

**Application for Emissions Certification**

Model Year: 2026
Test Group: TASXJ04.0AEX
Evaporative Families: TASXR0160T3A & TASXR0160T3B
Durability Group: TASXGPGNNE23
Certification Summary Information Report #'s (CSI) TASXJ04.0AEX-TASXR0160T3A (3)
TASXJ04.0AEX-TASXR0160T3B
Durability Group Description: Four Stroke, Otto Cycle
Sequential Gasoline Fuel Injection,
Pressure Charged Induction,
Catalyst Code: E23
Ceramic Monolith,
Pd/Rh Catalyst,
Test Group Description: 4.0 litre, 2WU-TWC/2TWC/2WR-
H02S/2HO2S/2TC/2CAC/DFI
Applicable Standards: 50 state - EPA T3 Bin70, CARB LEV4 ULEV 70
Car Lines Covered: 572 - DB12 V8
614 - Vantage
884 - DBX707
840 - DBX S
547 - DB12 S

Vehicles Tested:	EDV	Config	Test	VERIFY Test Number
Exhaust	5723PT5601	00	FTP	RASX10082324
			HWFET	RASX10082327
			Cold CO	RASX10082335
			SC03	RASX10082336
			US06 - 2 bag	RASX10082328
			50F	RASX10082329

EPA Response Requested By: Nov 29, 2025

For questions, Contact: Sean Giffels (501) 454 1800

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1. Correspondence and Communications

1.1. Authorized Persons

1.1.1. Persons situated in the United States and authorized to communicate with EPA and CARB

Name	First Name	Area of responsibility	Phone Number	E-Mail
Giffels	Sean	Product Planning Executive	(501) 454 1800	sean.giffels@astonmartin.com

The preceding representative can be reached under:

Aston Martin North America
Product Planning
11 West 42nd Street, 22nd Floor
New York, NY10036
USA

Fax-No.: (949) 379 3140

1.1.2. Generic email Address

Email address for transmitting information relevant to the Application and for delivering electronic certificates.

amlcerts@astonmartin.com



ASTON MARTIN

Application for Certification

TASXJ04.0AEX

Section 1

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V8 Group

Part 1

Issued: 11/13/2025

1.1.3. Persons situated in the manufacturers home office and authorized to communicate with EPA and CARB

Name	First Name	Area of responsibility	Phone Number	E-Mail
Naughton	Simon	Head of Legislation & Certification	00 44 1926 644090	simon.naughton@astonmartin.com
Gillibrand	Karl	Manager Powertrain Certification	00 44 1926 644159	karl.gillibrand@astonmartin.com
Yarrow	Jon	Technical Specialist Powertrain Certification.	00 44 1926 644192	jon.yarrow@astonmartin.com
Johnson	Philip	Project Engineer Legislation & Certification.	00 44 1926 644159	philip.johnson@astonmartin.com
Ames	Peter	Project Engineer Legislation & Certification.	00 44 1926 644051	peter.ames@astonmartin.com

The preceding representatives can be reached under:

Aston Martin Lagonda Ltd
Legislation & Certification Dept
Banbury Road, Gaydon
Warwick CV35 0DB
U.K.

Fax-No. 00 44 1926 644001

**1.2. Certificate Information****1.2.1. Corporate Name and Address that should appear on the Certificate of Conformity and on the Executive Order**

Aston Martin Lagonda Ltd
Banbury Road, Gaydon
Warwick
CV35 0DB
U.K.

1.2.2. Name and Address of the person to whom the Certificate and the Executive Order should be mailed

Aston Martin Lagonda Ltd
Legislation & Certification Dept
Banbury Road, Gaydon
Warwick CV35 0DB
U.K.

Electronic certificates can be e-mailed to: amlcerts@astonmartin.com

1.3. Primary Certification Contact:

Primary Certification Contact See Section 1.1.1.



2. Durability Group Description

2.1.	Durability Group Name	TASXGPGNNE23
2.2.	Combustion Cycle	Four stroke, Otto cycle, piston
2.3.	Engine Type	V8 Turbocharged
2.4.	Fuel	Gasoline
2.5.	Basic Fuel Metering System	Direct fuel injection
2.6.	Catalyst Construction	Ceramic Primary and secondary catalysts
2.7.	Precious Metals in Catalyst	Palladium and Rhodium 3-Way
2.8.	Range of Catalyst Grouping Statistic	4.3g/litre (determined from grouping statistic equation).



3. Evaporative/Refueling Family Description

3.1. Evaporative/Refueling Family TASXR0160T3A & TASXR0160T3B

3.2. Evaporative/Refueling Family Parameters specified in 40 CFR § 86.1821-01:

3.2.1.	Type of vapor storage device	Canister
3.2.2.	Canister Parameters:	
	Basic canister design	Oval cylinder, capped end plates
	Working capacity	160 g
	System configuration	Single canister
	Canister geometry, construction and materials	Oval cylinder, partition type, bleed control function, nylon body, molded ports with multi o-ring quickfit connections to vapor lines
3.2.3.	Fuel system	Non-return type
3.2.4.	Type of refueling emission control system	Integrated with the evaporative control system
3.2.5.	Fill pipe seal mechanism	Liquid seal
3.2.6.	Vapor control system	Open system with fill limit vent valve, rollover valves and vent lines internal to the fuel tank
3.2.7.	Purge control system	Twin PWM control purge valves with feedback
3.2.8.	Vapor hose material	Nylon multi-layer with PVDF barrier
3.2.9.	Fuel tank material	Stainless Steel

**3.3. ORVR Statement**

Refuelling family reviewed by EPA / NHTSA

Date of EPA/NHTSA Submittal	Date of EPA/NHTSA Approval	Refuelling Family	Vehicle Models	Model Year
08/11/2004	08/17/2004	5ASXR0160803	DB9	2005

To be certified for Model Year 2026:

Date of EPA Part 1 Submittal	Evaporative/Refuelling Family	Respective ORVR
11/13/2025	TASXR0160T3A & TASXR0160T3B	DB12/DBX/Vantage

We herewith certify, that compared with the reviewed certification of the refuelling family mentioned above, there are no changes regarding the refuelling emission system design on DB12 that require a new or significantly revised Refuelling family to be created.

The evaporative/refuelling family to be certified for model year 2025 includes the use of EPA assigned deterioration factors (DFs) as published in CD 2023-01 and as advised the use of these factors for Tier 3 certifications.

There have been no in-use problems or defects related to Aston Martin ORVR systems that required action by Aston Martin Lagonda Ltd.

There have been no service notifications, campaigns, instructions or bulletins to dealers or field personal or changes in production procedures or components. No safety-related defect campaigns have been conducted related to the Aston Martin ORVR systems.

This information covers all required items of both VPCD-98-15 and CCD-00-10.



4. Durability Procedure Description

4.1. Description of Durability process used:

4.1.1. Durability Program for Exhaust Emissions: Not applicable - use of EPA assigned DFs from 2022MY onward

4.1.2. Durability Program for Evaporative/Refueling Emissions: Not applicable - use of EPA assigned DFs from 2022MY onward

4.2. Deterioration Factors

4.2.1. Exhaust Emissions: EPA assigned additive deterioration factors.

For deterioration factors refer to the confidential information in Section 16 and to the Summary Sheet enclosed in Section 7 of this application.

4.2.2. Evaporative/Refueling Emissions: EPA assigned deterioration factors.

- as shown in CD-2023-01.

**5. Test Group Description**

- | | |
|--|---|
| 5.1. Test Group Name | TASXJ04.0AEX |
| 5.2. Certification Summary Information Report # (CSI) | TASXJ04.0AEX-TASXR0160T3A (3)
TASXJ04.0AEX-TASXR0160T3B |
| 5.3. Engine Displacement | 3982cm ³ (239 in. ³). |
| 5.4. Arrangement and number of cylinders: | |
| 5.4.1. Arrangement of cylinders | V - Configuration |
| 5.4.2. Number of cylinders | 8 |
| 5.5. Emission Standards | |
| 5.5.1. Vehicle class covered | EPA - LDV & LDT4
California and green states - PC & LDT3 |
| 5.5.2. Emission Standards class | EPA assigned deterioration factors. |
| 5.5.3. EVAP Emissions Standards Class | Tier 3/LEV 4 |
| 5.5.4. Applicable Emission Standards | Refer to the CSI in Section 7 and section 17.7 |



6. Test Vehicle Description

6.1. Test Vehicles

Line No.	EDV/FEDV	Config No.	Engine Displ (cm ³)	Emission Control System	Engine Code	Trans	ETW	Axle Ratio	Remarks
1	5723PT5601	00	3982	2WU-TWC/2TWC/2WR-H02S/2HO2S/2TC/2CAC/DFI	177850	A8	4500	3.08	EDV – FTP, HWFET, Cold CO, US06, SC03 and 50F FEDV -FTP & HWFET (Tier 2 fuel)
2	564TT5477	00	3982	2WU-TWC/2TWC/2WR-H02S/2HO2S/2TC/2CAC/DFI	177950	A8	4500	2.7	EDV - ORVR and 3DD Evap
3	8001PT8342	00	3982	2WU-TWC/2TWC/2WR-H02S/2HO2S/2TC/2CAC/DFI	177950	A9	5500	3.06	EDV - ORVR, 2DD and 3DD Evap
4	8841PT8473	00	3982	2WU-TWC/2TWC/2WR-H02S/2HO2S/2TC/2CAC/DFI	177950	A9	5500	3.27	FEDV - FTP & HWFET (Tier 2 fuel)
5	6122PT6433	00	3982	2WU-TWC/2TWC/2WR-H02S/2HO2S/2TC/2CAC/DFI	177850	A8	4250	3.08	FEDV - FTP & HWFET (Tier 2 fuel)
6	840TT8650	00	3982	2WU-TWC/2TWC/2WR-H02S/2HO2S/2TC/2CAC/DFI	177950	A9	5500	3.27	FEDV - FTP & HWFET (Tier 2 fuel)
7	547TT5632	00	3982	2WU-TWC/2TWC/2WR-H02S/2HO2S/2TC/2CAC/DFI	177850	A8	4500	3.08	FEDV - FTP & HWFET (Tier 2 fuel)



6.2. EDV Selection

5723PT5601

All the vehicle configurations certified are covered by data from the above EDV(s)

6.3. VERIFY Test Numbers:

EDV No.	Type of Test	VERIFY Test No.
5723PT5601	FTP	RASX10082324
	HWFET	RASX10082327
	COLD CO (20F)	RASX10082335
	SC03	RASX10082336
	US06 - 2 bag test	RASX10082328
	50F	RASX10082329
564TT5477	2 Day Evap	statement
	3 Day Evap	NASX10082352
	ORVR	NASX10071584
8001PT8342	2 Day Evap	MASX10065539
	3 Day Evap	MASX10065541
	ORVR	MASX10065519
Common	Bleed Emissions	MASX10071437



7. Certification Summary Information Reports

For requested information refer to the attached CSI Sheets processed by EVCIS:

Enclosure No.	CSI Report #	Date
1	TASXJ04.0AEX-TASXR0160T3A (3) TASXJ04.0AEX-TASXR0160T3B	11/13/2025

CSI reports are appended following this page:

Certification Summary Information Report

Manufacturer	Aston Martin Lagonda	Manufacturer Code	ASX
Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A
Certificate Number	--	CARB Executive Order #	--
Certificate Issue Date	--	Certificate Revision Date	--
Certificate Effective Date	--	Conditional Certificate	--
CSI Revision #	--	CSI Submission/Revision Date	11/13/2025 10:41:20 AM
Model Year	2026		

Test Group Information

CSI Type	Running Change	Running Change Reference Number	002
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	Spark Ignition Direct fuel injection	No

Hybrid Indicator	No		
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	No
Multiple Fuel Combustion	--	Off-board Charge Capable Indicator	--
Fuel Cell Indicator	No	EPA Vehicle Class	LDV
Federal Clean Fuel Vehicle	Yes	Federal Clean Fuel Vehicle Standard	ULEV
Federal Clean Fuel Vehicle ILEV	No	California Partial Zero Emissions Vehicle Indicator	No
Durability Group Name	TASXGPGNNE23	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	07/20/2025	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	--
SFTP LEV-III Composite Compliance Indicator	Yes		
OBD Compliance Type	CARB	OBD Demonstration Vehicle Test Group	TASXJ04.0AEX
Test Group OBD Compliance Level	Partial - with deficiencies	Number of Test Group OBD Deficiencies	1
OBD Deficiencies Comments	Misfire monitor deficiency - desensitization of the monitor to avoid false MIL - LDV only		
Mfr Test Group Comments	--		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A				
Evaporative/Refueling Family Information							
Evaporative Summary Information Type	New	Submission/Correction Date	01/21/2025 09:24:16 AM				
Integrated ORVR?	Yes	Fuel(s)	Gasoline				
Multiple Fuel Storage	--						
Bladder Fuel Tank?	No						
Fuel Tank Material	Metal	Fuel Tank Material Description	Stainless Steel				
Fill Pipe Seal Type	Liquid seal						
Air Intake System Vapor Storage Device?	No	Air Intake System Vapor Storage Device Description	--				
Fuel System Vapor Storage Canister?	Yes	Other Vapor Storage	--				
Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)	160	Number of Primary Canisters	1				
Number of Bleed Canisters	0	Bleed Canister Total Working Capacity (grams)	--				
Mfr Evaporative/Refueling Family Comments	LDV/PC Evap Family only						
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	Common AML BETP data						
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				
TASXR0160T3A-001	50 State	0.02	Common AML Leak Family				
Models Covered by this Certificate							
Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
Aston Martin Lagonda	1 - Aston Martin Lagonda Ltd	547 - DB12 S	California + CAA Section 177 states	2-Wheel Drive, Rear	Automatic	8	Yes
Aston Martin Lagonda	1 - Aston Martin Lagonda Ltd	572 - DB12 V8	California + CAA Section 177 states	2-Wheel Drive, Rear	Automatic	8	Yes
Aston Martin Lagonda	1 - Aston Martin Lagonda Ltd	614 - Vantage	Federal	2-Wheel Drive, Rear	Automatic	8	Yes
Aston Martin Lagonda	1 - Aston Martin Lagonda Ltd	547 - DB12 S	Federal	2-Wheel Drive, Rear	Automatic	8	Yes
Aston Martin Lagonda	1 - Aston Martin Lagonda Ltd	614 - Vantage	California + CAA Section 177 states	2-Wheel Drive, Rear	Automatic	8	Yes
Aston Martin Lagonda	1 - Aston Martin Lagonda Ltd	572 - DB12 V8	Federal	2-Wheel Drive, Rear	Automatic	8	Yes

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A		
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	0W40		
Number of Cylinders/Rotors	8	Mechanically Variable Compression Ratio Indicator	N		
After Treatment Device(s) (ATD)					
ATD Number	ATD Type	ATD Precious Metal	Substrate Material	Substrate Construction	
1	Three-way catalyst	Palladium + Rhodium	Ceramic	Monolith	
2	Three-way catalyst	Palladium + Rhodium	Ceramic	Monolith	
3	Three-way catalyst	Palladium + Rhodium	Ceramic	Monolith	
4	Three-way catalyst	Palladium + Rhodium	Ceramic	Monolith	
Mfr After Treatment Device (ATD) Comments					
Warm up primary element per bank plus an underfloor mounted secondary element per bank.					
Direct Ozone Reduction (DOR) Device					
Not Equipped					
Mfr Emission Control Device Comments					
--					

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A
Engine Configuration Number 1			
Engine Displacement (liters)	4.0	Engine Rated Horsepower	680
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	2
Air Aspiration Device Configuration	Parallel	Charge Air Cooler Type	Liquid
Air Aspiration Drive Method(s)	Hydraulic		
Cylinder Deactivation	No		
Cylinder Deactivation Description	--		
Variable Valve Timing	Yes		
Variable Valve Timing System Description	Inlet and Exhaust Cam Phasing		
Variable Valve Lift?	No		
Variable Valve Lift System Description	--		
Number of Knock Sensors	4	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	No	Cooled Exhaust Gas Recirculation	No
EGR Type	--	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	DB12 V8 & Vantage S Power Spec		

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A
Engine Configuration Number 2			
Engine Displacement (liters)	4.0	Engine Rated Horsepower	707
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	2
Air Aspiration Device Configuration	Parallel	Charge Air Cooler Type	Liquid
Air Aspiration Drive Method(s)	Hydraulic		
Cylinder Deactivation	Yes		
Cylinder Deactivation Description	Individual cylinder de-activation based on torque demand		
Variable Valve Timing	Yes		
Variable Valve Timing System Description	Inlet and Exhaust Cam Phasing		
Variable Valve Lift?	No		
Variable Valve Lift System Description	--		
Number of Knock Sensors	4	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	No	Cooled Exhaust Gas Recirculation	No
EGR Type	--	Exhaust Gas Recirculation Description if 'Other'	--
Closed Loop Air Injection System	No		
Air Injection Type	--	Air Injection Type if 'Other'	--
Mfr Engine Configuration Comments	DBX707 Power Spec		

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A
Engine Configuration Number 3			
Engine Displacement (liters)	4.0	Engine Rated Horsepower	665
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	2
Air Aspiration Device Configuration	Parallel	Charge Air Cooler Type	Liquid
Air Aspiration Drive Method(s)	Hydraulic		
Cylinder Deactivation	No		
Cylinder Deactivation Description	--		
Variable Valve Timing	Yes		
Variable Valve Timing System Description	Inlet and exhaust cam phasing		
Variable Valve Lift?	No		
Variable Valve Lift System Description	--		
Number of Knock Sensors	4	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	No	Cooled Exhaust Gas Recirculation	No
EGR Type	--	Exhaust Gas Recirculation Description if 'Other'	--
Closed Loop Air Injection System	No		
Air Injection Type	--	Air Injection Type if 'Other'	--
Mfr Engine Configuration Comments	Vantage Power Spec		

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A
Engine Configuration Number 4			
Engine Displacement (liters)	4.0	Engine Rated Horsepower	727
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	2
Air Aspiration Device Configuration	Parallel	Charge Air Cooler Type	Liquid
Air Aspiration Drive Method(s)	Hydraulic		
Cylinder Deactivation	Yes		
Cylinder Deactivation Description	Individual cylinder de-activation based on torque demand		
Variable Valve Timing	Yes		
Variable Valve Timing System Description	Inlet and Exhaust Cam Phasing		
Variable Valve Lift?	No		
Variable Valve Lift System Description	--		
Number of Knock Sensors	4	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	No	Cooled Exhaust Gas Recirculation	No
EGR Type	--	Exhaust Gas Recirculation Description if 'Other'	--
Closed Loop Air Injection System	No		
Air Injection Type	--	Air Injection Type if 'Other'	--
Mfr Engine Configuration Comments	DBX S power Spec		

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A								
Engine Configuration Number 5											
Engine Displacement (liters)	4.0	Engine Rated Horsepower	700								
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2								
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	2								
Air Aspiration Device Configuration	Parallel	Charge Air Cooler Type	Liquid								
Air Aspiration Drive Method(s)	Hydraulic										
Cylinder Deactivation	No										
Cylinder Deactivation Description	--										
Variable Valve Timing	Yes										
Variable Valve Timing System Description	Inlet and exhaust cam phasing										
Variable Valve Lift?	No										
Variable Valve Lift System Description	--										
Number of Knock Sensors	4	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	No	Cooled Exhaust Gas Recirculation	No								
EGR Type	--	Exhaust Gas Recirculation Description if 'Other'	--								
Closed Loop Air Injection System	No										
Air Injection Type	--	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	RASX10082324	RASX10082328	RASX10082336	RASX10082335	RASX10082327	16.1	228.2	31.0	286.1	--	
SFTP LEV-III Official Test Numbers											
Test Group	Fuel	FTP	US06	SC03							
Gasoline	RASX10082324	RASX10082328	RASX10082336	RASX10082335							

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A						
Emission Data Vehicle Information									
Vehicle ID / Configuration	564TT5477 / 0	Manufacturer Vehicle Configuration Number	0						
Original Test Group Name	NASXV04.0AES	Original Evaporative/Refueling Family	NASXR0160T3A						
Original Test Vehicle Model Year	2022								
Vehicle Model									
Represented Test Vehicle Make	Aston Martin	Represented Test Vehicle Model	DB11 V8						
Leak Family Details									
Leak Family Identifier	001	Leak Family Name	NASXR0160T3A-001						
Drive Sources and Fuel System Details									
	<table border="1"> <tr> <th>Drive Source and Fuel#</th><th>Drive Source</th><th>Fuel</th></tr> <tr> <td>1</td><td>Combustion Engine</td><td>Gasoline</td></tr> </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 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	0.9999						
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor								
Odometer Correction Units	Miles								
Engine Code	177950	Rated Horsepower	535						
Displacement (liters)	4								
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'							
Number of Air Aspiration Devices	2	Air Aspiration Device Configuration	Parallel						
Charge Air Cooler Type	Liquid	Drive Mode While Testing	2-Wheel Drive, Rear						
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)						
Curb Weight (lbs)	3891	Equivalent Test Weight (pounds)	4500						
GVWR (lbs)	--	N/V Ratio	22.2						
Axle Ratio	2.7								
Transmission Type	Semi-Automatic	# of Transmission Gears	8						
Transmission Lockup	Yes	Creep Gear	No						

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A
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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	40.94	0.0169	0.0271	11.26	0.0919	0.0251	14.6
Cold CO	45.51	0.0188	0.0301	15.8	0.0937	0.0281	N/A
US06	40.94	0.0169	0.0271	11.26	0.0919	0.0251	N/A

Emission Control Device Comments --

Manufacturer Test Vehicle Comments 2022MY DB11 V8 Coupe 8 speed auto

Test #	NASX10082352	Test Procedure	34 - Federal fuel 3-day evap
Exhaust Test # for this Evap Test	NASX10082350	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	06/29/2022	Fuel	Gasoline
Fuel Batch ID	43987	Fuel Calibration Number	4216
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	IDIADA Automotive Technology SA		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4369	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	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.245	--

Manufacturer Test Comments Common PC Evap 3DD Update for 24MY

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	0.2450	0.0021	0.247	0.275	Pass
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.2450	0.0021	0.247	0.275	Pass

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A						
Test #	NASX10071584	Test Procedure	24 - Federal fuel refueling test (ORVR)						
Exhaust Test # for this Evap Test	NASX10071583	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)						
Test Date	05/13/2021	Fuel	Gasoline						
Fuel Batch ID	38321	Fuel Calibration Number	2255						
Vehicle Class	N/A	DF Type	EPA Assigned						
Verify Test Lab ID	IDIADA Automotive Technology SA								
E10 Evaporative Test Measurement Method	--								
Test Start Odometer Reading	4095	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	Yes						
Test Results									
<table border="1"> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> <tr> <td>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</td> <td>0.106</td> <td>--</td> </tr> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.106	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)							
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.106	--							
Manufacturer Test Comments									
2022MY T3A Common ORVR									
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	0.11	0.006	0.1	0.2	Pass	
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.11	0.006	0.1	0.2	Pass	

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A
Test #	NASX10082351	Test Procedure	32 - Federal Fuel Running Loss
Exhaust Test # for this Evap Test	NASX10082350	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	06/29/2022	Fuel	Gasoline
Fuel Batch ID	43987	Fuel Calibration Number	4216
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	IDIADA Automotive Technology SA		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4369	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	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.001	--

Manufacturer Test Comments

Common PC Evap RLS Update for 24MY

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	0.001	0	0.00	0.05	Pass
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.001	0	0.00	0.05	Pass

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A						
Emission Data Vehicle Information									
Vehicle ID / Configuration	5723PT5601 / 0	Manufacturer Vehicle Configuration Number	0						
Original Test Group Name	RASXV04.0AES	Original Evaporative/Refueling Family	RASXR0160T3A						
Original Test Vehicle Model Year	2024								
Vehicle Model									
Represented Test Vehicle Make	Aston Martin	Represented Test Vehicle Model	DB12 V8						
Leak Family Details									
Leak Family Identifier	001	Leak Family Name	RASXR0160T3A-001						
Drive Sources and Fuel System Details									
	<table border="1"> <tr> <th>Drive Source and Fuel#</th><th>Drive Source</th><th>Fuel</th></tr> <tr> <td>1</td><td>Combustion Engine</td><td>Gasoline</td></tr> </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 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	0.9999						
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor								
Odometer Correction Units	Miles								
Engine Code	177850	Rated Horsepower	680						
Displacement (liters)	4								
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'							
Number of Air Aspiration Devices	2	Air Aspiration Device Configuration	Parallel						
Charge Air Cooler Type	Liquid	Drive Mode While Testing	2-Wheel Drive, Rear						
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)						
Curb Weight (lbs)	4024	Equivalent Test Weight (pounds)	4500						
GVWR (lbs)	--	N/V Ratio	24.8						
Axle Ratio	3.08								
Transmission Type	Automatic	# of Transmission Gears	8						
Transmission Lockup	Yes	Creep Gear	No						

Certification Summary Information Report

Test Group		TASXJ04.0AEX			Evaporative/Refueling Family		TASXR0160T3A	
Dynamometer Coefficients:								
Target Coefficients				Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients	
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)		
City/Highway/Evap	53.24	0.2228	0.0221	5.67	0.0083	0.0221	16	
Cold CO	58.56	0.2451	0.0243	7.89	0.1957	0.0196	N/A	
US06	53.24	0.2228	0.0221	5.67	0.0083	0.0221	N/A	
Emission Control Device Comments		--						
Manufacturer Test Vehicle Comments		2024MY DB12 V8 Coupe 8 speed auto						

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A
Test #	RASX10082324	Test Procedure	21 - Federal fuel 2-day exhaust (w/can load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	07/26/2023	Fuel	Gasoline
Fuel Batch ID	43987	Fuel Calibration Number	8394
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	IDIADA Automotive Technology SA		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4267	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	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	527.833	--
FE BAG 1 (Bag 1 Fuel Economy)	16.4993	16.4993
CO2 BAG 2 (Bag 2 Carbon Dioxide)	565.283	--
FE BAG 2 (Bag 2 Fuel Economy)	15.4886	15.4886
CO2 BAG 3 (Bag 3 Carbon Dioxide)	418.11	--
FE BAG 3 (Bag 3 Fuel Economy)	20.9211	20.9211
METHANE (CH4 - Methane)	0.008	--
CO (Carbon Monoxide)	0.503	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.34	--
DT-EER (Drive Trace Energy Economy Rating)	0.11	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.46	--
HCHO (Formaldehyde)	0.0009	--
MFR FE (Manufacturer Fuel Economy)	16.908	16.908
NOX (Nitrogen Oxide)	0.009	--
N2O (Nitrous Oxide)	0.003	--
HC-NM (Non-methane Hydrocarbon)	0.018	--
NMOG (Non-methane organic gases)	0.0195	--
PM (Particulate Matter)	0.001	--
HC-TOTAL (Total Hydrocarbon)	0.0248	--

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A						
	<table><tr><td>Test Result Name</td><td>Unrounded Test Result</td><td>Verify Calculated CREE/OPT-CREE</td></tr><tr><td>Carbon-Related Exhaust Emissions</td><td>517.14</td><td>999</td></tr></table>	Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE	Carbon-Related Exhaust Emissions	517.14	999		
Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE							
Carbon-Related Exhaust Emissions	517.14	999							
	<table><tr><td>Test Result Name</td><td>Unrounded Test Result</td><td>Verify Calculated CO2</td></tr><tr><td>Carbon dioxide</td><td>517.14</td><td>--</td></tr></table>	Test Result Name	Unrounded Test Result	Verify Calculated CO2	Carbon dioxide	517.14	--		
Test Result Name	Unrounded Test Result	Verify Calculated CO2							
Carbon dioxide	517.14	--							
Manufacturer Test Comments	2024MY DB12 V8 EDV								

Certification Summary Information Report

Test Group		TASXJ04.0AEX			Evaporative/Refueling Family					TASXR0160T3A		
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 Bin 70	CO	0.50	--	--	--	0.24	--	0.7	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	CO-COMP	0.58	--	--	--	0	--	0.6	4.2	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	CREE	999	--	--	--	0.000	--	999	--	--
Fed	150,000 miles	Federal Tier 3 Bin 70	HCHO	0.0009	--	--	--	0.0003	--	0.001	0.004	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	METHANE	0.008	--	--	--	0.000	--	0.01	0.03	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	N2O	0.003	--	--	--	0.007	--	0.01	0.01	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG	0.0195	1	1.10	--	0.0098	--	0.029	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX	0.0285	--	1.10	--	--	--	0.045	0.070	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX-COMP	0.0423	--	1.10	--	0	--	0.042	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NOX	0.0090	--	--	--	0.007	--	0.016	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	PM	0.0010	--	--	--	0	--	0.001	0.003	Pass
CA	150,000 miles	California LEV-IV ULEV70	CO	0.50	--	--	--	0.24	--	0.7	1.7	Pass
CA	150,000 miles	California LEV-IV ULEV70	CREE	999	--	--	--	0.000	--	999	--	--
CA	150,000 miles	California LEV-IV ULEV70	HCHO	0.0009	--	--	--	0.0003	--	0.001	0.004	Pass
CA	150,000 miles	California LEV-IV ULEV70	METHANE	0.008	--	--	--	0.000	--	0.01	0.03	Pass
CA	150,000 miles	California LEV-IV ULEV70	N2O	0.003	--	--	--	0.007	--	0.01	0.01	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG	0.0195	1	1.10	--	0.0098	--	0.029	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG+NOX	0.0285	--	1.10	--	--	--	0.045	0.070	Pass
CA	150,000 miles	California LEV-IV ULEV70	NOX	0.0090	--	--	--	0.007	--	0.016	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	PM	0.0010	--	--	--	0	--	0.001	0.003	Pass

NOTE: For Non-charge depleting tests, the Rounded Result for CREE/OPT-CREE Emission names are Verify-calculated values.

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A
Test #	RASX10082329	Test Procedure	51 - CA fuel 50 Deg(F) exhaust test
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/16/2023	Fuel	Gasoline
Fuel Batch ID	59318	Fuel Calibration Number	3658
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Mahle Powertrain		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4493	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	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0.62	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-2.7	--
DT-EER (Drive Trace Energy Economy Rating)	-0.189	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-3.79	--
HCHO (Formaldehyde)	0.0002	--
MFR FE (Manufacturer Fuel Economy)	16.4971	16.4971
NOX (Nitrogen Oxide)	0.014	--
NMOG (Non-methane organic gases)	0.0321	--
PM (Particulate Matter)	0.005	--
HC-TOTAL (Total Hydrocarbon)	0.0402	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	499.31	--

Manufacturer Test Comments 2024MY DB12 V8 EDV

Certification Summary Information Report

Test Group		TASXJ04.0AEX				Evaporative/Refueling Family				TASXR0160T3A		
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	50,000 miles	California LEV-IV ULEV70	CO	0.62	--	--	--	0	--	0.6	1.7	Pass
CA	50,000 miles	California LEV-IV ULEV70	HCHO	0.0002	--	--	--	0	--	0.000	0.016	Pass
CA	50,000 miles	California LEV-IV ULEV70	NMOG	0.0321	--	--	--	0	--	0.032	999.999	Pass
CA	50,000 miles	California LEV-IV ULEV70	NMOG+NOX	0.0461	1	1.10	--	--	--	0.05	0.14	Pass
CA	50,000 miles	California LEV-IV ULEV70	NOX	0.0140	--	--	--	0	--	0.014	999.999	Pass

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A
Test #	RASX10082335	Test Procedure	11 - Cold CO
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/18/2023	Fuel	Gasoline
Fuel Batch ID	59318	Fuel Calibration Number	3658
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Mahle Powertrain		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4545	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	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	637.23	--
FE BAG 1 (Bag 1 Fuel Economy)	13.1343	13.1343
CO2 BAG 2 (Bag 2 Carbon Dioxide)	625.7	--
FE BAG 2 (Bag 2 Fuel Economy)	13.4639	13.4639
CO2 BAG 3 (Bag 3 Carbon Dioxide)	490.25	--
FE BAG 3 (Bag 3 Fuel Economy)	17.1305	17.1305
CO (Carbon Monoxide)	1.11	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-5.16	--
DT-EER (Drive Trace Energy Economy Rating)	-3.04	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-7.11	--
MFR FE (Manufacturer Fuel Economy)	14.2275	14.2275
NOX (Nitrogen Oxide)	0.025	--
HC-NM (Non-methane Hydrocarbon)	0.1	--
HC-TOTAL (Total Hydrocarbon)	0.1298	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	585.39	--

Manufacturer Test Comments

2024MY DB12 V8 EDV

Certification Summary Information Report

Test Group		TASXJ04.0AEX				Evaporative/Refueling Family				TASXR0160T3A		
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	50,000 miles	Federal Tier 3 Bin 70	CO	1.1	--	--	--	0	--	1	10	Pass
Fed	50,000 miles	Federal Tier 3 Bin 70	HC-NM	0.10	--	--	--	0.000	--	0.1	0.3	Pass
CA	50,000 miles	California LEV-IV ULEV70	CO	1.1	--	--	--	0	--	1	10	Pass
CA	50,000 miles	California LEV-IV ULEV70	HC-NM	0.10	--	--	--	0.000	--	0.1	0.3	Pass

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A																											
Test #	RASX10082327	Test Procedure	3 - HWFE																											
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)																											
Test Date	07/25/2023	Fuel	Gasoline																											
Fuel Batch ID	43987	Fuel Calibration Number	8394																											
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned																											
Verify Test Lab ID	IDIADA Automotive Technology SA																													
E10 Evaporative Test Measurement Method	--																													
Test Start Odometer Reading	4219	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	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>CO (Carbon Monoxide)</td> <td>0.02</td> <td>--</td> </tr> <tr> <td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td> <td>0.48</td> <td>--</td> </tr> <tr> <td>DT-EER (Drive Trace Energy Economy Rating)</td> <td>-0.05</td> <td>--</td> </tr> <tr> <td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td> <td>0.88</td> <td>--</td> </tr> <tr> <td>MFR FE (Manufacturer Fuel Economy)</td> <td>30.7813</td> <td>30.7813</td> </tr> <tr> <td>NOX (Nitrogen Oxide)</td> <td>0.007</td> <td>--</td> </tr> <tr> <td>NMOG (Non-methane organic gases)</td> <td>0.0004</td> <td>--</td> </tr> <tr> <td>HC-TOTAL (Total Hydrocarbon)</td> <td>0.0006</td> <td>--</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	CO (Carbon Monoxide)	0.02	--	DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.48	--	DT-EER (Drive Trace Energy Economy Rating)	-0.05	--	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.88	--	MFR FE (Manufacturer Fuel Economy)	30.7813	30.7813	NOX (Nitrogen Oxide)	0.007	--	NMOG (Non-methane organic gases)	0.0004	--	HC-TOTAL (Total Hydrocarbon)	0.0006	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)																												
CO (Carbon Monoxide)	0.02	--																												
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.48	--																												
DT-EER (Drive Trace Energy Economy Rating)	-0.05	--																												
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.88	--																												
MFR FE (Manufacturer Fuel Economy)	30.7813	30.7813																												
NOX (Nitrogen Oxide)	0.007	--																												
NMOG (Non-methane organic gases)	0.0004	--																												
HC-TOTAL (Total Hydrocarbon)	0.0006	--																												
<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>284.509</td> <td>999</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE	Carbon-Related Exhaust Emissions	284.509	999																					
Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE																												
Carbon-Related Exhaust Emissions	284.509	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>284.509</td> <td>--</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated CO2	Carbon dioxide	284.509	--																					
Test Result Name	Unrounded Test Result	Verify Calculated CO2																												
Carbon dioxide	284.509	--																												
Manufacturer Test Comments	2024MY DB12 V8 EDV																													

Certification Summary Information Report

Test Group		TASXJ04.0AEX				Evaporative/Refueling Family				TASXR0160T3A		
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 Bin 70	CREE	999	--	--	--	0.00	--	999	--	--
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG	0.0004	--	1.10	--	0.0098	--	0.010	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX	0.0074	--	1.10	--	--	--	0.024	0.070	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NOX	0.0070	--	--	--	0.007	--	0.014	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	CREE	999	--	--	--	0.00	--	999	--	--
CA	150,000 miles	California LEV-IV ULEV70	NMOG	0.0004	--	1.10	--	0.0098	--	0.010	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG+NOX	0.0074	--	1.10	--	--	--	0.024	0.070	Pass
CA	150,000 miles	California LEV-IV ULEV70	NOX	0.0070	--	--	--	0.007	--	0.014	999.999	Pass

NOTE: For Non-charge depleting tests, the Rounded Result for CREE/OPT-CREE Emission names are Verify-calculated values.

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A
Test #	RASX10082328	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	07/25/2023	Fuel	Gasoline
Fuel Batch ID	43987	Fuel Calibration Number	8394
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	IDIADA Automotive Technology SA		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4241	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	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	629.274	--
FE BAG 1 (Bag 1 Fuel Economy)	13.92	13.92
CO2 BAG 2 (Bag 2 Carbon Dioxide)	346.895	--
FE BAG 2 (Bag 2 Fuel Economy)	25.23	25.23
CO (Carbon Monoxide)	0.14	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.7	--
DT-EER (Drive Trace Energy Economy Rating)	-0.88	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.01	--
MFR FE (Manufacturer Fuel Economy)	21.36	21.36
NOX (Nitrogen Oxide)	0.02	--
HC-NM (Non-methane Hydrocarbon)	0.001	--
NMOG (Non-methane organic gases)	0.001	--
PM (Particulate Matter)	0.005	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.021	--
HC-TOTAL (Total Hydrocarbon)	0.0023	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	409.874	--

Manufacturer Test Comments

2024MY DB12 V8 EDV

Certification Summary Information Report

Test Group		TASXJ04.0AEX				Evaporative/Refueling Family				TASXR0160T3A		
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	California LEV-IV ULEV70	CO	0.14	--	--	--	0.24	--	0.4	9.6	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG	0.0010	--	1.03	--	0.0098	--	0.011	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG+NOX	0.0210	--	1.03	--	--	--	0.038	0.084	Pass
CA	150,000 miles	California LEV-IV ULEV70	NOX	0.0200	--	--	--	0.0070	--	0.027	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	PM	0.0050	--	--	--	0	--	0.005	0.006	Pass

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A
Test #	RASX10082336	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/22/2023	Fuel	Gasoline
Fuel Batch ID	59318	Fuel Calibration Number	3658
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Mahle Powertrain		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4604	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	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0.35	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-2.61	--
DT-EER (Drive Trace Energy Economy Rating)	-1.17	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-2.48	--
MFR FE (Manufacturer Fuel Economy)	17.2288	17.2288
NOX (Nitrogen Oxide)	0.024	--
HC-NM (Non-methane Hydrocarbon)	0.0018	--
NMOG (Non-methane organic gases)	0.002	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.0258	--
HC-TOTAL (Total Hydrocarbon)	0.0137	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	488.62	--

Manufacturer Test Comments

2024MY DB12 V8 EDV

Certification Summary Information Report

Test Group		TASXJ04.0AEX				Evaporative/Refueling Family				TASXR0160T3A		
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	California LEV-IV ULEV70	CO	0.35	--	--	--	0.24	--	0.6	3.2	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG	0.0020	--	1.03	--	0.0098	--	0.012	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG+NOX	0.0260	--	1.03	--	--	--	0.04	0.07	Pass
CA	150,000 miles	California LEV-IV ULEV70	NOX	0.0240	--	--	--	0.0070	--	0.031	999.999	Pass

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A						
Emission Data Vehicle Information									
Vehicle ID / Configuration	8001PT8342 / 0	Manufacturer Vehicle Configuration Number	0						
Original Test Group Name	MASXJ04.0AEX	Original Evaporative/Refueling Family	MASXR0160P1Y						
Original Test Vehicle Model Year	2021								
Vehicle Model									
Represented Test Vehicle Make	Aston Martin	Represented Test Vehicle Model	DBX						
Leak Family Details									
Leak Family Identifier	--	Leak Family Name	--						
Drive Sources and Fuel System Details									
	<table border="1"> <tr> <th>Drive Source and Fuel#</th><th>Drive Source</th><th>Fuel</th></tr> <tr> <td>1</td><td>Combustion Engine</td><td>Gasoline</td></tr> </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 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	0.9999						
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor								
Odometer Correction Units	Miles								
Engine Code	177950	Rated Horsepower	550						
Displacement (liters)	4								
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'							
Number of Air Aspiration Devices	2	Air Aspiration Device Configuration	Parallel						
Charge Air Cooler Type	Liquid	Drive Mode While Testing	4-Wheel Drive						
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)						
Curb Weight (lbs)	5082	Equivalent Test Weight (pounds)	5500						
GVWR (lbs)	--	N/V Ratio	21						
Axle Ratio	3.06								
Transmission Type	Automatic	# of Transmission Gears	9						
Transmission Lockup	Yes	Creep Gear	No						

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A
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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	77.33	-0.2033	0.0347	51.64	-0.6349	0.0384	20.5
Cold CO	85.06	-0.2236	0.0382	51.8	-0.4548	0.0399	N/A
US06	77.33	-0.2033	0.0347	51.64	-0.6349	0.0384	N/A

Emission Control Device Comments --

Manufacturer Test Vehicle Comments 2022MY DBX LDT4

Test #	MASX10071437	Test Procedure	65 - Evap Canister Bleed Test
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	03/18/2020	Fuel	Gasoline
Fuel Batch ID	HJ2103	Fuel Calibration Number	6606
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	IDIADA Automotive Technology SA		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4400	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	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.0175	--

Manufacturer Test Comments BETP AML result

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	0.018	0	0.02	0.02	Pass
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.018	0	0.02	0.02	Pass

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A																											
Test #	MASX10071438	Test Procedure	66 - Leak Test - Evap Fuel System OBD																											
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)																											
Test Date	11/25/2020	Fuel	Gasoline																											
Fuel Batch ID	HJ2103	Fuel Calibration Number	6606																											
Vehicle Class	N/A	DF Type	EPA Assigned																											
Verify Test Lab ID	IDIADA Automotive Technology SA																													
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)																													
Test Start Odometer Reading	5130	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	Yes																											
Test Results																														
<table border="1"> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> <tr> <td>LEAK-DIA (Effective Leak Diameter (inches))</td> <td>0.003</td> <td>--</td> </tr> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	LEAK-DIA (Effective Leak Diameter (inches))	0.003	--																					
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)																												
LEAK-DIA (Effective Leak Diameter (inches))	0.003	--																												
Manufacturer Test Comments																														
AML common Leak Test result																														
<table border="1"> <tr> <th>Certification Region</th> <th>Useful Life</th> <th>Standard Level</th> <th>Emission Name</th> <th>Rounded Result</th> <th>Add DF</th> <th>Certification Level</th> <th>Standard</th> <th>Pass/Fail</th> </tr> <tr> <td>Fed</td> <td>150,000 miles</td> <td>Federal Tier 3 Evap</td> <td>LEAK-DIA</td> <td>0.003</td> <td>0</td> <td>0.00</td> <td>0.02</td> <td>Pass</td> </tr> <tr> <td>CA</td> <td>150,000 miles</td> <td>California LEV-IV Zero Evap (Option 2)</td> <td>LEAK-DIA</td> <td>0.003</td> <td>0</td> <td>0.00</td> <td>0.02</td> <td>Pass</td> </tr> </table>				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	LEAK-DIA	0.003	0	0.00	0.02	Pass	CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	LEAK-DIA	0.003	0	0.00	0.02	Pass
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	LEAK-DIA	0.003	0	0.00	0.02	Pass																						
CA	150,000 miles	California LEV-IV Zero Evap (Option 2)	LEAK-DIA	0.003	0	0.00	0.02	Pass																						

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A
Fuel Properties			
Fuel Batch ID	43987	Fuel Calibration Number	4216
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	04/06/2022
Fuel Batch Calibration Effective Date	04/06/2022	Fuel Batch Calibration Ineffective Date	04/06/2024
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.83	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.752
Fuel Ethanol Volume Percent (%)	10	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17807
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	38321	Fuel Calibration Number	2255
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	12/11/2020
Fuel Batch Calibration Effective Date	12/11/2020	Fuel Batch Calibration Ineffective Date	12/11/2023
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.866	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.754
Fuel Ethanol Volume Percent (%)	9.9	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17921
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.866	Weight Fraction CO2	--
Fuel Batch ID	HJ2103	Fuel Calibration Number	6606
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	11/14/2019
Fuel Batch Calibration Effective Date	11/14/2019	Fuel Batch Calibration Ineffective Date	11/14/2022
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.832	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.753
Fuel Ethanol Volume Percent (%)	9.7	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17996
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.832	Weight Fraction CO2	--
Fuel Batch ID	43987	Fuel Calibration Number	8394
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	01/17/2022

Certification Summary Information Report

Test Group		TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3A
Fuel Batch Calibration Effective Date		01/17/2022	Fuel Batch Calibration Ineffective Date	01/17/2024
Carbon Weight Fraction NMHC		--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction		0.83	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)		--	Fuel Specific Gravity	0.752
Fuel Ethanol Volume Percent (%)		10	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17807
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		59318	Fuel Calibration Number	3658
Test Fuel Type		49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	07/17/2023
Fuel Batch Calibration Effective Date		07/17/2023	Fuel Batch Calibration Ineffective Date	07/17/2025
Carbon Weight Fraction NMHC		--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction		0.799	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)		--	Fuel Specific Gravity	0.753
Fuel Ethanol Volume Percent (%)		9.5	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17923
Fuel Net Heat of Combustion (E10) (MJ/kg)		--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)		0.799	Weight Fraction CO2	--

Certification Summary Information Report

Test Group		TASXJ04.0AEX			Evaporative/Refueling Family			TASXR0160T3A	
Consolidated List of Standards									
Exhaust Standards									
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			California LEV-IV ULEV70	
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	CREE	--	--	--	--	--	--	0.00	999.999
150,000 miles	NMOG	--	--	1.10	--	--	--	0.0098	999.999
150,000 miles	NMOG+NOX	--	--	1.10	--	--	--	0.0168	0.070
150,000 miles	NOX	--	--	--	--	--	--	0.007	999.999
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			California LEV-IV ULEV70	
Fuel		Gasoline			Test Procedure			Federal 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	--	--	--	--	--	--	0.24	1.7
150,000 miles	CREE	--	--	--	--	--	--	0.000	999.999
150,000 miles	HCHO	--	--	--	--	--	--	0.0003	0.004
150,000 miles	METHANE	--	--	--	--	--	--	0.000	0.03
150,000 miles	N2O	--	--	--	--	--	--	0.007	0.01
150,000 miles	NMOG	--	1	1.10	--	--	--	0.0098	999.999
150,000 miles	NMOG+NOX	--	--	1.10	--	--	--	0.0168	0.070
150,000 miles	NOX	--	--	--	--	--	--	0.007	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.003

Certification Summary Information Report

Test Group	TASXJ04.0AEX				Evaporative/Refueling Family			TASXR0160T3A	
Cert Region	California + CAA Section 177 states				Cert/In-Use Code			Cert	
Vehicle Class	LDV/Passenger Car				Standard Level			California LEV-IV ULEV70	
Fuel	Gasoline				Test Procedure			CA fuel 50 Deg(F) exhaust test	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
50,000 miles	CO	--	--	--	--	--	--	0	1.7
50,000 miles	HCHO	--	--	--	--	--	--	0	0.016
50,000 miles	NMOG	--	--	--	--	--	--	0	999.999
50,000 miles	NMOG+NOX	--	1	1.10	--	--	--	0	0.14
50,000 miles	NOX	--	--	--	--	--	--	0	999.999

Cert Region	Federal				Cert/In-Use Code			Cert	
Vehicle Class	LDV/Passenger Car				Standard Level			Federal Tier 3 Bin 70	
Fuel	Gasoline				Test Procedure			Federal 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	--	--	--	--	--	--	0.24	1.7
150,000 miles	CO-COMP	--	--	--	--	--	--	0	4.2
150,000 miles	CREE	--	--	--	--	--	--	0.000	999.999
150,000 miles	HCHO	--	--	--	--	--	--	0.0003	0.004
150,000 miles	METHANE	--	--	--	--	--	--	0.000	0.03
150,000 miles	N2O	--	--	--	--	--	--	0.007	0.01
150,000 miles	NMOG	--	1	1.10	--	--	--	0.0098	999.999
150,000 miles	NMOG+NOX	--	--	1.10	--	--	--	0.0168	0.070
150,000 miles	NMOG+NOX-COMP	--	--	1.10	--	--	--	0	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.007	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.003

Certification Summary Information Report

Test Group	TASXJ04.0AEX				Evaporative/Refueling Family			TASXR0160T3A	
Cert Region	California + CAA Section 177 states				Cert/In-Use Code			Cert	
Vehicle Class	LDV/Passenger Car				Standard Level			California LEV-IV ULEV70	
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	--	--	--	--	--	--	0.24	3.2
150,000 miles	NMOG	--	--	1.03	--	--	--	0.0098	999.999
150,000 miles	NMOG+NOX	--	--	1.03	--	--	--	0.01680	0.07
150,000 miles	NOX	--	--	--	--	--	--	0.0070	999.999

Cert Region	Federal				Cert/In-Use Code			Cert	
Vehicle Class	LDV/Passenger Car				Standard Level			Federal Tier 3 Bin 70	
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	CREE	--	--	--	--	--	--	0.00	999.999
150,000 miles	NMOG	--	--	1.10	--	--	--	0.0098	999.999
150,000 miles	NMOG+NOX	--	--	1.10	--	--	--	0.0168	0.070
150,000 miles	NOX	--	--	--	--	--	--	0.007	999.999

Cert Region	California + CAA Section 177 states				Cert/In-Use Code			Cert	
Vehicle Class	LDV/Passenger Car				Standard Level			California LEV-IV ULEV70	
Fuel	Gasoline				Test Procedure			Cold CO	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
50,000 miles	CO	--	--	--	--	--	--	0	10
50,000 miles	HC-NM	--	--	--	--	--	--	0.000	0.3

Certification Summary Information Report

Test Group	TASXJ04.0AEX				Evaporative/Refueling Family			TASXR0160T3A	
Cert Region	California + CAA Section 177 states				Cert/In-Use Code			Cert	
Vehicle Class	LDV/Passenger Car				Standard Level			California LEV-IV ULEV70	
Fuel	Gasoline				Test Procedure			US06	
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	--	--	--	--	--	--	0.24	9.6
150,000 miles	NMOG	--	--	1.03	--	--	--	0.0098	999.999
150,000 miles	NMOG+NOX	--	--	1.03	--	--	--	0.01680	0.084
150,000 miles	NOX	--	--	--	--	--	--	0.0070	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.006

Cert Region	Federal				Cert/In-Use Code			Cert	
Vehicle Class	LDV/Passenger Car				Standard Level			Federal Tier 3 Bin 70	
Fuel	Gasoline				Test Procedure			Cold CO	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
50,000 miles	CO	--	--	--	--	--	--	0	10
50,000 miles	HC-NM	--	--	--	--	--	--	0.000	0.3

Evaporative/Refueling Standards

Evaporative/Refueling Family	TASXR0160T3A			Cert Region	Federal	
Cert/In-Use Code	Cert			Standard Level	Federal Tier 3 Evap	
Test Procedure	Federal fuel 3-day evap					

Evaporative/Refueling Family		TASXR0160T3A		Cert Region		Federal	
Cert/In-Use Code		Cert		Standard Level		Federal Tier 3 Evap	
Test Procedure		Federal fuel refueling test (ORVR)					
Fuel	Useful Life	Emission Name	Rounded Result		Std	Add DF	
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--		0.2	0.006	

Certification Summary Information Report

Test Group		TASXJ04.0AEX		Evaporative/Refueling Family		TASXR0160T3A	
Evaporative/Refueling Family		TASXR0160T3A		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-IV Zero Evap (Option 2)	
Test Procedure		Federal fuel 3-day evap					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.275	0.0021		
Evaporative/Refueling Family		TASXR0160T3A		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		
Evaporative/Refueling Family		TASXR0160T3A		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	--	0.02	0		
Evaporative/Refueling Family		TASXR0160T3A		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-IV Zero Evap (Option 2)	
Test Procedure		Leak Test - Evap Fuel System OBD					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	LEAK-DIA	--	0.02	0		
Evaporative/Refueling Family		TASXR0160T3A		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-IV Zero Evap (Option 2)	
Test Procedure		Federal fuel refueling test (ORVR)					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.2	0.006		

Certification Summary Information Report

Test Group		TASXJ04.0AEX		Evaporative/Refueling Family		TASXR0160T3A	
Evaporative/Refueling Family		TASXR0160T3A		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-IV Zero Evap (Option 2)	
Test Procedure		Evap Canister Bleed Test					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.02	0		
Evaporative/Refueling Family		TASXR0160T3A		Cert Region		Federal	
Cert/In-Use Code		Cert		Standard Level		Federal Tier 3 Evap	
Test Procedure		Leak Test - Evap Fuel System OBD					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	LEAK-DIA	--	0.02	0		
Evaporative/Refueling Family		TASXR0160T3A		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-IV Zero Evap (Option 2)	
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		

Certification Summary Information Report

Test Group		TASXJ04.0AEX	Evaporative/Refueling Family		TASXR0160T3A
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		AS-VOLT	Average System Voltage	
CO	Carbon Monoxide		CO2 BAG 1	Bag 1 Carbon Dioxide	
CO2	Carbon dioxide		CO2 BAG 2	Bag 2 Carbon Dioxide	
CREE	Carbon-Related Exhaust Emissions		CO2 BAG 3	Bag 3 Carbon Dioxide	
OPT-CREE	Optional Carbon-Related Exhaust Emissions		CO2 BAG 4	Bag 4 Carbon Dioxide	
NOX	Nitrogen Oxide		NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides	
PM	Particulate Matter		NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides	
PM-COMP	SFTP Composite Particulate Matter		DT-IWRR	Drive Trace Inertia Work Ratio Rating	
HC-NM	Non-methane Hydrocarbon		DT-ASCR	Drive Trace Absolute Speed Change Rating	
OMHCE	Organic material Hydrocarbon Equivalent		DT-EER	Drive Trace Energy Economy Rating	
OMNMHCE	Organic material non-methane HC equivalent		COMB-CREE	Combined Carbon-Related Exhaust Emissions	
NMOG	Non-methane organic gases		COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions	
HCHO	Formaldehyde		HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only	
H3C2HO	Acetaldehyde		METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only	
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03		N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only	
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides		LEAK-DIA	Effective Leak Diameter (inches)	
CO-COMP	SFTP Composite Carbon Monoxide		LEAK-GAS CAP	Gas Cap Leakage (cc/min)	
ETHANOL	C2H5OH - Ethanol		CO2-COMB	Combined Carbon Dioxide for HD 2b/3 Vehicles Only	
FE BAG 1	Bag 1 Fuel Economy		KW-HRS	Integrated DC KW-HRS	
FE BAG 2	Bag 2 Fuel Economy		CH4 BAG 1	Bag 1 Methane	
FE BAG 3	Bag 3 Fuel Economy		CH4 BAG 2	Bag 2 Methane	
FE BAG 4	Bag 4 Fuel Economy		CH4 BAG 3	Bag 3 Methane	
MFR FE	Manufacturer Fuel Economy		CH4 BAG 4	Bag 4 Methane	
HC	Hydrocarbon for Running Loss and ORVR		CO BAG 1	Bag 1 Carbon Monoxide	
METHANE	CH4 - Methane		CO BAG 2	Bag 2 Carbon Monoxide	
METHANOL	CH3OH - Methanol		CO BAG 3	Bag 3 Carbon Monoxide	
N2O	Nitrous Oxide		CO BAG 4	Bag 4 Carbon Monoxide	
SPITBACK	Spitback Hydrocarbon in grams		NMOG BAG 1	Bag 1 Non-methane organic gases	
AMP-HRS	Integrated Amp-hours		NMOG BAG 2	Bag 2 Non-methane organic gases	
START-SOC	System Start State of Charge Watt-hours		NMOG BAG 3	Bag 3 Non-methane organic gases	
END-SOC	System End State of Charge Watt-hours		NMOG BAG 4	Bag 4 Non-methane organic gases	
ACT-DISTANCE	Actual Distance Driven (miles)				
Certification Region					

Certification Summary Information Report

Test Group		TASXJ04.0AEX		Evaporative/Refueling Family		TASXR0160T3A	
CA	California + CAA Section 177 states	FA	Federal				
Exhaust Emission Standard Level							
B1	Federal Tier 2 Bin 1	T3B160	Federal Tier 3 Bin 160				
B2	Federal Tier 2 Bin 2	T3B125	Federal Tier 3 Bin 125				
B3	Federal Tier 2 Bin 3	T3B110	Federal Tier 3 Transitional Bin 110				
B4	Federal Tier 2 Bin 4	T3B85	Federal Tier 3 Transitional Bin 85				
B5	Federal Tier 2 Bin 5	T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover				
B6	Federal Tier 2 Bin 6	T3B70	Federal Tier 3 Bin 70				
B7	Federal Tier 2 Bin 7	T3B50	Federal Tier 3 Bin 50				
B8	Federal Tier 2 Bin 8	T3B30	Federal Tier 3 Bin 30				
B9	Federal Tier 2 Bin 9	T3B20	Federal Tier 3 Bin 20				
B10	Federal Tier 2 Bin 10	T3B0	Federal Tier 3 Bin 0				
B11	Federal Tier 2 Bin 11	HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395				
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)	HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340				
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	HDV2B250	Federal Tier 3 HD Class 2b Bin 250				
L2	California LEV-II LEV	HDV2B200	Federal Tier 3 HD Class 2b Bin 200				
L2OP	California LEV-II LEV Optional	HDV2B170	Federal Tier 3 HD Class 2b Bin 170				
U2	California LEV-II ULEV	HDV2B150	Federal Tier 3 HD Class 2b Bin 150				
S2	California LEV-II SULEV	HDV2B0	Federal Tier 3 HD Class 2b Bin 0				
ZEV	California ZEV	HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630				
OT	Other	HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570				
T1	Federal Tier 1	HDV3B400	Federal Tier 3 HD Class 3 Bin 400				
PZEV	California PZEV	HDV3B270	Federal Tier 3 HD Class 3 Bin 270				
L2LEV160	California LEV-II LEV160	HDV3B230	Federal Tier 3 HD Class 3 Bin 230				
L2ULEV125	California LEV-II ULEV125	HDV3B200	Federal Tier 3 HD Class 3 Bin 200				
L2SULEV30	California LEV-II SULEV30	HDV3B0	Federal Tier 3 HD Class 3 Bin 0				
L2LEV395	California LEV-II LEV395	L4SULEV100	California LEV-IV SULEV100				
L2ULEV340	California LEV-II ULEV340	L4SULEV125	California LEV-IV SULEV125				
L2LEV630	California LEV-II LEV630	L4SULEV15	California LEV-IV SULEV15				
L2ULEV570	California LEV-II ULEV570	L4SULEV150	California LEV-IV SULEV150				
L3LEV160	California LEV-III LEV160	L4SULEV170	California LEV-IV SULEV170				
L3ULEV125	California LEV-III ULEV125	L4SULEV175	California LEV-IV SULEV175				
L3ULEV70	California LEV-III ULEV70	L4SULEV20	California LEV-IV SULEV20				
L3ULEV50	California LEV-III ULEV50	L4SULEV200	California LEV-IV SULEV200				
L3SULEV30	California LEV-III SULEV30	L4SULEV230	California LEV-IV SULEV230				
L3SULEV20	California LEV-III SULEV20	L4SULEV25	California LEV-IV SULEV25				
L3LEV395	California LEV-III LEV395	L4SULEV30	California LEV-IV SULEV30				
L3ULEV340	California LEV-III ULEV340	L4SULEV75	California LEV-IV SULEV75				
L3ULEV250	California LEV-III ULEV250	L4SULEV85	California LEV-IV SULEV85				
L3ULEV200	California LEV-III ULEV200	L4ULEV125	California LEV-IV ULEV125				

Certification Summary Information Report

Test Group		TASXJ04.0AEX	Evaporative/Refueling Family		TASXR0160T3A
L3SULEV170	California LEV-III SULEV170		L4ULEV200	California LEV-IV ULEV200	
L3SULEV150	California LEV-III SULEV150		L4ULEV250	California LEV-IV ULEV250	
L3LEV630	California LEV-III LEV630		L4ULEV270	California LEV-IV ULEV270	
L3ULEV570	California LEV-III ULEV570		L4ULEV40	California LEV-IV ULEV40	
L3ULEV400	California LEV-III ULEV400		L4ULEV400	California LEV-IV ULEV400	
L3ULEV270	California LEV-III ULEV270		L4ULEV50	California LEV-IV ULEV50	
L3SULEV230	California LEV-III SULEV230		L4ULEV60	California LEV-IV ULEV60	
L3SULEV200	California LEV-III SULEV200		L4ULEV70	California LEV-IV ULEV70	
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		
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	Aston Martin Lagonda	Manufacturer Code	ASX
Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B
Certificate Number	--	CARB Executive Order #	--
Certificate Issue Date	--	Certificate Revision Date	--
Certificate Effective Date	--	Conditional Certificate	--
CSI Revision #	--	CSI Submission/Revision Date	11/13/2025 10:41:20 AM
Model Year	2026		

Test Group Information

CSI Type	Running Change	Running Change Reference Number	002
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	Spark Ignition Direct fuel injection	No

Hybrid Indicator	No		
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	No
Multiple Fuel Combustion	--	Off-board Charge Capable Indicator	--
Fuel Cell Indicator	No	EPA Vehicle Class	LDV
Federal Clean Fuel Vehicle	Yes	Federal Clean Fuel Vehicle Standard	ULEV
Federal Clean Fuel Vehicle ILEV	No	California Partial Zero Emissions Vehicle Indicator	No
Durability Group Name	TASXGPGNNE23	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	07/20/2025	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	--
SFTP LEV-III Composite Compliance Indicator	Yes		
OBD Compliance Type	CARB	OBD Demonstration Vehicle Test Group	TASXJ04.0AEX
Test Group OBD Compliance Level	Partial - with deficiencies	Number of Test Group OBD Deficiencies	1
OBD Deficiencies Comments	Misfire monitor deficiency - desensitization of the monitor to avoid false MIL - LDV only		
Mfr Test Group Comments	--		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B				
Evaporative/Refueling Family Information							
Evaporative Summary Information Type	New	Submission/Correction Date	01/21/2025 09:26:02 AM				
Integrated ORVR?	Yes	Fuel(s)	Gasoline				
Multiple Fuel Storage	--						
Bladder Fuel Tank?	No						
Fuel Tank Material	Metal	Fuel Tank Material Description	Stainless Steel				
Fill Pipe Seal Type	Liquid seal						
Air Intake System Vapor Storage Device?	No	Air Intake System Vapor Storage Device Description	--				
Fuel System Vapor Storage Canister?	Yes	Other Vapor Storage	--				
Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)	160	Number of Primary Canisters	1				
Number of Bleed Canisters	0	Bleed Canister Total Working Capacity (grams)	--				
Mfr Evaporative/Refueling Family Comments	LDT Evap Family only						
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	Common AML BETP data						
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				
TASXR0160T3B-001	50 State	0.02	Common AML Leak Family				
Models Covered by this Certificate							
Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
Aston Martin Lagonda	1 - Aston Martin Lagonda Ltd	840 - DBX 727	Federal	4-Wheel Drive	Automatic	9	Yes
Aston Martin Lagonda	1 - Aston Martin Lagonda Ltd	840 - DBX 727	California + CAA Section 177 states	4-Wheel Drive	Automatic	9	Yes
Aston Martin Lagonda	1 - Aston Martin Lagonda Ltd	884 - DBX 707	Federal	4-Wheel Drive	Automatic	9	Yes
Aston Martin Lagonda	1 - Aston Martin Lagonda Ltd	884 - DBX 707	California + CAA Section 177 states	4-Wheel Drive	Automatic	9	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	0W40				
Number of Cylinders/Rotors	8	Mechanically Variable Compression Ratio Indicator	N				

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B
After Treatment Device(s) (ATD)			
ATD Number	ATD Type	ATD Precious Metal	Substrate Material
1	Three-way catalyst	Palladium + Rhodium	Ceramic
2	Three-way catalyst	Palladium + Rhodium	Ceramic
3	Three-way catalyst	Palladium + Rhodium	Ceramic
4	Three-way catalyst	Palladium + Rhodium	Ceramic
Substrate Construction			
Monolith			
Mfr After Treatment Device (ATD) Comments			
Warm up primary element per bank plus an underfloor mounted secondary element per bank.			
Direct Ozone Reduction (DOR) Device			
Not Equipped			
Mfr Emission Control Device Comments			
--			
Engine Configuration Number 1			
Engine Displacement (liters)	4.0	Engine Rated Horsepower	680
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	2
Air Aspiration Device Configuration	Parallel	Charge Air Cooler Type	Liquid
Air Aspiration Drive Method(s)	Hydraulic		
Cylinder Deactivation	No		
Cylinder Deactivation Description	--		
Variable Valve Timing	Yes		
Variable Valve Timing System Description	Inlet and Exhaust Cam Phasing		
Variable Valve Lift?	No		
Variable Valve Lift System Description	--		
Number of Knock Sensors	4	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	No	Cooled Exhaust Gas Recirculation	No
EGR Type	--	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	DB12 V8 & Vantage S Power Spec		

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B
Engine Configuration Number 2			
Engine Displacement (liters)	4.0	Engine Rated Horsepower	707
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	2
Air Aspiration Device Configuration	Parallel	Charge Air Cooler Type	Liquid
Air Aspiration Drive Method(s)	Hydraulic		
Cylinder Deactivation	Yes		
Cylinder Deactivation Description	Individual cylinder de-activation based on torque demand		
Variable Valve Timing	Yes		
Variable Valve Timing System Description	Inlet and Exhaust Cam Phasing		
Variable Valve Lift?	No		
Variable Valve Lift System Description	--		
Number of Knock Sensors	4	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	No	Cooled Exhaust Gas Recirculation	No
EGR Type	--	Exhaust Gas Recirculation Description if 'Other'	--
Closed Loop Air Injection System	No		
Air Injection Type	--	Air Injection Type if 'Other'	--
Mfr Engine Configuration Comments	DBX707 Power Spec		

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B
Engine Configuration Number 3			
Engine Displacement (liters)	4.0	Engine Rated Horsepower	665
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	2
Air Aspiration Device Configuration	Parallel	Charge Air Cooler Type	Liquid
Air Aspiration Drive Method(s)	Hydraulic		
Cylinder Deactivation	No		
Cylinder Deactivation Description	--		
Variable Valve Timing	Yes		
Variable Valve Timing System Description	Inlet and exhaust cam phasing		
Variable Valve Lift?	No		
Variable Valve Lift System Description	--		
Number of Knock Sensors	4	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	No	Cooled Exhaust Gas Recirculation	No
EGR Type	--	Exhaust Gas Recirculation Description if 'Other'	--
Closed Loop Air Injection System	No		
Air Injection Type	--	Air Injection Type if 'Other'	--
Mfr Engine Configuration Comments	Vantage Power Spec		

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B
Engine Configuration Number 4			
Engine Displacement (liters)	4.0	Engine Rated Horsepower	727
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	2
Air Aspiration Device Configuration	Parallel	Charge Air Cooler Type	Liquid
Air Aspiration Drive Method(s)	Hydraulic		
Cylinder Deactivation	Yes		
Cylinder Deactivation Description	Individual cylinder de-activation based on torque demand		
Variable Valve Timing	Yes		
Variable Valve Timing System Description	Inlet and Exhaust Cam Phasing		
Variable Valve Lift?	No		
Variable Valve Lift System Description	--		
Number of Knock Sensors	4	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	No	Cooled Exhaust Gas Recirculation	No
EGR Type	--	Exhaust Gas Recirculation Description if 'Other'	--
Closed Loop Air Injection System	No		
Air Injection Type	--	Air Injection Type if 'Other'	--
Mfr Engine Configuration Comments	DBX S power Spec		

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B								
Engine Configuration Number 5											
Engine Displacement (liters)	4.0	Engine Rated Horsepower	700								
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2								
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	2								
Air Aspiration Device Configuration	Parallel	Charge Air Cooler Type	Liquid								
Air Aspiration Drive Method(s)	Hydraulic										
Cylinder Deactivation	No										
Cylinder Deactivation Description	--										
Variable Valve Timing	Yes										
Variable Valve Timing System Description	Inlet and exhaust cam phasing										
Variable Valve Lift?	No										
Variable Valve Lift System Description	--										
Number of Knock Sensors	4	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	No	Cooled Exhaust Gas Recirculation	No								
EGR Type	--	Exhaust Gas Recirculation Description if 'Other'	--								
Closed Loop Air Injection System	No										
Air Injection Type	--	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	RASX10082324	RASX10082328	RASX10082336	RASX10082335	RASX10082327	16.1	228.2	31.0	286.1	--	
SFTP LEV-III Official Test Numbers											
Test Group Fuel	FTP	US06	SC03								
Gasoline	RASX10082324	RASX10082328	RASX10082336								

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B						
Emission Data Vehicle Information									
Vehicle ID / Configuration	5723PT5601 / 0	Manufacturer Vehicle Configuration Number	0						
Original Test Group Name	RASXV04.0AES	Original Evaporative/Refueling Family	RASXR0160T3A						
Original Test Vehicle Model Year	2024								
Vehicle Model									
Represented Test Vehicle Make	Aston Martin	Represented Test Vehicle Model	DB12 V8						
Leak Family Details									
Leak Family Identifier	001	Leak Family Name	RASXR0160T3A-001						
Drive Sources and Fuel System Details									
	<table border="1"> <tr> <th>Drive Source and Fuel#</th><th>Drive Source</th><th>Fuel</th></tr> <tr> <td>1</td><td>Combustion Engine</td><td>Gasoline</td></tr> </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 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	0.9999						
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor								
Odometer Correction Units	Miles								
Engine Code	177850	Rated Horsepower	680						
Displacement (liters)	4								
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'							
Number of Air Aspiration Devices	2	Air Aspiration Device Configuration	Parallel						
Charge Air Cooler Type	Liquid	Drive Mode While Testing	2-Wheel Drive, Rear						
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)						
Curb Weight (lbs)	4024	Equivalent Test Weight (pounds)	4500						
GVWR (lbs)	--	N/V Ratio	24.8						
Axle Ratio	3.08								
Transmission Type	Automatic	# of Transmission Gears	8						
Transmission Lockup	Yes	Creep Gear	No						

Certification Summary Information Report

Test Group		TASXJ04.0AEX			Evaporative/Refueling Family		TASXR0160T3B	
Dynamometer Coefficients:								
Target Coefficients				Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients	
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)		
City/Highway/Evap	53.24	0.2228	0.0221	5.67	0.0083	0.0221	16	
Cold CO	58.56	0.2451	0.0243	7.89	0.1957	0.0196	N/A	
US06	53.24	0.2228	0.0221	5.67	0.0083	0.0221	N/A	
Emission Control Device Comments		--						
Manufacturer Test Vehicle Comments		2024MY DB12 V8 Coupe 8 speed auto						

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B
Test #	RASX10082324	Test Procedure	21 - Federal fuel 2-day exhaust (w/can load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	07/26/2023	Fuel	Gasoline
Fuel Batch ID	43987	Fuel Calibration Number	8394
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	IDIADA Automotive Technology SA		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4267	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	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	527.833	--
FE BAG 1 (Bag 1 Fuel Economy)	16.4993	16.4993
CO2 BAG 2 (Bag 2 Carbon Dioxide)	565.283	--
FE BAG 2 (Bag 2 Fuel Economy)	15.4886	15.4886
CO2 BAG 3 (Bag 3 Carbon Dioxide)	418.11	--
FE BAG 3 (Bag 3 Fuel Economy)	20.9211	20.9211
METHANE (CH4 - Methane)	0.008	--
CO (Carbon Monoxide)	0.503	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.34	--
DT-EER (Drive Trace Energy Economy Rating)	0.11	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.46	--
HCHO (Formaldehyde)	0.0009	--
MFR FE (Manufacturer Fuel Economy)	16.908	16.908
NOX (Nitrogen Oxide)	0.009	--
N2O (Nitrous Oxide)	0.003	--
HC-NM (Non-methane Hydrocarbon)	0.018	--
NMOG (Non-methane organic gases)	0.0195	--
PM (Particulate Matter)	0.001	--
HC-TOTAL (Total Hydrocarbon)	0.0248	--

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Certification Summary Information Report

Test Group		TASXJ04.0AEX			Evaporative/Refueling Family					TASXR0160T3B		
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 Bin 70	CO	0.50	--	--	--	0.24	--	0.7	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	CO-COMP	0.58	--	--	--	0	--	0.6	4.2	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	CREE	999	--	--	--	0.000	--	999	--	--
Fed	150,000 miles	Federal Tier 3 Bin 70	HCHO	0.0009	--	--	--	0.0003	--	0.001	0.004	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	METHANE	0.008	--	--	--	0.000	--	0.01	0.03	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	N2O	0.003	--	--	--	0.007	--	0.01	0.01	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG	0.0195	1	1.10	--	0.0098	--	0.029	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX	0.0285	--	1.10	--	--	--	0.045	0.070	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX-COMP	0.0423	--	1.10	--	0	--	0.042	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NOX	0.0090	--	--	--	0.007	--	0.016	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	PM	0.0010	--	--	--	0	--	0.001	0.003	Pass
CA	150,000 miles	California LEV-IV ULEV70	CO	0.50	--	--	--	0.24	--	0.7	1.7	Pass
CA	150,000 miles	California LEV-IV ULEV70	CREE	999	--	--	--	0.000	--	999	--	--
CA	150,000 miles	California LEV-IV ULEV70	HCHO	0.0009	--	--	--	0.0003	--	0.001	0.004	Pass
CA	150,000 miles	California LEV-IV ULEV70	METHANE	0.008	--	--	--	0.000	--	0.01	0.03	Pass
CA	150,000 miles	California LEV-IV ULEV70	N2O	0.003	--	--	--	0.007	--	0.01	0.01	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG	0.0195	1	1.10	--	0.0098	--	0.029	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG+NOX	0.0285	--	1.10	--	--	--	0.045	0.070	Pass
CA	150,000 miles	California LEV-IV ULEV70	NOX	0.0090	--	--	--	0.007	--	0.016	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	PM	0.0010	--	--	--	0	--	0.001	0.003	Pass

NOTE: For Non-charge depleting tests, the Rounded Result for CREE/OPT-CREE Emission names are Verify-calculated values.

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B
Test #	RASX10082329	Test Procedure	51 - CA fuel 50 Deg(F) exhaust test
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/16/2023	Fuel	Gasoline
Fuel Batch ID	59318	Fuel Calibration Number	3658
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Mahle Powertrain		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4493	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	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0.62	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-2.7	--
DT-EER (Drive Trace Energy Economy Rating)	-0.189	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-3.79	--
HCHO (Formaldehyde)	0.0002	--
MFR FE (Manufacturer Fuel Economy)	16.4971	16.4971
NOX (Nitrogen Oxide)	0.014	--
NMOG (Non-methane organic gases)	0.0321	--
PM (Particulate Matter)	0.005	--
HC-TOTAL (Total Hydrocarbon)	0.0402	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	499.31	--

Manufacturer Test Comments 2024MY DB12 V8 EDV

Certification Summary Information Report

Test Group		TASXJ04.0AEX				Evaporative/Refueling Family				TASXR0160T3B		
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	50,000 miles	California LEV-IV ULEV70	CO	0.62	--	--	--	0	--	0.6	1.7	Pass
CA	50,000 miles	California LEV-IV ULEV70	HCHO	0.0002	--	--	--	0	--	0.000	0.016	Pass
CA	50,000 miles	California LEV-IV ULEV70	NMOG	0.0321	--	--	--	0	--	0.032	999.999	Pass
CA	50,000 miles	California LEV-IV ULEV70	NMOG+NOX	0.0461	1	1.10	--	--	--	0.05	0.14	Pass
CA	50,000 miles	California LEV-IV ULEV70	NOX	0.0140	--	--	--	0	--	0.014	999.999	Pass

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B
Test #	RASX10082335	Test Procedure	11 - Cold CO
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/18/2023	Fuel	Gasoline
Fuel Batch ID	59318	Fuel Calibration Number	3658
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Mahle Powertrain		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4545	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	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	637.23	--
FE BAG 1 (Bag 1 Fuel Economy)	13.1343	13.1343
CO2 BAG 2 (Bag 2 Carbon Dioxide)	625.7	--
FE BAG 2 (Bag 2 Fuel Economy)	13.4639	13.4639
CO2 BAG 3 (Bag 3 Carbon Dioxide)	490.25	--
FE BAG 3 (Bag 3 Fuel Economy)	17.1305	17.1305
CO (Carbon Monoxide)	1.11	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-5.16	--
DT-EER (Drive Trace Energy Economy Rating)	-3.04	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-7.11	--
MFR FE (Manufacturer Fuel Economy)	14.2275	14.2275
NOX (Nitrogen Oxide)	0.025	--
HC-NM (Non-methane Hydrocarbon)	0.1	--
HC-TOTAL (Total Hydrocarbon)	0.1298	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	585.39	--

Manufacturer Test Comments

2024MY DB12 V8 EDV

Certification Summary Information Report

Test Group		TASXJ04.0AEX				Evaporative/Refueling Family				TASXR0160T3B		
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	50,000 miles	Federal Tier 3 Bin 70	CO	1.1	--	--	--	0	--	1	10	Pass
Fed	50,000 miles	Federal Tier 3 Bin 70	HC-NM	0.10	--	--	--	0.000	--	0.1	0.3	Pass
CA	50,000 miles	California LEV-IV ULEV70	CO	1.1	--	--	--	0	--	1	10	Pass
CA	50,000 miles	California LEV-IV ULEV70	HC-NM	0.10	--	--	--	0.000	--	0.1	0.3	Pass

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B
Test #	RASX10082327	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	07/25/2023	Fuel	Gasoline
Fuel Batch ID	43987	Fuel Calibration Number	8394
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	IDIADA Automotive Technology SA		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4219	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	Yes
Test Results			
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
CO (Carbon Monoxide)	0.02	--	
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.48	--	
DT-EER (Drive Trace Energy Economy Rating)	-0.05	--	
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.88	--	
MFR FE (Manufacturer Fuel Economy)	30.7813	30.7813	
NOX (Nitrogen Oxide)	0.007	--	
NMOG (Non-methane organic gases)	0.0004	--	
HC-TOTAL (Total Hydrocarbon)	0.0006	--	
Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE	
Carbon-Related Exhaust Emissions	284.509	999	
Test Result Name	Unrounded Test Result	Verify Calculated CO2	
Carbon dioxide	284.509	--	
Manufacturer Test Comments	2024MY DB12 V8 EDV		

Certification Summary Information Report

Test Group		TASXJ04.0AEX				Evaporative/Refueling Family				TASXR0160T3B		
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 Bin 70	CREE	999	--	--	--	0.00	--	999	--	--
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG	0.0004	--	1.10	--	0.0098	--	0.010	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NMOG+NOX	0.0074	--	1.10	--	--	--	0.024	0.070	Pass
Fed	150,000 miles	Federal Tier 3 Bin 70	NOX	0.0070	--	--	--	0.007	--	0.014	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	CREE	999	--	--	--	0.00	--	999	--	--
CA	150,000 miles	California LEV-IV ULEV70	NMOG	0.0004	--	1.10	--	0.0098	--	0.010	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG+NOX	0.0074	--	1.10	--	--	--	0.024	0.070	Pass
CA	150,000 miles	California LEV-IV ULEV70	NOX	0.0070	--	--	--	0.007	--	0.014	999.999	Pass

NOTE: For Non-charge depleting tests, the Rounded Result for CREE/OPT-CREE Emission names are Verify-calculated values.

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B
Test #	RASX10082328	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	07/25/2023	Fuel	Gasoline
Fuel Batch ID	43987	Fuel Calibration Number	8394
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	IDIADA Automotive Technology SA		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4241	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	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	629.274	--
FE BAG 1 (Bag 1 Fuel Economy)	13.92	13.92
CO2 BAG 2 (Bag 2 Carbon Dioxide)	346.895	--
FE BAG 2 (Bag 2 Fuel Economy)	25.23	25.23
CO (Carbon Monoxide)	0.14	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.7	--
DT-EER (Drive Trace Energy Economy Rating)	-0.88	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.01	--
MFR FE (Manufacturer Fuel Economy)	21.36	21.36
NOX (Nitrogen Oxide)	0.02	--
HC-NM (Non-methane Hydrocarbon)	0.001	--
NMOG (Non-methane organic gases)	0.001	--
PM (Particulate Matter)	0.005	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.021	--
HC-TOTAL (Total Hydrocarbon)	0.0023	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	409.874	--

Manufacturer Test Comments

2024MY DB12 V8 EDV

Certification Summary Information Report

Test Group		TASXJ04.0AEX				Evaporative/Refueling Family				TASXR0160T3B		
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	California LEV-IV ULEV70	CO	0.14	--	--	--	0.24	--	0.4	9.6	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG	0.0010	--	1.03	--	0.0098	--	0.011	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG+NOX	0.0210	--	1.03	--	--	--	0.038	0.084	Pass
CA	150,000 miles	California LEV-IV ULEV70	NOX	0.0200	--	--	--	0.0070	--	0.027	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	PM	0.0050	--	--	--	0	--	0.005	0.006	Pass

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B
Test #	RASX10082336	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/22/2023	Fuel	Gasoline
Fuel Batch ID	59318	Fuel Calibration Number	3658
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Mahle Powertrain		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4604	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	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0.35	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-2.61	--
DT-EER (Drive Trace Energy Economy Rating)	-1.17	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-2.48	--
MFR FE (Manufacturer Fuel Economy)	17.2288	17.2288
NOX (Nitrogen Oxide)	0.024	--
HC-NM (Non-methane Hydrocarbon)	0.0018	--
NMOG (Non-methane organic gases)	0.002	--
HC-NM+NOX (SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03)	0.0258	--
HC-TOTAL (Total Hydrocarbon)	0.0137	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	488.62	--

Manufacturer Test Comments

2024MY DB12 V8 EDV

Certification Summary Information Report

Test Group		TASXJ04.0AEX				Evaporative/Refueling Family				TASXR0160T3B		
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	California LEV-IV ULEV70	CO	0.35	--	--	--	0.24	--	0.6	3.2	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG	0.0020	--	1.03	--	0.0098	--	0.012	999.999	Pass
CA	150,000 miles	California LEV-IV ULEV70	NMOG+NOX	0.0260	--	1.03	--	--	--	0.04	0.07	Pass
CA	150,000 miles	California LEV-IV ULEV70	NOX	0.0240	--	--	--	0.0070	--	0.031	999.999	Pass

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B						
Emission Data Vehicle Information									
Vehicle ID / Configuration	8001PT8342 / 0	Manufacturer Vehicle Configuration Number	0						
Original Test Group Name	MASXJ04.0AEX	Original Evaporative/Refueling Family	MASXR0160P1Y						
Original Test Vehicle Model Year	2021								
Vehicle Model									
Represented Test Vehicle Make	Aston Martin	Represented Test Vehicle Model	DBX						
Leak Family Details									
Leak Family Identifier	--	Leak Family Name	--						
Drive Sources and Fuel System Details									
	<table border="1"> <tr> <th>Drive Source and Fuel#</th><th>Drive Source</th><th>Fuel</th></tr> <tr> <td>1</td><td>Combustion Engine</td><td>Gasoline</td></tr> </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 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	0.9999						
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor								
Odometer Correction Units	Miles								
Engine Code	177950	Rated Horsepower	550						
Displacement (liters)	4								
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'							
Number of Air Aspiration Devices	2	Air Aspiration Device Configuration	Parallel						
Charge Air Cooler Type	Liquid	Drive Mode While Testing	4-Wheel Drive						
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)						
Curb Weight (lbs)	5082	Equivalent Test Weight (pounds)	5500						
GVWR (lbs)	--	N/V Ratio	21						
Axle Ratio	3.06								
Transmission Type	Automatic	# of Transmission Gears	9						
Transmission Lockup	Yes	Creep Gear	No						

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B
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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	77.33	-0.2033	0.0347	51.64	-0.6349	0.0384	20.5
Cold CO	85.06	-0.2236	0.0382	51.8	-0.4548	0.0399	N/A
US06	77.33	-0.2033	0.0347	51.64	-0.6349	0.0384	N/A

Emission Control Device Comments --

Manufacturer Test Vehicle Comments 2022MY DBX LDT4

Test #	MASX10065539	Test Procedure	23 - 2-day evap
Exhaust Test # for this Evap Test	MASX10065521	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	04/24/2020	Fuel	Gasoline
Fuel Batch ID	HJ2103	Fuel Calibration Number	6606
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	IDIADA Automotive Technology SA		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4321	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	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.26	--

Manufacturer Test Comments DBX LDT4 9 speed auto 2021MY New EDV

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	0.2600	0.000	0.260	0.500	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.2600	0.000	0.260	0.500	Pass

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B
Test #	MASX10065541	Test Procedure	34 - Federal fuel 3-day evap
Exhaust Test # for this Evap Test	MASX10065540	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	05/14/2020	Fuel	Gasoline
Fuel Batch ID	HF2603	Fuel Calibration Number	2538
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	IDIADA Automotive Technology SA		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4520	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	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.366	--

Manufacturer Test Comments

DBX LDT4 9 speed auto 2021MY New EDV

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	0.3660	0.000	0.366	0.500	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.3660	0.000	0.366	0.500	Pass

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B					
Test #	MASX10065519	Test Procedure	24 - Federal fuel refueling test (ORVR)					
Exhaust Test # for this Evap Test	MASX10065518	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)					
Test Date	03/26/2020	Fuel	Gasoline					
Fuel Batch ID	HJ2103	Fuel Calibration Number	6606					
Vehicle Class	N/A	DF Type	EPA Assigned					
Verify Test Lab ID	IDIADA Automotive Technology SA							
E10 Evaporative Test Measurement Method	--							
Test Start Odometer Reading	4164	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	Yes					
Test Results								
Test Result Name		Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)					
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)		0.015	--					
Manufacturer Test Comments								
DBX LDT4 9 speed auto 2021MY New EDV								
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	0.02	0.006	0.0	0.2	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.02	0.006	0.0	0.2	Pass

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B
Test #	MASX10065542	Test Procedure	32 - Federal Fuel Running Loss
Exhaust Test # for this Evap Test	MASX10065540	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	05/14/2020	Fuel	Gasoline
Fuel Batch ID	HF2603	Fuel Calibration Number	2538
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	IDIADA Automotive Technology SA		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4520	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	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.002	--

Manufacturer Test Comments

DBX LDT4 9 speed auto 2021MY New EDV

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	0.002	0.000	0.00	0.05	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.002	0.000	0.00	0.05	Pass

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B
Test #	MASX10071437	Test Procedure	65 - Evap Canister Bleed Test
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	03/18/2020	Fuel	Gasoline
Fuel Batch ID	HJ2103	Fuel Calibration Number	6606
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	IDIADA Automotive Technology SA		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4400	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	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.0175	--

Manufacturer Test Comments

BETP AML result

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	0.018	0	0.02	0.02	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.018	0	0.02	0.02	Pass

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B																											
Test #	MASX10071438	Test Procedure	66 - Leak Test - Evap Fuel System OBD																											
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)																											
Test Date	11/25/2020	Fuel	Gasoline																											
Fuel Batch ID	HJ2103	Fuel Calibration Number	6606																											
Vehicle Class	N/A	DF Type	EPA Assigned																											
Verify Test Lab ID	IDIADA Automotive Technology SA																													
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)																													
Test Start Odometer Reading	5130	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	Yes																											
Test Results																														
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:35%;">Test Result Name</th> <th style="width:35%;">Unrounded Test Result</th> <th style="width:30%;">Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> <tr> <td>LEAK-DIA (Effective Leak Diameter (inches))</td> <td>0.003</td> <td>--</td> </tr> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	LEAK-DIA (Effective Leak Diameter (inches))	0.003	--																					
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)																												
LEAK-DIA (Effective Leak Diameter (inches))	0.003	--																												
Manufacturer Test Comments																														
AML common Leak Test result																														
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:10%;">Certification Region</th> <th style="width:10%;">Useful Life</th> <th style="width:10%;">Standard Level</th> <th style="width:10%;">Emission Name</th> <th style="width:10%;">Rounded Result</th> <th style="width:10%;">Add DF</th> <th style="width:10%;">Certification Level</th> <th style="width:10%;">Standard</th> <th style="width:10%;">Pass/Fail</th> </tr> <tr> <td>Fed</td> <td>150,000 miles</td> <td>Federal Tier 3 Evap</td> <td>LEAK-DIA</td> <td>0.003</td> <td>0</td> <td>0.00</td> <td>0.02</td> <td>Pass</td> </tr> <tr> <td>CA</td> <td>150,000 miles</td> <td>California LEV-III Zero Evap (Option 1)</td> <td>LEAK-DIA</td> <td>0.003</td> <td>0</td> <td>0.00</td> <td>0.02</td> <td>Pass</td> </tr> </table>				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	LEAK-DIA	0.003	0	0.00	0.02	Pass	CA	150,000 miles	California LEV-III Zero Evap (Option 1)	LEAK-DIA	0.003	0	0.00	0.02	Pass
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	LEAK-DIA	0.003	0	0.00	0.02	Pass																						
CA	150,000 miles	California LEV-III Zero Evap (Option 1)	LEAK-DIA	0.003	0	0.00	0.02	Pass																						

Certification Summary Information Report

Test Group	TASXJ04.0AEX	Evaporative/Refueling Family	TASXR0160T3B
Fuel Properties			
Fuel Batch ID	HJ2103	Fuel Calibration Number	6606
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	11/14/2019
Fuel Batch Calibration Effective Date	11/14/2019	Fuel Batch Calibration Ineffective Date	11/14/2022
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.832	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.753
Fuel Ethanol Volume Percent (%)	9.7	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17996
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.832	Weight Fraction CO2	--
Fuel Batch ID	HF2603	Fuel Calibration Number	2538
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	09/25/2019
Fuel Batch Calibration Effective Date	09/25/2019	Fuel Batch Calibration Ineffective Date	09/25/2022
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.823	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.753
Fuel Ethanol Volume Percent (%)	9.7	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17308
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.823	Weight Fraction CO2	--
Fuel Batch ID	43987	Fuel Calibration Number	8394
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	01/17/2022
Fuel Batch Calibration Effective Date	01/17/2022	Fuel Batch Calibration Ineffective Date	01/17/2024
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.83	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.752
Fuel Ethanol Volume Percent (%)	10	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17807
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	59318	Fuel Calibration Number	3658
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	07/17/2023

Certification Summary Information Report

Test Group		Evaporative/Refueling Family	
TASXJ04.0AEX		TASXR0160T3B	
Fuel Batch Calibration Effective Date	07/17/2023	Fuel Batch Calibration Ineffective Date	07/17/2025
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.799	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.753
Fuel Ethanol Volume Percent (%)	9.5	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17923
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.799	Weight Fraction CO2	--

Certification Summary Information Report

Test Group		TASXJ04.0AEX			Evaporative/Refueling Family			TASXR0160T3B	
Consolidated List of Standards									
Exhaust Standards									
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			California LEV-IV ULEV70	
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	CREE	--	--	--	--	--	--	0.00	999.999
150,000 miles	NMOG	--	--	1.10	--	--	--	0.0098	999.999
150,000 miles	NMOG+NOX	--	--	1.10	--	--	--	0.0168	0.070
150,000 miles	NOX	--	--	--	--	--	--	0.007	999.999
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			California LEV-IV ULEV70	
Fuel		Gasoline			Test Procedure			Federal 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	--	--	--	--	--	--	0.24	1.7
150,000 miles	CREE	--	--	--	--	--	--	0.000	999.999
150,000 miles	HCHO	--	--	--	--	--	--	0.0003	0.004
150,000 miles	METHANE	--	--	--	--	--	--	0.000	0.03
150,000 miles	N2O	--	--	--	--	--	--	0.007	0.01
150,000 miles	NMOG	--	1	1.10	--	--	--	0.0098	999.999
150,000 miles	NMOG+NOX	--	--	1.10	--	--	--	0.0168	0.070
150,000 miles	NOX	--	--	--	--	--	--	0.007	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.003

Certification Summary Information Report

Test Group	TASXJ04.0AEX				Evaporative/Refueling Family			TASXR0160T3B	
Cert Region	California + CAA Section 177 states				Cert/In-Use Code			Cert	
Vehicle Class	LDV/Passenger Car				Standard Level			California LEV-IV ULEV70	
Fuel	Gasoline				Test Procedure			CA fuel 50 Deg(F) exhaust test	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
50,000 miles	CO	--	--	--	--	--	--	0	1.7
50,000 miles	HCHO	--	--	--	--	--	--	0	0.016
50,000 miles	NMOG	--	--	--	--	--	--	0	999.999
50,000 miles	NMOG+NOX	--	1	1.10	--	--	--	0	0.14
50,000 miles	NOX	--	--	--	--	--	--	0	999.999

Cert Region	Federal				Cert/In-Use Code			Cert	
Vehicle Class	LDV/Passenger Car				Standard Level			Federal Tier 3 Bin 70	
Fuel	Gasoline				Test Procedure			Federal 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	--	--	--	--	--	--	0.24	1.7
150,000 miles	CO-COMP	--	--	--	--	--	--	0	4.2
150,000 miles	CREE	--	--	--	--	--	--	0.000	999.999
150,000 miles	HCHO	--	--	--	--	--	--	0.0003	0.004
150,000 miles	METHANE	--	--	--	--	--	--	0.000	0.03
150,000 miles	N2O	--	--	--	--	--	--	0.007	0.01
150,000 miles	NMOG	--	1	1.10	--	--	--	0.0098	999.999
150,000 miles	NMOG+NOX	--	--	1.10	--	--	--	0.0168	0.070
150,000 miles	NMOG+NOX-COMP	--	--	1.10	--	--	--	0	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.007	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.003

Certification Summary Information Report

Test Group	TASXJ04.0AEX				Evaporative/Refueling Family			TASXR0160T3B	
Cert Region	California + CAA Section 177 states				Cert/In-Use Code			Cert	
Vehicle Class	LDV/Passenger Car				Standard Level			California LEV-IV ULEV70	
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	--	--	--	--	--	--	0.24	3.2
150,000 miles	NMOG	--	--	1.03	--	--	--	0.0098	999.999
150,000 miles	NMOG+NOX	--	--	1.03	--	--	--	0.01680	0.07
150,000 miles	NOX	--	--	--	--	--	--	0.0070	999.999

Cert Region	Federal				Cert/In-Use Code			Cert	
Vehicle Class	LDV/Passenger Car				Standard Level			Federal Tier 3 Bin 70	
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	CREE	--	--	--	--	--	--	0.00	999.999
150,000 miles	NMOG	--	--	1.10	--	--	--	0.0098	999.999
150,000 miles	NMOG+NOX	--	--	1.10	--	--	--	0.0168	0.070
150,000 miles	NOX	--	--	--	--	--	--	0.007	999.999

Cert Region	California + CAA Section 177 states				Cert/In-Use Code			Cert	
Vehicle Class	LDV/Passenger Car				Standard Level			California LEV-IV ULEV70	
Fuel	Gasoline				Test Procedure			Cold CO	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
50,000 miles	CO	--	--	--	--	--	--	0	10
50,000 miles	HC-NM	--	--	--	--	--	--	0.000	0.3

Certification Summary Information Report

Test Group	TASXJ04.0AEX				Evaporative/Refueling Family			TASXR0160T3B	
Cert Region	California + CAA Section 177 states				Cert/In-Use Code			Cert	
Vehicle Class	LDV/Passenger Car				Standard Level			California LEV-IV ULEV70	
Fuel	Gasoline				Test Procedure			US06	
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	--	--	--	--	--	--	0.24	9.6
150,000 miles	NMOG	--	--	1.03	--	--	--	0.0098	999.999
150,000 miles	NMOG+NOX	--	--	1.03	--	--	--	0.01680	0.084
150,000 miles	NOX	--	--	--	--	--	--	0.0070	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.006

Cert Region	Federal				Cert/In-Use Code			Cert	
Vehicle Class	LDV/Passenger Car				Standard Level			Federal Tier 3 Bin 70	
Fuel	Gasoline				Test Procedure			Cold CO	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
50,000 miles	CO	--	--	--	--	--	--	0	10
50,000 miles	HC-NM	--	--	--	--	--	--	0.000	0.3

Evaporative/Refueling Standards

Evaporative/Refueling Family		TASXR0160T3B		Cert Region		Federal	
Cert/In-Use Code		Cert		Standard Level		Federal Tier 3 Evap	
Test Procedure		Leak Test - Evap Fuel System OBD					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	LEAK-DIA	--	0.02	0		

Evaporative/Refueling Family		TASXR0160T3B		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-III Zero Evap (Option 2)	
Test Procedure		Evap Canister Bleed Test					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.02	0		

Certification Summary Information Report

Test Group		TASXJ04.0AEX		Evaporative/Refueling Family		TASXR0160T3B	
Evaporative/Refueling Family		TASXR0160T3B		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-III Zero Evap (Option 2)	
Test Procedure		Federal fuel refueling test (ORVR)					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.2	0.006		
Evaporative/Refueling Family		TASXR0160T3B		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-III Zero Evap (Option 2)	
Test Procedure		Federal fuel 3-day evap					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.500	0.000		
Evaporative/Refueling Family		TASXR0160T3B		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	--	0.500	0.000		
Evaporative/Refueling Family		TASXR0160T3B		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-III Zero Evap (Option 1)	
Test Procedure		Leak Test - Evap Fuel System OBD					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	LEAK-DIA	--	0.02	0		
Evaporative/Refueling Family		TASXR0160T3B		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	--	0.500	0.000		

Certification Summary Information Report

Test Group		TASXJ04.0AEX		Evaporative/Refueling Family		TASXR0160T3B	
Evaporative/Refueling Family		TASXR0160T3B		Cert Region		Federal	
Cert/In-Use Code		Cert		Standard Level		Federal Tier 3 Evap	
Test Procedure		Federal fuel refueling test (ORVR)					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.2	0.006		
Evaporative/Refueling Family		TASXR0160T3B		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		TASXR0160T3B		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-III Zero Evap (Option 2)	
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		TASXR0160T3B		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Cert		Standard Level		California LEV-III Zero Evap (Option 2)	
Test Procedure		2-day evap					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.500	0.000		
Evaporative/Refueling Family		TASXR0160T3B		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	--	0.02	0		

Certification Summary Information Report

Test Group		TASXJ04.0AEX	Evaporative/Refueling Family		TASXR0160T3B
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		AS-VOLT	Average System Voltage	
CO	Carbon Monoxide		CO2 BAG 1	Bag 1 Carbon Dioxide	
CO2	Carbon dioxide		CO2 BAG 2	Bag 2 Carbon Dioxide	
CREE	Carbon-Related Exhaust Emissions		CO2 BAG 3	Bag 3 Carbon Dioxide	
OPT-CREE	Optional Carbon-Related Exhaust Emissions		CO2 BAG 4	Bag 4 Carbon Dioxide	
NOX	Nitrogen Oxide		NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides	
PM	Particulate Matter		NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides	
PM-COMP	SFTP Composite Particulate Matter		DT-IWRR	Drive Trace Inertia Work Ratio Rating	
HC-NM	Non-methane Hydrocarbon		DT-ASCR	Drive Trace Absolute Speed Change Rating	
OMHCE	Organic material Hydrocarbon Equivalent		DT-EER	Drive Trace Energy Economy Rating	
OMNMHCE	Organic material non-methane HC equivalent		COMB-CREE	Combined Carbon-Related Exhaust Emissions	
NMOG	Non-methane organic gases		COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions	
HCHO	Formaldehyde		HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only	
H3C2HO	Acetaldehyde		METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only	
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03		N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only	
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides		LEAK-DIA	Effective Leak Diameter (inches)	
CO-COMP	SFTP Composite Carbon Monoxide		LEAK-GAS CAP	Gas Cap Leakage (cc/min)	
ETHANOL	C2H5OH - Ethanol		CO2-COMB	Combined Carbon Dioxide for HD 2b/3 Vehicles Only	
FE BAG 1	Bag 1 Fuel Economy		KW-HRS	Integrated DC KW-HRS	
FE BAG 2	Bag 2 Fuel Economy		CH4 BAG 1	Bag 1 Methane	
FE BAG 3	Bag 3 Fuel Economy		CH4 BAG 2	Bag 2 Methane	
FE BAG 4	Bag 4 Fuel Economy		CH4 BAG 3	Bag 3 Methane	
MFR FE	Manufacturer Fuel Economy		CH4 BAG 4	Bag 4 Methane	
HC	Hydrocarbon for Running Loss and ORVR		CO BAG 1	Bag 1 Carbon Monoxide	
METHANE	CH4 - Methane		CO BAG 2	Bag 2 Carbon Monoxide	
METHANOL	CH3OH - Methanol		CO BAG 3	Bag 3 Carbon Monoxide	
N2O	Nitrous Oxide		CO BAG 4	Bag 4 Carbon Monoxide	
SPITBACK	Spitback Hydrocarbon in grams		NMOG BAG 1	Bag 1 Non-methane organic gases	
AMP-HRS	Integrated Amp-hours		NMOG BAG 2	Bag 2 Non-methane organic gases	
START-SOC	System Start State of Charge Watt-hours		NMOG BAG 3	Bag 3 Non-methane organic gases	
END-SOC	System End State of Charge Watt-hours		NMOG BAG 4	Bag 4 Non-methane organic gases	
ACT-DISTANCE	Actual Distance Driven (miles)				
Certification Region					

Certification Summary Information Report

Test Group		TASXJ04.0AEX		Evaporative/Refueling Family		TASXR0160T3B	
CA	California + CAA Section 177 states	FA	Federal				
Exhaust Emission Standard Level							
B1	Federal Tier 2 Bin 1	T3B160	Federal Tier 3 Bin 160				
B2	Federal Tier 2 Bin 2	T3B125	Federal Tier 3 Bin 125				
B3	Federal Tier 2 Bin 3	T3B110	Federal Tier 3 Transitional Bin 110				
B4	Federal Tier 2 Bin 4	T3B85	Federal Tier 3 Transitional Bin 85				
B5	Federal Tier 2 Bin 5	T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover				
B6	Federal Tier 2 Bin 6	T3B70	Federal Tier 3 Bin 70				
B7	Federal Tier 2 Bin 7	T3B50	Federal Tier 3 Bin 50				
B8	Federal Tier 2 Bin 8	T3B30	Federal Tier 3 Bin 30				
B9	Federal Tier 2 Bin 9	T3B20	Federal Tier 3 Bin 20				
B10	Federal Tier 2 Bin 10	T3B0	Federal Tier 3 Bin 0				
B11	Federal Tier 2 Bin 11	HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395				
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)	HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340				
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	HDV2B250	Federal Tier 3 HD Class 2b Bin 250				
L2	California LEV-II LEV	HDV2B200	Federal Tier 3 HD Class 2b Bin 200				
L2OP	California LEV-II LEV Optional	HDV2B170	Federal Tier 3 HD Class 2b Bin 170				
U2	California LEV-II ULEV	HDV2B150	Federal Tier 3 HD Class 2b Bin 150				
S2	California LEV-II SULEV	HDV2B0	Federal Tier 3 HD Class 2b Bin 0				
ZEV	California ZEV	HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630				
OT	Other	HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570				
T1	Federal Tier 1	HDV3B400	Federal Tier 3 HD Class 3 Bin 400				
PZEV	California PZEV	HDV3B270	Federal Tier 3 HD Class 3 Bin 270				
L2LEV160	California LEV-II LEV160	HDV3B230	Federal Tier 3 HD Class 3 Bin 230				
L2ULEV125	California LEV-II ULEV125	HDV3B200	Federal Tier 3 HD Class 3 Bin 200				
L2SULEV30	California LEV-II SULEV30	HDV3B0	Federal Tier 3 HD Class 3 Bin 0				
L2LEV395	California LEV-II LEV395	L4SULEV100	California LEV-IV SULEV100				
L2ULEV340	California LEV-II ULEV340	L4SULEV125	California LEV-IV SULEV125				
L2LEV630	California LEV-II LEV630	L4SULEV15	California LEV-IV SULEV15				
L2ULEV570	California LEV-II ULEV570	L4SULEV150	California LEV-IV SULEV150				
L3LEV160	California LEV-III LEV160	L4SULEV170	California LEV-IV SULEV170				
L3ULEV125	California LEV-III ULEV125	L4SULEV175	California LEV-IV SULEV175				
L3ULEV70	California LEV-III ULEV70	L4SULEV20	California LEV-IV SULEV20				
L3ULEV50	California LEV-III ULEV50	L4SULEV200	California LEV-IV SULEV200				
L3SULEV30	California LEV-III SULEV30	L4SULEV230	California LEV-IV SULEV230				
L3SULEV20	California LEV-III SULEV20	L4SULEV25	California LEV-IV SULEV25				
L3LEV395	California LEV-III LEV395	L4SULEV30	California LEV-IV SULEV30				
L3ULEV340	California LEV-III ULEV340	L4SULEV75	California LEV-IV SULEV75				
L3ULEV250	California LEV-III ULEV250	L4SULEV85	California LEV-IV SULEV85				
L3ULEV200	California LEV-III ULEV200	L4ULEV125	California LEV-IV ULEV125				

Certification Summary Information Report

Test Group		TASXJ04.0AEX	Evaporative/Refueling Family		TASXR0160T3B
L3SULEV170	California LEV-III SULEV170		L4ULEV200	California LEV-IV ULEV200	
L3SULEV150	California LEV-III SULEV150		L4ULEV250	California LEV-IV ULEV250	
L3LEV630	California LEV-III LEV630		L4ULEV270	California LEV-IV ULEV270	
L3ULEV570	California LEV-III ULEV570		L4ULEV40	California LEV-IV ULEV40	
L3ULEV400	California LEV-III ULEV400		L4ULEV400	California LEV-IV ULEV400	
L3ULEV270	California LEV-III ULEV270		L4ULEV50	California LEV-IV ULEV50	
L3SULEV230	California LEV-III SULEV230		L4ULEV60	California LEV-IV ULEV60	
L3SULEV200	California LEV-III SULEV200		L4ULEV70	California LEV-IV ULEV70	
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		
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		



8. Emission Testing Waiver Statements

8.1. Data submittal waiver for high-altitude exhaust emission compliance

Based on our engineering evaluation of high-altitude emissions testing conducted at SGS Engineering, Aurora, CO, we can state as manufacturer that all light-duty vehicles included in this application comply with the applicable emission standards at high altitude.

According to 40 CFR § 86.1829-15 (c) we waive the data submittal on the basis of this statement.

8.2. Data submittal waiver for 2DD (Supplemental) Evaporative Loss testing

Based on our engineering evaluation of 2DD testing for EU markets using E10 fuel on our light duty vehicles and on evaluation of the US 2DD sequence performance on the largely similar system design on our LDT vehicle, and in accordance with the flexibility in 40CFR 86.1829-15(e)(6,) we state as manufacturer that all light duty vehicles in this application demonstrate compliance with the standard for the supplemental two diurnal test sequence.

8.3. Data submittal waiver for CST exhaust emission compliance

Based on our engineering evaluation of appropriate CST testing and I/M testing we state as the manufacturer that all light-duty vehicles included in the respective applications comply with the applicable CST and I/M emission standards.

According to 40 CFR § 86.1829-01 (b)(4)(ii) we waive the data submittal on the basis of this statement.

8.4. Data submittal waiver for Idle CO Testing

Based on our engineering evaluation of appropriate Idle CO emissions we state as the manufacturer, that all light-duty vehicles included in this applications comply with the applicable idle CO emission standards.

According to 40 CFR § 86.1829-01 (b)(5)(ii) we waive the data submittal on the basis of this statement.

8.5. Data submittal waiver for HCHO (Formaldehyde) Testing

Based on our engineering evaluation of appropriate NMHC test data we state as the manufacturer of light duty vehicles included in the respective applications comply with the HCHO standards. Additionally tests for 2024MY included HCHO analysis and show full compliance with the regulatory criteria pollutant requirements.

According to 40 CFR § 86.1829-01 (b)(iii)(F) we waive the data submittal on the basis of this statement.



9. OBD General Description

OBD II hardware, software, and algorithms are based to the largest degree possible upon approved Bosch Engineering OBD II systems. There are, of course, some unique features of the Aston Martin engine/system that require unique hardware or algorithms. The OBD II system descriptions, thresholds, entry and exit conditions etc., are contained within Section 16 – Confidential Information.



11. AECD Descriptions

The Aston Martin Lagonda Ltd Test Group – TASXJ04.0AEX uses a Bosch MED 17.7.5 control system which is a unique system for Aston Martin. The AECD nomenclature and descriptions are shown in the chart included in Section 16 - Confidential information.



12. Description of Vehicles and Test Parameters Covered by Certificate

12.1. Vehicle Parameters

12.1.1	Carline (s)	572 - DB12 V8 614 - Vantage 884 - DBX707 840 - DBX S 547 - DB12 S
12.1.2.	Vehicle Classification	LDV & LDT
12.1.3.	Emission Control System Description:	
12.1.3.1.	Catalyst	Type: Three-Way Catalyst Number: EPA assigned additive deterioration Configuration: 2 catalysts/bank, 1 primary warm up and 1 secondary
12.1.3.2.	EGR type	Not Applicable
12.1.3.3.	Air pump type	Not Applicable
12.1.3.4.	Fuel system type	Electronic Direct Fuel Injection
12.1.3.5.	Intake air aspiration method	Turbocharged, 1 per bank
12.1.3.6.	Other	Not Applicable
12.1.4.	Engine Code	177850 (177950 DBX)
12.1.5.	Number of valves per cylinder	4
12.1.6.	Engine Displacement	3982cm ³ (239 in. ³).



- | | | |
|----------|----------------------------|---|
| 12.1.7. | Sales area | FA & CA |
| 12.1.8. | Transmission and overdrive | A8 - DB12 & Vantage
A9 - DBX707 & DBX S |
| 12.1.9. | Shift indicator light | Equipped, not shifted by SIL |
| 12.1.10. | Tire Size | DB12/Vantage - 275/35R21(F),
Michelin Pilot Sport 5
DBX707 & S - 285/40R22(F), 325/35R22(R)
or
285/35R23(F), 325/30R23(R) |
| 12.1.11. | N/V Ratio | Pirelli Scorpion Zero All Season AS8
24.8 DB12 & Vantage 8 speed auto
21.8 DBX 9 speed auto |
| 12.1.12. | Equivalent test weight | 4500lbs DB12 models
5500lbs DBX models
19.4 US Gallons - Vantage |

12.2. Test Parameters**12.2.1 Engine Start/Stop Procedures****All Transmission types:**

Ensure the key fob is present in the vehicle. Check that the parking brake is applied. Depress the brake pedal. The Start button will glow red, indicating the engine is ready for the start. Momentarily press the start button to start. Alternatively press and hold the start button for a quiet start.

To stop the engine, select P and push the start button. The engine will stop and the steering lock will engage soon after. Remove the key fob from the vehicle to prevent battery drain when the vehicle is not in use. Taking the key fob away from the vehicle while the engine is running will not stop the engine, but if the engine is stopped by pressing the start button, it cannot be re-started until the key fob is again in the proximity of the vehicle interior.



12.2.2. Shift Schedules

12.2.2.1. The shift schedules are in accordance with 40 CFR §86.128-79 and A/C No. 72 A.

EPA Shift Schedules:

DB12 & Vantage 8 speed auto Config 00 - program auto shift schedule

All DBX 9 speed auto Config 00 - program auto shift schedule

12.2.3. Dynamometer Loading Information

For Emissions and Fuel Economy:

Model	ETW (lbs)	Tire Size	Target Coefficients			Set Coefficients		
			A	B	C	a	b	c
DB12 V8	4500	325/30R21	53.24	0.2228	0.0221	5.67	0.0083	0.0221
DBX707	5500	325/35R22	60.68	-0.3286	0.0373	-4.88	-0.532	0.0367
Vantage	4250	325/30R21	52.07	0.2623	0.0224	-13.38	0.2616	0.0201
DBX S	5500	325/30R23	69.33	0.0192	0.0331	-14.97	-0.34	0.0336
DB12 S	4500	325/30R21	59.35	0.1784	0.0239	7.46	0.0564	0.0211



12.2.4. Evaporative / Refuelling Families

TASXR0160T3A & TASXR0160T3B

Fuel Tank Temperature Profile

sec.	Corrected Tank 1 (EPA,95°F)	Corrected Vapor 1 (EPA,95°F)	Corrected Tank 1 (CARB,105°F)	Corrected Vapor 1 (CARB,105°F)
0.	95	95	105	105
60	95.1	95.4	105.1	105.4
120	95.2	95.7	105.2	105.7
180	95.4	96.2	105.4	106.2
240	95.7	96.5	105.7	106.5
300	96.1	96.9	106.1	106.9
360	96.3	97.3	106.3	107.3
420	96.7	97.7	106.7	107.7
480	97	98	107	108
540	97.2	98.5	107.2	108.5
600	97.6	98.9	107.6	108.9
660	97.9	99.4	107.9	109.4
720	98.2	99.7	108.2	109.7
780	98.6	100	108.6	110
840	99	100.3	109	110.3
900	99.3	100.8	109.3	110.8
960	99.7	101.2	109.7	111.2
1020	100	101.7	110	111.7
1080	100.4	102	110.4	112
1140	100.7	102.4	110.7	112.4
1200	101.2	102.7	111.2	112.7
1260	101.6	102.9	111.6	112.9
1320	102.1	103.4	112.1	113.4
1380	102.4	103.7	112.4	113.7
1440	102.8	104.1	112.8	114.1
1500	103.2	104.3	113.2	114.3
1560	103.6	104.6	113.6	114.6
1620	103.9	104.9	113.9	114.9
1680	104.3	105.3	114.3	115.3
1740	104.7	105.6	114.7	115.6
1800	105.1	106	115.1	116
1860	105.6	106.4	115.6	116.4
1920	105.9	106.6	115.9	116.6
1980	106.3	107	116.3	117
2040	106.6	107.3	116.6	117.3
2100	106.9	107.3	116.9	117.3
2160	107.3	107.7	117.3	117.7
2220	107.7	108	117.7	118
2280	108.1	108.1	118.1	118.1
2340	108.4	108.4	118.4	118.4
2400	108.7	108.8	118.7	118.8
2460	109.1	109.1	119.1	119.1
2520	109.5	109.5	119.5	119.5
2580	109.9	109.9	119.9	119.9
2640	110.1	110.2	120.1	120.2
2700	110.6	110.4	120.6	120.4
2760	111	110.8	121	120.8
2820	111.3	111.1	121.3	121.1
2880	111.6	111.5	121.6	121.5
2940	112	111.8	122	121.8
3000	112.4	112	122.4	122
3060	112.9	112.2	122.9	122.2
3120	113.3	112.7	123.3	122.7
3180	113.6	113.3	123.6	123.3
3240	114.2	113.7	124.2	123.7
3300	114.5	114.1	124.5	124.1
3360	114.8	114.3	124.8	124.3
3420	115.2	114.8	125.2	124.8
3480	115.5	115	125.5	125
3540	115.9	115.1	125.9	125.1
3600	116.2	115.7	126.2	125.7
3660	116.7	116.2	126.7	126.2
3720	117	116.8	127	126.8
3780	117.5	117.1	127.5	127.1
3840	117.8	117.4	127.8	127.4
3900	118.1	117.6	128.1	127.6
3960	118.5	117.7	128.5	127.7
4020	118.7	117.9	128.7	127.9
4080	119.1	118.2	129.1	128.2
4140	119.5	118.7	129.5	128.7
4200	119.7	118.9	129.7	128.9
4260	120.1	119.2	130.1	129.2
4308	120.5	119.7	130.5	129.7



13. Projected Sales

Confidential information, refer to Section 16, page 4.



14.

14.1. **Statements of Compliance**

This test group is certified under the small volume manufacturer provisions contained in 40CFR 86.1811-17(h) where we aim to utilise the extended Tier 3 phase in period to meet the compliance levels required therein for model years 2017 thru 2021, model years 2022 thru 2027 and then meeting the final Tier 3 NMOG+NOx standard in model year 2028.

Aston Martin Lagonda Ltd states that any element of design, system or emission control device installed on or incorporated in Aston Martin's new motor vehicles or new motor vehicle engines, for the purpose of complying with standards prescribed under section 202 of the Clean Air Act, will not to the best of Aston Martin Lagonda Ltds information and belief, cause the emission into the ambient air of pollutants in the operation of its motor vehicles or motor vehicle engines which cause or contribute to an unreasonable risk of public health or welfare except as specifically permitted by the standards described under section 202 of the Clean Air Act.

Aston Martin Lagonda Ltd further states that any element of design, system, or emission control device installed on or incorporated in Aston Martin's new motor vehicles or new motor vehicle engines, for the purpose of complying with standards prescribed under section 202 of the Clean Air Act, will not, to the best of Aston Martin's information and belief, cause or contribute to an unreasonable risk to the public safety.

The term pollutant means:

- (a) Diesel particulates
- (b) Nickel
- (c) MMT combustion products
- (d) Ammonia
- (e) Sulphates
- (f) Hydrogen sulphide
- (g) Hydrogen cyanide
- (h) Ruthenium combustion products
- (i) Nitrosamines

Or any other pollutant which Aston Martin Lagonda Ltd has identified which can reasonably be expected to be emitted from these vehicles.

All vehicles have been tested in accordance with good engineering practice to ascertain that such test vehicles meet the requirement of this section for the useful life of the vehicle.

The test vehicles with respect to which data are submitted are in all material respects as described in the application for certification, have been tested in accordance with the applicable test procedures utilizing the fuels and equipment described in the application for certification, they meet the requirements of such tests, and on the basis of such tests, they conform to the requirements of the regulations in 40CFR, Part 86 Subpart S and later requirements contained in 40CFR Part 1066 subpart I.

The test vehicles for which certification is requested conform to the requirements in § 86.1810-01 (a), 86.1810-09 and 86.1810-17 and the description of tests performed to ascertain compliance with the general standards contained therein and the data derived from such tests are available.



The testing described under 86.1824-01 has been designed and conducted in accordance with good engineering practice to assure that the vehicles covered by a certificate issued under 86.1848-01 and -10 will meet the Tier 3 evaporative emission standards as detailed in 86.1813-17(h) from model year 2022.

Further, in accordance with § 86.1810-01 (c)(1), Aston Martin Lagonda Ltd states that the fuel evaporative emission deterioration factors for each fuel evaporative emission family / fuel evaporative system combination and all test data that are derived from testing described under § 86.098-21(b)(4)(I) designed and conducted in accordance with good engineering practice to assure that the vehicles covered by a certificate issued under § 86.1848-01 will meet the Tier 3 evaporative emission standards for the useful life of the vehicle.

COLD CO Compliance

Aston Martin states that the vehicles described herein have been tested in accordance 40CFR part1066 Subpart H and on the basis of these tests are in conformance with that subpart. See the test group CSI in section 7 for further information.

CONTINUITY OF EMISSIONS IN THE 20° F to 86° F TEMPERATURE RANGES

Aston Martin states that there is no discontinuity in emissions of NMOG, NOx or CO measured on the federal test procedure in the 20° F to 86° F temperature ranges.

Aston Martin states that the air to fuel ratio is no richer than the leanest air to fuel mixture required to obtain maximum torque (lean best torque), plus a tolerance of six percent, except for the purposes of component protection as petitioned for by Aston Martin and as approved by the Administrator.

LEAK FREE EXHAUST

In accordance with the requirements set out in 40 CFR 86.1844-01(d)(16) Aston Martin attests that the exhaust system design facilitates leak free assembly at first installation and subsequent installations necessitated by service needs. The catalyst downpipe assemblies are single piece with welded joints and carry industry standard oxygen sensor mountings. The joint systems employed between cylinder head and manifold and the joint face post catalyst are deformable gasket materials that are designed for the full useful life of the vehicle.

A/C DURABILITY

In accordance with the requirements of 40CFR 86.1823-08(m)(4) Aston Martin attests that the system design facilitates leak free assembly at first installation and subsequent installations necessitated by service needs. All joints use latest industry standard features and materials and all flexible sections are optimised for surface area. System leak control capability is defined by the specifications in SAE J2727 and measured using same.

**14.2. Request for Certificate**

Aston Martin Lagonda Ltd herewith applies for a Federal Certificate of Conformity for Test Group TASXJ04.0AEX

Aston Martin Lagonda Ltd herewith also applies for a California ARB Executive Order for Test Group TASXJ04.0AEX

This Test Group complies with all applicable regulations contained in Title 40, Code of Federal Regulations, Part 86 and Part 1066, and the California Code of Regulations.

Simon Naughton
Head of Legislation & Certification



15. Other Information

- 15.1. Label samples according to 40 CFR § 86.1807-01 and according to California Motor Vehicle Emission Control Label Specifications. Positioned under the hood.

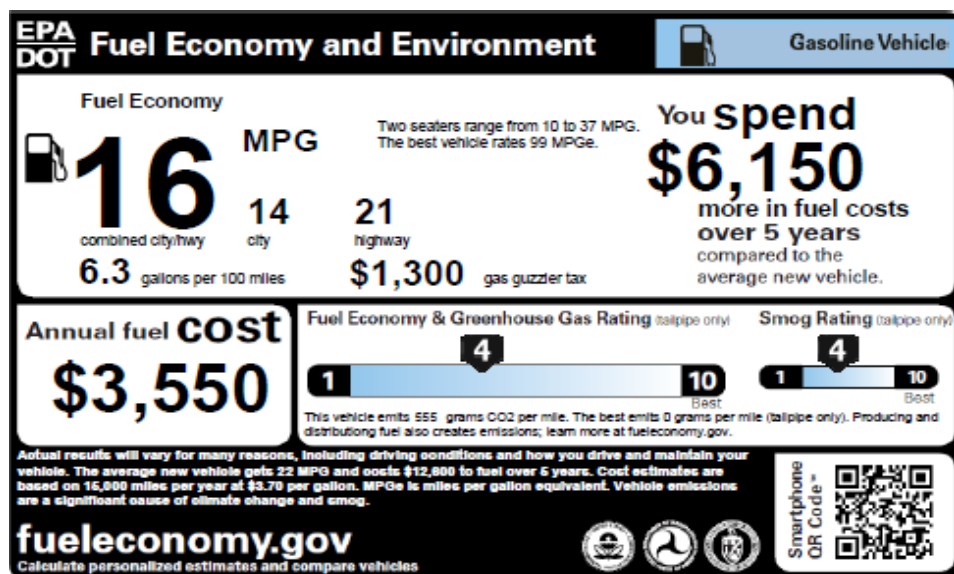
 ASTON MARTIN LAGONDA LTD VEHICLE EMISSION CONTROL INFORMATION	
Conforms to regulations: MY 2026	
US EPA: Tier 3 BIN70 LDV	OBD II Fuel: T3 Premium
California: LEV4 ULEV70 PC	OBD II Fuel: T3 Premium
GROUP: TASXJ04.0AEX	2WU-TWC/2TWC/2WR-HO2S/
EVAP: TASXR0160T3A	2HO2S/2TC/2CAC/DFI
No Adjustments Needed	TY63-973268-AB

 ASTON MARTIN LAGONDA LTD VEHICLE EMISSION CONTROL INFORMATION	
Conforms to regulations: MY 2026	
US EPA: Tier 3 BIN70 LDT	OBD II Fuel: T3 Premium
California: LEV4 ULEV70 LDT	OBD II Fuel: T3 Premium
GROUP: TASXJ04.0AEX	2WU-TWC/2TWC/2WR-HO2S/
EVAP: TASXR0160T3B	2HO2S/2TC/2CAC/DFI
No Adjustments Needed	TY83-973268-AB

15.2 Environmental Performance Label (included on the Monroney Label)

This test group will adopt the new EPA/DOT Fuel Economy and Environment label, commencing with Monroney labels produced for 2013MY vehicles.

Sample of format in use : (not the actual label for this family)





15.3. Fee Filling Form - EPA Condensed version

US EPA Fee Form

[Help and EPA Instructions](#)

* Required Field

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

Engine Family / Evaporative Family / Test Group *

TASXJ04.0AEX

General Information	Certificate Request Type (Industry Sector Code)
Date: 10/30/2024 Process Code * Submit New Fee Filing Form Manufacturer Code * ASX Manufacturer Name * Aston Martin Lagonda Ltd Contact Name * Jon Yarrow Contact Email Address * jon.yarrow@astonmartin.com Contact Phone * 011 447905201903 Calendar Year complete application submitted to EPA * 2025 PLEASE NOTE: These fees apply to complete certification applications received by EPA from January 1, 2025, through December 31, 2025. The applicable fee is determined by the	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 \$32,939.00 Payment Type * Online ACH 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.



15.4. California Fee Invoice

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	MSF240462-1
Invoice Date	Feb 26, 2025

COMPANY INFORMATION

Company Name	Aston Martin
Address	Banbury Road
City	Gaydon
State	Warwickshire
Zip	CV35 0DB
Country	United Kingdom
Contact Name	Jon C Yarrow
Contact Telephone Number	+447905201903
Contact Email	jon.yarrow@astonmartin.com
CARB Customer Number	CCAM000006

APPLICATION INFORMATION

Row Number	Previous Unique Application Identifier	Previously Selected Category Type	Previously Selected Fee Type	Paid Amount	Corrected Unique Application Identifier	Corrected Category Type	Corrected Fee Type	Corrected Amount	Amount Due
1	TASXJ04.0AEX	Light-duty vehicle test group and medium-duty vehicle test group	Partial Carry-Over	\$ 24,224.00	TASXJ04.0AEX	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00	\$ 24,223.00

Total Invoice (MSF240462) Paid	\$ 24,224.00
--------------------------------	--------------

Total Corrected	\$ 48,447.00
-----------------	--------------

Total Due	\$ 24,223.00
-----------	--------------

Notes
Changed Fee Type from Partial Carryover to Base.

I, *Jon Yarrow*, attest that any information provided is true, accurate, and complete.
(Responsible Party Signature Here)



17. California ARB Information

17.1. Statements

17.1.1. Label Durability

Aston Martin states that the tune up labels are designed to be durable for the vehicle's total expected life, under the conditions in the area where the labels are attached. Typical vehicle environmental conditions shall include, but are not limited to, exposure to engine lubricants and coolants, brake fluid, under hood temperatures, steam cleaning, and paints or paint solvents.

17.1.2. Fill Pipe

Aston Martin states that all vehicles meet the requirements of Title 13 Section 2235 and/or ISO13331-1995

17.1.3. Production Vehicles versus Test Vehicles

Aston Martin states that in regard to emission control systems, and all related parameters, production vehicles will be identical to the test vehicles that were used for certification testing.

17.1.4. Continuity of emissions in the temperature range of 20 to 86 Degrees F

Aston Martin states that there is no discontinuity in emissions of NMOG, CO and NOx measured on the Federal Test Procedure in the temperature range of 20 to 86 degrees F.

17.1.5. I/M Test Procedure Statement

Based on our engineering evaluation all light-duty vehicles comply with the I/M requirements at ambient temperature from 35 to 68 degrees F. (Refer to Section 8, Item 8.3, also MAC 99-05)

17.1.6. High Altitude Requirements

The ECU controlled sequential fuel injection system meters fuel based on air mass flow and is self-compensating. Therefore all Aston Martin test groups comply with the high altitude requirements. (ref. Mail Out 86-23 & 40 CFR 86.1829.15)

AML routinely performs altitude testing on each test group EDV to provide surety of this requirement.

17.1.7. Test and Service Accumulation Fuel

All fuels used for emissions certification testing (EPA Tier 3 Premium reference fuel) or service accumulation fuels comply with applicable regulations.

17.1.8. Lubricants

All lubricants used in test vehicles comply with applicable regulations. There are no differences between actual test vehicle lubricants and proposed production vehicle lubricants.



17.1.9. Test Facilities and Equipment

The facilities and equipment to be used for mileage accumulation and emissions testing comply with all applicable regulations.

17.1.10. SC03 Emission Standards - 2026 and subsequent

We attest that the NMOG+NOx and CO exhaust emissions for vehicles within this test group tested using the SC03 test procedures incorporated in the LEV 4 regulations (as detailed in 1961.4 Title 13 California Code of Regulations) meet the standards for their respective emission category.

17.1.10. Unscheduled Maintenance

17.1.10.1. Diagnostic Procedures

In the event that unscheduled maintenance on one of the certification test vehicles becomes necessary, Aston Martin uses the on-board and service diagnostic system.

17.1.10.2. Procedures for Evaluating Drivability

During mileage accumulation of certification test vehicles, at the various test facilities, all personnel involved are instructed to report any abnormal vehicle performance.

17.1.10.3. Blanket Approval List

We do not anticipate any allowable unscheduled maintenance on items, other than those listed in MSAPC Advisory Circular No. 4A 1.

17.1.12. Environmental Performance Label

This test group will adopt the revised EPA/DoT Fuel Economy and Environment label commencing with Monroney labels produced for 2017MY vehicles. Refer to label example in Section 15.



17.2. Fill Pipe Specification - applicable to all DB12, Vantage & DBX vehicles within each

The nomenclature and symbols used below are the same as those defined in "Specifications for fill pipes and openings of 2015 and subsequent motor vehicle fuel tanks" amended March 22, 2012 (Ref: ISO13331-1995(E) as adopted Jun 1995)

General Specifications	ARB Specification	Manufacturer Specification*
(1) Angle α in degrees	$-10^{\circ} \leq \alpha \leq 20^{\circ}$	1°
(2) Spill prevention in degrees (angle between centerline of test spout in its resting position and the horizontal plane)	30° (min)	68.8° (44°)
(3) Test nozzle penetration of Restrictor	22.5 mm (min)	30.85
(4) Angle β in degrees	none	2°

Fill Pipe Specifications	ARB Specification	Manufacturer Specification*
(1) Fill pipe surface in TIR	0.25 mm	0.1
(2) Fill pipe face outside diameter	57.5 mm (max)	5.4 cm
	52.0 mm (min)	5.3
(3) Internal locking lip in degrees of the inside circumference	100° (min)	153°
(a) degrees extending each side of reference plane	35° (min)	LS** 95°, RS*** 85°
(4) Height of lip measured from fill pipe inside wall; or height of lip measured from fill pipe outside wall for outside diameters between 52 and 57.5mm	2.5 mm (min)	3
(5) Depth of lip (D)	$4 \leq D \leq 10$ mm	6.85

Offset A	None	none
Offset B	None	none
(6) Fill pipe face clearance (Axial)	2.5 mm (min)	2.7
(7) Fill pipe face clearance (Radial)	40mm (min)	46
(8) Fill pipe face inside diameter	49.8mm (max)	35.5
(9) Bench Leak Test (SVM from 2024MY)	2.5L/min (Max) at 500Pa Vacuum	0.7 max
(10) Capped or capless		capless
(11) seal - mechanical or liquid		liquid
(12) Disruption in the fill pipe face		None
(13) ORVR Design (I/NI/NIRCO/NO)****		I - Integrated
(14) Type - Threaded, Bayonet or Capless		Capless
(15) Usage of Design (evap family or model)		ASXR0160T3A & *ASXR0160T3R
(16) Total vehicle model year sales		xx

* Dimension should include adverse tolerance condition

** LS = Left side of reference plane

*** RS = Right side of reference plane

**** ORVR Design: Integrated (I), Non-integrated (NI), Non-integrated Refuelling Canister only (NIRCO), Non ORVR (NO)



17.3. Projected Sales

Confidential information – refer to section 16, page 3

17.4. Evaporative Emission Deterioration

17.4.1. Evaporative Family Identification TASXR0160T3A & TASXR0160T3B

17.4.2. Parameters of Evaporative Family Refer to Section 3.1

17.4.3 Fuel Tank Temperature and Pressure Profile and Ambient Conditions

The temperature correction was conducted in accordance with the Federal Evaporative Emission Standards and Test Procedures after the following equation:

$$T_{i, \text{profile}} = T_i - T_o$$

T_i is the series of observed liquid fuel temperature during the drive (°F) where i is the incremental measurement in time.

T_o is the liquid fuel temperature observed at the start of the specified driving schedule (°F).

$T_{i, \text{profile}}$ is the series of temperatures that comprise the relative temperature profile for table of T_i refer to Enclosure 1 of Section 12.



17.5. Supplemental Data Sheets

17.5.1. Common

Manufacturer	Aston Martin Lagonda Ltd
Vehicle Model(s)	DB12 & DB12 S Coupe DB12 & DB12 S Volante DBX707 & DBX S Vantage & Vantage S Hatch Vantage & Vantage S Roadster
Test Group	TASXJ04.0AEX
Evaporative Family	TASXR0160T3A & TASXR0160T3B
Engine Type	V8 Gasoline
Liters (CID)	4.0 (243 in. ³).
Drive System	Front engine, rear wheel drive

17.5.2. Abbreviations

17.5.2.1. Ignition System

ECM	Engine Control Module
EI	Electronic Ignition
KS	Knock Sensor

17.5.2.2. Exhaust Emission Control System

2WU-TWC/2TWC	One Primary catalyst and one Secondary catalyst in series per bank
2WR-HO2S/2HO2S	One Heated Oxygen Sensor and one Monitor Sensor on each primary Three Way Catalyst.

17.5.2.3. Special Features

OBD II, 2TC, 2CAC	On-Board Diagnostics II, 2 turbochargers, 2 charge air coolers
-------------------	--

17.5.2.4. Fuel System

DFI	Direct Fuel Injection
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Application for Certification

Section 17

ASTON MARTIN

TASXJ04.0AEX

Page 6 of 9

V8 Group

Part 1

Issued: 11/13/2025

17.5.3. 2026 Air Resources Board Supplemental Data Sheet Passenger Cars, Light Duty Truck and Medium Duty Vehicles

Manufacturer	Aston Martin	Test Group:	TASXJ04.0AEX	Evaporative Family	TASXR0160T3A & TASXR0160T3B
--------------	--------------	-------------	--------------	--------------------	-----------------------------

All Eng. Codes in test group CA ☒ 49S ☐ 50S ☒ AB965 ☐ ORVR ☒ No ☐Veh class PC ☒ LDT1 ☐ MDV1 ☐ MDV2 ☐ MDV3 ☐ MDV4 ☐ MDV5 ☐

Single Cert. Std. for Multi-Class Test Group: N/A

Fuel Type(s): Dedicated ☒ Flex-Fuel ☐ Dual Fuel ☐ Bi-Fuel ☐ Gasoline ☒ Diesel ☐
CNG ☐ LNG ☐ LPG ☐ M85 ☐ Other (Specify Emission Test Fuel (s): Indo ☐ CBG ☐ G ☐ LPG ☐ M85 ☐ Other (Specify Tier 3 E10
Diesel: 13 CCR 2282 ☐ 40 CFR 86.113-90 ☐ 40 CFR 86.113-94 ☐ Premium ☐Evaporative Test Procedure: California ☐ Federal ☒Service Accum: Std. AMA ☐ Mod AMA ☐ Mfr ADP ☒ Other (Specify NMOG Test Procedure: N/A ☐ Std ☒ Equiv ☐ R/L Test Proc SHED ☐ Pt Source ☒

Engine Configuration: V8 Displacement 4.0 Liters 243 Cubic Inches

Valves per Cylinder: 4 Rated HP 665 @ 6000 M Vantage Ph 1
680 6000 P 2
700 6000 P DB12 S
707 @ 6000 P DBX707
727 @ 6000 P DBX SEngine: Front ☒ Mid ☐ Rear ☐ Drive: D ☐ RWD ☒ 4WD-FT ☐ 4WD-PT ☐

Exhaust ECS: 2WU-TWC/2TWC/2WR-HO2S/2HO2S/2TC/2CAC/DFI

Engine Code	Vehicle Model	Trans Type	ETW (lbs.)	ECM CAL ID	TCM CAL ID	Catalytic Converter Part #s
177850 (AE23)	DB12 Coupe DB12 S Coupe	A8	4500	5A260B# 5A265F#	#Y53-7J105-A#	#Y53-5E215-A# LH assembly #Y53-5E214-A# RH assembly
177850 (AE23)	DB12 Volante DB12 S Volante	A8	4500	5A260B# 5A265F#	#Y53-7J105-A#	#Y53-5E215-A# LH assembly #Y53-5E214-A# RH assembly
177950 (AE24)	DBX707 DBX S	A9	5500	8A260J# 8A260O#	OE3100144900	LH: #Y83-5G232-A# Warm up RH: #Y83-5G236-A# Warm up #Y83-5E215-A# LH underfloor #Y83-5E214-A# RH underfloor
177850 (AE23)	Vantage Vantage S	A8	4250	6A265B# 6A265J#	#Y53-7J105-A#	#Y53-5E215-A# LH assembly #Y53-5E214-A# RH assembly
177850 (AE23)	Vantage Roadster Vantage Roadster S	A8	4250	6A265B# 6A265J#	#Y53-7J105-A#	#Y53-5E215-A# LH assembly #Y53-5E214-A# RH assembly

17.5.4. 2026 Model Year Air Resources Board Certification Review Sheet Passenger Cars,
Light Duty Truck and Medium Duty Vehicles

Manufacturer: Aston Martin **Test Group:** TASXJ04.0AEX **Family:** TASXR0160T3A & TASXR0160T3B

All Eng. Codes in Test Group: CA X 49S 50S X AB965 ORVR: s X No US EPA T3 Equiv

Exhaust Std: LEV ULEV X V V US EPA T3 Equiv

Evap Std.: 50K Useful Life with R/L X **In-use Exh. Std:** Full in-use X Alt in-use MDV1 MDV2 MDV3 MDV4 MDV5

Veh class PC X LDT1 X MDV1 MDV2 MDV3 MDV4 MDV5

Single Cert. Std. for Multi-Class Test: Y

Fuel Type(s): Dedicated Flex-Fuel Dual Fuel Bi-Fuel Gasoline X Diesel CNG LNG LPG M85 Other (Specify

Emission Test Fuel (s): Indo CBG G LPG M85 Other (Specify EPA T3 E10

Diesel: 13 CCR 2282 40 CFR 86.113-90 40 CFR 86.113-94 Premium

Evaporative Test Procedure: California Federal X

Service Accum: Std. AMA X Mod AMA Mfr ADP Other (Specify

NMOG Test Procedure: N/A Std X Equiv **R/L Test Proc** SHED Pt Source X

Engine Configuration: V8 Displacement 4.0 Liters 243 Cubic Inches

Valves per Cylinder: 4 Rated HP 680 @ 6000 RPM

Engine: Front X Mid Rear **Drive:** D RWD X 4WD-FT 4WD-PT

Exhaust ECS: 2WU-TWC/2TWC/2WR-HO2S/2HO2S/2TC/2CAC/DFI

	Chapt	Chapter
1 Authorized Representative	Sec 1 22	Gen. Std, Increase in Emissions
2 Fuel Specifications	Sec	Safety, Meets all Requirements
3 Test Equipment	Sec 23	Driveability Statement
4 Test Procedure	Sec 24	Adjustable Parameters
5 Mileage Accumulation Route	Dyno 25	Tamper Resistance Method(s)
6 Emiss.Warranty Statement	Sec 26	Fill Pipe Specifications
7 Maint: Cert/Req'd/Recm'd	Sec 27	High Altitude Compliance
8 Emiss.Label/Vac. Hose Diag.	Sec 28	OBD Sys.incl.Marked Revisions
9 Evap. Control System	Sec 3 29	I&M Test Procedure & Data
10 Engine Parameters	Sec 7 30	50 Degree F Compliance
11 Fuel System	Sec 3 31	Manufacturer's RAF
12 Ignition System	N/A 32	Phase In Sched: ORVR Cert Std
13 Exhaust Control Systems	N/A	Full Range Misfire Monitoring
14 Projected Sales (LDT/MDV Split)	Sec	LEV CAT Monitoring - 1.5 x Std
15 Vehicle Description	Sec 6	0.020" Orifice-Based Leak Chk
16 Evap. Bench Test Procedure	Sec	MDV VEC Calculation
17 R/L Temp & Press Profiles	Sec 33	NMOG Fleet Average Calculation
18 EDV Selection	Sec 2 34	AB965 Credits/Withdrawals
19 Prod.Veh.same as Test Veh.St.	Sec 35	EPA Certificate
20 Emiss. Label Durability St.	Sec 36	Equiv. NMOG Proc--ARB Approval

21 Test Vehicle Information	Durability Data	Emission Data Vehicle	Evap Emission Data	FEDV
C/O or C/A	C/O			----
MY & ID	N/A	2024, 5723PT5601	2022, 564TT5477 2021, 8001PT8342	2024, 5723PT5601 2023, 8841PT8473 2025, 6122PT6433 2026, 840TT8650 2026, 547TT5632
Vehicle Log Page(s)				----
Zero Mile Book Page(s)	----	----	----	----



17.5.4. 2026 Model Year Certification Review Sheet Passenger Cars, Light Duty Truck and Medium Duty Vehicles

Manufacturer:

Aston Martin Lagonda Ltd.

Test Group:

TASXJ04.0AEX

Evaporative Families:

TASXR0160T3A & TASXR0160T3B

Emission Data Vehicle ID	Engine Code & Displ.	Test Location	Trans	ETW (lbs)	DPA (hp)	MPG	
						City	Hwy
5723PT5601	177850 3982cc	Manufacturer	A8	4500	N/A	18.3	31.3

PROJECTED EMISSIONS (1) (2)

(grams/mile, except, grams/test for D+HS, grams/gallon for ORVR)

Test Fuel: EPA T3 E10 Prem Test Fuel Evap: EPA T3 E10 Premium		FTP NMOG+NOx	CO	NOx	HCHO (mg/mi)	20°F CO	HFET NMOG+NOx	CO ₂ City/Hwy	3day D+HS	2day D+HS	R/L	Re-Fuelling
Mileage	50k					1.10		485/283	-	-	-	-
	150k	0.0454	0.74	0.016	1		0.0242		0.247	N/A	0.001	0.112

The Emissions Data vehicle(s) above comply with standards as follows:

(1)	at 50k of					10						
	at 150k of	0.070	1.7	-	4		0.07		0.30	##	0.05	0.20
	and include additive DFs:											
	at 150k of	0.0168	0.24	0.007	-	N/A	0.0168					
(2)	Evaporative 150k DFs of								0.0021	##	0.00	0.0060

SFTP TEST RESULTS

(grams/mile)

Mileage	Measurable	Emissions Cert Level	Emissions Standard
150k	US06 -NMOG+NOx	0.038	0.084
150k	US06 - CO	0.38	9.6
150k	SC03 - NMOG+NOx	0.043	0.07
150k	SC03 - CO	0.59	1.7
4k	CO ₂ - US06	409.87	
4k	CO ₂ - SC03	488.62	

* Composite calculation based on 0.35FTP+0.28US06+0.37SC03

ULEV 50° F emissions (w/RAF but w/o DFs)

ULEV 50° F standards

50k	CO	NMOG+NOx	HCHO
	0.62	0.0461	0.0002
	1.70	0.140	0.016

Exempted

Exempted

The NMOG values include Reactivity Adjustment Factor(s) (RAF) of N/A NMOG 1 CNG/LNG N/A

Remarks:

Application
Processed by:

Date

Reviewed
By:

Date



17.6. Vehicle Weights

17.6.1 Curb Weight

4024 lbs DB12 EDV
 4950 lbs DBX FEDV
 3991 lbs Vantage FEDV

17.6.2 Equivalent test weight

4500 lbs at Loaded Vehicle Weight -
 4250 lbs at Loaded Vehicle Weight
 5500 lbs at Loaded Vehicle Weight -

17.7. Exhaust and Evaporative Standards to which this test group is certified

Applicable Standards:

50 state - EPA T3 Bin70,
 CARB LEV4 ULEV 70

	4k	50k	150k	
FTP NMOG+NOx			0.07	g/mi.
CO			1.7	g/mi.
HCHO			4	mg/mi.
HFET NMOG+NOx			0.07	g/mi.
Cold CO		10 (12.5 LDT)		g/mi.
Cold NMHC Fleet			0.3	g/mi.
			150k	
Evap 3d	-		0.3 (0.5 LDT)	g/test
Supplem. 2d	-		0.3 (0.5 LDT)	g/test
Running Loss	-		0.05	g/mi.
ORVR	-		0.2	g/gal
50F - NMOG+NOx		0.14		g/mi.
50F - CO		1.7		g/mi.
50F - HCHO		16		mg/mi.
US06 NMOG+NOx		-	0.084	g/mi.
US06 CO		-	9.6	g/mi.
SC03 NMOG+NOx		-	0.07	g/mi.
SC03 CO		-	1.7	g/mi.
				g/mi.

17.8. California Assembly Line Test Procedure – NMOG to NMHC Ratio and HCHO to NMHC Ratio

The following were determined during the certification process:

NMHC:NMOG 1:1.10
 NMHC:HCHO 1:0.01