
- Engine idle speed above maximum range (the maximum is 1250 rpm)
- Engine idle speed variability, vehicle stalling or improper acceleration
- Abnormal noises that may indicate imminent engine or driveline component failure
- Leaking of fuel, engine oil, transmission fluid or engine coolant
- Low oil level
- Insufficient fuel to complete the Inspection.

## 5.8 Potential Tampering of Emissions Control Components or OBD Systems

If the Technician notices or suspects that a vehicle has been tampered with in a way that may interfere with the normal operation of any part of a vehicle's emission control system or result in a false Inspection process, Technicians must

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refuse to test the vehicle and call the Vehicle Inspection Centre Assistance Line at 1-833-420-2110.

# 6. Emissions Inspection Procedures

- 1. To complete the emission Inspection, follow the screen prompts on the Tablet.
- 2. If you have questions during the Inspection, use the help button to access written materials, diagrams, and short videos.
- 3. If you need further assistance, use the video conference button.

# 7. Step 1 - Technician Login

- Two factor authentication (first inspection of the day only). The Technician will receive an email and SMS text message with a code to enter into the Tablet to proceed with an Inspection.
- The Technician's username and password must be entered to perform Inspections. Usernames and passwords are not to be shared or used by anyone except the Technician.
- Only registered Technicians are permitted to use Inspection Equipment. This includes the Tablet, the smoke meter, and the scan tool.
- Emissions Inspection equipment must not be used for purposes other than official emissions Inspections.
- Following successful login, a system status page provides important Technician messages.

# 8. Step 2 – Vehicle Identification

- Follow the screen prompts on the Tablet to perform vehicle identification correctly.
- All vehicle information entered into the Tablet must match the vehicle being Inspected.
- Photos must be clear, properly focused, and without any obscuring glare from the flash.

## **Optional Pre-Inspection Photos**

The Tablet will prompt the Technician to take up to five (5) optional preinspection vehicle photos to document vehicle condition (existing damage, etc.).

## 8.1 Vehicle Compliance Label Photos

Photograph the compliance label showing GVWR and VIN. If the label is too large for one photo, take up to three photos. If the compliance label is missing, use the VIN plate on the dashboard or chassis. You may also include notes describing the photos. A photo of the Vehicle Permit /vehicle registration is not acceptable.

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#### 8.2 Vehicle Identification Number (VIN)

The Technician must confirm that the VIN of the vehicle being Inspected matches the VIN scanned or manually entered into the Tablet. The Tablet software will check the VIN for errors, and may display error messages such as:

- VIN is not 17 characters long, are you sure the VIN is correct? (Y/N) or
- VIN Check Digit is not correct, are you sure the VIN is correct? (Y/N)

Unless the vehicle has a non-standard VIN (i.e. it was built prior to 1981) the Technician must enter "N" and re-enter the VIN until no error message is received. Upon VIN entry, data fields will be automatically populated by the VIN decoder.

Note the letters I, O and Q are not valid entries and that the last 5 digits must be numeric.

Most vehicle VINs can be found on the Statement of Compliance label on the driver's door opening or can be found on the instrument panel behind the driver's side of the windshield. Some vehicles may have their VINs located in other locations such as on the chassis. No matter the location of the VIN, the Vehicle Permit must match the VIN found on the vehicle.

If the VIN is missing or does not match the Vehicle Permit, the vehicle must not be Inspected, and the vehicle operator should be directed to <u>ServiceOntario</u> 1-800-387-3445 to have the VIN or Vehicle Permit corrected before the emissions Inspection. Taking a picture of the Vehicle Permit is not a substitute for a photograph of the Statement of Compliance Label or the VIN plate on the windshield.

VIC operators will be contacted and required to take corrective action at no charge to the customer if the EIC is refused at <u>ServiceOntario</u> Centers due to any Inspection error.

## 8.3 Vehicle Information Summary

The VIN will be decoded and populate most of the vehicle information fields. Any remaining mandatory fields must be entered manually by the Technician. The Technician may correct most errors in the decoded information.

## 8.4 Gross Vehicle Weight Rating (GVWR)

Technicians must enter the GVWR (in kilograms) of the vehicle being Inspected. If the vehicle has no GVWR on the driver's door, doorpost, or tire pressure decal, the Technician must use the guidance table in Appendix C to determine the GVWR. If a vehicle operator disagrees with the estimated test weight being used, it is the vehicle operator's responsibility to provide documentation from the vehicle manufacturer indicating the correct GVWR.

If you are still unsure as to what GVWR should be entered, please contact the VIC Assistance Line at 1-833-420-2110 for further assistance.

## 8.5 Engine Information

The engine year, make and size must be entered accurately.

#### 8.6 Odometer Reading and Instrument Cluster Photo

The vehicle odometer reading must be entered accurately. If the odometer is not working or is unreadable, the Technician shall enter a "1" (one).

Photograph the instrument cluster with the odometer information displayed. Instrument cluster photograph must match the manually entered odometer reading.

## 8.7 Vehicle Identification Photos and License plate

The Tablet will prompt the Technician to take the following vehicle photos:

- 1. Capture a photo of the front quarter of the vehicle which includes the license plate and vehicle make.
- 2. Manually enter license plate data or indicate vehicle is unplated.

If the photo is unclear the Technician must re-take the photo. When submitting photos, select only those that are properly lit, in focus and completely include the object. See Appendix A for examples of good photos.

# 9. Step 3 – Smoke Opacity Test

Some commercial heavy diesel vehicles must pass the Society of Automotive Engineers (**SAE**) J1667 Snap Diesel Test, which measures the opacity of exhaust emissions. This smoke opacity test involves placing a smoke meter in the exhaust and performing three to nine "snaps" – quickly accelerating the engine from idle to the maximum governed speed – and measuring the average opacity of the three official snaps. It is a requirement that all smoke opacity tests be performed fully in accordance with this procedure. Vehicles must be tested in their normal operating condition. Under no circumstances is a vehicle to be manipulated before or during an emissions Inspection.

Follow the screen prompts on the Tablet to perform the smoke opacity test correctly.

## 9.1 Rated Engine Horsepower

The Inspection Equipment uses the engine horsepower/exhaust pipe diameter data to calculate the opacity result in accordance with the smoke opacity test procedure. Follow the steps below:

**Step 1:** The rated horsepower of the engine is identified on the engine data plate. If the engine data plate is missing, illegible or inaccessible, a search of the vehicle specifications (vehicle operators/service

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manual or by internet) should be conducted. Specify source of the rated horsepower information.

- **Step 2:** If you cannot obtain the information using Step 1, then the horsepower rating will be determined by selecting the exhaust pipe diameter. This is determined by measuring the outside diameter of the exhaust pipe after the manifold before the muffler with a pipe gauge or precision caliper.
- **Step 3:** If the exhaust pipe outside diameter is 3.5 inches, the entered value should be 76 mm (3 inches). If the exhaust pipe outside diameter is 4.5 inches, the entered value should be 102 mm (4 inches). If the exhaust pipe outside diameter is greater than 127 mm (5 inches), the entered value should be 127 mm (5 inches).

#### 9.2 **RPM and Oil Temperature Readings**

Technician must obtain RPM and temperature data.

**On OBD capable vehicles**: The Technician must use the OBD interface cable to obtain an RPM signal from OBD equipped vehicles. RPM and oil temperature readings can be obtained by using either the 6-pin, 9-pin, or 16-pin OBD vehicle connection. The 6-pin connector is optional equipment and can be purchased through Parsons.

If the OBD interface cable is not used to obtain the RPM signal and oil temperature readings, the reason must be documented on the Tablet.

If OBD RPM and oil temperature are not available, the optical tachometer or oil temperature probe must be used.

The acoustic trigger is to be used as a last resort if RPM cannot be obtained via other means.

**For vehicles not equipped with OBD:** Every effort must be made to obtain an RPM and oil temperature reading, including installing an optical sensor onto the engine/vehicle according to the smoke meter manufacturer's instructions, observing all applicable health and safety legislation, protocols, and procedures. Some engines may require a rolling acceleration upon restart to activate the air/fuel ratio controls. Confirm with the engine manufacturer prior to conducting the Inspection.

The acoustic trigger is to be used as a last resort if RPM cannot be obtained via the optical sensor.

#### 9.3 Governor Speed

Follow the Tablet screen prompts to perform the governor speed check.

Verify the speed limiting capability of the motor governor using the following procedure:

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- The drive wheels are to be chocked with one set of wheel chocks placed on the front and rear of each of the drive wheels to prevent movement during the Inspection.
- Manual transmissions: The transmission must be in neutral
- Automatic transmissions: The transmission must be placed in the park position, if available, otherwise neutral
- With the motor idling slowly depress the accelerator and allow the motor speed to gradually increase towards its maximum governed high idle speed. As the motor speed increases, carefully note any visual or audible indications that the motor or vehicle may be of questionable soundness. If there are no indications of problems, allow the motor speed to increase to the point that it is possible to verify that the speed-limiting capability of the governor is functioning.

Should there be an indication that the speed-limiting capability of the governor is not functioning (i.e. the motor speed continues to increase), or that potential motor damage or unsafe conditions for personnel or equipment may occur, the accelerator should be immediately released, and the vehicle rejected.

If the motor speed continues to increase uncontrollably, immediately shut off the motor fuel supply. In case of governor failure, malfunction or maladjustment, the problem must be corrected prior to proceeding with the emissions Inspection.

For some newer vehicles, the motor will not reach its normal operating governed speed while in neutral. Where the Technician can recalibrate the governor to permit the motor RPM to rise to the operating governed speed, they should do so. Where this is not possible, proceed with the Inspection with the vehicle in neutral.

#### 9.4 Snap Acceleration Smoke Opacity Test

Follow the Tablet screen prompts to operate the smoke opacity meter. If the vehicle has multiple exhaust stacks/pipes, the snap acceleration smoke opacity test must be conducted on the stack with the highest visual opacity.

The snap acceleration smoke opacity test procedure is as follows:

**Step 1: Meter Zero** – With the correct probe required to perform the test attached to the smoke meter, place the smoke meter out of the exhaust stream, and take a zero reading to establish a baseline.

**Step 2: Clean-out Snaps** – Insert the smoke meter probe into the exhaust stream and perform three to six clean-out snaps.

**Step 3: Snap Acceleration Test Cycles** – With the smoke meter probe in the exhaust stream, perform three valid snaps. See Section 9.5 below.

**Test Validation Criteria** – The test results shall be considered valid only after the following criteria have been met:

1. **Zero Drift** – The smoke meter Zero Drift value shall:

- Not exceed 2% if overall test results are between 25% and 65% opacity, or
- Not exceed 5% if overall test results are less than 25% opacity or more than 65% opacity.
- **Failure to meet the Zero Drift criteria** typically indicates soot accumulation on the smoke meter optics. The optics should be cleaned, according to the manufacturer's instructions, and the smoke meter re-zeroed prior to conducting another snap cycle.
- 2. **Spread** The difference between the highest and lowest opacity value from the three test cycles does not exceed 5% opacity.

## 9.5 Snap Acceleration Test Cycle

Follow the Tablet screen prompts to perform the snap acceleration test cycles.

Each "**snap**" consists of a three-phase cycle:

- 1. Depress the accelerator as rapidly as possible to the floor and hold until prompted by the software to release (approximately one to four seconds).
- 2. Wait for the engine to reach low idle speed.
- 3. Allow the engine to remain at low idle until prompted by the software initiating the next snap acceleration.

The Tablet software monitors the snap acceleration test cycle and prompts the Technician to take appropriate action. When the snap acceleration test cycle is completed:

- Remove sample probe from tailpipe.
- Inspection Equipment performs zero drift check.
- Technician certifies Inspection was done according to the SOP.
- Inspection Equipment determines opacity test result.

# 10. Step 4 – On-Board Diagnostic (OBD) Test (If Required)

Commercial heavy diesel vehicles manufactured with OBD systems are required to be OBD tested as per Table 42.2 – Diesel Vehicle OBD Standards. The OBD Test accesses the onboard computer system to determine OBD readiness, malfunction indicator light (**MIL**) command status and stored Diagnostic Trouble Codes (**DTCs**) through the data link connector.

Follow the screen prompts on the Tablet to perform OBD tests correctly:

- 1. Connect OBD Dongle to the vehicle's data link connector.
- 2. Tablet conducts OBD inspection.
- 3. If the Tablet was successfully connected to the data link connector, but was unable to communicate, the overall Inspection result will be a fail for non-communications.

The Technician must contact the Vehicle Inspection Centre Assistance at 1-833-420-2110 for further instructions.

4. Software determines OBD inspection result.

# 11. The Vehicle Inspection Report (VIR)

Uploaded Inspection data is processed by the database to determine overall test result.

The VIR contains information describing the vehicle, the VIC, the Technician, test type, RPM, and the results of the emissions Inspection.

There are four possible VIR outcomes: Pass, Fail, Abort and Invalid.

- Pass vehicle met Emissions Inspection requirements of applicable opacity and OBD tests and an Emissions Inspection Certificate (**EIC**) is issued with a VICN.
- Fail vehicle did not meet the Pre-test Check or the full Emissions Inspection requirements of the opacity test and/or OBD as applicable.
- Abort the Emissions Inspection was interrupted before completion.
- Invalid the maximum permitted number of snap acceleration tests (nine) was conducted and the spread limit (5%) for any three consecutive snap acceleration tests was exceeded and/or the zero-drift limit (2% or 5%) was exceeded.

Pass VIRs are Emissions Inspection Certificates (EIC) with a bar code and Vehicle Inspection Certificate Number (VICN) to process vehicle transactions at <u>ServiceOntario</u>. All other VIRs do not contain a bar code or VICN.

An EIC is valid for 12-months after it is issued and may be used for any number of transactions within the validity period.

Customers should be advised that they will need to take their EIC to <u>ServiceOntario</u> to renew their registration or ownership transfer. Reprints are available at the Program website.

# Appendix A – Examples of Proper Inspection Photograph

VICs are responsible for ensuring inspection photos are taken properly. Inadequate photo quality (i.e. blurry) may result in action against the VIC. Technicians should re-take photos or take additional photos if the quality of the initial photos is questionable.

Photo Type	Example of Photos	
<ul> <li>Technician ID Photo Your technician photo must be:</li> <li>clear, sharp and in focus</li> <li>taken with a neutral facial expression</li> <li>your current appearance</li> <li>not altered in any way</li> </ul>		
<ul> <li>Photo Quality</li> <li>Requirement</li> <li>Inspection photos must</li> <li>be: <ul> <li>clear, sharp and in focus</li> <li>no shadows, glare, or flash reflection</li> </ul> </li> </ul>		
Compliance Label Photo Photos must include: • VIN • GWVR	MAD BY GENERAL MOTORS LLC FABRIQUE PAR GENERAL MOTORS LLC YOUR STORE AND CONTROL SAME AND AND AND AND AND AND AND AND AND ASSACTIONOLBY 2359KG(52010B) 2817KG(62001B) ASSACTIONOLBY 2359KG(5201B) 2817KG(62001B) ASSACTIONOLBY 2359KG(5201B) ASSACTIONOLBY 2359KG(5201B) ASSACTIONOLBY 2357KG(5201B) ASSACTIONOLBY 2357KG(5201B) ASSACTIN	



# Appendix B – Contact List

# 1. Vehicle Inspection Centre (for PUBLIC) (Live May 2, 2022) at 1-833-420-2103

Local - 647-243-0683

TTY - 844-201-6349

Fax - 855-868-6967

Email – <u>vic@driveonportal.com</u>

The Contact Centre is staffed by people trained on all aspects of the Program. All consumer or public inquiries, such as EIC reprints and all consumer complaints, including smoking vehicle reports, that cannot be answered by VIC staff should be directed to the Contact Centre.

The Contract Centre also provides information on VIC accreditation procedures and general program information for VICs joining the program. The hours of operation are Monday to Friday from 8:00 am to 6:00 pm, Saturday and Sunday 9:00 am to 3:00 pm.

# 2. Vehicle Inspection Centre Assistance Line for VICs (Live) at 1-833-420-2110 (free service)

Local - 647-243-0635

TTY – 1-844-204-4542

Fax - 855-868-6969

Email – info@driveonportal.com

VICs are to use this contact phone number, email, or chat for most of their day-to-day issues. This is a free Technician technical information service to assist with any of the following:

- Emissions Inspection Assistance
- Standard Operating Procedures
- New VIC Accreditation
- Training Department
- Inspection Equipment communication issues
- Banking Information questions regarding test fee payments, and
- Lockout of the Inspection Equipment.

# 3. Vehicle Registration

For vehicle operators that may have inquiries about their vehicle registration or if their vehicle is missing a vehicle identification number (VIN) they may be directed to <u>ServiceOntario</u> at 1-800-387-3445, or to visit a <u>ServiceOntario</u> location.

# Appendix C – Guidance Table for Estmating Gross Vehicle Weight Rating (GVWR)

If the vehicle has no GVWR rating on the driver's door, doorpost, or tire pressure decal, the Emissions Inspector is to use the guidance table below to determine the appropriate GVWR to enter into the Tablet. If you are unsure as to what GVWR to enter please contact the VIC Assistance Line at 1-833-420-2110 for support.

If a vehicle operator disagrees with the estimated test weight being used, it is their responsibility to provide documentation from the vehicle manufacturer indicating the correct GVWR.

Truck class	Duty classification	Weight limit	Value to be entered in Tablet	Examples
Class 1	Light truck	0-2722 kgs (0–6000 lbs.)	2500 kgs	<u>Chevrolet Colorado/GMC</u> <u>Canyon, Ford Ranger, Nissan</u> <u>Navara Jeep Gladiator, Toyota</u> <u>Tacoma, Honda Ridgeline FWD</u>
Class 2a	Light truck	2723-3856 kgs (6001– 8500 lbs.)	3500 kgs	<u>Chevrolet Silverado/GMC</u> <u>Sierra</u> 1500, <u>Ford F-150</u> , <u>Nissan</u> <u>Titan</u> , <u>Ram 1500</u> , <u>Toyota</u> <u>Tundra</u> , <u>Dodge Dakota</u> , <u>Honda</u> <u>Ridgeline AWD</u>
Class 2b	Light/Medium truck	3857-4536 kgs (38,501– 10,000 lbs.)	4500 kgs	<u>Chevrolet Silverado/GMC Sierra</u> 2500, Ford F-250, <u>Nissan Titan</u> XD, <u>Ram 2500</u>
Class 3	Medium truck	4537-6350 kgs (10,001– 14,000 lbs.)	6000 kgs	Isuzu NPR, <u>Chevrolet</u> <u>Silverado/GMC Sierra</u> <u>3500, Ford F-350, Ram</u> <u>3500, Ford F-450</u> (pickup only)

Truck class	Duty classification	Weight limit	Value to be entered in Tablet	Examples
Class 4	Medium truck	6351-7257 kgs (14,001– 16,000 lbs.)	7,000 kgs	Isuzu NPR-HD, <u>Chevrolet</u> <u>Silverado/GMC Sierra</u> <u>4500, Ford F-450</u> (chassis cab), <u>Ram 4500</u>
Class 5	Medium truck	7258-8845 kgs (16,001– 19,500 lbs.)	8,000 kgs	Isuzu NRR, <u>Chevrolet</u> <u>Silverado/GMC Sierra</u> <u>5500, Ford F-550, Ram 5500,</u> Kenworth T170, <u>Peterbilt</u> 325, <u>International</u> <u>TerraStar</u>
Class 6	Medium truck	8846-11,793 kgs (19,501– 26,000 lbs.)	11,000 kgs	<u>Chevrolet Kodiak</u> C6500, <u>Ford</u> <u>F-650</u> , Kenworth T270, <u>Peterbilt</u> 330, <u>International</u> <u>Durastar</u>
Class 7	Heavy truck	11,794- 14,969 kgs (26,001– 33,000 lbs.)	14,000 kgs	Autocar ACMD, GMC C7500, Kenworth T470 & T440 & T370, Peterbilt 220 & 337, Ford F-750
Class 8	Heavy truck	14,969+ kgs (33,001+ lbs.)	15,000 kgs	Autocar ACX, Autocar DC, International WorkStar, Freightliner Cascadia, Kenworth T600, Kenworth T660, Kenworth T680, Kenworth W900, Kenworth W990, Kenworth T880, Kenworth T800 Orange EV T-Series Electric, Mack Granite, Peterbilt 579, Peterbilt 389 - Semi-trailer trucks fall into this category