

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

CARB USE ONLY

Invoice Name	MSF240804
Invoice Date	Feb 06, 2025

COMPANY INFORMATION

Company Name	Ford Motor Company
Address	1 American Road
City	Dearborn
State	Michigan
Zip	48193
Country	United States
Contact Name	Tina Oliver
Contact Telephone Number	313-3238938
Contact Email	toliver@ford.com
CARB Customer Number	CCAM000031

APPLICATION INFORMATION

Payment Row Number	Product Description or File Name	Model Year/Calendar Year	Unique Application Identifier: Test Group, Engine Family, Trailer Family, Vehicle Family, ZEP Family, if applicable (ID listed in payment row must match the unique identifier given to the certification application)	Category Type	Fee Type	Amount
1	26_CBI_TFMXT03.0JPC_APP	Model Year 2026	TFMXT03.0JPC	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
2	26_CBI_TFMXT02.34K4_APP	Model Year 2026	TFMXT02.34K4	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
3	26_CBI_TFMXT02.02JF_APP	Model Year 2026	TFMXT02.02JF	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
4	26_CBI_TFMXT03.0TPC_APP	Model Year 2026	TFMXT03.0TPC	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
5	26_CBI_TFMXT03.33F1_APP	Model Year 2026	TFMXT03.33F1	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
6	26_CBI_TFMXV05.0VKN_APP	Model Year 2026	TFMXV05.0VKN	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
7	26_CBI_TFMXV05.2GTD_APP	Model Year 2026	TFMXV05.2GTD	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
8	26_CBI_TFMXV03.33U3_APP	Model Year 2026	TFMXT03.33U3	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
9	26_CBI_TFMXT02.54F1_APP	Model Year 2026	TFMXT02.54F1	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00

10	26_CBI_TFMXT01.52X4_APP	Model Year 2026	TFMXT01.52X4	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
11	26_CBI_TFMXV02.3VJG_APP	Model Year 2026	TFMXV02.3VJG	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
12	26_CBI_TFMXT03.51F2_APP	Model Year 2026	TFMXT03.51F2	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
13	26_CBI_TFMXT02.02Y5_APP	Model Year 2026	TFMXT02.02Y5	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
14	26_CBI_TFMXT03.57AV_APP	Model Year 2026	TFMXT03.57AV	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
15	26_CBI_TFMXT05.03DP_APP	Model Year 2026	TFMXT05.03DP	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
16	26_CBI_TFMXT03.54HT_APP	Model Year 2026	TFMXT03.54HT	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
17	26_CBI_TFMXT03.54JK_APP	Model Year 2026	TFMXT03.54JK	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
18	26_CBI_TFMXT02.73JK_APP	Model Year 2026	TFMXT02.73JK	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
19	26_CBI_TFMXT00.0BG2_APP	Model Year 2026	TFMXT00.0BG2	Light-duty vehicle test group and medium-duty vehicle test group	Zero-Emission	\$ 12,111.00
20	26_CBI_TFMXT00.0BG4_APP	Model Year 2026	TFMXT00.0BG4	Light-duty vehicle test group and medium-duty vehicle test group	Zero-Emission	\$ 12,111.00
21	26_CBI_TFMXT05.2AHS_APP	Model Year 2026	TFMXT05.2AHS	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
22	26_CBI_TFMXV00.0B4A_APP	Model Year 2026	TFMXV00.0B4A	Light-duty vehicle test group and medium-duty vehicle test group	Zero-Emission	\$ 12,111.00
23	26_CBI_TFMXV00.0G4A_APP	Model Year 2026	TFMXV00.0G4A	Light-duty vehicle test group and medium-duty vehicle test group	Zero-Emission	\$ 12,111.00
24	26_CBI_TFMXT02.36HH_APP	Model Year 2026	TFMXT02.36HH	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
25	26_CBI_TFMXT03.03V8_APP	Model Year 2026	TFMXT03.03V8	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
26	26_CBI_TFMXV00.0B4R_APP	Model Year 2026	TFMXV00.0B4R	Light-duty vehicle test group and medium-duty vehicle test group	Zero-Emission	\$ 12,111.00
27	26_CBI_TFMXV00.0BLA_APP	Model Year 2026	TFMXV00.0BLA	Light-duty vehicle test group and medium-duty vehicle test group	Zero-Emission	\$ 12,111.00
28	26_CBI_TFMXV00.0BLR_APP	Model Year 2026	TFMXV00.0BLR	Light-duty vehicle test group and medium-duty vehicle test group	Zero-Emission	\$ 12,111.00
29	26_CBI_TFMXT02.31EN_APP	Model Year 2026	TFMXT02.31EN	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
30	26_CBI_TFMXT02.72V9_APP	Model Year 2026	TFMXT02.72V9	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
31	26_CBI_TFMXT02.71HT_APP	Model Year 2026	TFMXT02.71HT	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00
32	26_CBI_TFMXV05.2VEZ_APP	Model Year 2026	TFMXV05.2VEZ	Light-duty vehicle test group and medium-duty vehicle test group	Base	\$ 48,447.00

				medium-duty vehicle test group				
						<table><tr><td>Total Due</td><td>\$ 1,295,952.00</td></tr></table>	Total Due	\$ 1,295,952.00
Total Due	\$ 1,295,952.00							

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

Application for Certification

Part 1



FORD MOTOR COMPANY

APPLICATION FOR CERTIFICATION - PART 1

2026 Model Year

Test Group: TFMXT03.51F2
Durability Group: TFMXHHGVNE3A
Evap. Families: TFMXR0295LDG

Test Group Description: 3.5 Liter V6 FHEV, LDT4

Durability Group Description: Hybrid Electric w/4 stroke Atkinson,
Gasoline Fueled, Turbocharged, Direct Injection,
Sequential Fuel Injection, Catalyst Code E
(Pt/Pd/Rh)

Applicable Standards:

Federal Exhaust –	Tier 3 Bin 50
Federal Evap –	Tier 3
California Exhaust –	LEV III ULEV50
California Evap –	LEV III
Cold NMHC FEL –	0.4 g/mi
CH4 –	0.030 g/mi
N2O –	0.010 g/mi
Fed FTP PM –	3 mg/mi
Cal FTP PM –	1 mg/mi
SFTP FEL –	0.050 g/mi NMOG + NOx

Carlines Covered: F150 HEV 4WD

Vehicles Tested:

Exhaust Emissions Vehicle: TFD1-3.5-J-226 (Config 0)		Evaporative Emissions Vehicle: MFD1-3.5-J-945 (Config 0)	
FTP TN:	TFMX10091835	2Day TN:	MFMX10064216
HWY TN:	TFMX10091836	Linking TN:	MFMX10063823
US06 TN:	TFMX10091837	3Day TN:	MFMX10065306
SC03 TN:	TFMX10091840	RL TN:	MFMX10065305
Cold CO TN:	TFMX10091839	ORVR TN:	MFMX10064215
50 Deg NMOG TN:	TFMX10091838		

Release Date: February 2nd, 2026

For Questions, Contact:

Terry Cowher, tcowher@ford.com (313) 805-6360

Test Group: TFMXT03.51F2
Issue Date: 09/23/2025
Revised Date:



Part 1 Application Index

- § 00.00.00.00 Cover Page**
- § 02.00.00.00 Durability Group Description**
- § 03.00.00.00 Evaporative/ Refueling Family Description**
- § 04.00.00.00 Durability Procedure Description**
- § 05.00.00.00 Test Group Description**
- § 06.00.00.00 Test Vehicle Description**
- § 07.00.00.00 Test Results**
 - 07.00.01.00 EPA Certification Summary Information (CSI) report(s)
- § 08.00.00.00 Emission Testing Waiver Statements**
 - 08.00.01.00 Statements of compliance
- § 09.00.00.00 OBDII System Description**
- § 10.00.00.00 Alternate –Fueled Vehicle Description**
- § 11.00.00.00 AECD Descriptions**
- § 12.00.00.00 Description of Vehicles Covered by Certificate and Test Parameters**
 - 12.00.01.00 Common Family Parameters
 - 12.00.02.00 Calibration Description
 - 12.00.03.00 Calibration Parts List
 - 12.00.05.00 Test Vehicle Requirements
 - 12.00.06.00 Vehicle Description Reports
- § 14.00.00.00 Request for Certification**
- § 15.00.00.00 Other Information**
 - 15.00.01.00 Fee Filing Form
- § 16.00.00.00 Confidential Information**
 - 16.00.01.00 Family Catalyst Information
 - 16.00.03.00 OBD II Deficiency Summary
 - 16.00.04.00 DF Summary
 - 16.00.05.00 PowerTrain Control Module (PCM) - Parameters
- § 17.00.00.00 California ARB Information**
 - 17.00.01.00 Certification Review Sheet
 - 17.00.02.00 Supplemental Data Sheet
 - 17.00.03.00 VECI Label
- § 18.00.00.00 Revisions**

Part 2 Application Index **(Running change updates)**



SECTION 2

Durability Group Description

For a description of the Durability Group for this test group refer to Section 16.00.00.00 of the Common Section.



SECTION 3

Evaporative/Refueling Family Description

03.00.01.00 Evaporative Family and Calibration Parameters

Evaporative Family Name: TFMXR0295LDG

2026 3.5L GTPFDI FHEV F-150

<u>Emission Component</u>	<u>Sensed Parameter</u>	<u>Controlled Parameter</u>	<u>Justification</u>	<u>Calibration Specification</u>
Capless Refueling Component Insert MU5A-9D000-NB	None	Fuel Tank Vapor	Operates in EVAP and/or ORVR	
Vapor Hose with ORVR Recirculation Orifice ML34-9101-AA	None	Vapor Recirculation	Operates in ORVR	Orifice Diameter: 2.75 mm
Fuel Limiting Vent Valve (FLVV) 9L34-9B190-CA	Fuel Tank Vapor	Fuel Tank Vapor	Operates in EVAP and/or ORVR	FLVV Orifice: 9.14 mm FLVV Bypass: 1.25 mm
Grade Vent Valve GV61-9B593-BB (Front)	Fuel Tank Vapor	Fuel Tank Vapor	Operates in EVAP	GVV Main Orifice: 4.0 mm
Grade Vent Valve GV61-9B593-AA (Rear)	Fuel Tank Vapor	Fuel Tank Vapor	Operates in EVAP	GVV Main Orifice: 4.0 mm Bleed Orifice: 0.7 mm
Fuel Tank Pressure Sensor KJ6A-9C052-AA KJ6A-9C052-AB (Alt.)	Fuel Tank Pressure	None	Operates in FTP	
Carbon Canister (Refueling Only) MU5A-9D653-FB	None	Fuel Vapor	Operates in ORVR	295g BWC 4.5L Total Volume
Canister Purge Valve EU5A-9G866-CE	Signal from PCM	Vacuum to canister	Operates in FTP	100 SLPM
Refueling Valve HU5A-9G712-DB	Signal from PCM	Fuel Tank Vapor	Operates in ORVR	
Tank Pressure Control Valve HU5A-9Y477-AC	Signal from PCM	Vacuum to tank	Operates in FTP	
AIS Hydrocarbon Trap GN15-9T303-AA	None	Fuel Tank Vapor	Operates in EVAP	



SECTION 4

Durability Procedure Description

For a description of the Durability Procedure,
refer to Section 16.00.00.00 of the Common Section.



SECTION 5

Test Group Description

For a description of this Test Group, refer to the Cover Page (00.00.00.00) and to the Test Results Section (07.00.00.00) of this application.



SECTION 6

Test Vehicle Description

For a description of the Test Vehicles utilized in this Test Group,
refer to Section 07.00.00.00 of this application.



SECTION 7

EPA Certification Summary Information Report

(Test Results)

Certification Summary Information Report

Manufacturer	Ford Motor Company	Manufacturer Code	FMX
Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG
Certificate Number	--	CARB Executive Order #	--
Certificate Issue Date	--	Certificate Revision Date	--
Certificate Effective Date	--	Conditional Certificate	--
CSI Revision #	--	CSI Submission/Revision Date	09/23/2025 12:18:59 PM
Model Year	2026		

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG						
Test Group Information									
CSI Type	Update for Correction	Running Change Reference Number	--						
GHG Exempt Status	Not Exempt								
Drive Sources and Fuel(s)									
Drive Source #1:	Combustion Engine								
	<table border="1"> <tr> <th>Fuel</th><th>Basic Fuel Metering System</th><th>Lean Burn Strategy Indicator</th></tr> <tr> <td>Gasoline</td><td>Spark Ignition direct & ported injection</td><td>No</td></tr> </table>	Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator	Gasoline	Spark Ignition direct & ported injection	No		
Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator							
Gasoline	Spark Ignition direct & ported injection	No							
Drive Source #2:	Electric Motor								
	<table border="1"> <tr> <th>Fuel</th><th>Basic Fuel Metering System</th><th>Lean Burn Strategy Indicator</th></tr> <tr> <td>Electricity</td><td>--</td><td>--</td></tr> </table>	Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator	Electricity	--	--		
Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator							
Electricity	--	--							
Hybrid Indicator	Yes								
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	Yes						
Multiple Fuel Combustion	--	Off-board Charge Capable Indicator	No						
Fuel Cell Indicator	No	EPA Vehicle Class	LDT4						
Federal Clean Fuel Vehicle	No	Federal Clean Fuel Vehicle Standard	--						
Federal Clean Fuel Vehicle ILEV	No	California Partial Zero Emissions Vehicle Indicator	No						
Durability Group Name	TFMXHHGVNE3A	Durability Group Equivalency Factor	1.0						
Reduced Fee Test Group	No	Certification Region Code(s)	FA, CA						
Complies with HD GHG 2b/3 regulations?	No								
Introduction into Commerce Date	--	CAP2000 Conditional Certificate?	N/A						
Independent Commercial Importer?	--	Alternative Fuel Converter Certificate?	--						
SFTP Federal Composite Compliance Identifier	Tier 3	SFTP Tier 2 Composite CO Option	No						
SFTP LEV-III Composite Compliance Indicator	No								
OBD Compliance Type	CARB	OBD Demonstration Vehicle Test Group	TFMXT02.02JF						
Test Group OBD Compliance Level	Partial - with deficiencies	Number of Test Group OBD Deficiencies	2						
OBD Deficiencies Comments	--								
Mfr Test Group Comments	City Litmus Value = 14.8, City Litmus Threshold Value = 14.5, Highway Litmus Value = 19.8, Highway Litmus Value = 18.6								
Mfr Exhaust / Evap Standards Comments	--								

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG				
Evaporative/Refueling Family Information							
Evaporative Summary Information Type	New	Submission/Correction Date	08/28/2025 12:49:32 PM				
Integrated ORVR?	No	Fuel(s)	Electricity, Gasoline				
Multiple Fuel Storage	Fuels Stored Separately						
Bladder Fuel Tank?	No						
Fuel Tank Material	Plastic	Fuel Tank Material Description	Plastic				
Fill Pipe Seal Type	Liquid seal						
Air Intake System Vapor Storage Device?	Yes	Air Intake System Vapor Storage Device Description	AIS HC Trap in Air Induction System				
Fuel System Vapor Storage Canister?	Yes	Other Vapor Storage	1 X 4.5L HA 3-port Rect.				
Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)	295	Number of Primary Canisters	1				
Number of Bleed Canisters	0	Bleed Canister Total Working Capacity (grams)	0				
Mfr Evaporative/Refueling Family Comments	F150 FHEV 3.5L GTPFDI						
Leak Family Details							
Leak Family Indicator	Yes						
Canister Bleed Test Indicator	No	Applicability of Evaporative Canister Bleed Test	--				
Evaporative Canister Bleed Test Comments	--						
CARB Fuel Only (Rig) Test Indicator	No	Applicability of CARB Fuel Only (Rig) Test	--				
CARB Fuel Only (Rig) Test Comments	--						
Leak Family Name	Applicability of Leak Family Requirements	Leak Family Standard (inches)	Leak Family Description				
TFMXR0295LDG-001	50 State	0.02	--				
Models Covered by this Certificate							
Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
Ford Motor Company	1 - Ford	132 - F150 PICKUP 4WD HEV	California + CAA Section 177 states	Part-time 4-Wheel Drive	Semi-Automatic	10	Yes
Ford Motor Company	1 - Ford	132 - F150 PICKUP 4WD HEV	Federal	Part-time 4-Wheel Drive	Semi-Automatic	10	Yes
Engine Description							
Hybrid Type	IC Engine/Electric Motor			Hybrid Description	--		
Engine Type	4-Stroke Spark Ignition			Mfr Engine Description	Hybrid Electric w/4 stroke Atkinson, Gasoline Fueled, Turbocharged, Direct Injection, Sequential Fuel Injection, Catalyst Code E (Pt/Pd/Rh)		
Engine Block Arrangement	V-shaped engine			Mfr Engine Block Arrangement Description	--		
Camless Valvetrain Indicator	No			Oil Viscosity/Classification	5W-30 / ILSAC GF-7		
Number of Cylinders/Rotors	6			Mechanically Variable Compression Ratio Indicator	N		

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG
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	Platinum + Rhodium	Ceramic
5	Three-way catalyst	Palladium + Rhodium	Ceramic
6	Three-way catalyst	Platinum + Rhodium	Ceramic
7	Other	None	Ceramic
8	Other	None	Ceramic
Mfr After Treatment Device (ATD) Comments			
--			
Direct Ozone Reduction (DOR) Device			
Not Equipped			
Mfr Emission Control Device Comments			
--			
Engine Configuration Number 1			
Engine Displacement (liters)	3.5	Engine Rated Horsepower	430
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	Air
Air Aspiration Drive Method(s)	Mechanical		
Cylinder Deactivation	No		
Cylinder Deactivation Description	--		
Variable Valve Timing	Yes		
Variable Valve Timing System Description	TIVCT		
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 air fuel	Air/Fuel Sensor # 3 Description	--
Air/Fuel Sensor # 4 Type	Heated air fuel	Air/Fuel Sensor # 4 Description	--
Mfr Air/Fuel Sensor Comments	--		
Exhaust Gas Recirculation	Yes	Cooled Exhaust Gas Recirculation	Yes
EGR Type	Electronic/Electric	Exhaust Gas Recirculation Description if 'Other'	--
Closed Loop Air Injection System	No		
Air Injection Type	Not Applicable	Air Injection Type if 'Other'	--
Mfr Engine Configuration Comments	--		

Certification Summary Information Report

Test Group		TFMXT03.51F2		Evaporative/Refueling Family		TFMXR0295LDG				
Official Test Numbers										
Test Group Fuel	FTP	US06	SC03	Cold CO	Highway	EPA City Litmus Value	EPA City Litmus Threshold	EPA Highway Litmus Value	EPA Highway Litmus Threshold	CREE Weighting Factor
Electricity	--	--	--	--	--	--	--	--	--	--
Gasoline	TFMX10091835	TFMX10091837	TFMX10091840	TFMX10091839	TFMX10091836	14.9	14.6	19.8	18.6	--
SFTP LEV-III Official Test Numbers										
Test Group Fuel	FTP		US06		SC03					
Gasoline	TFMX10091835		TFMX10091837		TFMX10091840					
Electricity	--		--		--					
Official Charge Depleting Test Numbers										
Test Group Fuel	UDDS		Highway							
Gasoline	--		--							
Hybrid Electric Vehicle And Fuel Cell Information										
Rechargable Energy Storage System	Battery(s)		Rechargable Energy Storage System, if Other		--					
Battery Type	Lithium Ion		Number of Battery Packs		1					
Total Voltage of Battery Packs	281		Battery Energy Capacity		5.0					
Battery Specific Energy	36.8		Battery Charger Type		On-Board					
Number of Capacitors	--		Capacitor Rating (In Farads)		--					
Mfr Capacitor Comments	--									
Hydraulic System Description	--									
Regenerative Braking Type	Electrical Regen Brake									
Regenerative Braking Source	Both		Driver Controlled Regenerative Braking		No					
Mfr Regenerative Braking Description	--									
Drive Motor(s)/Generator(s)	1		Rated Motor/Generator Power		35					
Motor/Generator Type 1	DC Permanent Magnet, brushless		Usable H2 Fill Capacity (kg)		--					
Mfr Fuel Cell Description	--									
Fuel Cell On-Board H2 Storage Capacity (kg)	--									
Mfr Hybrid Electric/ Electric Vehicle Comments	--									

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG
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Emission Data Vehicle Information

Vehicle ID / Configuration	MFD1-3.5-J-945 / 0	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	MFMXT03.51F1	Original Evaporative/Refueling Family	MFMXR0295LDG
Original Test Vehicle Model Year	2021		

Vehicle Model

Represented Test Vehicle Make	Ford	Represented Test Vehicle Model	F150 FHEV
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Leak Family Details

Leak Family Identifier	--	Leak Family Name	--
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Drive Sources and Fuel System Details

Drive Source and Fuel#	Drive Source	Fuel
1	Combustion Engine	Gasoline
2	Electric Motor	Electricity

Hybrid Indicator	Yes		
Multiple Fuel Storage	--	Multiple Fuel Combustion	--
Fuel Cell Indicator	No	Rechargeable Energy Storage System Indicator	Yes
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if 'Other'	--
Off-board charge Capable Indicator	No		
Odometer Correction -- Initial	0	Odometer Correction Factor	1.03
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles		
Odometer Correction Units	Miles		
Engine Code	MTFDCNNB00	Rated Horsepower	400
Displacement (liters)	3.5		
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'	
Number of Air Aspiration Devices	2	Air Aspiration Device Configuration	Parallel
Charge Air Cooler Type	Air	Drive Mode While Testing	Part-time 4-Wheel Drive
Shift Indicator Light Usage	Not equipped	Aged Emission Components	150,000 (mi)
Curb Weight (lbs)	5604	Equivalent Test Weight (pounds)	6000
GVWR (lbs)	7350	N/V Ratio	25.3
Axle Ratio	3.73		
Transmission Type	Semi-Automatic	# of Transmission Gears	10
Transmission Lockup	Yes	Creeper Gear	No

Certification Summary Information Report

Test Group	TFMXT03.51F2			Evaporative/Refueling Family			TFMXR0295LDG
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	55.69	0.2272	0.03972	9.53	-0.11697	0.03797	
Cold CO	55.69	0.2272	0.03972	9.53	-0.11697	0.03797	
US06	55.69	0.2272	0.03972	9.53	-0.11697	0.03797	N/A
Emission Control Device Comments	T3B70/ULEV70 SFTP-0.080 PM3 CB4 T3e/L3e						
Manufacturer Test Vehicle Comments	F150 3.5L FHEV AWD						

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG
Test #	MFMX10063823	Test Procedure	21 - Federal fuel 2-day exhaust (w/can load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	02/06/2020	Fuel	N/A
Fuel Batch ID	373-B	Fuel Calibration Number	49
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	APTL		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4804	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	527.31661	--
FE BAG 1 (Bag 1 Fuel Economy)	16.48995	16.48995
CO2 BAG 2 (Bag 2 Carbon Dioxide)	470.63506	--
FE BAG 2 (Bag 2 Fuel Economy)	18.46098	18.46098
METHANE (CH4 - Methane)	0.00495	--
CO (Carbon Monoxide)	0.34786	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.205247	--
DT-EER (Drive Trace Energy Economy Rating)	0.133732	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.224012	--
HCHO (Formaldehyde)	0.000182	--
MFR FE (Manufacturer Fuel Economy)	17.56144	17.56144
NOX (Nitrogen Oxide)	0.04493	--
N2O (Nitrous Oxide)	0.00166	--
HC-NM (Non-methane Hydrocarbon)	0.0128905	--
NMOG (Non-methane organic gases)	0.01414	--
PM (Particulate Matter)	0.0009	--
HC-TOTAL (Total Hydrocarbon)	0.0175	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	496	999
Optional Carbon-Related Exhaust Emissions	496	999

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG
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Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	495.00813	--

Manufacturer Test Comments FTP & HWY FUL NMOG = 1.04 * NMHC_r

Test #	MFMX10064216	Test Procedure	23 - 2-day evap
Exhaust Test # for this Evap Test	MFMX10063823	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	03/05/2020	Fuel	Gasoline
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	APTL		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	5105	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	No		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
OMHCE (Organic material Hydrocarbon Equivalent)	0.1644	--
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.1644	--

Manufacturer Test Comments 2 Day EVAP THC x 1.08

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	0.1644	0.0028	0.167	0.500	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	OMHCE	0.1644	0.0028	0.167	0.500	Pass

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG
Test #	MFMX10065306	Test Procedure	34 - Federal fuel 3-day evap
Exhaust Test # for this Evap Test	MFMX10063823	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	05/29/2020	Fuel	Gasoline
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	APTL		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	5232	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	No		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	No

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
OMHCE (Organic material Hydrocarbon Equivalent)	0.215	--
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.215	--

Manufacturer Test Comments

Measured NMOG

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	0.2150	0.0028	0.218	0.500	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	OMHCE	0.2150	0.0028	0.218	0.500	Pass

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG									
Test #	MFMX10064215	Test Procedure	24 - Federal fuel refueling test (ORVR)									
Exhaust Test # for this Evap Test	MFMX10063823	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)									
Test Date	03/03/2020	Fuel	Gasoline									
Fuel Batch ID	--	Fuel Calibration Number	--									
Vehicle Class	N/A	DF Type	Mfr. Determined									
Verify Test Lab ID	APTL											
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)											
Test Start Odometer Reading	5160	Odometer Units	M									
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--									
State of Charge Delta	--											
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 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>OMHCE (Organic material Hydrocarbon Equivalent)</td> <td>0.00688</td> <td>--</td> </tr> <tr> <td>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</td> <td>0.00688</td> <td>--</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	OMHCE (Organic material Hydrocarbon Equivalent)	0.00688	--	HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.00688	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)										
OMHCE (Organic material Hydrocarbon Equivalent)	0.00688	--										
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.00688	--										
Manufacturer Test Comments												
ORVR TEST												
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	0.007	0.003	0.01	0.20	Pass				
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	OMHCE	0.007	0.003	0.01	0.20	Pass				

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG
Test #	MFMX10065305	Test Procedure	32 - Federal Fuel Running Loss
Exhaust Test # for this Evap Test	MFMX10063823	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	05/29/2020	Fuel	Gasoline
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	APTL		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	5243	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	No		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	No

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
OMHCE (Organic material Hydrocarbon Equivalent)	0	--
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0	--

Manufacturer Test Comments

Measured NMOG

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0.000	0.000	0.00	0.05	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	OMHCE	0.000	0.000	0.00	0.05	Pass

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG									
Emission Data Vehicle Information												
Vehicle ID / Configuration	TFD1-3.5-J-226 / 0	Manufacturer Vehicle Configuration Number	0									
Original Test Group Name	TFMXT03.51F2	Original Evaporative/Refueling Family	TFMXR0295LDG									
Original Test Vehicle Model Year	2026											
Vehicle Model												
Represented Test Vehicle Make	Ford	Represented Test Vehicle Model	F150 HEV 4WD									
Leak Family Details												
Leak Family Identifier	001	Leak Family Name	TFMXR0295LDG-001									
Drive Sources and Fuel System Details												
<table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th><th>Drive Source</th><th>Fuel</th></tr> </thead> <tbody> <tr> <td>1</td><td>Electric Motor</td><td>Electricity</td></tr> <tr> <td>2</td><td>Combustion Engine</td><td>Gasoline</td></tr> </tbody> </table>				Drive Source and Fuel#	Drive Source	Fuel	1	Electric Motor	Electricity	2	Combustion Engine	Gasoline
Drive Source and Fuel#	Drive Source	Fuel										
1	Electric Motor	Electricity										
2	Combustion Engine	Gasoline										
Hybrid Indicator	Yes											
Multiple Fuel Storage	--	Multiple Fuel Combustion	--									
Fuel Cell Indicator	No	Rechargeable Energy Storage System Indicator	Yes									
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if 'Other'	--									
Off-board charge Capable Indicator	No											
Odometer Correction -- Initial	0	Odometer Correction Factor	1.03									
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles											
Odometer Correction Units	Miles											
Engine Code	TTFDCNNB00	Rated Horsepower	400									
Displacement (liters)	3.5											
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'										
Number of Air Aspiration Devices	2	Air Aspiration Device Configuration	Parallel									
Charge Air Cooler Type	Air	Drive Mode While Testing	Part-time 4-Wheel Drive									
Shift Indicator Light Usage	Not equipped	Aged Emission Components	150,000 (mi)									
Curb Weight (lbs)	5883	Equivalent Test Weight (pounds)	6000									
GVWR (lbs)	7400	N/V Ratio	25.7									
Axle Ratio	3.73											
Transmission Type	Semi-Automatic	# of Transmission Gears	10									
Transmission Lockup	Yes	Creeper Gear	No									

Certification Summary Information Report

Test Group		TFMXT03.51F2			Evaporative/Refueling Family		TFMXR0295LDG	
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	37.28	0.58	0.03296	-4.04	0.5204	0.0283	19.8	
Cold CO	37.28	0.58	0.03296	-4.04	0.5204	0.0283	N/A	
US06	37.28	0.58	0.03296	-4.04	0.5204	0.0283	N/A	
Emission Control Device Comments		--						
Manufacturer Test Vehicle Comments		--						

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG
Test #	TFMX10091835	Test Procedure	21 - Federal fuel 2-day exhaust (w/can load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	07/25/2025	Fuel	Gasoline
Fuel Batch ID	373-B	Fuel Calibration Number	114
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	APTL		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3918	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	
CO2 BAG 1 (Bag 1 Carbon Dioxide)	504.027625	--	
CO BAG 1 (Bag 1 Carbon Monoxide)	0.8053	--	
FE BAG 1 (Bag 1 Fuel Economy)	17.313908	17.313908	
CH4 BAG 1 (Bag 1 Methane)	0.0115076	--	
NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.0387215	--	
CO2 BAG 2 (Bag 2 Carbon Dioxide)	474.503914	--	
CO BAG 2 (Bag 2 Carbon Monoxide)	0.02	--	
FE BAG 2 (Bag 2 Fuel Economy)	18.420776	18.420776	
CH4 BAG 2 (Bag 2 Methane)	0.0046505	--	
NMOG BAG 2 (Bag 2 Non-methane organic gases)	0	--	
CO2 BAG 3 (Bag 3 Carbon Dioxide)	444.277226	--	
CO BAG 3 (Bag 3 Carbon Monoxide)	0.0284	--	
FE BAG 3 (Bag 3 Fuel Economy)	19.706289	19.706289	
CH4 BAG 3 (Bag 3 Methane)	0.0030119	--	
NMOG BAG 3 (Bag 3 Non-methane organic gases)	0	--	
CO2 BAG 4 (Bag 4 Carbon Dioxide)	456.727054	--	
CO BAG 4 (Bag 4 Carbon Monoxide)	0.0207	--	
FE BAG 4 (Bag 4 Fuel Economy)	19.146277	19.146277	
CH4 BAG 4 (Bag 4 Methane)	0.0038681	--	
NMOG BAG 4 (Bag 4 Non-methane organic gases)	0.0002262	--	
METHANE (CH4 - Methane)	0.00539	--	
CO (Carbon Monoxide)	0.185226	--	
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.832745	--	
DT-EER (Drive Trace Energy Economy Rating)	0.821776	--	
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.43428	--	
HCHO (Formaldehyde)	0.0003	--	
MFR FE (Manufacturer Fuel Economy)	18.7	18.7	
NOX (Nitrogen Oxide)	0.02096	--	
N2O (Nitrous Oxide)	0.0001	--	
HC-NM (Non-methane Hydrocarbon)	0.007341	--	
NMOG (Non-methane organic gases)	0.008089	--	
PM (Particulate Matter)	0	--	
HC-TOTAL (Total Hydrocarbon)	0.012344	--	

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG
	Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
	Carbon-Related Exhaust Emissions	467	467
	Optional Carbon-Related Exhaust Emissions	467	467
	Test Result Name	Unrounded Test Result	Verify Calculated CO2
	Carbon dioxide	467.1	--
Manufacturer Test Comments	--		

Certification Summary Information Report

Test Group		TFMXT03.51F2			Evaporative/Refueling Family					TFMXR0295LDG		
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 50	CO	0.19	--	--	--	--	--	0.2	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	CO-COMP	0.10	--	--	--	--	--	0.1	4.2	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	CREE	467	--	--	--	0	--	467	--	--
Fed	150,000 miles	Federal Tier 3 Bin 50	HCHO	0.0003	--	--	--	--	--	0.000	0.004	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	METHANE	0.0054	--	--	--	--	--	0.005	0.030	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	N2O	0.0001	--	--	--	--	--	0.000	0.010	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0081	--	1.1	--	--	--	0.008	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0291	--	--	--	--	--	0.029	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX-COMP	0.0193	--	--	--	--	--	0.019	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0210	--	--	--	--	--	0.021	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	OPT-CREE	467	--	--	--	0	--	467	--	--
Fed	150,000 miles	Federal Tier 3 Bin 50	PM	0.0000	--	--	--	--	--	0.000	0.003	Pass
CA	150,000 miles	California LEV-III ULEV50	CO	0.19	--	--	--	--	--	0.2	1.7	Pass
CA	150,000 miles	California LEV-III ULEV50	CO-COMP	0.10	--	--	--	--	--	0.1	4.2	Pass
CA	150,000 miles	California LEV-III ULEV50	HCHO	0.0003	--	--	--	--	--	0.000	0.004	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG	0.0081	--	1.1	--	--	--	0.008	999.999	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG+NOX	0.0291	--	--	--	--	--	0.029	0.050	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG+NOX-COMP	0.0193	--	--	--	--	--	0.019	0.050	Pass
CA	150,000 miles	California LEV-III ULEV50	NOX	0.0210	--	--	--	--	--	0.021	999.999	Pass
CA	150,000 miles	California LEV-III ULEV50	PM	0.0000	--	--	--	--	--	0.000	0.001	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	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG
Test #	TFMX10091838	Test Procedure	52 - Fed. fuel 50 F exh.
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	07/09/2025	Fuel	Gasoline
Fuel Batch ID	373-B	Fuel Calibration Number	114
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	APTL		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3811	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG																																																																																	
	<table><tr><th>Test Result Name</th><th>Unrounded Test Result</th><th>Verify Calculated FE Equivalent Value (miles per gallon)</th></tr><tr><td>CO2 BAG 1 (Bag 1 Carbon Dioxide)</td><td>572.598648</td><td>--</td></tr><tr><td>CO BAG 1 (Bag 1 Carbon Monoxide)</td><td>0.6269</td><td>--</td></tr><tr><td>FE BAG 1 (Bag 1 Fuel Economy)</td><td>15.237688</td><td>15.237688</td></tr><tr><td>CH4 BAG 1 (Bag 1 Methane)</td><td>0.0145169</td><td>--</td></tr><tr><td>NMOG BAG 1 (Bag 1 Non-methane organic gases)</td><td>0.0873357</td><td>--</td></tr><tr><td>CO2 BAG 2 (Bag 2 Carbon Dioxide)</td><td>484.379504</td><td>--</td></tr><tr><td>CO BAG 2 (Bag 2 Carbon Monoxide)</td><td>0.0305</td><td>--</td></tr><tr><td>FE BAG 2 (Bag 2 Fuel Economy)</td><td>18.077947</td><td>18.077947</td></tr><tr><td>CH4 BAG 2 (Bag 2 Methane)</td><td>0.002868</td><td>--</td></tr><tr><td>NMOG BAG 2 (Bag 2 Non-methane organic gases)</td><td>0</td><td>--</td></tr><tr><td>CO2 BAG 3 (Bag 3 Carbon Dioxide)</td><td>466.360913</td><td>--</td></tr><tr><td>CO BAG 3 (Bag 3 Carbon Monoxide)</td><td>0.0386</td><td>--</td></tr><tr><td>FE BAG 3 (Bag 3 Fuel Economy)</td><td>18.7755</td><td>18.7755</td></tr><tr><td>CH4 BAG 3 (Bag 3 Methane)</td><td>0.0024362</td><td>--</td></tr><tr><td>NMOG BAG 3 (Bag 3 Non-methane organic gases)</td><td>0</td><td>--</td></tr><tr><td>METHANE (CH4 - Methane)</td><td>0.005163</td><td>--</td></tr><tr><td>CO (Carbon Monoxide)</td><td>0.15627</td><td>--</td></tr><tr><td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td><td>0.071661</td><td>--</td></tr><tr><td>DT-EER (Drive Trace Energy Economy Rating)</td><td>-0.199728</td><td>--</td></tr><tr><td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td><td>0.411939</td><td>--</td></tr><tr><td>HCHO (Formaldehyde)</td><td>0.0007</td><td>--</td></tr><tr><td>MFR FE (Manufacturer Fuel Economy)</td><td>17.6</td><td>17.6</td></tr><tr><td>NOX (Nitrogen Oxide)</td><td>0.010509</td><td>--</td></tr><tr><td>HC-NM (Non-methane Hydrocarbon)</td><td>0.016418</td><td>--</td></tr><tr><td>NMOG (Non-methane organic gases)</td><td>0.018091</td><td>--</td></tr><tr><td>HC-TOTAL (Total Hydrocarbon)</td><td>0.021123</td><td>--</td></tr></table>	Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	CO2 BAG 1 (Bag 1 Carbon Dioxide)	572.598648	--	CO BAG 1 (Bag 1 Carbon Monoxide)	0.6269	--	FE BAG 1 (Bag 1 Fuel Economy)	15.237688	15.237688	CH4 BAG 1 (Bag 1 Methane)	0.0145169	--	NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.0873357	--	CO2 BAG 2 (Bag 2 Carbon Dioxide)	484.379504	--	CO BAG 2 (Bag 2 Carbon Monoxide)	0.0305	--	FE BAG 2 (Bag 2 Fuel Economy)	18.077947	18.077947	CH4 BAG 2 (Bag 2 Methane)	0.002868	--	NMOG BAG 2 (Bag 2 Non-methane organic gases)	0	--	CO2 BAG 3 (Bag 3 Carbon Dioxide)	466.360913	--	CO BAG 3 (Bag 3 Carbon Monoxide)	0.0386	--	FE BAG 3 (Bag 3 Fuel Economy)	18.7755	18.7755	CH4 BAG 3 (Bag 3 Methane)	0.0024362	--	NMOG BAG 3 (Bag 3 Non-methane organic gases)	0	--	METHANE (CH4 - Methane)	0.005163	--	CO (Carbon Monoxide)	0.15627	--	DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.071661	--	DT-EER (Drive Trace Energy Economy Rating)	-0.199728	--	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.411939	--	HCHO (Formaldehyde)	0.0007	--	MFR FE (Manufacturer Fuel Economy)	17.6	17.6	NOX (Nitrogen Oxide)	0.010509	--	HC-NM (Non-methane Hydrocarbon)	0.016418	--	NMOG (Non-methane organic gases)	0.018091	--	HC-TOTAL (Total Hydrocarbon)	0.021123	--		
	Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)																																																																																	
	CO2 BAG 1 (Bag 1 Carbon Dioxide)	572.598648	--																																																																																	
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	NMOG BAG 2 (Bag 2 Non-methane organic gases)	0	--																																																																																	
	CO2 BAG 3 (Bag 3 Carbon Dioxide)	466.360913	--																																																																																	
	CO BAG 3 (Bag 3 Carbon Monoxide)	0.0386	--																																																																																	
	FE BAG 3 (Bag 3 Fuel Economy)	18.7755	18.7755																																																																																	
	CH4 BAG 3 (Bag 3 Methane)	0.0024362	--																																																																																	
	NMOG BAG 3 (Bag 3 Non-methane organic gases)	0	--																																																																																	
	METHANE (CH4 - Methane)	0.005163	--																																																																																	
	CO (Carbon Monoxide)	0.15627	--																																																																																	
	DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.071661	--																																																																																	
	DT-EER (Drive Trace Energy Economy Rating)	-0.199728	--																																																																																	
	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.411939	--																																																																																	
	HCHO (Formaldehyde)	0.0007	--																																																																																	
	MFR FE (Manufacturer Fuel Economy)	17.6	17.6																																																																																	
	NOX (Nitrogen Oxide)	0.010509	--																																																																																	
	HC-NM (Non-methane Hydrocarbon)	0.016418	--																																																																																	
	NMOG (Non-methane organic gases)	0.018091	--																																																																																	
	HC-TOTAL (Total Hydrocarbon)	0.021123	--																																																																																	
		<table><tr><th>Test Result Name</th><th>Unrounded Test Result</th><th>Verify Calculated CREE/OPT-CREE</th></tr><tr><td>Carbon-Related Exhaust Emissions</td><td>498</td><td>--</td></tr></table>	Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE	Carbon-Related Exhaust Emissions	498	--																																																																												
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Manufacturer Test Comments	--																																																																																			

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Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG
Test #	TFMX10091839	Test Procedure	11 - Cold CO
Exhaust Test # for this Evap Test	--	Test Fuel Type	28 - Cold CO E10 Regular Gasoline (Tier 3)
Test Date	08/01/2025	Fuel	Gasoline
Fuel Batch ID	375-B	Fuel Calibration Number	71
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	APTL		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3999	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG																																																																													
	<table><tr><th>Test Result Name</th><th>Unrounded Test Result</th><th>Verify Calculated FE Equivalent Value (miles per gallon)</th></tr><tr><td>CO2 BAG 1 (Bag 1 Carbon Dioxide)</td><td>724.085153</td><td>--</td></tr><tr><td>CO BAG 1 (Bag 1 Carbon Monoxide)</td><td>1.7277</td><td>--</td></tr><tr><td>FE BAG 1 (Bag 1 Fuel Economy)</td><td>11.938046</td><td>11.938046</td></tr><tr><td>CH4 BAG 1 (Bag 1 Methane)</td><td>0.0367942</td><td>--</td></tr><tr><td>NMOG BAG 1 (Bag 1 Non-methane organic gases)</td><td>0.4065437</td><td>--</td></tr><tr><td>CO2 BAG 2 (Bag 2 Carbon Dioxide)</td><td>538.252626</td><td>--</td></tr><tr><td>CO BAG 2 (Bag 2 Carbon Monoxide)</td><td>0.0285</td><td>--</td></tr><tr><td>FE BAG 2 (Bag 2 Fuel Economy)</td><td>16.15154</td><td>16.15154</td></tr><tr><td>CH4 BAG 2 (Bag 2 Methane)</td><td>0.0032836</td><td>--</td></tr><tr><td>NMOG BAG 2 (Bag 2 Non-methane organic gases)</td><td>0</td><td>--</td></tr><tr><td>CO2 BAG 3 (Bag 3 Carbon Dioxide)</td><td>521.893546</td><td>--</td></tr><tr><td>CO BAG 3 (Bag 3 Carbon Monoxide)</td><td>0.0446</td><td>--</td></tr><tr><td>FE BAG 3 (Bag 3 Fuel Economy)</td><td>16.646033</td><td>16.646033</td></tr><tr><td>CH4 BAG 3 (Bag 3 Methane)</td><td>0.0030379</td><td>--</td></tr><tr><td>NMOG BAG 3 (Bag 3 Non-methane organic gases)</td><td>0</td><td>--</td></tr><tr><td>METHANE (CH4 - Methane)</td><td>0.010159</td><td>--</td></tr><tr><td>CO (Carbon Monoxide)</td><td>0.38497</td><td>--</td></tr><tr><td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td><td>0.448696</td><td>--</td></tr><tr><td>DT-EER (Drive Trace Energy Economy Rating)</td><td>0.528935</td><td>--</td></tr><tr><td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td><td>0.897411</td><td>--</td></tr><tr><td>MFR FE (Manufacturer Fuel Economy)</td><td>15.2</td><td>15.2</td></tr><tr><td>NOX (Nitrogen Oxide)</td><td>0.033032</td><td>--</td></tr><tr><td>HC-NM (Non-methane Hydrocarbon)</td><td>0.076652</td><td>--</td></tr><tr><td>NMOG (Non-methane organic gases)</td><td>0.08423</td><td>--</td></tr><tr><td>HC-TOTAL (Total Hydrocarbon)</td><td>0.08727</td><td>--</td></tr></table>	Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	CO2 BAG 1 (Bag 1 Carbon Dioxide)	724.085153	--	CO BAG 1 (Bag 1 Carbon Monoxide)	1.7277	--	FE BAG 1 (Bag 1 Fuel Economy)	11.938046	11.938046	CH4 BAG 1 (Bag 1 Methane)	0.0367942	--	NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.4065437	--	CO2 BAG 2 (Bag 2 Carbon Dioxide)	538.252626	--	CO BAG 2 (Bag 2 Carbon Monoxide)	0.0285	--	FE BAG 2 (Bag 2 Fuel Economy)	16.15154	16.15154	CH4 BAG 2 (Bag 2 Methane)	0.0032836	--	NMOG BAG 2 (Bag 2 Non-methane organic gases)	0	--	CO2 BAG 3 (Bag 3 Carbon Dioxide)	521.893546	--	CO BAG 3 (Bag 3 Carbon Monoxide)	0.0446	--	FE BAG 3 (Bag 3 Fuel Economy)	16.646033	16.646033	CH4 BAG 3 (Bag 3 Methane)	0.0030379	--	NMOG BAG 3 (Bag 3 Non-methane organic gases)	0	--	METHANE (CH4 - Methane)	0.010159	--	CO (Carbon Monoxide)	0.38497	--	DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.448696	--	DT-EER (Drive Trace Energy Economy Rating)	0.528935	--	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.897411	--	MFR FE (Manufacturer Fuel Economy)	15.2	15.2	NOX (Nitrogen Oxide)	0.033032	--	HC-NM (Non-methane Hydrocarbon)	0.076652	--	NMOG (Non-methane organic gases)	0.08423	--	HC-TOTAL (Total Hydrocarbon)	0.08727	--	
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Certification Summary Information Report

Test Group		TFMXT03.51F2				Evaporative/Refueling Family				TFMXR0295LDG		
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 50	CO	0.38	--	--	--	--	--	0.4	12.5	Pass
Fed	120,000 miles	Federal Tier 3 Bin 50	HC-NM	0.08	--	--	--	--	--	0.1	0.4	Pass
CA	50,000 miles	California LEV-III ULEV50	CO	0.38	--	--	--	--	--	0.4	12.5	Pass

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG																																							
Test #	TFMX10091836	Test Procedure	3 - HWFE																																							
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)																																							
Test Date	07/25/2025	Fuel	Gasoline																																							
Fuel Batch ID	373-B	Fuel Calibration Number	114																																							
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined																																							
Verify Test Lab ID	APTL																																									
E10 Evaporative Test Measurement Method	--																																									
Test Start Odometer Reading	3918	Odometer Units	M																																							
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--																																							
State of Charge Delta	Yes																																									
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes																																							
Test Results																																										
<table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> </thead> <tbody> <tr> <td>METHANE (CH4 - Methane)</td> <td>0.000717</td> <td>--</td> </tr> <tr> <td>CO (Carbon Monoxide)</td> <td>0.024835</td> <td>--</td> </tr> <tr> <td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td> <td>2.36164</td> <td>--</td> </tr> <tr> <td>DT-EER (Drive Trace Energy Economy Rating)</td> <td>0.374948</td> <td>--</td> </tr> <tr> <td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td> <td>3.3249</td> <td>--</td> </tr> <tr> <td>HCHO (Formaldehyde)</td> <td>0</td> <td>--</td> </tr> <tr> <td>MFR FE (Manufacturer Fuel Economy)</td> <td>27</td> <td>27</td> </tr> <tr> <td>NOX (Nitrogen Oxide)</td> <td>0.00505</td> <td>--</td> </tr> <tr> <td>N2O (Nitrous Oxide)</td> <td>0</td> <td>--</td> </tr> <tr> <td>HC-NM (Non-methane Hydrocarbon)</td> <td>0.000333</td> <td>--</td> </tr> <tr> <td>NMOG (Non-methane organic gases)</td> <td>0.000343</td> <td>--</td> </tr> <tr> <td>HC-TOTAL (Total Hydrocarbon)</td> <td>0.001015</td> <td>--</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	METHANE (CH4 - Methane)	0.000717	--	CO (Carbon Monoxide)	0.024835	--	DT-ASCR (Drive Trace Absolute Speed Change Rating)	2.36164	--	DT-EER (Drive Trace Energy Economy Rating)	0.374948	--	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	3.3249	--	HCHO (Formaldehyde)	0	--	MFR FE (Manufacturer Fuel Economy)	27	27	NOX (Nitrogen Oxide)	0.00505	--	N2O (Nitrous Oxide)	0	--	HC-NM (Non-methane Hydrocarbon)	0.000333	--	NMOG (Non-methane organic gases)	0.000343	--	HC-TOTAL (Total Hydrocarbon)	0.001015	--
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Manufacturer Test Comments	--																																									

Certification Summary Information Report

Test Group		TFMXT03.51F2			Evaporative/Refueling Family					TFMXR0295LDG		
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 50	CREE	324	--	--	--	0	--	324	--	--
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0003	--	1.03	--	--	--	0.000	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0053	--	--	--	--	--	0.005	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0050	--	--	--	--	--	0.005	999.999	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG	0.0003	--	1.03	--	--	--	0.000	999.999	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG+NOX	0.0053	--	--	--	--	--	0.005	0.050	Pass
CA	150,000 miles	California LEV-III ULEV50	NOX	0.0050	--	--	--	--	--	0.005	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	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG
Test #	TFMX10091837	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	07/25/2025	Fuel	Gasoline
Fuel Batch ID	373-B	Fuel Calibration Number	114
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	APTL		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3954	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			

Certification Summary Information Report

Test Group	TFMXT03.51F2				Evaporative/Refueling Family				TFMXR0295LDG				
	Test Result Name		Unrounded Test Result				Verify Calculated FE Equivalent Value (miles per gallon)						
	CO2 BAG 1 (Bag 1 Carbon Dioxide)		714.15669				--						
	CO BAG 1 (Bag 1 Carbon Monoxide)		0.0677				--						
	FE BAG 1 (Bag 1 Fuel Economy)		12.253749				12.253749						
	CH4 BAG 1 (Bag 1 Methane)		0.0019699				--						
	NMOG BAG 1 (Bag 1 Non-methane organic gases)		0.0023325				--						
	CO2 BAG 2 (Bag 2 Carbon Dioxide)		408.436296				--						
	CO BAG 2 (Bag 2 Carbon Monoxide)		0.1071				--						
	FE BAG 2 (Bag 2 Fuel Economy)		21.438112				21.438112						
	CH4 BAG 2 (Bag 2 Methane)		0.0014589				--						
	NMOG BAG 2 (Bag 2 Non-methane organic gases)		0.0020697				--						
	METHANE (CH4 - Methane)		0.001572				--						
	CO (Carbon Monoxide)		0.098311				--						
	DT-ASCR (Drive Trace Absolute Speed Change Rating)		-0.178243				--						
	DT-EER (Drive Trace Energy Economy Rating)		-0.16023				--						
	DT-IWRR (Drive Trace Inertia Work Ratio Rating)		0.023049				--						
	MFR FE (Manufacturer Fuel Economy)		18.4				18.4						
	NOX (Nitrogen Oxide)		0.009619				--						
	HC-NM (Non-methane Hydrocarbon)		0.002066				--						
	NMOG (Non-methane organic gases)		0.002128				--						
	PM (Particulate Matter)		0.000498				--						
	HC-TOTAL (Total Hydrocarbon)		0.00356				--						
	Test Result Name		Unrounded Test Result				Verify Calculated CREE/OPT-CREE						
	Carbon-Related Exhaust Emissions		476				--						
	Test Result Name		Unrounded Test Result				Verify Calculated CO2						
Carbon dioxide		476.3				--							
Manufacturer Test Comments		--											
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 50	PM	0.0005	--	--	--	--	--	0.000	0.006	Pass	
CA	150,000 miles	California LEV-III ULEV50	PM	0.0005	--	--	--	--	--	0.000	0.006	Pass	

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG																																	
Test #	TFMX10091840	Test Procedure	95 - SC03																																	
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)																																	
Test Date	07/30/2025	Fuel	N/A																																	
Fuel Batch ID	373-B	Fuel Calibration Number	115																																	
Vehicle Class	N/A	DF Type	Mfr. Determined																																	
Verify Test Lab ID	APTL																																			
E10 Evaporative Test Measurement Method	--																																			
Test Start Odometer Reading	3985	Odometer Units	M																																	
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--																																	
State of Charge Delta	Yes																																			
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes																																	
Test Results																																				
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Manufacturer Test Comments	--																																			

Certification Summary Information Report

Test Group	TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG
Fuel Properties			
Fuel Batch ID	375-B	Fuel Calibration Number	71
Test Fuel Type	28 - Cold CO E10 Regular Gasoline (Tier 3)	Fuel Batch Calibration Date	07/29/2025
Fuel Batch Calibration Effective Date	07/29/2025	Fuel Batch Calibration Ineffective Date	12/31/2100
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.744
Fuel Ethanol Volume Percent (%)	9.7	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17876
Fuel Net Heat of Combustion (E10) (MJ/kg)	41.307	Fuel Carbon Mass Fraction (E10)	0.83
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.829	Weight Fraction CO2	--
Fuel Batch ID	373-B	Fuel Calibration Number	114
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	07/09/2025
Fuel Batch Calibration Effective Date	07/09/2025	Fuel Batch Calibration Ineffective Date	12/31/2100
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.751
Fuel Ethanol Volume Percent (%)	10	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17855
Fuel Net Heat of Combustion (E10) (MJ/kg)	41.357	Fuel Carbon Mass Fraction (E10)	0.828
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.831	Weight Fraction CO2	--
Fuel Batch ID	373-B	Fuel Calibration Number	115
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	07/29/2025
Fuel Batch Calibration Effective Date	07/29/2025	Fuel Batch Calibration Ineffective Date	12/31/2100
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.752
Fuel Ethanol Volume Percent (%)	10	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17855
Fuel Net Heat of Combustion (E10) (MJ/kg)	41.307	Fuel Carbon Mass Fraction (E10)	0.828
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.829	Weight Fraction CO2	--
Fuel Batch ID	373-B	Fuel Calibration Number	49
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	01/30/2020
Fuel Batch Calibration Effective Date	01/30/2020	Fuel Batch Calibration Ineffective Date	12/31/2100

Certification Summary Information Report

Test Group		TFMXT03.51F2	Evaporative/Refueling Family	TFMXR0295LDG
Carbon Weight Fraction NMHC	--		Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--		Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--		Fuel Specific Gravity	0.751
Fuel Ethanol Volume Percent (%)	9.5		Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17945
Fuel Net Heat of Combustion (E10) (MJ/kg)	--		Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.829		Weight Fraction CO2	--

Certification Summary Information Report

Test Group		TFMXT03.51F2			Evaporative/Refueling Family		TFMXR0295LDG		
Consolidated List of Standards									
Exhaust Standards									
Cert Region		Federal			Cert/In-Use Code		Both		
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level		Federal Tier 3 Bin 50		
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	--	--	--	--	--	--	--	1.7
150,000 miles	CO-COMP	--	--	--	--	--	--	--	4.2
150,000 miles	CREE	--	--	--	--	--	--	0	999.999
150,000 miles	HCHO	--	--	--	--	--	--	--	0.004
150,000 miles	METHANE	--	--	--	--	--	--	--	0.030
150,000 miles	N2O	--	--	--	--	--	--	--	0.010
150,000 miles	NMOG	--	--	1.1	--	--	--	--	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.050
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	--	0.050
150,000 miles	NOX	--	--	--	--	--	--	--	999.999
150,000 miles	OPT-CREE	--	--	--	--	--	--	0	999.999
150,000 miles	PM	--	--	--	--	--	--	--	0.003
Cert Region		California + CAA Section 177 states			Cert/In-Use Code		Both		
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level		California LEV-III ULEV50		
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	--	--	--	--	--	--	--	1.7
150,000 miles	CO-COMP	--	--	--	--	--	--	--	4.2
150,000 miles	HCHO	--	--	--	--	--	--	--	0.004
150,000 miles	NMOG	--	--	1.1	--	--	--	--	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.050
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	--	0.050
150,000 miles	NOX	--	--	--	--	--	--	--	999.999
150,000 miles	PM	--	--	--	--	--	--	--	0.001

Certification Summary Information Report

Test Group		TFMXT03.51F2			Evaporative/Refueling Family			TFMXR0295LDG	
Cert Region		Federal			Cert/In-Use Code			Both	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 50	
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	999.999
150,000 miles	NMOG	--	--	1.03	--	--	--	--	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.050
150,000 miles	NOX	--	--	--	--	--	--	--	999.999
150,000 miles	OPT-CREE	--	--	--	--	--	--	0	999.999

Cert Region		Federal			Cert/In-Use Code			Both	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 50	
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	--	--	--	--	--	--	--	12.5
120,000 miles	HC-NM	--	--	--	--	--	--	--	0.4

Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Both	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-III ULEV50	
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	NMOG	--	--	1.03	--	--	--	--	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.050
150,000 miles	NOX	--	--	--	--	--	--	--	999.999

Certification Summary Information Report

Test Group		TFMXT03.51F2			Evaporative/Refueling Family			TFMXR0295LDG	
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Both	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-III ULEV50	
Fuel		Gasoline			Test Procedure			Fed. fuel 50 F exh.	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
4,000 miles	CO	--	--	--	--	--	--	--	1.7
4,000 miles	HCHO	--	--	--	--	--	--	--	0.016
4,000 miles	NMOG	--	--	--	--	--	--	--	999.999
4,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.100
4,000 miles	NOX	--	--	--	--	--	--	--	999.999

Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Both	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-III ULEV50	
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	PM	--	--	--	--	--	--	--	0.006

Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Both	
Vehicle Class		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			California LEV-III ULEV50	
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	--	--	--	--	--	--	--	12.5

Certification Summary Information Report

Test Group	TFMXT03.51F2			Evaporative/Refueling Family			TFMXR0295LDG		
Cert Region	Federal			Cert/In-Use Code			Both		
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			Standard Level			Federal Tier 3 Bin 50		
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	PM	--	--	--	--	--	--	--	0.006

Evaporative/Refueling Standards

Evaporative/Refueling Family		TFMXR0295LDG		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Both		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	OMHCE	--		0.20	0.003	

Evaporative/Refueling Family		TFMXR0295LDG		Cert Region		Federal	
Cert/In-Use Code		Both		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	--		0.20	0.003	

Evaporative/Refueling Family		TFMXR0295LDG		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Both		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	OMHCE	--		0.05	0.000	

Evaporative/Refueling Family		TFMXR0295LDG		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Both		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	OMHCE	--		0.500	0.0028	

Certification Summary Information Report

Test Group		TFMXT03.51F2		Evaporative/Refueling Family		TFMXR0295LDG					
Evaporative/Refueling Family		TFMXR0295LDG		Cert Region		Federal					
Cert/In-Use Code		Both		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		TFMXR0295LDG		Cert Region		California + CAA Section 177 states					
Cert/In-Use Code		Both		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		OMHCE		--		0.500		0.0028	
Evaporative/Refueling Family		TFMXR0295LDG		Cert Region		Federal					
Cert/In-Use Code		Both		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		0.0028	
Evaporative/Refueling Family		TFMXR0295LDG		Cert Region		Federal					
Cert/In-Use Code		Both		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		0.0028	

Certification Summary Information Report

Test Group		TFMXT03.51F2	Evaporative/Refueling Family		TFMXR0295LDG
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		TFMXT03.51F2	Evaporative/Refueling Family		TFMXR0295LDG
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		TFMXT03.51F2	Evaporative/Refueling Family		TFMXR0295LDG
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		



SECTION 8

Emission Testing Waiver Statements

Refer to Section 14.01.00.00 of the Common Section for
Statements of Compliance.

Statement of Compliance

Statement of Compliance for Test Group (TFMXT03.51F2)

Ford Motor Company's test and production vehicles do not have defeat devices. All AECDs have been declared and described in the application. This test group has been designed and engineered to comply with 40 CFR 86.1809-12 (prohibition of defeat devices), satisfies 40 CFR 86.1844-01 (application submittal requirements for AECDs), and does not utilize alternate emissions control maps that are unique for testing purposes relative to onroad operation.

Is the transmission part of any AECD, for example, by receiving outputs from the ECU or providing inputs to the ECU, in any emission control strategy, for example, engine and/or catalyst warm-up? If yes, please describe, including purpose, entry/exit conditions, actuations, and justifications.

Ford describes the transmission controls and potential interaction effects within the confidential AECD documentation found in section 16.05.00 of the common section area of the application submittals. This documentation covers the purpose, inputs, controlled actions, and justifications. For example, as referenced in the Drive Speed Control section of that document, the transmission can receive requests from the ECU to delay upshifts based on cold engine coolant temperature and/or low inferred catalyst temperature to assist with engine or catalyst warm-up.

Does the transmission behave and perform the same as, or differently than, while on road versus on a dynamometer? Please explain any differences.

Ford does not attempt to discern whether the vehicle is operating on a dynamometer or on the road. However, there are certain conditions that can cause the transmission to operate differently based on the sensed inputs that may not be encountered during dynamometer testing. For example, when climbing grades or when towing, the transmission will make gear ratio adjustments to compensate against excessive engine lugging and reduced vehicle response. There can also be unique transmission scheduling in different customer selectable drive modes, such as EcoSelect, Sport, Snow, Rock Crawl, etc. The types of conditions that are anticipated to cause transmission adjustments are described in the confidential AECD descriptions located in 16.05.00 of the common section. For customer-selectable drive modes that could reasonably be driven over emission test cycles, Ford evaluates emission performance to assure that these modes meet applicable emission standards. Special dynamometer test modes are required for certain vehicle technologies such as start/stop and HEVs to assure that fault conditions are not set while operating on two-wheel drive dynamometers. This allows the vehicles to behave normally, as they would on the road, rather than causing default/FMEM actions to occur due to significant wheel speed differences between the front and rear axles.

For additional statements of compliance, please refer to Section 14.01.00.00 of the Common Section.



SECTION 9

OBD-II System Description

For a description of the OBD System utilized for this Test Group, refer to Section 16.06.00.00 of the Common Section.



SECTION 10

Description of Alternate-Fueled Vehicles

For a description of the Alternate-Fueled vehicles covered by this Test Group, refer to Section 12.00.00.00 (Description of Vehicles Covered by Certificate and Test Parameters) of this Application.



SECTION 11

AECD Description

For a description of the AECDs utilized in this Test Group,
refer to Section 16.00.05.00 of this application,
and 16.05 of the Common Section.



SECTION 12

Description of Vehicles Covered by Certificate and Testing Parameters

Common Family Parameters – Test Group: TFMXT03.51F2

Vehicle Program:

<u>Test Group Information</u>	
Vehicle/Engine Class	LDT4
Vehicle Fuel Category	<i>Hybrid</i>
Operating Fuel 1	<i>Gas</i>
Engine Displacement (liters)	3.5L Full Hybrid
Total System HP @ RPM (91 Ron)	430 hp @ 6000 RPM
Total System Torque lb-ft @ RPM (91 Ron)	570 lb-ft @ 3000 RPM

<u>Emission Control System:</u>	
Air Aspiration Method*	<i>Turbocharged (TC)</i>
Charge Air Cooler Type* (TG-51)	<i>Air</i>
Exhaust Gas Recirculation (EGR)*	Yes
Cooled EGR *	Yes
Air injection Type (AIR)*	NA=Not applicable
After-Treatment Type *	TWC
	TWC+GPF
Fuel Metering System *	Gasoline Direct (GDI)
	Sequential Fuel (SFI)
Heated oxygen sensor (HO ₂ S)*	YES
Heated Air/Fuel Sensor or WR oxygen sensor (AFS/WR-HO ₂ S)*	YES
Feedback Sensor Configuration	WR-HO ₂ S, HO ₂ S

Shift Schedules	See Common Section
EVAP Canister working Capacity	See Common Section
EVAP Canister Bed Volume	See Common Section
Fuel Tank Temperature Profile	See Common Section

* VECI label item

Calibration Descriptions – TFMXT03.51F2

Cert Code / Calibration	Evaporative Family	Application	Transmission	Vehicle
TTFDCNNA0002/TTFDCNNB05	TFMXR0295LDG	50S	10R80MHT	3.5L F150 FHEV
TTFDCNNB0002/TTFDCNNB05				
TTFDCNNC0002/TTFDCNNB05				
TTFDCNND0002/TTFDCNNB05				
TTFDCNNE0002/TTFDCNNB05				
TTFDCNNA0003/TTFDCNNB06				
TTFDCNNB0003/TTFDCNNB06				
TTFDCNNC0003/TTFDCNNB06				
TTFDCNND0003/TTFDCNNB06				
TTFDCNNE0003/TTFDCNNB06				
TTFDCNNF0000/TTFDCNNB06				
TTFDCNNG0000/TTFDCNNB06				
TTFDCNNH0000/TTFDCNNB06				
TTFDCNNR0000/TTFDCNNB06				
TTFDCNNS0000/TTFDCNNB06				
TTFDCNNA0004/TTFDCNNB07				
TTFDCNNB0004/TTFDCNNB07				
TTFDCNNC0004/TTFDCNNB07				
TTFDCNND0004/TTFDCNNB07				
TTFDCNNE0004/TTFDCNNB07				

Reference Specifications

Spark Plug	DYFS-12YPT Gap: 0.8 +/- 0.05 mm	
Ignition Timing °BTDC (No SPOUT connector)	PCM Controlled	
Idle RPM	PCM Controlled	
Target (Base) in Drive (A/C OFF/A/C ON)	PCM Controlled	Special conditions which may require idle speeds higher than base are listed below. (See Section 16.05 for descriptions of these strategies):
In Neutral (A/C OFF/A/C ON)	850/850 1000	

Potential Idle/Drive Speed Modifier	Function Utilized (Y/N)	Purpose
Low or high air charge temperature	N	Heater, A/C or engine cooling performance
Low catalyst temperature	N	Achieve/maintain light off
Low engine coolant temperature	N	Combustion stability
Low or high ambient temperature	Y	Heater or A/C performance
High transmission oil temperature	N	Ensure adequate fluid pressure
Low battery voltage	N	Avoid stalling or no-start
High Alternator load	N	Preserve battery life and avoid low voltage
High-speed fan operation	N	For engine and A/C condenser cooling
Extended neutral idle time	N	Maintain catalyst temperature
Power steering pressure	N	Ensure adequate P/S assistance
High Altitude	N	Maintain air mass flow to avoid stalling
Alternate calibration	Y	Avoid spark plug fouling during plant/dealer handling
Drive Speed Control or Shift Delay	Y	Increase engine speed to improve cabin heating or cooling
Heated Windshield	N	Maintain charging margin
ETC Failure	N	Electronic Throttle Failure Min RPM
A/C Adder (50RPM)	N	NVH Improvement
High auxiliary loads	Y	Belt tensioner durability on BiSG and HV Motor cooling
Eco Idle Feature (Park/Neutral)	Y	Raise idle speed to reduce fuel consumption and engine off time during Park/Neutral state

Emission Component	Sensed Parameter	Controlled Parameter	Justification ¹	Calibration
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ELECTRONICS – PCM²

FUEL

Fuel Injector (DI)	Signal from PCM	Fuel Flow	N/A	Static Flow Rate: 821 g/min
Fuel Injector (PFI)	Signal from PCN	Fuel Flow	N/A	Static Flow Rate: 128 g/min
Fuel Pressure (DI)	Signal from PCM	Fuel Pressure	N/A	250 bar (25 MPa)

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Regulated Fuel Pressure (PFI) Fuel Pump (DI)	Signal from PCM Signal from PCM	Fuel Pressure Fuel Flow	N/A N/A	380-500 kpa DI pump: Up to 1.3 cc/rev for 3 lobe, 5.5mm lift (theoretical delivery volume) 169 lph @ 12.0V/520kpa Throttle Diameter: 68 mm
Fuel Pump (PFI) Torque Based Electronic Throttle Control	Signal from PCM Signal from PCM	Fuel Flow None	N/A Operates in FTP	
Fuel System Control Strategy²				
Open loop enrichment for driver torque demand	Throttle Position or Pedal Position or Engine LOAD, and Engine RPM	Air-Fuel Ratio (LAMBSE)	Protection against damage or accident; provides additional power under extended torque demand	See Section 16.00.05.00 for air-fuel calibration (LAMBSE) in function "ol_lam_pwr_a_m" if accelerator pedal is greater than "FN311P" (90%) for "ol_tm_pwr_dly_a_m" seconds. Otherwise, open loop target, "OL_LAM_DES" is 1.00 (stoich). * and the entry conditions in function "FN311P".
Open Loop Delay Timers	Time and Gear	Delay open loop fuel	Allows time for downshift; limit enrichment to unusual conditions	See Section 16.00.05.00 for delay time calibration "FN1311P" and the maximum open-loop count-up time, "ol_tm_pwr_dly_a_m"
Open Loop Enrichment Catalyst Protection	Inferred Catalyst Temperature	Air-Fuel Ratio (LAMBSE)	Protection against damage	See Section 16.00.05.00 for inferred catalyst temperature to trigger enrichment, either "CAT_MAX" or "CAT_MAX_LO" and "CAT_MAX_HI" and the time delay on CAT_MAX_LO," "CAT_TMR_THRES"

Emission Component	Sensed Parameter	Controlled Parameter	Justification¹	Calibration
Open Loop Enrichment EGO Protection	Inferred Oxygen Sensor Temperature	Air-Fuel Ratio (LAMBSE)	Protection against damage	See Section 16.00.05.00 for inferred EGO temperature to trigger enrichment, "FEGO_MAX"
Open Loop Enrichment Engine/Exhaust Manifold Protection	Inferred Exhaust Manifold Flange Temperature	Air-Fuel Ratio (LAMBSE)	Protection against damage	See Section 16.00.05.00 for inferred exhaust flange temperature, "FLN_MAX" or "FLN_MAX_LO" and "FLN_MAX_HI" and the time delay on FLN_MAX_LO," "FLN_TMR_THRES"
Open Loop Enrichment Following Deceleration Fuel Shut-Off (DFSO)	Injector state, inferred catalyst O ₂ stored, and CMS voltage	Air-Fuel Ratio (LAMBSE)	Substantially demonstrated on FTP	See Section 16.00.05.00 for air-fuel ratio utilized following fuel shut-off event, "LAM_REACT"
CRANKCASE Crankcase Ventilation Oil Separator Assembly	Manifold Vacuum	Air Flow to Engine	Operates in FTP	EV#:298 2.55-3.75 SCFM @ 3" Hg 2.00-3.20 SCFM @ 8" Hg 0.85-1.65 SCFM @ 15" Hg
Crankcase Ventilation Oil Separator Assembly – Not Heated	Ambient Temp Battery Voltage	PCV Heating	Vehicle Safety	N/A

Emission Component	Sensed Parameter	Controlled Parameter	Justification¹	Calibration
VCT Control Strategy				
Cam timing based on requested torque and percent torque	Requested Torque, Percent Torque, Engine Speed, and Load	Cam Phase Timing	VCT optimized for fuel efficiency within constraints of combustion stability, driveability, emissions, and vacuum limitations	See Section 16.00.05.00 for "hdfcfg_ix_fe_v" Best FE mapped points in combination with "FNHDFX_BEST_FE_DIST" (eng_spd, load) and "FNHDFX_BEST_DRIVE_DIST" (eng_spd, pct_load) distances.
Cam Timing Limitation for Combustion Stability	Requested Torque and Engine Speed	Cam Phase Timing	Protection against damage or accident	See Section 16.00.05.00 for "FNHDFX_VCT_COMB_STAB_EXH" and "FNHDFX_VCT_COMB_STAB_INT"

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Cam Actuator Limitation for Oil Temperature	Oil Temperature; or Time-since-start and ECT-at-start	Cam Phase Timing	Protection against damage or accident	See Section 16.00.05.00 for "FNHDFX_FNEOT_ADV_INT" and "FNHDFX_FNEOT_EXH"
Cam Actuator Limitation for start-up	Engine Coolant Temp. at start and time-since-start	Cam Phase Timing	Protection against damage or accident	See Section 16.00.05.00 for "fnvct_enable_delay" and "FNHDFX_VCT_COMB_STAB_EXH" and "FNHDFX_VCT_COMB_STAB_INT"
Cam Retard Limitation under Hi Torque Demand n	Engine Speed and Requested Torque	Cam Phase Timing or Throttle Position	Protection against damage or accident under high torque demand	See Section 16.00.05.00 for Contained within the Best FE, Best Drv noted above and the Optimal Performance "FN_HDFX_OP_IVO" and "FN_HDFX_OP_EVC" calibrations.
Cam Actuator Limitation for ACT Effects	Air Charge Temperature	Cam Phase Timing	Protection against damage or accident by maintaining combustion stability	See Section 16.00.05.00 for "FNHDFX_VCTLIM_EXH"

ENGINE COOLING

Thermostat	Coolant Temperature	Coolant Flow	Engine Protection	Start to Open: 90.6 °C
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1 – Justification provided for AECD systems (i.e. sense operating conditions and control the function of an emission component) and not for the individual components.

2 – See Section 16.05 for Strategy Control Systems descriptions

3 – "FTP" represents all tests required for certification

* – indicates that ending characters on some parameter names may vary

2026MY 3.5L F150 FHEV
Exhaust Emissions Parts List TFMXT03.51F2

Vehicle	Certification Level	Certification Code	Calibration	ECM -12A650-	HPCM1 ¹ -7P120-	BSCM ² -2C219-	BECM ⁴ -10B687-	Date
F150	INI	TTFDCNNA0002 TTFDCNNB0002 TTFDCNNC0002 TTFDCNND0002 TTFDCNNE0002	TTFDCNNB05	PTL3A-ACB	PTL38-MB	TL34-AD	ML38-AH	08/07/2025
F150	INI	TTFDCNNA0003 TTFDCNNB0003 TTFDCNNC0003 TTFDCNND0003 TTFDCNNE0003	TTFDCNNB06	PTL3A-ACD	PTL38-MB	TL34-AD	ML38-AH	09/08/2025
F150	RC1	TTFDCNNF0000 TTFDCNNG0000 TTFDCNNH0000 TTFDCNNR0000 TTFDCNNS0000	TTFDCNNB06	PTL3A-ACD	PTL38-MB	TL34-AD	ML38-AH	12/04/2025
		TTFDCNNA0004 TTFDCNNB0004 TTFDCNNC0004 TTFDCNND0004 TTFDCNNE0004	TTFDCNNB07	PTL3A-ACE	PTL38-MB	TL34-AD	ML38-AH	11/10/2025

----- All Other Exhaust Emission Parts -----

Part Name	Part Number
Catalyst	TL34-5E214-TE
Catalyst	TL34-5G218-TD
Battery Pack	ML38-10B759-AM
Charge Air Cooler	ML34-6K775-CA
PCV	KR3E-6A666-BA
Camshaft Variable Timing Solenoid	HL3E-6B297-DD
Crankshaft Position Sensor	RL3A-6C315-AB
Cylinder Head Temperature Sensor	P2GA-6G004-AC
Turbo Charger	RL3E-6C879-BD RL3E-6K682-BD
EGR Module Asy	RL3E-9Y456-BB RL3E-9Y456-CA
EGR Cooler	ML3E-9R442-AF
EGR Cold Tube with Orifice	ML3E-9E470-AD
EGR Temp Sensor	KA1A-9U498-AB
Fuel Pump (High Pressure):	ML3E-9D376-AA
Exhaust Pressure Sensor	ML3A-5L200-AD
Exhaust Temperature Sensor	TL3A-12B591-CA
PFI Fuel Injectors (6):	ML3E-9F593-BA
DI Fuel Injectors (6):	ML3E-9G929-AA
Electronic Throttle Body	HL3E-9F991-AA
Fuel Pressure Sensor (Low Pressure):	P2GE-9F972-BA P2GE-9F972-BB (Alt.)
Fuel Pressure Sensor (High Pressure):	K2GE-9F972-BA K2GE-9F972-AA (Alt.)
Fuel Pump (Low Pressure):	ML34-9350-SA
Camshaft Position Sensor	BL31-12K073-BC RL3A-12K073-AB (Alt.)
Intake Air Temperature Sensor (IAT)	DS7A-12A697-AA
UEGO	RL3A-9Y460-BC RL3A-9Y460-CC TL3A-9Y460-AB

CMS	RL3A-9G444-EC RL3A-9G444-HA TL3A-9G444-AB
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1. HPCM: Hybrid Powertrain Control Module Assembly
2. BSCM: Brake System Control Module Assembly
3. BSCM CAL: Brake System Control Module Calibration
4. BECM: Battery Electric Control Module Assembly

Vehicle Description Report

Test Group: TFMXT03.51F2

ID Number	5292845	5292915	5292854	5292924	5292864	5292934	5292865	5292935
Displacement	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Cert Code	TTFDCNNA0002	TTFDCNNA0003	TTFDCNNB0002	TTFDCNNB0003	TTFDCNNC0002	TTFDCNNC0003	TTFDCNND0002	TTFDCNND0003
Fuel Tank(s)	F8	F8	F8	F8	F8	F8	F8	F8
Carline	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV
Wheel Configuration	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Body Style	Super Crew	Super Crew	Super Crew	Super Crew	Super Crew	Super Crew	Super Crew	Super Crew
Wheelbase	145.0	145.0	145.0	145.0	145.0	145.0	157.0	157.0
Transcode Combo	GCC	GCC	GCC	GCC	GCC	GCC	GCC	GCC
Curb Weight	5869	5869	5869	5869	5869	5869	5883	5883
ETW	6000	6000	6000	6000	6000	6000	6000	6000
Loaded Weight LVW	6169	6169	6169	6169	6169	6169	6183	6183
ALVW-ETW	6500	6500	6500	6500	6500	6500	6500	6500
Adj. Loaded Weight	6634	6634	6634	6634	6634	6634	6642	6642
GVWR	7400	7400	7400	7400	7400	7400	7400	7400
GCWR	17100	17100	17100	17100	17100	17100	18400	18400
Min Axle Ratio	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73
Max Axle Ratio	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73
Min N/V Ratio	25.3	25.3	25.0	25.0	25.1	25.1	25.3	25.3
Max N/V Ratio	26.1	26.1	25.0	25.0	25.1	25.1	26.1	26.1
Emission Vehicle Class	LDT4	LDT4	LDT4	LDT4	LDT4	LDT4	LDT4	LDT4
Drive Code	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive
Trans Type	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	265/70R17 - 26.1	265/70R17 - 26.1	275/60R20 - 25	275/60R20 - 25	275/50R22 - 25.1	275/50R22 - 25.1	265/70R17 - 26.1	265/70R17 - 26.1
Max Tire Size	LT265/70R18 - 25.3	LT265/70R18 - 25.3	275/60R20 - 25	275/60R20 - 25	275/50R22 - 25.1	275/50R22 - 25.1	LT265/70R18 - 25.3	LT265/70R18 - 25.3
Alt Tire 1	275/65R18 - 25.7	275/65R18 - 25.7					LT265/70R17 - 26.1	275/65R18 - 25.7
Alt Tire 2	LT265/70R17 - 26.1	LT265/70R17 - 26.1					275/65R18 - 25.7	LT265/70R17 - 26.1
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								
DAW Full Tank	2522	2522	2522	2522	2522	2522	2460	2460
DAW Empty Tank	2400	2400	2400	2400	2400	2400	2348	2348

Vehicle Description Report

Test Group: TFMXT03.51F2

ID Number	5292871	5292941
Displacement	3.5	3.5
Cert Code	TTFDCNNE0002	TTFDCNNE0003
Fuel Tank(s)	F8	F8
Carline	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV
Wheel Configuration	Standard	Standard
Body Style	Super Crew	Super Crew
Wheelbase	157.0	157.0
Transcode Combo	GCC	GCC
Curb Weight	5883	5883
ETW	6000	6000
Loaded Weight LVW	6183	6183
ALVW-ETW	6500	6500
Adj. Loaded Weight	6642	6642
GVWR	7400	7400
GCWR	18400	18400
Min Axle Ratio	3.73	3.73
Max Axle Ratio	3.73	3.73
Min N/V Ratio	25.0	25.0
Max N/V Ratio	25.0	25.0
Emission Vehicle Class	LDT4	LDT4
Drive Code	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive
Trans Type	Semi-Automatic	Semi-Automatic
Calibration Application	50ST	50ST
Min Tire Size	275/60R20 - 25	275/60R20 - 25
Max Tire Size	275/60R20 - 25	275/60R20 - 25
Alt Tire 1		
Alt Tire 2		
Alt Tire 3		
Alt Tire 4		
Alt Tire 5		
Alt Tire 6		
Alt Tire 7		
DAW Full Tank	2460	2460
DAW Empty Tank	2348	2348

Vehicle Description Report

Test Group: TFMXT03.51F2

ID Number	5298789	5298798	5298808	5298809	5298815
Displacement	3.5	3.5	3.5	3.5	3.5
Cert Code	TTFDCNNA0004	TTFDCNNB0004	TTFDCNNC0004	TTFDCNND0004	TTFDCNNE0004
Fuel Tank(s)	F8	F8	F8	F8	F8
Carline	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV
Wheel Configuration	Standard	Standard	Standard	Standard	Standard
Body Style	Super Crew	Super Crew	Super Crew	Super Crew	Super Crew
Wheelbase	145.0	145.0	145.0	157.0	157.0
Transcode Combo	GCC	GCC	GCC	GCC	GCC
Curb Weight	5869	5869	5869	5883	5883
ETW	6000	6000	6000	6000	6000
Loaded Weight LVW	6169	6169	6169	6183	6183
ALVW-ETW	6500	6500	6500	6500	6500
Adj. Loaded Weight	6634	6634	6634	6642	6642
GVWR	7400	7400	7400	7400	7400
GCWR	17100	17100	17100	18400	18400
Min Axle Ratio	3.73	3.73	3.73	3.73	3.73
Max Axle Ratio	3.73	3.73	3.73	3.73	3.73
Min N/V Ratio	25.3	25.0	25.1	25.3	25.0
Max N/V Ratio	26.1	25.0	25.1	26.1	25.0
Emission Vehicle Class	LDT4	LDT4	LDT4	LDT4	LDT4
Drive Code	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive
Trans Type	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic
Calibration Application	50ST	50ST	50ST	50ST	50ST
Min Tire Size	265/70R17 - 26.1	275/60R20 - 25	275/50R22 - 25.1	265/70R17 - 26.1	275/60R20 - 25
Max Tire Size	LT265/70R18 - 25.3	275/60R20 - 25	275/50R22 - 25.1	LT265/70R18 - 25.3	275/60R20 - 25
Alt Tire 1	LT265/70R17 - 26.1			275/65R18 - 25.7	
Alt Tire 2	275/65R18 - 25.7			LT265/70R17 - 26.1	
Alt Tire 3					
Alt Tire 4					
Alt Tire 5					
Alt Tire 6					
Alt Tire 7					
DAW Full Tank	2522	2522	2522	2460	2460
DAW Empty Tank	2400	2400	2400	2348	2348

SECTION 12.00.05.00 -- 2026 TEST VEHICLE REQUIREMENTS

Selection	<u>CAP 2000 Exhaust Data Vehicle</u>	<u>Evaporative Emission Data Vehicle</u>
Test Group	TFMXT03.51F2	PFMXT03.51F1
Evaporative Emission Family	TFMXR0295LDG	PFMXR0295LDG
Engine Displacement	3.5L Hybrid	3.5L Hybrid
Engine Code	TTFDCNNB00	MTFDCNNB00
Exhaust Control System	TWC/TWC+GPF/WR-HO2S/HO2S/TC/CAC/EGR/EGR-C/DFI/SFI	TWC/WR-HO2S/HO2S/TC/CAC/EGR/EGRC/DFI/SFI
Model	F150 HEV 4WD	F150 HEV 4WD
Transmission	10R80 MHT	10R80 MHT
Equivalent Test Weight	6000	6000
THP	19.8	22.2
Target	F0: 37.28, F1: 0.58, F2: 0.03296	F0: 55.69, F1: 0.2272, F2: 0.03972
Axle Ratio	3.73	3.73
N/V Ratio (rpm/mph)	25.7	25.3
Tires	LT265/70/R18	LT265/70/R18
Drive Mode Used	Sport	Sport
Actual Test Vehicle	Tailpipe	Evaporative Emission
Model Year	2026	2021
Vehicle ID Number	TFD1-3.5-J-226	MFD1-3.5-J-945
Configuration	0	0
Test Performed	City, Hwy, US06, SC03, Cold CO & 50 Deg NMOG	2 Day EVAP, 3 Day EVAP ERL, ORVR
Fan/Location	RSM	RSM

Test Group: TFMXT03.51F1

Issued: 09/04/2025

Revised:

12.00.05.00



SECTION 14

Request for Certification


Environmental & Safety Compliance

**Allen Park Test Laboratory
1500 Enterprise Drive, Suite 3W-200
Allen Park, Michigan 48101-2053**

September 23rd, 2025

Mr. Hannah Frame
Certification Division
Mobile Source Pollution Control
U. S. Environmental Protection Agency
2000 Traverwood Drive
Ann Arbor, Michigan 48105

Dear Ms. Frame:

Ford Motor Company (Ford) herewith submits Part I Application for Certification for the 2026 model year full hybrid electric gasoline powered light-duty (LDT) contained in Ford's 50-State (Federal/CA) test group TFMXT03.51F2 and evaporative emission family TFMXR0295LDG. The test fuel used was Tier 3 E10.

The EPA Final Tier 3 certification and in-use exhaust emission standards applicable to this test group are:

Certification & In-use FTP Standards (g/mi)	Useful Life	NMOG + NO_x	CO	PM	US06 PM	HCHO
Final Tier 3 Bin 50	150K	0.050	1.7	0.003	0.006	0.004

This test group meets the SFTP NMOG+NO_x Composite Family Emission Limit (FEL) of 0.050 g/mi and CO Composite standard of 4.2 g/mi.

In addition, this test group meets the Cold CO standard of 12.5 g/mi and the NMHC Family Emission Limit (FEL) of 0.4 g/mi as part of compliance plan to meet corporate fleet average cold NMHC standards.

This test group also meets the CH₄ standard of 0.030 g/mi and the N₂O standard of 0.010 g/mi for the FTP.

The EPA Tier 3 certification and in-use evaporative emission standards applicable to this test group are:

Tier 3	Useful Life	Hot Soak + 2-day diurnal	Hot Soak + 3-day diurnal	Running Loss	ORVR
Certification & In-Use Evaporative Standards	150K	0.500 grams per test	0.500 grams per test	0.05 g/mile	0.20 g/gallon

The Fuel Spitback standard is 1.0 gram per test for this test group.

Based on Ford Motor Company's good engineering judgment, all the vehicles described in this Application are designed to comply with the applicable intermediate and full useful life standards, as described above.

This Part I application for certification has been prepared in accordance with the standardized format recommended by EPA via its mail out # CD-14-19 (LDV/LDT/ICI/LIMO), subject: "Certification Application Reporting Guidance", dated November 24, 2014. Therefore, in accordance with the provisions of 40 CFR

86.1844-01(d)(14) including the provisions of 40 CFR Parts 85, 86 and 600, Ford requests that a Certificate of Conformity be issued for the LDV test group listed in this Application for Certification.

Please contact Terry Cowher at 313-805-6360, if you have any questions regarding this submission.

Sincerely,

DocuSigned by:
Lawrence H. Merritt, Jr.
DF6ED4749EAC46B...

Lawrence H. Merritt, Jr.
Manager, Emissions Certification
Homologation, & Compliance


Environmental & Safety Compliance

**Allen Park Test Laboratory
1500 Enterprise Drive, Suite 3W200
Allen Park, Michigan 48101- 2053**

September 23rd, 2025

Ms. Robin U. Lang
Emissions Certification and Compliance Division
Air Resources Board
4001 Iowa Avenue
Riverside, California 92507

Dear Ms. Lang:

Ford Motor Company (Ford) herewith submits Part I Application for Certification for the 2026 model year full hybrid electric gasoline powered light-duty (LDT) contained in Ford's 50-State (Federal/CA) test group TFMXT03.51F2 and evaporative emission family TFMXR0295LDG. The test fuel used was Tier 3 E10. This application aligns with CARB's Manufacturers Advisory Correspondence (MAC) ECCD-2025-8 alternate pathway (1) described on page 2 as follows:

(1) An approved application for CARB certification to the vehicle and engine emission regulations that immediately preceded those covered by the waivers that were targeted by the congressional resolutions.

Ford intends submittal of this certification to facilitate CARB's review in order to ensure timely certification of Ford's vehicles as may be needed in accordance with applicable requirements. Ford is reserving its rights with regard to determining what requirements apply and which requirements can be enforced by CARB.

The FTP certification and in-use standards applicable to this test group for vehicle offered in California are as follows:

Certification & In-use FTP Standards (g/mi)	Useful Life	NMOG + NO_x	CO	PM	US06 PM	HCHO
LEVIII ULEV50	150K	0.050	1.7	0.001	0.006	0.004

This test group meets the SFTP NMOG+NO_x Composite Family Emission Limit (FEL) of 0.050 g/mi and CO Composite standard of 4.2 g/mi. In addition, this test group meets the Cold CO standard of 12.5 g/mi.

The evaporative certification and in-use standards applicable to this test group are as follows:

LEVIII	Useful Life	Hot Soak + 2-day diurnal	Hot Soak + 3-day diurnal	Running Loss	ORVR
Certification & In-Use Evaporative Standards	150K	0.500 grams per test	0.500 grams per test	0.05 g/mile	0.20 g/gallon

The Fuel Spitback standard is 1.0 gram per test for this test group.

Based on Ford Motor Company's good engineering judgment, all the vehicles described in this Application are designed to comply with the applicable intermediate and full useful life standards, as described above

This Part I application for certification has been prepared in accordance with the standardized format recommended by EPA via its mail out # CD-14-19 (LDV/LDT/ICI/LIMO), subject: "Certification Application Reporting Guidance", dated November 24, 2014. This Application has also been prepared in accordance with the California Air Resources Board, Final Regulation Order, Amendments to Sections 1960.1, 1960.5, 1961, and 1962 Title 13, California Code of Regulations (As Amended August 4, 2005).

Therefore, in accordance with the provisions of 40 CFR 86.1844-01(d)(14) including the provisions of 40 CFR Parts 85, 86 and 600, Ford requests that an Executive Order be issued for the LDT test group listed in this Application for Certification.

Please contact Terry Cowher at 313-805-6360, if you have any questions regarding this submission.

Sincerely,

DocuSigned by:
Lawrence H. Merritt, Jr.
DF6ED4749EAC46B...

Lawrence H. Merritt, Jr.
Manager, Emissions Certification
Homologation, & Compliance

cc: R. Uyehara, M. Desai



SECTION 15

Other Information

15.00.00.00



CCAPS Manual Payment Request

(North America)

REF NO: 306179

NAME AND ADDRESS OF PAYEE

Environmental Protection Agency-MVECP

U.S. Bank - Government Lockbox 979032

1300 Pennsylvania Ave NW - Washington, DC 20004-3002

The requestor is responsible to ensure the supplier code has correct company name, remit to and/or banking information whether the payment is going by check or electronically by ACH.

REASON FOR DISBURSEMENT

CERTIFICATION FEES - EPA STANDARD ENGINE FAMILY, EXHAUST EMISSION CONTROL SYSTEM

COMMENTS (Shown on Remittance Advice/Not to include PII)

2026 MODEL YEAR CERTIFICATION FEES - (FORMS ATTACHED)

LOC CODE	GEN. LED.	SUB. ACCT.	SUB. DIV.	DEPT	PROD. CODE	BALANCE REFERENCE	MISC. REFERENCE	INVOICE #	INVOICE DATE	AMOUNT (Bracket Credits)	1099 Tax Type
5100	25A	00217		5100S910		F102A	EPA	306179	3/31/2025	197,634.00	N
TOTAL										197,634.00	

Pre-requisites for Payment :

- Requestors or Approvers to ensure the following
 - Receipt of Service
 - Price Validation
 - Supported by invoice or other documentation
- Check if payment item is on [Uses of Manual Payment Requests](#)
- For Finance Approval follow [Corporate Approval Authorities - Method of Payment](#)

TYPE OF INVOICE:

MANUAL PAYMENT REQUEST
CATEGORY (use drop down
with Alt+down arrow key):

Legal Matters Environmental Fees

Requestor

Operations Approval - Receipt of Service

Preparer/Requestor

CDS ID
TOUVER

Sign

Date

3/31/25

Approver

CDS ID

LMERRIT2

DocuSigned by:

Sign

Date

3/31/2025

DF6ED4749EAC46B...

Approvals per Corporate Approval Authorities - Method of Payment

Payment Item is on Uses of Manual Payment Requests

CDS ID

Sign

Date

3/31/25

DocuSigned by:

Patricia Blancas Ruiz

98D37B2D5DA0498...

Payment Item is not on Uses of Manual Payment Requests

CDS ID

Sign

Date

Finance LL5+

PBLANCAS

or Plant Controller (LL6)

Unlimited

Finance LL6

< \$250,000

Finance LL4+

Unlimited

Finance LL5

< \$25,000

It is important to protect personal data when retaining and forwarding this Payment Authorization Form and attachments, if any.
Every effort must be made to prevent exposure.

The space below may be used for additional local requirements

306179

PA_MV CP_V

S A Fee Form

Terry Cowher 313-805-6360
TG - TFMXT03.51F2

[Help and EPA nstructions](#)

Tracking Information
Pay.gov Tracking ID: 27MSSQ63

* Required Field

Agency Tracking ID: 77004235468

General Information

Date: 03/31/2025

Process Code *

Submit New Fee Filing Form

Manufacturer Code *

FMX

Manufacturer Name *

Ford Motor Company

Contact Name *

Tina Oliver

Contact Email Address *

toliver@ford.com

Contact Phone *

313-323-8938

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

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

Engine Family / Evaporative Family / Test Group *

TFMXT03.51F2

Certificate Request Type (Industry Sector Code)

Certificate Request Type *

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

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

ICI VIN Number (Required for ICIs Only)

Do you qualify for a Reduced Fee? *

No

Payment Information

Amount Owed

\$32,939.00

Payment Type *

Offline ACH

Comments

EPA Form Number 3520-29

OMB Control No.2060-0545

Approval expires 7/31/2027

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

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



SECTION 16

Confidential Information



SECTION 17

California ARB Requirements

FoMoCo	Ford Motor Company	
	VEHICLE EMISSION CONTROL INFORMATION	
Conforms to regulations: 2026 MY		
U.S. EPA: T3B50 LDT4		
OBD: CA OBD II Fuel: Gasoline		
California: ULEV50 LDT		
OBD: CA OBD II Fuel: Gasoline		
TWC/TWC+GPF/WR-HO2S/HO2S/TC/CAC/EGR/EGR-C/DFI/SFI		
No adjustments needed.		
3.5L-Group: TFMXT03.51F2 Evap: TFMXR0295LDG		
 TW7E-9C485- L K M		

Engine Family: TFMXT03.51F2

Issued: 09/16/2025

Revised:



SECTION 18

Revisions

18.00.00.00

APPLICATION REVISIONS

TFMXT03.51F2

<u>NO.</u>	<u>DATE</u>	<u>PAGE(S)</u>	<u>DESCRIPTION</u>
RC1	12/10/2025	12.00.02.00 12.00.03.00 12.00.06.00	With this running change Ford is updating PCM s/w that includes robustness improvements to CATMN feature, CKCP IUMPR and drivability calibration. ABS S/W and Calibration to address OBD resets. WP# 03.14.01-15450, 15461



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
2026 MODEL YEAR
CERTIFICATE OF CONFORMITY
WITH THE CLEAN AIR ACT

OFFICE OF TRANSPORTATION
AND AIR QUALITY
ANN ARBOR, MICHIGAN 48105

Certificate Issued To: Ford Motor Company
(U.S. Manufacturer or Importer)
Certificate Number: TFMXT03.51F2-058

Effective Date:
10/23/2025
Expiration Date:
12/31/2026

Mary J. Manners
Byron J. Bunker, Division Director
Compliance Division

Issue Date:
10/23/2025
Revision Date:
N/A

Test Group Name: TFMXT03.51F2
Evaporative/Refueling Family Name: TFMXR0295LDG
Executive Order Number:
Applicable Exhaust Emission Standards: Federal Tier 3 Bin 50
Applicable Evaporative/Refueling Standards: Federal Tier 3 Evap

Engine Displacement: 3.5 Liters
Exhaust Emission Test Fuel Type: Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Full Useful Life Miles: Exhaust Emissions: 150,000 miles
Full Useful Life Miles: Evaporative/Refueling Emissions: 150,000 miles

Models Covered: Ford: F150 PICKUP 4WD HEV
Hybrid Electric Vehicle

Pursuant to section 206 of the Clean Air Act (42 U.S.C.7525) and 40 CFR Parts 85, 86, 88, 600, 1037, 1065, and 1066 as applicable, this certificate of conformity is hereby issued with respect to test vehicles which have been found to conform to the requirements of the regulations on Control of Air Pollution from New Motor Vehicles and New Motor Vehicle Engines (40 CFR Parts 85, 86, 88, 600, 1037, 1065, and 1066 as applicable) and which represent the new motor vehicle models listed above by test group and evaporative/refueling emission family, more fully described in the application of the above named manufacturer. Vehicles covered by this certificate have demonstrated compliance with the applicable emission standards as more fully described in the manufacturer's application. This certificate covers the above models, which are designed to meet the applicable emission standards specified in 40 CFR Parts 85, 86, 88, 600, 1037, 1065, and 1066 as applicable at both high and low altitude as applicable.

EPA is issuing this certificate subject to the conditions and provisions of 40 CFR 86.1848(c), and 40 CFR 1037 as applicable.

This certificate covers only those new motor vehicles or vehicle engines which conform, in all material respects, to the design specifications that apply to those vehicles or engines described in the documentation required by 40 CFR Parts 85, 86, 88, 600, 1037, 1065, and 1066 as applicable and which are produced during the 2026 model year production period stated on this certificate of the said manufacturer, as defined in 40 CFR Parts 85, 86, 88, 600, 1037, 1065, and 1066 as applicable. The manufacturer shall obtain the approval of the California Air Resources Board (in the form of an executive order issued by the California Air Resources Board) prior to introducing any vehicle covered by this certificate into commerce 1) in the State of California, or 2) in a State that, under the authority of Section 177 of the Clean Air Act, has adopted and placed into effect the California standards to which this test group has been certified.

Catalyst-equipped vehicles designed to be operated on gasoline or flexible fuel are equipped with an emission control device which the Administrator has determined will be significantly impaired by the use of leaded fuel. This certificate is issued subject to the conditions specified in 40 CFR 80.24. Catalyst-equipped vehicles designed to be operated on gasoline or flexible fuel, otherwise covered by this certificate, which are driven outside the United States, Canada, Mexico, Japan, Australia, Taiwan and the Bahama Islands will be presumed to have been operated on leaded fuel resulting in deactivation of the catalysts. If these vehicles are imported or offered for importation without retrofit of the catalyst, they will be considered not to be within the coverage of this certificate unless included in a catalyst control program operated by manufacturer or a United States Government Agency and approved by the Administrator.

In the case of completely assembled vehicles, this certificate of conformity covers only vehicles which are completely manufactured prior to January 1, 2027. Normally incompletely assembled vehicles (such as cab chassis) may be completed after this date, provided that the basic manufacturing (including installation of the emission control system) was completed prior to January 1, 2027. This certificate does not cover vehicles sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.

	FORD MOTOR COMPANY	Executive Order: A-010-2657 New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles Page 1 of 4
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Pursuant to the authority vested in California Air Resources Board by Health and Safety Code (HSC), Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 and 39516 and Executive Order G-19-095;

IT IS ORDERED AND RESOLVED: That the following exhaust and evaporative emission control systems produced by the manufacturer are certified as described below. Production vehicles are to be in all material respects the same as those for which certification is granted.

TEST GROUP INFORMATION									
MODEL YEAR	TEST GROUP		VEHICLE CLASS(ES)			FUEL CATEGORY		FUEL TYPE	
2026	TFMXT03.51F2		LDT4			HYBRID ELECTRIC VEHICLE		GASOLINE	
USEFUL LIFE (miles)			VEHICLE EMISSION CATEGORY				INTERIM / INTERMEDIATE IN-USE STD		
EXH/ORVR		EVAP	FTP		SFTP		FTP		SFTP
150000		150000	LEV3 ULEV50		LEV3 COMPOSITE		PM		*
SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS					OBD STATUS			ENGINE DISPLACEMENT (L)	
1	2TWC, 2TWC+GPF, DFI, SFI, EGR, EGRC, 2WR-HO2S, 2HO2S, 2TC, CAC				FULL		*		3.5
*	*				PARTIAL		ALL MODELS		
*	*								
EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION									
EVAP / ORVR FAMILY		EVAPORATIVE STD CATEGORY			EVAP EMISSION STD VEHICLE CLASS		SPECIAL FEATURES		
TFMXR0295LDG		LEV 3 OPTION2 WITH FEL			LDT4		HCT		
EMISSION CREDIT INFORMATION									
NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY		NMOG CREDIT FOR NON-PZEV ZERO-EVAP			NMOG CREDIT FOR DOR		OPTIONAL EXH. STD FOR WORK TRUCKS		
N		N			N		N		
NMOG AND FLEET AVERAGE INFORMATION									
NMOG RAF	CH4 RAF	FTP NMOG/NMHC RATIO	HCHO/NMHC RATIO	NMOG+NOX FLEET STD PC+LDT (0-3750 LVW) (g/mi)		NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)		NMOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (g/mi)	
*	*	1.10	*	0.030		0.030		*	

See the Attachment for Vehicle Models, Evaporative Family, Engine Displacement, Emission Control Systems, Phase-In Standards, OBD Compliance, Emission Standards and Certification Levels, and Abbreviations. (As applicable, heavy-duty vehicles (HDV) over 14,000 pounds in GVWR listed in this Executive Order are certified to the requirements in 13 CCR Section 1961.2 applicable to MDV pursuant to 13 CCR Section 1956.8(c)(3) or 13 CCR Section 1956.8(h)(5), as applicable.)

 CALIFORNIA AIR RESOURCES BOARD	FORD MOTOR COMPANY	Executive Order: A-010-2657 New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles Page 2 of 4
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BE IT FURTHER RESOLVED: Manufacturer requested an Executive Order. This Executive Order certifies the test group meets the standards for which certification was requested.

BE IT FURTHER RESOLVED: The exhaust and evaporative emission standards and the certification emission levels for the listed vehicles are as listed on the Attachment. Compliance with the 50° Fahrenheit testing requirement may have been met based on the manufacturer's submitted compliance plan in lieu of testing. Any debit in the manufacturer's fleet average compliance requirement for NMOG+NOx or Vehicle Equivalent Credit (13 CCR Sections 1961.2(b)(1), 1961.2(b)(3), or 1961.2(c)(3), and the incorporated test procedures, as applicable), or Greenhouse Gas Emissions (13 CCR Section 1961.3, or 17 CCR Section 95663, and the incorporated test procedures, as applicable), for PC, LDT, MDPV or MDV are to be equalized as required.

BE IT FURTHER RESOLVED: For the listed vehicle models, the manufacturer has attested to compliance with Title 13, California Code of Regulations, (13 CCR) Sections 1965 [emission control labels], 1968.2 [on-board diagnostic, full or partial compliance], 2035 et seq. [emission control warranty], 2235 [fuel tank fill pipes and openings] (gasoline and alcohol fueled vehicles only), and "High-Altitude Requirements" and "Inspection and Maintenance Emission Standards" (California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for PC, LDT and MDV).

BE IT FURTHER RESOLVED: The California Air Resources Board adopted emergency vehicle emissions regulations (the "Emergency Vehicle Emissions Regulation") that amend California Code of Regulations, Titles 13 and 17, and adopt new sections into California Code of Regulations, Titles 13 and 17. The amendments confirm that, until a court resolves the uncertainty created by the federal government's actions, certain antecedent regulations (displaced by Advanced Clean Cars II) remain operative (as previously adopted) with the caveat that CARB may enforce Advanced Clean Cars II, to the extent permitted by law, in the event a court of law holds invalid the resolution purporting to disapprove those waivers.

Vehicles certified under this Executive Order are to conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed on this 17th day of December 2025.



Robin U. Lang, Chief
 Emissions Certification and Compliance Division

ATTACHMENT

EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS (FTP, HWFET, 50°F, 20°F)

	FUEL TYPE	CH4: methane; NMOG: non-CH4 organic gas; HC: hydrocarbon; NMHC: non-CH4 HC; CO: carbon monoxide; NOx: oxides of nitrogen; HCHO: formaldehyde; PM: particulate matter; RAF: reactivity adjustment factor; 2DHS/3DHS [g HC/test]: 2/3 days diurnal+hot-soak; RL [g HC/mi]: running loss; ORVR [g HC/gallon dispensed]: on-board refueling vapor recovery; g: gram; mg: milligram; mi: mile; K: 1000 miles; F: degrees Fahrenheit; FTP: federal test procedure; SFTP: supplemental FTP									
		NMOG+NOx (g/mi)		CO (g/mi)		NOx (g/mi)		HCHO (mg/mi)		PM (g/mi)	
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
FTP@50K	*	*	*	*	*	*	*	*	*	*	*
FTP@UL	GASOLINE-TIER3 E10	0.029	0.050	0.2	1.7	*	*	0	4	0.000	0.001
50°F @4K	*	*	*	*	*	*	*	*	*		

	FUEL TYPE	NMOG+NOx (g/mi)		CO (g/mi)	
		CERT	STD	CERT	STD
HWFET @ 50K	*	*	*		
HWFET @ UL	GASOLINE-TIER3 E10	0.005	0.050		
20°F @ 50K	COLD CO E10 REGULAR GASOLINE (TIER3)			0.4	12.5

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

	FUEL TYPE		US06			SC03		COMPOSITE		
			NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	NMOG+NOx (g/mi)	CO (g/mi)	NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)
@ 4K	*	CERT	*	*		*	*			
		STD	*	*		*	*			
@ UL	GASOLINE-TIER3 E10	CERT	*	*	0	*	*	0.019	0.1	*
		STD	*	*	6	*	*	0.050	4.2	*
		BIN						0.050		

WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FAMILY	FUEL TYPE	WHOLE VEHICLE EVAPORATIVE TESTING						RL (g/mi) @ UL	
		3DHS (g/test) @ UL			2DHS (g/test) @ UL				
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
TFMXR0295LDG	GASOLINE-TIER3 E10	0.218	0.500	0.500	0.167	0.500	0.500	0.00	0.05

ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FAMILY	ORVR (g/gallon) @ UL			FUEL ONLY EVAP & CANISTER BLEED					
				FUEL TYPE	3DHS RIG TEST (g/test) @ UL		2DHS RIG TEST (g/test) @ UL		BLEED CANISTER TEST (g/test) @ 4K
					CERT	STD	CERT	STD	
TFMXR0295LDG	GASOLINE-TIER3 E10	0.01	0.20	*	*	*	*	*	*

 CALIFORNIA AIR RESOURCES BOARD	FORD MOTOR COMPANY	Executive Order: A-010-2657 New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles Page 4 of 4
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EFFECTIVE LEAK DIAMETER STANDARD AND CERTIFICATION LEVEL (INCHES)
--

EVAPORATIVE FAMILY	LEAK FAMILY	CERT	STD
TFMXR0295LDG	TFMXR0295LDG-001	*	0.02

*: not applicable; #: pounds; UL: useful life; PC: passenger car; LDT: light-duty truck; LDT1: LDT<6000#GVWR,0-3750#LVW; LDT2: LDT<6000#GVWR,3751-5750#LVW; LDT3: LDT 6001-8500#GVWR,3751-5750#ALVW; LDT4: LDT 6001-8500#GVWR,5751-8500#ALVW; MDV: medium-duty vehicle; MDV4: MDV 8501-10000#GVWR; MDV5: MDV 10001-14000#GVWR; MDPV: medium-duty passenger vehicle; HDV: heavy-duty vehicle; ECS: emission control system; CERT: certification; STD: standard; FEL: family emission limit; GVWR: gross vehicle weight rating; LVW: loaded vehicle weight; ALVW: adjusted LVW; LEV: low emission vehicle; ULEV: ultra LEV; SULEV: super ULEV; ZEV: zero-emission vehicle; TZE: transitional ZEV; TWC/OC: 3-way/oxidizing catalyst; ADSTWC: adsorbing TWC; HAC: HC adsorbing catalyst; WU: warm-up catalyst; NAC: NOx adsorption catalyst; SCR-U or SCRC/SCR-N or SCRC-NH3: selective catalytic reduction-urea/ammonia; NH3OC: ammonia oxidation catalyst; CTOX/PTOX: continuous/periodic trap oxidizer; DPF: diesel particulate filter (active); GPF: PM filter for spark-ignited engine; cGPF (coated gasoline particulate filter); HO2S/O2S: heated/oxygen sensor; WR-HO2S or AFS: wide range/linear/heated air-fuel ratio sensor; NOXS: NOx sensor; PMS: PM sensor; RDQS: reductant quality sensor; NH3S: ammonia sensor; EGR: exhaust gas recirculation; HP/LP EGR: High/Low Pressure EGR; EGRC: EGR cooler; AIR/AIRE: secondary air injection (belt driven)/(electric driven); PAIR: pulsed AIR; SFI/MFI: sequential/multiport fuel injection; DFI/IFI: direct/indirect fuel injection; TC/SC: turbo/super charger; CAC: charge air cooler; FFH: fuel fired heater; F/P: full/partial on-board diagnostic; DOR: direct ozone reducing; HCT: hydrocarbon trap; BCAN: bleed carbon canister; prefix 2: parallel; (2) suffix: series; a hyphen (-) between after treatment ECS indicates multiple functionalities of the after treatment device (ex. DPF-SCRC: SCR coated DPF); CNG/LNG: compressed/liquefied natural gas; LPG: liquefied petroleum gas; E85: "85%" ethanol ("15%" gasoline) fuel; E10: "10%" ethanol ("90%" gasoline) fuel; A: automatic (with lockup); M: manual transmission; SA: semi-automatic transmission; CV: continuously variable transmission; SCV: selectable continuously variable transmission; AM: automated manual transmission; AMS: automated manual-selectable transmission; OT: other transmission; AER: all-electric range; EAER: equivalent AER; PHEV: plug-in hybrid electric vehicle; NMOG + NOx Fleet Ave. Credit for Extended Warranty: N = no credits, Y = credits, S = credits for some/select models

2026 MODEL YEAR: VEHICLE MODELS INFORMATION
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MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD
FORD	F150 HEV 4WD	LDT4	3.5	SA10	TFMXR0295LDG	1	P

Application for Certification

Part 2