STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
CALIFORNIA AIR RESOURCES BOARD

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

CARB USE ONLY

Invoice Name	MSF230818
Invoice Date	Feb 02, 2024

COMPANY INFORMATION

Company Name	Mercedes-Benz
Address	13470 International Pkwy
City	Jacksonville
State	FLORIDA
Zip	32218
Country	United States
Contact Name	John Healey
Contact Telephone Number	904-741-9621
Contact Email	john.healey@mbusa.com
CARB Customer Number	CCAM000021

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 _ MBX_2025_PC-LDT _ SMBXJ00.0ED1_APPIPT1	Model Year 2025	SMBXJ00.0ED1	Light-duty vehicle test group and medium-duty vehicle test group	Zero-Emission	$ 11,627.00
2	CBI _ MBX_2025_PC-LDT _ SMBXJ00.0ED2_APPIPT1	Model Year 2025	SMBXJ00.0ED2	Light-duty vehicle test group and medium-duty vehicle test group	Zero-Emission	$ 11,627.00
3	CBI _ MBX_2025_PC-LDT _ SMBXT00.0ED4_APPIPT1	Model Year 2025	SMBXT00.0ED4	Light-duty vehicle test group and medium-duty vehicle test group	Zero-Emission	$ 11,627.00

Mercedes-Benz

Application for Certification – Part 1
2025 Model Year

Specific Sections

Test Group
SMBXT00.0ED4

Durability Group:	SMBXEEVNNED1
Evaporative Family:	N/A
EPA Summary Sheet No.:	CSI-SMBXT00.0ED4.pdf
Durability Group Description:	N/A
Test Group Description(s):	Electric Vehicle
Applicable Standards:	Federal state: Tier 3 BIN 0 LDT California: ZEV
Vehicle(s) Covered:	G 580 with EQ Technology
Vehicles Tested:	Exhaust: N465PSM120x4-EB482 4x4 – Z2558 EVAP: N/A
EPA Response Requested By:	Paul Skorupskas, Phone: (734) 929 8658

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Revisions:

Issue Date / Revision Date	Affected Pages	Description of Changes
May-15-2024	all	Initial Version
Jun-17-2024	S-16-12	FE data added

S-01: Correspondence

(Refer to S-01 in common section for a complete list of contacts)

Tobias Schmelzle
Manager, US OBD Certification
Resp.: Government Liaison, CARB
Phone: 562.243.7672
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S-02: Durability Group Description

Please refer to the common application for certification.

S-03: Evaporative/Refueling Family Description

Not applicable

S-04: Durability Procedure Description

Not applicable

S-05: Facilities, Equipment and Test Procedures

S-05-01: Vehicle recommended maintenance

Included in the owner's manual

S-05-02: Heater fuels and Lubricants

a) Heater Fuel

Not applicable

b) Transmission Lubricants

Factory Fill Volume:	3000ml +/-100ml (each)
Commercial name:	ATF MB BeVo 237.12
Viscosity:	19,7 - 22,0 mm²/s (at 40°C) 4,7 - 5,1 mm²/s (at 100°C)
Oil change intervals:	Fill for life

S-06: Test Group Description

The summary sheet numbers (CSI) are provided on the cover page of this application. The Test Group Description is provided in section 2 of the common application as part of the durability group description.

Vehicle Use	Test Vehicle	Vehicle Type	Engine disp. [cm3]	Engine Code	Transmission	ETW [lbs]	Emission Control System
ZEV/FEDV	Z2558	N465PSM120x4-EB482 4x4	0	PSM120x4	A-1	7000	N/A

Test parameters can be taken from the CSI Summary sheets in section S-07.

All test data is new for MY2025

VI Sheet Label Configuration

Verify Processing Report

Total Datasets Submitted: 1
Accepted Datasets: 1
Rejected Datasets: 0

The original datasets are listed below. In addition, any information generated by the Verify system is also included. For any rejected datasets, the reason(s) the dataset was rejected is provided below in the Transaction Report for that particular dataset.

Test Vehicle Information Submission

Test Vehicle Information Details

Information Process Code : N
EPA Manufacturer Code : MBX
Vehicle Identification Text : N465PSM120x4-Z2558
Vehicle Configuration Number : 0

Vehicle Configuration Details

Vehicle Description Details

Manufacturer Vehicle Configuration Number : 0
Test Group Name : SMBXT00.0ED4
Model Year : 2025
Actual Test Vehicle Make Text : Mercedes-Benz
Actual Test Vehicle Model Text : G 580 with EQ Technology

Drive Source Details

Drive Source Identifier : E
Fuel Identifier : EL

Fuel Cell Indicator : N
Rechargeable Energy Storage System Indicator : Y
Rechargeable Energy Storage Device Identifier : B
Off Board Charge Capability Indicator : Y
Test Drive Code : 4
Shift Indicator Light Usage Identifier : 1
Aged Component Usage Identifier : 4

Odometer Correction Details

Correction Initial Value : 14
Correction Factor Value : 0.9917
Correction Sign Identifier : -
Correction Units Code : M

Engine Code Text : PSM120x4
Engine Rated Horsepower Value : 579
Engine Displacement Value : 0.001

Air Aspiration Details

Air Aspiration Method Identifier : NA

Vehicle Specifications Details

Curb Weight Value : 6812
Equivalent Test Weight Value : 7000
Gross Vehicle Weight Rating Value : 7716
NV Ratio Value : 125
Axle Ratio Value : 1

Transmission Specifications Details

Light Duty Transmission Type Identifier : A
Transmission Lockup Indicator : Y
Transmission Creeper Gear Indicator : N
Transmission Gear Count : 1

Target Set Coefficient Details

Test Procedure Dynamometer Coefficients Category : C-H-E
Target CoefficientA Value : 49.46
Target CoefficientB Value : 0.2532
Target CoefficientC Value : 0.03917
Set CoefficientA Value : 7.050
Set CoefficientB Value : -0.24124
Set CoefficientC Value : 0.040663

Manufacturer Comment Text : 275/50 R20

EPA Generated Test Vehicle Details

Original Receipt Date : 20240405
Hybrid Vehicle Indicator : N
Adjusted Loaded Vehicle Weight Value : 7264
Loaded Vehicle Weight Value : 7112
Total Road Load Horsepower Value : 21.3

Transaction Status Details

Transaction Status Identifier : ACCEPTED

S-07: Test Results

See attachment certification summary information report.

S-08: Statements

Please refer to the common application for certification.

S-09: OBD-System Information

Mercedes-Benz EQ Battery Electric Vehicles are Zero Emission Vehicles and therefore not equipped with an OBD-System.

S-10: Alternate Fuel (if applicable)

Not applicable

S-11: List of AECD

Mercedes-Benz EQ Battery Electric Vehicles are Zero Emission Vehicles and therefore have no AECDs.

S-12: Identification and Description of certified vehicles

The identification and description of all vehicles covered by the certificate is given in section 02 (common) for exhaust purposes.

All appropriate test parameters necessary to conduct an official BEV certification test are provided in the CSI and in section 07 or 17.

Certified Models Weights and Classes:

Test Group	Model Name	Curb weight [lbs]	ETW [lbs]	GVW [lbs]	EPA car class	CARB car class
SMBXT00.0ED4	G 580 with EQ Technology	6812	7000	7716	LDT4	LDT2

Dynamometer target coefficients:

Model Name	Body Code	Engine	Tires Front Axle	Tires Rear Axle	Transm.	A/R	ETW [lbs]	HP at 50 mph [AHP]	55 mhp – 45mph [sec]	A: [lbf]	B: [lbf/ mph]	C: [lbf/ mph2]	Type	Drive Mode
G 580 with EQ Technology	465.600	PSM120x4	275/50 R20	275/50 R20	A1	1	7000	21.34	20.23	49.46	0.2532	0.03917	ZEV/FEDV	Default

S-13: Projected US vehicle sales

Please refer to the common application for certification

S-14: Request for Certificate

S-14-01: Request for Certificate

Mercedes-Benz requests that EPA issues a certificate of conformity and that ARB issues an executive order for the test group listed on the cover page of this application.

The production vehicles which are subject to registration or sale in the State of California will be, in all material respects, substantially the same in construction as test vehicles which are certified by the California Air Resources Board. The applicable test results are listed in section 07. The test group complies with all applicable regulations contained within 40 CFR Part 86 and California Air Research Board in accordance with Section 43101 of the Health and Safety Code Board in accordance with Section 43101 of the Health and Safety Code.

Mercedes-Benz confirms that the vehicle emission control label complies with the label durability requirements of the “California Motor Vehicle Emission Control and Smog Index Label Specifications”, Title 13, CCR, Section 1965.

The application is current as of this date.

i.V. John Lipa
VP - US Certification & Regulatory Affairs

i.A. Paul Skorupskas
Manager – EPA Liaison & US Certification Testing

Note: Compliance statements are listed in the common section 08.

S-14-02: OBD-approval

For OBD non-applicability approval see confidential section (S-16)

S-14-03: Fee filing form

US EPA Fee Form

Help and EPA Instructions

* Required Field

General Information

Date: 01/26/2024

Process Code *

Submit New Fee Filing Form

Manufacturer Code *

MBX

Manufacturer Name *

Mercedes-Benz USA

Contact Name *

Gregory Gunther

Contact Email Address *

gregory.gunther@mbusa.com

Contact Phone *

904-741-9607

Calendar Year complete application submitted to EPA *

2024

PLEASE NOTE: These fees apply to complete certification applications received by EPA from January 1, 2024, through December 31, 2024. 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 *

SMBXT00.0ED4

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

$34,461.00

Payment Type *

Offline Wire

Comments

EPA Form Number 3520-29
OMB Control No. 2060-0545
Approval expires 12/31/2022

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).

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Zip	32218
Country	United States
Contact Name	John Healey
Contact Telephone Number	904-741-9621
Contact Email	john.healey@mbusa.com
CARB Customer Number	CCAM000021

APPLICATION INFORMATION

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2	CBI _ MBX_2025_PC-LDT _ SMBXJ00.0ED2_APPIPT1	Model Year 2025	SMBXJ00.0ED2	Light-duty vehicle test group and medium-duty vehicle test group	Zero-Emission	$ 11,627.00
3	CBI _ MBX_2025_PC-LDT _ SMBXT00.0ED4_APPIPT1	Model Year 2025	SMBXT00.0ED4	Light-duty vehicle test group and medium-duty vehicle test group	Zero-Emission	$ 11,627.00

S-15: HEV-specific data (if applicable)

No Hybrid Electric Vehicles (HEV) are part of this test group.

Included Attachments

1. Certification Summary Information Report (CSI)
   - CSI-SMBXT00.0ED4.pdf

Certification Summary Information Report

Manufacturer	Mercedes Benz	**Manufacturer Code**	MBX
Test Group	SMBXT00.0ED4	**Evaporative/Refueling Family**	--
Certificate Number	--	**CARB Executive Order #**	--
Certificate Issue Date	--	**Certificate Revision Date**	--
Certificate Effective Date	--	**Conditional Certificate**	--
CSI Revision #	--	**CSI Submission/Revision Date**	06/17/2024 03:34:42 AM
Model Year	2025		

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: Electric Motor

Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
Electricity	--	--

Hybrid Indicator	No		
Multiple Fuel Storage	--	**Rechargeable Energy Storage System Indicator**	Yes
Multiple Fuel Combustion	--	**Off-board Charge Capable Indicator**	Yes
Fuel Cell Indicator	No	**EPA Vehicle Class**	LDT4
Federal Clean Fuel Vehicle	Yes	**Federal Clean Fuel Vehicle Standard**	ZEV
Federal Clean Fuel Vehicle ILEV	Yes	**California Partial Zero Emissions Vehicle Indicator**	No
Durability Group Name	SMBXEEVNNED1	**Durability Group Equivalency Factor**	1.0
Reduced Fee Test Group	No	**Certification Region Code(s)**	FA, CA
Complies with HD GHG 2b/3 regulations?	No		
Introduction into Commerce Date	--	**CAP2000 Conditional Certificate?**	N/A
Independent Commercial Importer?	--	**Alternative Fuel Converter Certificate?**	--
SFTP Federal Composite Compliance Identifier	Not Applicable	**SFTP Tier 2 Composite CO Option**	--
SFTP LEV-III Composite Compliance Indicator	No		
OBD Compliance Type	CARB	**OBD Demonstration Vehicle Test Group**	SMBXT00.0ED4
Test Group OBD Compliance Level	Full - no deficiencies	**Number of Test Group OBD Deficiencies**	0
OBD Deficiencies Comments	This is a Zero Emission Test Group; no OBD compliance required		
Mfr Test Group Comments	Sales: Federal = 50 states; CA = CA + 177 states		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	SMBXT00.0ED4	**Evaporative/Refueling Family**	--

Models Covered by this Certificate

Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
Mercedes Benz	1 - Mercedes-Benz	436 - G 580 with EQ Technology	California + CAA Section 177 states	4-Wheel Drive	Automatic	2	No
Mercedes Benz	1 - Mercedes-Benz	436 - G 580 with EQ Technology	Federal	4-Wheel Drive	Automatic	2	No

Engine Description

Hybrid Type	--	**Hybrid Description**	--
Engine Type	--	**Mfr Engine Description**	--
Engine Block Arrangement	--	**Mfr Engine Block Arrangement Description**	--
Camless Valvetrain Indicator	--	**Oil Viscosity/Classification**	
Number of Cylinders/Rotors	--	**Mechanically Variable Compression Ratio Indicator**	--

After Treatment Device(s) (ATD)

Mfr After Treatment Device (ATD) Comments	--
Direct Ozone Reduction (DOR) Device	--
Mfr Emission Control Device 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
Electricity	--	--	--	--	--	--	--	--	--	--

Official Charge Depleting Test Numbers

Test Group Fuel	UDDS	Highway
Electricity	--	--

Certification Summary Information Report

Test Group	SMBXT00.0ED4	**Evaporative/Refueling Family**	--

Hybrid Electric Vehicle And Fuel Cell Information

Rechargable Energy Storage System	Battery(s)	**Rechargable Energy Storage System, if Other**	--
Battery Type	Lithium Ion	**Number of Battery Packs**	12
Total Voltage of Battery Packs	396	**Battery Energy Capacity**	308
Battery Specific Energy	167.8	**Battery Charger Type**	On-Board
Number of Capacitors	--	**Capacitor Rating (In Farads)**	--
Mfr Capacitor Comments	--		
Hydraulic System Description	--		
Regenerative Braking Type	Electrical Regen Brake		
Regenerative Braking Source	Both	**Driver Controlled Regenerative Braking**	Yes
Mfr Regenerative Braking Description	--		
Drive Motor(s)/Generator(s)	4		
Motor/Generator Type 1	AC 3 Phase permanent magnet	**Rated Motor/Generator Power**	108
Motor/Generator Type 2	AC 3 Phase permanent magnet	**Rated Motor/Generator Power**	108
Motor/Generator Type 3	AC 3 Phase permanent magnet	**Rated Motor/Generator Power**	108
Motor/Generator Type 4	AC 3 Phase permanent magnet	**Rated Motor/Generator Power**	108
Mfr Fuel Cell Description	--		
Fuel Cell On-Board H2 Storage Capacity (kg)	--	**Usable H2 Fill Capacity (kg)**	--
Mfr Hybrid Electric/ Electric Vehicle Comments	--		

Certification Summary Information Report

Test Group	SMBXT00.0ED4	**Evaporative/Refueling Family**	--

Emission Data Vehicle Information

Vehicle ID / Configuration	N465PSM120x4-Z2558 / 0	**Manufacturer Vehicle Configuration Number**	0
Original Test Group Name	SMBXT00.0ED4	**Original Evaporative/Refueling Family**	--
Original Test Vehicle Model Year	2025		

Vehicle Model

Represented Test Vehicle Make	Mercedes-Benz	**Represented Test Vehicle Model**	G 580 with EQ Technology

Leak Family Details

Leak Family Identifier	--	**Leak Family Name**	--

Drive Sources and Fuel System Details

Drive Source and Fuel#	Drive Source	Fuel
1	Electric Motor	Electricity

Hybrid Indicator	No		
Multiple Fuel Storage	--	**Multiple Fuel Combustion**	--
Fuel Cell Indicator	No	**Rechargeable Energy Storage System Indicator**	Yes
Rechargeable Energy Storage System	Battery(s)	**Rechargeable Energy Storage System, if 'Other'**	--
Off-board charge Capable Indicator	Yes		
Odometer Correction -- Initial	14	**Odometer Correction Factor**	0.9917
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor		
Odometer Correction Units	Miles		
Engine Code	PSM120x4	**Rated Horsepower**	579
Displacement (liters)	0.001		
Air Aspiration Method	Naturally Aspirated	**Air Aspiration Method, if 'Other'**	
Number of Air Aspiration Devices	--	**Air Aspiration Device Configuration**	--
Charge Air Cooler Type	--	**Drive Mode While Testing**	4-Wheel Drive
Shift Indicator Light Usage	Not eqipped	**Aged Emission Components**	4,000 (mi)
Curb Weight (lbs)	6812	**Equivalent Test Weight (pounds)**	7000
GVWR (lbs)	7716	**N/V Ratio**	125
Axle Ratio	1		
Transmission Type	Automatic	**# of Transmission Gears**	2
Transmission Lockup	Yes	**Creeper Gear**	No

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	49.46	0.2532	0.03917	7.05	-0.24124	0.040663	21.3

Emission Control Device Comments --

Certification Summary Information Report

Test Group	SMBXT00.0ED4	**Evaporative/Refueling Family**	--

Manufacturer Test Vehicle Comments 275/50 R20

Certification Summary Information Report

Test Group	SMBXT00.0ED4	**Evaporative/Refueling Family**	--

Test #	**SMBX10085461**	**Test Procedure**	**77 - Multi-Cycle Test (MCT)**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	62 - Electricity
Test Date	03/22/2024	**Fuel**	N/A
Fuel Batch ID	--	**Fuel Calibration Number**	--
Vehicle Class	N/A	**DF Type**	Mfr. Determined
Verify Test Lab ID	3953 Research Park Drive		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	2039	**Odometer Units**	M
4WD Test Dyno	Yes	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	Yes

PHEV/EV Charge Depleting Test Information

Recharge Event Voltage	240	**Recharge Event Energy (kiloWatt-hours)**	129.303
Charge Depleting Range (Calculated miles)	376.972	**Charge Depleting Range (Actual miles)**	376.972
Charge Depleting Range Highway (Calculated miles)	313.003	**Derived 5-Cycle Coefficient Model Year**	--
All Electric Range Unadjusted (miles)	--	**Equivalent All Electric Range (miles)**	376.972
Number of Charge Depleting Bags/Phases Conducted	8	**Transition Bag/Phase Number**	--

Charge Depleting Bag/Phase #1

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	7.461
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	1.140797
Drive Trace Energy Economy Rating	0.016537
Drive Trace Inertia Work Ratio Rating	1.674424
Integrated DC KW-HRS	2.464
Manufacturer Fuel Economy	33.0212

Charge Depleting Bag/Phase #2

Test Group	SMBXT00.0ED4	**Evaporative/Refueling Family**	--

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	10.249
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	1.140797
Drive Trace Energy Economy Rating	0.016537
Drive Trace Inertia Work Ratio Rating	1.674424
Integrated DC KW-HRS	3.92
Manufacturer Fuel Economy	38.2506

Charge Depleting Bag/Phase #3

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	7.434
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	1.140797
Drive Trace Energy Economy Rating	0.016537
Drive Trace Inertia Work Ratio Rating	1.674424
Integrated DC KW-HRS	2.334
Manufacturer Fuel Economy	31.3986

Charge Depleting Bag/Phase #4

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	209.549
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	1.140797
Drive Trace Energy Economy Rating	0.016537
Drive Trace Inertia Work Ratio Rating	1.674424
Integrated DC KW-HRS	83.941
Manufacturer Fuel Economy	40.0578

Charge Depleting Bag/Phase #5

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	7.426
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	1.140797
Drive Trace Energy Economy Rating	0.016537
Drive Trace Inertia Work Ratio Rating	1.674424
Integrated DC KW-HRS	2.285
Manufacturer Fuel Economy	30.767

Charge Depleting Bag/Phase #6

Certification Summary Information Report

Test Group	SMBXT00.0ED4	Evaporative/Refueling Family	--

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	10.259
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	1.140797
Drive Trace Energy Economy Rating	0.016537
Drive Trace Inertia Work Ratio Rating	1.674424
Integrated DC KW-HRS	3.846
Manufacturer Fuel Economy	37.49

Charge Depleting Bag/Phase #7

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	7.427
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	1.140797
Drive Trace Energy Economy Rating	0.016537
Drive Trace Inertia Work Ratio Rating	1.674424
Integrated DC KW-HRS	2.381
Manufacturer Fuel Economy	32.0661

Charge Depleting Bag/Phase #8

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	43.479
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	1.140797
Drive Trace Energy Economy Rating	0.016537
Drive Trace Inertia Work Ratio Rating	1.674424
Integrated DC KW-HRS	17.364
Manufacturer Fuel Economy	39.937

Manufacturer Test Comments --

Fuel Properties

Certification Summary Information Report

Test Group	SMBXT00.0ED4	**Evaporative/Refueling Family**	--

Consolidated List of Standards

Exhaust Standards

Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	Federal Tier 3 Bin 0
Fuel	Electricity	**Test Procedure**	CVS 75 and later (w/o 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	--	--	--	--	--	--	--	0.0

Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	Federal Tier 3 Bin 0
Fuel	Electricity	**Test Procedure**	Charge Depleting UDDS

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
120,000 miles	CREE	--	--	--	--	--	--	0	999
150,000 miles	CO	--	--	--	--	--	--	0	0.0

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	California ZEV
Fuel	Electricity	**Test Procedure**	Charge Depleting UDDS

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
120,000 miles	CREE	--	--	--	--	--	--	0	999
150,000 miles	CO	--	--	--	--	--	--	0	0.0

Certification Summary Information Report

Test Group	SMBXT00.0ED4	**Evaporative/Refueling Family**	--
Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	California ZEV
Fuel	Electricity	**Test Procedure**	Charge Depleting Highway

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
120,000 miles	CREE	--	--	--	--	--	--	0	999

Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	Federal Tier 3 Bin 0
Fuel	Electricity	**Test Procedure**	Charge Depleting Highway

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
120,000 miles	CREE	--	--	--	--	--	--	0	999

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	California ZEV
Fuel	Electricity	**Test Procedure**	CVS 75 and later (w/o 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	--	--	--	--	--	--	--	0.0

Certification Summary Information Report

Test Group	SMBXT00.0ED4	Evaporative/Refueling Family	--

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	N2O	Nitrous Oxide
CO	Carbon Monoxide	SPITBACK	Spitback Hydrocarbon in grams
CO2	Carbon dioxide	AMP-HRS	Integrated Amp-hours
CREE	Carbon-Related Exhaust Emissions	START-SOC	System Start State of Charge Watt-hours
OPT-CREE	Optional Carbon-Related Exhaust Emissions	END-SOC	System End State of Charge Watt-hours
NOX	Nitrogen Oxide	ACT-DISTANCE	Actual Distance Driven (miles)
PM	Particulate Matter	AS-VOLT	Average System Voltage
PM-COMP	SFTP Composite Particulate Matter	CO2 BAG 1	Bag 1 Carbon Dioxide
HC-NM	Non-methane Hydrocarbon	CO2 BAG 2	Bag 2 Carbon Dioxide
OMHCE	Organic material Hydrocarbon Equivalent	CO2 BAG 3	Bag 3 Carbon Dioxide
OMNMHCE	Organic material non-methane HC equivalent	CO2 BAG 4	Bag 4 Carbon Dioxide
NMOG	Non-methane organic gases	NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides
HCHO	Formaldehyde	NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides
H3C2HO	Acetaldehyde	DT-IWRR	Drive Trace Inertia Work Ratio Rating
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03	DT-ASCR	Drive Trace Absolute Speed Change Rating
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides	DT-EER	Drive Trace Energy Economy Rating
CO-COMP	SFTP Composite Carbon Monoxide	COMB-CREE	Combined Carbon-Related Exhaust Emissions
ETHANOL	C2H5OH - Ethanol	COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions
FE BAG 1	Bag 1 Fuel Economy	HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only
FE BAG 2	Bag 2 Fuel Economy	METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only
FE BAG 3	Bag 3 Fuel Economy	N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only
FE BAG 4	Bag 4 Fuel Economy	LEAK-DIA	Effective Leak Diameter (inches)
MFR FE	Manufacturer Fuel Economy	LEAK-GAS CAP	Gas Cap Leakage (cc/min)
HC	Hydrocarbon for Running Loss and ORVR	CO2-COMB	Combined Carbon Dioxide for HD 2b/3 Vehicles Only
METHANE	CH4 - Methane	KW-HRS	Integrated DC KW-HRS
METHANOL	CH3OH - Methanol		

Certification Region			
CA	California + CAA Section 177 states	FA	Federal

Exhaust Emission Standard Level			
B1	Federal Tier 2 Bin 1	L3ULEV340	California LEV-III ULEV340
B2	Federal Tier 2 Bin 2	L3ULEV250	California LEV-III ULEV250
B3	Federal Tier 2 Bin 3	L3ULEV200	California LEV-III ULEV200
B4	Federal Tier 2 Bin 4	L3SULEV170	California LEV-III SULEV170

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Test Group	SMBXT00.0ED4	**Evaporative/Refueling Family**	--
B5	Federal Tier 2 Bin 5	L3SULEV150	California LEV-III SULEV150
B6	Federal Tier 2 Bin 6	L3LEV630	California LEV-III LEV630
B7	Federal Tier 2 Bin 7	L3ULEV570	California LEV-III ULEV570
B8	Federal Tier 2 Bin 8	L3ULEV400	California LEV-III ULEV400
B9	Federal Tier 2 Bin 9	L3ULEV270	California LEV-III ULEV270
B10	Federal Tier 2 Bin 10	L3SULEV230	California LEV-III SULEV230
B11	Federal Tier 2 Bin 11	L3SULEV200	California LEV-III SULEV200
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)	T3B160	Federal Tier 3 Bin 160
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	T3B125	Federal Tier 3 Bin 125
L2	California LEV-II LEV	T3B110	Federal Tier 3 Transitional Bin 110
L2OP	California LEV-II LEV Optional	T3B85	Federal Tier 3 Transitional Bin 85
U2	California LEV-II ULEV	T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover
S2	California LEV-II SULEV	T3B70	Federal Tier 3 Bin 70
ZEV	California ZEV	T3B50	Federal Tier 3 Bin 50
OT	Other	T3B30	Federal Tier 3 Bin 30
T1	Federal Tier 1	T3B20	Federal Tier 3 Bin 20
PZEV	California PZEV	T3B0	Federal Tier 3 Bin 0
L2LEV160	California LEV-II LEV160	HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395
L2ULEV125	California LEV-II ULEV125	HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340
L2SULEV30	California LEV-II SULEV30	HDV2B250	Federal Tier 3 HD Class 2b Bin 250
L2LEV395	California LEV-II LEV395	HDV2B200	Federal Tier 3 HD Class 2b Bin 200
L2ULEV340	California LEV-II ULEV340	HDV2B170	Federal Tier 3 HD Class 2b Bin 170
L2LEV630	California LEV-II LEV630	HDV2B150	Federal Tier 3 HD Class 2b Bin 150
L2ULEV570	California LEV-II ULEV570	HDV2B0	Federal Tier 3 HD Class 2b Bin 0
L3LEV160	California LEV-III LEV160	HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630
L3ULEV125	California LEV-III ULEV125	HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570
L3ULEV70	California LEV-III ULEV70	HDV3B400	Federal Tier 3 HD Class 3 Bin 400
L3ULEV50	California LEV-III ULEV50	HDV3B270	Federal Tier 3 HD Class 3 Bin 270
L3SULEV30	California LEV-III SULEV30	HDV3B230	Federal Tier 3 HD Class 3 Bin 230
L3SULEV20	California LEV-III SULEV20	HDV3B200	Federal Tier 3 HD Class 3 Bin 200
L3LEV395	California LEV-III LEV395	HDV3B0	Federal Tier 3 HD Class 3 Bin 0

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
F	2-Wheel Drive, Front	A	All Wheel Drive

Certification Summary Information Report

Test Group	SMBXT00.0ED4	**Evaporative/Refueling Family**	--
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