



Application for Certification
Part 1

2027 ModelYear

Durability Group: VCRXGPGNNF39
Evaporative Familie(s): VCRXF0180TR2, VCRXF0180TR3, VCRXF0213TR0, VCRXF0391TR0

Test Group: VCRXD06.4574

Four Stroke, Otto Cycle, Gasoline Fueled, Ported FI

Ceramic Monolith Pt, Pd, Rh Close Coupled Catalyst

6.4 Liter V-8

HDV3

Applicable Standards:
50 State - Tier 3 BIN 400

Vehicles Covered:
Ram 3500 Cab Chassis, 4X2/4X4

Vehicle(s) Run:

VID 1 config., Vehicle ID L5DD81477 (Exh.)
VID 2 config., Vehicle ID L5DD33676 (Evap)
VID 3 config., Vehicle ID L5DD33681 (Evap)
VID 4 config., Vehicle ID L5DJ25253 (Evap)

For Questions, Alec Soulliere 248.285.8432 Gary J. Arvan 248.221.9461
All testing completed – Unconditional Cert request



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Section 1 Correspondence and Communication

For questions dealing with the Part I application for this Test Group contact:

| | | |
|------------------------------|--|--|
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| <u>Title</u> | Director | Certification Engineer |
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For a complete listing of all Correspondence and Communication Information for FCA US LLC, please see:
"Common Section Book - Section 1 Correspondence and Communication"



Section 2 Durability Group Description

Durability Group Name: VCRXGPGNNF39

For a complete description of the Durability Group Description please see:
"Common Section Book - Section 2. Durability Group Description"



Section 3 Evaporative/Refueling Family Description

Evaporative/Refueling Family Name(s):
VCRXF0180TR2
VCRXF0180TR3
VCRXF0213TR0
VCRXF0391TR0

For a complete description of the Evaporative/Refueling Family Description please see:
"Common Section Book - Section 3. Evaporative/Refueling Family Description "

For ORVR Agency Review Sign Off please see:
"Common Section Book - Section 16. Agency Approvals"



Section 4 Durability Procedure Description

Durability Group: VCRXGPGNNF39

Durability Provision Statement:

Based on FCA US LLC 's good engineering judgement, all the vehicles described in this Application for Certification comply with all applicable intermediate and full useful life standards.

For a complete description of the Durability Procedure please see:
"Common Section Book - Section 16. Durability Procedure Description "

| | |
|--|--|
| Indicate if aged components were used. | Aged Components were used. |
| Indicate whether additive or multiplicative DF's were used. | N/A |
| List all DF's calculated at both full and intermediate useful life | EPA - Reference VERIFY (hard copies of all VERIFY Reports retained in-house) |
| And applicable standards (test results and vehicle description). | CARB - Reference Cert Review Sheet |

Evaporative/Refueling Family: VCRXF0180TR2
 VCRXF0180TR3
 VCRXF0213TR0
 VCRXF0391TR0

For a complete description of the Durability Procedure please see:
"Common Section Book - Section 16. Durability Procedure Description "

| | |
|--|--|
| Indicate if aged components were used. | Yes - Bench Aging |
| Indicate whether additive or multiplicative DF's were used. | Additive |
| List all DF's calculated at both full and intermediate useful life | EPA - Reference VERIFY (hard copies of all VERIFY Reports retained in-house) |
| And applicable standards (test results and vehicle description). | CARB - Reference Cert Review Sheet |



Section 5 Test Group Description

| | |
|--------------------------------------|--------------|
| Test Group Name: | VCRXD06.4574 |
| Engine displacements covered: | 6.4L |
| Arrangement and number of cylinders: | V-8 |
| Vehicle class(es) covered: | HDV3 |
| Emission standards class: | BIN 400 |
| AB71 Qualified Vehicles: | No |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
|-------------------|--------------|-------------------------------------|--------------|

Evaporative/Refueling Family Information

| | | | |
|---|---|---|------------------------|
| Evaporative Summary Information Type | New | Submission/Correction Date | 03/19/2026 02:47:03 PM |
| Integrated ORVR? | Yes | Fuel(s) | Gasoline |
| Multiple Fuel Storage | -- | | |
| Bladder Fuel Tank? | No | | |
| Fuel Tank Material | Plastic | Fuel Tank Material Description | hdpe/co-ex |
| Fill Pipe Seal Type | Liquid seal | | |
| Air Intake System Vapor Storage Device? | Yes | Air Intake System Vapor Storage Device Description | Panel |
| Fuel System Vapor Storage Canister? | Yes | Other Vapor Storage | -- |
| Fuel System Vapor Storage Canister(s) Total Working Capacity (grams) | 183 | Number of Primary Canisters | 1 |
| Number of Bleed Canisters | 0 | Bleed Canister Total Working Capacity (grams) | 0 |
| Mfr Evaporative/Refueling Family Comments | This Evaporative Family is being certified with an evaporative FEL of 0.600 grams | | |

Leak Family Details

| | | | |
|---|-----|---|----------|
| Leak Family Indicator | Yes | | |
| Canister Bleed Test Indicator | Yes | Applicability of Evaporative Canister Bleed Test | 50 State |
| Evaporative Canister Bleed Test Comments | -- | | |
| CARB Fuel Only (Rig) Test Indicator | No | Applicability of CARB Fuel Only (Rig) Test | -- |
| CARB Fuel Only (Rig) Test Comments | -- | | |

| Leak Family Name | Applicability of Leak Family Requirements | Leak Family Standard (inches) | Leak Family Description |
|------------------|---|-------------------------------|-------------------------|
| VCRXF0180TR2-LF1 | 50 State | 0.02 | -- |

Models Covered by this Certificate

| Carline Manufacturer | Division | Carline | Certification Region Code(s) | Drive System | Trans - Type | - # of Gears | Trans - Lockup |
|----------------------|----------|----------------------------|-------------------------------------|---------------------|--------------|--------------|----------------|
| FCA US LLC | 12 - RAM | 965 - 3500 Cab Chassis 4X4 | California + CAA Section 177 states | 4-Wheel Drive | Automatic | 8 | Yes |
| FCA US LLC | 12 - RAM | 960 - 3500 Cab Chassis 4X2 | California + CAA Section 177 states | 2-Wheel Drive, Rear | Automatic | 8 | Yes |
| FCA US LLC | 12 - RAM | 960 - 3500 Cab Chassis 4X2 | Federal | 2-Wheel Drive, Rear | Automatic | 8 | Yes |
| FCA US LLC | 12 - RAM | 965 - 3500 Cab Chassis 4X4 | Federal | 4-Wheel Drive | Automatic | 8 | Yes |

Engine Description

| | | | |
|-------------------------------------|-------------------------|--|-------|
| Hybrid Type | -- | Hybrid Description | -- |
| Engine Type | 4-Stroke Spark Ignition | Mfr Engine Description | -- |
| Engine Block Arrangement | V-shaped engine | Mfr Engine Block Arrangement Description | -- |
| Camless Valvetrain Indicator | No | Oil Viscosity/Classification | 0W-40 |
| Number of Cylinders/Rotors | 8 | Mechanically Variable Compression Ratio Indicator | N |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 | |
|--|--------------------------------------|---|--------------------|------------------------|
| After Treatment Device(s) (ATD) | | | | |
| ATD Number | ATD Type | ATD Precious Metal | Substrate Material | Substrate Construction |
| 1 | Three-way catalyst | Platinum + Palladium + Rhodium | Ceramic | Monolith |
| 2 | Three-way catalyst | Platinum + Rhodium | Ceramic | Monolith |
| 3 | Three-way catalyst | Rhodium | Ceramic | Monolith |
| Mfr After Treatment Device (ATD) Comments | THREE WAY CATALYST | | | |
| Direct Ozone Reduction (DOR) Device | Not Equipped | | | |
| Mfr Emission Control Device Comments | -- | | | |
| Engine Configuration Number 1 | | | | |
| Engine Displacement (liters) | 6.4 | Engine Rated Horsepower | 375 | |
| Number of Inlet Valves Per Cylinder | 1 | Number of Exhaust Valves Per Cylinder | 1 | |
| Air Aspiration Method | Naturally Aspirated | Number of Air Aspiration Devices | 0 | |
| Air Aspiration Device Configuration | -- | Charge Air Cooler Type | N/A | |
| Air Aspiration Drive Method(s) | -- | | | |
| Cylinder Deactivation | Yes | | | |
| Cylinder Deactivation Description | Multiple Displacement Solenoid (MDS) | | | |
| Variable Valve Timing | Yes | | | |
| Variable Valve Timing System Description | Cam phaser | | | |
| Variable Valve Lift? | No | | | |
| Variable Valve Lift System Description | -- | | | |
| Number of Knock Sensors | 2 | Number of Air/Fuel Sensors | 4 | |
| Air/Fuel Sensor # 1 Type | Heated oxygen | Air/Fuel Sensor # 1 Description | -- | |
| Air/Fuel Sensor # 2 Type | Heated oxygen | Air/Fuel Sensor # 2 Description | -- | |
| Air/Fuel Sensor # 3 Type | Heated oxygen | Air/Fuel Sensor # 3 Description | -- | |
| Air/Fuel Sensor # 4 Type | Heated oxygen | Air/Fuel Sensor # 4 Description | -- | |
| Mfr Air/Fuel Sensor Comments | -- | | | |
| Exhaust Gas Recirculation | Yes | Cooled Exhaust Gas Recirculation | Yes | |
| EGR Type | Electronic/Electric | Exhaust Gas Recirculation Description if 'Other' | -- | |
| Closed Loop Air Injection System | No | | | |
| Air Injection Type | Not Applicable | Air Injection Type if 'Other' | -- | |
| Mfr Engine Configuration Comments | -- | | | |

Certification Summary Information Report

| | | | | | | | | | | |
|---|--------------------------------------|---|--------------|----------------|----------------|------------------------------|----------------------------------|---------------------------------|-------------------------------------|------------------------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 | | | | | | | |
| Engine Configuration Number 2 | | | | | | | | | | |
| Engine Displacement (liters) | 6.4 | Engine Rated Horsepower | 405 | | | | | | | |
| Number of Inlet Valves Per Cylinder | 1 | Number of Exhaust Valves Per Cylinder | 1 | | | | | | | |
| Air Aspiration Method | Naturally Aspirated | Number of Air Aspiration Devices | 0 | | | | | | | |
| Air Aspiration Device Configuration | -- | Charge Air Cooler Type | N/A | | | | | | | |
| Air Aspiration Drive Method(s) | -- | | | | | | | | | |
| Cylinder Deactivation | Yes | | | | | | | | | |
| Cylinder Deactivation Description | Multiple Displacement Solenoid (MDS) | | | | | | | | | |
| Variable Valve Timing | Yes | | | | | | | | | |
| Variable Valve Timing System Description | Cam phaser | | | | | | | | | |
| Variable Valve Lift? | No | | | | | | | | | |
| Variable Valve Lift System Description | -- | | | | | | | | | |
| Number of Knock Sensors | 2 | Number of Air/Fuel Sensors | 4 | | | | | | | |
| Air/Fuel Sensor # 1 Type | Heated oxygen | Air/Fuel Sensor # 1 Description | -- | | | | | | | |
| Air/Fuel Sensor # 2 Type | Heated oxygen | Air/Fuel Sensor # 2 Description | -- | | | | | | | |
| Air/Fuel Sensor # 3 Type | Heated oxygen | Air/Fuel Sensor # 3 Description | -- | | | | | | | |
| Air/Fuel Sensor # 4 Type | Heated oxygen | Air/Fuel Sensor # 4 Description | -- | | | | | | | |
| Mfr Air/Fuel Sensor Comments | -- | | | | | | | | | |
| Exhaust Gas Recirculation | Yes | Cooled Exhaust Gas Recirculation | Yes | | | | | | | |
| EGR Type | Electronic/Electric | Exhaust Gas Recirculation Description if 'Other' | -- | | | | | | | |
| Closed Loop Air Injection System | No | | | | | | | | | |
| Air Injection Type | Not Applicable | Air Injection Type if 'Other' | -- | | | | | | | |
| Mfr Engine Configuration Comments | -- | | | | | | | | | |
| Official Test Numbers | | | | | | | | | | |
| Test Group | Fuel | US06 | SC03 | Cold CO | Highway | EPA City Litmus Value | EPA City Litmus Threshold | EPA Highway Litmus Value | EPA Highway Litmus Threshold | CREE Weighting Factor |
| Gasoline | SCRX10088328 | SCRX10088330 | SCRX10088331 | -- | SCRX10088329 | -- | 228.2 | -- | 286.1 | 1.0 |
| SFTP LEV-III Official Test Numbers | | | | | | | | | | |
| Test Group Fuel | Fuel | US06 | SC03 | | | | | | | |
| Gasoline | SCRX10088328 | SCRX10088330 | SCRX10088331 | | | | | | | |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
|-------------------|--------------|-------------------------------------|--------------|

Emission Data Vehicle Information

| | | | |
|----------------------------------|---------------|---|----------------------|
| Vehicle ID / Configuration | L5DD33676 / 0 | Manufacturer Vehicle Configuration Number | 0 |
| Original Test Group Name | SCRXD06.45W5 | Original Evaporative/Refueling Family | SCRXF0180TP2 |
| Original Test Vehicle Model Year | 2025 | | |
| Vehicle Model | | | |
| Represented Test Vehicle Make | RAM | Represented Test Vehicle Model | 3500 Cab Chassis 4X2 |

Leak Family Details

| | | | |
|------------------------|----|------------------|----|
| Leak Family Identifier | -- | Leak Family Name | -- |
|------------------------|----|------------------|----|

Drive Sources and Fuel System Details

| Drive Source and Fuel# | Drive Source | Fuel |
|------------------------|-------------------|----------|
| 1 | Combustion Engine | Gasoline |

| | | | |
|------------------------------------|---|--|---------------------|
| Hybrid Indicator | No | | |
| Multiple Fuel Storage | -- | Multiple Fuel Combustion | -- |
| Fuel Cell Indicator | -- | Rechargeable Energy Storage System Indicator | -- |
| Rechargeable Energy Storage System | -- | Rechargeable Energy Storage System, if 'Other' | -- |
| Off-board charge Capable Indicator | -- | | |
| Odometer Correction -- Initial | 0 | Odometer Correction Factor | 1 |
| Odometer Correction Sign | - = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor | | |
| Odometer Correction Units | Miles | | |
| Engine Code | AA-1000 | Rated Horsepower | 405 |
| Displacement (liters) | 6.4 | | |
| Air Aspiration Method | Naturally Aspirated | Air Aspiration Method, if 'Other' | |
| Number of Air Aspiration Devices | 0 | Air Aspiration Device Configuration | -- |
| Charge Air Cooler Type | -- | Drive Mode While Testing | 2-Wheel Drive, Rear |
| Shift Indicator Light Usage | Not equipped | Aged Emission Components | 4,000 (mi) |
| Curb Weight (lbs) | 9251 | Equivalent Test Weight (pounds) | 9500 |
| GVWR (lbs) | 10700 | N/V Ratio | 28.1 |
| Axle Ratio | 4.1 | | |
| Transmission Type | Automatic | # of Transmission Gears | 8 |
| Transmission Lockup | Yes | Creeper Gear | No |

Dynamometer Coefficients:

| Coefficient Category | Target Coefficients | | | Set Coefficients | | | EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients |
|----------------------|---------------------|-------------|----------------|------------------|-------------|----------------|---|
| | A (lbf) | B (lbf/mph) | C (lbf/mph**2) | A (lbf) | B (lbf/mph) | C (lbf/mph**2) | |
| City/Highway/Evap | 90.87 | 0.0042 | 0.09414 | 46.449 | 0.5136 | 0.086 | 43.5 |
| US06 | 90.87 | 0.0042 | 0.09414 | 46.449 | 0.5136 | 0.086 | N/A |

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
| Emission Control Device Comments | -- | | |
| Manufacturer Test Vehicle Comments | Callout: 25EV-D06.45W5-1 | | |
| Test # | SCRX10088369 | Test Procedure | 23 - 2-day evap |
| Exhaust Test # for this Evap Test | SCRX10088368 | Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| Test Date | 08/20/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11340 | Fuel Calibration Number | 1 |
| Vehicle Class | N/A | DF Type | Mfr. Assigned |
| Verify Test Lab ID | CTC | | |
| E10 Evaporative Test Measurement Method | Calculated (1.08 x FID Total Hydrocarbons) | | |
| Test Start Odometer Reading | 5952 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | -- | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|--|-----------------------|---------------------------------------|
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.2183004 | -- |

Manufacturer Test Comments Callout: 25EV-D06.45W5-1; Cert 2-Day/Evap (E10) Hot_Soak_HC_(g) = 0.0233500, Diurnal (g) = 0.1787800; 2-DayTotal = (0.0233500+0.1787800)*1.08 = 0.2183004 (g)

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|---------------------|----------------|----------------|--------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.2183 | 0.0057 | 0.224 | 0.600 | Pass |
| CA | 150,000 miles | Other | HC-TOTAL-EQUIV | 0.2183 | 0.0057 | 0.224 | 0.600 | Pass |

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
| Test # | SCRX10088370 | Test Procedure | 34 - Federal fuel 3-day evap |
| Exhaust Test # for this Evap Test | SCRX10088367 | Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| Test Date | 08/13/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11340 | Fuel Calibration Number | 1 |
| Vehicle Class | N/A | DF Type | Mfr. Assigned |
| Verify Test Lab ID | CTC | | |
| E10 Evaporative Test Measurement Method | Calculated (1.08 x FID Total Hydrocarbons) | | |
| Test Start Odometer Reading | 3663 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | -- | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|--|-----------------------|---------------------------------------|
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.3039552 | -- |

Manufacturer Test Comments

Callout: 25EV-D06.45W5-1; Cert 3-Day/Evap (E10) Hot_Soak_HC_(g) = 0.1159300 , Diurnal (g) = 0.1655100; 3DayTotal = (0.1159300 + 0.1655100)*1.08 = 0.3039552 (g)

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|---------------------|----------------|----------------|--------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.3040 | 0.0090 | 0.313 | 0.600 | Pass |
| CA | 150,000 miles | Other | HC-TOTAL-EQUIV | 0.3040 | 0.0090 | 0.313 | 0.600 | Pass |

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
| Test # | SCRX10088371 | Test Procedure | 32 - Federal Fuel Running Loss |
| Exhaust Test # for this Evap Test | SCRX10088367 | Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| Test Date | 08/13/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11340 | Fuel Calibration Number | 1 |
| Vehicle Class | N/A | DF Type | Mfr. Assigned |
| Verify Test Lab ID | CTC | | |
| E10 Evaporative Test Measurement Method | Calculated (1.08 x FID Total Hydrocarbons) | | |
| Test Start Odometer Reading | 3663 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | -- | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|--|-----------------------|---------------------------------------|
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.00026 | -- |

Manufacturer Test Comments

Callout: 25EV-D06.45W5-1; Cert 3-Day/Evap RL test(E10) RL=(0.00024 *1.08)=0.00026

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|---------------------|----------------|----------------|--------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.000 | 0.000 | 0.00 | 0.05 | Pass |
| CA | 150,000 miles | Other | HC-TOTAL-EQUIV | 0.000 | 0.000 | 0.00 | 0.05 | Pass |

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
| Test # | SCRX10088372 | Test Procedure | 65 - Evap Canister Bleed Test |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| Test Date | 06/05/2024 | Fuel | Gasoline |
| Fuel Batch ID | -- | Fuel Calibration Number | -- |
| Vehicle Class | N/A | DF Type | Mfr. Assigned |
| Verify Test Lab ID | Phinia | | |
| E10 Evaporative Test Measurement Method | Calculated (1.08 x FID Total Hydrocarbons) | | |
| Test Start Odometer Reading | 0 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | -- | | |
| Drive Cycle Speed Tolerance Criteria | -- | Road Speed Fan Usage | -- |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|--|-----------------------|---------------------------------------|
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.0178 | -- |

Manufacturer Test Comments Test run on a rig with aged components (not actual vehicle)

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|---------------------|----------------|----------------|--------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.0178 | 0.0000 | 0.018 | 0.030 | Pass |
| CA | 150,000 miles | Other | HC-TOTAL-EQUIV | 0.0178 | 0.0000 | 0.018 | 0.030 | Pass |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
|-------------------|--------------|-------------------------------------|--------------|

Emission Data Vehicle Information

| | | | |
|----------------------------------|---------------|---|----------------------|
| Vehicle ID / Configuration | L5DD81477 / 0 | Manufacturer Vehicle Configuration Number | 0 |
| Original Test Group Name | SCRXD06.45W5 | Original Evaporative/Refueling Family | SCRXF0180TP2 |
| Original Test Vehicle Model Year | 2025 | | |
| Vehicle Model | | | |
| Represented Test Vehicle Make | RAM | Represented Test Vehicle Model | 3500 Cab Chassis 4X4 |

Leak Family Details

| | | | |
|------------------------|----|------------------|----|
| Leak Family Identifier | -- | Leak Family Name | -- |
|------------------------|----|------------------|----|

Drive Sources and Fuel System Details

| Drive Source and Fuel# | Drive Source | Fuel |
|------------------------|-------------------|----------|
| 1 | Combustion Engine | Gasoline |

| | | | |
|------------------------------------|---------------------|---|---------------------|
| Hybrid Indicator | No | Multiple Fuel Combustion | -- |
| Multiple Fuel Storage | -- | Rechargeable Energy Storage System Indicator | -- |
| Fuel Cell Indicator | -- | Rechargeable Energy Storage System, if 'Other' | -- |
| Rechargeable Energy Storage System | -- | | |
| Off-board charge Capable Indicator | -- | Odometer Correction Factor | 1 |
| Odometer Correction -- Initial | 0 | - = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor | |
| Odometer Correction Sign | Miles | | |
| Odometer Correction Units | Miles | Rated Horsepower | 405 |
| Engine Code | AA-1750 | Air Aspiration Method, if 'Other' | |
| Displacement (liters) | 6.4 | Air Aspiration Device Configuration | -- |
| Air Aspiration Method | Naturally Aspirated | Drive Mode While Testing | 2-Wheel Drive, Rear |
| Number of Air Aspiration Devices | 0 | Aged Emission Components | 150,000 (mi) |
| Charge Air Cooler Type | -- | Equivalent Test Weight (pounds) | 11500 |
| Shift Indicator Light Usage | Not equipped | N/V Ratio | 30.7 |
| Curb Weight (lbs) | 11251 | # of Transmission Gears | 8 |
| GVWR (lbs) | 13500 | Creeper Gear | No |
| Axle Ratio | 4.1 | | |
| Transmission Type | Automatic | | |
| Transmission Lockup | Yes | | |

Dynamometer Coefficients:

| Coefficient Category | Target Coefficients | | | Set Coefficients | | | EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients |
|----------------------|---------------------|-------------|----------------|------------------|-------------|----------------|---|
| | A (lbf) | B (lbf/mph) | C (lbf/mph**2) | A (lbf) | B (lbf/mph) | C (lbf/mph**2) | |
| City/Highway/Evap | 112.96 | 0.2059 | 0.09263 | 20.26 | 0.4214 | 0.08603 | 47.3 |
| US06 | 112.96 | 0.2059 | 0.09263 | 20.26 | 0.4214 | 0.08603 | N/A |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
|---|-------------------------|-------------------------------------|--------------|
| Emission Control Device Comments | -- | | |
| Manufacturer Test Vehicle Comments | callout 25DA-D06.45W5-1 | | |

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
| Test # | SCRX10088328 | Test Procedure | 25 - California fuel 2-day exhaust (w/can load) |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline |
| Test Date | 10/29/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000), MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | DF Type | Mfr. Assigned |
| Verify Test Lab ID | CPG | | |
| E10 Evaporative Test Measurement Method | -- | | |
| Test Start Odometer Reading | 4523 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | No | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |
| Test Results | | | |

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | | | Evaporative/Refueling Family | | | | | VCRXF0180TR2 | | |
|----------------------|---------------|-----------------------------------|---------------|----------------|------------------------------|------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO | 1.22 | -- | -- | -- | 0 | 1 | 1.2 | 7.3 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO-COMP | 0.90 | -- | -- | -- | 0 | 1 | 0.9 | 6.0 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO2 | 999 | -- | -- | -- | 0 | 1 | 999 | -- | -- |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | METHANE | 0.028 | -- | -- | -- | 0 | 1 | 0.03 | 999.99 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | METHANE-COMB | 0.022 | -- | -- | -- | 0 | 1 | 0.02 | 0.05 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | N2O | 0.003 | -- | -- | -- | 0 | 1 | 0.00 | 999.99 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | N2O-COMB | 0.002 | -- | -- | -- | 0 | 1 | 0.00 | 0.05 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG | 0.0781 | -- | -- | -- | 0 | 1 | 0.078 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG+NOX | 0.1317 | -- | -- | -- | -- | -- | 0.132 | 0.400 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG+NOX-COMP | 0.0555 | -- | -- | -- | 0 | 1 | 0.056 | 0.550 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NOX | 0.0536 | -- | -- | -- | 0 | 1 | 0.054 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | PM | 0.0003 | -- | -- | -- | 0 | 1 | 0.000 | 0.010 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | PM-COMP | 0.0003 | -- | -- | -- | 0 | 1 | 0.000 | 0.007 | Pass |
| CA | 150,000 miles | Other | CO | 1.22 | -- | -- | -- | 0 | 1 | 1.2 | 7.3 | Pass |
| CA | 150,000 miles | Other | CO-COMP | 0.90 | -- | -- | -- | 0 | 1 | 0.9 | 6.0 | Pass |
| CA | 150,000 miles | Other | METHANE | 0.028 | -- | -- | -- | 0 | 1 | 0.03 | 999.99 | Pass |
| CA | 150,000 miles | Other | METHANE-COMB | 0.022 | -- | -- | -- | 0 | 1 | 0.02 | 0.05 | Pass |
| CA | 150,000 miles | Other | N2O | 0.003 | -- | -- | -- | 0 | 1 | 0.00 | 999.99 | Pass |
| CA | 150,000 miles | Other | N2O-COMB | 0.002 | -- | -- | -- | 0 | 1 | 0.00 | 0.05 | Pass |

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | | | Evaporative/Refueling Family | | | | | VCRXF0180TR2 | | |
|----------------------|---------------|----------------|---------------|----------------|------------------------------|------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
| CA | 150,000 miles | Other | NMOG | 0.0781 | -- | -- | -- | 0 | 1 | 0.078 | 999.999 | Pass |
| CA | 150,000 miles | Other | NMOG+NOX | 0.1317 | -- | -- | -- | -- | -- | 0.132 | 0.400 | Pass |
| CA | 150,000 miles | Other | NMOG+NOX-COMP | 0.0555 | -- | -- | -- | 0 | 1 | 0.056 | 0.550 | Pass |
| CA | 150,000 miles | Other | NOX | 0.0536 | -- | -- | -- | 0 | 1 | 0.054 | 999.999 | Pass |
| CA | 150,000 miles | Other | PM | 0.0003 | -- | -- | -- | 0 | 1 | 0.000 | 0.010 | Pass |
| CA | 150,000 miles | Other | PM-COMP | 0.0003 | -- | -- | -- | 0 | 1 | 0.000 | 0.007 | Pass |

NOTE: For Non-charge depleting tests, the Rounded Result for CO2 Emission name is a Verify-calculated value.

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|-------------------------------------|------------------|-----------------------|--|----------------------------------|----------|-----|----------------------|----------|----|--|--------|----|--|--------|----|---|--------|----|------------------------------------|------|------|----------------------|----------|----|---------------------|----------|----|---------------------------------|---------|----|----------------------------------|----------|----|------------------------------|----------|----|
| Test # | SCRX10088329 | Test Procedure | 3 - HWFE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Date | 10/29/2024 | Fuel | Gasoline | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000), MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | DF Type | Mfr. Assigned | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Verify Test Lab ID | CPG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E10 Evaporative Test Measurement Method | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Start Odometer Reading | 4533 | Odometer Units | M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| State of Charge Delta | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> </thead> <tbody> <tr> <td>METHANE (CH4 - Methane)</td> <td>0.013515</td> <td>--</td> </tr> <tr> <td>CO (Carbon Monoxide)</td> <td>0.209406</td> <td>--</td> </tr> <tr> <td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td> <td>0.2408</td> <td>--</td> </tr> <tr> <td>DT-EER (Drive Trace Energy Economy Rating)</td> <td>-0.044</td> <td>--</td> </tr> <tr> <td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td> <td>0.1838</td> <td>--</td> </tr> <tr> <td>MFR FE (Manufacturer Fuel Economy)</td> <td>13.1</td> <td>13.1</td> </tr> <tr> <td>NOX (Nitrogen Oxide)</td> <td>0.002354</td> <td>--</td> </tr> <tr> <td>N2O (Nitrous Oxide)</td> <td>0.001264</td> <td>--</td> </tr> <tr> <td>HC-NM (Non-methane Hydrocarbon)</td> <td>0.00512</td> <td>--</td> </tr> <tr> <td>NMOG (Non-methane organic gases)</td> <td>0.005274</td> <td>--</td> </tr> <tr> <td>HC-TOTAL (Total Hydrocarbon)</td> <td>0.018129</td> <td>--</td> </tr> </tbody> </table> | | | | Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) | METHANE (CH4 - Methane) | 0.013515 | -- | CO (Carbon Monoxide) | 0.209406 | -- | DT-ASCR (Drive Trace Absolute Speed Change Rating) | 0.2408 | -- | DT-EER (Drive Trace Energy Economy Rating) | -0.044 | -- | DT-IWRR (Drive Trace Inertia Work Ratio Rating) | 0.1838 | -- | MFR FE (Manufacturer Fuel Economy) | 13.1 | 13.1 | NOX (Nitrogen Oxide) | 0.002354 | -- | N2O (Nitrous Oxide) | 0.001264 | -- | HC-NM (Non-methane Hydrocarbon) | 0.00512 | -- | NMOG (Non-methane organic gases) | 0.005274 | -- | HC-TOTAL (Total Hydrocarbon) | 0.018129 | -- |
| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| METHANE (CH4 - Methane) | 0.013515 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CO (Carbon Monoxide) | 0.209406 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | 0.2408 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DT-EER (Drive Trace Energy Economy Rating) | -0.044 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | 0.1838 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MFR FE (Manufacturer Fuel Economy) | 13.1 | 13.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NOX (Nitrogen Oxide) | 0.002354 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N2O (Nitrous Oxide) | 0.001264 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HC-NM (Non-methane Hydrocarbon) | 0.00512 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NMOG (Non-methane organic gases) | 0.005274 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HC-TOTAL (Total Hydrocarbon) | 0.018129 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated CREE/OPT-CREE</th> </tr> </thead> <tbody> <tr> <td>Carbon-Related Exhaust Emissions</td> <td>669</td> <td>999</td> </tr> </tbody> </table> | | | | Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE | Carbon-Related Exhaust Emissions | 669 | 999 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon-Related Exhaust Emissions | 669 | 999 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated CO2</th> </tr> </thead> <tbody> <tr> <td>Carbon dioxide</td> <td>669.1756</td> <td>--</td> </tr> </tbody> </table> | | | | Test Result Name | Unrounded Test Result | Verify Calculated CO2 | Carbon dioxide | 669.1756 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Result Name | Unrounded Test Result | Verify Calculated CO2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon dioxide | 669.1756 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Manufacturer Test Comments | 25DA-D06.45W5-1 hwy @ ALVW 150k Auto Fixed E10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | | | Evaporative/Refueling Family | | | | | VCRXF0180TR2 | | |
|----------------------|---------------|-----------------------------------|---------------|----------------|------------------------------|------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO2 | 999 | -- | -- | -- | 0 | 1 | 999 | -- | -- |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | METHANE | 0.014 | -- | -- | -- | 0 | 1 | 0.01 | 999.99 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | N2O | 0.001 | -- | -- | -- | 0 | 1 | 0.00 | 999.99 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG | 0.0053 | -- | -- | -- | 0 | 1 | 0.005 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG+NOX | 0.0077 | -- | -- | -- | -- | -- | 0.008 | 0.400 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NOX | 0.0024 | -- | -- | -- | 0 | 1 | 0.002 | 999.999 | Pass |
| CA | 150,000 miles | Other | METHANE | 0.014 | -- | -- | -- | 0 | 1 | 0.01 | 999.99 | Pass |
| CA | 150,000 miles | Other | N2O | 0.001 | -- | -- | -- | 0 | 1 | 0.00 | 999.99 | Pass |
| CA | 150,000 miles | Other | NMOG | 0.0053 | -- | -- | -- | 0 | 1 | 0.005 | 999.999 | Pass |
| CA | 150,000 miles | Other | NMOG+NOX | 0.0077 | -- | -- | -- | -- | -- | 0.008 | 0.400 | Pass |
| CA | 150,000 miles | Other | NOX | 0.0024 | -- | -- | -- | 0 | 1 | 0.002 | 999.999 | Pass |

NOTE: For Non-charge depleting tests, the Rounded Result for CO2 Emission name is a Verify-calculated value.

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|-------------------------------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
| Test # | SCRX10088330 | Test Procedure | 16 - Hot 1435 LA92 |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline |
| Test Date | 10/29/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000), MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | DF Type | Mfr. Assigned |
| Verify Test Lab ID | CPG | | |
| E10 Evaporative Test Measurement Method | -- | | |
| Test Start Odometer Reading | 4559 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | No | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|--|-----------------------|--|
| CO2 BAG 1 (Bag 1 Carbon Dioxide) | 1272.51 | -- |
| FE BAG 1 (Bag 1 Fuel Economy) | 6.88 | 6.88 |
| CO2 BAG 2 (Bag 2 Carbon Dioxide) | 979.69 | -- |
| FE BAG 2 (Bag 2 Fuel Economy) | 8.93 | 8.93 |
| METHANE (CH4 - Methane) | 0.01793 | -- |
| CO (Carbon Monoxide) | 0.29737 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | -1.169 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | -0.839 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | -1.472 | -- |
| MFR FE (Manufacturer Fuel Economy) | 8.6 | 8.6 |
| NOX (Nitrogen Oxide) | 0.01204 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0.00137 | -- |
| NMOG (Non-methane organic gases) | 0.00143 | -- |
| PM (Particulate Matter) | 0.000213 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0.01863 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|----------------------------------|-----------------------|---------------------------------|
| Carbon-Related Exhaust Emissions | 1016 | -- |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
|-------------------|--------------|-------------------------------------|--------------|

| | | |
|-------------------------|------------------------------|------------------------------|
| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
| Carbon dioxide | 1015.2 | -- |

Manufacturer Test Comments 25DA-D06.45W5-1 la92 @ ALVW 150k Auto Fixed E10

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|-----------------------------------|---------------|----------------|-----|------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO | 0.30 | -- | -- | -- | 0 | 1 | 0.3 | 999.9 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG | 0.0014 | -- | -- | -- | 0 | 1 | 0.001 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NOX | 0.0120 | -- | -- | -- | 0 | 1 | 0.012 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | PM | 0.0002 | -- | -- | -- | 0 | 1 | 0.000 | 999.999 | Pass |
| CA | 150,000 miles | Other | CO | 0.30 | -- | -- | -- | 0 | 1 | 0.3 | 999.9 | Pass |
| CA | 150,000 miles | Other | NMOG | 0.0014 | -- | -- | -- | 0 | 1 | 0.001 | 999.999 | Pass |
| CA | 150,000 miles | Other | NOX | 0.0120 | -- | -- | -- | 0 | 1 | 0.012 | 999.999 | Pass |
| CA | 150,000 miles | Other | PM | 0.0002 | -- | -- | -- | 0 | 1 | 0.000 | 999.999 | Pass |

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|-------------------------------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
| Test # | SCRX10088331 | Test Procedure | 95 - SC03 |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline |
| Test Date | 10/29/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000), MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | DF Type | Mfr. Assigned |
| Verify Test Lab ID | CPG | | |
| E10 Evaporative Test Measurement Method | -- | | |
| Test Start Odometer Reading | 4577 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | No | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | Yes |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|--|-----------------------|--|
| METHANE (CH4 - Methane) | 0.029102 | -- |
| CO (Carbon Monoxide) | 1.036974 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | -0.142 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | 0.5253 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | -0.03 | -- |
| MFR FE (Manufacturer Fuel Economy) | 8.3 | 8.3 |
| NOX (Nitrogen Oxide) | 0.008233 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0.00678 | -- |
| NMOG (Non-methane organic gases) | 0.006985 | -- |
| PM (Particulate Matter) | 0.000434 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0.034972 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|----------------------------------|-----------------------|---------------------------------|
| Carbon-Related Exhaust Emissions | 1052 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|------------------|-----------------------|-----------------------|
| Carbon dioxide | 1049.63628 | -- |

Manufacturer Test Comments 25DA-D06.45W5-1 sc03 @ ALVW 150k Auto Fixed E10

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | | | | Evaporative/Refueling Family | | | | VCRXF0180TR2 | | |
|----------------------|---------------|-----------------------------------|---------------|----------------|-----|------------------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO | 1.04 | -- | -- | -- | 0 | 1 | 1.0 | 999.9 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG | 0.0070 | -- | -- | -- | 0 | 1 | 0.007 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NOX | 0.0082 | -- | -- | -- | 0 | 1 | 0.008 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | PM | 0.0004 | -- | -- | -- | 0 | 1 | 0.000 | 999.999 | Pass |
| CA | 150,000 miles | Other | CO | 1.0370 | -- | -- | -- | 0 | 1 | 1.037 | 999.999 | Pass |
| CA | 150,000 miles | Other | NMOG | 0.0070 | -- | -- | -- | 0 | 1 | 0.007 | 999.999 | Pass |
| CA | 150,000 miles | Other | NOX | 0.0082 | -- | -- | -- | 0 | 1 | 0.008 | 999.999 | Pass |
| CA | 150,000 miles | Other | PM | 0.0004 | -- | -- | -- | 0 | 1 | 0.000 | 999.999 | Pass |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
|---|--|---|--------------|
| Fuel Properties | | | |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 |
| Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline | Fuel Batch Calibration Date | 10/29/2024 |
| Fuel Batch Calibration Effective Date | 10/29/2024 | Fuel Batch Calibration Ineffective Date | -- |
| Carbon Weight Fraction NMHC | 0.83 | Carbon Weight Fraction HC | -- |
| Exhaust Carbon Weight Fraction | -- | Fuel Methanol Volume Fraction | -- |
| Fuel Density (grams/cubic ft) | -- | Fuel Specific Gravity | 0.752 |
| Fuel Ethanol Volume Percent (%) | 9.8 | Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb) | 17803 |
| Fuel Net Heat of Combustion (E10) (MJ/kg) | -- | Fuel Carbon Mass Fraction (E10) | -- |
| Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0) | 0.83 | Weight Fraction CO2 | -- |
| Fuel Batch ID | 11340 | Fuel Calibration Number | 1 |
| Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) | Fuel Batch Calibration Date | 08/04/2024 |
| Fuel Batch Calibration Effective Date | 08/04/2024 | Fuel Batch Calibration Ineffective Date | -- |
| Carbon Weight Fraction NMHC | 0.828 | Carbon Weight Fraction HC | -- |
| Exhaust Carbon Weight Fraction | -- | Fuel Methanol Volume Fraction | -- |
| Fuel Density (grams/cubic ft) | -- | Fuel Specific Gravity | 0.75 |
| Fuel Ethanol Volume Percent (%) | 10 | Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb) | 17885 |
| Fuel Net Heat of Combustion (E10) (MJ/kg) | -- | Fuel Carbon Mass Fraction (E10) | -- |
| Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0) | 0.828 | Weight Fraction CO2 | -- |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
|-------------------|--------------|-------------------------------------|--------------|

Consolidated List of Standards

Exhaust Standards

| | | | |
|----------------------|---|-------------------------|--|
| Cert Region | Federal | Cert/In-Use Code | Cert |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | Standard Level | Federal Tier 3 HD Class 3 Bin 400 |
| Fuel | Gasoline | Test Procedure | California fuel 2-day exhaust (w/can load) |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | -- | -- | 1 | 0 | 7.3 |
| 150,000 miles | CO-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 6.0 |
| 150,000 miles | CO2 | -- | -- | -- | -- | -- | 1 | 0 | 999 |
| 150,000 miles | HCHO | -- | -- | -- | -- | -- | 1 | 0 | 0.006 |
| 150,000 miles | METHANE | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | METHANE-COMB | -- | -- | -- | -- | -- | 1 | 0 | 0.05 |
| 150,000 miles | N2O | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | N2O-COMB | -- | -- | -- | -- | -- | 1 | 0 | 0.05 |
| 150,000 miles | NMOG | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | 1 | 0 | 0.400 |
| 150,000 miles | NMOG+NOX-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 0.550 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | -- | -- | 1 | 0 | 0.010 |
| 150,000 miles | PM-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 0.007 |

Certification Summary Information Report

| | | | |
|----------------------|---|-------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
| Cert Region | California + CAA Section 177 states | Cert/In-Use Code | Cert |
| Vehicle Class | MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | Standard Level | Other |
| Fuel | Gasoline | Test Procedure | California fuel 2-day exhaust (w/can load) |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | -- | -- | 1 | 0 | 7.3 |
| 150,000 miles | CO-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 6.0 |
| 150,000 miles | HCHO | -- | -- | -- | -- | -- | 1 | 0 | 0.006 |
| 150,000 miles | METHANE | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | METHANE-COMB | -- | -- | -- | -- | -- | 1 | 0 | 0.05 |
| 150,000 miles | N2O | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | N2O-COMB | -- | -- | -- | -- | -- | 1 | 0 | 0.05 |
| 150,000 miles | NMOG | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | 1 | 0 | 0.400 |
| 150,000 miles | NMOG+NOX-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 0.550 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | -- | -- | 1 | 0 | 0.010 |
| 150,000 miles | PM-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 0.007 |

| | | | |
|----------------------|---|-------------------------|---------------|
| Cert Region | California + CAA Section 177 states | Cert/In-Use Code | Cert |
| Vehicle Class | MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | Standard Level | Other |
| Fuel | Gasoline | Test Procedure | Hot 1435 LA92 |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | 0 | 0 | 1 | 0 | 999.9 |
| 150,000 miles | NMOG | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | NOX | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |

Certification Summary Information Report

| | | | |
|----------------------|---|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
| Cert Region | California + CAA Section 177 states | Cert/In-Use Code | Cert |
| Vehicle Class | MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | Standard Level | Other |
| Fuel | Gasoline | Test Procedure | HWFE |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | METHANE | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | N2O | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | NMOG | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | 1 | 0 | 0.400 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |

| | | | |
|----------------------|---|-------------------------|-----------------------------------|
| Cert Region | Federal | Cert/In-Use Code | Cert |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | Standard Level | Federal Tier 3 HD Class 3 Bin 400 |
| Fuel | Gasoline | Test Procedure | SC03 |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | 0 | 0 | 1 | 0 | 999.9 |
| 150,000 miles | NMOG | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | NOX | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |

| | | | |
|----------------------|---|-------------------------|-------|
| Cert Region | California + CAA Section 177 states | Cert/In-Use Code | Cert |
| Vehicle Class | MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | Standard Level | Other |
| Fuel | Gasoline | Test Procedure | SC03 |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | NMOG | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | NOX | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |

Certification Summary Information Report

| | | | |
|----------------------|---|-------------------------------------|-----------------------------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
| Cert Region | Federal | Cert/In-Use Code | Cert |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | Standard Level | Federal Tier 3 HD Class 3 Bin 400 |
| Fuel | Gasoline | Test Procedure | Hot 1435 LA92 |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | 0 | 0 | 1 | 0 | 999.9 |
| 150,000 miles | NMOG | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | NOX | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |

| | | | |
|----------------------|---|-------------------------|-----------------------------------|
| Cert Region | Federal | Cert/In-Use Code | Cert |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | Standard Level | Federal Tier 3 HD Class 3 Bin 400 |
| Fuel | Gasoline | Test Procedure | HWFE |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO2 | -- | -- | -- | -- | -- | 1 | 0 | 999 |
| 150,000 miles | METHANE | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | N2O | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | NMOG | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | 1 | 0 | 0.400 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |

Evaporative/Refueling Standards

| | | | |
|-------------------------------------|---------------------------|-----------------------|---------------------|
| Evaporative/Refueling Family | VCRXF0180TR2 | Cert Region | Federal |
| Cert/In-Use Code | Cert | Standard Level | Federal Tier 3 Evap |
| Test Procedure | Federal Fuel Running Loss | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|----------|---------------|----------------|----------------|------|--------|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.05 | 0.000 |

| | | | |
|-------------------------------------|--------------|-----------------------|-------------------------------------|
| Evaporative/Refueling Family | VCRXF0180TR2 | Cert Region | California + CAA Section 177 states |
| Cert/In-Use Code | Cert | Standard Level | Other |
| Test Procedure | 2-day evap | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|----------|---------------|----------------|----------------|-------|--------|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.600 | 0.0057 |

Certification Summary Information Report

| | | | | | |
|-------------------------------------|---------------------------|----------------------|-------------------------------------|-------------------------------------|---------------|
| Test Group | VCRXD06.4574 | | Evaporative/Refueling Family | VCRXF0180TR2 | |
| Evaporative/Refueling Family | VCRXF0180TR2 | | Cert Region | California + CAA Section 177 states | |
| Cert/In-Use Code | Cert | | Standard Level | Other | |
| Test Procedure | Evap Canister Bleed Test | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.030 | 0.0000 |
| Evaporative/Refueling Family | VCRXF0180TR2 | | Cert Region | Federal | |
| Cert/In-Use Code | Cert | | Standard Level | Federal Tier 3 Evap | |
| Test Procedure | Evap Canister Bleed Test | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.030 | 0.0000 |
| Evaporative/Refueling Family | VCRXF0180TR2 | | Cert Region | Federal | |
| Cert/In-Use Code | Cert | | Standard Level | Federal Tier 3 Evap | |
| Test Procedure | 2-day evap | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.600 | 0.0057 |
| Evaporative/Refueling Family | VCRXF0180TR2 | | Cert Region | California + CAA Section 177 states | |
| Cert/In-Use Code | Cert | | Standard Level | Other | |
| Test Procedure | Federal Fuel Running Loss | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.05 | 0.000 |
| Evaporative/Refueling Family | VCRXF0180TR2 | | Cert Region | California + CAA Section 177 states | |
| Cert/In-Use Code | Cert | | Standard Level | Other | |
| Test Procedure | Federal fuel 3-day evap | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.600 | 0.0090 |
| Evaporative/Refueling Family | VCRXF0180TR2 | | Cert Region | Federal | |
| Cert/In-Use Code | Cert | | Standard Level | Federal Tier 3 Evap | |
| Test Procedure | Federal fuel 3-day evap | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.600 | 0.0090 |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
|-------------------|--------------|-------------------------------------|--------------|

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
|----------------------|---|------------------------------|--|
| Glossary | | | |
| Useful Life | | | |
| 4 | 4,000 miles | 120 | 120,000 miles |
| 50 | 50,000 miles | 150 | 150,000 miles |
| 100 | 100,000 miles | | |
| Emission Name | | | |
| HC-TOTAL | Total Hydrocarbon | COMB-CREE | Combined Carbon-Related Exhaust Emissions |
| CO | Carbon Monoxide | COMB-OPT-CREE | Combined Optional Carbon-Related Exhaust Emissions |
| CO2 | Carbon dioxide | HC-TOTAL-EQUIV | Total Hydrocarbon equivalent - Evap only |
| CREE | Carbon-Related Exhaust Emissions | METHANE-COMB | Combined CH4 for HD 2b/3 vehicles only |
| OPT-CREE | Optional Carbon-Related Exhaust Emissions | N2O-COMB | Combined Nitrous Oxide for HD 2b/3 vehicles only |
| NOX | Nitrogen Oxide | LEAK-DIA | Effective Leak Diameter (inches) |
| PM | Particulate Matter | LEAK-GAS CAP | Gas Cap Leakage (cc/min) |
| PM-COMP | SFTP Composite Particulate Matter | CO2-COMB | Combined Carbon Dioxide for HD 2b/3 Vehicles Only |
| HC-NM | Non-methane Hydrocarbon | KW-HRS | Integrated DC KW-HRS |
| OMHCE | Organic material Hydrocarbon Equivalent | CH4 BAG 1 | Bag 1 Methane |
| OMNMHCE | Organic material non-methane HC equivalent | CH4 BAG 2 | Bag 2 Methane |
| NMOG | Non-methane organic gases | CH4 BAG 3 | Bag 3 Methane |
| HCHO | Formaldehyde | CH4 BAG 4 | Bag 4 Methane |
| H3C2HO | Acetaldehyde | CO BAG 1 | Bag 1 Carbon Monoxide |
| HC-NM+NOX | SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03 | CO BAG 2 | Bag 2 Carbon Monoxide |
| HC-NM+NOX-COMP | SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides | CO BAG 3 | Bag 3 Carbon Monoxide |
| CO-COMP | SFTP Composite Carbon Monoxide | CO BAG 4 | Bag 4 Carbon Monoxide |
| ETHANOL | C2H5OH - Ethanol | NMOG BAG 1 | Bag 1 Non-methane organic gases |
| FE BAG 1 | Bag 1 Fuel Economy | NMOG BAG 2 | Bag 2 Non-methane organic gases |
| FE BAG 2 | Bag 2 Fuel Economy | NMOG BAG 3 | Bag 3 Non-methane organic gases |
| FE BAG 3 | Bag 3 Fuel Economy | NMOG BAG 4 | Bag 4 Non-methane organic gases |
| FE BAG 4 | Bag 4 Fuel Economy | ACT-DISTANCE BAG 1 | Bag 1 Actual Distance |
| MFR FE | Manufacturer Fuel Economy | ACT-DISTANCE BAG 2 | Bag 2 Actual Distance |
| HC | Hydrocarbon for Running Loss and ORVR | ACT-DISTANCE BAG 3 | Bag 3 Actual Distance |
| METHANE | CH4 - Methane | ACT-DISTANCE BAG 4 | Bag 4 Actual Distance |
| METHANOL | CH3OH - Methanol | HC-TOTAL BAG 1 | Bag 1 Total Hydrocarbon |
| N2O | Nitrous Oxide | HC-TOTAL BAG 2 | Bag 2 Total Hydrocarbon |
| SPITBACK | Spitback Hydrocarbon in grams | HC-TOTAL BAG 3 | Bag 3 Total Hydrocarbon |
| AMP-HRS | Integrated Amp-hours | HC-TOTAL BAG 4 | Bag 4 Total Hydrocarbon |
| START-SOC | System Start State of Charge Watt-hours | WATT-HRS BAG 1 | Bag 1 Watt Hours |
| END-SOC | System End State of Charge Watt-hours | WATT-HRS BAG 2 | Bag 2 Watt Hours |

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | Evaporative/Refueling Family | | VCRXF0180TR2 |
|--|--|--------------|------------------------------|---|--------------|
| ACT-DISTANCE | Actual Distance Driven (miles) | | WATT-HRS BAG 3 | Bag 3 Watt Hours | |
| AS-VOLT | Average System Voltage | | WATT-HRS BAG 4 | Bag 4 Watt Hours | |
| CO2 BAG 1 | Bag 1 Carbon Dioxide | | WATT-HRS | Watt Hours | |
| CO2 BAG 2 | Bag 2 Carbon Dioxide | | HC-NM BAG 1 | Bag 1 Non-methane Hydrocarbon | |
| CO2 BAG 3 | Bag 3 Carbon Dioxide | | HC-NM BAG 2 | Bag 2 Non-methane Hydrocarbon | |
| CO2 BAG 4 | Bag 4 Carbon Dioxide | | HC-NM BAG 3 | Bag 3 Non-methane Hydrocarbon | |
| NMOG+NOX | Non-methane organic gases plus Nitrogen Oxides | | HC-NM BAG 4 | Bag 4 Non-methane Hydrocarbon | |
| NMOG+NOX-COMP | SFTP Composite Non-methane Organic Gases + Nitrogen Oxides | | N2O BAG 1 | Bag 1 Nitrous Oxide | |
| DT-IWRR | Drive Trace Inertia Work Ratio Rating | | N2O BAG 2 | Bag 2 Nitrous Oxide | |
| DT-ASCR | Drive Trace Absolute Speed Change Rating | | N2O BAG 3 | Bag 3 Nitrous Oxide | |
| DT-EER | Drive Trace Energy Economy Rating | | N2O BAG 4 | Bag 4 Nitrous Oxide | |
| Certification Region | | | | | |
| CA | California + CAA Section 177 states | | FA | Federal | |
| Exhaust Emission Standard Level | | | | | |
| B1 | Federal Tier 2 Bin 1 | | HDV2B340 | Federal Tier 3 HD Class 2b Transitional Bin 340 | |
| B2 | Federal Tier 2 Bin 2 | | HDV2B250 | Federal Tier 3 HD Class 2b Bin 250 | |
| B3 | Federal Tier 2 Bin 3 | | HDV2B200 | Federal Tier 3 HD Class 2b Bin 200 | |
| B4 | Federal Tier 2 Bin 4 | | HDV2B170 | Federal Tier 3 HD Class 2b Bin 170 | |
| B5 | Federal Tier 2 Bin 5 | | HDV2B150 | Federal Tier 3 HD Class 2b Bin 150 | |
| B6 | Federal Tier 2 Bin 6 | | HDV2B0 | Federal Tier 3 HD Class 2b Bin 0 | |
| B7 | Federal Tier 2 Bin 7 | | HDV3B630 | Federal Tier 3 HD Class 3 Transitional Bin 630 | |
| B8 | Federal Tier 2 Bin 8 | | HDV3B570 | Federal Tier 3 HD Class 3 Transitional Bin 570 | |
| B9 | Federal Tier 2 Bin 9 | | HDV3B400 | Federal Tier 3 HD Class 3 Bin 400 | |
| B10 | Federal Tier 2 Bin 10 | | HDV3B270 | Federal Tier 3 HD Class 3 Bin 270 | |
| B11 | Federal Tier 2 Bin 11 | | HDV3B230 | Federal Tier 3 HD Class 3 Bin 230 | |
| HDV1 | HDV1 (Federal HD chassis Class 2b GVW 8501-10000) | | HDV3B200 | Federal Tier 3 HD Class 3 Bin 200 | |
| HDV2 | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | | HDV3B0 | Federal Tier 3 HD Class 3 Bin 0 | |
| L2 | California LEV-II LEV | | L4SULEV100 | California LEV-IV SULEV100 | |
| L2OP | California LEV-II LEV Optional | | L4SULEV125 | California LEV-IV SULEV125 | |
| U2 | California LEV-II ULEV | | L4SULEV15 | California LEV-IV SULEV15 | |
| S2 | California LEV-II SULEV | | L4SULEV150 | California LEV-IV SULEV150 | |
| ZEV | California ZEV | | L4SULEV170 | California LEV-IV SULEV170 | |
| OT | Other | | L4SULEV175 | California LEV-IV SULEV175 | |
| T1 | Federal Tier 1 | | L4SULEV20 | California LEV-IV SULEV20 | |
| PZEV | California PZEV | | L4SULEV200 | California LEV-IV SULEV200 | |
| L2LEV160 | California LEV-II LEV160 | | L4SULEV230 | California LEV-IV SULEV230 | |
| L2ULEV125 | California LEV-II ULEV125 | | L4SULEV25 | California LEV-IV SULEV25 | |
| L2SULEV30 | California LEV-II SULEV30 | | L4SULEV30 | California LEV-IV SULEV30 | |
| L2LEV395 | California LEV-II LEV395 | | L4SULEV75 | California LEV-IV SULEV75 | |

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | Evaporative/Refueling Family | | VCRXF0180TR2 |
|-------------------------------|---|--------------|--|----------------------------|--------------|
| L2ULEV340 | California LEV-II ULEV340 | | L4SULEV85 | California LEV-IV SULEV85 | |
| L2LEV630 | California LEV-II LEV630 | | L4ULEV125 | California LEV-IV ULEV125 | |
| L2ULEV570 | California LEV-II ULEV570 | | L4ULEV200 | California LEV-IV ULEV200 | |
| L3LEV160 | California LEV-III LEV160 | | L4ULEV250 | California LEV-IV ULEV250 | |
| L3ULEV125 | California LEV-III ULEV125 | | L4ULEV270 | California LEV-IV ULEV270 | |
| L3ULEV70 | California LEV-III ULEV70 | | L4ULEV40 | California LEV-IV ULEV40 | |
| L3ULEV50 | California LEV-III ULEV50 | | L4ULEV400 | California LEV-IV ULEV400 | |
| L3SULEV30 | California LEV-III SULEV30 | | L4ULEV50 | California LEV-IV ULEV50 | |
| L3SULEV20 | California LEV-III SULEV20 | | L4ULEV60 | California LEV-IV ULEV60 | |
| L3LEV395 | California LEV-III LEV395 | | L4ULEV70 | California LEV-IV ULEV70 | |
| L3ULEV340 | California LEV-III ULEV340 | | T4B170 | Federal Tier 4 MDV Bin 170 | |
| L3ULEV250 | California LEV-III ULEV250 | | T4B150 | Federal Tier 4 MDV Bin 150 | |
| L3ULEV200 | California LEV-III ULEV200 | | T4B125 | Federal Tier 4 MDV Bin 125 | |
| L3SULEV170 | California LEV-III SULEV170 | | T4B100 | Federal Tier 4 MDV Bin 100 | |
| L3SULEV150 | California LEV-III SULEV150 | | T4B85 | Federal Tier 4 MDV Bin 85 | |
| L3LEV630 | California LEV-III LEV630 | | T4B75 | Federal Tier 4 MDV Bin 75 | |
| L3ULEV570 | California LEV-III ULEV570 | | T4B70 | Federal Tier 4 Bin 70 | |
| L3ULEV400 | California LEV-III ULEV400 | | T4B65 | Federal Tier 4 Bin 65 | |
| L3ULEV270 | California LEV-III ULEV270 | | T4B60 | Federal Tier 4 Bin 60 | |
| L3SULEV230 | California LEV-III SULEV230 | | T4B55 | Federal Tier 4 Bin 55 | |
| L3SULEV200 | California LEV-III SULEV200 | | T4B50 | Federal Tier 4 Bin 50 | |
| T3B160 | Federal Tier 3 Bin 160 | | T4B45 | Federal Tier 4 Bin 45 | |
| T3B125 | Federal Tier 3 Bin 125 | | T4B40 | Federal Tier 4 Bin 40 | |
| T3B110 | Federal Tier 3 Transitional Bin 110 | | T4B35 | Federal Tier 4 Bin 35 | |
| T3B85 | Federal Tier 3 Transitional Bin 85 | | T4B30 | Federal Tier 4 Bin 30 | |
| T3SULEV30 | Federal Tier 3 Transitional LEV-II SULEV30 Carryover | | T4B25 | Federal Tier 4 Bin 25 | |
| T3B70 | Federal Tier 3 Bin 70 | | T4B20 | Federal Tier 4 Bin 20 | |
| T3B50 | Federal Tier 3 Bin 50 | | T4B15 | Federal Tier 4 Bin 15 | |
| T3B30 | Federal Tier 3 Bin 30 | | T4B10 | Federal Tier 4 Bin 10 | |
| T3B20 | Federal Tier 3 Bin 20 | | T4B5 | Federal Tier 4 Bin 5 | |
| T3B0 | Federal Tier 3 Bin 0 | | T4B0 | Federal Tier 4 Bin 0 | |
| HDV2B395 | Federal Tier 3 HD Class 2b Transitional Bin 395 | | | | |
| Transmission Type Code | | | | | |
| AMS | Automated Manual- Selectable (e.g. Automated Manual with paddles) | M | Manual | | |
| A | Automatic | OT | Other | | |
| AM | Automated Manual | SA | Semi-Automatic | | |
| CVT | Continuously Variable | SCV | Selectable Continuously Variable (e.g. CVT with paddles) | | |
| Drive System Code | | | | | |
| 4 | 4-Wheel Drive | P | Part-time 4-Wheel Drive | | |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR2 |
|--------------------------------------|---------------------------------|-------------------------------------|----------------------------------|
| F | 2-Wheel Drive, Front | A | All Wheel Drive |
| R | 2-Wheel Drive, Rear | | |
| Additional Terms and Acronyms | | | |
| AFC | Alternative Fuel Converter | ICI | Independent Commercial Importer |
| CSI | Certificate Summary Information | ORVR | Onboard Refueling Vapor Recovery |
| DF | Deterioration Factor | SIL | Shift Indicator Light |
| Evap | Evaporation, Evaporative | Trans | Transmission |

Certification Summary Information Report

| | | | |
|-----------------------------------|--------------|-------------------------------------|------------------------|
| Manufacturer | FCA US LLC | Manufacturer Code | CRX |
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
| Certificate Number | -- | CARB Executive Order # | -- |
| Certificate Issue Date | -- | Certificate Revision Date | -- |
| Certificate Effective Date | -- | Conditional Certificate | -- |
| CSI Revision # | -- | CSI Submission/Revision Date | 03/19/2026 04:57:36 PM |
| Model Year | 2027 | | |

| | | | |
|---|---|--|-------------------------------------|
| Test Group Information | | | |
| CSI Type | Update for Correction | Running Change Reference Number | -- |
| GHG Exempt Status | Not Exempt | | |
| Drive Sources and Fuel(s) | | | |
| Drive Source #1: | Combustion Engine | | |
| | Fuel | Basic Fuel Metering System | Lean Burn Strategy Indicator |
| | Gasoline | Multipoint/sequential fuel injection | No |
| Hybrid Indicator | No | | |
| Multiple Fuel Storage | -- | Rechargeable Energy Storage System Indicator | -- |
| Multiple Fuel Combustion | -- | Off-board Charge Capable Indicator | -- |
| Fuel Cell Indicator | -- | EPA Vehicle Class | HDV2 |
| Federal Clean Fuel Vehicle | Yes | Federal Clean Fuel Vehicle Standard | LEV |
| Federal Clean Fuel Vehicle ILEV | No | California Partial Zero Emissions Vehicle Indicator | No |
| Durability Group Name | VCRXGPGNNF39 | Durability Group Equivalency Factor | 1.6 |
| Reduced Fee Test Group | No | Certification Region Code(s) | FA, CA |
| Complies with HD GHG 2b/3 regulations? | Yes | | |
| Introduction into Commerce Date | -- | CAP2000 Conditional Certificate? | N/A |
| Independent Commercial Importer? | -- | Alternative Fuel Converter Certificate? | -- |
| SFTP Federal Composite Compliance Identifier | Tier 3 | SFTP Tier 2 Composite CO Option | No |
| SFTP LEV-III Composite Compliance Indicator | Yes | | |
| OBD Compliance Type | CARB | OBD Demonstration Vehicle Test Group | VCRXT03.6570 |
| Test Group OBD Compliance Level | Partial - with deficiencies | Number of Test Group OBD Deficiencies | 2 |
| OBD Deficiencies Comments | SAE J1979-2 Implementation, Adaptive, Cruise Control and Parallel Park Systems Default Action | | |
| Mfr Test Group Comments | -- | | |
| Mfr Exhaust / Evap Standards Comments | -- | | |

Certification Summary Information Report

| | | | | | | | |
|---|---|---|-------------------------------------|---------------------|---------------------|---------------------|-----------------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 | | | | |
| Evaporative/Refueling Family Information | | | | | | | |
| Evaporative Summary Information Type | New | Submission/Correction Date | 03/19/2026 02:55:15 PM | | | | |
| Integrated ORVR? | Yes | Fuel(s) | Gasoline | | | | |
| Multiple Fuel Storage | -- | | | | | | |
| Bladder Fuel Tank? | No | | | | | | |
| Fuel Tank Material | Plastic | Fuel Tank Material Description | hdpe/co-ex | | | | |
| Fill Pipe Seal Type | Liquid seal | | | | | | |
| Air Intake System Vapor Storage Device? | Yes | Air Intake System Vapor Storage Device Description | Panel | | | | |
| Fuel System Vapor Storage Canister? | Yes | Other Vapor Storage | -- | | | | |
| Fuel System Vapor Storage Canister(s) Total Working Capacity (grams) | 183 | Number of Primary Canisters | 1 | | | | |
| Number of Bleed Canisters | 0 | Bleed Canister Total Working Capacity (grams) | 0 | | | | |
| Mfr Evaporative/Refueling Family Comments | This Evaporative Family is being certified with an evaporative FEL of 0.600 grams | | | | | | |
| Leak Family Details | | | | | | | |
| Leak Family Indicator | Yes | | | | | | |
| Canister Bleed Test Indicator | Yes | Applicability of Evaporative Canister Bleed Test | 50 State | | | | |
| Evaporative Canister Bleed Test Comments | -- | | | | | | |
| CARB Fuel Only (Rig) Test Indicator | No | Applicability of CARB Fuel Only (Rig) Test | -- | | | | |
| CARB Fuel Only (Rig) Test Comments | -- | | | | | | |
| Leak Family Name | Applicability of Leak Family Requirements | Leak Family Standard (inches) | Leak Family Description | | | | |
| VCRXF0180TR3-LF1 | 50 State | 0.02 | -- | | | | |
| Models Covered by this Certificate | | | | | | | |
| Carline Manufacturer | Division | Carline | Certification Region Code(s) | Drive System | Trans - Type | - # of Gears | Trans - Lockup |
| FCA US LLC | 12 - RAM | 960 - 3500 Cab Chassis 4X2 | California + CAA Section 177 states | 2-Wheel Drive, Rear | Automatic | 8 | Yes |
| FCA US LLC | 12 - RAM | 960 - 3500 Cab Chassis 4X2 | Federal | 2-Wheel Drive, Rear | Automatic | 8 | Yes |
| FCA US LLC | 12 - RAM | 965 - 3500 Cab Chassis 4X4 | Federal | 4-Wheel Drive | Automatic | 8 | Yes |
| FCA US LLC | 12 - RAM | 965 - 3500 Cab Chassis 4X4 | California + CAA Section 177 states | 4-Wheel Drive | Automatic | 8 | Yes |
| Engine Description | | | | | | | |
| Hybrid Type | -- | Hybrid Description | -- | | | | |
| Engine Type | 4-Stroke Spark Ignition | Mfr Engine Description | -- | | | | |
| Engine Block Arrangement | V-shaped engine | Mfr Engine Block Arrangement Description | -- | | | | |
| Camless Valvetrain Indicator | No | Oil Viscosity/Classification | 0W-40 | | | | |
| Number of Cylinders/Rotors | 8 | Mechanically Variable Compression Ratio Indicator | N | | | | |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 | |
|--|--------------------------------------|---|--------------------|------------------------|
| After Treatment Device(s) (ATD) | | | | |
| ATD Number | ATD Type | ATD Precious Metal | Substrate Material | Substrate Construction |
| 1 | Three-way catalyst | Platinum + Palladium + Rhodium | Ceramic | Monolith |
| 2 | Three-way catalyst | Platinum + Rhodium | Ceramic | Monolith |
| 3 | Three-way catalyst | Rhodium | Ceramic | Monolith |
| Mfr After Treatment Device (ATD) Comments | THREE WAY CATALYST | | | |
| Direct Ozone Reduction (DOR) Device | Not Equipped | | | |
| Mfr Emission Control Device Comments | -- | | | |
| Engine Configuration Number 1 | | | | |
| Engine Displacement (liters) | 6.4 | Engine Rated Horsepower | 375 | |
| Number of Inlet Valves Per Cylinder | 1 | Number of Exhaust Valves Per Cylinder | 1 | |
| Air Aspiration Method | Naturally Aspirated | Number of Air Aspiration Devices | 0 | |
| Air Aspiration Device Configuration | -- | Charge Air Cooler Type | N/A | |
| Air Aspiration Drive Method(s) | -- | | | |
| Cylinder Deactivation | Yes | | | |
| Cylinder Deactivation Description | Multiple Displacement Solenoid (MDS) | | | |
| Variable Valve Timing | Yes | | | |
| Variable Valve Timing System Description | Cam phaser | | | |
| Variable Valve Lift? | No | | | |
| Variable Valve Lift System Description | -- | | | |
| Number of Knock Sensors | 2 | Number of Air/Fuel Sensors | 4 | |
| Air/Fuel Sensor # 1 Type | Heated oxygen | Air/Fuel Sensor # 1 Description | -- | |
| Air/Fuel Sensor # 2 Type | Heated oxygen | Air/Fuel Sensor # 2 Description | -- | |
| Air/Fuel Sensor # 3 Type | Heated oxygen | Air/Fuel Sensor # 3 Description | -- | |
| Air/Fuel Sensor # 4 Type | Heated oxygen | Air/Fuel Sensor # 4 Description | -- | |
| Mfr Air/Fuel Sensor Comments | -- | | | |
| Exhaust Gas Recirculation | Yes | Cooled Exhaust Gas Recirculation | Yes | |
| EGR Type | Electronic/Electric | Exhaust Gas Recirculation Description if 'Other' | -- | |
| Closed Loop Air Injection System | No | | | |
| Air Injection Type | Not Applicable | Air Injection Type if 'Other' | -- | |
| Mfr Engine Configuration Comments | -- | | | |

Certification Summary Information Report

| | | | | | | | | | | |
|---|--------------------------------------|---|--------------|----------------|----------------|------------------------------|----------------------------------|---------------------------------|-------------------------------------|------------------------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 | | | | | | | |
| Engine Configuration Number 2 | | | | | | | | | | |
| Engine Displacement (liters) | 6.4 | Engine Rated Horsepower | 405 | | | | | | | |
| Number of Inlet Valves Per Cylinder | 1 | Number of Exhaust Valves Per Cylinder | 1 | | | | | | | |
| Air Aspiration Method | Naturally Aspirated | Number of Air Aspiration Devices | 0 | | | | | | | |
| Air Aspiration Device Configuration | -- | Charge Air Cooler Type | N/A | | | | | | | |
| Air Aspiration Drive Method(s) | -- | | | | | | | | | |
| Cylinder Deactivation | Yes | | | | | | | | | |
| Cylinder Deactivation Description | Multiple Displacement Solenoid (MDS) | | | | | | | | | |
| Variable Valve Timing | Yes | | | | | | | | | |
| Variable Valve Timing System Description | Cam phaser | | | | | | | | | |
| Variable Valve Lift? | No | | | | | | | | | |
| Variable Valve Lift System Description | -- | | | | | | | | | |
| Number of Knock Sensors | 2 | Number of Air/Fuel Sensors | 4 | | | | | | | |
| Air/Fuel Sensor # 1 Type | Heated oxygen | Air/Fuel Sensor # 1 Description | -- | | | | | | | |
| Air/Fuel Sensor # 2 Type | Heated oxygen | Air/Fuel Sensor # 2 Description | -- | | | | | | | |
| Air/Fuel Sensor # 3 Type | Heated oxygen | Air/Fuel Sensor # 3 Description | -- | | | | | | | |
| Air/Fuel Sensor # 4 Type | Heated oxygen | Air/Fuel Sensor # 4 Description | -- | | | | | | | |
| Mfr Air/Fuel Sensor Comments | -- | | | | | | | | | |
| Exhaust Gas Recirculation | Yes | Cooled Exhaust Gas Recirculation | Yes | | | | | | | |
| EGR Type | Electronic/Electric | Exhaust Gas Recirculation Description if 'Other' | -- | | | | | | | |
| Closed Loop Air Injection System | No | | | | | | | | | |
| Air Injection Type | Not Applicable | Air Injection Type if 'Other' | -- | | | | | | | |
| Mfr Engine Configuration Comments | -- | | | | | | | | | |
| Official Test Numbers | | | | | | | | | | |
| Test Group | Fuel | US06 | SC03 | Cold CO | Highway | EPA City Litmus Value | EPA City Litmus Threshold | EPA Highway Litmus Value | EPA Highway Litmus Threshold | CREE Weighting Factor |
| Gasoline | SCRX10088328 | SCRX10088330 | SCRX10088331 | -- | SCRX10088329 | -- | 228.2 | -- | 286.1 | 1.0 |
| SFTP LEV-III Official Test Numbers | | | | | | | | | | |
| Test Group Fuel | Fuel | US06 | SC03 | | | | | | | |
| Gasoline | SCRX10088328 | SCRX10088330 | SCRX10088331 | | | | | | | |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
|-------------------|--------------|-------------------------------------|--------------|

Emission Data Vehicle Information

| | | | |
|----------------------------------|---------------|---|----------------------|
| Vehicle ID / Configuration | L5DD33681 / 0 | Manufacturer Vehicle Configuration Number | 0 |
| Original Test Group Name | SCRXD06.45W5 | Original Evaporative/Refueling Family | SCRXF0180TP3 |
| Original Test Vehicle Model Year | 2025 | | |
| Vehicle Model | | | |
| Represented Test Vehicle Make | RAM | Represented Test Vehicle Model | 3500 Cab Chassis 4X2 |

Leak Family Details

| | | | |
|------------------------|----|------------------|----|
| Leak Family Identifier | -- | Leak Family Name | -- |
|------------------------|----|------------------|----|

Drive Sources and Fuel System Details

| Drive Source and Fuel# | Drive Source | Fuel |
|------------------------|-------------------|----------|
| 1 | Combustion Engine | Gasoline |

| | | | |
|------------------------------------|---------------------|---|---------------------|
| Hybrid Indicator | No | Multiple Fuel Combustion | -- |
| Multiple Fuel Storage | -- | Rechargeable Energy Storage System Indicator | -- |
| Fuel Cell Indicator | -- | Rechargeable Energy Storage System, if 'Other' | -- |
| Rechargeable Energy Storage System | -- | | |
| Off-board charge Capable Indicator | -- | Odometer Correction Factor | 1 |
| Odometer Correction -- Initial | 0 | - = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor | |
| Odometer Correction Sign | | | |
| Odometer Correction Units | Miles | Rated Horsepower | 405 |
| Engine Code | AA-3250 | Air Aspiration Method, if 'Other' | |
| Displacement (liters) | 6.4 | Air Aspiration Device Configuration | -- |
| Air Aspiration Method | Naturally Aspirated | Drive Mode While Testing | 2-Wheel Drive, Rear |
| Number of Air Aspiration Devices | 0 | Aged Emission Components | 4,000 (mi) |
| Charge Air Cooler Type | -- | Equivalent Test Weight (pounds) | 11500 |
| Shift Indicator Light Usage | Not equipped | N/V Ratio | 30.7 |
| Curb Weight (lbs) | 11251 | # of Transmission Gears | 8 |
| GVWR (lbs) | 13500 | Creeper Gear | No |
| Axle Ratio | 4.1 | | |
| Transmission Type | Automatic | | |
| Transmission Lockup | Yes | | |

Dynamometer Coefficients:

| Coefficient Category | Target Coefficients | | | Set Coefficients | | | EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients |
|----------------------|---------------------|-------------|----------------|------------------|-------------|----------------|---|
| | A (lbf) | B (lbf/mph) | C (lbf/mph**2) | A (lbf) | B (lbf/mph) | C (lbf/mph**2) | |
| City/Highway/Evap | 106.46 | 0.1492 | 0.0924 | 62.62 | 0.3467 | 0.0875 | 46 |
| US06 | 106.46 | 0.1492 | 0.0924 | 62.62 | 0.3467 | 0.0875 | N/A |

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
| Emission Control Device Comments | -- | | |
| Manufacturer Test Vehicle Comments | Callout: 25EV-D06.42W5-2 | | |
| Test # | SCRX10088358 | Test Procedure | 23 - 2-day evap |
| Exhaust Test # for this Evap Test | SCRX10088350 | Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| Test Date | 08/13/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11340 | Fuel Calibration Number | 1 |
| Vehicle Class | N/A | DF Type | Mfr. Assigned |
| Verify Test Lab ID | CTC | | |
| E10 Evaporative Test Measurement Method | Calculated (1.08 x FID Total Hydrocarbons) | | |
| Test Start Odometer Reading | 3554 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | -- | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|--|-----------------------|---------------------------------------|
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.263898 | -- |

Manufacturer Test Comments Callout: 25EV-D06.42W5-2; Cert 2-Day/Evap (E10) Hot_Soak_HC_(g) = 0.02840, Diurnal (g) = 0.; 2-DayTotal = 0.21595 (0.02840+0.21595)*1.08 = 0.2638980 (g)

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|---------------------|----------------|----------------|--------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.2639 | 0.0057 | 0.270 | 0.600 | Pass |
| CA | 150,000 miles | Other | HC-TOTAL-EQUIV | 0.2639 | 0.0057 | 0.270 | 0.600 | Pass |

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
| Test # | SCRX10088361 | Test Procedure | 34 - Federal fuel 3-day evap |
| Exhaust Test # for this Evap Test | SCRX10088351 | Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| Test Date | 08/22/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11340 | Fuel Calibration Number | 1 |
| Vehicle Class | N/A | DF Type | Mfr. Assigned |
| Verify Test Lab ID | CTC | | |
| E10 Evaporative Test Measurement Method | Calculated (1.08 x FID Total Hydrocarbons) | | |
| Test Start Odometer Reading | 3597 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | -- | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|--|-----------------------|---------------------------------------|
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.285498 | -- |

Manufacturer Test Comments

Callout: 25EV-D06.42W5-2; Cert 3-Day/Evap (E10) Hot_Soak_HC_(g) = 0.08469 , Diurnal (g) = 0.17966; 3DayTotal = (0.08469 + 0.17966)*1.08 = 0.2854980 (g)

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|---------------------|----------------|----------------|--------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.2855 | 0.0090 | 0.294 | 0.600 | Pass |
| CA | 150,000 miles | Other | HC-TOTAL-EQUIV | 0.2855 | 0.0090 | 0.294 | 0.600 | Pass |

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
| Test # | SCRX10088362 | Test Procedure | 32 - Federal Fuel Running Loss |
| Exhaust Test # for this Evap Test | SCRX10088351 | Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| Test Date | 08/22/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11340 | Fuel Calibration Number | 1 |
| Vehicle Class | N/A | DF Type | Mfr. Assigned |
| Verify Test Lab ID | CTC | | |
| E10 Evaporative Test Measurement Method | Calculated (1.08 x FID Total Hydrocarbons) | | |
| Test Start Odometer Reading | 3597 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | -- | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|--|-----------------------|---------------------------------------|
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.0000648 | -- |

Manufacturer Test Comments

Callout: 25EV-D06.42W5-2; Cert 3-Day/Evap RL test(E10) RL=(0.0000600 *1.08)=0.0000648

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|---------------------|----------------|----------------|--------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.000 | 0.000 | 0.00 | 0.05 | Pass |
| CA | 150,000 miles | Other | HC-TOTAL-EQUIV | 0.000 | 0.000 | 0.00 | 0.05 | Pass |

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
| Test # | SCRX10088363 | Test Procedure | 65 - Evap Canister Bleed Test |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| Test Date | 06/05/2024 | Fuel | Gasoline |
| Fuel Batch ID | -- | Fuel Calibration Number | -- |
| Vehicle Class | N/A | DF Type | Mfr. Assigned |
| Verify Test Lab ID | Phinia | | |
| E10 Evaporative Test Measurement Method | Calculated (1.08 x FID Total Hydrocarbons) | | |
| Test Start Odometer Reading | 0 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | -- | | |
| Drive Cycle Speed Tolerance Criteria | -- | Road Speed Fan Usage | -- |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|--|-----------------------|---------------------------------------|
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.0178 | -- |

Manufacturer Test Comments Test run on a rig with aged components (not actual vehicle)

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|---------------------|----------------|----------------|--------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.0178 | 0.0000 | 0.018 | 0.030 | Pass |
| CA | 150,000 miles | Other | HC-TOTAL-EQUIV | 0.0178 | 0.0000 | 0.018 | 0.030 | Pass |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
|-------------------|--------------|-------------------------------------|--------------|

Emission Data Vehicle Information

| | | | |
|----------------------------------|---------------|---|----------------------|
| Vehicle ID / Configuration | L5DD81477 / 0 | Manufacturer Vehicle Configuration Number | 0 |
| Original Test Group Name | SCRXD06.45W5 | Original Evaporative/Refueling Family | SCRXF0180TP2 |
| Original Test Vehicle Model Year | 2025 | | |
| Vehicle Model | | | |
| Represented Test Vehicle Make | RAM | Represented Test Vehicle Model | 3500 Cab Chassis 4X4 |

Leak Family Details

| | | | |
|------------------------|----|------------------|----|
| Leak Family Identifier | -- | Leak Family Name | -- |
|------------------------|----|------------------|----|

Drive Sources and Fuel System Details

| Drive Source and Fuel# | Drive Source | Fuel |
|------------------------|-------------------|----------|
| 1 | Combustion Engine | Gasoline |

| | | | |
|------------------------------------|---|--|---------------------|
| Hybrid Indicator | No | | |
| Multiple Fuel Storage | -- | Multiple Fuel Combustion | -- |
| Fuel Cell Indicator | -- | Rechargeable Energy Storage System Indicator | -- |
| Rechargeable Energy Storage System | -- | Rechargeable Energy Storage System, if 'Other' | -- |
| Off-board charge Capable Indicator | -- | | |
| Odometer Correction -- Initial | 0 | Odometer Correction Factor | 1 |
| Odometer Correction Sign | - = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor | | |
| Odometer Correction Units | Miles | | |
| Engine Code | AA-1750 | Rated Horsepower | 405 |
| Displacement (liters) | 6.4 | | |
| Air Aspiration Method | Naturally Aspirated | Air Aspiration Method, if 'Other' | |
| Number of Air Aspiration Devices | 0 | Air Aspiration Device Configuration | -- |
| Charge Air Cooler Type | -- | Drive Mode While Testing | 2-Wheel Drive, Rear |
| Shift Indicator Light Usage | Not equipped | Aged Emission Components | 150,000 (mi) |
| Curb Weight (lbs) | 11251 | Equivalent Test Weight (pounds) | 11500 |
| GVWR (lbs) | 13500 | N/V Ratio | 30.7 |
| Axle Ratio | 4.1 | | |
| Transmission Type | Automatic | # of Transmission Gears | 8 |
| Transmission Lockup | Yes | Creeper Gear | No |

Dynamometer Coefficients:

| Coefficient Category | Target Coefficients | | | Set Coefficients | | | EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients |
|----------------------|---------------------|-------------|----------------|------------------|-------------|----------------|---|
| | A (lbf) | B (lbf/mph) | C (lbf/mph**2) | A (lbf) | B (lbf/mph) | C (lbf/mph**2) | |
| City/Highway/Evap | 112.96 | 0.2059 | 0.09263 | 20.26 | 0.4214 | 0.08603 | 47.3 |
| US06 | 112.96 | 0.2059 | 0.09263 | 20.26 | 0.4214 | 0.08603 | N/A |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
|---|-------------------------|-------------------------------------|--------------|
| Emission Control Device Comments | -- | | |
| Manufacturer Test Vehicle Comments | callout 25DA-D06.45W5-1 | | |

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
| Test # | SCRX10088328 | Test Procedure | 25 - California fuel 2-day exhaust (w/can load) |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline |
| Test Date | 10/29/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000), MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | DF Type | Mfr. Assigned |
| Verify Test Lab ID | CPG | | |
| E10 Evaporative Test Measurement Method | -- | | |
| Test Start Odometer Reading | 4523 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | No | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |
| Test Results | | | |

Certification Summary Information Report

| | | | |
|-------------------|--------------|------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
|-------------------|--------------|------------------------------|--------------|

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|---|-----------------------|--|
| CO2 BAG 1 (Bag 1 Carbon Dioxide) | 978.7 | -- |
| FE BAG 1 (Bag 1 Fuel Economy) | 8.87 | 8.87 |
| CO2 BAG 2 (Bag 2 Carbon Dioxide) | 894.34 | -- |
| FE BAG 2 (Bag 2 Fuel Economy) | 9.8 | 9.8 |
| CO2 BAG 3 (Bag 3 Carbon Dioxide) | 876.32 | -- |
| FE BAG 3 (Bag 3 Fuel Economy) | 9.98 | 9.98 |
| METHANE (CH4 - Methane) | 0.028244 | -- |
| CO (Carbon Monoxide) | 1.216332 | -- |
| METHANE-COMB (Combined CH4 for HD 2b/3 vehicles only) | 0.022 | -- |
| N2O-COMB (Combined Nitrous Oxide for HD 2b/3 vehicles only) | 0.002 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | -0.823 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | -0.355 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | -1.77 | -- |
| MFR FE (Manufacturer Fuel Economy) | 9.6 | 9.6 |
| NOX (Nitrogen Oxide) | 0.053594 | -- |
| N2O (Nitrous Oxide) | 0.002803 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0.070978 | -- |
| NMOG (Non-methane organic gases) | 0.07807 | -- |
| PM (Particulate Matter) | 0.000295 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0.098018 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|----------------------------------|-----------------------|---------------------------------|
| Carbon-Related Exhaust Emissions | 909 | 999 |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|------------------|-----------------------|-----------------------|
| Carbon dioxide | 906.87591 | -- |

Manufacturer Test Comments

25DA-D06.45W5-1 city @ ALVW 150k Auto Fixed E10

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | | | Evaporative/Refueling Family | | | | | VCRXF0180TR3 | | |
|----------------------|---------------|-----------------------------------|---------------|----------------|------------------------------|------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO | 1.22 | -- | -- | -- | 0 | 1 | 1.2 | 7.3 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO-COMP | 0.90 | -- | -- | -- | 0 | 1 | 0.9 | 6.0 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO2 | 999 | -- | -- | -- | 0 | 1 | 999 | -- | -- |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | METHANE | 0.028 | -- | -- | -- | 0 | 1 | 0.03 | 999.99 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | METHANE-COMB | 0.022 | -- | -- | -- | 0 | 1 | 0.02 | 0.05 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | N2O | 0.003 | -- | -- | -- | 0 | 1 | 0.00 | 999.99 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | N2O-COMB | 0.002 | -- | -- | -- | 0 | 1 | 0.00 | 0.05 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG | 0.0781 | -- | -- | -- | 0 | 1 | 0.078 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG+NOX | 0.1317 | -- | -- | -- | -- | -- | 0.132 | 0.400 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG+NOX-COMP | 0.0555 | -- | -- | -- | 0 | 1 | 0.056 | 0.550 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NOX | 0.0536 | -- | -- | -- | 0 | 1 | 0.054 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | PM | 0.0003 | -- | -- | -- | 0 | 1 | 0.000 | 0.010 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | PM-COMP | 0.0003 | -- | -- | -- | 0 | 1 | 0.000 | 0.007 | Pass |
| CA | 150,000 miles | Other | CO | 1.22 | -- | -- | -- | 0 | 1 | 1.2 | 7.3 | Pass |
| CA | 150,000 miles | Other | CO-COMP | 0.90 | -- | -- | -- | 0 | 1 | 0.9 | 6.0 | Pass |
| CA | 150,000 miles | Other | METHANE | 0.028 | -- | -- | -- | 0 | 1 | 0.03 | 999.99 | Pass |
| CA | 150,000 miles | Other | METHANE-COMB | 0.022 | -- | -- | -- | 0 | 1 | 0.02 | 0.05 | Pass |
| CA | 150,000 miles | Other | N2O | 0.003 | -- | -- | -- | 0 | 1 | 0.00 | 999.99 | Pass |
| CA | 150,000 miles | Other | N2O-COMB | 0.002 | -- | -- | -- | 0 | 1 | 0.00 | 0.05 | Pass |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
|-------------------|--------------|-------------------------------------|--------------|

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|----------------|---------------|----------------|-----|------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| CA | 150,000 miles | Other | NMOG | 0.0781 | -- | -- | -- | 0 | 1 | 0.078 | 999.999 | Pass |
| CA | 150,000 miles | Other | NMOG+NOX | 0.1317 | -- | -- | -- | -- | -- | 0.132 | 0.400 | Pass |
| CA | 150,000 miles | Other | NMOG+NOX-COMP | 0.0555 | -- | -- | -- | 0 | 1 | 0.056 | 0.550 | Pass |
| CA | 150,000 miles | Other | NOX | 0.0536 | -- | -- | -- | 0 | 1 | 0.054 | 999.999 | Pass |
| CA | 150,000 miles | Other | PM | 0.0003 | -- | -- | -- | 0 | 1 | 0.000 | 0.010 | Pass |
| CA | 150,000 miles | Other | PM-COMP | 0.0003 | -- | -- | -- | 0 | 1 | 0.000 | 0.007 | Pass |

NOTE: For Non-charge depleting tests, the Rounded Result for CO2 Emission name is a Verify-calculated value.

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | | | Evaporative/Refueling Family | | | | | VCRXF0180TR3 | | |
|----------------------|---------------|-----------------------------------|---------------|----------------|------------------------------|------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO2 | 999 | -- | -- | -- | 0 | 1 | 999 | -- | -- |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | METHANE | 0.014 | -- | -- | -- | 0 | 1 | 0.01 | 999.99 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | N2O | 0.001 | -- | -- | -- | 0 | 1 | 0.00 | 999.99 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG | 0.0053 | -- | -- | -- | 0 | 1 | 0.005 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG+NOX | 0.0077 | -- | -- | -- | -- | -- | 0.008 | 0.400 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NOX | 0.0024 | -- | -- | -- | 0 | 1 | 0.002 | 999.999 | Pass |
| CA | 150,000 miles | Other | METHANE | 0.014 | -- | -- | -- | 0 | 1 | 0.01 | 999.99 | Pass |
| CA | 150,000 miles | Other | N2O | 0.001 | -- | -- | -- | 0 | 1 | 0.00 | 999.99 | Pass |
| CA | 150,000 miles | Other | NMOG | 0.0053 | -- | -- | -- | 0 | 1 | 0.005 | 999.999 | Pass |
| CA | 150,000 miles | Other | NMOG+NOX | 0.0077 | -- | -- | -- | -- | -- | 0.008 | 0.400 | Pass |
| CA | 150,000 miles | Other | NOX | 0.0024 | -- | -- | -- | 0 | 1 | 0.002 | 999.999 | Pass |

NOTE: For Non-charge depleting tests, the Rounded Result for CO2 Emission name is a Verify-calculated value.

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|-------------------------------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
| Test # | SCRX10088330 | Test Procedure | 16 - Hot 1435 LA92 |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline |
| Test Date | 10/29/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000), MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | DF Type | Mfr. Assigned |
| Verify Test Lab ID | CPG | | |
| E10 Evaporative Test Measurement Method | -- | | |
| Test Start Odometer Reading | 4559 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | No | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|---|-----------------------|--|
| CO2 BAG 1 (Bag 1 Carbon Dioxide) | 1272.51 | -- |
| FE BAG 1 (Bag 1 Fuel Economy) | 6.88 | 6.88 |
| CO2 BAG 2 (Bag 2 Carbon Dioxide) | 979.69 | -- |
| FE BAG 2 (Bag 2 Fuel Economy) | 8.93 | 8.93 |
| METHANE (CH4 - Methane) | 0.01793 | -- |
| CO (Carbon Monoxide) | 0.29737 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | -1.169 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | -0.839 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | -1.472 | -- |
| MFR FE (Manufacturer Fuel Economy) | 8.6 | 8.6 |
| NOX (Nitrogen Oxide) | 0.01204 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0.00137 | -- |
| NMOG (Non-methane organic gases) | 0.00143 | -- |
| PM (Particulate Matter) | 0.000213 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0.01863 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|---|-----------------------|---------------------------------|
| Carbon-Related Exhaust Emissions | 1016 | -- |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
|-------------------|--------------|-------------------------------------|--------------|

| | | |
|-------------------------|------------------------------|------------------------------|
| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
| Carbon dioxide | 1015.2 | -- |

Manufacturer Test Comments 25DA-D06.45W5-1 la92 @ ALVW 150k Auto Fixed E10

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|-----------------------------------|---------------|----------------|-----|------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO | 0.30 | -- | -- | -- | 0 | 1 | 0.3 | 999.9 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG | 0.0014 | -- | -- | -- | 0 | 1 | 0.001 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NOX | 0.0120 | -- | -- | -- | 0 | 1 | 0.012 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | PM | 0.0002 | -- | -- | -- | 0 | 1 | 0.000 | 999.999 | Pass |
| CA | 150,000 miles | Other | CO | 0.30 | -- | -- | -- | 0 | 1 | 0.3 | 999.9 | Pass |
| CA | 150,000 miles | Other | NMOG | 0.0014 | -- | -- | -- | 0 | 1 | 0.001 | 999.999 | Pass |
| CA | 150,000 miles | Other | NOX | 0.0120 | -- | -- | -- | 0 | 1 | 0.012 | 999.999 | Pass |
| CA | 150,000 miles | Other | PM | 0.0002 | -- | -- | -- | 0 | 1 | 0.000 | 999.999 | Pass |

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|-------------------------------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
| Test # | SCRX10088331 | Test Procedure | 95 - SC03 |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline |
| Test Date | 10/29/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000), MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | DF Type | Mfr. Assigned |
| Verify Test Lab ID | CPG | | |
| E10 Evaporative Test Measurement Method | -- | | |
| Test Start Odometer Reading | 4577 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | No | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | Yes |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|--|-----------------------|--|
| METHANE (CH4 - Methane) | 0.029102 | -- |
| CO (Carbon Monoxide) | 1.036974 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | -0.142 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | 0.5253 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | -0.03 | -- |
| MFR FE (Manufacturer Fuel Economy) | 8.3 | 8.3 |
| NOX (Nitrogen Oxide) | 0.008233 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0.00678 | -- |
| NMOG (Non-methane organic gases) | 0.006985 | -- |
| PM (Particulate Matter) | 0.000434 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0.034972 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|----------------------------------|-----------------------|---------------------------------|
| Carbon-Related Exhaust Emissions | 1052 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|------------------|-----------------------|-----------------------|
| Carbon dioxide | 1049.63628 | -- |

Manufacturer Test Comments 25DA-D06.45W5-1 sc03 @ ALVW 150k Auto Fixed E10

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | | | | Evaporative/Refueling Family | | | | VCRXF0180TR3 | | |
|----------------------|---------------|-----------------------------------|---------------|----------------|-----|------------------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO | 1.04 | -- | -- | -- | 0 | 1 | 1.0 | 999.9 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG | 0.0070 | -- | -- | -- | 0 | 1 | 0.007 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NOX | 0.0082 | -- | -- | -- | 0 | 1 | 0.008 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | PM | 0.0004 | -- | -- | -- | 0 | 1 | 0.000 | 999.999 | Pass |
| CA | 150,000 miles | Other | CO | 1.0370 | -- | -- | -- | 0 | 1 | 1.037 | 999.999 | Pass |
| CA | 150,000 miles | Other | NMOG | 0.0070 | -- | -- | -- | 0 | 1 | 0.007 | 999.999 | Pass |
| CA | 150,000 miles | Other | NOX | 0.0082 | -- | -- | -- | 0 | 1 | 0.008 | 999.999 | Pass |
| CA | 150,000 miles | Other | PM | 0.0004 | -- | -- | -- | 0 | 1 | 0.000 | 999.999 | Pass |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
|---|--|---|--------------|
| Fuel Properties | | | |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 |
| Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline | Fuel Batch Calibration Date | 10/29/2024 |
| Fuel Batch Calibration Effective Date | 10/29/2024 | Fuel Batch Calibration Ineffective Date | -- |
| Carbon Weight Fraction NMHC | 0.83 | Carbon Weight Fraction HC | -- |
| Exhaust Carbon Weight Fraction | -- | Fuel Methanol Volume Fraction | -- |
| Fuel Density (grams/cubic ft) | -- | Fuel Specific Gravity | 0.752 |
| Fuel Ethanol Volume Percent (%) | 9.8 | Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb) | 17803 |
| Fuel Net Heat of Combustion (E10) (MJ/kg) | -- | Fuel Carbon Mass Fraction (E10) | -- |
| Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0) | 0.83 | Weight Fraction CO2 | -- |
| Fuel Batch ID | 11340 | Fuel Calibration Number | 1 |
| Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) | Fuel Batch Calibration Date | 08/04/2024 |
| Fuel Batch Calibration Effective Date | 08/04/2024 | Fuel Batch Calibration Ineffective Date | -- |
| Carbon Weight Fraction NMHC | 0.828 | Carbon Weight Fraction HC | -- |
| Exhaust Carbon Weight Fraction | -- | Fuel Methanol Volume Fraction | -- |
| Fuel Density (grams/cubic ft) | -- | Fuel Specific Gravity | 0.75 |
| Fuel Ethanol Volume Percent (%) | 10 | Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb) | 17885 |
| Fuel Net Heat of Combustion (E10) (MJ/kg) | -- | Fuel Carbon Mass Fraction (E10) | -- |
| Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0) | 0.828 | Weight Fraction CO2 | -- |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
|-------------------|--------------|-------------------------------------|--------------|

Consolidated List of Standards

Exhaust Standards

| | | | |
|----------------------|---|-------------------------|--|
| Cert Region | Federal | Cert/In-Use Code | Cert |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | Standard Level | Federal Tier 3 HD Class 3 Bin 400 |
| Fuel | Gasoline | Test Procedure | California fuel 2-day exhaust (w/can load) |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | -- | -- | 1 | 0 | 7.3 |
| 150,000 miles | CO-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 6.0 |
| 150,000 miles | CO2 | -- | -- | -- | -- | -- | 1 | 0 | 999 |
| 150,000 miles | HCHO | -- | -- | -- | -- | -- | 1 | 0 | 0.006 |
| 150,000 miles | METHANE | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | METHANE-COMB | -- | -- | -- | -- | -- | 1 | 0 | 0.05 |
| 150,000 miles | N2O | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | N2O-COMB | -- | -- | -- | -- | -- | 1 | 0 | 0.05 |
| 150,000 miles | NMOG | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | 1 | 0 | 0.400 |
| 150,000 miles | NMOG+NOX-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 0.550 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | -- | -- | 1 | 0 | 0.010 |
| 150,000 miles | PM-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 0.007 |

Certification Summary Information Report

| | | | |
|----------------------|---|-------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
| Cert Region | California + CAA Section 177 states | Cert/In-Use Code | Cert |
| Vehicle Class | MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | Standard Level | Other |
| Fuel | Gasoline | Test Procedure | California fuel 2-day exhaust (w/can load) |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | -- | -- | 1 | 0 | 7.3 |
| 150,000 miles | CO-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 6.0 |
| 150,000 miles | HCHO | -- | -- | -- | -- | -- | 1 | 0 | 0.006 |
| 150,000 miles | METHANE | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | METHANE-COMB | -- | -- | -- | -- | -- | 1 | 0 | 0.05 |
| 150,000 miles | N2O | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | N2O-COMB | -- | -- | -- | -- | -- | 1 | 0 | 0.05 |
| 150,000 miles | NMOG | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | 1 | 0 | 0.400 |
| 150,000 miles | NMOG+NOX-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 0.550 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | -- | -- | 1 | 0 | 0.010 |
| 150,000 miles | PM-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 0.007 |

| | | | |
|----------------------|---|-------------------------|---------------|
| Cert Region | California + CAA Section 177 states | Cert/In-Use Code | Cert |
| Vehicle Class | MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | Standard Level | Other |
| Fuel | Gasoline | Test Procedure | Hot 1435 LA92 |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | 0 | 0 | 1 | 0 | 999.9 |
| 150,000 miles | NMOG | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | NOX | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |

Certification Summary Information Report

| | | | |
|----------------------|---|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
| Cert Region | California + CAA Section 177 states | Cert/In-Use Code | Cert |
| Vehicle Class | MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | Standard Level | Other |
| Fuel | Gasoline | Test Procedure | HWFE |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | METHANE | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | N2O | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | NMOG | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | 1 | 0 | 0.400 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |

| | | | |
|----------------------|---|-------------------------|-----------------------------------|
| Cert Region | Federal | Cert/In-Use Code | Cert |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | Standard Level | Federal Tier 3 HD Class 3 Bin 400 |
| Fuel | Gasoline | Test Procedure | SC03 |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | 0 | 0 | 1 | 0 | 999.9 |
| 150,000 miles | NMOG | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | NOX | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |

| | | | |
|----------------------|---|-------------------------|-------|
| Cert Region | California + CAA Section 177 states | Cert/In-Use Code | Cert |
| Vehicle Class | MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | Standard Level | Other |
| Fuel | Gasoline | Test Procedure | SC03 |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | NMOG | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | NOX | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |

Certification Summary Information Report

| | | | | | | | | | | |
|----------------------|--|---|--|--|-------------------------------------|--|--|-----------------------------------|--|--|
| Test Group | | VCRXD06.4574 | | | Evaporative/Refueling Family | | | VCRXF0180TR3 | | |
| Cert Region | | Federal | | | Cert/In-Use Code | | | Cert | | |
| Vehicle Class | | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | | | Standard Level | | | Federal Tier 3 HD Class 3 Bin 400 | | |
| Fuel | | Gasoline | | | Test Procedure | | | Hot 1435 LA92 | | |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | 0 | 0 | 1 | 0 | 999.9 |
| 150,000 miles | NMOG | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | NOX | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |

| | | | | | | | | | | |
|----------------------|--|---|--|--|-------------------------|--|--|-----------------------------------|--|--|
| Cert Region | | Federal | | | Cert/In-Use Code | | | Cert | | |
| Vehicle Class | | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | | | Standard Level | | | Federal Tier 3 HD Class 3 Bin 400 | | |
| Fuel | | Gasoline | | | Test Procedure | | | HWFE | | |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO2 | -- | -- | -- | -- | -- | 1 | 0 | 999 |
| 150,000 miles | METHANE | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | N2O | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | NMOG | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | 1 | 0 | 0.400 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |

Evaporative/Refueling Standards

| | | | | | | | | | | |
|-------------------------------------|--|--------------|--|--|-----------------------|--|--|-------------------------------------|--|--|
| Evaporative/Refueling Family | | VCRXF0180TR3 | | | Cert Region | | | California + CAA Section 177 states | | |
| Cert/In-Use Code | | Cert | | | Standard Level | | | Other | | |
| Test Procedure | | 2-day evap | | | | | | | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|----------|---------------|----------------|----------------|-------|--------|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.600 | 0.0057 |

| | | | | | | | | | | |
|-------------------------------------|--|---------------------------|--|--|-----------------------|--|--|-------------------------------------|--|--|
| Evaporative/Refueling Family | | VCRXF0180TR3 | | | Cert Region | | | California + CAA Section 177 states | | |
| Cert/In-Use Code | | Cert | | | Standard Level | | | Other | | |
| Test Procedure | | Federal Fuel Running Loss | | | | | | | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|----------|---------------|----------------|----------------|------|--------|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.05 | 0.000 |

Certification Summary Information Report

| | | | | | |
|-------------------------------------|---------------------------|----------------------|-------------------------------------|-------------------------------------|---------------|
| Test Group | VCRXD06.4574 | | Evaporative/Refueling Family | VCRXF0180TR3 | |
| Evaporative/Refueling Family | VCRXF0180TR3 | | Cert Region | California + CAA Section 177 states | |
| Cert/In-Use Code | Cert | | Standard Level | Other | |
| Test Procedure | Evap Canister Bleed Test | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.030 | 0.0000 |
| Evaporative/Refueling Family | VCRXF0180TR3 | | Cert Region | Federal | |
| Cert/In-Use Code | Cert | | Standard Level | Federal Tier 3 Evap | |
| Test Procedure | Federal fuel 3-day evap | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.600 | 0.0090 |
| Evaporative/Refueling Family | VCRXF0180TR3 | | Cert Region | Federal | |
| Cert/In-Use Code | Cert | | Standard Level | Federal Tier 3 Evap | |
| Test Procedure | Evap Canister Bleed Test | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.030 | 0.0000 |
| Evaporative/Refueling Family | VCRXF0180TR3 | | Cert Region | Federal | |
| Cert/In-Use Code | Cert | | Standard Level | Federal Tier 3 Evap | |
| Test Procedure | 2-day evap | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.600 | 0.0057 |
| Evaporative/Refueling Family | VCRXF0180TR3 | | Cert Region | Federal | |
| Cert/In-Use Code | Cert | | Standard Level | Federal Tier 3 Evap | |
| Test Procedure | Federal Fuel Running Loss | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.05 | 0.000 |
| Evaporative/Refueling Family | VCRXF0180TR3 | | Cert Region | California + CAA Section 177 states | |
| Cert/In-Use Code | Cert | | Standard Level | Other | |
| Test Procedure | Federal fuel 3-day evap | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.600 | 0.0090 |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
|-------------------|--------------|-------------------------------------|--------------|

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
|----------------------|---|------------------------------|--|
| Glossary | | | |
| Useful Life | | | |
| 4 | 4,000 miles | 120 | 120,000 miles |
| 50 | 50,000 miles | 150 | 150,000 miles |
| 100 | 100,000 miles | | |
| Emission Name | | | |
| HC-TOTAL | Total Hydrocarbon | COMB-CREE | Combined Carbon-Related Exhaust Emissions |
| CO | Carbon Monoxide | COMB-OPT-CREE | Combined Optional Carbon-Related Exhaust Emissions |
| CO2 | Carbon dioxide | HC-TOTAL-EQUIV | Total Hydrocarbon equivalent - Evap only |
| CREE | Carbon-Related Exhaust Emissions | METHANE-COMB | Combined CH4 for HD 2b/3 vehicles only |
| OPT-CREE | Optional Carbon-Related Exhaust Emissions | N2O-COMB | Combined Nitrous Oxide for HD 2b/3 vehicles only |
| NOX | Nitrogen Oxide | LEAK-DIA | Effective Leak Diameter (inches) |
| PM | Particulate Matter | LEAK-GAS CAP | Gas Cap Leakage (cc/min) |
| PM-COMP | SFTP Composite Particulate Matter | CO2-COMB | Combined Carbon Dioxide for HD 2b/3 Vehicles Only |
| HC-NM | Non-methane Hydrocarbon | KW-HRS | Integrated DC KW-HRS |
| OMHCE | Organic material Hydrocarbon Equivalent | CH4 BAG 1 | Bag 1 Methane |
| OMNMHCE | Organic material non-methane HC equivalent | CH4 BAG 2 | Bag 2 Methane |
| NMOG | Non-methane organic gases | CH4 BAG 3 | Bag 3 Methane |
| HCHO | Formaldehyde | CH4 BAG 4 | Bag 4 Methane |
| H3C2HO | Acetaldehyde | CO BAG 1 | Bag 1 Carbon Monoxide |
| HC-NM+NOX | SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03 | CO BAG 2 | Bag 2 Carbon Monoxide |
| HC-NM+NOX-COMP | SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides | CO BAG 3 | Bag 3 Carbon Monoxide |
| CO-COMP | SFTP Composite Carbon Monoxide | CO BAG 4 | Bag 4 Carbon Monoxide |
| ETHANOL | C2H5OH - Ethanol | NMOG BAG 1 | Bag 1 Non-methane organic gases |
| FE BAG 1 | Bag 1 Fuel Economy | NMOG BAG 2 | Bag 2 Non-methane organic gases |
| FE BAG 2 | Bag 2 Fuel Economy | NMOG BAG 3 | Bag 3 Non-methane organic gases |
| FE BAG 3 | Bag 3 Fuel Economy | NMOG BAG 4 | Bag 4 Non-methane organic gases |
| FE BAG 4 | Bag 4 Fuel Economy | ACT-DISTANCE BAG 1 | Bag 1 Actual Distance |
| MFR FE | Manufacturer Fuel Economy | ACT-DISTANCE BAG 2 | Bag 2 Actual Distance |
| HC | Hydrocarbon for Running Loss and ORVR | ACT-DISTANCE BAG 3 | Bag 3 Actual Distance |
| METHANE | CH4 - Methane | ACT-DISTANCE BAG 4 | Bag 4 Actual Distance |
| METHANOL | CH3OH - Methanol | HC-TOTAL BAG 1 | Bag 1 Total Hydrocarbon |
| N2O | Nitrous Oxide | HC-TOTAL BAG 2 | Bag 2 Total Hydrocarbon |
| SPITBACK | Spitback Hydrocarbon in grams | HC-TOTAL BAG 3 | Bag 3 Total Hydrocarbon |
| AMP-HRS | Integrated Amp-hours | HC-TOTAL BAG 4 | Bag 4 Total Hydrocarbon |
| START-SOC | System Start State of Charge Watt-hours | WATT-HRS BAG 1 | Bag 1 Watt Hours |
| END-SOC | System End State of Charge Watt-hours | WATT-HRS BAG 2 | Bag 2 Watt Hours |

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | Evaporative/Refueling Family | | VCRXF0180TR3 |
|--|--|--------------|------------------------------|---|--------------|
| ACT-DISTANCE | Actual Distance Driven (miles) | | WATT-HRS BAG 3 | Bag 3 Watt Hours | |
| AS-VOLT | Average System Voltage | | WATT-HRS BAG 4 | Bag 4 Watt Hours | |
| CO2 BAG 1 | Bag 1 Carbon Dioxide | | WATT-HRS | Watt Hours | |
| CO2 BAG 2 | Bag 2 Carbon Dioxide | | HC-NM BAG 1 | Bag 1 Non-methane Hydrocarbon | |
| CO2 BAG 3 | Bag 3 Carbon Dioxide | | HC-NM BAG 2 | Bag 2 Non-methane Hydrocarbon | |
| CO2 BAG 4 | Bag 4 Carbon Dioxide | | HC-NM BAG 3 | Bag 3 Non-methane Hydrocarbon | |
| NMOG+NOX | Non-methane organic gases plus Nitrogen Oxides | | HC-NM BAG 4 | Bag 4 Non-methane Hydrocarbon | |
| NMOG+NOX-COMP | SFTP Composite Non-methane Organic Gases + Nitrogen Oxides | | N2O BAG 1 | Bag 1 Nitrous Oxide | |
| DT-IWRR | Drive Trace Inertia Work Ratio Rating | | N2O BAG 2 | Bag 2 Nitrous Oxide | |
| DT-ASCR | Drive Trace Absolute Speed Change Rating | | N2O BAG 3 | Bag 3 Nitrous Oxide | |
| DT-EER | Drive Trace Energy Economy Rating | | N2O BAG 4 | Bag 4 Nitrous Oxide | |
| Certification Region | | | | | |
| CA | California + CAA Section 177 states | | FA | Federal | |
| Exhaust Emission Standard Level | | | | | |
| B1 | Federal Tier 2 Bin 1 | | HDV2B340 | Federal Tier 3 HD Class 2b Transitional Bin 340 | |
| B2 | Federal Tier 2 Bin 2 | | HDV2B250 | Federal Tier 3 HD Class 2b Bin 250 | |
| B3 | Federal Tier 2 Bin 3 | | HDV2B200 | Federal Tier 3 HD Class 2b Bin 200 | |
| B4 | Federal Tier 2 Bin 4 | | HDV2B170 | Federal Tier 3 HD Class 2b Bin 170 | |
| B5 | Federal Tier 2 Bin 5 | | HDV2B150 | Federal Tier 3 HD Class 2b Bin 150 | |
| B6 | Federal Tier 2 Bin 6 | | HDV2B0 | Federal Tier 3 HD Class 2b Bin 0 | |
| B7 | Federal Tier 2 Bin 7 | | HDV3B630 | Federal Tier 3 HD Class 3 Transitional Bin 630 | |
| B8 | Federal Tier 2 Bin 8 | | HDV3B570 | Federal Tier 3 HD Class 3 Transitional Bin 570 | |
| B9 | Federal Tier 2 Bin 9 | | HDV3B400 | Federal Tier 3 HD Class 3 Bin 400 | |
| B10 | Federal Tier 2 Bin 10 | | HDV3B270 | Federal Tier 3 HD Class 3 Bin 270 | |
| B11 | Federal Tier 2 Bin 11 | | HDV3B230 | Federal Tier 3 HD Class 3 Bin 230 | |
| HDV1 | HDV1 (Federal HD chassis Class 2b GVW 8501-10000) | | HDV3B200 | Federal Tier 3 HD Class 3 Bin 200 | |
| HDV2 | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | | HDV3B0 | Federal Tier 3 HD Class 3 Bin 0 | |
| L2 | California LEV-II LEV | | L4SULEV100 | California LEV-IV SULEV100 | |
| L2OP | California LEV-II LEV Optional | | L4SULEV125 | California LEV-IV SULEV125 | |
| U2 | California LEV-II ULEV | | L4SULEV15 | California LEV-IV SULEV15 | |
| S2 | California LEV-II SULEV | | L4SULEV150 | California LEV-IV SULEV150 | |
| ZEV | California ZEV | | L4SULEV170 | California LEV-IV SULEV170 | |
| OT | Other | | L4SULEV175 | California LEV-IV SULEV175 | |
| T1 | Federal Tier 1 | | L4SULEV20 | California LEV-IV SULEV20 | |
| PZEV | California PZEV | | L4SULEV200 | California LEV-IV SULEV200 | |
| L2LEV160 | California LEV-II LEV160 | | L4SULEV230 | California LEV-IV SULEV230 | |
| L2ULEV125 | California LEV-II ULEV125 | | L4SULEV25 | California LEV-IV SULEV25 | |
| L2SULEV30 | California LEV-II SULEV30 | | L4SULEV30 | California LEV-IV SULEV30 | |
| L2LEV395 | California LEV-II LEV395 | | L4SULEV75 | California LEV-IV SULEV75 | |

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | Evaporative/Refueling Family | | VCRXF0180TR3 |
|-------------------------------|---|--------------|--|----------------------------|--------------|
| L2ULEV340 | California LEV-II ULEV340 | | L4SULEV85 | California LEV-IV SULEV85 | |
| L2LEV630 | California LEV-II LEV630 | | L4ULEV125 | California LEV-IV ULEV125 | |
| L2ULEV570 | California LEV-II ULEV570 | | L4ULEV200 | California LEV-IV ULEV200 | |
| L3LEV160 | California LEV-III LEV160 | | L4ULEV250 | California LEV-IV ULEV250 | |
| L3ULEV125 | California LEV-III ULEV125 | | L4ULEV270 | California LEV-IV ULEV270 | |
| L3ULEV70 | California LEV-III ULEV70 | | L4ULEV40 | California LEV-IV ULEV40 | |
| L3ULEV50 | California LEV-III ULEV50 | | L4ULEV400 | California LEV-IV ULEV400 | |
| L3SULEV30 | California LEV-III SULEV30 | | L4ULEV50 | California LEV-IV ULEV50 | |
| L3SULEV20 | California LEV-III SULEV20 | | L4ULEV60 | California LEV-IV ULEV60 | |
| L3LEV395 | California LEV-III LEV395 | | L4ULEV70 | California LEV-IV ULEV70 | |
| L3ULEV340 | California LEV-III ULEV340 | | T4B170 | Federal Tier 4 MDV Bin 170 | |
| L3ULEV250 | California LEV-III ULEV250 | | T4B150 | Federal Tier 4 MDV Bin 150 | |
| L3ULEV200 | California LEV-III ULEV200 | | T4B125 | Federal Tier 4 MDV Bin 125 | |
| L3SULEV170 | California LEV-III SULEV170 | | T4B100 | Federal Tier 4 MDV Bin 100 | |
| L3SULEV150 | California LEV-III SULEV150 | | T4B85 | Federal Tier 4 MDV Bin 85 | |
| L3LEV630 | California LEV-III LEV630 | | T4B75 | Federal Tier 4 MDV Bin 75 | |
| L3ULEV570 | California LEV-III ULEV570 | | T4B70 | Federal Tier 4 Bin 70 | |
| L3ULEV400 | California LEV-III ULEV400 | | T4B65 | Federal Tier 4 Bin 65 | |
| L3ULEV270 | California LEV-III ULEV270 | | T4B60 | Federal Tier 4 Bin 60 | |
| L3SULEV230 | California LEV-III SULEV230 | | T4B55 | Federal Tier 4 Bin 55 | |
| L3SULEV200 | California LEV-III SULEV200 | | T4B50 | Federal Tier 4 Bin 50 | |
| T3B160 | Federal Tier 3 Bin 160 | | T4B45 | Federal Tier 4 Bin 45 | |
| T3B125 | Federal Tier 3 Bin 125 | | T4B40 | Federal Tier 4 Bin 40 | |
| T3B110 | Federal Tier 3 Transitional Bin 110 | | T4B35 | Federal Tier 4 Bin 35 | |
| T3B85 | Federal Tier 3 Transitional Bin 85 | | T4B30 | Federal Tier 4 Bin 30 | |
| T3SULEV30 | Federal Tier 3 Transitional LEV-II SULEV30 Carryover | | T4B25 | Federal Tier 4 Bin 25 | |
| T3B70 | Federal Tier 3 Bin 70 | | T4B20 | Federal Tier 4 Bin 20 | |
| T3B50 | Federal Tier 3 Bin 50 | | T4B15 | Federal Tier 4 Bin 15 | |
| T3B30 | Federal Tier 3 Bin 30 | | T4B10 | Federal Tier 4 Bin 10 | |
| T3B20 | Federal Tier 3 Bin 20 | | T4B5 | Federal Tier 4 Bin 5 | |
| T3B0 | Federal Tier 3 Bin 0 | | T4B0 | Federal Tier 4 Bin 0 | |
| HDV2B395 | Federal Tier 3 HD Class 2b Transitional Bin 395 | | | | |
| Transmission Type Code | | | | | |
| AMS | Automated Manual- Selectable (e.g. Automated Manual with paddles) | M | Manual | | |
| A | Automatic | OT | Other | | |
| AM | Automated Manual | SA | Semi-Automatic | | |
| CVT | Continuously Variable | SCV | Selectable Continuously Variable (e.g. CVT with paddles) | | |
| Drive System Code | | | | | |
| 4 | 4-Wheel Drive | P | Part-time 4-Wheel Drive | | |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0180TR3 |
|--------------------------------------|---------------------------------|------------------------------|----------------------------------|
| F | 2-Wheel Drive, Front | A | All Wheel Drive |
| R | 2-Wheel Drive, Rear | | |
| Additional Terms and Acronyms | | | |
| AFC | Alternative Fuel Converter | ICI | Independent Commercial Importer |
| CSI | Certificate Summary Information | ORVR | Onboard Refueling Vapor Recovery |
| DF | Deterioration Factor | SIL | Shift Indicator Light |
| Evap | Evaporation, Evaporative | Trans | Transmission |

Certification Summary Information Report

| | | | | | | | |
|---|---|---|-------------------------------------|---------------------|---------------------|---------------------|-----------------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 | | | | |
| Evaporative/Refueling Family Information | | | | | | | |
| Evaporative Summary Information Type | New | Submission/Correction Date | 03/18/2026 05:10:22 PM | | | | |
| Integrated ORVR? | Yes | Fuel(s) | Gasoline | | | | |
| Multiple Fuel Storage | -- | | | | | | |
| Bladder Fuel Tank? | No | | | | | | |
| Fuel Tank Material | Plastic | Fuel Tank Material Description | hdpe/co-ex | | | | |
| Fill Pipe Seal Type | Liquid seal | | | | | | |
| Air Intake System Vapor Storage Device? | Yes | Air Intake System Vapor Storage Device Description | Panel | | | | |
| Fuel System Vapor Storage Canister? | Yes | Other Vapor Storage | -- | | | | |
| Fuel System Vapor Storage Canister(s) Total Working Capacity (grams) | 219 | Number of Primary Canisters | 1 | | | | |
| Number of Bleed Canisters | 0 | Bleed Canister Total Working Capacity (grams) | 0 | | | | |
| Mfr Evaporative/Refueling Family Comments | This Evaporative Family is being certified with an evaporative FEL of 0.600 grams | | | | | | |
| Leak Family Details | | | | | | | |
| Leak Family Indicator | Yes | | | | | | |
| Canister Bleed Test Indicator | Yes | Applicability of Evaporative Canister Bleed Test | 50 State | | | | |
| Evaporative Canister Bleed Test Comments | -- | | | | | | |
| CARB Fuel Only (Rig) Test Indicator | No | Applicability of CARB Fuel Only (Rig) Test | -- | | | | |
| CARB Fuel Only (Rig) Test Comments | -- | | | | | | |
| Leak Family Name | Applicability of Leak Family Requirements | Leak Family Standard (inches) | Leak Family Description | | | | |
| VCRXF0213TR0-LF1 | 50 State | 0.02 | -- | | | | |
| Models Covered by this Certificate | | | | | | | |
| Carline Manufacturer | Division | Carline | Certification Region Code(s) | Drive System | Trans - Type | - # of Gears | Trans - Lockup |
| FCA US LLC | 12 - RAM | 960 - 3500 Cab Chassis 4X2 | California + CAA Section 177 states | 2-Wheel Drive, Rear | Automatic | 8 | Yes |
| FCA US LLC | 12 - RAM | 965 - 3500 Cab Chassis 4X4 | California + CAA Section 177 states | 4-Wheel Drive | Automatic | 8 | Yes |
| FCA US LLC | 12 - RAM | 960 - 3500 Cab Chassis 4X2 | Federal | 2-Wheel Drive, Rear | Automatic | 8 | Yes |
| FCA US LLC | 12 - RAM | 965 - 3500 Cab Chassis 4X4 | Federal | 4-Wheel Drive | Automatic | 8 | Yes |
| Engine Description | | | | | | | |
| Hybrid Type | -- | Hybrid Description | -- | | | | |
| Engine Type | 4-Stroke Spark Ignition | Mfr Engine Description | -- | | | | |
| Engine Block Arrangement | V-shaped engine | Mfr Engine Block Arrangement Description | -- | | | | |
| Camless Valvetrain Indicator | No | Oil Viscosity/Classification | 0W-40 | | | | |
| Number of Cylinders/Rotors | 8 | Mechanically Variable Compression Ratio Indicator | N | | | | |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 | |
|--|--------------------------------------|---|--------------------|------------------------|
| After Treatment Device(s) (ATD) | | | | |
| ATD Number | ATD Type | ATD Precious Metal | Substrate Material | Substrate Construction |
| 1 | Three-way catalyst | Platinum + Palladium + Rhodium | Ceramic | Monolith |
| 2 | Three-way catalyst | Platinum + Rhodium | Ceramic | Monolith |
| 3 | Three-way catalyst | Rhodium | Ceramic | Monolith |
| Mfr After Treatment Device (ATD) Comments | THREE WAY CATALYST | | | |
| Direct Ozone Reduction (DOR) Device | Not Equipped | | | |
| Mfr Emission Control Device Comments | -- | | | |
| Engine Configuration Number 1 | | | | |
| Engine Displacement (liters) | 6.4 | Engine Rated Horsepower | 375 | |
| Number of Inlet Valves Per Cylinder | 1 | Number of Exhaust Valves Per Cylinder | 1 | |
| Air Aspiration Method | Naturally Aspirated | Number of Air Aspiration Devices | 0 | |
| Air Aspiration Device Configuration | -- | Charge Air Cooler Type | N/A | |
| Air Aspiration Drive Method(s) | -- | | | |
| Cylinder Deactivation | Yes | | | |
| Cylinder Deactivation Description | Multiple Displacement Solenoid (MDS) | | | |
| Variable Valve Timing | Yes | | | |
| Variable Valve Timing System Description | Cam phaser | | | |
| Variable Valve Lift? | No | | | |
| Variable Valve Lift System Description | -- | | | |
| Number of Knock Sensors | 2 | Number of Air/Fuel Sensors | 4 | |
| Air/Fuel Sensor # 1 Type | Heated oxygen | Air/Fuel Sensor # 1 Description | -- | |
| Air/Fuel Sensor # 2 Type | Heated oxygen | Air/Fuel Sensor # 2 Description | -- | |
| Air/Fuel Sensor # 3 Type | Heated oxygen | Air/Fuel Sensor # 3 Description | -- | |
| Air/Fuel Sensor # 4 Type | Heated oxygen | Air/Fuel Sensor # 4 Description | -- | |
| Mfr Air/Fuel Sensor Comments | -- | | | |
| Exhaust Gas Recirculation | Yes | Cooled Exhaust Gas Recirculation | Yes | |
| EGR Type | Electronic/Electric | Exhaust Gas Recirculation Description if 'Other' | -- | |
| Closed Loop Air Injection System | No | | | |
| Air Injection Type | Not Applicable | Air Injection Type if 'Other' | -- | |
| Mfr Engine Configuration Comments | -- | | | |

Certification Summary Information Report

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|---|--------------------------------------|---|--------------|-------------|----------------|----------------|------------------------------|----------------------------------|---------------------------------|-------------------------------------|------------------------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 | | | | | | | | |
| Engine Configuration Number 2 | | | | | | | | | | | |
| Engine Displacement (liters) | 6.4 | Engine Rated Horsepower | 405 | | | | | | | | |
| Number of Inlet Valves Per Cylinder | 1 | Number of Exhaust Valves Per Cylinder | 1 | | | | | | | | |
| Air Aspiration Method | Naturally Aspirated | Number of Air Aspiration Devices | 0 | | | | | | | | |
| Air Aspiration Device Configuration | -- | Charge Air Cooler Type | N/A | | | | | | | | |
| Air Aspiration Drive Method(s) | -- | | | | | | | | | | |
| Cylinder Deactivation | Yes | | | | | | | | | | |
| Cylinder Deactivation Description | Multiple Displacement Solenoid (MDS) | | | | | | | | | | |
| Variable Valve Timing | Yes | | | | | | | | | | |
| Variable Valve Timing System Description | Cam phaser | | | | | | | | | | |
| Variable Valve Lift? | No | | | | | | | | | | |
| Variable Valve Lift System Description | -- | | | | | | | | | | |
| Number of Knock Sensors | 2 | Number of Air/Fuel Sensors | 4 | | | | | | | | |
| Air/Fuel Sensor # 1 Type | Heated oxygen | Air/Fuel Sensor # 1 Description | -- | | | | | | | | |
| Air/Fuel Sensor # 2 Type | Heated oxygen | Air/Fuel Sensor # 2 Description | -- | | | | | | | | |
| Air/Fuel Sensor # 3 Type | Heated oxygen | Air/Fuel Sensor # 3 Description | -- | | | | | | | | |
| Air/Fuel Sensor # 4 Type | Heated oxygen | Air/Fuel Sensor # 4 Description | -- | | | | | | | | |
| Mfr Air/Fuel Sensor Comments | -- | | | | | | | | | | |
| Exhaust Gas Recirculation | Yes | Cooled Exhaust Gas Recirculation | Yes | | | | | | | | |
| EGR Type | Electronic/Electric | Exhaust Gas Recirculation Description if 'Other' | -- | | | | | | | | |
| Closed Loop Air Injection System | No | | | | | | | | | | |
| Air Injection Type | Not Applicable | Air Injection Type if 'Other' | -- | | | | | | | | |
| Mfr Engine Configuration Comments | -- | | | | | | | | | | |
| Official Test Numbers | | | | | | | | | | | |
| Test Group | Fuel | FTP | US06 | SC03 | Cold CO | Highway | EPA City Litmus Value | EPA City Litmus Threshold | EPA Highway Litmus Value | EPA Highway Litmus Threshold | CREE Weighting Factor |
| Gasoline | SCRX10088328 | SCRX10088330 | SCRX10088331 | -- | SCRX10088329 | -- | 228.2 | -- | 286.1 | 1.0 | |
| SFTP LEV-III Official Test Numbers | | | | | | | | | | | |
| Test Group Fuel | FTP | US06 | SC03 | | | | | | | | |
| Gasoline | SCRX10088328 | SCRX10088330 | SCRX10088331 | | | | | | | | |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
|-------------------|--------------|-------------------------------------|--------------|

Emission Data Vehicle Information

| | | | |
|----------------------------------|---------------|---|----------------------|
| Vehicle ID / Configuration | L5DD81477 / 0 | Manufacturer Vehicle Configuration Number | 0 |
| Original Test Group Name | SCRXD06.45W5 | Original Evaporative/Refueling Family | SCRXF0180TP2 |
| Original Test Vehicle Model Year | 2025 | | |
| Vehicle Model | | | |
| Represented Test Vehicle Make | RAM | Represented Test Vehicle Model | 3500 Cab Chassis 4X4 |

Leak Family Details

| | | | |
|------------------------|----|------------------|----|
| Leak Family Identifier | -- | Leak Family Name | -- |
|------------------------|----|------------------|----|

Drive Sources and Fuel System Details

| Drive Source and Fuel# | Drive Source | Fuel |
|------------------------|-------------------|----------|
| 1 | Combustion Engine | Gasoline |

| | | | |
|------------------------------------|---|--|---------------------|
| Hybrid Indicator | No | | |
| Multiple Fuel Storage | -- | Multiple Fuel Combustion | -- |
| Fuel Cell Indicator | -- | Rechargeable Energy Storage System Indicator | -- |
| Rechargeable Energy Storage System | -- | Rechargeable Energy Storage System, if 'Other' | -- |
| Off-board charge Capable Indicator | -- | | |
| Odometer Correction -- Initial | 0 | Odometer Correction Factor | 1 |
| Odometer Correction Sign | - = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor | | |
| Odometer Correction Units | Miles | | |
| Engine Code | AA-1750 | Rated Horsepower | 405 |
| Displacement (liters) | 6.4 | | |
| Air Aspiration Method | Naturally Aspirated | Air Aspiration Method, if 'Other' | |
| Number of Air Aspiration Devices | 0 | Air Aspiration Device Configuration | -- |
| Charge Air Cooler Type | -- | Drive Mode While Testing | 2-Wheel Drive, Rear |
| Shift Indicator Light Usage | Not equipped | Aged Emission Components | 150,000 (mi) |
| Curb Weight (lbs) | 11251 | Equivalent Test Weight (pounds) | 11500 |
| GVWR (lbs) | 13500 | N/V Ratio | 30.7 |
| Axle Ratio | 4.1 | | |
| Transmission Type | Automatic | # of Transmission Gears | 8 |
| Transmission Lockup | Yes | Creeper Gear | No |

Dynamometer Coefficients:

| Coefficient Category | Target Coefficients | | | Set Coefficients | | | EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients |
|----------------------|---------------------|-------------|----------------|------------------|-------------|----------------|---|
| | A (lbf) | B (lbf/mph) | C (lbf/mph**2) | A (lbf) | B (lbf/mph) | C (lbf/mph**2) | |
| City/Highway/Evap | 112.96 | 0.2059 | 0.09263 | 20.26 | 0.4214 | 0.08603 | 47.3 |
| US06 | 112.96 | 0.2059 | 0.09263 | 20.26 | 0.4214 | 0.08603 | N/A |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
|---|-------------------------|-------------------------------------|--------------|
| Emission Control Device Comments | -- | | |
| Manufacturer Test Vehicle Comments | callout 25DA-D06.45W5-1 | | |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
|--|--|---------------------------------------|--|
| Test # | SCRX10088328 | Test Procedure | 25 - California fuel 2-day exhaust (w/can load) |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline |
| Test Date | 10/29/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000), MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | DF Type | Mfr. Determined |
| Verify Test Lab ID | CPG | | |
| E10 Evaporative Test Measurement Method | -- | | |
| Test Start Odometer Reading | 4523 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | No | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |
| Test Results | | | |

Certification Summary Information Report

| | | | |
|-------------------|--------------|------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
|-------------------|--------------|------------------------------|--------------|

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|---|-----------------------|--|
| CO2 BAG 1 (Bag 1 Carbon Dioxide) | 978.7 | -- |
| FE BAG 1 (Bag 1 Fuel Economy) | 8.87 | 8.87 |
| CO2 BAG 2 (Bag 2 Carbon Dioxide) | 894.34 | -- |
| FE BAG 2 (Bag 2 Fuel Economy) | 9.8 | 9.8 |
| CO2 BAG 3 (Bag 3 Carbon Dioxide) | 876.32 | -- |
| FE BAG 3 (Bag 3 Fuel Economy) | 9.98 | 9.98 |
| METHANE (CH4 - Methane) | 0.028244 | -- |
| CO (Carbon Monoxide) | 1.216332 | -- |
| METHANE-COMB (Combined CH4 for HD 2b/3 vehicles only) | 0.022 | -- |
| N2O-COMB (Combined Nitrous Oxide for HD 2b/3 vehicles only) | 0.002 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | -0.823 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | -0.355 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | -1.77 | -- |
| MFR FE (Manufacturer Fuel Economy) | 9.6 | 9.6 |
| NOX (Nitrogen Oxide) | 0.053594 | -- |
| N2O (Nitrous Oxide) | 0.002803 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0.070978 | -- |
| NMOG (Non-methane organic gases) | 0.07807 | -- |
| PM (Particulate Matter) | 0.000295 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0.098018 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|----------------------------------|-----------------------|---------------------------------|
| Carbon-Related Exhaust Emissions | 909 | 999 |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|------------------|-----------------------|-----------------------|
| Carbon dioxide | 906.87591 | -- |

Manufacturer Test Comments

25DA-D06.45W5-1 city @ ALVW 150k Auto Fixed E10

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | | | Evaporative/Refueling Family | | | | | VCRXF0213TR0 | | |
|----------------------|---------------|-----------------------------------|---------------|----------------|------------------------------|------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO | 1.22 | -- | -- | -- | 0 | 1 | 1.2 | 7.3 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO-COMP | 0.90 | -- | -- | -- | 0 | 1 | 0.9 | 6.0 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO2 | 999 | -- | -- | -- | 0 | 1 | 999 | -- | -- |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | METHANE | 0.028 | -- | -- | -- | 0 | 1 | 0.03 | 999.99 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | METHANE-COMB | 0.022 | -- | -- | -- | 0 | 1 | 0.02 | 0.05 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | N2O | 0.003 | -- | -- | -- | 0 | 1 | 0.00 | 999.99 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | N2O-COMB | 0.002 | -- | -- | -- | 0 | 1 | 0.00 | 0.05 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG | 0.0781 | -- | -- | -- | 0 | 1 | 0.078 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG+NOX | 0.1317 | -- | -- | -- | -- | -- | 0.132 | 0.400 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG+NOX-COMP | 0.0555 | -- | -- | -- | 0 | 1 | 0.056 | 0.550 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NOX | 0.0536 | -- | -- | -- | 0 | 1 | 0.054 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | PM | 0.0003 | -- | -- | -- | 0 | 1 | 0.000 | 0.010 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | PM-COMP | 0.0003 | -- | -- | -- | 0 | 1 | 0.000 | 0.007 | Pass |
| CA | 150,000 miles | Other | CO | 1.22 | -- | -- | -- | 0 | 1 | 1.2 | 7.3 | Pass |
| CA | 150,000 miles | Other | CO-COMP | 0.90 | -- | -- | -- | 0 | 1 | 0.9 | 6.0 | Pass |
| CA | 150,000 miles | Other | METHANE | 0.028 | -- | -- | -- | 0 | 1 | 0.03 | 999.99 | Pass |
| CA | 150,000 miles | Other | METHANE-COMB | 0.022 | -- | -- | -- | 0 | 1 | 0.02 | 0.05 | Pass |
| CA | 150,000 miles | Other | N2O | 0.003 | -- | -- | -- | 0 | 1 | 0.00 | 999.99 | Pass |
| CA | 150,000 miles | Other | N2O-COMB | 0.002 | -- | -- | -- | 0 | 1 | 0.00 | 0.05 | Pass |

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | | | Evaporative/Refueling Family | | | | | VCRXF0213TR0 | | |
|----------------------|---------------|----------------|---------------|----------------|------------------------------|------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
| CA | 150,000 miles | Other | NMOG | 0.0781 | -- | -- | -- | 0 | 1 | 0.078 | 999.999 | Pass |
| CA | 150,000 miles | Other | NMOG+NOX | 0.1317 | -- | -- | -- | -- | -- | 0.132 | 0.400 | Pass |
| CA | 150,000 miles | Other | NMOG+NOX-COMP | 0.0555 | -- | -- | -- | 0 | 1 | 0.056 | 0.550 | Pass |
| CA | 150,000 miles | Other | NOX | 0.0536 | -- | -- | -- | 0 | 1 | 0.054 | 999.999 | Pass |
| CA | 150,000 miles | Other | PM | 0.0003 | -- | -- | -- | 0 | 1 | 0.000 | 0.010 | Pass |
| CA | 150,000 miles | Other | PM-COMP | 0.0003 | -- | -- | -- | 0 | 1 | 0.000 | 0.007 | Pass |

NOTE: For Non-charge depleting tests, the Rounded Result for CO2 Emission name is a Verify-calculated value.

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|-------------------------------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
| Test # | SCRX10088329 | Test Procedure | 3 - HWFE |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline |
| Test Date | 10/29/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000), MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | DF Type | Mfr. Determined |
| Verify Test Lab ID | CPG | | |
| E10 Evaporative Test Measurement Method | -- | | |
| Test Start Odometer Reading | 4533 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | No | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|--|-----------------------|--|
| METHANE (CH4 - Methane) | 0.013515 | -- |
| CO (Carbon Monoxide) | 0.209406 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | 0.2408 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | -0.044 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | 0.1838 | -- |
| MFR FE (Manufacturer Fuel Economy) | 13.1 | 13.1 |
| NOX (Nitrogen Oxide) | 0.002354 | -- |
| N2O (Nitrous Oxide) | 0.001264 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0.00512 | -- |
| NMOG (Non-methane organic gases) | 0.005274 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0.018129 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|----------------------------------|-----------------------|---------------------------------|
| Carbon-Related Exhaust Emissions | 669 | 999 |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|------------------|-----------------------|-----------------------|
| Carbon dioxide | 669.1756 | -- |

Manufacturer Test Comments 25DA-D06.45W5-1 hwy @ ALVW 150k Auto Fixed E10

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | | | | Evaporative/Refueling Family | | | | VCRXF0213TR0 | | |
|----------------------|---------------|-----------------------------------|---------------|----------------|-----|------------------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO2 | 999 | -- | -- | -- | 0 | 1 | 999 | -- | -- |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | METHANE | 0.014 | -- | -- | -- | 0 | 1 | 0.01 | 999.99 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | N2O | 0.001 | -- | -- | -- | 0 | 1 | 0.00 | 999.99 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG | 0.0053 | -- | -- | -- | 0 | 1 | 0.005 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG+NOX | 0.0077 | -- | -- | -- | -- | -- | 0.008 | 0.400 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NOX | 0.0024 | -- | -- | -- | 0 | 1 | 0.002 | 999.999 | Pass |
| CA | 150,000 miles | Other | METHANE | 0.014 | -- | -- | -- | 0 | 1 | 0.01 | 999.99 | Pass |
| CA | 150,000 miles | Other | N2O | 0.001 | -- | -- | -- | 0 | 1 | 0.00 | 999.99 | Pass |
| CA | 150,000 miles | Other | NMOG | 0.0053 | -- | -- | -- | 0 | 1 | 0.005 | 999.999 | Pass |
| CA | 150,000 miles | Other | NMOG+NOX | 0.0077 | -- | -- | -- | -- | -- | 0.008 | 0.400 | Pass |
| CA | 150,000 miles | Other | NOX | 0.0024 | -- | -- | -- | 0 | 1 | 0.002 | 999.999 | Pass |

NOTE: For Non-charge depleting tests, the Rounded Result for CO2 Emission name is a Verify-calculated value.

Certification Summary Information Report

| | | | |
|--|--|---|-------------------------------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
| Test # | SCRX10088330 | Test Procedure | 16 - Hot 1435 LA92 |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline |
| Test Date | 10/29/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000), MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | DF Type | Mfr. Determined |
| Verify Test Lab ID | CPG | | |
| E10 Evaporative Test Measurement Method | -- | | |
| Test Start Odometer Reading | 4559 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | No | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |
| Test Results | | | |
| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) | |
| CO2 BAG 1 (Bag 1 Carbon Dioxide) | 1272.51 | -- | |
| FE BAG 1 (Bag 1 Fuel Economy) | 6.88 | 6.88 | |
| CO2 BAG 2 (Bag 2 Carbon Dioxide) | 979.69 | -- | |
| FE BAG 2 (Bag 2 Fuel Economy) | 8.93 | 8.93 | |
| METHANE (CH4 - Methane) | 0.01793 | -- | |
| CO (Carbon Monoxide) | 0.29737 | -- | |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | -1.169 | -- | |
| DT-EER (Drive Trace Energy Economy Rating) | -0.839 | -- | |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | -1.472 | -- | |
| MFR FE (Manufacturer Fuel Economy) | 8.6 | 8.6 | |
| NOX (Nitrogen Oxide) | 0.01204 | -- | |
| HC-NM (Non-methane Hydrocarbon) | 0.00137 | -- | |
| NMOG (Non-methane organic gases) | 0.00143 | -- | |
| PM (Particulate Matter) | 0.000213 | -- | |
| HC-TOTAL (Total Hydrocarbon) | 0.01863 | -- | |
| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE | |
| Carbon-Related Exhaust Emissions | 1016 | -- | |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
|-------------------|--------------|-------------------------------------|--------------|

| | | |
|-------------------------|------------------------------|------------------------------|
| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
| Carbon dioxide | 1015.2 | -- |

Manufacturer Test Comments 25DA-D06.45W5-1 la92 @ ALVW 150k Auto Fixed E10

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|-----------------------------------|---------------|----------------|-----|------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO | 0.30 | -- | -- | -- | 0 | 1 | 0.3 | 999.9 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG | 0.0014 | -- | -- | -- | 0 | 1 | 0.001 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NOX | 0.0120 | -- | -- | -- | 0 | 1 | 0.012 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | PM | 0.0002 | -- | -- | -- | 0 | 1 | 0.000 | 999.999 | Pass |
| CA | 150,000 miles | Other | CO | 0.30 | -- | -- | -- | 0 | 1 | 0.3 | 999.9 | Pass |
| CA | 150,000 miles | Other | NMOG | 0.0014 | -- | -- | -- | 0 | 1 | 0.001 | 999.999 | Pass |
| CA | 150,000 miles | Other | NOX | 0.0120 | -- | -- | -- | 0 | 1 | 0.012 | 999.999 | Pass |
| CA | 150,000 miles | Other | PM | 0.0002 | -- | -- | -- | 0 | 1 | 0.000 | 999.999 | Pass |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|-------------------------------------|------------------|-----------------------|--|----------------------------------|------------|----|----------------------|----------|----|--|--------|----|--|--------|----|---|-------|----|------------------------------------|-----|-----|----------------------|----------|----|---------------------------------|---------|----|----------------------------------|----------|----|-------------------------|----------|----|------------------------------|----------|----|
| Test # | SCRX10088331 | Test Procedure | 95 - SC03 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Date | 10/29/2024 | Fuel | Gasoline | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000), MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | DF Type | Mfr. Determined | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Verify Test Lab ID | CPG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E10 Evaporative Test Measurement Method | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Start Odometer Reading | 4577 | Odometer Units | M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| State of Charge Delta | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> </thead> <tbody> <tr> <td>METHANE (CH4 - Methane)</td> <td>0.029102</td> <td>--</td> </tr> <tr> <td>CO (Carbon Monoxide)</td> <td>1.036974</td> <td>--</td> </tr> <tr> <td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td> <td>-0.142</td> <td>--</td> </tr> <tr> <td>DT-EER (Drive Trace Energy Economy Rating)</td> <td>0.5253</td> <td>--</td> </tr> <tr> <td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td> <td>-0.03</td> <td>--</td> </tr> <tr> <td>MFR FE (Manufacturer Fuel Economy)</td> <td>8.3</td> <td>8.3</td> </tr> <tr> <td>NOX (Nitrogen Oxide)</td> <td>0.008233</td> <td>--</td> </tr> <tr> <td>HC-NM (Non-methane Hydrocarbon)</td> <td>0.00678</td> <td>--</td> </tr> <tr> <td>NMOG (Non-methane organic gases)</td> <td>0.006985</td> <td>--</td> </tr> <tr> <td>PM (Particulate Matter)</td> <td>0.000434</td> <td>--</td> </tr> <tr> <td>HC-TOTAL (Total Hydrocarbon)</td> <td>0.034972</td> <td>--</td> </tr> </tbody> </table> | | | | Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) | METHANE (CH4 - Methane) | 0.029102 | -- | CO (Carbon Monoxide) | 1.036974 | -- | DT-ASCR (Drive Trace Absolute Speed Change Rating) | -0.142 | -- | DT-EER (Drive Trace Energy Economy Rating) | 0.5253 | -- | DT-IWRR (Drive Trace Inertia Work Ratio Rating) | -0.03 | -- | MFR FE (Manufacturer Fuel Economy) | 8.3 | 8.3 | NOX (Nitrogen Oxide) | 0.008233 | -- | HC-NM (Non-methane Hydrocarbon) | 0.00678 | -- | NMOG (Non-methane organic gases) | 0.006985 | -- | PM (Particulate Matter) | 0.000434 | -- | HC-TOTAL (Total Hydrocarbon) | 0.034972 | -- |
| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| METHANE (CH4 - Methane) | 0.029102 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CO (Carbon Monoxide) | 1.036974 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | -0.142 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DT-EER (Drive Trace Energy Economy Rating) | 0.5253 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | -0.03 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MFR FE (Manufacturer Fuel Economy) | 8.3 | 8.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NOX (Nitrogen Oxide) | 0.008233 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HC-NM (Non-methane Hydrocarbon) | 0.00678 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NMOG (Non-methane organic gases) | 0.006985 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PM (Particulate Matter) | 0.000434 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HC-TOTAL (Total Hydrocarbon) | 0.034972 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated CREE/OPT-CREE</th> </tr> </thead> <tbody> <tr> <td>Carbon-Related Exhaust Emissions</td> <td>1052</td> <td>--</td> </tr> </tbody> </table> | | | | Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE | Carbon-Related Exhaust Emissions | 1052 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon-Related Exhaust Emissions | 1052 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated CO2</th> </tr> </thead> <tbody> <tr> <td>Carbon dioxide</td> <td>1049.63628</td> <td>--</td> </tr> </tbody> </table> | | | | Test Result Name | Unrounded Test Result | Verify Calculated CO2 | Carbon dioxide | 1049.63628 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Result Name | Unrounded Test Result | Verify Calculated CO2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon dioxide | 1049.63628 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Manufacturer Test Comments | 25DA-D06.45W5-1 sc03 @ ALVW 150k Auto Fixed E10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | | | | Evaporative/Refueling Family | | | | VCRXF0213TR0 | | |
|----------------------|---------------|-----------------------------------|---------------|----------------|-----|------------------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO | 1.04 | -- | -- | -- | 0 | 1 | 1.0 | 999.9 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG | 0.0070 | -- | -- | -- | 0 | 1 | 0.007 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NOX | 0.0082 | -- | -- | -- | 0 | 1 | 0.008 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | PM | 0.0004 | -- | -- | -- | 0 | 1 | 0.000 | 999.999 | Pass |
| CA | 150,000 miles | Other | CO | 1.0370 | -- | -- | -- | 0 | 1 | 1.037 | 999.999 | Pass |
| CA | 150,000 miles | Other | NMOG | 0.0070 | -- | -- | -- | 0 | 1 | 0.007 | 999.999 | Pass |
| CA | 150,000 miles | Other | NOX | 0.0082 | -- | -- | -- | 0 | 1 | 0.008 | 999.999 | Pass |
| CA | 150,000 miles | Other | PM | 0.0004 | -- | -- | -- | 0 | 1 | 0.000 | 999.999 | Pass |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | | Evaporative/Refueling Family | VCRXF0213TR0 | | | | | | | |
|---|---|--------------------|---|---------------------|--------------------|------------------------|--|------|---|-------------------|----------|
| Emission Data Vehicle Information | | | | | | | | | | | |
| Vehicle ID / Configuration | L5DJ25253 / 0 | | Manufacturer Vehicle Configuration Number | 0 | | | | | | | |
| Original Test Group Name | SCRXD06.45V1 | | Original Evaporative/Refueling Family | SCRXR0213TP1 | | | | | | | |
| Original Test Vehicle Model Year | 2025 | | | | | | | | | | |
| Vehicle Model | | | | | | | | | | | |
| Represented Test Vehicle Make | RAM | | Represented Test Vehicle Model | 2500 4X2 | | | | | | | |
| Leak Family Details | | | | | | | | | | | |
| Leak Family Identifier | -- | | Leak Family Name | -- | | | | | | | |
| Drive Sources and Fuel System Details | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Combustion Engine</td> <td>Gasoline</td> </tr> </tbody> </table> | | | | | | Drive Source and Fuel# | Drive Source | Fuel | 1 | Combustion Engine | Gasoline |
| Drive Source and Fuel# | Drive Source | Fuel | | | | | | | | | |
| 1 | Combustion Engine | Gasoline | | | | | | | | | |
| Hybrid Indicator | No | | Multiple Fuel Combustion | -- | | | | | | | |
| Multiple Fuel Storage | -- | | Rechargeable Energy Storage System Indicator | -- | | | | | | | |
| Fuel Cell Indicator | -- | | Rechargeable Energy Storage System, if 'Other' | -- | | | | | | | |
| Rechargeable Energy Storage System | -- | | | | | | | | | | |
| Off-board charge Capable Indicator | -- | | Odometer Correction Factor | 1 | | | | | | | |
| Odometer Correction -- Initial | 0 | | | | | | | | | | |
| Odometer Correction Sign | - = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor | | | | | | | | | | |
| Odometer Correction Units | Miles | | | | | | | | | | |
| Engine Code | AA-0350 | | Rated Horsepower | 405 | | | | | | | |
| Displacement (liters) | 6.4 | | Air Aspiration Method, if 'Other' | | | | | | | | |
| Air Aspiration Method | Naturally Aspirated | | Air Aspiration Device Configuration | -- | | | | | | | |
| Number of Air Aspiration Devices | 0 | | Drive Mode While Testing | 2-Wheel Drive, Rear | | | | | | | |
| Charge Air Cooler Type | -- | | Aged Emission Components | 4,000 (mi) | | | | | | | |
| Shift Indicator Light Usage | Not equipped | | Equivalent Test Weight (pounds) | 8000 | | | | | | | |
| Curb Weight (lbs) | 8000 | | N/V Ratio | 28.8 | | | | | | | |
| GVWR (lbs) | 10000 | | | | | | | | | | |
| Axle Ratio | 4.1 | | # of Transmission Gears | 8 | | | | | | | |
| Transmission Type | Automatic | | Creeper Gear | No | | | | | | | |
| Transmission Lockup | Yes | | | | | | | | | | |
| Dynamometer Coefficients: | | | | | | | | | | | |
| Target Coefficients | | | Set Coefficients | | | | | | | | |
| Coefficient Category | A (lbf) | B (lbf/mph) | C (lbf/mph**2) | A (lbf) | B (lbf/mph) | C (lbf/mph**2) | EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients | | | | |
| City/Highway/Evap | 66.54 | 0.1424 | 0.04151 | 29.9 | 0.2878 | 0.03745 | 23.7 | | | | |
| Emission Control Device Comments | | | | | | -- | | | | | |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
|-------------------|--------------|-------------------------------------|--------------|

Manufacturer Test Vehicle Comments Callout: 25EV-D06.45V1-1

| | | | |
|--|--|---------------------------------------|--|
| Test # | SCRX10087430 | Test Procedure | 23 - 2-day evap |
| Exhaust Test # for this Evap Test | SCRX10087427 | Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| Test Date | 07/20/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11327 | Fuel Calibration Number | 1 |
| Vehicle Class | N/A | DF Type | Mfr. Determined |
| Verify Test Lab ID | CTC | | |
| E10 Evaporative Test Measurement Method | Calculated (1.08 x FID Total Hydrocarbons) | | |
| Test Start Odometer Reading | 3570 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | -- | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|--|-----------------------|---------------------------------------|
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.2233656 | -- |

Manufacturer Test Comments Callout: 25EV-D06.45V1-1; Cert 2-Day/Evap (E10) Hot_Soak_HC_(g) = 0.03488, Diurnal (g) = 0.17194; 2-DayTotal = (0.03488+0.17194)*1.08 = 0.2233656 (g)

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|---------------------|----------------|----------------|--------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.2234 | 0.0057 | 0.229 | 0.600 | Pass |
| CA | 150,000 miles | Other | HC-TOTAL-EQUIV | 0.2234 | 0.0057 | 0.229 | 0.600 | Pass |

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
| Test # | SCRX10087433 | Test Procedure | 34 - Federal fuel 3-day evap |
| Exhaust Test # for this Evap Test | SCRX10087429 | Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| Test Date | 08/02/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11327 | Fuel Calibration Number | 1 |
| Vehicle Class | N/A | DF Type | Mfr. Determined |
| Verify Test Lab ID | CTC | | |
| E10 Evaporative Test Measurement Method | Calculated (1.08 x FID Total Hydrocarbons) | | |
| Test Start Odometer Reading | 3746 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | -- | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|--|-----------------------|---------------------------------------|
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.283068 | -- |

Manufacturer Test Comments

Callout: 25EV-D06.45V1-1; Cert 3-Day/Evap (E10) Hot_Soak_HC_(g) = 0.06724 , Diurnal (g) = 0.19486; 3DayTotal = (0.06724+0.19486)*1.08 = 0.283068 (g)

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|---------------------|----------------|----------------|--------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.2831 | 0.0090 | 0.292 | 0.600 | Pass |
| CA | 150,000 miles | Other | HC-TOTAL-EQUIV | 0.2831 | 0.0090 | 0.292 | 0.600 | Pass |

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
| Test # | SCRX10087432 | Test Procedure | 32 - Federal Fuel Running Loss |
| Exhaust Test # for this Evap Test | SCRX10087429 | Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| Test Date | 08/02/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11327 | Fuel Calibration Number | 1 |
| Vehicle Class | N/A | DF Type | Mfr. Determined |
| Verify Test Lab ID | CTC | | |
| E10 Evaporative Test Measurement Method | Calculated (1.08 x FID Total Hydrocarbons) | | |
| Test Start Odometer Reading | 3729 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | -- | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|--|-----------------------|---------------------------------------|
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.0001404 | -- |

Manufacturer Test Comments

Callout: 25EV-D06.45V1-1; Cert 3-Day/Evap RL test(E10) RL=(0.00013 *1.08)=0.0001404

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|---------------------|----------------|----------------|--------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.000 | 0.000 | 0.00 | 0.05 | Pass |
| CA | 150,000 miles | Other | HC-TOTAL-EQUIV | 0.000 | 0.000 | 0.00 | 0.05 | Pass |

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
| Test # | SCRX10087465 | Test Procedure | 65 - Evap Canister Bleed Test |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| Test Date | 06/09/2024 | Fuel | Gasoline |
| Fuel Batch ID | -- | Fuel Calibration Number | -- |
| Vehicle Class | N/A | DF Type | Mfr. Determined |
| Verify Test Lab ID | Phinia | | |
| E10 Evaporative Test Measurement Method | Calculated (1.08 x FID Total Hydrocarbons) | | |
| Test Start Odometer Reading | 0 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | -- | | |
| Drive Cycle Speed Tolerance Criteria | -- | Road Speed Fan Usage | -- |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|---|-----------------------|---------------------------------------|
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.0071 | -- |

Manufacturer Test Comments Test run on a rig with aged components (not actual vehicle)

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|---------------------|----------------|----------------|--------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.0071 | 0.0000 | 0.007 | 0.030 | Pass |
| CA | 150,000 miles | Other | HC-TOTAL-EQUIV | 0.0071 | 0.0000 | 0.007 | 0.030 | Pass |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
|---|--|---|--------------|
| Fuel Properties | | | |
| Fuel Batch ID | 11327 | Fuel Calibration Number | 1 |
| Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) | Fuel Batch Calibration Date | 06/08/2024 |
| Fuel Batch Calibration Effective Date | 06/08/2024 | Fuel Batch Calibration Ineffective Date | -- |
| Carbon Weight Fraction NMHC | 0.828 | Carbon Weight Fraction HC | -- |
| Exhaust Carbon Weight Fraction | -- | Fuel Methanol Volume Fraction | -- |
| Fuel Density (grams/cubic ft) | -- | Fuel Specific Gravity | 0.75 |
| Fuel Ethanol Volume Percent (%) | 9.7 | Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb) | 17997 |
| Fuel Net Heat of Combustion (E10) (MJ/kg) | -- | Fuel Carbon Mass Fraction (E10) | -- |
| Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0) | 0.828 | Weight Fraction CO2 | -- |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 |
| Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline | Fuel Batch Calibration Date | 10/29/2024 |
| Fuel Batch Calibration Effective Date | 10/29/2024 | Fuel Batch Calibration Ineffective Date | -- |
| Carbon Weight Fraction NMHC | 0.83 | Carbon Weight Fraction HC | -- |
| Exhaust Carbon Weight Fraction | -- | Fuel Methanol Volume Fraction | -- |
| Fuel Density (grams/cubic ft) | -- | Fuel Specific Gravity | 0.752 |
| Fuel Ethanol Volume Percent (%) | 9.8 | Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb) | 17803 |
| Fuel Net Heat of Combustion (E10) (MJ/kg) | -- | Fuel Carbon Mass Fraction (E10) | -- |
| Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0) | 0.83 | Weight Fraction CO2 | -- |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
|-------------------|--------------|-------------------------------------|--------------|

Consolidated List of Standards

Exhaust Standards

| | | | |
|----------------------|---|-------------------------|--|
| Cert Region | Federal | Cert/In-Use Code | Cert |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | Standard Level | Federal Tier 3 HD Class 3 Bin 400 |
| Fuel | Gasoline | Test Procedure | California fuel 2-day exhaust (w/can load) |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | -- | -- | 1 | 0 | 7.3 |
| 150,000 miles | CO-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 6.0 |
| 150,000 miles | CO2 | -- | -- | -- | -- | -- | 1 | 0 | 999 |
| 150,000 miles | HCHO | -- | -- | -- | -- | -- | 1 | 0 | 0.006 |
| 150,000 miles | METHANE | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | METHANE-COMB | -- | -- | -- | -- | -- | 1 | 0 | 0.05 |
| 150,000 miles | N2O | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | N2O-COMB | -- | -- | -- | -- | -- | 1 | 0 | 0.05 |
| 150,000 miles | NMOG | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | 1 | 0 | 0.400 |
| 150,000 miles | NMOG+NOX-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 0.550 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | -- | -- | 1 | 0 | 0.010 |
| 150,000 miles | PM-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 0.007 |

Certification Summary Information Report

| | | | |
|----------------------|---|-------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
| Cert Region | California + CAA Section 177 states | Cert/In-Use Code | Cert |
| Vehicle Class | MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | Standard Level | Other |
| Fuel | Gasoline | Test Procedure | California fuel 2-day exhaust (w/can load) |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | -- | -- | 1 | 0 | 7.3 |
| 150,000 miles | CO-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 6.0 |
| 150,000 miles | HCHO | -- | -- | -- | -- | -- | 1 | 0 | 0.006 |
| 150,000 miles | METHANE | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | METHANE-COMB | -- | -- | -- | -- | -- | 1 | 0 | 0.05 |
| 150,000 miles | N2O | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | N2O-COMB | -- | -- | -- | -- | -- | 1 | 0 | 0.05 |
| 150,000 miles | NMOG | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | 1 | 0 | 0.400 |
| 150,000 miles | NMOG+NOX-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 0.550 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | -- | -- | 1 | 0 | 0.010 |
| 150,000 miles | PM-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 0.007 |

| | | | |
|----------------------|---|-------------------------|---------------|
| Cert Region | California + CAA Section 177 states | Cert/In-Use Code | Cert |
| Vehicle Class | MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | Standard Level | Other |
| Fuel | Gasoline | Test Procedure | Hot 1435 LA92 |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | 0 | 0 | 1 | 0 | 999.9 |
| 150,000 miles | NMOG | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | NOX | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |

Certification Summary Information Report

| | | | | | | | | | | |
|----------------------|----------------------|---|------------|--------------------|--|--|----------------|---------------|------------|--|
| Test Group | | VCRXD06.4574 | | | Evaporative/Refueling Family | | | VCRXF0213TR0 | | |
| Cert Region | | California + CAA Section 177 states | | | Cert/In-Use Code | | | Cert | | |
| Vehicle Class | | MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | | | Standard Level | | | Other | | |
| Fuel | | Gasoline | | | Test Procedure | | | HWFE | | |
| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std | |
| 150,000 miles | METHANE | -- | -- | -- | -- | -- | 1 | 0 | 999.99 | |
| 150,000 miles | N2O | -- | -- | -- | -- | -- | 1 | 0 | 999.99 | |
| 150,000 miles | NMOG | -- | -- | -- | -- | -- | 1 | 0 | 999.999 | |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | 1 | 0 | 0.400 | |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | 1 | 0 | 999.999 | |

| | | | | | | | | | | |
|----------------------|----------------------|---|------------|--------------------|--|--|----------------|-----------------------------------|------------|--|
| Cert Region | | Federal | | | Cert/In-Use Code | | | Cert | | |
| Vehicle Class | | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | | | Standard Level | | | Federal Tier 3 HD Class 3 Bin 400 | | |
| Fuel | | Gasoline | | | Test Procedure | | | SC03 | | |
| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std | |
| 150,000 miles | CO | -- | -- | -- | 0 | 0 | 1 | 0 | 999.9 | |
| 150,000 miles | NMOG | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 | |
| 150,000 miles | NOX | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 | |
| 150,000 miles | PM | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 | |

| | | | | | | | | | | |
|----------------------|----------------------|---|------------|--------------------|--|--|----------------|---------------|------------|--|
| Cert Region | | California + CAA Section 177 states | | | Cert/In-Use Code | | | Cert | | |
| Vehicle Class | | MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | | | Standard Level | | | Other | | |
| Fuel | | Gasoline | | | Test Procedure | | | SC03 | | |
| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std | |
| 150,000 miles | CO | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 | |
| 150,000 miles | NMOG | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 | |
| 150,000 miles | NOX | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 | |
| 150,000 miles | PM | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 | |

Certification Summary Information Report

| | | | |
|----------------------|---|-------------------------------------|-----------------------------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
| Cert Region | Federal | Cert/In-Use Code | Cert |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | Standard Level | Federal Tier 3 HD Class 3 Bin 400 |
| Fuel | Gasoline | Test Procedure | Hot 1435 LA92 |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | 0 | 0 | 1 | 0 | 999.9 |
| 150,000 miles | NMOG | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | NOX | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |

| | | | |
|----------------------|---|-------------------------|-----------------------------------|
| Cert Region | Federal | Cert/In-Use Code | Cert |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | Standard Level | Federal Tier 3 HD Class 3 Bin 400 |
| Fuel | Gasoline | Test Procedure | HWFE |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO2 | -- | -- | -- | -- | -- | 1 | 0 | 999 |
| 150,000 miles | METHANE | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | N2O | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | NMOG | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | 1 | 0 | 0.400 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |

Evaporative/Refueling Standards

| | | | |
|-------------------------------------|---------------------------|-----------------------|-------------------------------------|
| Evaporative/Refueling Family | VCRXF0213TR0 | Cert Region | California + CAA Section 177 states |
| Cert/In-Use Code | Cert | Standard Level | Other |
| Test Procedure | Federal Fuel Running Loss | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|----------|---------------|----------------|----------------|------|--------|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.05 | 0.000 |

| | | | |
|-------------------------------------|--------------|-----------------------|---------------------|
| Evaporative/Refueling Family | VCRXF0213TR0 | Cert Region | Federal |
| Cert/In-Use Code | Cert | Standard Level | Federal Tier 3 Evap |
| Test Procedure | 2-day evap | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|----------|---------------|----------------|----------------|-------|--------|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.600 | 0.0057 |

Certification Summary Information Report

| | | | | | |
|-------------------------------------|---------------------------|----------------------|-------------------------------------|-------------------------------------|---------------|
| Test Group | VCRXD06.4574 | | Evaporative/Refueling Family | VCRXF0213TR0 | |
| Evaporative/Refueling Family | VCRXF0213TR0 | | Cert Region | California + CAA Section 177 states | |
| Cert/In-Use Code | Cert | | Standard Level | Other | |
| Test Procedure | Evap Canister Bleed Test | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.030 | 0.0000 |
| Evaporative/Refueling Family | VCRXF0213TR0 | | Cert Region | Federal | |
| Cert/In-Use Code | Cert | | Standard Level | Federal Tier 3 Evap | |
| Test Procedure | Evap Canister Bleed Test | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.030 | 0.0000 |
| Evaporative/Refueling Family | VCRXF0213TR0 | | Cert Region | California + CAA Section 177 states | |
| Cert/In-Use Code | Cert | | Standard Level | Other | |
| Test Procedure | Federal fuel 3-day evap | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.600 | 0.0090 |
| Evaporative/Refueling Family | VCRXF0213TR0 | | Cert Region | Federal | |
| Cert/In-Use Code | Cert | | Standard Level | Federal Tier 3 Evap | |
| Test Procedure | Federal fuel 3-day evap | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.600 | 0.0090 |
| Evaporative/Refueling Family | VCRXF0213TR0 | | Cert Region | California + CAA Section 177 states | |
| Cert/In-Use Code | Cert | | Standard Level | Other | |
| Test Procedure | 2-day evap | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.600 | 0.0057 |
| Evaporative/Refueling Family | VCRXF0213TR0 | | Cert Region | Federal | |
| Cert/In-Use Code | Cert | | Standard Level | Federal Tier 3 Evap | |
| Test Procedure | Federal Fuel Running Loss | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.05 | 0.000 |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
|-------------------|--------------|-------------------------------------|--------------|

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
|----------------------|---|------------------------------|--|
| Glossary | | | |
| Useful Life | | | |
| 4 | 4,000 miles | 120 | 120,000 miles |
| 50 | 50,000 miles | 150 | 150,000 miles |
| 100 | 100,000 miles | | |
| Emission Name | | | |
| HC-TOTAL | Total Hydrocarbon | COMB-CREE | Combined Carbon-Related Exhaust Emissions |
| CO | Carbon Monoxide | COMB-OPT-CREE | Combined Optional Carbon-Related Exhaust Emissions |
| CO2 | Carbon dioxide | HC-TOTAL-EQUIV | Total Hydrocarbon equivalent - Evap only |
| CREE | Carbon-Related Exhaust Emissions | METHANE-COMB | Combined CH4 for HD 2b/3 vehicles only |
| OPT-CREE | Optional Carbon-Related Exhaust Emissions | N2O-COMB | Combined Nitrous Oxide for HD 2b/3 vehicles only |
| NOX | Nitrogen Oxide | LEAK-DIA | Effective Leak Diameter (inches) |
| PM | Particulate Matter | LEAK-GAS CAP | Gas Cap Leakage (cc/min) |
| PM-COMP | SFTP Composite Particulate Matter | CO2-COMB | Combined Carbon Dioxide for HD 2b/3 Vehicles Only |
| HC-NM | Non-methane Hydrocarbon | KW-HRS | Integrated DC KW-HRS |
| OMHCE | Organic material Hydrocarbon Equivalent | CH4 BAG 1 | Bag 1 Methane |
| OMNMHCE | Organic material non-methane HC equivalent | CH4 BAG 2 | Bag 2 Methane |
| NMOG | Non-methane organic gases | CH4 BAG 3 | Bag 3 Methane |
| HCHO | Formaldehyde | CH4 BAG 4 | Bag 4 Methane |
| H3C2HO | Acetaldehyde | CO BAG 1 | Bag 1 Carbon Monoxide |
| HC-NM+NOX | SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03 | CO BAG 2 | Bag 2 Carbon Monoxide |
| HC-NM+NOX-COMP | SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides | CO BAG 3 | Bag 3 Carbon Monoxide |
| CO-COMP | SFTP Composite Carbon Monoxide | CO BAG 4 | Bag 4 Carbon Monoxide |
| ETHANOL | C2H5OH - Ethanol | NMOG BAG 1 | Bag 1 Non-methane organic gases |
| FE BAG 1 | Bag 1 Fuel Economy | NMOG BAG 2 | Bag 2 Non-methane organic gases |
| FE BAG 2 | Bag 2 Fuel Economy | NMOG BAG 3 | Bag 3 Non-methane organic gases |
| FE BAG 3 | Bag 3 Fuel Economy | NMOG BAG 4 | Bag 4 Non-methane organic gases |
| FE BAG 4 | Bag 4 Fuel Economy | ACT-DISTANCE BAG 1 | Bag 1 Actual Distance |
| MFR FE | Manufacturer Fuel Economy | ACT-DISTANCE BAG 2 | Bag 2 Actual Distance |
| HC | Hydrocarbon for Running Loss and ORVR | ACT-DISTANCE BAG 3 | Bag 3 Actual Distance |
| METHANE | CH4 - Methane | ACT-DISTANCE BAG 4 | Bag 4 Actual Distance |
| METHANOL | CH3OH - Methanol | HC-TOTAL BAG 1 | Bag 1 Total Hydrocarbon |
| N2O | Nitrous Oxide | HC-TOTAL BAG 2 | Bag 2 Total Hydrocarbon |
| SPITBACK | Spitback Hydrocarbon in grams | HC-TOTAL BAG 3 | Bag 3 Total Hydrocarbon |
| AMP-HRS | Integrated Amp-hours | HC-TOTAL BAG 4 | Bag 4 Total Hydrocarbon |
| START-SOC | System Start State of Charge Watt-hours | WATT-HRS BAG 1 | Bag 1 Watt Hours |
| END-SOC | System End State of Charge Watt-hours | WATT-HRS BAG 2 | Bag 2 Watt Hours |

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | Evaporative/Refueling Family | | VCRXF0213TR0 |
|--|--|--------------|------------------------------|---|--------------|
| ACT-DISTANCE | Actual Distance Driven (miles) | | WATT-HRS BAG 3 | Bag 3 Watt Hours | |
| AS-VOLT | Average System Voltage | | WATT-HRS BAG 4 | Bag 4 Watt Hours | |
| CO2 BAG 1 | Bag 1 Carbon Dioxide | | WATT-HRS | Watt Hours | |
| CO2 BAG 2 | Bag 2 Carbon Dioxide | | HC-NM BAG 1 | Bag 1 Non-methane Hydrocarbon | |
| CO2 BAG 3 | Bag 3 Carbon Dioxide | | HC-NM BAG 2 | Bag 2 Non-methane Hydrocarbon | |
| CO2 BAG 4 | Bag 4 Carbon Dioxide | | HC-NM BAG 3 | Bag 3 Non-methane Hydrocarbon | |
| NMOG+NOX | Non-methane organic gases plus Nitrogen Oxides | | HC-NM BAG 4 | Bag 4 Non-methane Hydrocarbon | |
| NMOG+NOX-COMP | SFTP Composite Non-methane Organic Gases + Nitrogen Oxides | | N2O BAG 1 | Bag 1 Nitrous Oxide | |
| DT-IWRR | Drive Trace Inertia Work Ratio Rating | | N2O BAG 2 | Bag 2 Nitrous Oxide | |
| DT-ASCR | Drive Trace Absolute Speed Change Rating | | N2O BAG 3 | Bag 3 Nitrous Oxide | |
| DT-EER | Drive Trace Energy Economy Rating | | N2O BAG 4 | Bag 4 Nitrous Oxide | |
| Certification Region | | | | | |
| CA | California + CAA Section 177 states | | FA | Federal | |
| Exhaust Emission Standard Level | | | | | |
| B1 | Federal Tier 2 Bin 1 | | HDV2B340 | Federal Tier 3 HD Class 2b Transitional Bin 340 | |
| B2 | Federal Tier 2 Bin 2 | | HDV2B250 | Federal Tier 3 HD Class 2b Bin 250 | |
| B3 | Federal Tier 2 Bin 3 | | HDV2B200 | Federal Tier 3 HD Class 2b Bin 200 | |
| B4 | Federal Tier 2 Bin 4 | | HDV2B170 | Federal Tier 3 HD Class 2b Bin 170 | |
| B5 | Federal Tier 2 Bin 5 | | HDV2B150 | Federal Tier 3 HD Class 2b Bin 150 | |
| B6 | Federal Tier 2 Bin 6 | | HDV2B0 | Federal Tier 3 HD Class 2b Bin 0 | |
| B7 | Federal Tier 2 Bin 7 | | HDV3B630 | Federal Tier 3 HD Class 3 Transitional Bin 630 | |
| B8 | Federal Tier 2 Bin 8 | | HDV3B570 | Federal Tier 3 HD Class 3 Transitional Bin 570 | |
| B9 | Federal Tier 2 Bin 9 | | HDV3B400 | Federal Tier 3 HD Class 3 Bin 400 | |
| B10 | Federal Tier 2 Bin 10 | | HDV3B270 | Federal Tier 3 HD Class 3 Bin 270 | |
| B11 | Federal Tier 2 Bin 11 | | HDV3B230 | Federal Tier 3 HD Class 3 Bin 230 | |
| HDV1 | HDV1 (Federal HD chassis Class 2b GVW 8501-10000) | | HDV3B200 | Federal Tier 3 HD Class 3 Bin 200 | |
| HDV2 | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | | HDV3B0 | Federal Tier 3 HD Class 3 Bin 0 | |
| L2 | California LEV-II LEV | | L4SULEV100 | California LEV-IV SULEV100 | |
| L2OP | California LEV-II LEV Optional | | L4SULEV125 | California LEV-IV SULEV125 | |
| U2 | California LEV-II ULEV | | L4SULEV15 | California LEV-IV SULEV15 | |
| S2 | California LEV-II SULEV | | L4SULEV150 | California LEV-IV SULEV150 | |
| ZEV | California ZEV | | L4SULEV170 | California LEV-IV SULEV170 | |
| OT | Other | | L4SULEV175 | California LEV-IV SULEV175 | |
| T1 | Federal Tier 1 | | L4SULEV20 | California LEV-IV SULEV20 | |
| PZEV | California PZEV | | L4SULEV200 | California LEV-IV SULEV200 | |
| L2LEV160 | California LEV-II LEV160 | | L4SULEV230 | California LEV-IV SULEV230 | |
| L2ULEV125 | California LEV-II ULEV125 | | L4SULEV25 | California LEV-IV SULEV25 | |
| L2SULEV30 | California LEV-II SULEV30 | | L4SULEV30 | California LEV-IV SULEV30 | |
| L2LEV395 | California LEV-II LEV395 | | L4SULEV75 | California LEV-IV SULEV75 | |

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | Evaporative/Refueling Family | | VCRXF0213TR0 |
|-------------------------------|---|--------------|--|----------------------------|--------------|
| L2ULEV340 | California LEV-II ULEV340 | | L4SULEV85 | California LEV-IV SULEV85 | |
| L2LEV630 | California LEV-II LEV630 | | L4ULEV125 | California LEV-IV ULEV125 | |
| L2ULEV570 | California LEV-II ULEV570 | | L4ULEV200 | California LEV-IV ULEV200 | |
| L3LEV160 | California LEV-III LEV160 | | L4ULEV250 | California LEV-IV ULEV250 | |
| L3ULEV125 | California LEV-III ULEV125 | | L4ULEV270 | California LEV-IV ULEV270 | |
| L3ULEV70 | California LEV-III ULEV70 | | L4ULEV40 | California LEV-IV ULEV40 | |
| L3ULEV50 | California LEV-III ULEV50 | | L4ULEV400 | California LEV-IV ULEV400 | |
| L3SULEV30 | California LEV-III SULEV30 | | L4ULEV50 | California LEV-IV ULEV50 | |
| L3SULEV20 | California LEV-III SULEV20 | | L4ULEV60 | California LEV-IV ULEV60 | |
| L3LEV395 | California LEV-III LEV395 | | L4ULEV70 | California LEV-IV ULEV70 | |
| L3ULEV340 | California LEV-III ULEV340 | | T4B170 | Federal Tier 4 MDV Bin 170 | |
| L3ULEV250 | California LEV-III ULEV250 | | T4B150 | Federal Tier 4 MDV Bin 150 | |
| L3ULEV200 | California LEV-III ULEV200 | | T4B125 | Federal Tier 4 MDV Bin 125 | |
| L3SULEV170 | California LEV-III SULEV170 | | T4B100 | Federal Tier 4 MDV Bin 100 | |
| L3SULEV150 | California LEV-III SULEV150 | | T4B85 | Federal Tier 4 MDV Bin 85 | |
| L3LEV630 | California LEV-III LEV630 | | T4B75 | Federal Tier 4 MDV Bin 75 | |
| L3ULEV570 | California LEV-III ULEV570 | | T4B70 | Federal Tier 4 Bin 70 | |
| L3ULEV400 | California LEV-III ULEV400 | | T4B65 | Federal Tier 4 Bin 65 | |
| L3ULEV270 | California LEV-III ULEV270 | | T4B60 | Federal Tier 4 Bin 60 | |
| L3SULEV230 | California LEV-III SULEV230 | | T4B55 | Federal Tier 4 Bin 55 | |
| L3SULEV200 | California LEV-III SULEV200 | | T4B50 | Federal Tier 4 Bin 50 | |
| T3B160 | Federal Tier 3 Bin 160 | | T4B45 | Federal Tier 4 Bin 45 | |
| T3B125 | Federal Tier 3 Bin 125 | | T4B40 | Federal Tier 4 Bin 40 | |
| T3B110 | Federal Tier 3 Transitional Bin 110 | | T4B35 | Federal Tier 4 Bin 35 | |
| T3B85 | Federal Tier 3 Transitional Bin 85 | | T4B30 | Federal Tier 4 Bin 30 | |
| T3SULEV30 | Federal Tier 3 Transitional LEV-II SULEV30 Carryover | | T4B25 | Federal Tier 4 Bin 25 | |
| T3B70 | Federal Tier 3 Bin 70 | | T4B20 | Federal Tier 4 Bin 20 | |
| T3B50 | Federal Tier 3 Bin 50 | | T4B15 | Federal Tier 4 Bin 15 | |
| T3B30 | Federal Tier 3 Bin 30 | | T4B10 | Federal Tier 4 Bin 10 | |
| T3B20 | Federal Tier 3 Bin 20 | | T4B5 | Federal Tier 4 Bin 5 | |
| T3B0 | Federal Tier 3 Bin 0 | | T4B0 | Federal Tier 4 Bin 0 | |
| HDV2B395 | Federal Tier 3 HD Class 2b Transitional Bin 395 | | | | |
| Transmission Type Code | | | | | |
| AMS | Automated Manual- Selectable (e.g. Automated Manual with paddles) | M | Manual | | |
| A | Automatic | OT | Other | | |
| AM | Automated Manual | SA | Semi-Automatic | | |
| CVT | Continuously Variable | SCV | Selectable Continuously Variable (e.g. CVT with paddles) | | |
| Drive System Code | | | | | |
| 4 | 4-Wheel Drive | P | Part-time 4-Wheel Drive | | |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0213TR0 |
|--------------------------------------|---------------------------------|-------------------------------------|----------------------------------|
| F | 2-Wheel Drive, Front | A | All Wheel Drive |
| R | 2-Wheel Drive, Rear | | |
| Additional Terms and Acronyms | | | |
| AFC | Alternative Fuel Converter | ICI | Independent Commercial Importer |
| CSI | Certificate Summary Information | ORVR | Onboard Refueling Vapor Recovery |
| DF | Deterioration Factor | SIL | Shift Indicator Light |
| Evap | Evaporation, Evaporative | Trans | Transmission |

Certification Summary Information Report

| | | | | | | | |
|---|---|---|-------------------------------------|---------------------|---------------------|---------------------|-----------------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 | | | | |
| Evaporative/Refueling Family Information | | | | | | | |
| Evaporative Summary Information Type | New | Submission/Correction Date | 03/18/2026 05:11:32 PM | | | | |
| Integrated ORVR? | Yes | Fuel(s) | Gasoline | | | | |
| Multiple Fuel Storage | -- | | | | | | |
| Bladder Fuel Tank? | No | | | | | | |
| Fuel Tank Material | Plastic | Fuel Tank Material Description | hdpe/co-ex | | | | |
| Fill Pipe Seal Type | Liquid seal | | | | | | |
| Air Intake System Vapor Storage Device? | Yes | Air Intake System Vapor Storage Device Description | Panel | | | | |
| Fuel System Vapor Storage Canister? | Yes | Other Vapor Storage | -- | | | | |
| Fuel System Vapor Storage Canister(s) Total Working Capacity (grams) | 394 | Number of Primary Canisters | 1 | | | | |
| Number of Bleed Canisters | 0 | Bleed Canister Total Working Capacity (grams) | 0 | | | | |
| Mfr Evaporative/Refueling Family Comments | This Evaporative Family is being certified with an evaporative FEL of 0.600 grams | | | | | | |
| Leak Family Details | | | | | | | |
| Leak Family Indicator | Yes | | | | | | |
| Canister Bleed Test Indicator | Yes | Applicability of Evaporative Canister Bleed Test | 50 State | | | | |
| Evaporative Canister Bleed Test Comments | -- | | | | | | |
| CARB Fuel Only (Rig) Test Indicator | No | Applicability of CARB Fuel Only (Rig) Test | -- | | | | |
| CARB Fuel Only (Rig) Test Comments | -- | | | | | | |
| Leak Family Name | Applicability of Leak Family Requirements | Leak Family Standard (inches) | Leak Family Description | | | | |
| VCRXF0391TR0-LF1 | 50 State | 0.02 | -- | | | | |
| Models Covered by this Certificate | | | | | | | |
| Carline Manufacturer | Division | Carline | Certification Region Code(s) | Drive System | Trans - Type | - # of Gears | Trans - Lockup |
| FCA US LLC | 12 - RAM | 965 - 3500 Cab Chassis 4X4 | Federal | 4-Wheel Drive | Automatic | 8 | Yes |
| FCA US LLC | 12 - RAM | 960 - 3500 Cab Chassis 4X2 | California + CAA Section 177 states | 2-Wheel Drive, Rear | Automatic | 8 | Yes |
| FCA US LLC | 12 - RAM | 965 - 3500 Cab Chassis 4X4 | California + CAA Section 177 states | 4-Wheel Drive | Automatic | 8 | Yes |
| FCA US LLC | 12 - RAM | 960 - 3500 Cab Chassis 4X2 | Federal | 2-Wheel Drive, Rear | Automatic | 8 | Yes |
| Engine Description | | | | | | | |
| Hybrid Type | -- | Hybrid Description | -- | | | | |
| Engine Type | 4-Stroke Spark Ignition | Mfr Engine Description | -- | | | | |
| Engine Block Arrangement | V-shaped engine | Mfr Engine Block Arrangement Description | -- | | | | |
| Camless Valvetrain Indicator | No | Oil Viscosity/Classification | 0W-40 | | | | |
| Number of Cylinders/Rotors | 8 | Mechanically Variable Compression Ratio Indicator | N | | | | |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 | |
|--|--------------------------------------|---|--------------------|------------------------|
| After Treatment Device(s) (ATD) | | | | |
| ATD Number | ATD Type | ATD Precious Metal | Substrate Material | Substrate Construction |
| 1 | Three-way catalyst | Platinum + Palladium + Rhodium | Ceramic | Monolith |
| 2 | Three-way catalyst | Platinum + Rhodium | Ceramic | Monolith |
| 3 | Three-way catalyst | Rhodium | Ceramic | Monolith |
| Mfr After Treatment Device (ATD) Comments | THREE WAY CATALYST | | | |
| Direct Ozone Reduction (DOR) Device | Not Equipped | | | |
| Mfr Emission Control Device Comments | -- | | | |
| Engine Configuration Number 1 | | | | |
| Engine Displacement (liters) | 6.4 | Engine Rated Horsepower | 375 | |
| Number of Inlet Valves Per Cylinder | 1 | Number of Exhaust Valves Per Cylinder | 1 | |
| Air Aspiration Method | Naturally Aspirated | Number of Air Aspiration Devices | 0 | |
| Air Aspiration Device Configuration | -- | Charge Air Cooler Type | N/A | |
| Air Aspiration Drive Method(s) | -- | | | |
| Cylinder Deactivation | Yes | | | |
| Cylinder Deactivation Description | Multiple Displacement Solenoid (MDS) | | | |
| Variable Valve Timing | Yes | | | |
| Variable Valve Timing System Description | Cam phaser | | | |
| Variable Valve Lift? | No | | | |
| Variable Valve Lift System Description | -- | | | |
| Number of Knock Sensors | 2 | Number of Air/Fuel Sensors | 4 | |
| Air/Fuel Sensor # 1 Type | Heated oxygen | Air/Fuel Sensor # 1 Description | -- | |
| Air/Fuel Sensor # 2 Type | Heated oxygen | Air/Fuel Sensor # 2 Description | -- | |
| Air/Fuel Sensor # 3 Type | Heated oxygen | Air/Fuel Sensor # 3 Description | -- | |
| Air/Fuel Sensor # 4 Type | Heated oxygen | Air/Fuel Sensor # 4 Description | -- | |
| Mfr Air/Fuel Sensor Comments | -- | | | |
| Exhaust Gas Recirculation | Yes | Cooled Exhaust Gas Recirculation | Yes | |
| EGR Type | Electronic/Electric | Exhaust Gas Recirculation Description if 'Other' | -- | |
| Closed Loop Air Injection System | No | | | |
| Air Injection Type | Not Applicable | Air Injection Type if 'Other' | -- | |
| Mfr Engine Configuration Comments | -- | | | |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 | | | | | | | | |
|---|--------------------------------------|--|--------------|------|--------------|---------|-----------------------|---------------------------|--------------------------|------------------------------|-----------------------|
| Engine Configuration Number 2 | | | | | | | | | | | |
| Engine Displacement (liters) | 6.4 | Engine Rated Horsepower | 405 | | | | | | | | |
| Number of Inlet Valves Per Cylinder | 1 | Number of Exhaust Valves Per Cylinder | 1 | | | | | | | | |
| Air Aspiration Method | Naturally Aspirated | Number of Air Aspiration Devices | 0 | | | | | | | | |
| Air Aspiration Device Configuration | -- | Charge Air Cooler Type | N/A | | | | | | | | |
| Air Aspiration Drive Method(s) | -- | | | | | | | | | | |
| Cylinder Deactivation | Yes | | | | | | | | | | |
| Cylinder Deactivation Description | Multiple Displacement Solenoid (MDS) | | | | | | | | | | |
| Variable Valve Timing | Yes | | | | | | | | | | |
| Variable Valve Timing System Description | Cam phaser | | | | | | | | | | |
| Variable Valve Lift? | No | | | | | | | | | | |
| Variable Valve Lift System Description | -- | | | | | | | | | | |
| Number of Knock Sensors | 2 | Number of Air/Fuel Sensors | 4 | | | | | | | | |
| Air/Fuel Sensor # 1 Type | Heated oxygen | Air/Fuel Sensor # 1 Description | -- | | | | | | | | |
| Air/Fuel Sensor # 2 Type | Heated oxygen | Air/Fuel Sensor # 2 Description | -- | | | | | | | | |
| Air/Fuel Sensor # 3 Type | Heated oxygen | Air/Fuel Sensor # 3 Description | -- | | | | | | | | |
| Air/Fuel Sensor # 4 Type | Heated oxygen | Air/Fuel Sensor # 4 Description | -- | | | | | | | | |
| Mfr Air/Fuel Sensor Comments | -- | | | | | | | | | | |
| Exhaust Gas Recirculation | Yes | Cooled Exhaust Gas Recirculation | Yes | | | | | | | | |
| EGR Type | Electronic/Electric | Exhaust Gas Recirculation Description if 'Other' | -- | | | | | | | | |
| Closed Loop Air Injection System | No | | | | | | | | | | |
| Air Injection Type | Not Applicable | Air Injection Type if 'Other' | -- | | | | | | | | |
| Mfr Engine Configuration Comments | -- | | | | | | | | | | |
| Official Test Numbers | | | | | | | | | | | |
| Test Group | Fuel | FTP | US06 | SC03 | Cold CO | Highway | EPA City Litmus Value | EPA City Litmus Threshold | EPA Highway Litmus Value | EPA Highway Litmus Threshold | CREE Weighting Factor |
| Gasoline | SCRX10088328 | SCRX10088330 | SCRX10088331 | -- | SCRX10088329 | -- | 228.2 | -- | 286.1 | 1.0 | |
| SFTP LEV-III Official Test Numbers | | | | | | | | | | | |
| Test Group Fuel | FTP | US06 | SC03 | | | | | | | | |
| Gasoline | SCRX10088328 | SCRX10088330 | SCRX10088331 | | | | | | | | |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
|-------------------|--------------|-------------------------------------|--------------|

Emission Data Vehicle Information

| | | | |
|----------------------------------|---------------|---|----------------------|
| Vehicle ID / Configuration | L5DD81477 / 0 | Manufacturer Vehicle Configuration Number | 0 |
| Original Test Group Name | SCRXD06.45W5 | Original Evaporative/Refueling Family | SCRXF0180TP2 |
| Original Test Vehicle Model Year | 2025 | | |
| Vehicle Model | | | |
| Represented Test Vehicle Make | RAM | Represented Test Vehicle Model | 3500 Cab Chassis 4X4 |

Leak Family Details

| | | | |
|------------------------|----|------------------|----|
| Leak Family Identifier | -- | Leak Family Name | -- |
|------------------------|----|------------------|----|

Drive Sources and Fuel System Details

| Drive Source and Fuel# | Drive Source | Fuel |
|------------------------|-------------------|----------|
| 1 | Combustion Engine | Gasoline |

| | | | |
|------------------------------------|---------------------|---|---------------------|
| Hybrid Indicator | No | Multiple Fuel Combustion | -- |
| Multiple Fuel Storage | -- | Rechargeable Energy Storage System Indicator | -- |
| Fuel Cell Indicator | -- | Rechargeable Energy Storage System, if 'Other' | -- |
| Rechargeable Energy Storage System | -- | | |
| Off-board charge Capable Indicator | -- | Odometer Correction Factor | 1 |
| Odometer Correction -- Initial | 0 | - = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor | |
| Odometer Correction Sign | Miles | | |
| Odometer Correction Units | Miles | Rated Horsepower | 405 |
| Engine Code | AA-1750 | Air Aspiration Method, if 'Other' | |
| Displacement (liters) | 6.4 | Air Aspiration Device Configuration | -- |
| Air Aspiration Method | Naturally Aspirated | Drive Mode While Testing | 2-Wheel Drive, Rear |
| Number of Air Aspiration Devices | 0 | Aged Emission Components | 150,000 (mi) |
| Charge Air Cooler Type | -- | Equivalent Test Weight (pounds) | 11500 |
| Shift Indicator Light Usage | Not equipped | N/V Ratio | 30.7 |
| Curb Weight (lbs) | 11251 | # of Transmission Gears | 8 |
| GVWR (lbs) | 13500 | Creeper Gear | No |
| Axle Ratio | 4.1 | | |
| Transmission Type | Automatic | | |
| Transmission Lockup | Yes | | |

Dynamometer Coefficients:

| Coefficient Category | Target Coefficients | | | Set Coefficients | | | EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients |
|----------------------|---------------------|-------------|----------------|------------------|-------------|----------------|---|
| | A (lbf) | B (lbf/mph) | C (lbf/mph**2) | A (lbf) | B (lbf/mph) | C (lbf/mph**2) | |
| City/Highway/Evap | 112.96 | 0.2059 | 0.09263 | 20.26 | 0.4214 | 0.08603 | 47.3 |
| US06 | 112.96 | 0.2059 | 0.09263 | 20.26 | 0.4214 | 0.08603 | N/A |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
|---|-------------------------|------------------------------|--------------|
| Emission Control Device Comments | -- | | |
| Manufacturer Test Vehicle Comments | callout 25DA-D06.45W5-1 | | |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
|--|--|---------------------------------------|--|
| Test # | SCRX10088328 | Test Procedure | 25 - California fuel 2-day exhaust (w/can load) |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline |
| Test Date | 10/29/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000), MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | DF Type | Mfr. Determined |
| Verify Test Lab ID | CPG | | |
| E10 Evaporative Test Measurement Method | -- | | |
| Test Start Odometer Reading | 4523 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | No | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |
| Test Results | | | |

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | | | Evaporative/Refueling Family | | | | | VCRXF0391TR0 | | |
|----------------------|---------------|-----------------------------------|---------------|----------------|------------------------------|------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO | 1.22 | -- | -- | -- | 0 | 1 | 1.2 | 7.3 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO-COMP | 0.90 | -- | -- | -- | 0 | 1 | 0.9 | 6.0 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO2 | 999 | -- | -- | -- | 0 | 1 | 999 | -- | -- |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | METHANE | 0.028 | -- | -- | -- | 0 | 1 | 0.03 | 999.99 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | METHANE-COMB | 0.022 | -- | -- | -- | 0 | 1 | 0.02 | 0.05 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | N2O | 0.003 | -- | -- | -- | 0 | 1 | 0.00 | 999.99 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | N2O-COMB | 0.002 | -- | -- | -- | 0 | 1 | 0.00 | 0.05 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG | 0.0781 | -- | -- | -- | 0 | 1 | 0.078 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG+NOX | 0.1317 | -- | -- | -- | -- | -- | 0.132 | 0.400 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG+NOX-COMP | 0.0555 | -- | -- | -- | 0 | 1 | 0.056 | 0.550 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NOX | 0.0536 | -- | -- | -- | 0 | 1 | 0.054 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | PM | 0.0003 | -- | -- | -- | 0 | 1 | 0.000 | 0.010 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | PM-COMP | 0.0003 | -- | -- | -- | 0 | 1 | 0.000 | 0.007 | Pass |
| CA | 150,000 miles | Other | CO | 1.22 | -- | -- | -- | 0 | 1 | 1.2 | 7.3 | Pass |
| CA | 150,000 miles | Other | CO-COMP | 0.90 | -- | -- | -- | 0 | 1 | 0.9 | 6.0 | Pass |
| CA | 150,000 miles | Other | METHANE | 0.028 | -- | -- | -- | 0 | 1 | 0.03 | 999.99 | Pass |
| CA | 150,000 miles | Other | METHANE-COMB | 0.022 | -- | -- | -- | 0 | 1 | 0.02 | 0.05 | Pass |
| CA | 150,000 miles | Other | N2O | 0.003 | -- | -- | -- | 0 | 1 | 0.00 | 999.99 | Pass |
| CA | 150,000 miles | Other | N2O-COMB | 0.002 | -- | -- | -- | 0 | 1 | 0.00 | 0.05 | Pass |

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | | | Evaporative/Refueling Family | | | | | VCRXF0391TR0 | | |
|----------------------|---------------|----------------|---------------|----------------|------------------------------|------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
| CA | 150,000 miles | Other | NMOG | 0.0781 | -- | -- | -- | 0 | 1 | 0.078 | 999.999 | Pass |
| CA | 150,000 miles | Other | NMOG+NOX | 0.1317 | -- | -- | -- | -- | -- | 0.132 | 0.400 | Pass |
| CA | 150,000 miles | Other | NMOG+NOX-COMP | 0.0555 | -- | -- | -- | 0 | 1 | 0.056 | 0.550 | Pass |
| CA | 150,000 miles | Other | NOX | 0.0536 | -- | -- | -- | 0 | 1 | 0.054 | 999.999 | Pass |
| CA | 150,000 miles | Other | PM | 0.0003 | -- | -- | -- | 0 | 1 | 0.000 | 0.010 | Pass |
| CA | 150,000 miles | Other | PM-COMP | 0.0003 | -- | -- | -- | 0 | 1 | 0.000 | 0.007 | Pass |

NOTE: For Non-charge depleting tests, the Rounded Result for CO2 Emission name is a Verify-calculated value.

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|-------------------------------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
| Test # | SCRX10088329 | Test Procedure | 3 - HWFE |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline |
| Test Date | 10/29/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000), MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | DF Type | Mfr. Determined |
| Verify Test Lab ID | CPG | | |
| E10 Evaporative Test Measurement Method | -- | | |
| Test Start Odometer Reading | 4533 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | No | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|--|-----------------------|--|
| METHANE (CH4 - Methane) | 0.013515 | -- |
| CO (Carbon Monoxide) | 0.209406 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | 0.2408 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | -0.044 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | 0.1838 | -- |
| MFR FE (Manufacturer Fuel Economy) | 13.1 | 13.1 |
| NOX (Nitrogen Oxide) | 0.002354 | -- |
| N2O (Nitrous Oxide) | 0.001264 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0.00512 | -- |
| NMOG (Non-methane organic gases) | 0.005274 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0.018129 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|----------------------------------|-----------------------|---------------------------------|
| Carbon-Related Exhaust Emissions | 669 | 999 |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|------------------|-----------------------|-----------------------|
| Carbon dioxide | 669.1756 | -- |

Manufacturer Test Comments 25DA-D06.45W5-1 hwy @ ALVW 150k Auto Fixed E10

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | | | Evaporative/Refueling Family | | | | | VCRXF0391TR0 | | |
|----------------------|---------------|-----------------------------------|---------------|----------------|------------------------------|------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO2 | 999 | -- | -- | -- | 0 | 1 | 999 | -- | -- |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | METHANE | 0.014 | -- | -- | -- | 0 | 1 | 0.01 | 999.99 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | N2O | 0.001 | -- | -- | -- | 0 | 1 | 0.00 | 999.99 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG | 0.0053 | -- | -- | -- | 0 | 1 | 0.005 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG+NOX | 0.0077 | -- | -- | -- | -- | -- | 0.008 | 0.400 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NOX | 0.0024 | -- | -- | -- | 0 | 1 | 0.002 | 999.999 | Pass |
| CA | 150,000 miles | Other | METHANE | 0.014 | -- | -- | -- | 0 | 1 | 0.01 | 999.99 | Pass |
| CA | 150,000 miles | Other | N2O | 0.001 | -- | -- | -- | 0 | 1 | 0.00 | 999.99 | Pass |
| CA | 150,000 miles | Other | NMOG | 0.0053 | -- | -- | -- | 0 | 1 | 0.005 | 999.999 | Pass |
| CA | 150,000 miles | Other | NMOG+NOX | 0.0077 | -- | -- | -- | -- | -- | 0.008 | 0.400 | Pass |
| CA | 150,000 miles | Other | NOX | 0.0024 | -- | -- | -- | 0 | 1 | 0.002 | 999.999 | Pass |

NOTE: For Non-charge depleting tests, the Rounded Result for CO2 Emission name is a Verify-calculated value.

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
|-------------------|--------------|-------------------------------------|--------------|

| | | | |
|--|--|---------------------------------------|-------------------------------------|
| Test # | SCRX10088330 | Test Procedure | 16 - Hot 1435 LA92 |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline |
| Test Date | 10/29/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000), MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | DF Type | Mfr. Determined |
| Verify Test Lab ID | CPG | | |
| E10 Evaporative Test Measurement Method | -- | | |
| Test Start Odometer Reading | 4559 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | No | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|--|-----------------------|--|
| CO2 BAG 1 (Bag 1 Carbon Dioxide) | 1272.51 | -- |
| FE BAG 1 (Bag 1 Fuel Economy) | 6.88 | 6.88 |
| CO2 BAG 2 (Bag 2 Carbon Dioxide) | 979.69 | -- |
| FE BAG 2 (Bag 2 Fuel Economy) | 8.93 | 8.93 |
| METHANE (CH4 - Methane) | 0.01793 | -- |
| CO (Carbon Monoxide) | 0.29737 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | -1.169 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | -0.839 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | -1.472 | -- |
| MFR FE (Manufacturer Fuel Economy) | 8.6 | 8.6 |
| NOX (Nitrogen Oxide) | 0.01204 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0.00137 | -- |
| NMOG (Non-methane organic gases) | 0.00143 | -- |
| PM (Particulate Matter) | 0.000213 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0.01863 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|----------------------------------|-----------------------|---------------------------------|
| Carbon-Related Exhaust Emissions | 1016 | -- |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
|-------------------|--------------|-------------------------------------|--------------|

| | | |
|-------------------------|------------------------------|------------------------------|
| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
| Carbon dioxide | 1015.2 | -- |

Manufacturer Test Comments 25DA-D06.45W5-1 la92 @ ALVW 150k Auto Fixed E10

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NMHC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|-----------------------------------|---------------|----------------|-----|-----------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO | 0.30 | -- | -- | -- | 0 | 1 | 0.3 | 999.9 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG | 0.0014 | -- | -- | -- | 0 | 1 | 0.001 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NOX | 0.0120 | -- | -- | -- | 0 | 1 | 0.012 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | PM | 0.0002 | -- | -- | -- | 0 | 1 | 0.000 | 999.999 | Pass |
| CA | 150,000 miles | Other | CO | 0.30 | -- | -- | -- | 0 | 1 | 0.3 | 999.9 | Pass |
| CA | 150,000 miles | Other | NMOG | 0.0014 | -- | -- | -- | 0 | 1 | 0.001 | 999.999 | Pass |
| CA | 150,000 miles | Other | NOX | 0.0120 | -- | -- | -- | 0 | 1 | 0.012 | 999.999 | Pass |
| CA | 150,000 miles | Other | PM | 0.0002 | -- | -- | -- | 0 | 1 | 0.000 | 999.999 | Pass |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
|-------------------|--------------|-------------------------------------|--------------|

| | | | |
|--|--|---------------------------------------|-------------------------------------|
| Test # | SCRX10088331 | Test Procedure | 95 - SC03 |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline |
| Test Date | 10/29/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000), MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | DF Type | Mfr. Determined |
| Verify Test Lab ID | CPG | | |
| E10 Evaporative Test Measurement Method | -- | | |
| Test Start Odometer Reading | 4577 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | No | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | Yes |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value (miles per gallon) |
|--|-----------------------|--|
| METHANE (CH4 - Methane) | 0.029102 | -- |
| CO (Carbon Monoxide) | 1.036974 | -- |
| DT-ASCR (Drive Trace Absolute Speed Change Rating) | -0.142 | -- |
| DT-EER (Drive Trace Energy Economy Rating) | 0.5253 | -- |
| DT-IWRR (Drive Trace Inertia Work Ratio Rating) | -0.03 | -- |
| MFR FE (Manufacturer Fuel Economy) | 8.3 | 8.3 |
| NOX (Nitrogen Oxide) | 0.008233 | -- |
| HC-NM (Non-methane Hydrocarbon) | 0.00678 | -- |
| NMOG (Non-methane organic gases) | 0.006985 | -- |
| PM (Particulate Matter) | 0.000434 | -- |
| HC-TOTAL (Total Hydrocarbon) | 0.034972 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CREE/OPT-CREE |
|----------------------------------|-----------------------|---------------------------------|
| Carbon-Related Exhaust Emissions | 1052 | -- |

| Test Result Name | Unrounded Test Result | Verify Calculated CO2 |
|------------------|-----------------------|-----------------------|
| Carbon dioxide | 1049.63628 | -- |

Manufacturer Test Comments 25DA-D06.45W5-1 sc03 @ ALVW 150k Auto Fixed E10

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | | | | Evaporative/Refueling Family | | | | VCRXF0391TR0 | | |
|----------------------|---------------|-----------------------------------|---------------|----------------|-----|------------------------------|--------------------------|--------|---------|---------------------|----------|-----------|
| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | RAF | NMOG/NM HC Ratio | Diesel Adjustment Factor | Add DF | Mult DF | Certification Level | Standard | Pass/Fail |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | CO | 1.04 | -- | -- | -- | 0 | 1 | 1.0 | 999.9 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NMOG | 0.0070 | -- | -- | -- | 0 | 1 | 0.007 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | NOX | 0.0082 | -- | -- | -- | 0 | 1 | 0.008 | 999.999 | Pass |
| Fed | 150,000 miles | Federal Tier 3 HD Class 3 Bin 400 | PM | 0.0004 | -- | -- | -- | 0 | 1 | 0.000 | 999.999 | Pass |
| CA | 150,000 miles | Other | CO | 1.0370 | -- | -- | -- | 0 | 1 | 1.037 | 999.999 | Pass |
| CA | 150,000 miles | Other | NMOG | 0.0070 | -- | -- | -- | 0 | 1 | 0.007 | 999.999 | Pass |
| CA | 150,000 miles | Other | NOX | 0.0082 | -- | -- | -- | 0 | 1 | 0.008 | 999.999 | Pass |
| CA | 150,000 miles | Other | PM | 0.0004 | -- | -- | -- | 0 | 1 | 0.000 | 999.999 | Pass |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
|-------------------|--------------|-------------------------------------|--------------|

Emission Data Vehicle Information

| | | | |
|----------------------------------|---------------|---|--------------|
| Vehicle ID / Configuration | L5DJ25253 / 0 | Manufacturer Vehicle Configuration Number | 0 |
| Original Test Group Name | SCRXD06.45V1 | Original Evaporative/Refueling Family | SCRXR0213TP1 |
| Original Test Vehicle Model Year | 2025 | | |

Vehicle Model

| | | | |
|-------------------------------|-----|--------------------------------|----------|
| Represented Test Vehicle Make | RAM | Represented Test Vehicle Model | 2500 4X2 |
|-------------------------------|-----|--------------------------------|----------|

Leak Family Details

| | | | |
|------------------------|----|------------------|----|
| Leak Family Identifier | -- | Leak Family Name | -- |
|------------------------|----|------------------|----|

Drive Sources and Fuel System Details

| Drive Source and Fuel# | Drive Source | Fuel |
|------------------------|-------------------|----------|
| 1 | Combustion Engine | Gasoline |

| | | | |
|------------------------------------|---------------------|---|---------------------|
| Hybrid Indicator | No | Multiple Fuel Combustion | -- |
| Multiple Fuel Storage | -- | Rechargeable Energy Storage System Indicator | -- |
| Fuel Cell Indicator | -- | Rechargeable Energy Storage System, if 'Other' | -- |
| Rechargeable Energy Storage System | -- | | |
| Off-board charge Capable Indicator | -- | Odometer Correction Factor | 1 |
| Odometer Correction -- Initial | 0 | - = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor | |
| Odometer Correction Sign | Miles | | |
| Odometer Correction Units | Miles | Rated Horsepower | 405 |
| Engine Code | AA-0350 | Air Aspiration Method, if 'Other' | |
| Displacement (liters) | 6.4 | Air Aspiration Device Configuration | -- |
| Air Aspiration Method | Naturally Aspirated | Drive Mode While Testing | 2-Wheel Drive, Rear |
| Number of Air Aspiration Devices | 0 | Aged Emission Components | 4,000 (mi) |
| Charge Air Cooler Type | -- | Equivalent Test Weight (pounds) | 8000 |
| Shift Indicator Light Usage | Not equipped | N/V Ratio | 28.8 |
| Curb Weight (lbs) | 8000 | # of Transmission Gears | 8 |
| GVWR (lbs) | 10000 | Creeper Gear | No |
| Axle Ratio | 4.1 | | |
| Transmission Type | Automatic | | |
| Transmission Lockup | Yes | | |

Dynamometer Coefficients:

| Coefficient Category | Target Coefficients | | | Set Coefficients | | | EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients |
|----------------------|---------------------|-------------|----------------|------------------|-------------|----------------|---|
| | A (lbf) | B (lbf/mph) | C (lbf/mph**2) | A (lbf) | B (lbf/mph) | C (lbf/mph**2) | |
| City/Highway/Evap | 66.54 | 0.1424 | 0.04151 | 29.9 | 0.2878 | 0.03745 | 23.7 |

Emission Control Device Comments --

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
|-------------------|--------------|-------------------------------------|--------------|

Manufacturer Test Vehicle Comments Callout: 25EV-D06.45V1-1

| | | | |
|--|--|---------------------------------------|--|
| Test # | SCRX10087430 | Test Procedure | 23 - 2-day evap |
| Exhaust Test # for this Evap Test | SCRX10087427 | Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| Test Date | 07/20/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11327 | Fuel Calibration Number | 1 |
| Vehicle Class | N/A | DF Type | Mfr. Determined |
| Verify Test Lab ID | CTC | | |
| E10 Evaporative Test Measurement Method | Calculated (1.08 x FID Total Hydrocarbons) | | |
| Test Start Odometer Reading | 3570 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | -- | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|--|-----------------------|---------------------------------------|
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.2233656 | -- |

Manufacturer Test Comments Callout: 25EV-D06.45V1-1; Cert 2-Day/Evap (E10) Hot_Soak_HC_(g) = 0.03488, Diurnal (g) = 0.17194; 2-DayTotal = (0.03488+0.17194)*1.08 = 0.2233656 (g)

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|---------------------|----------------|----------------|--------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.2234 | 0.0057 | 0.229 | 0.600 | Pass |
| CA | 150,000 miles | Other | HC-TOTAL-EQUIV | 0.2234 | 0.0057 | 0.229 | 0.600 | Pass |

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
| Test # | SCRX10087433 | Test Procedure | 34 - Federal fuel 3-day evap |
| Exhaust Test # for this Evap Test | SCRX10087429 | Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| Test Date | 08/02/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11327 | Fuel Calibration Number | 1 |
| Vehicle Class | N/A | DF Type | Mfr. Determined |
| Verify Test Lab ID | CTC | | |
| E10 Evaporative Test Measurement Method | Calculated (1.08 x FID Total Hydrocarbons) | | |
| Test Start Odometer Reading | 3746 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | -- | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|--|-----------------------|---------------------------------------|
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.283068 | -- |

Manufacturer Test Comments

Callout: 25EV-D06.45V1-1; Cert 3-Day/Evap (E10) Hot_Soak_HC_(g) = 0.06724 , Diurnal (g) = 0.19486; 3DayTotal = (0.06724+0.19486)*1.08 = 0.283068 (g)

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|---------------------|----------------|----------------|--------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.2831 | 0.0090 | 0.292 | 0.600 | Pass |
| CA | 150,000 miles | Other | HC-TOTAL-EQUIV | 0.2831 | 0.0090 | 0.292 | 0.600 | Pass |

Certification Summary Information Report

| | | | |
|--|--|---------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
| Test # | SCRX10087432 | Test Procedure | 32 - Federal Fuel Running Loss |
| Exhaust Test # for this Evap Test | SCRX10087429 | Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) |
| Test Date | 08/02/2024 | Fuel | Gasoline |
| Fuel Batch ID | 11327 | Fuel Calibration Number | 1 |
| Vehicle Class | N/A | DF Type | Mfr. Determined |
| Verify Test Lab ID | CTC | | |
| E10 Evaporative Test Measurement Method | Calculated (1.08 x FID Total Hydrocarbons) | | |
| Test Start Odometer Reading | 3729 | Odometer Units | M |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- |
| State of Charge Delta | -- | | |
| Drive Cycle Speed Tolerance Criteria | Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec) | Road Speed Fan Usage | No |

Test Results

| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value |
|--|-----------------------|---------------------------------------|
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.0001404 | -- |

Manufacturer Test Comments

Callout: 25EV-D06.45V1-1; Cert 3-Day/Evap RL test(E10) RL=(0.00013 *1.08)=0.0001404

| Certification Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail |
|----------------------|---------------|---------------------|----------------|----------------|--------|---------------------|----------|-----------|
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.000 | 0.000 | 0.00 | 0.05 | Pass |
| CA | 150,000 miles | Other | HC-TOTAL-EQUIV | 0.000 | 0.000 | 0.00 | 0.05 | Pass |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 | | | | | | |
|---|--|---------------------------------------|--|-----------------------|-----------------------|---------------------------------------|--|------------------|----|
| Test # | SCRX10087466 | Test Procedure | 65 - Evap Canister Bleed Test | | | | | | |
| Exhaust Test # for this Evap Test | -- | Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) | | | | | | |
| Test Date | 06/06/2024 | Fuel | Gasoline | | | | | | |
| Fuel Batch ID | -- | Fuel Calibration Number | -- | | | | | | |
| Vehicle Class | N/A | DF Type | Mfr. Determined | | | | | | |
| Verify Test Lab ID | Phinia | | | | | | | | |
| E10 Evaporative Test Measurement Method | Calculated (1.08 x FID Total Hydrocarbons) | | | | | | | | |
| Test Start Odometer Reading | 0 | Odometer Units | M | | | | | | |
| 4WD Test Dyno | No | Diesel Adjustment Factor Usage | -- | | | | | | |
| State of Charge Delta | -- | | | | | | | | |
| Drive Cycle Speed Tolerance Criteria | -- | Road Speed Fan Usage | -- | | | | | | |
| Test Results | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%;">Test Result Name</th> <th style="width: 30%;">Unrounded Test Result</th> <th style="width: 35%;">Verify Calculated FE Equivalent Value</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</td> <td style="text-align: center;">0.0079</td> <td style="text-align: center;">--</td> </tr> </tbody> </table> | | | | Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value | HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.0079 | -- |
| Test Result Name | Unrounded Test Result | Verify Calculated FE Equivalent Value | | | | | | | |
| HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only) | 0.0079 | -- | | | | | | | |
| Manufacturer Test Comments | | | | | | | | | |
| Test run on a rig with aged components (not actual vehicle) | | | | | | | | | |
| Certification | | | | | | | | | |
| Region | Useful Life | Standard Level | Emission Name | Rounded Result | Add DF | Certification Level | Standard | Pass/Fail | |
| Fed | 150,000 miles | Federal Tier 3 Evap | HC-TOTAL-EQUIV | 0.0079 | 0.0000 | 0.008 | 0.030 | Pass | |
| CA | 150,000 miles | Other | HC-TOTAL-EQUIV | 0.0079 | 0.0000 | 0.008 | 0.030 | Pass | |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
|---|--|---|--------------|
| Fuel Properties | | | |
| Fuel Batch ID | 11327 | Fuel Calibration Number | 1 |
| Test Fuel Type | 48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.) | Fuel Batch Calibration Date | 06/08/2024 |
| Fuel Batch Calibration Effective Date | 06/08/2024 | Fuel Batch Calibration Ineffective Date | -- |
| Carbon Weight Fraction NMHC | 0.828 | Carbon Weight Fraction HC | -- |
| Exhaust Carbon Weight Fraction | -- | Fuel Methanol Volume Fraction | -- |
| Fuel Density (grams/cubic ft) | -- | Fuel Specific Gravity | 0.75 |
| Fuel Ethanol Volume Percent (%) | 9.7 | Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb) | 17997 |
| Fuel Net Heat of Combustion (E10) (MJ/kg) | -- | Fuel Carbon Mass Fraction (E10) | -- |
| Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0) | 0.828 | Weight Fraction CO2 | -- |
| Fuel Batch ID | 11361 | Fuel Calibration Number | 1 |
| Test Fuel Type | 46 - CARB LEV3 E10 Regular Gasoline | Fuel Batch Calibration Date | 10/29/2024 |
| Fuel Batch Calibration Effective Date | 10/29/2024 | Fuel Batch Calibration Ineffective Date | -- |
| Carbon Weight Fraction NMHC | 0.83 | Carbon Weight Fraction HC | -- |
| Exhaust Carbon Weight Fraction | -- | Fuel Methanol Volume Fraction | -- |
| Fuel Density (grams/cubic ft) | -- | Fuel Specific Gravity | 0.752 |
| Fuel Ethanol Volume Percent (%) | 9.8 | Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb) | 17803 |
| Fuel Net Heat of Combustion (E10) (MJ/kg) | -- | Fuel Carbon Mass Fraction (E10) | -- |
| Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0) | 0.83 | Weight Fraction CO2 | -- |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
|-------------------|--------------|-------------------------------------|--------------|

Consolidated List of Standards

Exhaust Standards

| | | | |
|----------------------|---|-------------------------|--|
| Cert Region | Federal | Cert/In-Use Code | Cert |
| Vehicle Class | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | Standard Level | Federal Tier 3 HD Class 3 Bin 400 |
| Fuel | Gasoline | Test Procedure | California fuel 2-day exhaust (w/can load) |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | -- | -- | 1 | 0 | 7.3 |
| 150,000 miles | CO-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 6.0 |
| 150,000 miles | CO2 | -- | -- | -- | -- | -- | 1 | 0 | 999 |
| 150,000 miles | HCHO | -- | -- | -- | -- | -- | 1 | 0 | 0.006 |
| 150,000 miles | METHANE | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | METHANE-COMB | -- | -- | -- | -- | -- | 1 | 0 | 0.05 |
| 150,000 miles | N2O | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | N2O-COMB | -- | -- | -- | -- | -- | 1 | 0 | 0.05 |
| 150,000 miles | NMOG | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | 1 | 0 | 0.400 |
| 150,000 miles | NMOG+NOX-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 0.550 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | -- | -- | 1 | 0 | 0.010 |
| 150,000 miles | PM-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 0.007 |

Certification Summary Information Report

| | | | |
|----------------------|---|-------------------------------------|--|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
| Cert Region | California + CAA Section 177 states | Cert/In-Use Code | Cert |
| Vehicle Class | MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | Standard Level | Other |
| Fuel | Gasoline | Test Procedure | California fuel 2-day exhaust (w/can load) |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | -- | -- | 1 | 0 | 7.3 |
| 150,000 miles | CO-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 6.0 |
| 150,000 miles | HCHO | -- | -- | -- | -- | -- | 1 | 0 | 0.006 |
| 150,000 miles | METHANE | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | METHANE-COMB | -- | -- | -- | -- | -- | 1 | 0 | 0.05 |
| 150,000 miles | N2O | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | N2O-COMB | -- | -- | -- | -- | -- | 1 | 0 | 0.05 |
| 150,000 miles | NMOG | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | 1 | 0 | 0.400 |
| 150,000 miles | NMOG+NOX-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 0.550 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | -- | -- | 1 | 0 | 0.010 |
| 150,000 miles | PM-COMP | -- | -- | -- | 0 | 0 | 1 | 0 | 0.007 |

| | | | |
|----------------------|---|-------------------------|---------------|
| Cert Region | California + CAA Section 177 states | Cert/In-Use Code | Cert |
| Vehicle Class | MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | Standard Level | Other |
| Fuel | Gasoline | Test Procedure | Hot 1435 LA92 |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | 0 | 0 | 1 | 0 | 999.9 |
| 150,000 miles | NMOG | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | NOX | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |

Certification Summary Information Report

| | | | | | | | | | | |
|----------------------|--|---|--|--|-------------------------------------|--|--|--------------|--|--|
| Test Group | | VCRXD06.4574 | | | Evaporative/Refueling Family | | | VCRXF0391TR0 | | |
| Cert Region | | California + CAA Section 177 states | | | Cert/In-Use Code | | | Cert | | |
| Vehicle Class | | MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | | | Standard Level | | | Other | | |
| Fuel | | Gasoline | | | Test Procedure | | | HWFE | | |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | METHANE | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | N2O | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | NMOG | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | 1 | 0 | 0.400 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |

| | | | | | | | | | | |
|----------------------|--|---|--|--|-------------------------|--|--|-----------------------------------|--|--|
| Cert Region | | Federal | | | Cert/In-Use Code | | | Cert | | |
| Vehicle Class | | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | | | Standard Level | | | Federal Tier 3 HD Class 3 Bin 400 | | |
| Fuel | | Gasoline | | | Test Procedure | | | SC03 | | |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | 0 | 0 | 1 | 0 | 999.9 |
| 150,000 miles | NMOG | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | NOX | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |

| | | | | | | | | | | |
|----------------------|--|---|--|--|-------------------------|--|--|-------|--|--|
| Cert Region | | California + CAA Section 177 states | | | Cert/In-Use Code | | | Cert | | |
| Vehicle Class | | MDV7 (Cal. LEV 2/3/4 MDV GVW 10001-14000) | | | Standard Level | | | Other | | |
| Fuel | | Gasoline | | | Test Procedure | | | SC03 | | |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | NMOG | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | NOX | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |

Certification Summary Information Report

| | | | | | | | | | | |
|----------------------|--|---|--|--|-------------------------------------|--|--|-----------------------------------|--|--|
| Test Group | | VCRXD06.4574 | | | Evaporative/Refueling Family | | | VCRXF0391TR0 | | |
| Cert Region | | Federal | | | Cert/In-Use Code | | | Cert | | |
| Vehicle Class | | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | | | Standard Level | | | Federal Tier 3 HD Class 3 Bin 400 | | |
| Fuel | | Gasoline | | | Test Procedure | | | Hot 1435 LA92 | | |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO | -- | -- | -- | 0 | 0 | 1 | 0 | 999.9 |
| 150,000 miles | NMOG | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | NOX | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |
| 150,000 miles | PM | -- | -- | -- | 0 | 0 | 1 | 0 | 999.999 |

| | | | | | | | | | | |
|----------------------|--|---|--|--|-------------------------|--|--|-----------------------------------|--|--|
| Cert Region | | Federal | | | Cert/In-Use Code | | | Cert | | |
| Vehicle Class | | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | | | Standard Level | | | Federal Tier 3 HD Class 3 Bin 400 | | |
| Fuel | | Gasoline | | | Test Procedure | | | HWFE | | |

| Useful Life | Emission Name | Rounded Result | RAF | NMOG / NMHC | Upward Diesel Adjustment Factor | Downward Diesel Adjustment Factor | Mult DF | Add DF | Std |
|---------------|---------------|----------------|-----|-------------|---------------------------------|-----------------------------------|---------|--------|---------|
| 150,000 miles | CO2 | -- | -- | -- | -- | -- | 1 | 0 | 999 |
| 150,000 miles | METHANE | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | N2O | -- | -- | -- | -- | -- | 1 | 0 | 999.99 |
| 150,000 miles | NMOG | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |
| 150,000 miles | NMOG+NOX | -- | -- | -- | -- | -- | 1 | 0 | 0.400 |
| 150,000 miles | NOX | -- | -- | -- | -- | -- | 1 | 0 | 999.999 |

Evaporative/Refueling Standards

| | | | | | | | | | | |
|-------------------------------------|--|--------------------------|--|--|-----------------------|--|--|---------------------|--|--|
| Evaporative/Refueling Family | | VCRXF0391TR0 | | | Cert Region | | | Federal | | |
| Cert/In-Use Code | | Cert | | | Standard Level | | | Federal Tier 3 Evap | | |
| Test Procedure | | Evap Canister Bleed Test | | | | | | | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|----------|---------------|----------------|----------------|-------|--------|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.030 | 0.0000 |

| | | | | | | | | | | |
|-------------------------------------|--|---------------------------|--|--|-----------------------|--|--|-------------------------------------|--|--|
| Evaporative/Refueling Family | | VCRXF0391TR0 | | | Cert Region | | | California + CAA Section 177 states | | |
| Cert/In-Use Code | | Cert | | | Standard Level | | | Other | | |
| Test Procedure | | Federal Fuel Running Loss | | | | | | | | |

| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
|----------|---------------|----------------|----------------|------|--------|
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.05 | 0.000 |

Certification Summary Information Report

| | | | | | |
|-------------------------------------|---------------------------|----------------------|-------------------------------------|-------------------------------------|---------------|
| Test Group | VCRXD06.4574 | | Evaporative/Refueling Family | VCRXF0391TR0 | |
| Evaporative/Refueling Family | VCRXF0391TR0 | | Cert Region | Federal | |
| Cert/In-Use Code | Cert | | Standard Level | Federal Tier 3 Evap | |
| Test Procedure | Federal Fuel Running Loss | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.05 | 0.000 |
| Evaporative/Refueling Family | VCRXF0391TR0 | | Cert Region | California + CAA Section 177 states | |
| Cert/In-Use Code | Cert | | Standard Level | Other | |
| Test Procedure | Evap Canister Bleed Test | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.030 | 0.0000 |
| Evaporative/Refueling Family | VCRXF0391TR0 | | Cert Region | California + CAA Section 177 states | |
| Cert/In-Use Code | Cert | | Standard Level | Other | |
| Test Procedure | Federal fuel 3-day evap | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.600 | 0.0090 |
| Evaporative/Refueling Family | VCRXF0391TR0 | | Cert Region | Federal | |
| Cert/In-Use Code | Cert | | Standard Level | Federal Tier 3 Evap | |
| Test Procedure | 2-day evap | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.600 | 0.0057 |
| Evaporative/Refueling Family | VCRXF0391TR0 | | Cert Region | California + CAA Section 177 states | |
| Cert/In-Use Code | Cert | | Standard Level | Other | |
| Test Procedure | 2-day evap | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.600 | 0.0057 |
| Evaporative/Refueling Family | VCRXF0391TR0 | | Cert Region | Federal | |
| Cert/In-Use Code | Cert | | Standard Level | Federal Tier 3 Evap | |
| Test Procedure | Federal fuel 3-day evap | | | | |
| Fuel | Useful Life | Emission Name | Rounded Result | Std | Add DF |
| Gasoline | 150,000 miles | HC-TOTAL-EQUIV | -- | 0.600 | 0.0090 |

Certification Summary Information Report

| | | | |
|-------------------|--------------|-------------------------------------|--------------|
| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
|-------------------|--------------|-------------------------------------|--------------|

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
|----------------------|---|------------------------------|--|
| Glossary | | | |
| Useful Life | | | |
| 4 | 4,000 miles | 120 | 120,000 miles |
| 50 | 50,000 miles | 150 | 150,000 miles |
| 100 | 100,000 miles | | |
| Emission Name | | | |
| HC-TOTAL | Total Hydrocarbon | COMB-CREE | Combined Carbon-Related Exhaust Emissions |
| CO | Carbon Monoxide | COMB-OPT-CREE | Combined Optional Carbon-Related Exhaust Emissions |
| CO2 | Carbon dioxide | HC-TOTAL-EQUIV | Total Hydrocarbon equivalent - Evap only |
| CREE | Carbon-Related Exhaust Emissions | METHANE-COMB | Combined CH4 for HD 2b/3 vehicles only |
| OPT-CREE | Optional Carbon-Related Exhaust Emissions | N2O-COMB | Combined Nitrous Oxide for HD 2b/3 vehicles only |
| NOX | Nitrogen Oxide | LEAK-DIA | Effective Leak Diameter (inches) |
| PM | Particulate Matter | LEAK-GAS CAP | Gas Cap Leakage (cc/min) |
| PM-COMP | SFTP Composite Particulate Matter | CO2-COMB | Combined Carbon Dioxide for HD 2b/3 Vehicles Only |
| HC-NM | Non-methane Hydrocarbon | KW-HRS | Integrated DC KW-HRS |
| OMHCE | Organic material Hydrocarbon Equivalent | CH4 BAG 1 | Bag 1 Methane |
| OMNMHCE | Organic material non-methane HC equivalent | CH4 BAG 2 | Bag 2 Methane |
| NMOG | Non-methane organic gases | CH4 BAG 3 | Bag 3 Methane |
| HCHO | Formaldehyde | CH4 BAG 4 | Bag 4 Methane |
| H3C2HO | Acetaldehyde | CO BAG 1 | Bag 1 Carbon Monoxide |
| HC-NM+NOX | SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03 | CO BAG 2 | Bag 2 Carbon Monoxide |
| HC-NM+NOX-COMP | SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides | CO BAG 3 | Bag 3 Carbon Monoxide |
| CO-COMP | SFTP Composite Carbon Monoxide | CO BAG 4 | Bag 4 Carbon Monoxide |
| ETHANOL | C2H5OH - Ethanol | NMOG BAG 1 | Bag 1 Non-methane organic gases |
| FE BAG 1 | Bag 1 Fuel Economy | NMOG BAG 2 | Bag 2 Non-methane organic gases |
| FE BAG 2 | Bag 2 Fuel Economy | NMOG BAG 3 | Bag 3 Non-methane organic gases |
| FE BAG 3 | Bag 3 Fuel Economy | NMOG BAG 4 | Bag 4 Non-methane organic gases |
| FE BAG 4 | Bag 4 Fuel Economy | ACT-DISTANCE BAG 1 | Bag 1 Actual Distance |
| MFR FE | Manufacturer Fuel Economy | ACT-DISTANCE BAG 2 | Bag 2 Actual Distance |
| HC | Hydrocarbon for Running Loss and ORVR | ACT-DISTANCE BAG 3 | Bag 3 Actual Distance |
| METHANE | CH4 - Methane | ACT-DISTANCE BAG 4 | Bag 4 Actual Distance |
| METHANOL | CH3OH - Methanol | HC-TOTAL BAG 1 | Bag 1 Total Hydrocarbon |
| N2O | Nitrous Oxide | HC-TOTAL BAG 2 | Bag 2 Total Hydrocarbon |
| SPITBACK | Spitback Hydrocarbon in grams | HC-TOTAL BAG 3 | Bag 3 Total Hydrocarbon |
| AMP-HRS | Integrated Amp-hours | HC-TOTAL BAG 4 | Bag 4 Total Hydrocarbon |
| START-SOC | System Start State of Charge Watt-hours | WATT-HRS BAG 1 | Bag 1 Watt Hours |
| END-SOC | System End State of Charge Watt-hours | WATT-HRS BAG 2 | Bag 2 Watt Hours |

Certification Summary Information Report

| Test Group | | VCRXD06.4574 | Evaporative/Refueling Family | | VCRXF0391TR0 |
|--|--|--------------|------------------------------|---|--------------|
| ACT-DISTANCE | Actual Distance Driven (miles) | | WATT-HRS BAG 3 | Bag 3 Watt Hours | |
| AS-VOLT | Average System Voltage | | WATT-HRS BAG 4 | Bag 4 Watt Hours | |
| CO2 BAG 1 | Bag 1 Carbon Dioxide | | WATT-HRS | Watt Hours | |
| CO2 BAG 2 | Bag 2 Carbon Dioxide | | HC-NM BAG 1 | Bag 1 Non-methane Hydrocarbon | |
| CO2 BAG 3 | Bag 3 Carbon Dioxide | | HC-NM BAG 2 | Bag 2 Non-methane Hydrocarbon | |
| CO2 BAG 4 | Bag 4 Carbon Dioxide | | HC-NM BAG 3 | Bag 3 Non-methane Hydrocarbon | |
| NMOG+NOX | Non-methane organic gases plus Nitrogen Oxides | | HC-NM BAG 4 | Bag 4 Non-methane Hydrocarbon | |
| NMOG+NOX-COMP | SFTP Composite Non-methane Organic Gases + Nitrogen Oxides | | N2O BAG 1 | Bag 1 Nitrous Oxide | |
| DT-IWRR | Drive Trace Inertia Work Ratio Rating | | N2O BAG 2 | Bag 2 Nitrous Oxide | |
| DT-ASCR | Drive Trace Absolute Speed Change Rating | | N2O BAG 3 | Bag 3 Nitrous Oxide | |
| DT-EER | Drive Trace Energy Economy Rating | | N2O BAG 4 | Bag 4 Nitrous Oxide | |
| Certification Region | | | | | |
| CA | California + CAA Section 177 states | | FA | Federal | |
| Exhaust Emission Standard Level | | | | | |
| B1 | Federal Tier 2 Bin 1 | | HDV2B340 | Federal Tier 3 HD Class 2b Transitional Bin 340 | |
| B2 | Federal Tier 2 Bin 2 | | HDV2B250 | Federal Tier 3 HD Class 2b Bin 250 | |
| B3 | Federal Tier 2 Bin 3 | | HDV2B200 | Federal Tier 3 HD Class 2b Bin 200 | |
| B4 | Federal Tier 2 Bin 4 | | HDV2B170 | Federal Tier 3 HD Class 2b Bin 170 | |
| B5 | Federal Tier 2 Bin 5 | | HDV2B150 | Federal Tier 3 HD Class 2b Bin 150 | |
| B6 | Federal Tier 2 Bin 6 | | HDV2B0 | Federal Tier 3 HD Class 2b Bin 0 | |
| B7 | Federal Tier 2 Bin 7 | | HDV3B630 | Federal Tier 3 HD Class 3 Transitional Bin 630 | |
| B8 | Federal Tier 2 Bin 8 | | HDV3B570 | Federal Tier 3 HD Class 3 Transitional Bin 570 | |
| B9 | Federal Tier 2 Bin 9 | | HDV3B400 | Federal Tier 3 HD Class 3 Bin 400 | |
| B10 | Federal Tier 2 Bin 10 | | HDV3B270 | Federal Tier 3 HD Class 3 Bin 270 | |
| B11 | Federal Tier 2 Bin 11 | | HDV3B230 | Federal Tier 3 HD Class 3 Bin 230 | |
| HDV1 | HDV1 (Federal HD chassis Class 2b GVW 8501-10000) | | HDV3B200 | Federal Tier 3 HD Class 3 Bin 200 | |
| HDV2 | HDV2 (Federal HD chassis Class 3 GVW 10001-14000) | | HDV3B0 | Federal Tier 3 HD Class 3 Bin 0 | |
| L2 | California LEV-II LEV | | L4SULEV100 | California LEV-IV SULEV100 | |
| L2OP | California LEV-II LEV Optional | | L4SULEV125 | California LEV-IV SULEV125 | |
| U2 | California LEV-II ULEV | | L4SULEV15 | California LEV-IV SULEV15 | |
| S2 | California LEV-II SULEV | | L4SULEV150 | California LEV-IV SULEV150 | |
| ZEV | California ZEV | | L4SULEV170 | California LEV-IV SULEV170 | |
| OT | Other | | L4SULEV175 | California LEV-IV SULEV175 | |
| T1 | Federal Tier 1 | | L4SULEV20 | California LEV-IV SULEV20 | |
| PZEV | California PZEV | | L4SULEV200 | California LEV-IV SULEV200 | |
| L2LEV160 | California LEV-II LEV160 | | L4SULEV230 | California LEV-IV SULEV230 | |
| L2ULEV125 | California LEV-II ULEV125 | | L4SULEV25 | California LEV-IV SULEV25 | |
| L2SULEV30 | California LEV-II SULEV30 | | L4SULEV30 | California LEV-IV SULEV30 | |
| L2LEV395 | California LEV-II LEV395 | | L4SULEV75 | California LEV-IV SULEV75 | |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
|-------------------------------|---|------------------------------|--|
| L2ULEV340 | California LEV-II ULEV340 | L4SULEV85 | California LEV-IV SULEV85 |
| L2LEV630 | California LEV-II LEV630 | L4ULEV125 | California LEV-IV ULEV125 |
| L2ULEV570 | California LEV-II ULEV570 | L4ULEV200 | California LEV-IV ULEV200 |
| L3LEV160 | California LEV-III LEV160 | L4ULEV250 | California LEV-IV ULEV250 |
| L3ULEV125 | California LEV-III ULEV125 | L4ULEV270 | California LEV-IV ULEV270 |
| L3ULEV70 | California LEV-III ULEV70 | L4ULEV40 | California LEV-IV ULEV40 |
| L3ULEV50 | California LEV-III ULEV50 | L4ULEV400 | California LEV-IV ULEV400 |
| L3SULEV30 | California LEV-III SULEV30 | L4ULEV50 | California LEV-IV ULEV50 |
| L3SULEV20 | California LEV-III SULEV20 | L4ULEV60 | California LEV-IV ULEV60 |
| L3LEV395 | California LEV-III LEV395 | L4ULEV70 | California LEV-IV ULEV70 |
| L3ULEV340 | California LEV-III ULEV340 | T4B170 | Federal Tier 4 MDV Bin 170 |
| L3ULEV250 | California LEV-III ULEV250 | T4B150 | Federal Tier 4 MDV Bin 150 |
| L3ULEV200 | California LEV-III ULEV200 | T4B125 | Federal Tier 4 MDV Bin 125 |
| L3SULEV170 | California LEV-III SULEV170 | T4B100 | Federal Tier 4 MDV Bin 100 |
| L3SULEV150 | California LEV-III SULEV150 | T4B85 | Federal Tier 4 MDV Bin 85 |
| L3LEV630 | California LEV-III LEV630 | T4B75 | Federal Tier 4 MDV Bin 75 |
| L3ULEV570 | California LEV-III ULEV570 | T4B70 | Federal Tier 4 Bin 70 |
| L3ULEV400 | California LEV-III ULEV400 | T4B65 | Federal Tier 4 Bin 65 |
| L3ULEV270 | California LEV-III ULEV270 | T4B60 | Federal Tier 4 Bin 60 |
| L3SULEV230 | California LEV-III SULEV230 | T4B55 | Federal Tier 4 Bin 55 |
| L3SULEV200 | California LEV-III SULEV200 | T4B50 | Federal Tier 4 Bin 50 |
| T3B160 | Federal Tier 3 Bin 160 | T4B45 | Federal Tier 4 Bin 45 |
| T3B125 | Federal Tier 3 Bin 125 | T4B40 | Federal Tier 4 Bin 40 |
| T3B110 | Federal Tier 3 Transitional Bin 110 | T4B35 | Federal Tier 4 Bin 35 |
| T3B85 | Federal Tier 3 Transitional Bin 85 | T4B30 | Federal Tier 4 Bin 30 |
| T3SULEV30 | Federal Tier 3 Transitional LEV-II SULEV30 Carryover | T4B25 | Federal Tier 4 Bin 25 |
| T3B70 | Federal Tier 3 Bin 70 | T4B20 | Federal Tier 4 Bin 20 |
| T3B50 | Federal Tier 3 Bin 50 | T4B15 | Federal Tier 4 Bin 15 |
| T3B30 | Federal Tier 3 Bin 30 | T4B10 | Federal Tier 4 Bin 10 |
| T3B20 | Federal Tier 3 Bin 20 | T4B5 | Federal Tier 4 Bin 5 |
| T3B0 | Federal Tier 3 Bin 0 | T4B0 | Federal Tier 4 Bin 0 |
| HDV2B395 | Federal Tier 3 HD Class 2b Transitional Bin 395 | | |
| Transmission Type Code | | | |
| AMS | Automated Manual- Selectable (e.g. Automated Manual with paddles) | M | Manual |
| A | Automatic | OT | Other |
| AM | Automated Manual | SA | Semi-Automatic |
| CVT | Continuously Variable | SCV | Selectable Continuously Variable (e.g. CVT with paddles) |
| Drive System Code | | | |
| 4 | 4-Wheel Drive | P | Part-time 4-Wheel Drive |

Certification Summary Information Report

| Test Group | VCRXD06.4574 | Evaporative/Refueling Family | VCRXF0391TR0 |
|--------------------------------------|---------------------------------|-------------------------------------|----------------------------------|
| F | 2-Wheel Drive, Front | A | All Wheel Drive |
| R | 2-Wheel Drive, Rear | | |
| Additional Terms and Acronyms | | | |
| AFC | Alternative Fuel Converter | ICI | Independent Commercial Importer |
| CSI | Certificate Summary Information | ORVR | Onboard Refueling Vapor Recovery |
| DF | Deterioration Factor | SIL | Shift Indicator Light |
| Evap | Evaporation, Evaporative | Trans | Transmission |



Section 8 Emission Testing Waiver Statements and Attestations

Below is a list clearly identifying the standards applicable to this Test Group for which emission testing was not performed. All FCA US LLC applicable vehicles will conform with the emission standards which emission data is not being provided, as allowed under 40 CFR 86.1829-01 or 86.1810-01.

HCHO

For the remaining list of attestations please see:

"Common Section Book - Section 14. Request for Certification "



Section 9 OBD Description

FCA US LLC considers this information proprietary and confidential. The description contains engineering detail that would allow competitors to gain insight into FCA US LLC OBD system. The OBD system descriptions for all Test Groups are on file with the US EPA and California Air Resources Board.

OBD Agency Approvals are loaded into EV-CIS and E-FILE for each test group.

OBD Demonstration Compliance Statement: This Test Group meets the full intent of both the Clean Air Act as amended in 1990, section 202(m), and the applicable federal OBD regulations contained in 40 CFR §86.005-74 and 40 CFR §86.1806-01, including a reference to those provisions pertaining to deficiencies in the limited instances where an OBD II system that complies with 1968.2 does not comply with all the requirements of section 1968.1.



Section 10 **Description of Alternate - Fueled Vehicles**

Not Applicable to this Test Group

| EPA COMP CODE | AA-1000 | AA-1250 | AA-1500 | AA-1750 | AA-2000 | AA-2250 | AA-2750 | AA-3000 | AA-3250 |
|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Z01:VECI Label | | | | | | | | | |

| EPA COMP CODE | AA-3750 | AA-4000 | AA-4250 | AA-4750 | AA-5000 | AA-5250 | AA-5750 | AA-6000 | AA-6250 |
|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Z01:VECI Label | | | | | | | | | |

Test Group - VCRXD06.4574

| EPA COMP CODE | AA-6750 | AA-7000 | AA-7250 | AA-7750 |
|---|----------------|----------------|----------------|----------------|
| E10:Powertrain Control Module | | | | |
| E11:Transmission Control Module | | | | |
| E17:ABS Control Module | | | | |
| F01:Fuel Tank | | | | |
| F15:Fuel Tank Filler Tube | | | | |
| F40:Throttle Body | | | | |
| F50:Fuel Injector | | | | |
| F59:Fuel Pressure Sensor | | | | |
| F70:Evap. Canister Assembly | | | | |
| F79:ESIM (Evaporative System Integrity Monitor) | | | | |
| H10:Catalytic Converter | | | | |
| I05:Spark Plug | | | | |
| I10:Ignition Coil | | | | |
| L01:Heated Oxygen Sensor | | | | |
| L07:Multiple Displacement System Solenoid | | | | |
| L12:Accelerator Pedal Position Sensor | | | | |
| L15:Camshaft Position Sensor | | | | |

| EPA COMP CODE | AA-6750 | AA-7000 | AA-7250 | AA-7750 |
|--|----------------|----------------|----------------|----------------|
| L16:Crankshaft Position Sensor | | | | |
| L20:Knock Sensor | | | | |
| L28:ABS Speed Sensor | | | | |
| M04:Intake Air Temperature Sensor | | | | |
| M07:Oil Temperature Sensor | | | | |
| M10:Ambient Temperature Sensor | | | | |
| M11:EGR Temperature Sensor | | | | |
| M15:Engine Coolant Temperature Sensor | | | | |
| N17:Crankshaft Target Wheel | | | | |
| N34:Secondary Runner Valve Actuator | | | | |
| N50:Engine Thermostat | | | | |
| N56:EGR Valve | | | | |
| N57:EGR Cooler | | | | |
| N91:Evaporative Canister to Tank Hose | | | | |
| N94:Evaporative System Purge Solenoid to Engine Hose | | | | |
| N97:Vapor Hose Harness | | | | |
| T05:Transmission Valve Body | | | | |
| V01:PCV Valve | | | | |
| V05:MAP Sensor | | | | |
| V63:Evap. Can. Purge Solenoid | | | | |

| EPA COMP CODE | AA-6750 | AA-7000 | AA-7250 | AA-7750 |
|----------------|---------|---------|---------|---------|
| Z01:VECI Label | | | | |

Section11-100 Engine Parts List

FCA US LLC

Test Group :VCRXD06.4574

Durability Group: VCRXGPGNNF39 Standard Fed: HDV3 Bin400+ Cal: N/A

| Trans. Code | Sales Code | Transfer Case Sales Code/Drive Code | No. of Gears | Over Drive Gear Ratio | Drive Gear Ratio | Engine Sales Code | Torque Code | Torque Size | Conv Clutch Control Type Calib/Special Features |
|-------------|------------|-------------------------------------|--------------|-----------------------|------------------------------------|-------------------|-------------|-------------|---|
| L8 | DFX | 2R | 8 | .67 | 4.71,3.14,2.10,1.67,1.26,1,.84,.67 | ESL | N/A | | Electronically shifted data on file |
| L8 | DFX | DK1 / 4P DK3 / 4P | 8 | .67 | 4.71,3.14,2.10,1.67,1.26,1,.84,.67 | ESL | N/A | | Electronically shifted data on file |
| L8 | DFX | DK3 / 4P | 8 | .67 | 4.71,3.14,2.10,1.67,1.26,1,.84,.67 | ESL | N/A | | Electronically shifted data on file |

Section12-200 Transmission

FCA US LLC

VCRXD06.4574

Durability Group: VCRXGPGNNF39 Standard Fed: HDV3 Bin400+ Cal: N/A

Asterisk (*) Indicates Manufacturer has elected to certify at this higher test weight class as allowed by CFR 86.1831-01

Engine Code AA-1000 Eng Displ: 6.4L (ESL) Evap Family - Evap Code: VCRXF0180TR2-52.0

| Model | Carline Name | Model Qualifiers | Opt | Trans. / Tr. Case | Torq. Conv./ Catalyst Identifier | GVW | LWV TWC Drive Curb | ALVW TWC Drive Curb | Axle / OTGR | N/V | Tire | Tire Mfr. | Tire Constr.Cd. | Elec Dyno Q.C. | Elec Dyno RLHP | Dyno Coeff 70A | Dyno Coeff 70 B | Dyno Coeff 70C | Dyno Coeff 20A | Dyno Coeff 20B | Dyno Coeff 20C |
|--------|---------------------------|------------------|-----|-------------------|----------------------------------|-------|--------------------|---------------------|-------------|------|-------------------------------------|------------|-------------------------|----------------|----------------|-----------------------|----------------------|----------------------|------------------------|----------------------|----------------------|
| DD3A63 | RAM: 3500 Cab Chassis 4X2 | | XBC | L8 - RWD DFX | | 11040 | 7000 3111 6611 | 9000 4839 8826 | 4.10 | 28.9 | LT265/70R18E TCM | TZN | CRDCC3A | 12.84 | 43.5 | 90.44000 | 0.002200 | 0.094140 | 99.48000 | 0.002400 | 0.103550 |
| DD3A63 | RAM: 3500 Cab Chassis 4X2 | | XBC | L8 - RWD DFX | | 13500 | 7000 3468 6855 | 10000 6593 10178 | 4.10 | 30.7 | LT235/80R17E TV2 LT235/80R17 TSG | TZN TZA | 17NCRDDA2G 20X600-0A | 13.80 13.54 | 44.9 45.8 | 99.56000 106.45000 | 0.126300 0.080300 | 0.092370 0.093080 | 109.52000 117.10000 | 0.138900 0.088300 | 0.101610 0.102390 |

Engine Code AA-1250 Eng Displ: 6.4L (ESL) Evap Family - Evap Code: VCRXF0180TR2-52.0

| Model | Carline Name | Model Qualifiers | Opt | Trans. / Tr. Case | Torq. Conv./ Catalyst Identifier | GVW | LWV TWC Drive Curb | ALVW TWC Drive Curb | Axle / OTGR | N/V | Tire | Tire Mfr. | Tire Constr.Cd. | Elec Dyno Q.C. | Elec Dyno RLHP | Dyno Coeff 70A | Dyno Coeff 70 B | Dyno Coeff 70C | Dyno Coeff 20A | Dyno Coeff 20B | Dyno Coeff 20C |
|--------|---------------------------|------------------|-----|-------------------|----------------------------------|-------|--------------------|---------------------|-------------|------|-------------------------------------|------------|-------------------------|----------------|----------------|------------------------|----------------------|----------------------|------------------------|----------------------|----------------------|
| DD3A64 | RAM: 3500 Cab Chassis 4X2 | | XBC | L8 - RWD DFX | | 13500 | 7500 3187 7073 | 10500 6655 10287 | 4.10 | 30.7 | LT235/80R17E TV2 LT235/80R17 TSG | TZN TZA | 17NCRDDA2G 20X600-0A | 14.44 14.20 | 45.0 45.8 | 100.36000 106.68000 | 0.130800 0.082300 | 0.092340 0.093080 | 110.40000 117.35000 | 0.143900 0.090500 | 0.101570 0.102390 |

Engine Code AA-1500 Eng Displ: 6.4L (ESL) Evap Family - Evap Code: VCRXF0180TR2-52.0

| Model | Carline Name | Model Qualifiers | Opt | Trans. / Tr. Case | Torq. Conv./ Catalyst Identifier | GVW | LWV TWC Drive Curb | ALVW TWC Drive Curb | Axle / OTGR | N/V | Tire | Tire Mfr. | Tire Constr.Cd. | Elec Dyno Q.C. | Elec Dyno RLHP | Dyno Coeff 70A | Dyno Coeff 70 B | Dyno Coeff 70C | Dyno Coeff 20A | Dyno Coeff 20B | Dyno Coeff 20C |
|--------|---------------------------|------------------|-----|-------------------|----------------------------------|-------|--------------------|---------------------|-------------|------|-------------------------------------|------------|-------------------------|----------------|----------------|------------------------|----------------------|----------------------|------------------------|----------------------|----------------------|
| DD3A93 | RAM: 3500 Cab Chassis 4X2 | | XBC | L8 - RWD DFX | | 11040 | 7500 3187 7038 | 9000 4599 9039 | 4.10 | 28.9 | LT265/70R18E TCM | TZN | CRDCC3A | 13.19 | 42.3 | 89.76000 | -0.00810 | 0.091090 | 98.74000 | -0.00890 | 0.100200 |
| DD3A93 | RAM: 3500 Cab Chassis 4X2 | | XBC | L8 - RWD DFX | | 13500 | 7500 3558 7296 | 10500 6401 10398 | 4.10 | 30.7 | LT235/80R17E TV2 LT235/80R17 TSG | TZN TZA | 17NCRDDA2G 20X600-0A | 14.76 14.50 | 44.1 44.8 | 100.87000 107.32000 | 0.132100 0.083700 | 0.089200 0.089930 | 110.96000 118.05000 | 0.145300 0.092100 | 0.098120 0.098920 |

Engine Code AA-1750 Eng Displ: 6.4L (ESL) Evap Family - Evap Code: VCRXF0180TR2-52.0

| Model | Carline Name | Model Qualifiers | Opt | Trans. / Tr. Case | Torq. Conv./ Catalyst Identifier | GVW | LWV TWC Drive Curb | ALVW TWC Drive Curb | Axle / OTGR | N/V | Tire | Tire Mfr. | Tire Constr.Cd. | Elec Dyno Q.C. | Elec Dyno RLHP | Dyno Coeff 70A | Dyno Coeff 70 B | Dyno Coeff 70C | Dyno Coeff 20A | Dyno Coeff 20B | Dyno Coeff 20C |
|--------|---------------------------|------------------|-----|------------------------------|----------------------------------|-------|--------------------|---------------------|-------------|------|-------------------------------------|------------|-------------------------|----------------|----------------|-----------------------|----------------------|----------------------|------------------------|----------------------|----------------------|
| DD8A63 | RAM: 3500 Cab Chassis 4X4 | | XBC | L8 - 4WD DFX / DK3-4P | | 11040 | 7500* 3221 6935 | 9000 4943 8988 | 4.10 | 28.9 | LT265/70R18E TCM | TZN | CRDCC3A | 12.85 | 43.4 | 90.29000 | -0.00540 | 0.094240 | 99.32000 | -0.00590 | 0.103660 |
| DD8A63 | RAM: 3500 Cab Chassis 4X4 | | XBC | L8 - 4WD DFX / DK1-4P DK3-4P | | 13500 | 7500 3511 7204 | 10500 6510 10352 | 4.10 | 30.7 | LT235/80R17E TV2 LT235/80R17 TSG | TZN TZA | 17NCRDDA2G 20X600-0A | 14.30 14.05 | 45.5 46.3 | 99.68000 106.12000 | 0.238400 0.189900 | 0.091850 0.092580 | 109.65000 116.73000 | 0.262200 0.208900 | 0.101040 0.101840 |

Engine Code AA-2000 Eng Displ: 6.4L (ESL) Evap Family - Evap Code: VCRXF0180TR2-52.0

| Model | Carline Name | Model Qualifiers | Opt | Trans. / Tr. Case | Torq. Conv./ Catalyst Identifier | GVW | LWV TWC Drive Curb | ALVW TWC Drive Curb | Axle / OTGR | N/V | Tire | Tire Mfr. | Tire Constr.Cd. | Elec Dyno Q.C. | Elec Dyno RLHP | Dyno Coeff 70A | Dyno Coeff 70 B | Dyno Coeff 70C | Dyno Coeff 20A | Dyno Coeff 20B | Dyno Coeff 20C |
|--------|---------------------------|------------------|-----|------------------------------|----------------------------------|-------|--------------------|---------------------|-------------|------|-------------------------------------|------------|-------------------------|----------------|----------------|------------------------|----------------------|----------------------|------------------------|----------------------|----------------------|
| DD8A64 | RAM: 3500 Cab Chassis 4X4 | | XBC | L8 - 4WD DFX / DK1-4P DK3-4P | | 13500 | 8000* 3664 7428 | 10500 6545 10464 | 4.10 | 30.7 | LT235/80R17E TV2 LT235/80R17 TSG | TZN TZA | 17NCRDDA2G 20X600-0A | 14.27 14.02 | 45.6 46.4 | 100.22000 106.75000 | 0.239800 0.191200 | 0.091860 0.092590 | 110.24000 117.42000 | 0.263800 0.210300 | 0.101050 0.101850 |

Engine Code AA-2250 Eng Displ: 6.4L (ESL) Evap Family - Evap Code: VCRXF0180TR2-52.0

| Model | Carline Name | Model Qualifiers | Opt | Trans. / Tr. Case | Torq. Conv./ Catalyst Identifier | GVW | LWV TWC Drive Curb | ALVW TWC Drive Curb | Axle / OTGR | N/V | Tire | Tire Mfr. | Tire Constr.Cd. | Elec Dyno Q.C. | Elec Dyno RLHP | Dyno Coeff 70A | Dyno Coeff 70 B | Dyno Coeff 70C | Dyno Coeff 20A | Dyno Coeff 20B | Dyno Coeff 20C |
|--------|---------------|------------------|-----|-------------------|----------------------------------|-------|--------------------|---------------------|-------------|------|------------------|-----------|-----------------|----------------|----------------|----------------|-----------------|----------------|----------------|----------------|----------------|
| DD8A93 | RAM: 3500 Cab | | XBC | L8 - 4WD | | 11040 | 8000 3300 7460 | 9500* 4540 9250 | 4.10 | 28.9 | LT265/70R18E TCM | TZN | CRDCC3A | 13.70 | 43.0 | 94.02000 | 0.011100 | 0.091070 | 103.42000 | 0.012200 | 0.100180 |

| | | | | | | | | | | | | | | | | | | | | |
|--------|------------------------------------|--|-----|--|--|-------|----------------------|-------------------------------------|----------------------|---|--------------------------|---------------------------------------|----------------------------------|------------------------------|---|--|--|--|--|--|
| | Chassis 4X4 | | | DK1-4P DK3-4P | | | | 3.73 3.73 | 26.4 26.2 | LT275/70R18E TCP LT285/60R20E TEA | TZF TZF | EJ496Q EJ642Q | 12.92 12.92 | 43.2 43.2 | 95.72000 96.82000 | -0.42720 -0.48390 | 0.099750 0.100520 | 105.2900 106.5000 | -0.46990 -0.53230 | 0.109720 0.110570 |
| D28A62 | RAM: 3500 Cab Chassis 4X4 | | XBC | L8 - 4WD DFX / DK1-4P DK3-4P | | 11440 | 7000 2751 6608 | 9000 3.73 4847 3.73 9024 3.73 | 26.3 26.4 26.2 | LT275/70R18 TCM LT275/70R18E TCN LT275/70R18E TCP LT285/60R20E TEA | TZN TZF TZF TZF | CRDDF2A EJ487Q EJ496Q EJ642Q | 13.43 20.87 12.92 12.92 | 41.5 42.9 43.2 43.2 | 85.47000 94.25000 95.72000 96.82000 | -0.48650 -0.42940 -0.42720 -0.48390 | 0.100170 0.099590 0.099750 0.100520 | 105.2900 103.6800 105.2900 106.5000 | -0.46990 -0.47230 -0.46990 -0.53230 | 0.110190 0.109550 0.109720 0.110570 |
| D28A92 | RAM: 3500 Cab Chassis 4X4 | | XBC | L8 - 4WD DFX / DK1-4P DK3-4P | | 11440 | 7500 3093 7293 | 9500 3.73 4820 3.73 9367 3.73 | 26.3 26.4 26.2 | LT275/70R18 TCM LT275/70R18E TCN LT275/70R18E TCP LT285/60R20E TEA | TZN TZF TZF TZF | CRDDF2A EJ487Q EJ496Q EJ642Q | 14.04 20.87 13.48 13.47 | 42.0 43.4 43.7 43.7 | 88.14000 97.35000 98.92000 100.15000 | -0.47950 -0.41960 -0.41720 -0.47650 | 0.100230 0.099620 0.099790 0.100600 | 96.95000 107.0800 108.8100 110.1600 | -0.52740 -0.46160 -0.45890 -0.52420 | 0.110250 0.109580 0.109720 0.110660 |

Engine Code AA-5000 Eng Displ: 6.4L (ESL) Evap Family - Evap Code: VCRXF0391TR0-50.0

| Model | Carline Name | Model Qualifiers | Opt | Trans. / Tr. Case | Torq. Conv./ Catalyst Identifier | GVW | LWV TWC Drive Curb | ALVV TWC Drive Curb | Axle / OTGR | N/V | Tire | Tire Mfr. | Tire Constr.Cd. | Elec Dyno Q.C. | Elec Dyno RLHP | Dyno Coeff 70A | Dyno Coeff 70 B | Dyno Coeff 70C | Dyno Coeff 20A | Dyno Coeff 20B | Dyno Coeff 20C |
|--------|------------------------------------|------------------|-----|--|----------------------------------|-------|----------------------|-------------------------------------|----------------------|---|--------------------------|---------------------------------------|----------------------------------|------------------------------|---|--|--|--|--|--|----------------|
| D28A92 | RAM: 3500 Cab Chassis 4X4 | | XBC | L8 - 4WD DFX / DK1-4P DK3-4P | | 11440 | 7500 3093 7293 | 9500 3.73 4820 3.73 9367 3.73 | 26.3 26.4 26.2 | LT275/70R18 TCM LT275/70R18E TCN LT275/70R18E TCP LT285/60R20E TEA | TZN TZF TZF TZF | CRDDF2A EJ487Q EJ496Q EJ642Q | 14.04 20.87 13.48 13.47 | 42.0 43.4 43.7 43.7 | 88.14000 97.35000 98.92000 100.15000 | -0.47950 -0.41960 -0.41720 -0.47650 | 0.100230 0.099620 0.099790 0.100600 | 96.95000 107.0800 108.8100 110.1600 | -0.52740 -0.46160 -0.45890 -0.52420 | 0.110250 0.109580 0.109720 0.110660 | |

Engine Code AA-5250 Eng Displ: 6.4L (ESL) Evap Family - Evap Code: VCRXF0213TR0-31.0

| Model | Carline Name | Model Qualifiers | Opt | Trans. / Tr. Case | Torq. Conv./ Catalyst Identifier | GVW | LWV TWC Drive Curb | ALVV TWC Drive Curb | Axle / OTGR | N/V | Tire | Tire Mfr. | Tire Constr.Cd. | Elec Dyno Q.C. | Elec Dyno RLHP | Dyno Coeff 70A | Dyno Coeff 70 B | Dyno Coeff 70C | Dyno Coeff 20A | Dyno Coeff 20B | Dyno Coeff 20C |
|--------|------------------------------------|------------------|-----|--------------------|----------------------------------|-------|----------------------|-------------------------------------|----------------------|---|--------------------------|---------------------------------------|----------------------------------|------------------------------|--|--|--|--|--|--|----------------|
| D23A91 | RAM: 3500 Cab Chassis 4X2 | | XBC | L8 - RWD DFX | | 11040 | 7000 3000 6690 | 9000 3.73 4925 3.73 8865 3.73 | 26.3 26.4 26.2 | LT275/70R18 TCM LT275/70R18E TCN LT275/70R18E TCP LT285/60R20E TEA | TZN TZF TZF TZF | CRDDF2A EJ487Q EJ496Q EJ642Q | 13.58 13.13 13.06 20.87 | 41.1 42.5 42.7 42.7 | 86.30000 95.16000 96.50000 97.40000 | -0.58880 -0.53140 -0.53260 -0.58850 | 0.100590 0.100010 0.100200 0.100930 | 94.93000 104.6800 106.1500 107.1400 | -0.64770 -0.58450 -0.58590 -0.64740 | 0.110650 0.110010 0.110220 0.111020 | |

Engine Code AA-5750 Eng Displ: 6.4L (ESL) Evap Family - Evap Code: VCRXF0213TR0-31.0

| Model | Carline Name | Model Qualifiers | Opt | Trans. / Tr. Case | Torq. Conv./ Catalyst Identifier | GVW | LWV TWC Drive Curb | ALVV TWC Drive Curb | Axle / OTGR | N/V | Tire | Tire Mfr. | Tire Constr.Cd. | Elec Dyno Q.C. | Elec Dyno RLHP | Dyno Coeff 70A | Dyno Coeff 70 B | Dyno Coeff 70C | Dyno Coeff 20A | Dyno Coeff 20B | Dyno Coeff 20C |
|--------|------------------------------------|------------------|-----|--|----------------------------------|-------|----------------------|--------------------------------------|----------------------|---|--------------------------|---------------------------------------|----------------------------------|------------------------------|--|--|--|--|--|--|----------------|
| D28A91 | RAM: 3500 Cab Chassis 4X4 | | XBC | L8 - 4WD DFX / DK1-4P DK3-4P | | 11040 | 7500 3071 7053 | 9000 3.73 4840 3.73 9047 3.73 | 26.3 26.4 26.2 | LT275/70R18 TCM LT275/70R18E TCN LT275/70R18E TCP LT285/60R20E TEA | TZN TZF TZF TZF | CRDDF2A EJ487Q EJ496Q EJ642Q | 20.87 13.00 20.87 12.92 | 41.5 42.9 43.2 43.2 | 85.43000 94.22000 95.68000 96.79000 | -0.48660 -0.42950 -0.42730 -0.48400 | 0.100170 0.099590 0.099750 0.100520 | 93.97000 103.6400 105.2500 104.4700 | -0.53530 -0.47240 -0.47000 -0.53240 | 0.110190 0.109550 0.109720 0.110570 | |
| D28A91 | RAM: 3500 Cab Chassis 4X4 | | XBC | L8 - 4WD DFX / DK1-4P DK3-4P | | 11440 | 7500 3057 7053 | 9500* 3.73 4993 3.73 9247 3.73 | 26.3 26.4 26.2 | LT275/70R18 TCM LT275/70R18E TCN LT275/70R18E TCP LT285/60R20E TEA | TZN TZF TZF TZF | CRDDF2A EJ487Q EJ496Q EJ642Q | 20.87 13.58 20.87 13.50 | 41.9 43.4 43.6 43.6 | 87.86000 97.17000 98.61000 99.64000 | -0.47560 -0.41530 -0.41630 -0.47480 | 0.100160 0.099550 0.100080 0.100520 | 96.65000 106.8900 108.4700 109.6000 | -0.52320 -0.45680 -0.45790 -0.52230 | 0.110180 0.109500 0.109720 0.110570 | |

Engine Code AA-6000 Eng Displ: 6.4L (ESL) Evap Family - Evap Code: VCRXF0213TR0-32.0

| Model | Carline Name | Model Qualifiers | Opt | Trans. / Tr. Case | Torq. Conv./ Catalyst Identifier | GVW | LWV TWC Drive Curb | ALVV TWC Drive Curb | Axle / OTGR | N/V | Tire | Tire Mfr. | Tire Constr.Cd. | Elec Dyno Q.C. | Elec Dyno RLHP | Dyno Coeff 70A | Dyno Coeff 70 B | Dyno Coeff 70C | Dyno Coeff 20A | Dyno Coeff 20B | Dyno Coeff 20C |
|--------|------------------------------------|------------------|-----|--------------------|----------------------------------|-------|----------------------|-------------------------------------|--------------------|---|--------------------------|---------------------------------------|----------------------------------|------------------------------|--|--|--|--|--|--|----------------|
| D23A62 | RAM: 3500 Cab Chassis 4X2 | | XBC | L8 - RWD DFX | | 11040 | 6500 2721 6249 | 8500 4.10 4835 4.10 8645 4.10 | 28.9 29 28.8 | LT275/70R18 TCM LT275/70R18E TCN LT275/70R18E TCP LT285/60R20E TEA | TZN TZF TZF TZF | CRDDF2A EJ487Q EJ496Q EJ642Q | 12.95 12.54 12.47 20.87 | 40.7 42.0 42.3 42.3 | 83.88000 92.22000 93.58000 94.56000 | -0.59980 -0.54560 -0.54360 -0.59770 | 0.100600 0.100050 0.100200 0.100940 | 92.27000 101.4400 102.9400 104.0200 | -0.65980 -0.60020 -0.59800 -0.65750 | 0.110660 0.110060 0.110220 0.111030 | |
| D23A92 | RAM: 3500 Cab Chassis 4X2 | | XBC | L8 - RWD DFX | | 11150 | 7000 2923 6774 | 9000 4.10 4742 4.10 8962 4.10 | 28.9 29 28.8 | LT275/70R18 TCM LT275/70R18E TCN LT275/70R18E TCP LT285/60R20E TEA | TZN TZF TZF TZF | CRDDF2A EJ487Q EJ496Q EJ642Q | 20.87 13.13 20.87 13.03 | 41.1 42.5 42.8 42.8 | 86.59000 95.36000 96.82000 97.93000 | -0.59270 -0.53570 -0.53350 -0.59020 | 0.100660 0.100080 0.100240 0.101020 | 95.25000 104.9000 106.5000 107.7200 | -0.65200 -0.58930 -0.58680 -0.64920 | 0.110730 0.110090 0.110260 0.111120 | |

Engine Code AA-6250 Eng Displ: 6.4L (ESL) Evap Family - Evap Code: VCRXF0391TR0-50.0

| Model | Carline Name | Model Qualifiers | Opt | Trans. / Tr. Case | Torq. Conv./ Catalyst Identifier | GVW | LWV TWC Drive Curb | ALVV TWC Drive Curb | Axle / OTGR | N/V | Tire | Tire Mfr. | Tire Constr.Cd. | Elec Dyno Q.C. | Elec Dyno RLHP | Dyno Coeff 70A | Dyno Coeff 70 B | Dyno Coeff 70C | Dyno Coeff 20A | Dyno Coeff 20B | Dyno Coeff 20C |
|--------|------------------------------------|------------------|-----|--------------------|----------------------------------|-------|----------------------|-------------------------------------|--------------------|---|--------------------------|---------------------------------------|----------------------------------|------------------------------|--|--|--|--|--|--|----------------|
| D23A92 | RAM: 3500 Cab Chassis 4X2 | | XBC | L8 - RWD DFX | | 11150 | 7000 2923 6774 | 9000 4.10 4742 4.10 8962 4.10 | 28.9 29 28.8 | LT275/70R18 TCM LT275/70R18E TCN LT275/70R18E TCP LT285/60R20E TEA | TZN TZF TZF TZF | CRDDF2A EJ487Q EJ496Q EJ642Q | 20.87 13.13 20.87 13.03 | 41.1 42.5 42.8 42.8 | 86.59000 95.36000 96.82000 97.93000 | -0.59270 -0.53570 -0.53350 -0.59020 | 0.100660 0.100080 0.100240 0.101020 | 95.25000 104.9000 106.5000 107.7200 | -0.65200 -0.58930 -0.58680 -0.64920 | 0.110730 0.110090 0.110260 0.111120 | |

Engine Code AA-6750 Eng Displ: 6.4L (ESL) Evap Family - Evap Code: VCRXF0213TR0-32.0

| Model | Carline Name | Model Qualifiers | Opt | Trans. / Tr. Case | Torq. Conv./ Catalyst Identifier | GVW | LWV TWC Drive Curb | ALVV TWC Drive Curb | Axle / OTGR | N/V | Tire | Tire Mfr. | Tire Constr.Cd. | Elec Dyno Q.C. | Elec Dyno RLHP | Dyno Coeff 70A | Dyno Coeff 70 B | Dyno Coeff 70C | Dyno Coeff 20A | Dyno Coeff 20B | Dyno Coeff 20C |
|--------|------------------------------------|------------------|-----|--|----------------------------------|-------|----------------------|-------------------------------------|--------------------|---|--------------------------|---------------------------------------|----------------------------------|------------------------------|--|--|--|--|--|--|----------------|
| D28A62 | RAM: 3500 Cab Chassis 4X4 | | XBC | L8 - 4WD DFX / DK1-4P DK3-4P | | 11040 | 7000 2761 6608 | 9000 4.10 4700 4.10 8824 4.10 | 28.9 29 28.8 | LT275/70R18 TCM LT275/70R18E TCN LT275/70R18E TCP LT285/60R20E TEA | TZN TZF TZF TZF | CRDDF2A EJ487Q EJ496Q EJ642Q | 13.43 20.87 12.92 12.92 | 41.5 42.9 43.2 43.2 | 85.47000 94.25000 95.72000 96.82000 | -0.48650 -0.42940 -0.42720 -0.48390 | 0.100170 0.099590 0.099750 0.100520 | 94.02000 103.6800 105.2900 106.5000 | -0.53520 -0.47230 -0.46990 -0.53230 | 0.110190 0.109550 0.109720 0.110570 | |
| D28A62 | RAM: 3500 Cab | | XBC | L8 - 4WD | | 11440 | 7000 2751 | 9000 4.10 4847 4.10 | 28.9 29 | LT275/70R18 TCM LT275/70R18E TCN | TZN TZF | CRDDF2A EJ487Q | 13.43 20.87 | 41.5 42.9 | 85.47000 94.25000 | -0.48650 -0.42940 | 0.100170 0.099590 | 94.02000 103.6800 | -0.53520 -0.47230 | 0.110190 0.109550 | |

| | | | | | | | | | | | | | | | | | | | | | |
|--------|---------------------------|--|-----|------------------------------|--|-------|------|------|------|------------------|------------------|--------|----------|-------|----------|----------|----------|----------|----------|----------|----------|
| | Chassis 4X4 | | | DFX / DK1-4P DK3-4P | | 6608 | 9024 | 4.10 | 29 | LT275/70R18E TCP | TZF | EJ496Q | 12.92 | 43.2 | 95.72000 | -0.42720 | 0.099750 | 105.2900 | -0.46990 | 0.109720 | |
| | | | | | | | | 4.10 | 28.8 | LT285/60R20E TEA | TZF | EJ642Q | 12.92 | 43.2 | 96.82000 | -0.48390 | 0.100520 | 106.5000 | -0.53230 | 0.110570 | |
| D28A92 | RAM: 3500 Cab Chassis 4X4 | | XBC | L8 - 4WD DFX / DK1-4P DK3-4P | | 11440 | 7500 | 9500 | 4.10 | 28.9 | LT275/70R18 TCM | TZN | CRDDDF2A | 14.04 | 42.0 | 88.14000 | -0.47950 | 0.100230 | 96.95000 | -0.52740 | 0.110250 |
| | | | | | | | 3093 | 4820 | 4.10 | 29 | LT275/70R18E TCN | TZF | EJ487Q | 20.87 | 43.4 | 97.35000 | -0.41960 | 0.099620 | 107.0800 | -0.46160 | 0.109580 |
| | | | | | | | 7293 | 9367 | 4.10 | 29 | LT275/70R18E TCP | TZF | EJ496Q | 13.48 | 43.7 | 98.92000 | -0.41720 | 0.099790 | 108.8100 | -0.45890 | 0.109770 |
| | | | | | | | | 4.10 | 28.8 | LT285/60R20E TEA | TZF | EJ642Q | 13.47 | 43.7 | 100.1500 | -0.47650 | 0.100600 | 110.1600 | -0.52420 | 0.110660 | |

Engine Code AA-7000 Eng Displ: 6.4L (ESL) Evap Family - Evap Code: VCRXF0391TR0-50.0

| Model | Carline Name | Model Qualifiers | Opt | Trans. / Tr. Case | Torq. Conv./ Catalyst Identifier | GVW | LVW TWC Drive Curb | ALVW TWC Drive Curb | Axle / OTGR | N/V | Tire | Tire Mfr. | Tire Constr.Cd. | Elec Dyno Q.C. | Elec Dyno RLHP | Dyno Coeff 70A | Dyno Coeff 70 B | Dyno Coeff 70C | Dyno Coeff 20A | Dyno Coeff 20B | Dyno Coeff 20C |
|--------|---------------------------|------------------|-----|------------------------------|----------------------------------|-------|--------------------|---------------------|-------------|------------------|------------------|-----------|-----------------|----------------|----------------|----------------|-----------------|----------------|----------------|----------------|----------------|
| D28A92 | RAM: 3500 Cab Chassis 4X4 | | XBC | L8 - 4WD DFX / DK1-4P DK3-4P | | 11440 | 7500 | 9500 | 4.10 | 28.9 | LT275/70R18 TCM | TZN | CRDDDF2A | 14.04 | 42.0 | 88.14000 | -0.47950 | 0.100230 | 96.95000 | -0.52740 | 0.110250 |
| | | | | | | | 3093 | 4820 | 4.10 | 29 | LT275/70R18E TCN | TZF | EJ487Q | 20.87 | 43.4 | 97.35000 | -0.41960 | 0.099620 | 107.0800 | -0.46160 | 0.109580 |
| | | | | | | | 7293 | 9367 | 4.10 | 29 | LT275/70R18E TCP | TZF | EJ496Q | 13.48 | 43.7 | 98.92000 | -0.41720 | 0.099790 | 108.8100 | -0.45890 | 0.109770 |
| | | | | | | | | 4.10 | 28.8 | LT285/60R20E TEA | TZF | EJ642Q | 13.47 | 43.7 | 100.1500 | -0.47650 | 0.100600 | 110.1600 | -0.52420 | 0.110660 | |

Engine Code AA-7250 Eng Displ: 6.4L (ESL) Evap Family - Evap Code: VCRXF0213TR0-31.0

| Model | Carline Name | Model Qualifiers | Opt | Trans. / Tr. Case | Torq. Conv./ Catalyst Identifier | GVW | LVW TWC Drive Curb | ALVW TWC Drive Curb | Axle / OTGR | N/V | Tire | Tire Mfr. | Tire Constr.Cd. | Elec Dyno Q.C. | Elec Dyno RLHP | Dyno Coeff 70A | Dyno Coeff 70 B | Dyno Coeff 70C | Dyno Coeff 20A | Dyno Coeff 20B | Dyno Coeff 20C |
|--------|---------------------------|------------------|-----|-------------------|----------------------------------|-------|--------------------|---------------------|-------------|------------------|------------------|-----------|-----------------|----------------|----------------|----------------|-----------------|----------------|----------------|----------------|----------------|
| D23A91 | RAM: 3500 Cab Chassis 4X2 | | XBC | L8 - RWD DFX | | 11040 | 7000 | 9000 | 4.10 | 28.9 | LT275/70R18 TCM | TZN | CRDDDF2A | 13.58 | 41.1 | 86.30000 | -0.58880 | 0.100590 | 94.93000 | -0.64770 | 0.110650 |
| | | | | | | | 3000 | 4925 | 4.10 | 29 | LT275/70R18E TCN | TZF | EJ487Q | 13.13 | 42.5 | 95.16000 | -0.53140 | 0.100010 | 104.6800 | -0.58450 | 0.110010 |
| | | | | | | | 6690 | 8865 | 4.10 | 29 | LT275/70R18E TCP | TZF | EJ496Q | 13.06 | 42.7 | 96.50000 | -0.53260 | 0.100200 | 106.1500 | -0.58590 | 0.110220 |
| | | | | | | | | 4.10 | 28.8 | LT285/60R20E TEA | TZF | EJ642Q | 20.87 | 42.7 | 97.40000 | -0.58850 | 0.100930 | 107.1400 | -0.64740 | 0.111020 | |

Engine Code AA-7750 Eng Displ: 6.4L (ESL) Evap Family - Evap Code: VCRXF0213TR0-31.0

| Model | Carline Name | Model Qualifiers | Opt | Trans. / Tr. Case | Torq. Conv./ Catalyst Identifier | GVW | LVW TWC Drive Curb | ALVW TWC Drive Curb | Axle / OTGR | N/V | Tire | Tire Mfr. | Tire Constr.Cd. | Elec Dyno Q.C. | Elec Dyno RLHP | Dyno Coeff 70A | Dyno Coeff 70 B | Dyno Coeff 70C | Dyno Coeff 20A | Dyno Coeff 20B | Dyno Coeff 20C |
|--------|---------------------------|------------------|-----|------------------------------|----------------------------------|-------|--------------------|---------------------|-------------|------------------|------------------|-----------|-----------------|----------------|----------------|----------------|-----------------|----------------|----------------|----------------|----------------|
| D28A91 | RAM: 3500 Cab Chassis 4X4 | | XBC | L8 - 4WD DFX / DK1-4P DK3-4P | | 11040 | 7500 | 9000 | 4.10 | 28.9 | LT275/70R18 TCM | TZN | CRDDDF2A | 20.87 | 41.5 | 85.43000 | -0.48660 | 0.100170 | 93.97000 | -0.53530 | 0.110190 |
| | | | | | | | 3071 | 4840 | 4.10 | 29 | LT275/70R18E TCN | TZF | EJ487Q | 13.00 | 42.9 | 94.22000 | -0.42950 | 0.099590 | 103.6400 | -0.47240 | 0.109550 |
| | | | | | | | 7053 | 9047 | 4.10 | 29 | LT275/70R18E TCP | TZF | EJ496Q | 20.87 | 43.2 | 95.68000 | -0.42730 | 0.099750 | 105.2500 | -0.47000 | 0.109720 |
| | | | | | | | | 4.10 | 28.8 | LT285/60R20E TEA | TZF | EJ642Q | 12.92 | 43.2 | 96.79000 | -0.48400 | 0.100520 | 106.4700 | -0.53240 | 0.110570 | |
| D28A91 | RAM: 3500 Cab Chassis 4X4 | | XBC | L8 - 4WD DFX / DK1-4P DK3-4P | | 11440 | 7500 | 9500* | 4.10 | 28.9 | LT275/70R18 TCM | TZN | CRDDDF2A | 20.87 | 41.9 | 87.86000 | -0.47560 | 0.100160 | 96.65000 | -0.52320 | 0.110180 |
| | | | | | | | 3057 | 4993 | 4.10 | 29 | LT275/70R18E TCN | TZF | EJ487Q | 13.58 | 43.4 | 97.17000 | -0.41530 | 0.099550 | 106.8900 | -0.45660 | 0.109500 |
| | | | | | | | 7053 | 9247 | 4.10 | 29 | LT275/70R18E TCP | TZF | EJ496Q | 20.87 | 43.6 | 98.61000 | -0.41630 | 0.099750 | 108.4700 | -0.45790 | 0.109720 |
| | | | | | | | | 4.10 | 28.8 | LT285/60R20E TEA | TZF | EJ642Q | 13.50 | 43.6 | 99.64000 | -0.47480 | 0.100520 | 109.6000 | -0.52230 | 0.110570 | |

FCA US LLC

Test Group: VCRXD06.4574 - Engine Code Index

Durability Group: VCRXGPGNNF39 Standard : HDV3 Bin400+ / NA Vehicle Class: HDV2 / N/A

Engine Code: AA-1000 - DD3A63 ESL DFX L8 RWD XBC 52.0 GAL 4.10

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-1000 | Original | | 6.4L/ESL | DD | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 11040 | 13500 | 7000 | 7000 | RWD | NAS |

Engine Code: AA-1250 - DD3A64 ESL DFX L8 RWD XBC 52.0 GAL 4.10

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-1250 | Original | | 6.4L/ESL | DD | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 13500 | 13500 | 7500 | 7500 | RWD | NAS |

Engine Code: AA-1500 - DD3A93 ESL DFX L8 RWD XBC 52.0 GAL 4.10

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-1500 | Original | | 6.4L/ESL | DD | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 11040 | 13500 | 7500 | 7500 | RWD | NAS |

Engine Code: AA-1750 - DD8A63 ESL DFX L8 4WD XBC 52.0 GAL 4.10

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-1750 | Original | | 6.4L/ESL | DD | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 11040 | 13500 | 7500 | 7500 | 4WD | NAS |

Engine Code: AA-2000 - DD8A64 ESL DFX L8 4WD XBC 52.0 GAL 4.10

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-2000 | Original | | 6.4L/ESL | DD | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 13500 | 13500 | 8000 | 8000 | 4WD | NAS |

Engine Code: AA-2250 - DD8A93 ESL DFX L8 4WD XBC 52.0 GAL 4.10

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-2250 | Original | | 6.4L/ESL | DD | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 11040 | 13500 | 8000 | 8000 | 4WD | NAS |

Engine Code: AA-2750 - DD3A64 ESL DFX L8 RWD XBC 22.0 GAL 4.10

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-2750 | Original | | 6.4L/ESL | DD | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 13500 | 13500 | 7500 | 7500 | RWD | NAS |

Engine Code: AA-3000 - DD8A64 ESL DFX L8 4WD XBC 22.0 GAL 4.10

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-3000 | Original | | 6.4L/ESL | DD | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 13500 | 13500 | 8000 | 8000 | 4WD | NAS |

Engine Code: AA-3250 - DD3A64 ESL DFX L8 RWD XBC 74.0 GAL 4.10

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-3250 | Original | | 6.4L/ESL | DD | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 13500 | 13500 | 7500 | 7500 | RWD | NAS |

Engine Code: AA-3750 - DD8A64 ESL DFX L8 4WD XBC 74.0 GAL 4.10

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-3750 | Original | | 6.4L/ESL | DD | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 13500 | 13500 | 8000 | 8000 | 4WD | NAS |

Engine Code: AA-4000 - D23A6292 ESL DFX L8 RWD XBC 3.73 AXLE 32 GAL

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-4000 | Original | | 6.4L/ESL | D2 | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 11040 | 11150 | 6500 | 7000 | RWD | NAS |

Engine Code: AA-4250 - D23A92 ESL DFX L8 RWD XBC 3.73 AXLE 50 GAL

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-4250 | Original | | 6.4L/ESL | D2 | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 11150 | 11150 | 7000 | 7000 | RWD | NAS |

Engine Code: AA-4750 - D28A6292 ESL DFX L8 4WD XBC 3.73 AXLE 32 GAL

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-4750 | Original | | 6.4L/ESL | D2 | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 11040 | 11440 | 7000 | 7500 | 4WD | NAS |

Engine Code: AA-5000 - D28A92 ESL DFX L8 4WD XBC 3.73 AXLE 50 GAL.

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-5000 | Original | | 6.4L/ESL | D2 | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 11440 | 11440 | 7500 | 7500 | 4WD | NAS |

Engine Code: AA-5250 - D23A91 ESL DFX L8 RWD XBC 3.73 AXLE 31 GAL

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-5250 | Original | | 6.4L/ESL | D2 | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 11040 | 11040 | 7000 | 7000 | RWD | NAS |

Engine Code: AA-5750 - D28A91 ESL DFX L8 4WD XBC 3.73 AXLE 31 GAL.

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-5750 | Original | | 6.4L/ESL | D2 | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 11040 | 11440 | 7500 | 7500 | 4WD | NAS |

Engine Code: AA-6000 - D23A6292 ESL DFX L8 RWD XBC 4.10 AXLE 32 GAL

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-6000 | Original | | 6.4L/ESL | D2 | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 11040 | 11150 | 6500 | 7000 | RWD | NAS |

Engine Code: AA-6250 - D23A92 ESL DFX L8 RWD XBC 4.10 AXLE 50 GAL

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-6250 | Original | | 6.4L/ESL | D2 | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 11150 | 11150 | 7000 | 7000 | RWD | NAS |

Engine Code: AA-6750 - D28A6292 ESL DFX L8 4WD XBC 4.10 AXLE 32 GAL.

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-6750 | Original | | 6.4L/ESL | D2 | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 11040 | 11440 | 7000 | 7500 | 4WD | NAS |

Engine Code: AA-7000 - D28A92 ESL DFX L8 4WD XBC 4.10 AXLE 50 GAL.

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-7000 | Original | | 6.4L/ESL | D2 | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 11440 | 11440 | 7500 | 7500 | 4WD | NAS |

Engine Code: AA-7250 - D23A91 ESL DFX L8 RWD XBC 4.10 AXLE 31 GAL

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-7250 | Original | | 6.4L/ESL | D2 | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 11040 | 11040 | 7000 | 7000 | RWD | NAS |

Engine Code: AA-7750 - D28A91 ESL DFX L8 4WD XBC 4.10 AXLE 31 GAL

| Engine Code | RC/FF # | Date | Engine | Carline | Price Class | Trans. Configuration | GVW Min. | GVW Max. | Test Wt. Min. | Test Wt. Max. | Drive Code | Sales Areas |
|-------------|----------|------|----------|---------|-------------|---|----------|----------|---------------|---------------|------------|-------------|
| AA-7750 | Original | | 6.4L/ESL | D2 | | L8/ Automatic L8 - Lockup/Automatic/8-speed | 11040 | 11440 | 7500 | 7500 | 4WD | NAS |

Test Group: VCRXD06.4574 - No Engine Code Changes

Durability Group: VCRXGPGNNF38 Standard Fed: HDV3 Bin400 Cal: N/A

| RC/FF # | Submission Date | Description |
|---------|-----------------|-------------|
|---------|-----------------|-------------|

No Results Found

Section12-500 Engine Code Index



Section 12 Vehicle Parameters

Valves per cylinder Engine
6.4 Liters - 2

Test Parameters

SIL usage: All - None

Cooling fan configuration: Models
All - One fan center front (See Section 12 - 601)

Additional Cooling: Models
All - None

Evaporative Testing Parameters: Model
DD - 183 grams
DD - 183 grams
D2 Box Off - 219 grams
D2 Box Off - 394 grams

Fuel temperature Profile: Models
DD - eDD_22gal
DD - eDD_52gal
D2 Box Off - eD2_32gal
D2 Box Off - eDJ_50gal

Special Test Procedure: Models
All - none

FAN POSITION DIAGRAM

All vehicles in Test Group



| Test Type | Fan Type | Fan Position | Hood Position |
|-------------------------------|--|---|---------------|
| EPA75. HWFE US06 CCO | Road Speed Fan (RSF) (meeting requirements of 40CFR1066.105(c)(2) – speed and uniformity requirements) | Position RSF horizontally 12" from front of vehicle, centered in front of vehicle. Position RSF vertically so centerline of fan is centered with vehicle grill. | CLOSED |
| SC03 | Road Speed Fan (meeting requirements of 40CFR1066.105(c)(5) – 45 m ³ /s at 60 mph) | 24-36 inches from bumper/front of vehicle (facility dependent) | CLOSED |



March 23, 2026

Mr. Joel Dalton
Certification and Compliance Division
U.S. Environmental Protection Agency
2000 Traverwood Drive
Ann Arbor, Michigan 48105

Dear Mr. Dalton:

Re: 2027 Model Year HDV Certificate of Conformity Request

FCA US LLC requests a 2027 MY Certificate of Conformity for the 6.4L Tier 3 Federal and 50 State test group VCRXD06.4574 with evaporative families: VCRXF0180TR2,VCRXF0180TR3,VCRXF0213TR0 and VCRXF0391TR0. This test group is being certified to Tier 3 BIN 400 standards. FCA US LLC agrees to meet the Tier 3 BIN 400 standards, and the regulations applicable to such vehicles during the full useful lives of the vehicles in test group VCRXD06.4574. FCA US LLC agrees that the exhaust and evaporative emission standards listed below and in the application for certification apply to both certification and in-use vehicles according to the provisions of 40 CFR, Parts 86 and 88, as applicable. FCA US LLC also elects to follow GHG path 86.1818(f)(1). The FTP emission standards for this HDV test group are as follows:

| <u>Emission Standards</u> | | <u>City/Hwy NMOG+NOx</u> | <u>CO</u> | <u>HCHO</u> | <u>PM</u> | |
|------------------------------|------|------------------------------|--------------|-------------|-------------|-----------------------|
| Tier 3 BIN 400 | 150K | 0.400 | 7.3 | 0.006 | 0.010 | |
| <u>Evaporative Standards</u> | | <u>3-Day</u> | <u>2-Day</u> | <u>R/L</u> | <u>ORVR</u> | <u>Canister Bleed</u> |
| VCRXF0180TR2 | 150K | .600 | .600 | 0.05 | N/A | 0.03 |
| VCRXF0180TR3 | 150K | .600 | .600 | 0.05 | N/A | 0.03 |
| VCRXF0213TR0 | 150K | .600 | .600 | 0.05 | N/A | 0.03 |
| VCRXF0391TR0 | 150K | .600 | .600 | 0.05 | N/A | 0.03 |

Initial combined CO2 for VCRXD06.4574 test group is = 799.9

The models in this test group are as follows:

Division / Model
Ram 3500 Cab Chassis, 4X2/4X4

If there are any questions regarding this submission, please contact Alec Soulliere at 248.285.8432 or Gary J. Arvan at 248.221.9461.

Sincerely,
FCA US LLC

Gary J. Arvan, Director
Vehicle Safety & Environmental Homologation Programs
gja/ags



March 23, 2026

Ms. Robin U. Lang, Chief
Emissions Certification and Compliance Division
Air Resources Board
4001 Iowa Ave,
Riverside, CA 92507

Dear Ms. Lang:

Re: 2027 Model Year HDV Executive Order Request

FCA US LLC requests a 2027 MY Executive Order for the 6.4L 50 State test group VCRXD06.4574 with evaporative families: VCRXF0180TR2,VCRXF0180TR3,VCRXF0213TR0 and VCRXF0391TR0. This test group is being certified according to an alternate certification path provided in MAC ECCD-2025-08. FCA requests an EO based on the EPA Tier 3 requirements as reflected in the enclosed EPA Certificates of Conformity and EPA Certification Summary Information.

FCA US LLC agrees to meet the Tier 3 BIN 400 emission standards and the regulations applicable to such vehicles during the full useful lives of the vehicles in test group VCRXD06.4574. FCA US LLC agrees that the exhaust and evaporative emission standards listed below and in the application for certification apply to both certification and in-use vehicles according to the provisions of 40 CFR, Parts 86 and 88, as applicable. FCA US LLC also elects to follow GHG path 86.1818(f)(1). The FTP emission standards for this HDV test group are as follows:

| <u>Emission Standards</u> | | <u>City/Hwy NMOG+NOx</u> | <u>CO</u> | <u>HCHO</u> | <u>PM</u> | |
|------------------------------|------|------------------------------|--------------|-------------|-------------|-----------------------|
| Tier 3 BIN 400 | 150K | 0.400 | 7.3 | 0.006 | 0.010 | |
| <u>Evaporative Standards</u> | | <u>3-Day</u> | <u>2-Day</u> | <u>R/L</u> | <u>ORVR</u> | <u>Canister Bleed</u> |
| VCRXF0180TR2 | 150K | .600 | .600 | 0.05 | N/A | 0.03 |
| VCRXF0180TR3 | 150K | .600 | .600 | 0.05 | N/A | 0.03 |
| VCRXF0213TR0 | 150K | .600 | .600 | 0.05 | N/A | 0.03 |
| VCRXF0391TR0 | 150K | .600 | .600 | 0.05 | N/A | 0.03 |

Initial combined CO2 for VCRXD06.4574 test group is = 799.9

FCA also completed an E-CERT submission for this test group at the direction of CARB. CARB’s E-CERT system requires the selection of a California emission standard at the time of submission. FCA selected the LEV III standard for this reason only and not as an acknowledgement of CARB’s authority to require compliance with the underlying standards.

If there are any questions regarding this submission, please contact Alec Soulliere at 248.285.8432 or Gary J. Arvan at 248.221.9461.

Sincerely,

FCA US LLC

Gary J. Arvan, Director
Vehicle Safety & Environmental Homologation Programs

c: J. Nguyen
gja/ags

US EPA Fee Form

[Help and EPA Instructions](#)

* Required Field

General Information

Date: 02/05/2026

Process Code *

Submit New Fee Filing Form

Manufacturer Code *

CRX

Manufacturer Name *

FCA US LLC

Contact Name *

Pamela J Barylski

Contact Email Address *

pamela.barylski@stellantis.com

Contact Phone *

8102798571

Calendar Year complete application submitted to EPA *

2026

PLEASE NOTE: These fees apply to complete certification applications received by EPA from January 1, 2026, through December 31, 2026. The applicable fee is determined by the

calendar year in which the complete certification application is received, not the model year.

Engine Family / Evaporative Family / Test Group *

VCRXD06.4574

Certificate Request Type (Industry Sector Code)

Certificate Request Type *

- On-Highway LDV, LTD, MDVPV, HDV Chassis Cert (Federal) (A, B, D, J, T, V)
- On-Highway HDE Dyno Cert (Federal) (E, H)
- On-Highway LD ICI, MDPV ICI, HDV ICI (A, B, D, J, T, V)
- On-Highway Motorcycle (C)
- On-Highway HDV Evap (F)
- On-Highway LDV, LTD, MDVPV, HDV Chassis Cert (California-Only) (A, B, D, J, T, V)
- On-Highway HDE Dyno Cert (California-Only) (E, H)
- Nonroad CI (L)
- Nonroad SI (B, S)
- Locomotive (G, K)
- All Nonroad Recreational, excluding Marine engines (X, Y)
- All Marine (Including IMO) (M, N, W)
- Component Certification for Evaporative Emissions (P)

IMO Name (Required for dual US/IMO Marine Only)

ICI VIN Number (Required for ICIs Only)

Do you qualify for a Reduced Fee? *

No

Payment Information

Amount Owed

\$32,317.00

Payment Type *

Offline Wire

Comments

EPA Form Number 3520-29

OMB Control No.2060-0545

Approval expires 7/31/2027

The public reporting and recordkeeping burden for this collection of information is estimated to average 12 minutes per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed forms to this address.

The content of this document may contain Sensitive But Unclassified (SBU) data and/or Controlled Unclassified Information (CUI).

MOBILE SOURCE CERTIFICATION AND COMPLIANCE FEE PAYMENT FORM FOR ON-ROAD APPLICATIONS ONLY

CARB USE ONLY

| | |
|--------------|--------------|
| Invoice Name | MSF250698 |
| Invoice Date | Jan 15, 2026 |

COMPANY INFORMATION

| | |
|--------------------------|---------------------------|
| Company Name | FCA US LLC |
| Address | 800 Chrysler Drive |
| City | Auburn Hills |
| State | MI |
| Zip | 48326 |
| Country | United States |
| Contact Name | Gary Arvan |
| Contact Telephone Number | 248-221-9461 |
| Contact Email | gary.arvan@stellantis.com |
| CARB Customer Number | CCAM000028 |

APPLICATION INFORMATION

| Payment Row Number | Product Description or File Name | Model Year/Calendar Year | Unique Application Identifier: Test Group, Engine Family, Trailer Family, Vehicle Family, ZEP Family, if applicable (ID listed in payment row must match the unique identifier given to the certification application) | Category Type | Fee Type | Amount |
|--------------------|----------------------------------|--------------------------|--|--|---------------|--------------|
| 1 | CBI_VCRXD00.0517_APPIPT | Model Year 2027 | VCRXD00.0517 | Light-duty vehicle test group and medium-duty vehicle test group | Zero-Emission | \$ 12,577.00 |
| 2 | CBI_VCRXT02.0571_APPIPT | Model Year 2027 | VCRXT02.0571 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 3 | CBI_VCRXT02.0572_APPIPT1 | Model Year 2027 | VCRXT02.0572 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 4 | CBI_VCRXV03.0574_APPIPT | Model Year 2027 | VCRXV03.0574 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 5 | CBI_VCRXT03.0572_APPIPT | Model Year 2027 | VCRXT03.0572 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 6 | CBI_VCRXT03.0573_APPIPT | Model Year 2027 | VCRXT03.0573 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 7 | CBI_VCRXT03.6561_APPIPT | Model Year 2027 | VCRXT03.6561 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 8 | CBI_VCRXT03.6543_APPIPT | Model Year 2027 | VCRXT03.6543 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 9 | CBI_VCRXD03.6576_APPIPT | Model Year 2027 | VCRXD03.6576 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |

| | | | | | | |
|----|-------------------------|-----------------|--------------|--|------|--------------|
| 10 | CBI_VCRXD03.6575_APPIPT | Model Year 2027 | VCRXD03.6575 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 11 | CBI_VCRXT05.7560_APPIPT | Model Year 2027 | VCRXT05.7560 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 12 | CBI_VCRXT05.7571_APPIPT | Model Year 2027 | VCRXT05.7571 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 13 | CBI_VCRXT06.2570_APPIPT | Model Year 2027 | VCRXT06.2570 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 14 | CBI_VCRXT06.2571_APPIPT | Model Year 2027 | VCRXT06.2571 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 15 | CBI_VCRXT06.4570_APPIPT | Model Year 2027 | VCRXT06.4570 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 16 | CBI_VCRXT06.4571_APPIPT | Model Year 2027 | VCRXT06.4571 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 17 | CBI_VCRXD06.4572_APPIPT | Model Year 2027 | VCRXD06.4572 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 18 | CBI_VCRXD06.4573_APPIPT | Model Year 2027 | VCRXD06.4573 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 19 | CBI_VCRXD06.4574_APPIPT | Model Year 2027 | VCRXD06.4574 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 20 | CBI_VCRXD06.4575_APPIPT | Model Year 2027 | VCRXD06.4575 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 50,309.00 |
| 21 | CBI_TCRXT03.6565_APPIPT | Model Year 2026 | TCRXT03.6565 | Light-duty vehicle test group and medium-duty vehicle test group | Base | \$ 48,447.00 |

| | |
|------------------|------------------------|
| Total Due | \$ 1,016,895.00 |
|------------------|------------------------|

I, Gary Arvan (Jan 15, 2026 11:23:45 EST), attest that any information provided is true, accurate, and complete.
 (Responsible Party Signature Here)

PAM BARYLSKI

From: noreply@salesforce.com on behalf of California Air <mcertfees@arb.ca.gov>
Sent: Friday, January 30, 2026 10:37 AM
To: PAM BARYLSKI
Subject: [EXTERNAL]MS Fee Payment Confirmation for Invoice MSF250698
Attachments: MSF250698 - signed.pdf

EXTERNAL: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Gary Arvan

Attached is documentation for your MS Fee payment for Invoice Name MSF250698. Please include a copy of this invoice and email with each application that is listed when submitting your application to the applicable MS Fee program.

1. Payment ID – 25RA0274
2. Date of Payment – 1/29/2026
3. Payment Status - Paid





2027 50-State (NAS) DD
Test Group: VCRXD06.4574

**FCA US LLC | VEHICLE EMISSION CONTROL INFORMATION | CONFORMS TO REGULATIONS: 2027 MY INCOMPLETE
NO ADJUSTMENTS NEEDED**

U.S. EPA: T3 B400 HDV OBD: CA OBD II FUEL: GASOLINE

CA: N/A OBD: N/A FUEL: N/A
THIS VEHICLE CONFORMS TO FEDERAL REGULATIONS
AND IS CERTIFIED FOR SALE IN CALIFORNIA

COMPLETED VEHICLE MAXIMUMS: GVWR: 13,500 # MAX. CURB W: 8,000 # MAX. FRONTAL AREA: 80 sq/ft MAX.
WEIGHT LIMITS REFER TO EMISSION CERTIFICATION ONLY. DO NOT EXCEED VEHICLE GVWR (SEE OWNER'S MANUAL).

GROUP: VCRXD06.4574

ENGINE: 6.4L EVAP: VCRXF0180TR2 22, 52 gal
VCRXF0180TR3 74.0 gal

EGR / EGRC
HO2S
SFI / TWC
WR - HO2S

68778 015AA



VECI label is located on the vehicle per 40 CFR 86.1807-01.

VCRXD06.4574 Part 1 Section 15 - 100 (2027)



2027 50-State (NAS) D2 Box Off

Test Group: VCRXD06.4574

FCA US LLC

VEHICLE EMISSION CONTROL INFORMATION

CONFORMS TO REGULATIONS: 2027 MY INCOMPLETE
NO ADJUSTMENTS NEEDED

U.S. EPA: T3 B400 HDV OBD: CA OBD II FUEL: GASOLINE

CA: N/A OBD: N/A FUEL: N/A
THIS VEHICLE CONFORMS TO FEDERAL REGULATIONS
AND IS CERTIFIED FOR SALE IN CALIFORNIA

COMPLETED VEHICLE MAXIMUMS: GVWR: 11,440 # MAX. CURB W: 8,060 # MAX. FRONTAL AREA: 58 sq/ft MAX.
WEIGHT LIMITS REFER TO EMISSION CERTIFICATION ONLY. DO NOT EXCEED VEHICLE GVWR (SEE OWNER'S MANUAL).

GROUP: VCRXD06.4574

ENGINE: 6.4L EVAP: VCRXF0213TR0 31, 32 gal
VCRXF0391TR0 50 gal

EGR / EGRC
HO2S
SFI / TWC
WR - HO2S

68778 016AA



VECI label is located on the vehicle per 40 CFR 86.1807-01.

VCRXD06.4574 Part 1 Section 15 - 101 (2027)