

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		
					Total Due	\$ 1,295,952.00

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



FORD MOTOR COMPANY
APPLICATION FOR CERTIFICATION - PART 1

2026 Model Year

Test Group: TFMXT03.54JK
Durability Group: TFMXGPGNNE1B
Evap. Families: TFMXR0260NDG
Test Group Description: 2026MY Ford F-150 Raptor 3.5L GTPFDI, T3B50, ULEV50, SFTP 0.060
Durability Group Description: Four Stroke, Otto Cycle, Gasoline Fueled, Turbocharged, Catalyst Code E
Applicable Standards: Federal Exhaust - Tier 3 Bin 50
California Exhaust - LEV-III ULEV50
Federal Evap - Tier 3
California Evap - LEV-III
CH₄ - 0.030 g/mi
California Particulate Matter - 0.003 g/mi
Federal Cold NMHC - 0.4 g/mi

Federal Particulate Matter - 0.003 g/mi
N₂O - 0.010 g/mi
SFTP - 0.060 g/mi NMOG+NO_x

Carlines Covered: F150 RAPTOR 4WD

Vehicles Tested

Exhaust Emission Vehicle:		Evaporative Emission Vehicle:	
TFD1-3.5-J-384/Config 0		JFC1-2.7-J-027/Config 0 (TFMXR0260NDG)	
FTP (E10) TN	TFMX91006584	2Day TN	JFMX10047784
HWY (E10) TN	TFMX91006582	3Day TN	JFMX10047783
US06 (E10) TN	TFMX91006583	BETP (JKC00022/ 0)	KFMX10057896
SC03 (E10) TN	TFMX10091913	Linking TN	JFMX10047760
Cold CO (E10) TN	TFMX10091910	RL TN	JFMX10047785
		MFD1-3.5-J-267/Config 0 (TFMXR0260NDG)	
		ORVR	MFMX10068178

Release Date: February 2, 2026

For Questions, Contact:

Beierschmitt, Thomas, tbeiers1@ford.com (1-313-439-5381)

Application for Certification

Part 1



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**
 - 03.00.01 Evap Family & Calibration Parameters
- § 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**
- § 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
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- § 14.00.00.00 Request for Certification**
 - EPA Cover Letter
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 - 16.00.01.00 Family Catalyst Information
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 - 16.00.04.00 DF Summary
 - 16.00.05.00 PowerTrain Control Module (PCM) - Parameters
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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

<u>Evaporative Families</u>	<u>Application (s)</u>				
TFMXR0260NDG	2026 MY 3.5L GTPFDI F-150 Raptor, Plastic Fuel Tank 37.1 gal. (Tank code 'F4')				
<u>Emission Component</u> Fuel Fill Pipe Assembly with Capless Insert RL3V-9034-CB RL3V-9034-CC (Alt.)	<u>Sensed Parameter</u> None	<u>Controlled Parameter</u> Fuel Tank Vapor, Liquid Fuel Flow, Vapor Recirculation	<u>Justification</u> Operates in EVAP and/or ORVR	<u>Calibration Specification</u> Recirc. Orifice Diameter: 2.75mm	
Fuel Limiting Vent Valve 9L14-9B190-EA	Fuel Tank Vapor	Fuel Tank Vapor	Operates in EVAP and/or ORVR	Main Orifice (Seat): 9.14mm Diameter Bypass: 1.25 mm Diameter	
Grade Vent Valve FL34-9B593-AA (2 per tank)	Fuel Tank Vapor	Fuel Tank Vapor	Operates in EVAP	Main Orifice: 2.0mm Bleed Orifice: 0.50mm	
Fuel Tank Pressure Sensor 9U5A-9C052-BC	Fuel Tank Pressure	None	Operates in FTP		
Carbon Canister KL34-9D653-EB	None	Fuel Tank Vapor	Operates in EVAP and/or ORVR	260g BWC 3.8 liter Total Volume (includes 1 x 0.048L Bleed and 1 x 0.072L External Bleed)	
External Bleed Canister ML34-9G723-DA	None	Fuel Tank Vapor	Operates in EVAP and/or ORVR	0.072L External Bleed (volume and BWC included with primary canister)	
Vapor Blocking Valve (VBV) GU5A-9G712-CC	None	Fuel Tank Vapor	Operates in FTP		
Canister Purge Valve (CPV) EU5A-9G866-CE	Signal from PCM	Vacuum to canister	Operates in FTP	100 SLPM	
AIS Hydrocarbon Trap GN15-9T303-AA	None	Fuel Vapor	Operates in EVAP		

*SEE EXHAUST CAPL FOR FUEL INJECTOR PART NUMBER (-9F593-)

*SEE EXHAUST CAPL FOR FUEL PUMP PART NUMBER (-9350-)



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	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG
Certificate Number	--	CARB Executive Order #	--
Certificate Issue Date	--	Certificate Revision Date	--
Certificate Effective Date	--	Conditional Certificate	--
CSI Revision #	--	CSI Submission/Revision Date	10/02/2025 01:15:50 AM
Model Year	2026		

Test Group Information

CSI Type	Update for Correction	Running Change Reference Number	--
GHG Exempt Status	Not Exempt		

Drive Sources and Fuel(s)

Drive Source #1: Combustion Engine

Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
Gasoline	Spark Ignition direct & ported injection	No

Hybrid Indicator	No		
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	--
Multiple Fuel Combustion	--	Off-board Charge Capable Indicator	--
Fuel Cell Indicator	--	EPA Vehicle Class	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	TFMXGPGNNE1B	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	Yes		
OBD Compliance Type	CARB	OBD Demonstration Vehicle Test Group	TFMXT02.02Y5
Test Group OBD Compliance Level	Partial - with deficiencies	Number of Test Group OBD Deficiencies	2
OBD Deficiencies Comments	OBD Deficiencies: Catalyst Reheating Strategy Monitoring, Communication Failure Between BCM and PCM		
Mfr Test Group Comments	City Litmus Value = 12.7, City Litmus Threshold Value = 12.5, Highway Litmus Value = 15.1, Highway Litmus Threshold Value = 15.2		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG				
Evaporative/Refueling Family Information							
Evaporative Summary Information Type	Update for Correction	Submission/Correction Date	10/02/2025 01:10:19 AM				
Integrated ORVR?	Yes	Fuel(s)	Gasoline				
Multiple Fuel Storage	--						
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	See Comments				
Fuel System Vapor Storage Canister?	Yes	Other Vapor Storage	See comments below				
Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)	260	Number of Primary Canisters	1				
Number of Bleed Canisters	2	Bleed Canister Total Working Capacity (grams)	1				
Mfr Evaporative/Refueling Family Comments	1 X 3.7L HA 3-port Rect. + 1 X 0.048L Bleed + 1 X 0.072L Bleed						
Leak Family Details							
Leak Family Indicator	Yes						
Canister Bleed Test Indicator	Yes	Applicability of Evaporative Canister Bleed Test	50 State				
Evaporative Canister Bleed Test Comments	--						
CARB Fuel Only (Rig) Test Indicator	No	Applicability of CARB Fuel Only (Rig) Test	--				
CARB Fuel Only (Rig) Test Comments	--						
Leak Family Name	Applicability of Leak Family Requirements	Leak Family Standard (inches)	Leak Family Description				
TFMXR0260NDG-001	50 State	0.02	TFMXR0260NDG-001				
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	122 - F150 RAPTOR 4WD	Federal	Part-time 4-Wheel Drive	Semi-Automatic	10	Yes
Ford Motor Company	1 - Ford	122 - F150 RAPTOR 4WD	California + CAA Section 177 states	Part-time 4-Wheel Drive	Semi-Automatic	10	Yes
Engine Description							
Hybrid Type	--	Hybrid Description	--				
Engine Type	4-Stroke Spark Ignition	Mfr Engine Description	--				
Engine Block Arrangement	V-shaped engine	Mfr Engine Block Arrangement Description	--				
Camless Valvetrain Indicator	No	Oil Viscosity/Classification	SAE 5W-30 API SP ILSACGF7				
Number of Cylinders/Rotors	6	Mechanically Variable Compression Ratio Indicator	N				

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG
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	Platinum+Palladium+Rhodium	Ceramic
3	Three-way catalyst	Palladium + Rhodium	Ceramic
4	Three-way catalyst	Platinum+Palladium+Rhodium	Ceramic
Mfr After Treatment Device (ATD) Comments			
		2TWC(2)	
Direct Ozone Reduction (DOR) Device			
		Not Equipped	
Mfr Emission Control Device Comments			
--			
Engine Configuration Number 1			
Engine Displacement (liters)	3.5	Engine Rated Horsepower	450
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	Ti-VCT		
Variable Valve Lift?	No		
Variable Valve Lift System Description	--		
Number of Knock Sensors	2	Number of Air/Fuel Sensors	4
Air/Fuel Sensor # 1 Type	Heated oxygen	Air/Fuel Sensor # 1 Description	--
Air/Fuel Sensor # 2 Type	Heated oxygen	Air/Fuel Sensor # 2 Description	--
Air/Fuel Sensor # 3 Type	Heated 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	F150 Raptor (98 RON Ratings)		

Certification Summary Information Report

Test Group		TFMXT03.54JK				Evaporative/Refueling Family			TFMXR0260NDG		
Official Test Numbers											
Test Group Fuel		FTP	US06	SC03	Cold CO	Highway	EPA City Litmus Value	EPA City Litmus Threshold	EPA Highway Litmus Value	EPA Highway Litmus Threshold	CREE Weighting Factor
Gasoline		TFMX91006584	TFMX91006583	TFMX10091913	TFMX10091910	TFMX91006582	36.9	12.7	64.0	15.3	--
SFTP LEV-III Official Test Numbers											
Test Group Fuel		FTP		US06		SC03					
Gasoline		TFMX91006584		TFMX91006583		TFMX10091913					

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG						
Emission Data Vehicle Information									
Vehicle ID / Configuration	JFC1-2.7-J-027 / 0	Manufacturer Vehicle Configuration Number	0						
Original Test Group Name	JFMXT02.73JK	Original Evaporative/Refueling Family	JFMXR0260NDG						
Original Test Vehicle Model Year	2018								
Vehicle Model									
Represented Test Vehicle Make	Ford	Represented Test Vehicle Model	F-150						
Leak Family Details									
Leak Family Identifier	001	Leak Family Name	JFMXR0260NDG-001						
Drive Sources and Fuel System Details									
	<table border="1"> <tr> <th>Drive Source and Fuel#</th><th>Drive Source</th><th>Fuel</th></tr> <tr> <td>1</td><td>Combustion Engine</td><td>Gasoline</td></tr> </table>	Drive Source and Fuel#	Drive Source	Fuel	1	Combustion Engine	Gasoline		
Drive Source and Fuel#	Drive Source	Fuel							
1	Combustion Engine	Gasoline							
Hybrid Indicator	No								
Multiple Fuel Storage	--	Multiple Fuel Combustion	--						
Fuel Cell Indicator	--	Rechargeable Energy Storage System Indicator	--						
Rechargeable Energy Storage System	--	Rechargeable Energy Storage System, if 'Other'	--						
Off-board charge Capable Indicator	--								
Odometer Correction -- Initial	0	Odometer Correction Factor	1.03						
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles								
Odometer Correction Units	Miles								
Engine Code	JTFCWQNC05	Rated Horsepower	325						
Displacement (liters)	2.7								
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	2-Wheel Drive, Rear						
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)						
Curb Weight (lbs)	4903	Equivalent Test Weight (pounds)	5250						
GVWR (lbs)	7000	N/V Ratio	25.7						
Axle Ratio	3.73								
Transmission Type	Semi-Automatic	# of Transmission Gears	10						
Transmission Lockup	Yes	Creep Gear	No						

Certification Summary Information Report

Test Group		TFMXT03.54JK			Evaporative/Refueling Family		TFMXR0260NDG	
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	41.96	0.2104	0.03763	22.56	-0.1624	0.03888	19.5	
Cold CO	41.96	0.2104	0.03763	22.56	-0.1624	0.03888	N/A	
US06	41.96	0.2104	0.03763	22.56	-0.1624	0.03888	N/A	
Emission Control Device Comments		T18-0011/12/13-01 T3B70 L3B70						
Manufacturer Test Vehicle Comments		2.7L GTPFDI F-150 4X4 SUPER CAB-MAX						

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG
Test #	JFMX10047760	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	03/29/2017	Fuel	N/A
Fuel Batch ID	373-B	Fuel Calibration Number	13
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	APTL		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5070	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	No		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	No

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	482.0090933	--
FE BAG 1 (Bag 1 Fuel Economy)	17.9200644	17.9200644
CO2 BAG 2 (Bag 2 Carbon Dioxide)	440.7401646	--
FE BAG 2 (Bag 2 Fuel Economy)	19.6654841	19.6654841
CO2 BAG 3 (Bag 3 Carbon Dioxide)	407.5538852	--
FE BAG 3 (Bag 3 Fuel Economy)	21.1635122	21.1635122
METHANE (CH4 - Methane)	0.0115753	--
CO (Carbon Monoxide)	0.893448	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.341896	--
DT-EER (Drive Trace Energy Economy Rating)	-0.819038	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.0835978	--
HCHO (Formaldehyde)	0.000553	--
MFR FE (Manufacturer Fuel Economy)	19.6704518	19.6704518
NOX (Nitrogen Oxide)	0.0076322	--
N2O (Nitrous Oxide)	0.0012778	--
HC-NM (Non-methane Hydrocarbon)	0.0201275	--
NMOG (Non-methane organic gases)	0.0221425	--
PM (Particulate Matter)	0.001982	--
HC-TOTAL (Total Hydrocarbon)	0.0307481	--

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG
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Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	441	999
Optional Carbon-Related Exhaust Emissions	442	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	440.1867686	--

Manufacturer Test Comments J027 City/Hwy NMOG = 1.1 * NMHCr

Test #	JFMX10047783	Test Procedure	34 - Federal fuel 3-day evap
Exhaust Test # for this Evap Test	JFMX10047760	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	03/10/2017	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	4936	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)	0.2537	--
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.2537	--

Manufacturer Test Comments J027 3-Day SHED 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	0.2537	0.0000	0.254	0.500	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	OMHCE	0.2537	0.0000	0.254	0.500	Pass

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG									
Test #	JFMX10047784	Test Procedure	23 - 2-day evap									
Exhaust Test # for this Evap Test	JFMX10047760	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)									
Test Date	02/10/2017	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	4761	Odometer Units	M									
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--									
State of Charge Delta	No											
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	No									
Test Results												
<table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> </thead> <tbody> <tr> <td>OMHCE (Organic material Hydrocarbon Equivalent)</td> <td>0.2084</td> <td>--</td> </tr> <tr> <td>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</td> <td>0.2084</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)	0.2084	--	HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.2084	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)										
OMHCE (Organic material Hydrocarbon Equivalent)	0.2084	--										
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.2084	--										
Manufacturer Test Comments												
J027 2-Day SHED												
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	0.2084	0.0000	0.208	0.500	Pass				
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	OMHCE	0.2084	0.0000	0.208	0.500	Pass				

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG									
Test #	JFMX10047785	Test Procedure	32 - Federal Fuel Running Loss									
Exhaust Test # for this Evap Test	JFMX10047760	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)									
Test Date	03/10/2017	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	4947	Odometer Units	M									
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--									
State of Charge Delta	No											
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	No									
Test Results												
<table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> </thead> <tbody> <tr> <td>OMHCE (Organic material Hydrocarbon Equivalent)</td> <td>0.0001</td> <td>--</td> </tr> <tr> <td>HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</td> <td>0.0001</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)	0.0001	--	HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.0001	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)										
OMHCE (Organic material Hydrocarbon Equivalent)	0.0001	--										
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.0001	--										
Manufacturer Test Comments --												
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	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG																					
Emission Data Vehicle Information																								
Vehicle ID / Configuration	JKC00022 / 0	Manufacturer Vehicle Configuration Number	0																					
Original Test Group Name	KFMXT02.73JK	Original Evaporative/Refueling Family	KFMXR0260NDX																					
Original Test Vehicle Model Year	2019																							
Vehicle Model																								
Represented Test Vehicle Make	Ford	Represented Test Vehicle Model	F-150 4X4 SUPER CREW CAB																					
Leak Family Details																								
Leak Family Identifier	001	Leak Family Name	KFMXR0260NDX-001																					
Drive Sources and Fuel System Details																								
<table><tr><td>Drive Source and Fuel#</td><td>Drive Source</td><td>Fuel</td></tr><tr><td>1</td><td>Combustion Engine</td><td>Gasoline</td></tr></table>				Drive Source and Fuel#	Drive Source	Fuel	1	Combustion Engine	Gasoline															
Drive Source and Fuel#	Drive Source	Fuel																						
1	Combustion Engine	Gasoline																						
Hybrid Indicator	No																							
Multiple Fuel Storage	--	Multiple Fuel Combustion	--																					
Fuel Cell Indicator	--	Rechargeable Energy Storage System Indicator	--																					
Rechargeable Energy Storage System	--	Rechargeable Energy Storage System, if 'Other'	--																					
Off-board charge Capable Indicator	--																							
Odometer Correction -- Initial	0	Odometer Correction Factor	1.03																					
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles																							
Odometer Correction Units	Miles																							
Engine Code	JTFCWQNB24	Rated Horsepower	400																					
Displacement (liters)	2.7																							
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	2-Wheel Drive, Rear																					
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)																					
Curb Weight (lbs)	4925	Equivalent Test Weight (pounds)	5250																					
GVWR (lbs)	6600	N/V Ratio	24.5																					
Axle Ratio	3.55																							
Transmission Type	Semi-Automatic	# of Transmission Gears	10																					
Transmission Lockup	Yes	Creeper Gear	No																					
Dynamometer Coefficients:																								
<table><tr><td colspan="3">Target Coefficients</td><td colspan="3">Set Coefficients</td><td rowspan="3">EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients</td></tr><tr><td>Coefficient Category</td><td>A (lbf)</td><td>B (lbf/mph)</td><td>C (lbf/mph**2)</td><td>A (lbf)</td><td>B (lbf/mph)</td><td>C (lbf/mph**2)</td></tr><tr><td>City/Highway/Evap</td><td>24.33</td><td>0.2027</td><td>0.03614</td><td>8.79</td><td>0.10953</td><td>0.03486</td></tr></table>				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	24.33	0.2027	0.03614	8.79	0.10953	0.03486
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	24.33	0.2027	0.03614	8.79	0.10953		0.03486																	
Emission Control Device Comments	BETP Test Submission																							

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG						
Manufacturer Test Vehicle Comments	2.7L GTPFDI F-150 4X4 SUPER CAB								
Test #	KFMX10057896	Test Procedure	65 - Evap Canister Bleed Test						
Exhaust Test # for this Evap Test	--	Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)						
Test Date	02/08/2019	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	5120	Odometer Units	M						
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--						
State of Charge Delta	No								
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	No						
Test Results									
<table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value</th> </tr> </thead> <tbody> <tr> <td>HC-TOTAL (Total Hydrocarbon)</td> <td>0.0048</td> <td>--</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value	HC-TOTAL (Total Hydrocarbon)	0.0048	--
Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value							
HC-TOTAL (Total Hydrocarbon)	0.0048	--							
Manufacturer Test Comments									
Official BETP test for new canister									
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	0.0048	0	0.005	0.020	Pass	
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL	0.0048	0	0.005	0.020	Pass	

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG						
Emission Data Vehicle Information									
Vehicle ID / Configuration	MFD1-3.5-J-267 / 0	Manufacturer Vehicle Configuration Number	0						
Original Test Group Name	MFMXT03.54JM	Original Evaporative/Refueling Family	MFMXR0260NDG						
Original Test Vehicle Model Year	2021								
Vehicle Model									
Represented Test Vehicle Make	Ford	Represented Test Vehicle Model	F150 Raptor						
Leak Family Details									
Leak Family Identifier	001	Leak Family Name	MFMXR0260NDG-001						
Drive Sources and Fuel System Details									
	<table border="1"> <tr> <th>Drive Source and Fuel#</th><th>Drive Source</th><th>Fuel</th></tr> <tr> <td>1</td><td>Combustion Engine</td><td>Gasoline</td></tr> </table>	Drive Source and Fuel#	Drive Source	Fuel	1	Combustion Engine	Gasoline		
Drive Source and Fuel#	Drive Source	Fuel							
1	Combustion Engine	Gasoline							
Hybrid Indicator	No								
Multiple Fuel Storage	--	Multiple Fuel Combustion	--						
Fuel Cell Indicator	--	Rechargeable Energy Storage System Indicator	--						
Rechargeable Energy Storage System	--	Rechargeable Energy Storage System, if 'Other'	--						
Off-board charge Capable Indicator	--								
Odometer Correction -- Initial	0	Odometer Correction Factor	1.03						
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles								
Odometer Correction Units	Miles								
Engine Code	MTFDBMNB02	Rated Horsepower	450						
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	2-Wheel Drive, Rear						
Shift Indicator Light Usage	Not equipped	Aged Emission Components	150,000 (mi)						
Curb Weight (lbs)	5700	Equivalent Test Weight (pounds)	6000						
GVWR (lbs)	7150	N/V Ratio	26.4						
Axle Ratio	4.1								
Transmission Type	Semi-Automatic	# of Transmission Gears	10						
Transmission Lockup	Yes	Creep Gear	No						

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Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG						
Emission Data Vehicle Information									
Vehicle ID / Configuration	TFD1-3.5-J-384 / 0	Manufacturer Vehicle Configuration Number	0						
Original Test Group Name	TFMXT03.54JK	Original Evaporative/Refueling Family	TFMXR0260NDG						
Original Test Vehicle Model Year	2026								
Vehicle Model									
Represented Test Vehicle Make	Ford	Represented Test Vehicle Model	F150 RAPTOR 4WD						
Leak Family Details									
Leak Family Identifier	001	Leak Family Name	TFMXR0260NDG-001						
Drive Sources and Fuel System Details									
	<table border="1"> <tr> <th>Drive Source and Fuel#</th><th>Drive Source</th><th>Fuel</th></tr> <tr> <td>1</td><td>Combustion Engine</td><td>Gasoline</td></tr> </table>	Drive Source and Fuel#	Drive Source	Fuel	1	Combustion Engine	Gasoline		
Drive Source and Fuel#	Drive Source	Fuel							
1	Combustion Engine	Gasoline							
Hybrid Indicator	No								
Multiple Fuel Storage	--	Multiple Fuel Combustion	--						
Fuel Cell Indicator	--	Rechargeable Energy Storage System Indicator	--						
Rechargeable Energy Storage System	--	Rechargeable Energy Storage System, if 'Other'	--						
Off-board charge Capable Indicator	--								
Odometer Correction -- Initial	0	Odometer Correction Factor	1.03						
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles								
Odometer Correction Units	Miles								
Engine Code	TTFDBMNS00	Rated Horsepower	450						
Displacement (liters)	3.5								
Air Aspiration Method	Turbocharged	Air Aspiration Method, if 'Other'							
Number of Air Aspiration Devices	3	Air Aspiration Device Configuration	Parallel						
Charge Air Cooler Type	Air	Drive Mode While Testing	2-Wheel Drive, Rear						
Shift Indicator Light Usage	Not equipped	Aged Emission Components	150,000 (mi)						
Curb Weight (lbs)	6022	Equivalent Test Weight (pounds)	6500						
GVWR (lbs)	7400	N/V Ratio	24.6						
Axle Ratio	4.1								
Transmission Type	Automatic	# of Transmission Gears	10						
Transmission Lockup	Yes	Creep Gear	No						

Certification Summary Information Report

Test Group	TFMXT03.54JK			Evaporative/Refueling Family			TFMXR0260NDG
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	45.56	0.4419	0.04492	15.15	0.3879	0.04229	24
Cold CO	45.56	0.4419	0.04492	15.15	0.3879	0.04229	N/A
US06	45.56	0.4419	0.04492	15.15	0.3879	0.04229	N/A
Emission Control Device Comments	T3B50, interim LEV4 ULEV50, SFTP-0.040 PM3, CB4, T3e, L4e						
Manufacturer Test Vehicle Comments	26MY F150 RAPTOR 4WD 3.5L GTPFDI (Green States)						

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG
Test #	TFMX10091910	Test Procedure	11 - Cold CO
Exhaust Test # for this Evap Test	--	Test Fuel Type	28 - Cold CO E10 Regular Gasoline (Tier 3)
Test Date	07/24/2025	Fuel	Gasoline
Fuel Batch ID	375-B	Fuel Calibration Number	70
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	4216	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG																																																																														
	<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>728.664324</td><td>--</td></tr><tr><td>CO BAG 1 (Bag 1 Carbon Monoxide)</td><td>1.5328</td><td>--</td></tr><tr><td>FE BAG 1 (Bag 1 Fuel Economy)</td><td>11.859481</td><td>11.859481</td></tr><tr><td>CH4 BAG 1 (Bag 1 Methane)</td><td>0.0439155</td><td>--</td></tr><tr><td>NMOG BAG 1 (Bag 1 Non-methane organic gases)</td><td>0.3080902</td><td>--</td></tr><tr><td>CO2 BAG 2 (Bag 2 Carbon Dioxide)</td><td>595.988113</td><td>--</td></tr><tr><td>CO BAG 2 (Bag 2 Carbon Monoxide)</td><td>0.072</td><td>--</td></tr><tr><td>FE BAG 2 (Bag 2 Fuel Economy)</td><td>14.570366</td><td>14.570366</td></tr><tr><td>CH4 BAG 2 (Bag 2 Methane)</td><td>0.0020813</td><td>--</td></tr><tr><td>NMOG BAG 2 (Bag 2 Non-methane organic gases)</td><td>0.0013838</td><td>--</td></tr><tr><td>CO2 BAG 3 (Bag 3 Carbon Dioxide)</td><td>540.416834</td><td>--</td></tr><tr><td>CO BAG 3 (Bag 3 Carbon Monoxide)</td><td>0.0749</td><td>--</td></tr><tr><td>FE BAG 3 (Bag 3 Fuel Economy)</td><td>16.080851</td><td>16.080851</td></tr><tr><td>CH4 BAG 3 (Bag 3 Methane)</td><td>0.0038399</td><td>--</td></tr><tr><td>NMOG BAG 3 (Bag 3 Non-methane organic gases)</td><td>0.001682</td><td>--</td></tr><tr><td>METHANE (CH4 - Methane)</td><td>0.011239</td><td>--</td></tr><tr><td>CO (Carbon Monoxide)</td><td>0.38</td><td>--</td></tr><tr><td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td><td>-0.457331</td><td>--</td></tr><tr><td>DT-EER (Drive Trace Energy Economy Rating)</td><td>-0.590961</td><td>--</td></tr><tr><td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td><td>-0.224049</td><td>--</td></tr><tr><td>MFR FE (Manufacturer Fuel Economy)</td><td>14.3</td><td>14.3</td></tr><tr><td>NOX (Nitrogen Oxide)</td><td>0.023742</td><td>--</td></tr><tr><td>HC-NM (Non-methane Hydrocarbon)</td><td>0.06</td><td>--</td></tr><tr><td>NMOG (Non-methane organic gases)</td><td>0.065063</td><td>--</td></tr><tr><td>HC-TOTAL (Total Hydrocarbon)</td><td>0.069908</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)	728.664324	--	CO BAG 1 (Bag 1 Carbon Monoxide)	1.5328	--	FE BAG 1 (Bag 1 Fuel Economy)	11.859481	11.859481	CH4 BAG 1 (Bag 1 Methane)	0.0439155	--	NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.3080902	--	CO2 BAG 2 (Bag 2 Carbon Dioxide)	595.988113	--	CO BAG 2 (Bag 2 Carbon Monoxide)	0.072	--	FE BAG 2 (Bag 2 Fuel Economy)	14.570366	14.570366	CH4 BAG 2 (Bag 2 Methane)	0.0020813	--	NMOG BAG 2 (Bag 2 Non-methane organic gases)	0.0013838	--	CO2 BAG 3 (Bag 3 Carbon Dioxide)	540.416834	--	CO BAG 3 (Bag 3 Carbon Monoxide)	0.0749	--	FE BAG 3 (Bag 3 Fuel Economy)	16.080851	16.080851	CH4 BAG 3 (Bag 3 Methane)	0.0038399	--	NMOG BAG 3 (Bag 3 Non-methane organic gases)	0.001682	--	METHANE (CH4 - Methane)	0.011239	--	CO (Carbon Monoxide)	0.38	--	DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.457331	--	DT-EER (Drive Trace Energy Economy Rating)	-0.590961	--	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.224049	--	MFR FE (Manufacturer Fuel Economy)	14.3	14.3	NOX (Nitrogen Oxide)	0.023742	--	HC-NM (Non-methane Hydrocarbon)	0.06	--	NMOG (Non-methane organic gases)	0.065063	--	HC-TOTAL (Total Hydrocarbon)	0.069908	--		
	Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)																																																																														
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	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.224049	--																																																																														
	MFR FE (Manufacturer Fuel Economy)	14.3	14.3																																																																														
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	HC-NM (Non-methane Hydrocarbon)	0.06	--																																																																														
	NMOG (Non-methane organic gases)	0.065063	--																																																																														
	HC-TOTAL (Total Hydrocarbon)	0.069908	--																																																																														
		<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>609</td><td>--</td></tr></table>	Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE	Carbon-Related Exhaust Emissions	609	--																																																																									
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	Carbon-Related Exhaust Emissions	609	--																																																																														
		<table><tr><th>Test Result Name</th><th>Unrounded Test Result</th><th>Verify Calculated CO2</th></tr><tr><td>Carbon dioxide</td><td>608.2</td><td>--</td></tr></table>	Test Result Name	Unrounded Test Result	Verify Calculated CO2	Carbon dioxide	608.2	--																																																																									
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Manufacturer Test Comments	Drive Mode - Sport Mode with StartStop Active																																																																																

Certification Summary Information Report

Test Group		TFMXT03.54JK				Evaporative/Refueling Family				TFMXR0260NDG		
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	0.06	--	--	--	--	--	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	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG
Test #	TFMX91006584	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	08/28/2025	Fuel	Gasoline
Fuel Batch ID	43732	Fuel Calibration Number	2
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4300	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG																																																																																			
	<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>593.8966064</td><td>--</td></tr><tr><td>CO BAG 1 (Bag 1 Carbon Monoxide)</td><td>0.7708981</td><td>--</td></tr><tr><td>FE BAG 1 (Bag 1 Fuel Economy)</td><td>999</td><td>--</td></tr><tr><td>CH4 BAG 1 (Bag 1 Methane)</td><td>0.0098952</td><td>--</td></tr><tr><td>NMOG BAG 1 (Bag 1 Non-methane organic gases)</td><td>0.0370856</td><td>--</td></tr><tr><td>CO2 BAG 2 (Bag 2 Carbon Dioxide)</td><td>530.8432617</td><td>--</td></tr><tr><td>CO BAG 2 (Bag 2 Carbon Monoxide)</td><td>0</td><td>--</td></tr><tr><td>FE BAG 2 (Bag 2 Fuel Economy)</td><td>999</td><td>--</td></tr><tr><td>CH4 BAG 2 (Bag 2 Methane)</td><td>0.0024922</td><td>--</td></tr><tr><td>NMOG BAG 2 (Bag 2 Non-methane organic gases)</td><td>0.0001731</td><td>--</td></tr><tr><td>CO2 BAG 3 (Bag 3 Carbon Dioxide)</td><td>526.4765015</td><td>--</td></tr><tr><td>CO BAG 3 (Bag 3 Carbon Monoxide)</td><td>0</td><td>--</td></tr><tr><td>FE BAG 3 (Bag 3 Fuel Economy)</td><td>999</td><td>--</td></tr><tr><td>CH4 BAG 3 (Bag 3 Methane)</td><td>0.0039672</td><td>--</td></tr><tr><td>NMOG BAG 3 (Bag 3 Non-methane organic gases)</td><td>0.0005</td><td>--</td></tr><tr><td>METHANE (CH4 - Methane)</td><td>0.0044325</td><td>--</td></tr><tr><td>CO (Carbon Monoxide)</td><td>0.1598143</td><td>--</td></tr><tr><td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td><td>-0.4073646</td><td>--</td></tr><tr><td>DT-EER (Drive Trace Energy Economy Rating)</td><td>-0.1816693</td><td>--</td></tr><tr><td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td><td>-0.168331</td><td>--</td></tr><tr><td>MFR FE (Manufacturer Fuel Economy)</td><td>999</td><td>--</td></tr><tr><td>NOX (Nitrogen Oxide)</td><td>0.0156158</td><td>--</td></tr><tr><td>N2O (Nitrous Oxide)</td><td>0.0013314</td><td>--</td></tr><tr><td>HC-NM (Non-methane Hydrocarbon)</td><td>0.0071988</td><td>--</td></tr><tr><td>NMOG (Non-methane organic gases)</td><td>0.0079054</td><td>--</td></tr><tr><td>PM (Particulate Matter)</td><td>0.0019575</td><td>--</td></tr><tr><td>HC-TOTAL (Total Hydrocarbon)</td><td>0.0115309</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)	593.8966064	--	CO BAG 1 (Bag 1 Carbon Monoxide)	0.7708981	--	FE BAG 1 (Bag 1 Fuel Economy)	999	--	CH4 BAG 1 (Bag 1 Methane)	0.0098952	--	NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.0370856	--	CO2 BAG 2 (Bag 2 Carbon Dioxide)	530.8432617	--	CO BAG 2 (Bag 2 Carbon Monoxide)	0	--	FE BAG 2 (Bag 2 Fuel Economy)	999	--	CH4 BAG 2 (Bag 2 Methane)	0.0024922	--	NMOG BAG 2 (Bag 2 Non-methane organic gases)	0.0001731	--	CO2 BAG 3 (Bag 3 Carbon Dioxide)	526.4765015	--	CO BAG 3 (Bag 3 Carbon Monoxide)	0	--	FE BAG 3 (Bag 3 Fuel Economy)	999	--	CH4 BAG 3 (Bag 3 Methane)	0.0039672	--	NMOG BAG 3 (Bag 3 Non-methane organic gases)	0.0005	--	METHANE (CH4 - Methane)	0.0044325	--	CO (Carbon Monoxide)	0.1598143	--	DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.4073646	--	DT-EER (Drive Trace Energy Economy Rating)	-0.1816693	--	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.168331	--	MFR FE (Manufacturer Fuel Economy)	999	--	NOX (Nitrogen Oxide)	0.0156158	--	N2O (Nitrous Oxide)	0.0013314	--	HC-NM (Non-methane Hydrocarbon)	0.0071988	--	NMOG (Non-methane organic gases)	0.0079054	--	PM (Particulate Matter)	0.0019575	--	HC-TOTAL (Total Hydrocarbon)	0.0115309	--	
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Manufacturer Test Comments

None

Unrounded Result for the following test results were modified by Verify: FE BAG 2, FE BAG 1, FE BAG 3, MFR FE

Manufacturer Test Comments

None Unrounded Result for the following test results were modified by Verify: FE BAG 2, FE BAG 1, FE BAG 3, MFR FE

Certification Summary Information Report

Test Group		TFMXT03.54JK			Evaporative/Refueling Family					TFMXR0260NDG		
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	0.16	--	--	--	0	--	0.2	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	CO-COMP	0.17	--	--	--	0	--	0.2	4.2	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	CREE	543	--	--	--	0	--	543	--	--
Fed	150,000 miles	Federal Tier 3 Bin 50	METHANE	0.0044	--	--	--	0	--	0.004	0.030	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	N2O	0.0013	--	--	--	0	--	0.001	0.010	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0079	--	1.1	--	0	--	0.008	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0235	--	--	--	--	--	0.024	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX-COMP	0.0188	--	--	--	0	--	0.019	0.060	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0156	--	--	--	0	--	0.016	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	PM	0.0020	--	--	--	0	--	0.002	0.003	Pass
CA	150,000 miles	California LEV-III ULEV50	CO	0.16	--	--	--	--	--	0.2	1.7	Pass
CA	150,000 miles	California LEV-III ULEV50	CO-COMP	0.17	--	--	--	--	--	0.2	4.2	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG	0.0079	--	1.1	--	--	--	0.008	999.999	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG+NOX	0.0235	--	--	--	--	--	0.024	0.050	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG+NOX-COMP	0.0188	--	--	--	--	--	0.019	0.060	Pass
CA	150,000 miles	California LEV-III ULEV50	NOX	0.0156	--	--	--	--	--	0.016	999.999	Pass
CA	150,000 miles	California LEV-III ULEV50	PM	0.0020	--	--	--	--	--	0.002	0.003	Pass

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

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG																																				
Test #	TFMX91006582	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	08/28/2025	Fuel	Gasoline																																				
Fuel Batch ID	43732	Fuel Calibration Number	2																																				
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined																																				
Verify Test Lab ID	--																																						
E10 Evaporative Test Measurement Method	--																																						
Test Start Odometer Reading	4311	Odometer Units	M																																				
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--																																				
State of Charge Delta	--																																						
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes																																				
Test Results																																							
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Test Result Name	Unrounded Test Result	Verify Calculated CO2																																					
Carbon dioxide	399.9659424	--																																					
Manufacturer Test Comments	None																																						

Certification Summary Information Report

Test Group		TFMXT03.54JK				Evaporative/Refueling Family				TFMXR0260NDG		
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	400	--	--	--	0	--	400	--	--
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0002	--	1.03	--	--	--	0.000	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0025	--	--	--	--	--	0.002	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0023	--	--	--	0	--	0.002	999.999	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG	0.0002	--	1.03	--	--	--	0.000	999.999	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG+NOX	0.0025	--	--	--	--	--	0.002	0.050	Pass
CA	150,000 miles	California LEV-III ULEV50	NOX	0.0023	--	--	--	--	--	0.002	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	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG
Test #	TFMX91006583	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	08/28/2025	Fuel	Gasoline
Fuel Batch ID	43732	Fuel Calibration Number	2
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	DF Type	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4335	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
Test Results			

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG																																																																					
<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>911.6289062</td><td>--</td></tr><tr><td>CO BAG 1 (Bag 1 Carbon Monoxide)</td><td>0.2883847</td><td>--</td></tr><tr><td>FE BAG 1 (Bag 1 Fuel Economy)</td><td>999</td><td>--</td></tr><tr><td>CH4 BAG 1 (Bag 1 Methane)</td><td>0.0097825</td><td>--</td></tr><tr><td>NMOG BAG 1 (Bag 1 Non-methane organic gases)</td><td>0.015381</td><td>--</td></tr><tr><td>CO2 BAG 2 (Bag 2 Carbon Dioxide)</td><td>535.7435303</td><td>--</td></tr><tr><td>CO BAG 2 (Bag 2 Carbon Monoxide)</td><td>0.2979301</td><td>--</td></tr><tr><td>FE BAG 2 (Bag 2 Fuel Economy)</td><td>999</td><td>--</td></tr><tr><td>CH4 BAG 2 (Bag 2 Methane)</td><td>0.0045062</td><td>--</td></tr><tr><td>NMOG BAG 2 (Bag 2 Non-methane organic gases)</td><td>0.0093719</td><td>--</td></tr><tr><td>METHANE (CH4 - Methane)</td><td>0.0056717</td><td>--</td></tr><tr><td>CO (Carbon Monoxide)</td><td>0.2958216</td><td>--</td></tr><tr><td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td><td>-0.6667835</td><td>--</td></tr><tr><td>DT-EER (Drive Trace Energy Economy Rating)</td><td>-1.5253762</td><td>--</td></tr><tr><td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td><td>-1.3300141</td><td>--</td></tr><tr><td>MFR FE (Manufacturer Fuel Economy)</td><td>999</td><td>--</td></tr><tr><td>NOX (Nitrogen Oxide)</td><td>0.0057168</td><td>--</td></tr><tr><td>N2O (Nitrous Oxide)</td><td>0.0013879</td><td>--</td></tr><tr><td>HC-NM (Non-methane Hydrocarbon)</td><td>0.0103877</td><td>--</td></tr><tr><td>NMOG (Non-methane organic gases)</td><td>0.0106993</td><td>--</td></tr><tr><td>PM (Particulate Matter)</td><td>0.0010485</td><td>--</td></tr><tr><td>HC-TOTAL (Total Hydrocarbon)</td><td>0.0159309</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)	911.6289062	--	CO BAG 1 (Bag 1 Carbon Monoxide)	0.2883847	--	FE BAG 1 (Bag 1 Fuel Economy)	999	--	CH4 BAG 1 (Bag 1 Methane)	0.0097825	--	NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.015381	--	CO2 BAG 2 (Bag 2 Carbon Dioxide)	535.7435303	--	CO BAG 2 (Bag 2 Carbon Monoxide)	0.2979301	--	FE BAG 2 (Bag 2 Fuel Economy)	999	--	CH4 BAG 2 (Bag 2 Methane)	0.0045062	--	NMOG BAG 2 (Bag 2 Non-methane organic gases)	0.0093719	--	METHANE (CH4 - Methane)	0.0056717	--	CO (Carbon Monoxide)	0.2958216	--	DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.6667835	--	DT-EER (Drive Trace Energy Economy Rating)	-1.5253762	--	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-1.3300141	--	MFR FE (Manufacturer Fuel Economy)	999	--	NOX (Nitrogen Oxide)	0.0057168	--	N2O (Nitrous Oxide)	0.0013879	--	HC-NM (Non-methane Hydrocarbon)	0.0103877	--	NMOG (Non-methane organic gases)	0.0106993	--	PM (Particulate Matter)	0.0010485	--	HC-TOTAL (Total Hydrocarbon)	0.0159309	--
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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	0.0010	--	--	--	--	--	0.001	0.006	Pass																																																												
CA	150,000 miles	California LEV-III ULEV50	PM	0.0010	--	--	--	--	--	0.001	0.006	Pass																																																												

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG																																	
Test #	TFMX10091913	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	06/30/2025	Fuel	N/A																																	
Fuel Batch ID	373-B	Fuel Calibration Number	110																																	
Vehicle Class	N/A	DF Type	Mfr. Determined																																	
Verify Test Lab ID	APTL																																			
E10 Evaporative Test Measurement Method	--																																			
Test Start Odometer Reading	4194	Odometer Units	M																																	
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--																																	
State of Charge Delta	--																																			
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes																																	
Test Results																																				
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Manufacturer Test Comments	Drive Mode - Sport Mode with StartStop Active																																			

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG
Fuel Properties			
Fuel Batch ID	373-B	Fuel Calibration Number	110
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	05/31/2025
Fuel Batch Calibration Effective Date	05/31/2025	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	0.75
Fuel Ethanol Volume Percent (%)	10.2	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	--
Fuel Net Heat of Combustion (E10) (MJ/kg)	38.579	Fuel Carbon Mass Fraction (E10)	0.833
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	--	Weight Fraction CO2	--
Fuel Batch ID	43732	Fuel Calibration Number	2
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	06/13/2025
Fuel Batch Calibration Effective Date	06/13/2025	Fuel Batch Calibration Ineffective Date	--
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.749
Fuel Ethanol Volume Percent (%)	9.6	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17885
Fuel Net Heat of Combustion (E10) (MJ/kg)	41.37	Fuel Carbon Mass Fraction (E10)	0.83
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.828	Weight Fraction CO2	--
Fuel Batch ID	375-B	Fuel Calibration Number	70
Test Fuel Type	28 - Cold CO E10 Regular Gasoline (Tier 3)	Fuel Batch Calibration Date	07/07/2025
Fuel Batch Calibration Effective Date	07/07/2025	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	0.743
Fuel Ethanol Volume Percent (%)	9.4	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	--
Fuel Net Heat of Combustion (E10) (MJ/kg)	41.352	Fuel Carbon Mass Fraction (E10)	0.83
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	--	Weight Fraction CO2	--
Fuel Batch ID	373-B	Fuel Calibration Number	13
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	Fuel Batch Calibration Date	02/21/2017
Fuel Batch Calibration Effective Date	02/23/2017	Fuel Batch Calibration Ineffective Date	12/31/2100

Certification Summary Information Report

Test Group	TFMXT03.54JK	Evaporative/Refueling Family	TFMXR0260NDG
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.747
Fuel Ethanol Volume Percent (%)	9.9	Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)	17942
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	Fuel Carbon Mass Fraction (E10)	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.828	Weight Fraction CO2	--

Certification Summary Information Report

Test Group		TFMXT03.54JK			Evaporative/Refueling Family			TFMXR0260NDG	
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			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	--	--	--	--	--	--	0	0.050
150,000 miles	NOX	--	--	--	--	--	--	0	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			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

Certification Summary Information Report

Test Group		TFMXT03.54JK			Evaporative/Refueling Family			TFMXR0260NDG	
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	--	--	--	--	--	--	--	0.060
150,000 miles	NOX	--	--	--	--	--	--	--	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			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		TFMXT03.54JK			Evaporative/Refueling Family			TFMXR0260NDG	
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	--	--	--	--	--	--	0	1.7
150,000 miles	CO-COMP	--	--	--	--	--	--	0	4.2
150,000 miles	CREE	--	--	--	--	--	--	0	999.999
150,000 miles	HCHO	--	--	--	--	--	--	0	0.004
150,000 miles	METHANE	--	--	--	--	--	--	0	0.030
150,000 miles	N2O	--	--	--	--	--	--	0	0.010
150,000 miles	NMOG	--	--	1.1	--	--	--	0	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0	0.050
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	0	0.060
150,000 miles	NOX	--	--	--	--	--	--	0	999.999
150,000 miles	OPT-CREE	--	--	--	--	--	--	0	999.999
150,000 miles	OPT-CREE	--	--	--	--	--	--	0	999.999
150,000 miles	PM	--	--	--	--	--	--	0	0.003
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

Certification Summary Information Report

Test Group	TFMXT03.54JK			Evaporative/Refueling Family			TFMXR0260NDG		
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

Evaporative/Refueling Standards

Evaporative/Refueling Family		TFMXR0260NDG		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		TFMXR0260NDG		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	0.0000		

Evaporative/Refueling Family		TFMXR0260NDG		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		

Certification Summary Information Report

Test Group		TFMXT03.54JK		Evaporative/Refueling Family		TFMXR0260NDG	
Evaporative/Refueling Family		TFMXR0260NDG		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		TFMXR0260NDG		Cert Region		California + CAA Section 177 states	
Cert/In-Use Code		Both		Standard Level		California LEV-III Zero Evap (Option 2)	
Test Procedure		Evap Canister Bleed Test					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL	--	0.020	0		
Evaporative/Refueling Family		TFMXR0260NDG		Cert Region		Federal	
Cert/In-Use Code		Both		Standard Level		Federal Tier 3 Evap	
Test Procedure		Evap Canister Bleed Test					
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF		
Gasoline	150,000 miles	HC-TOTAL	--	0.020	0		
Evaporative/Refueling Family		TFMXR0260NDG		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	0.0000		
Evaporative/Refueling Family		TFMXR0260NDG		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		

Certification Summary Information Report

Test Group		TFMXT03.54JK		Evaporative/Refueling Family		TFMXR0260NDG					
Evaporative/Refueling Family		TFMXR0260NDG		Cert Region		California + CAA Section 177 states California LEV-III Zero Evap (Option 2)					
Cert/In-Use Code		Both		Standard Level							
Test Procedure		Federal fuel 3-day evap									
Fuel		Useful Life		Emission Name		Rounded Result		Std		Add DF	
Gasoline		150,000 miles		OMHCE		--		0.500		0.0000	
Evaporative/Refueling Family		TFMXR0260NDG		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		0.0000	

Certification Summary Information Report

Test Group		TFMXT03.54JK	Evaporative/Refueling Family		TFMXR0260NDG
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		TFMXT03.54JK		Evaporative/Refueling Family		TFMXR0260NDG	
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		TFMXT03.54JK	Evaporative/Refueling Family		TFMXR0260NDG
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 Common Section for
Statements of Compliance.



SECTION 8

Emission Testing Waiver Statements and Statements of Compliance

Statement of Compliance for test group TFMXT03.54JK

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 on road 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.

11.00.01.00 AECD Attestation - 26MY Ford 3.5L GTPFDI F-150 Raptor (Green States)

U.S. / Canada / Mexico / South Korea / U.S. based countries AECD Statement

The following attestation is provided to support the certification requirements for proper Auxiliary Emissions Control Device (AECD)¹ implementation and disclosure. This attestation covers the calibration content and its interactions with emissions-relevant hardware and control strategies, including those developed by outside vendors that are released under the responsibility of the attesting P/T Calibration Supervisor.

My team and/or I have reviewed the Defeat Device Decision Tree², relevant VHC policy documents, calibration guidelines (including APR and Cal-Check limits), and the AECD descriptions³ applicable to this test group. Based on these reviews and/or consultation with VHC, I attest that, to the best of my knowledge, all AECDs within the subject test group:

YES (check each box below to confirm)

- ☒ 1. Are implemented in accordance with the defeat device regulations as described in the decision tree.
- ☒ 2. Are described and properly justified in the application for emissions certification (i.e., the AECD Descriptions³ and the Part-1 Calibration Description Pages).

For <8,500lb or MDPV programs that have Green House Gas (GHG) or cold/20°F NMHC requirements, please confirm the following additional requirements:

YES N/A (check "YES" to confirm or "N/A" if cold requirements are not applicable)

- ☒ ☐ 1. AECDs not expected to generate a discontinuity⁴ in FTP or Highway emissions control behavior in the intermediate temperature range between 20° and 86° F for CO, CO₂, NO_x, N₂O, CH₄, NMOG, and HCHO⁵ when evaluating actual FTP/HFET test results within this temperature range.
- ☒ ☐ 2. For vehicles that comply with GHG or cold temperature NMHC requirements at sea-level, common calibration approaches⁶ are utilized at high altitude conditions or are otherwise documented as an AECD.
- ☐ ☒ 3. For multi-fuel/FFV vehicles that comply with cold temperature NMHC requirements on gasoline, common calibration approaches are utilized relative to cold NMHC performance regardless of fuel type or are otherwise documented as an AECD.

See Footnotes

AECD Approval:

Title	Approver CDSID	Decision	Comments	Decision Date
Supervisor, PCCN-NAE Engine Calibration / OBD	kevenson	Approved		09/02/2025

Request for Approval



SECTION 12

Description of Vehicles Covered by Certificate and Testing Parameters

12.00.01.00 Common Family Parameters

Test Group: TFMXT03.54JK - Engine Config Param 1 - F150 Raptor (98 RON Ratings)

Test Group Information : F150 Raptor (98 RON Ratings)	
Vehicle/Engine Class	LDT4
Vehicle Fuel Category	Single Fuel
Operating Fuel 1	Gasoline
Operating Fuel 2	N/A
Engine Displacement (liters)	3.5
SAE net HP @ RPM (98 Ron)	450 @ 5250 RPM
SAE net torque ft-lb @ RPM	500 @ 3100 RPM
VECI - Emission Control System	
Air Aspiration Method	Turbocharged
Charge Air Cooler Type	Air
Exhaust Gas Recirculation (EGR)	Yes
Cooled EGR	Yes
Air injection Type (AIR)	Not Applicable
After-Treatment Type	Three-way catalyst
Fuel Metering System 1	Spark Ignition direct & ported injection
Fuel Metering System 2	
Heated oxygen sensor (HO ₂ S)	Yes
Heated Air/Fuel Sensor or WR oxygen sensor (AFS/WR-HO ₂ S)	Yes
Feedback Sensor Configuration	2WR-HO ₂ S, 2HO 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

Exhaust Calibration	Evaporative Calibration	Application	Transmission	Leak Check	Vehicle
TTFDBMNS05/R06	TFMXR0260NDG	50S (CAL)	A/T	0.020	F150 Raptor 4WD

Reference Specifications

Spark Plug	Type: DYFS-12YPT Gap: 0.70-0.80 mm	
Ignition Timing °BTDC (No SPOUT connector)	PCM Controlled	
Idle RPM	PCM Controlled	
Target (Base) in Drive (A/C OFF/A/C ON)	575/575	Special conditions which may require idle speeds higher than base are listed below. (See Section 16.05 for descriptions of these strategies):
/C Idle in Drive at high ambients	650	

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	Y	Achieve/maintain light off
Low engine coolant temperature	Y	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	Y	Avoid stalling or no-start
High Alternator load	Y	Preserve battery life and avoid low voltage
High-speed fan operation	N	For engine and A/C condenser cooling
Extended neutral idle time	Y	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	N	Increase engine speed to improve cabin heating or cooling
Heated Windshield	N	Maintain charging margin
ETC Failure	Y	Electronic Throttle Failure Min RPM
A/C Adder (50RPM)	Y	NVH Improvement
High auxiliary loads	N	Belt tensioner durability on BiSG and HV Motor cooling
Eco Idle Feature (Park/Neutral)	N	Raise idle speed to reduce fuel consumption and engine off time during Park/Neutral state

Emission Component	Sensed Parameter	Controlled Parameter	Justification ¹	Calibration
ELECTRONICS – PCM ²				
<u>FUEL</u>				
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)
Regulated Fuel Pressure (PFI)	Signal from PCM	Fuel Pressure	N/A	380-500 kpa
Fuel Pump (DI)	Signal from PCM	Fuel Flow	N/A	DI pump: Up to 1.3 cc/rev for 3 lobe, 5.5mm lift (theoretical delivery volume)
Fuel Pump (PFI)	Signal from PCM	Fuel Flow	N/A	170 lph @ 12.0V/550kpa
Torque Based Electronic Throttle Control	Signal from PCM	None	Operates in FTP	Throttle Diameter: 68 mm

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	Justification ¹	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"
<u>CRANKCASE</u>				
Crankcase Ventilation Oil Separator Assembly	Manifold Vacuum	Air Flow to Engine	Operates in FTP	EV#:297 2.55-3.75 SCFM @ 3" Hg 2.0-3.2 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	Justification ¹	Calibration
EGR Control Strategy				
EGR base table	Requested Torque, Percent Torque, Engine Speed, and Load	EGR Rate	Substantially demonstrated on FTP/SFTP. Base EGR optimized for fuel efficiency within constraints of combustion stability, drivability, emissions, and vacuum limitations	See Section 16.00.05.00 for the following tables: HDFX_EGR_MAXTOL_STP_0 (intake cam position = 0 degrees) HDFX_EGR_MAXTOL_STP_1 (intake cam position = 7 degrees) HDFX_EGR_MAXTOL_STP_2 (intake cam position = 14 degrees) HDFX_EGR_MAXTOL_STP_3 (intake cam position = 21 degrees) HDFX_EGR_MAXTOL_STP_4 (intake cam position = 28 degrees) HDFX_EGR_MAXTOL_STP_5 (intake cam position = 35 degrees)
EGR Limitation for Hot Intake Air Temperatures	Air Charge Temperature (ACT)	Multiplier on EGR Rate	Protection against damage or accident due to combustion stability degradation, detonation, and preignition.	See Section 16.00.05.00 for EGR_ACT_MAX
EGR Limitation for Cold Intake Air Temperatures	Air Charge Temperature (ACT)	Multiplier on EGR Rate	Protection against damage or accident due to icing in the intake and throttle areas.	See Section 16.00.05.00 for EGR_ACT_MIN
EGR Limitation/Delay for Cold Engine Temperatures	Engine Coolant Temperature (ECT)	Multiplier on EGR Rate	Substantially demonstrated on FTP (ambient and 20F). Required to ensure proper combustion stability.	See Section 16.00.05.00 for function HDFX_EGR_ECT_MUL_0 (Note: other functions are used based on intake cam timing position, but all functions calibrated the same.)

Emission Component	Sensed Parameter	Controlled Parameter	Justification ¹	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"
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"

Emission Component	Sensed Parameter	Controlled Parameter	Justification ¹	Calibration
ENGINE COOLING				
Thermostat	Coolant Temperature	Coolant Flow	Engine Protection	Start to Open: 87.8° C

2026 MY Exhaust Emissions Parts List
Test Group: TFMXT03.54JK

Vehicle	Certification Level	Calibration	Cert Code	PCM Part Number	Date
F150 Raptor 4WD	Initial	TTFDBMNS05	TTFDBMNS0001	PTL3A-12A650-ZB	9/30/2025
		TTFDBMNS06	TTFDBMNS0002	PTL3A-12A650-ZC	9/30/2025

2026 MY Exhaust Emissions Parts List

Test Group: TFMXT03.54JK

****ALL OTHER EXHAUST EMISSION PARTS****

Part Name	Part Number(s)
Catalyst (Hot End)	TL3V-5E214-RA TL3V-5E214-RB (Alt) TL3V-5E214-RC (Alt)
Catalyst (Cold End)	TL3V-5G218-RA TL3V-5G218-RB (Alt) TL3V-5G218-RC (Alt)
Intake Air Temperature (IAT) Sensor	DS7A-12A697-AA
Knock Sensor	ML3A-12A699-AD
Camshaft Position Sensor Assembly	RL3A-12K073-AB BL31-12K073-BC (Alt)
EGRP (delta Pressure) Sensor	KAIA-5L200-AC
Positive Crankcase Ventilation (PCV) Valve	KR3E-6A666-BA
Variable Camshaft Timing (VCT) Solenoid	HL3E-6B297-DD
Crank Position Sensor	RL3A-6C315-AB
Cylinder Head Temperature Sensor	GN1A-6G004-AA P2GA-6G004-AC (Alt)
Cam Cover & Gasket Assembly	ML3E-6K271-CD
Charge Air Cooler	ML34-6K775-CA
Fuel Pump (Low Pressure, In-Tank)	JL34-9350-AA
Fuel Pump (High Pressure)	ML3E-9D376-AA
EGR Valve	RL3E-9D475-BB
EGR Cold Tube w/ Orifice	ML3E-9E470-AD
EGR Cooler	ML3E-9R442-AF
EGR Cooler Outlet Temperature Sensor	KAIA-9U498-AB
EGR System Module	RL3E-9Y456-BB RL3E-9Y456-CA (Alt)
Manifold Absolute Pressure Sensor (IAT)	RL3A-9F479-AB
Fuel Pressure Sensor (High Pressure)	K2GE-9F972-BA K2GE-9F972-AA (Alt)
Fuel Pressure Sensor (Low Pressure)	P2GE-9F972-BA P2GE-9F972-BB (Alt)
Electric Throttle Body	HL3E-9F991-AA
Fuel Injector (DI)	ML3E-9G929-AA
Fuel Injector (PFI)	ML3E-9F593-BA
Turbo Charger	RL3E-6C879-BD RL3E-6K682-BC (Alt)
Heated Oxygen Sensor – HO2S (CMS)	RL3A-9G444-CB RL3A-9G444-AB (Alt) RL3A-9G444-BB (Alt)
Wide-Range Universal Heated Oxygen Sensor (UEGO)	RL3A-9Y460-CB RL3A-9Y460-CC (Alt) RL3A-9Y460-DB (Alt) RL3A-9Y460-DC (Alt) TL3A-9Y460-EA (Alt)

2026 TEST VEHICLE REQUIREMENTS

	Evaporative Emission Vehicle	Exhaust Emission Vehicle	Evaporative Emission Vehicle
Test Group	JFMXT02.73JK	TFMXT03.54JK	MFMXT03.54JM
Evap Emission Family	JFMXR0260NDG	TFMXR0260NDG	MFMXR0260NDG
Displacement	2.7L	3.5L	3.5L
Engine Code	JTFCWQNC05	TTFDBMNS00	MTFDBMNB02
Fuel Tank Capacity	37.1 Gal	37.1 Gal	37.1 Gal
Exhaust Control System	CAC/DFI/SFI/TWC/ WR-HO2S/HO2S/TC	CAC/DFI/EGR/EGRC/ TWC/WR-HO2S/SFI/ HO2S/TC	CAC/DFI/EGR/EGRC/ TWC/WR-HO2S/SFI/ HO2S/TC
Model	F-150	F150 RAPTOR 4WD	F150 Raptor
Transmission	Semi-Auto-10	Semi-Auto-10	Semi-Auto-10
Equivalent Test Weight	5250.0	6500.0	6000.0
Curb Weight	4903.0	6022.0	5700.0
GVWR	7000.0	7400.0	7150.0
THP/DPA	19.5 / f0=41.96, f1=0.2104, f2=0.03763	24 / f0=45.56, f1=0.4419, f2=0.04492	24 / f0=46.19, f1=0.31, f2=0.04721
Axle Ratio	3.73	4.1	4.1
N/V Ratio - RPM/MPH	25.7	24.6	26.4
Tires	LT275/65R18	37 X 12.5R17 BSW A/T	LT315/70R17
Vehicle ID No	JFC1-2.7-J-027	TFD1-3.5-J-384	MFD1-3.5-J-267
Configuration Number	0	0	0
Model Year	2018	2026	2021

Vehicle Description Report

Test Group: TFMXT03.54JK

ID Number	5291724	5291723	5292644	5292645
Displacement	3.5	3.5	3.5	3.5
Cert Code	TTFDBMNS0001	TTFDBMNS0001	TTFDBMNS0002	TTFDBMNS0002
Fuel Tank(s)	F4	F4	F4	F4
Carline	F150 RAPTOR 4WD	F150 RAPTOR 4WD	F150 RAPTOR 4WD	F150 RAPTOR 4WD
Wheel Configuration	Standard	Standard	Standard	Standard
Body Style	Super Crew	Super Crew	Super Crew	Super Crew
Wheelbase	145.0	145.0	145.0	145.0
Transcode Combo	EUA	EUA	EUA	EUA
Curb Weight	5953	6022	5953	6022
ETW	6500	6500	6500	6500
Loaded Weight LVW	6253	6322	6253	6322
ALVW-ETW	6500	6500	6500	6500
Adj. Loaded Weight	6652	6711	6652	6711
GVWR	7350	7400	7350	7400
GCWR	14600	14650	14600	14650
Min Axle Ratio	4.1	4.1	4.1	4.1
Max Axle Ratio	4.1	4.1	4.1	4.1
Min N/V Ratio	26.4	24.6	26.4	24.6
Max N/V Ratio	26.4	24.6	26.4	24.6
Emission Vehicle Class	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
Trans Type	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic
Calibration Application	50ST	50ST	50ST	50ST
Min Tire Size	LT315/70R17 - 26.4	315/80R17 - 24.6	LT315/70R17 - 26.4	315/80R17 - 24.6
Max Tire Size	LT315/70R17 - 26.4	315/80R17 - 24.6	LT315/70R17 - 26.4	315/80R17 - 24.6
Alt Tire 1				
Alt Tire 2				
Alt Tire 3				
Alt Tire 4				
Alt Tire 5				
Alt Tire 6				
Alt Tire 7				
DAW Full Tank	2595	2624	2595	2624
DAW Empty Tank	2433	2462	2433	2462



SECTION 14

Request for Certification

14.00.00.00



**Vehicle Homologation & Compliance
Environmental & Safety Compliance**

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

October 2, 2025

Ms. 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 its Part I Application for Certification for 2026 model year gasoline powered light-duty trucks (LDTs) contained in Ford's 50 States test group TFMXT03.54JK and evaporative emission family TFMXR0260NDG. Tier 3, E10 regular fuel was used for Exhaust and Evaporative emissions testing. This test group is being certified to the Federal T3B50 standards and is counted as LEVIII / ULEV50 under the California standards.

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

Certification & In-Use FTP Standards	Useful Life (mi)	NMOG + NOx (g/mi)	CO (g/mi)	N2O (g/mi)	HCHO (g/mi)	CH4 (g/mi)	PM (g/mi)
Tier 3 Bin 50	150K	0.050	1.7	0.010	0.004	0.030	0.003

In addition, this test group also meets the Cold NMHC Family Emission Limit (FEL) of 0.4 gm/mi as part of compliance plan to meet corporate fleet average Cold NMHC standards. This test group also meets the SFTP NMOG+NOx Family Emission Limit (FEL) of 0.060 g/mi and CO composite limit of 4.2 g/mi as part of compliance plan to meet corporate fleet average SFTP standards.

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

Certification and In-Use Evaporative Standards	Useful Life (mi)	Hot Soak + 2-day diurnal (g/test)	Hot Soak + 3-day diurnal (g/test)	Running Loss (g/mi)	ORVR (g/gallon)	Canister Bleed Test (g/test)
T3e	150K	0.500 (LDT)	0.500 (LDT)	0.05	0.20	0.020

The spit back 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 LDT test group listed in this Application for Certification.

Please contact Tom Beierschmitt at 313-439-5381 or tbeiers1@ford.com 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



**Vehicle Homologation & Compliance
Environmental & Safety Compliance**

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

October 2, 2025

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

Dear Ms. Lang:

Ford Motor Company (Ford) herewith submits its Part I Application for Certification for 2026 model year gasoline powered light-duty trucks (LDTs) contained in Ford's 50 States test group TFMXT03.54JK and evaporative emission family TFMXR0260NDG. Tier 3, E10 regular fuel was used for Exhaust and Evaporative emissions testing. 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. This test group is counted as LEVIII / ULEV50 under the California standards.

The FTP certification and in-use exhaust emission standards applicable to this test group for vehicles offered in California are:

Certification & In-Use FTP Standards	Useful Life (mi)	NMOG + NOx (g/mi)	CO (g/mi)	HCHO (g/mi)	PM (g/mi)
LEV III ULEV 50	150K	0.050	1.7	0.004	0.003

This test group also meets the SFTP NMOG+NOx Family Emission Limit (FEL) of 0.060 g/mi and CO composite limit of 4.2 g/mi as part of compliance plan to meet corporate fleet average SFTP standards.

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

Certification and In-Use Evaporative Standards	Useful Life (mi)	Hot Soak + 2-day diurnal (g/test)	Hot Soak + 3-day diurnal (g/test)	Running Loss (g/mi)	ORVR (g/gallon)	Canister Bleed Test (g/test)
L3e	150K	0.500 (LDT)	0.500 (LDT)	0.05	0.20	0.020

The spit back 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 Tom Beierschmitt on 313-439-5381, if you have any questions regarding this submission.

Sincerely,

DocuSigned by:

Lawrence H. Merritt, Jr.

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

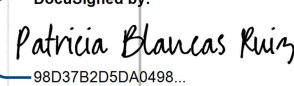
Cc: R. Uyehara
M. Desai



SECTION 15

Other Information

15.00.00.00

 CCAPS Manual Payment Request (North America)		REF NO: 306174																				
NAME AND ADDRESS OF PAYEE Environmental Protection Agency-MVECP U.S. Bank - Government Lockbox 979032 1005 Convention Plaza SL-MO-C2-GL St. Louis, MI 63101 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.		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Employee</td> <td style="text-align: center;">Ex-Employee / Board of Director</td> <td style="text-align: center;">Mail Attachments</td> <td style="text-align: center;">Separate Check</td> <td style="text-align: center;">Special Handling</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Y</td> <td></td> </tr> <tr> <td style="text-align: center;">Supplier Code</td> <td style="text-align: center;">CCAPS Plant Code</td> <td style="text-align: center;">Due Date</td> <td style="text-align: center;">Currency</td> <td style="text-align: center;">Amount</td> </tr> <tr> <td style="text-align: center;">GXHSA</td> <td style="text-align: center;">10</td> <td style="text-align: center;">ASAP</td> <td style="text-align: center;">US</td> <td style="text-align: right;">263,512.00</td> </tr> </table>	Employee	Ex-Employee / Board of Director	Mail Attachments	Separate Check	Special Handling				Y		Supplier Code	CCAPS Plant Code	Due Date	Currency	Amount	GXHSA	10	ASAP	US	263,512.00
Employee	Ex-Employee / Board of Director	Mail Attachments	Separate Check	Special Handling																		
			Y																			
Supplier Code	CCAPS Plant Code	Due Date	Currency	Amount																		
GXHSA	10	ASAP	US	263,512.00																		
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 - 1-2025MY ENGINE FAMILY (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			263,512.00	N											
								TOTAL		263,512.00												
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: TOLIVER Sign:  Date: 2/7/2025		Approver CDS ID: LMERRIT2 Sign:  Date: 2/7/2025 DocuSigned by: Lawrence Merritt DF6ED4749EAC46B...																				
Approvals per Corporate Approval Authorities - Method of Payment																						
Payment Item is on Uses of Manual Payment Requests						Payment Item is not on Uses of Manual Payment Requests																
Finance LL5+ or Plant Controller (LL6) Unlimited Finance LL6 < \$250,000		CDS ID: PELANCAS Sign:  Date: 2/7/2025 DocuSigned by: Patricia Blancas Ruiz 98D37B2D5DA0498...		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																						
July 2021 North American Check Request Form (Previous editions without the above fields may NOT be used)																						

EPA_MVECP_v1

US EPA Fee Form

[Help and EPA Instructions](#)

* Required Field

General Information

Date: 02/06/2025

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 *

TFMXT03.54JK

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

Pay.gov Tracking ID: 27LEMSNB

Cert Engineer: Tom Beierschmitt, 313-407-7886, tbeiers1@ford.com, CDSID:tbeiers1

EPA Form Number 3520-29

OMB Control No. 2060-0545

Approval expires 12/31/2022

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

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



SECTION 16

Confidential Information



SECTION 17

California ARB Requirements

17.00.01.00 – VECI Label

TFMXT03.54JK – 26MY Ford F-150 Raptor 3.5L GTPFDI

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/DFI/SFI/WR-HO2S/HO2S/TC/CAC/EGR/EGRC	
No adjustments needed.	
3.5L-Group: TFMXT03.54JK Evap: TFMXR0260NDG	
▽ TW7E-9C485- L S C	



SECTION 18

Revisions

18.00.00.00

2026 APPLICATION REVISIONS
TFMXT03.54JK

NO.	DATE	PAGE(S)	DESCRIPTION
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Application for Certification

Part 2