STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
CALIFORNIA AIR RESOURCES BOARD

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

CARB USE ONLY

Invoice Name	MSF250262
Invoice Date	Sep 16, 2025

COMPANY INFORMATION

Company Name	Ford Motor Company
Address	1 American Road
City	Dearborn
State	Michigan
Zip	48126-2798
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_TFMXT03.57AT_APP	Model Year 2026	TFMXT03.57AT	Light-duty vehicle test group and medium-duty vehicle test group	Base	$ 48,447.00
2	26_CBI_TFMXT03.51F1_APP	Model Year 2026	TFMXT03.51F1	Light-duty vehicle test group and medium-duty vehicle test group	Base	$ 48,447.00
3	26_CBI_TFMXT02.72V6_APP	Model Year 2026	TFMXT02.72V6	Light-duty vehicle test group and medium-duty vehicle test group	Base	$ 48,447.00
4	OPCARRYOVER_26_CBI_TF	Model Year 2026	TFMXT02.31EM	Light-duty vehicle test group and medium-duty vehicle test group	Partial Carry-Over	$ 24,224.00
5	26_CBI_TFMXT03.03V7_APP	Model Year 2026	TFMXT03.03V7	Light-duty vehicle test group and medium-duty vehicle test group	Base	$ 48,447.00
6	26_CBI_TFMXT02.71HS_APP	Model Year 2026	TFMXT02.71HS	Light-duty vehicle test group and medium-duty vehicle test group	Base	$ 48,447.00
7	OPCARRYOVER_26_CBI_TF	Model Year 2026	TFMXT02.36HG	Light-duty vehicle test group and medium-duty vehicle test group	Partial Carry-Over	$ 24,224.00

Total Due	$ 290,683.00

I, , attest that any information provided is true, accurate, and complete.

(Responsible Party Signature Here)

Application for Certification

Part 1

FORD MOTOR COMPANY

APPLICATION FOR CERTIFICATION - PART 1

2026 Model Year

Test Group:	TFMXT03.51F1
Durability Group:	TFMXHHGVNE1A
Evap. Families:	TFMXR0295LDG
Test Group Description:	3.5 Liter V6 FHEV, LDT4
Durability Group Description:	Hybrid Electric w/4 stroke Atkinson, Gasoline Fueled, Turbocharged, Direct Injection, Sequential Fuel Injection, Catalyst Code E (Pt/Pd/Rh)

Applicable Standards:

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

Carlines Covered:

F150 HEV 4WD
F150 HEV 2WD

Vehicles Tested:

Exhaust Emissions Vehicle: SFD1-3.5-J-057 (Config 0)	
FTP TN:	SFMX10086932
HWY TN:	SFMX91005985
US06 TN:	SFMX91005984
SC03 TN:	SFMX10086934
Cold CO TN:	SFMX10086931

Evaporative Emissions Vehicle: MFD1-3.5-J-945 (Config 0)	
2Day TN:	MFMX10064216
Linking TN:	MFMX10063823
3Day TN:	MFMX10065306
RL TN:	MFMX10065305
ORVR TN:	MFMX10064215

Release Date: February 2nd, 2026

For Questions, Contact:
Terry Cowher, tcowher@ford.com (313) 805-6360

Part 1 Application Index

Part 2 Application Index

(Running change updates)

SECTION 2

Durability Group Description

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

SECTION 3

Evaporative/Refueling Family Description

03.00.01.00 Evaporative Family and Calibration Parameters

Evaporative Family Name: TFMXR0295LDG

2026 3.5L GTPFDI FHEV F-150

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

SECTION 4

Durability Procedure Description

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

SECTION 5

Test Group Description

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

SECTION 6

Test Vehicle Description

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

SECTION 7

EPA Certification Summary Information Report

(Test Results)

Certification Summary Information Report

Manufacturer	Ford Motor Company	**Manufacturer Code**	FMX
Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG
Certificate Number	--	**CARB Executive Order #**	--
Certificate Issue Date	--	**Certificate Revision Date**	--
Certificate Effective Date	--	**Conditional Certificate**	--
CSI Revision #	--	**CSI Submission/Revision Date**	12/10/2025 03:17:34 PM
Model Year	2026		

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Test Group Information

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

Drive Sources and Fuel(s)

Drive Source #1: Electric Motor

Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
Electricity	--	No

Drive Source #2: Combustion Engine

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

Hybrid Indicator	Yes		
Multiple Fuel Storage	--	**Rechargeable Energy Storage System Indicator**	Yes
Multiple Fuel Combustion	--	**Off-board Charge Capable Indicator**	No
Fuel Cell Indicator	No	**EPA Vehicle Class**	LDT4
Federal Clean Fuel Vehicle	No	**Federal Clean Fuel Vehicle Standard**	--
Federal Clean Fuel Vehicle ILEV	No	**California Partial Zero Emissions Vehicle Indicator**	No
Durability Group Name	TFMXHHGVNE1A	**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	02/02/2026	**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**	TFMXT02.02JF
Test Group OBD Compliance Level	Partial - with deficiencies	**Number of Test Group OBD Deficiencies**	2
OBD Deficiencies Comments	--		
Mfr Test Group Comments	E10 City Litmus Value: 15.2, City Litmus Threshold: 14.7, Hwy Litmus Value 20.1, Hwy Litmus Threshold: 18.4		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Evaporative/Refueling Family Information

Evaporative Summary Information Type	New	**Submission/Correction Date**	08/28/2025 12:49:32 PM
Integrated ORVR?	No	**Fuel(s)**	Gasoline, Electricity
Multiple Fuel Storage	Fuels Stored Separately		
Bladder Fuel Tank?	No		
Fuel Tank Material	Plastic	**Fuel Tank Material Description**	Plastic
Fill Pipe Seal Type	Liquid seal		
Air Intake System Vapor Storage Device?	Yes	**Air Intake System Vapor Storage Device Description**	AIS HC Trap in Air Induction System
Fuel System Vapor Storage Canister?	Yes	**Other Vapor Storage**	1 X 4.5L HA 3-port Rect.
Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)	295	**Number of Primary Canisters**	1
Number of Bleed Canisters	0	**Bleed Canister Total Working Capacity (grams)**	0
Mfr Evaporative/Refueling Family Comments	F150 FHEV 3.5L GTPFDI		

Leak Family Details

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

Leak Family Name	Applicability of Leak Family Requirements	Leak Family Standard (inches)	Leak Family Description
TFMXR0295LDG-001	50 State	0.02	--

Models Covered by this Certificate

Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
Ford Motor Company	1 - Ford	131 - F150 PICKUP 2WD HEV	Federal	2-Wheel Drive, Rear	Semi-Automatic	10	Yes
Ford Motor Company	1 - Ford	132 - F150 PICKUP 4WD HEV	Federal	Part-time 4-Wheel Drive	Semi-Automatic	10	Yes
Ford Motor Company	1 - Ford	132 - F150 PICKUP 4WD HEV	California + CAA Section 177 states	Part-time 4-Wheel Drive	Semi-Automatic	10	Yes
Ford Motor Company	1 - Ford	131 - F150 PICKUP 2WD HEV	California + CAA Section 177 states	2-Wheel Drive, Rear	Semi-Automatic	10	Yes

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Engine Description

Hybrid Type	IC Engine/Electric Motor	**Hybrid Description**	--
Engine Type	4-Stroke Spark Ignition	**Mfr Engine Description**	Hybrid Electric w/4 stroke Atkinson, Gasoline Fueled, Turbocharged, Direct Injection, Sequential Fuel Injection, Catalyst Code E (Pt/Pd/Rh)
Engine Block Arrangement	V-shaped engine	**Mfr Engine Block Arrangement Description**	--
Camless Valvetrain Indicator	No	**Oil Viscosity/Classification**	5W-30 / ILSAC GF-7
Number of Cylinders/Rotors	6	**Mechanically Variable Compression Ratio Indicator**	N

After Treatment Device(s) (ATD)

ATD Number	ATD Type	ATD Precious Metal	Substrate Material	Substrate Construction
1	Three-way catalyst	Palladium + Rhodium	Ceramic	Monolith
2	Three-way catalyst	Platinum + Palladium + Rhodium	Ceramic	Monolith
3	Three-way catalyst	Palladium + Rhodium	Ceramic	Monolith
4	Three-way catalyst	Platinum + Palladium + Rhodium	Ceramic	Monolith
5	Three-way catalyst	Platinum + Rhodium	Ceramic	Monolith
6	Three-way catalyst	Platinum + Rhodium	Ceramic	Monolith

Mfr After Treatment Device (ATD) Comments	Three-way catalyst
Direct Ozone Reduction (DOR) Device	Not Equipped
Mfr Emission Control Device Comments	--

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Engine Configuration Number 1

Engine Displacement (liters)	3.5	**Engine Rated Horsepower**	430
Number of Inlet Valves Per Cylinder	2	**Number of Exhaust Valves Per Cylinder**	2
Air Aspiration Method	Turbocharged	**Number of Air Aspiration Devices**	2
Air Aspiration Device Configuration	Parallel	**Charge Air Cooler Type**	Air
Air Aspiration Drive Method(s)	Mechanical		
Cylinder Deactivation	No		
Cylinder Deactivation Description	--		
Variable Valve Timing	Yes		
Variable Valve Timing System Description	TiVCT		
Variable Valve Lift?	No		
Variable Valve Lift System Description	--		
Number of Knock Sensors	4	**Number of Air/Fuel Sensors**	4
Air/Fuel Sensor # 1 Type	Heated air fuel	**Air/Fuel Sensor # 1 Description**	--
Air/Fuel Sensor # 2 Type	Heated air fuel	**Air/Fuel Sensor # 2 Description**	--
Air/Fuel Sensor # 3 Type	Heated oxygen	**Air/Fuel Sensor # 3 Description**	--
Air/Fuel Sensor # 4 Type	Heated oxygen	**Air/Fuel Sensor # 4 Description**	--
Mfr Air/Fuel Sensor Comments	--		
Exhaust Gas Recirculation	Yes	**Cooled Exhaust Gas Recirculation**	Yes
EGR Type	Electronic/Electric	**Exhaust Gas Recirculation Description if 'Other'**	--
Closed Loop Air Injection System	No		
Air Injection Type	Not Applicable	**Air Injection Type if 'Other'**	--
Mfr Engine Configuration Comments	3.5L F150 FHEV		

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	SFMX10086932	SFMX91005984	SFMX10086934	SFMX10086931	SFMX91005985	20.0	228.2	0.0	286.1	1.0
Electricity	--	--	--	--	--	--	--	--	--	--

SFTP LEV-III Official Test Numbers

Test Group Fuel	FTP	US06	SC03
Gasoline	SFMX10086932	SFMX91005984	SFMX10086934
Electricity	--	--	--

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Official Charge Depleting Test Numbers

Test Group Fuel	UDDS	Highway
Gasoline	--	--

Hybrid Electric Vehicle And Fuel Cell Information

Rechargable Energy Storage System	Battery(s)	**Rechargable Energy Storage System, if Other**	--
Battery Type	Lithium Ion	**Number of Battery Packs**	1
Total Voltage of Battery Packs	281	**Battery Energy Capacity**	5.0
Battery Specific Energy	36.8	**Battery Charger Type**	On-Board
Number of Capacitors	--	**Capacitor Rating (In Farads)**	--
Mfr Capacitor Comments	--		
Hydraulic System Description	--		
Regenerative Braking Type	Electrical Regen Brake		
Regenerative Braking Source	Both	**Driver Controlled Regenerative Braking**	No
Mfr Regenerative Braking Description	--		
Drive Motor(s)/Generator(s)	1		
Motor/Generator Type 1	DC Permanent Magnet, brushless	**Rated Motor/Generator Power**	35
Mfr Fuel Cell Description	--		
Fuel Cell On-Board H2 Storage Capacity (kg)	--	**Usable H2 Fill Capacity (kg)**	--
Mfr Hybrid Electric/ Electric Vehicle Comments	--		

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Emission Data Vehicle Information

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

Vehicle Model

Represented Test Vehicle Make	Ford	**Represented Test Vehicle Model**	F150 FHEV

Leak Family Details

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

Drive Sources and Fuel System Details

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

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

Certification Summary Information Report

Test Group	TFMXT03.51F1	Evaporative/Refueling Family	TFMXR0295LDG

Dynamometer Coefficients:

Coefficient Category	Target Coefficients A (lbf)	Target Coefficients B (lbf/mph)	Target Coefficients C (lbf/mph**2)	Set Coefficients A (lbf)	Set Coefficients B (lbf/mph)	Set Coefficients C (lbf/mph**2)	EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
City/Highway/Evap	55.69	0.2272	0.03972	9.53	-0.11697	0.03797	22.2
Cold CO	55.69	0.2272	0.03972	9.53	-0.11697	0.03797	N/A
US06	55.69	0.2272	0.03972	9.53	-0.11697	0.03797	N/A

Emission Control Device Comments T3B70/ULEV70 SFTP-0.080 PM3 CB4 T3e/L3e

Manufacturer Test Vehicle Comments F150 3.5L FHEV AWD

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

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

Test Results

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

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

Certification Summary Information Report

Test Group	TFMXT03.51F1	Evaporative/Refueling Family	TFMXR0295LDG

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	495.00813	--

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

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

Test Results

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

Manufacturer Test Comments 2 Day EVAP THC x 1.08

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0.1644	0.0028	0.167	0.500	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	OMHCE	0.1644	0.0028	0.167	0.500	Pass

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

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

Test Results

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

Manufacturer Test Comments Measured NMOG

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0.2150	0.0028	0.218	0.500	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	OMHCE	0.2150	0.0028	0.218	0.500	Pass

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Test #	**MFMX10064215**	**Test Procedure**	**24 - Federal fuel refueling test (ORVR)**
Exhaust Test # for this Evap Test	MFMX10063823	**Test Fuel Type**	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	03/03/2020	**Fuel**	Gasoline
Fuel Batch ID	--	**Fuel Calibration Number**	--
Vehicle Class	N/A	**DF Type**	Mfr. Determined
Verify Test Lab ID	APTL		
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)		
Test Start Odometer Reading	5160	**Odometer Units**	M
4WD Test Dyno	No	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	**Road Speed Fan Usage**	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
OMHCE (Organic material Hydrocarbon Equivalent)	0.00688	--
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.00688	--

Manufacturer Test Comments ORVR TEST

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0.007	0.003	0.01	0.20	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	OMHCE	0.007	0.003	0.01	0.20	Pass

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

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

Test Results

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

Manufacturer Test Comments Measured NMOG

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

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Emission Data Vehicle Information

Vehicle ID / Configuration	SFD1-3.5-J-057 / 0	**Manufacturer Vehicle Configuration Number**	0
Original Test Group Name	SFMXT03.51F1	**Original Evaporative/Refueling Family**	SFMXR0295LDG
Original Test Vehicle Model Year	2025		

Vehicle Model

Represented Test Vehicle Make	Ford	**Represented Test Vehicle Model**	F150 HEV 4WD

Leak Family Details

Leak Family Identifier	001	**Leak Family Name**	SFMXR0295LDG-001

Drive Sources and Fuel System Details

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

Hybrid Indicator	Yes		
Multiple Fuel Storage	--	**Multiple Fuel Combustion**	--
Fuel Cell Indicator	No	**Rechargeable Energy Storage System Indicator**	Yes
Rechargeable Energy Storage System	Battery(s)	**Rechargeable Energy Storage System, if 'Other'**	--
Off-board charge Capable Indicator	No		
Odometer Correction -- Initial	0	**Odometer Correction Factor**	1.03
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles		
Odometer Correction Units	Miles		
Engine Code	STFDCNNA01	**Rated Horsepower**	400
Displacement (liters)	3.5		
Air Aspiration Method	Turbocharged	**Air Aspiration Method, if 'Other'**	
Number of Air Aspiration Devices	2	**Air Aspiration Device Configuration**	Parallel
Charge Air Cooler Type	Air	**Drive Mode While Testing**	4-Wheel Drive
Shift Indicator Light Usage	Not eqipped	**Aged Emission Components**	150,000 (mi)
Curb Weight (lbs)	5930	**Equivalent Test Weight (pounds)**	6000
GVWR (lbs)	7400	**N/V Ratio**	25.3
Axle Ratio	3.73		
Transmission Type	Semi-Automatic	**# of Transmission Gears**	10
Transmission Lockup	Yes	**Creeper Gear**	No

Certification Summary Information Report

Test Group	TFMXT03.51F1	Evaporative/Refueling Family	TFMXR0295LDG

Dynamometer Coefficients:

Coefficient Category	Target Coefficients A (lbf)	Target Coefficients B (lbf/mph)	Target Coefficients C (lbf/mph**2)	Set Coefficients A (lbf)	Set Coefficients B (lbf/mph)	Set Coefficients C (lbf/mph**2)	EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
City/Highway/Evap	36.08	0.58	0.03296	-23.95	0.378	0.02999	19.7
Cold CO	36.08	0.58	0.03296	-23.95	0.378	0.02999	N/A
US06	36.08	0.58	0.03296	-23.95	0.378	0.02999	N/A

Emission Control Device Comments --

Manufacturer Test Vehicle Comments --

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Test #	**SFMX10086931**	**Test Procedure**	**11 - Cold CO**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	28 - Cold CO E10 Regular Gasoline (Tier 3)
Test Date	06/30/2024	**Fuel**	Gasoline
Fuel Batch ID	375-B	**Fuel Calibration Number**	54
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	4011	**Odometer Units**	M
4WD Test Dyno	Yes	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	760.22096	--
FE BAG 1 (Bag 1 Fuel Economy)	11.30785	11.30785
CO2 BAG 2 (Bag 2 Carbon Dioxide)	538.40592	--
FE BAG 2 (Bag 2 Fuel Economy)	16.09949	16.09949
CO2 BAG 3 (Bag 3 Carbon Dioxide)	512.91203	--
FE BAG 3 (Bag 3 Fuel Economy)	16.88469	16.88469
METHANE (CH4 - Methane)	0.01801	--
CO (Carbon Monoxide)	0.61134	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.2588	--
DT-EER (Drive Trace Energy Economy Rating)	-0.0183	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.8996	--
MFR FE (Manufacturer Fuel Economy)	15	15
NOX (Nitrogen Oxide)	0.038132	--
N2O (Nitrous Oxide)	0.01	--
HC-NM (Non-methane Hydrocarbon)	0.1049	--
NMOG (Non-methane organic gases)	0.109134	--
HC-TOTAL (Total Hydrocarbon)	0.12416	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	578	--

Certification Summary Information Report

Test Group	TFMXT03.51F1	Evaporative/Refueling Family	TFMXR0295LDG

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	577.30936	--

Manufacturer Test Comments --

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	50,000 miles	Federal Tier 3 Bin 50	CO	0.61	--	--	--	--	--	0.6	12.5	Pass
Fed	120,000 miles	Federal Tier 3 Bin 50	HC-NM	0.10	--	--	--	--	--	0.1	0.4	Pass
CA	50,000 miles	California LEV-III ULEV50	CO	0.61	--	--	--	--	--	0.6	12.5	Pass

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Test #	**SFMX10086932**	**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	06/27/2024	**Fuel**	Gasoline
Fuel Batch ID	373-B	**Fuel Calibration Number**	88
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	3945	**Odometer Units**	M
4WD Test Dyno	Yes	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	481.03183	--
FE BAG 1 (Bag 1 Fuel Economy)	18.11638	18.11638
CO2 BAG 2 (Bag 2 Carbon Dioxide)	445.81934	--
FE BAG 2 (Bag 2 Fuel Economy)	19.55757	19.55757
METHANE (CH4 - Methane)	0.00555	--
CO (Carbon Monoxide)	0.13582	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.35	--
DT-EER (Drive Trace Energy Economy Rating)	-0.18	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.14	--
HCHO (Formaldehyde)	0.000239	--
MFR FE (Manufacturer Fuel Economy)	18.9	18.9
NOX (Nitrogen Oxide)	0.010249	--
N2O (Nitrous Oxide)	0.00016	--
HC-NM (Non-methane Hydrocarbon)	0.0071	--
NMOG (Non-methane organic gases)	0.007368	--
PM (Particulate Matter)	0.001039	--
HC-TOTAL (Total Hydrocarbon)	0.01228	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	461	999

Certification Summary Information Report

Test Group TFMXT03.51F1 **Evaporative/Refueling Family** TFMXR0295LDG

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	460.96071	--

Manufacturer Test Comments --

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NMHC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 50	CO	0.14	--	--	--	--	--	0.1	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	CO-COMP	0.09	--	--	--	--	--	0.1	4.2	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	CREE	999	--	--	--	0	--	999	--	--
Fed	150,000 miles	Federal Tier 3 Bin 50	HCHO	0.0002	--	--	--	--	--	0.000	0.004	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	METHANE	0.0056	--	--	--	--	--	0.006	0.030	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	N2O	0.0002	--	--	--	--	--	0.000	0.010	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0074	--	1.1	--	--	--	0.007	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0176	--	--	--	--	--	0.018	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX-COMP	0.0223	--	--	--	--	--	0.022	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0102	--	--	--	--	--	0.010	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	PM	0.0010	--	--	--	--	--	0.001	0.003	Pass
CA	150,000 miles	California LEV-III ULEV50	CO	0.14	--	--	--	--	--	0.1	1.7	Pass
CA	150,000 miles	California LEV-III ULEV50	CO-COMP	0.09	--	--	--	--	--	0.1	4.2	Pass
CA	150,000 miles	California LEV-III ULEV50	HCHO	0.0002	--	--	--	--	--	0.000	0.004	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG	0.0074	--	1.1	--	--	--	0.007	999.999	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG+NOX	0.0176	--	--	--	--	--	0.018	0.050	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG+NOX-COMP	0.0223	--	--	--	--	--	0.022	0.050	Pass
CA	150,000 miles	California LEV-III ULEV50	NOX	0.0102	--	--	--	--	--	0.010	999.999	Pass
CA	150,000 miles	California LEV-III ULEV50	PM	0.0010	--	--	--	--	--	0.001	0.003	Pass

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

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Test #	**SFMX91005985**	**Test Procedure**	**3 - HWFE**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	07/31/2024	**Fuel**	Gasoline
Fuel Batch ID	28637	**Fuel Calibration Number**	1
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	4117	**Odometer Units**	M
4WD Test Dyno	Yes	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.001329	--
CO (Carbon Monoxide)	0.0092313	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	4.3275576	--
DT-EER (Drive Trace Energy Economy Rating)	0.0166088	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	6.3118238	--
MFR FE (Manufacturer Fuel Economy)	26.785244	--
NOX (Nitrogen Oxide)	0.0022687	--
N2O (Nitrous Oxide)	0	--
HC-NM (Non-methane Hydrocarbon)	0.0000405	--
NMOG (Non-methane organic gases)	0.0000417	--
HC-TOTAL (Total Hydrocarbon)	0.0013509	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	9999.9999999	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	323.725647	--

Manufacturer Test Comments None

Certification Summary Information Report

Test Group TFMXT03.51F1 **Evaporative/Refueling Family** TFMXR0295LDG

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 50	CREE	999	--	--	--	0	--	999	--	--
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0000	--	1.03	--	--	--	0.000	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0023	--	--	--	--	--	0.002	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0023	--	--	--	--	--	0.002	999.999	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG	0.0000	--	1.03	--	--	--	0.000	999.999	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG+NOX	0.0023	--	--	--	--	--	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	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Test #	**SFMX91005984**	**Test Procedure**	**90 - US06**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)
Test Date	07/31/2024	**Fuel**	N/A
Fuel Batch ID	28637	**Fuel Calibration Number**	1
Vehicle Class	N/A	**DF Type**	Mfr. Determined
Verify Test Lab ID	--		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4142	**Odometer Units**	M
4WD Test Dyno	Yes	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	737.4973755	--
FE BAG 1 (Bag 1 Fuel Economy)	999	--
CO2 BAG 2 (Bag 2 Carbon Dioxide)	402.1809082	--
FE BAG 2 (Bag 2 Fuel Economy)	999	--
METHANE (CH4 - Methane)	0.0094267	--
CO (Carbon Monoxide)	0.1116491	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.5176582	--
DT-EER (Drive Trace Energy Economy Rating)	-1.3996508	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-2.6785178	--
MFR FE (Manufacturer Fuel Economy)	999	--
NOX (Nitrogen Oxide)	0.033608	--
N2O (Nitrous Oxide)	0.0105971	--
HC-NM (Non-methane Hydrocarbon)	0.0158862	--
NMOG (Non-methane organic gases)	0.0163628	--
HC-TOTAL (Total Hydrocarbon)	0.0251809	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	477.2978516	--

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

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Test #	**SFMX10086934**	**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	06/28/2024	**Fuel**	N/A
Fuel Batch ID	373-B	**Fuel Calibration Number**	88
Vehicle Class	N/A	**DF Type**	Mfr. Determined
Verify Test Lab ID	APTL		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3996	**Odometer Units**	M
4WD Test Dyno	Yes	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.00696	--
CO (Carbon Monoxide)	0.03149	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.7037	--
DT-EER (Drive Trace Energy Economy Rating)	-0.1713	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.8558	--
MFR FE (Manufacturer Fuel Economy)	19	19
NOX (Nitrogen Oxide)	0.003672	--
HC-NM (Non-methane Hydrocarbon)	0.0021	--
NMOG (Non-methane organic gases)	0.002223	--
HC-TOTAL (Total Hydrocarbon)	0.00958	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	458	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	457.83177	--

Manufacturer Test Comments --

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Fuel Properties

Fuel Batch ID	**373-B**	**Fuel Calibration Number**	**88**
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	**Fuel Batch Calibration Date**	06/25/2024
Fuel Batch Calibration Effective Date	06/25/2024	**Fuel Batch Calibration Ineffective Date**	12/31/2100
Carbon Weight Fraction NMHC	--	**Carbon Weight Fraction HC**	--
Exhaust Carbon Weight Fraction	--	**Fuel Methanol Volume Fraction**	--
Fuel Density (grams/cubic ft)	--	**Fuel Specific Gravity**	0.752
Fuel Ethanol Volume Percent (%)	9.8	**Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)**	17872
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	**Fuel Carbon Mass Fraction (E10)**	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.828	**Weight Fraction CO2**	--
Fuel Batch ID	**28637**	**Fuel Calibration Number**	**1**
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	**Fuel Batch Calibration Date**	08/26/2021
Fuel Batch Calibration Effective Date	08/26/2021	**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**	0.75
Fuel Ethanol Volume Percent (%)	9.6	**Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)**	17894
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	**Fuel Carbon Mass Fraction (E10)**	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.825	**Weight Fraction CO2**	--
Fuel Batch ID	**375-B**	**Fuel Calibration Number**	**54**
Test Fuel Type	28 - Cold CO E10 Regular Gasoline (Tier 3)	**Fuel Batch Calibration Date**	06/28/2024
Fuel Batch Calibration Effective Date	06/28/2024	**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 (%)	9.5	**Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)**	17918
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	**Fuel Carbon Mass Fraction (E10)**	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.828	**Weight Fraction CO2**	--
Fuel Batch ID	**373-B**	**Fuel Calibration Number**	**49**
Test Fuel Type	48 - Tier 3 E10 Regular Gasoline (9 RVP @Low Alt.)	**Fuel Batch Calibration Date**	01/30/2020
Fuel Batch Calibration Effective Date	01/30/2020	**Fuel Batch Calibration Ineffective Date**	12/31/2100

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG
Carbon Weight Fraction NMHC	--	**Carbon Weight Fraction HC**	--
Exhaust Carbon Weight Fraction	--	**Fuel Methanol Volume Fraction**	--
Fuel Density (grams/cubic ft)	--	**Fuel Specific Gravity**	0.751
Fuel Ethanol Volume Percent (%)	9.5	**Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)**	17945
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	**Fuel Carbon Mass Fraction (E10)**	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.829	**Weight Fraction CO2**	--

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Consolidated List of Standards

Exhaust Standards

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	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	Federal Tier 3 Bin 50
Fuel	Gasoline	**Test Procedure**	HWFE

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CREE	--	--	--	--	--	--	0	999.999
150,000 miles	NMOG	--	--	1.03	--	--	--	--	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.050
150,000 miles	NOX	--	--	--	--	--	--	--	999.999
150,000 miles	OPT-CREE	--	--	--	--	--	--	0	999.999

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG
Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	Federal Tier 3 Bin 50
Fuel	Gasoline	**Test Procedure**	Federal fuel 2-day exhaust (w/can load)

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	--	1.7
150,000 miles	CO-COMP	--	--	--	--	--	--	--	4.2
150,000 miles	CREE	--	--	--	--	--	--	0	999.999
150,000 miles	HCHO	--	--	--	--	--	--	--	0.004
150,000 miles	METHANE	--	--	--	--	--	--	--	0.030
150,000 miles	N2O	--	--	--	--	--	--	--	0.010
150,000 miles	NMOG	--	--	1.1	--	--	--	--	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.050
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	--	0.050
150,000 miles	NOX	--	--	--	--	--	--	--	999.999
150,000 miles	OPT-CREE	--	--	--	--	--	--	0	999.999
150,000 miles	PM	--	--	--	--	--	--	--	0.003

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	California LEV-III ULEV50
Fuel	Gasoline	**Test Procedure**	Federal fuel 2-day exhaust (w/can load)

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	--	1.7
150,000 miles	CO-COMP	--	--	--	--	--	--	--	4.2
150,000 miles	HCHO	--	--	--	--	--	--	--	0.004
150,000 miles	NMOG	--	--	1.1	--	--	--	--	999.999
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.050
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	--	0.050
150,000 miles	NOX	--	--	--	--	--	--	--	999.999
150,000 miles	PM	--	--	--	--	--	--	--	0.003

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG
Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	California LEV-III ULEV50
Fuel	Gasoline	**Test Procedure**	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

Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	Federal Tier 3 Bin 50
Fuel	Gasoline	**Test Procedure**	Cold CO

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
50,000 miles	CO	--	--	--	--	--	--	--	12.5
120,000 miles	HC-NM	--	--	--	--	--	--	--	0.4

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

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	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Evaporative/Refueling Standards

Evaporative/Refueling Family	TFMXR0295LDG	**Cert Region**	California + CAA Section 177 states
Cert/In-Use Code	Both	**Standard Level**	California LEV-III Zero Evap (Option 2)
Test Procedure	Federal Fuel Running Loss		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	OMHCE	--	0.05	0.000

Evaporative/Refueling Family	TFMXR0295LDG	**Cert Region**	Federal
Cert/In-Use Code	Both	**Standard Level**	Federal Tier 3 Evap
Test Procedure	Federal fuel refueling test (ORVR)		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.20	0.003

Evaporative/Refueling Family	TFMXR0295LDG	**Cert Region**	Federal
Cert/In-Use Code	Both	**Standard Level**	Federal Tier 3 Evap
Test Procedure	Federal Fuel Running Loss		

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

Evaporative/Refueling Family	TFMXR0295LDG	**Cert Region**	California + CAA Section 177 states
Cert/In-Use Code	Both	**Standard Level**	California LEV-III Zero Evap (Option 2)
Test Procedure	Federal fuel 3-day evap		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	OMHCE	--	0.500	0.0028

Evaporative/Refueling Family	TFMXR0295LDG	**Cert Region**	California + CAA Section 177 states
Cert/In-Use Code	Both	**Standard Level**	California LEV-III Zero Evap (Option 2)
Test Procedure	2-day evap		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	OMHCE	--	0.500	0.0028

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Evaporative/Refueling Family	TFMXR0295LDG	**Cert Region**	Federal
Cert/In-Use Code	Both	**Standard Level**	Federal Tier 3 Evap
Test Procedure	2-day evap		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.500	0.0028

Evaporative/Refueling Family	TFMXR0295LDG	**Cert Region**	Federal
Cert/In-Use Code	Both	**Standard Level**	Federal Tier 3 Evap
Test Procedure	Federal fuel 3-day evap		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.500	0.0028

Evaporative/Refueling Family	TFMXR0295LDG	**Cert Region**	California + CAA Section 177 states
Cert/In-Use Code	Both	**Standard Level**	California LEV-III Zero Evap (Option 2)
Test Procedure	Federal fuel refueling test (ORVR)		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	OMHCE	--	0.20	0.003

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG

Glossary

Useful Life

4	4,000 miles	120	120,000 miles
50	50,000 miles	150	150,000 miles
100	100,000 miles		

Emission Name

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

Certification Region

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG
CA	California + CAA Section 177 states	FA	Federal

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

Certification Summary Information Report

Test Group	TFMXT03.51F1	**Evaporative/Refueling Family**	TFMXR0295LDG
L3SULEV170	California LEV-III SULEV170	L4ULEV200	California LEV-IV ULEV200
L3SULEV150	California LEV-III SULEV150	L4ULEV250	California LEV-IV ULEV250
L3LEV630	California LEV-III LEV630	L4ULEV270	California LEV-IV ULEV270
L3ULEV570	California LEV-III ULEV570	L4ULEV40	California LEV-IV ULEV40
L3ULEV400	California LEV-III ULEV400	L4ULEV400	California LEV-IV ULEV400
L3ULEV270	California LEV-III ULEV270	L4ULEV50	California LEV-IV ULEV50
L3SULEV230	California LEV-III SULEV230	L4ULEV60	California LEV-IV ULEV60
L3SULEV200	California LEV-III SULEV200	L4ULEV70	California LEV-IV ULEV70

Transmission Type Code			
AMS	Automated Manual- Selectable (e.g. Automated Manual with paddles)	M	Manual
A	Automatic	OT	Other
AM	Automated Manual	SA	Semi-Automatic
CVT	Continuously Variable	SCV	Selectable Continuously Variable (e.g. CVT with paddles)

Drive System Code			
4	4-Wheel Drive	P	Part-time 4-Wheel Drive
F	2-Wheel Drive, Front	A	All Wheel Drive
R	2-Wheel Drive, Rear		

Additional Terms and Acronyms			
AFC	Alternative Fuel Converter	ICI	Independent Commercial Importer
CSI	Certificate Summary Information	ORVR	Onboard Refueling Vapor Recovery
DF	Deterioration Factor	SIL	Shift Indicator Light
Evap	Evaporation, Evaporative	Trans	Transmission

SECTION 8

Emission Testing Waiver Statements

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

SECTION 8

Emission Testing Waiver Statements and Statements of Compliance

Statement of Compliance for test group TFMXT03.51F1

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.

SECTION 12

Description of Vehicles Covered by Certificate and Testing Parameters

Common Family Parameters – Test Group: TFMXT03.51F1

Vehicle Program:

Test Group Information	
Vehicle/Engine Class	LDT4
Vehicle Fuel Category	*Hybrid*
Operating Fuel 1	*Gas*

Engine Displacement (liters)	3.5L Full Hybrid
Total System HP @ RPM (91 Ron)	430 hp @ 6000 RPM
Total System Torque lb-ft @ RPM (91 Ron)	570 lb-ft @ 3000 RPM

Emission Control System:	
Air Aspiration Method*	*Turbocharged (TC)*
Charge Air Cooler Type* (TG-51)	*Air*
Exhaust Gas Recirculation (EGR)*	Yes
Cooled EGR *	Yes
Air injection Type (AIR)*	NA=Not applicable
After-Treatment Type *	TWC
Fuel Metering System *	Gasoline Direct (GDI)
	Sequential Fuel (SFI)
Heated oxygen sensor (HO_2S)*	YES
Heated Air/Fuel Sensor or WR oxygen sensor (AFS/WR-HO2S)*	YES
Feedback Sensor Configuration	WR-HO2S, HO2S

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

*** VECI label item**

Calibration Descriptions – TFMXT03.51F1

Cert Code / Calibration	Evaporative Family	Application	Transmission	Vehicle
TTFDCNNJ0002/TTFDCNNA05	TFMXR0295LDG	50S	10R80MHT	3.5L F150 FHEV
TTFDCNNK0002/TTFDCNNA05				
TTFDCNNL0002/TTFDCNNA05				
TTFDCNNN0002/TTFDCNNA05				
TTFDCNNP0002/TTFDCNNA05				
TTFDCNNJ0003/TTFDCNNA06				
TTFDCNNK0003/TTFDCNNA06				
TTFDCNNL0003/TTFDCNNA06				
TTFDCNNN0003/TTFDCNNA06				
TTFDCNNP0003/TTFDCNNA06				
TTFDCNNR0003/TTFDCNNA06				
TTFDCNNS0003/TTFDCNNA06				
TTFDCNNT0003/TTFDCNNA06				
TTFDCNNV0003/TTFDCNNA06				
TTFDCNNW0000/TTFDCNNA06				
TTFDCNNX0000/TTFDCNNA06				
TTFDCNNY0000/TTFDCNNA06				
TTFDCNN10000/TTFDCNNA06				
TTFDCNN20000/TTFDCNNA06				
TTFDCNN30000/TTFDCNNA06				
TTFDCNN40000/TTFDCNNA06				
TTFDCNN50000/TTFDCNNA06				
TTFDCNN60000/TTFDCNNA06				
TTFDCNNJ0004/TTFDCNNA07				
TTFDCNNK0004/TTFDCNNA07				
TTFDCNNL0004/TTFDCNNA07				
TTFDCNNN0004/TTFDCNNA07				
TTFDCNNP0004/TTFDCNNA07				
TTFDCNNW0001/TTFDCNNA10				
TTFDCNNX0001/TTFDCNNA10				
TTFDCNNY0001/TTFDCNNA10				
TTFDCNN10001/TTFDCNNA10				
TTFDCNN20001/TTFDCNNA10				
TTFDCNN30001/TTFDCNNA10				
TTFDCNN40001/TTFDCNNA10				
TTFDCNN50001/TTFDCNNA10				
TTFDCNN60001/TTFDCNNA10				
TTFDCNNJ0005/TTFDCNNA10				
TTFDCNNK0005/TTFDCNNA10				
TTFDCNNL0005/TTFDCNNA10				
TTFDCNNN0005/TTFDCNNA10				
TTFDCNNP0005/TTFDCNNA10				

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

Potential Idle/Drive Speed Modifier	Function Utilized (Y/N)	Purpose
Low or high air charge temperature	N	Heater, A/C or engine cooling performance
Low catalyst temperature	N	Achieve/maintain light off
Low engine coolant temperature	N	Combustion stability
Low or high ambient temperature	Y	Heater or A/C performance
High transmission oil temperature	N	Ensure adequate fluid pressure
Low battery voltage	N	Avoid stalling or no-start
High Alternator load	N	Preserve battery life and avoid low voltage

High-speed fan operation	N	For engine and A/C condenser cooling
Extended neutral idle time	N	Maintain catalyst temperature
Power steering pressure	N	Ensure adequate P/S assistance
High Altitude	N	Maintain air mass flow to avoid stalling
Alternate calibration	Y	Avoid spark plug fouling during plant/dealer handling
Drive Speed Control or Shift Delay	Y	Increase engine speed to improve cabin heating or cooling
Heated Windshield	N	Maintain charging margin
ETC Failure	N	Electronic Throttle Failure Min RPM
A/C Adder (50RPM)	N	NVH Improvement
High auxiliary loads	Y	Belt tensioner durability on BiSG and HV Motor cooling
Eco Idle Feature (Park/Neutral)	Y	Raise idle speed to reduce fuel consumption and engine off time during Park/Neutral state

Emission Component	Sensed Parameter	Controlled Parameter	Justification[1]	Calibration
ELECTRONICS – PCM[2]				
FUEL				
Fuel Injector (DI)	Signal from PCM	Fuel Flow	N/A	Static Flow Rate: 821 g/min
Fuel Injector (PFI)	Signal from PCN	Fuel Flow	N/A	Static Flow Rate: 128 g/min
Fuel Pressure (DI)	Signal from PCM	Fuel Pressure	N/A	250 bar (25 MPa)
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	169 lph @ 12.0V/520kpa
Torque Based Electronic Throttle Control	Signal from PCM	None	Operates in FTP	Throttle Diameter: 68 mm
Fuel System Control Strategy[2]				
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"
CRANKCASE				
Crankcase Ventilation Oil	Manifold Vacuum	Air Flow to Engine	Operates in FTP	EV#:298

Separator Assembly				2.55-3.75 SCFM @ 3" Hg 2.00-3.20 SCFM @ 8" Hg 0.85-1.65 SCFM @ 15" Hg
Crankcase Ventilation Oil Separator Assembly – Not Heated	Ambient Temp Battery Voltage	PCV Heating	Vehicle Safety	N/A

Emission Component	Sensed Parameter	Controlled Parameter	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"
ENGINE COOLING				
Thermostat	Coolant Temperature	Coolant Flow	Engine Protection	Start to Open: 90.6 °C

1 – Justification provided for AECD systems (i.e. sense operating conditions and control the function of an emission component) and not for the individual components.
2 – See Section 16.05 for Strategy Control Systems descriptions
3 – "FTP" represents all tests required for certification
* – indicates that ending characters on some parameter names may vary

2026MY 3.5L F150 FHEV
Exhaust Emissions Parts List TFMXT03.51F1

Vehicle	Certification Level	Certification Code	Calibration	ECM -12A650-	HPCM1[1] -7P120-	BSCM[2] -2C219-	BECM[4] -10B687-	Date
F150	INI	TTFDCNNJ0002 TTFDCNNK0002 TTFDCNNL0002 TTFDCNNN0002 TTFDCNNP0002	TTFDCNNA05	PTL3A-AAC	PTL38-MB	TL34-AD	ML38-AH	08/07/2025
F150	INI	TTFDCNNJ0003 TTFDCNNK0003 TTFDCNNL0003 TTFDCNNN0003 TTFDCNNP0003	TTFDCNNA06	PTL3A-AAD	PTL38-MB	TL34-AD	ML38-AH	09/08/2025
F150	RC1	TTFDCNNR0003 TTFDCNNS0003 TTFDCNNT0003 TTFDCNNV0003	TTFDCNNA06	PTL3A-AAD	PTL38-MB	TL34-AD	ML38-AH	10/22/2025
		TTFDCNNW0000 TTFDCNNX0000 TTFDCNNY0000 TTFDCNN10000 TTFDCNN20000 TTFDCNN30000 TTFDCNN40000 TTFDCNN50000 TTFDCNN60000	TTFDCNNA06	PTL3A-AAD	PTL38-MB	TL34-AD	ML38-AH	12/04/2025
		TTFDCNNJ0004 TTFDCNNK0004 TTFDCNNL0004 TTFDCNNN0004 TTFDCNNP0004	TTFDCNNA07	PTL3A-AAD	PTL38-MB	TL34-AD	ML38-AH	11/10/2025
F150	RC2	TTFDCNNW0001 TTFDCNNX0001 TTFDCNNY0001 TTFDCNN10001 TTFDCNN20001 TTFDCNN30001 TTFDCNN40001 TTFDCNN50001 TTFDCNN60001	TTFDCNNA10	PTL3A-AAF	PTL38-MC	TL34-AE	ML38-AH	1/15/2026
		TTFDCNNJ0005 TTFDCNNK0005 TTFDCNNL0005 TTFDCNNN0005 TTFDCNNP0005				TL34-AD	ML38-AH	

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

Part Name	Part Number
Catalyst	RL34-5E214-DF
Catalyst	RL34-5G218-DF
Battery Pack	ML38-10B759-AM
Charge Air Cooler	ML34-6K775-CA
PCV	KR3E-6A666-BA
Camshaft Variable Timing Solenoid	HL3E-6B297-DD
Crankshaft Position Sensor	RL3A-6C315-AB
Cylinder Head Temperature Sensor	P2GA-6G004-AC
Turbo Charger	RL3E-6C879-BD RL3E-6K682-BD
EGR Module Asy	RL3E-9Y456-BB RL3E-9Y456-CA (Alt.)
EGR Cooler	ML3E-9R442-AF
EGR Cold Tube with Orifice	ML3E-9E470-AD

EGR Temp Sensor	KA1A-9U498-AB
Fuel Pump (High Pressure):	ML3E-9D376-AA
PFI Fuel Injectors (6):	ML3E-9F593-BA
DI Fuel Injectors (6):	ML3E-9G929-AA
Electronic Throttle Body	HL3E-9F991-AA
Fuel Pressure Sensor (Low Pressure):	P2GE-9F972-BA P2GE-9F972-BB (Alt.
Fuel Pressure Sensor (High Pressure):	K2GE-9F972-BA K2GE-9F972-AA (Alt.)
Fuel Pump (Low Pressure):	ML34-9350-SA
Camshaft Position Sensor	BL31-12K073-BC RL3A-12K073-AB (Alt.)
Intake Air Temperature Sensor (IAT)	DS7A-12A697-AA
UEGO	RL3A-9Y460-BC RL3A-9Y460-CC
CMS	RL3A-9G444-EC RL3A-9G444-HA

1. HPCM: Hybrid Powertrain Control Module Assembly
2. BSCM: Brake System Control Module Assembly
3. BSCM CAL: Brake System Control Module Calibration
4. BECM: Battery Electric Control Module Assembly

SECTION 12.00.05.00 -- 2026 TEST VEHICLE REQUIREMENTS

Selection	CAP 2000 Exhaust Data Vehicle	Evaporative Emission Data Vehicle
Test Group	SFMXT03.51F1	PFMXT03.51F1
Evaporative Emission Family	SFMXR0295LDG	PFMXR0295LDG
Engine Displacement	3.5L Hybrid	3.5L Hybrid
Engine Code	STFDCNNA01	MTFDCNNB00
Catalyst Code	See Section 2.	See Section 2.
Exhaust Control System	TWC/WR-HO2S/HO2S/TC/CAC/EGR/EGRC/DFI/SFI	TWC/WR-HO2S/HO2S/TC/CAC/EGR/EGRC/DFI/SFI
Model	F150	F150
Transmission	10R80 MHT	10R80 MHT
Shift Schedule	NA	NA
Equivalent Test Weight	6000	6000
THP	19.7	22.2
Target	F0: 36.08, F1: 0.58, F2: 0.03296	F0: 55.69, F1: 0.2272, F2: 0.03972
Dyno Coeff	A: -23.95, B: 0.378, C: 0.02999 (AWD Dyno)	A: 9.53, B: -0.11697, C: 0.03797 (AWD Dyno) A: 39.35, B: -0.07513, C: 0.03 (2WD Dyno All EVAP)
Axle Ratio	3.73	3.73
N/V Ratio (rpm/mph)	25.3	25.3
Tires	LT265/70/R18	LT265/70/R18
Drive Mode Used	Sport	Sport
Actual Test Vehicle	Tailpipe	Evaporative Emission
Model Year	2025	2021
Engine Family	SFMXT03.51F1	MFMXT03.51F1
Vehicle ID Number	SFD1-3.5-J-057	MFD1-3.5-J-945
Configuration	00	00
Test Performed	City, Hwy, US06, SC03 & Cold CO	2 Day EVAP, 3 Day EVAP ERL, ORVR
Fan/Location	RSM	RSM

Vehicle Description Report

Test Group: TFMXT03.51F1

ID Number	5292879	5292949	5292889	5292959	5292899	5292969	5292900	5292970
Displacement	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Cert Code	TTFDCNNJ0002	TTFDCNNJ0003	TTFDCNNK0002	TTFDCNNK0003	TTFDCNNL0002	TTFDCNNL0003	TTFDCNNN0002	TTFDCNNN0003
Fuel Tank(s)	F8	F8	F8	F8	F8	F8	F8	F8
Carline	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV
Wheel Configuration	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Body Style	Super Crew	Super Crew	Super Crew	Super Crew	Super Crew	Super Crew	Super Crew	Super Crew
Wheelbase	145.0	145.0	145.0	145.0	145.0	145.0	157.0	157.0
Transcode Combo	GCC	GCC	GCC	GCC	GCC	GCC	GCC	GCC
Curb Weight	5869	5869	5869	5869	5869	5869	5883	5883
ETW	6000	6000	6000	6000	6000	6000	6000	6000
Loaded Weight LVW	6169	6169	6169	6169	6169	6169	6183	6183
ALVW-ETW	6500	6500	6500	6500	6500	6500	6500	6500
Adj. Loaded Weight	6634	6634	6634	6634	6634	6634	6642	6642
GVWR	7400	7400	7400	7400	7400	7400	7400	7400
GCWR	17100	17100	17100	17100	17100	17100	18400	18400
Min Axle Ratio	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73
Max Axle Ratio	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73
Min N/V Ratio	25.3	25.3	25.0	25.0	25.1	25.1	25.3	25.3
Max N/V Ratio	26.1	26.1	25.0	25.0	25.1	25.1	26.1	26.1
Emission Vehicle Class	LDT4	LDT4	LDT4	LDT4	LDT4	LDT4	LDT4	LDT4
Drive Code	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive
Trans Type	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	265/70R17 - 26.1	265/70R17 - 26.1	275/60R20 - 25	275/60R20 - 25	275/50R22 - 25.1	275/50R22 - 25.1	265/70R17 - 26.1	265/70R17 - 26.1
Max Tire Size	LT265/70R18 - 25.3	LT265/70R18 - 25.3	275/60R20 - 25	275/60R20 - 25	275/50R22 - 25.1	275/50R22 - 25.1	LT265/70R18 - 25.3	LT265/70R18 - 25.3
Alt Tire 1	275/65R18 - 25.7	275/65R18 - 25.7					LT265/70R17 - 26.1	LT265/70R17 - 26.1
Alt Tire 2	LT265/70R17 - 26.1	LT265/70R17 - 26.1					275/65R18 - 25.7	275/65R18 - 25.7
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								
DAW Full Tank	2522	2522	2522	2522	2522	2522	2460	2460
DAW Empty Tank	2400	2400	2400	2400	2400	2400	2348	2348

Vehicle Description Report

Test Group: TFMXT03.51F1

ID Number	5292907	5292977
Displacement	3.5	3.5
Cert Code	TTFDCNNP0002	TTFDCNNP0003
Fuel Tank(s)	F8	F8
Carline	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV
Wheel Configuration	Standard	Standard
Body Style	Super Crew	Super Crew
Wheelbase	157.0	157.0
Transcode Combo	GCC	GCC
Curb Weight	5883	5883
ETW	6000	6000
Loaded Weight LVW	6183	6183
ALVW-ETW	6500	6500
Adj. Loaded Weight	6642	6642
GVWR	7400	7400
GCWR	18400	18400
Min Axle Ratio	3.73	3.73
Max Axle Ratio	3.73	3.73
Min N/V Ratio	25.0	25.0
Max N/V Ratio	25.0	25.0
Emission Vehicle Class	LDT4	LDT4
Drive Code	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive
Trans Type	Semi-Automatic	Semi-Automatic
Calibration Application	50ST	50ST
Min Tire Size	275/60R20 - 25	275/60R20 - 25
Max Tire Size	275/60R20 - 25	275/60R20 - 25
Alt Tire 1		
Alt Tire 2		
Alt Tire 3		
Alt Tire 4		
Alt Tire 5		
Alt Tire 6		
Alt Tire 7		
DAW Full Tank	2460	2460
DAW Empty Tank	2348	2348

Vehicle Description Report

Test Group: TFMXT03.51F1

ID Number	5298823	5298833	5298843	5298844	5298851
Displacement	3.5	3.5	3.5	3.5	3.5
Cert Code	TTFDCNNJ0004	TTFDCNNK0004	TTFDCNNL0004	TTFDCNNN0004	TTFDCNNP0004
Fuel Tank(s)	F8	F8	F8	F8	F8
Carline	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV
Wheel Configuration	Standard	Standard	Standard	Standard	Standard
Body Style	Super Crew	Super Crew	Super Crew	Super Crew	Super Crew
Wheelbase	145.0	145.0	145.0	157.0	157.0
Transcode Combo	GCC	GCC	GCC	GCC	GCC
Curb Weight	5869	5869	5869	5883	5883
ETW	6000	6000	6000	6000	6000
Loaded Weight LVW	6169	6169	6169	6183	6183
ALVW-ETW	6500	6500	6500	6500	6500
Adj. Loaded Weight	6634	6634	6634	6642	6642
GVWR	7400	7400	7400	7400	7400
GCWR	17100	17100	17100	18400	18400
Min Axle Ratio	3.73	3.73	3.73	3.73	3.73
Max Axle Ratio	3.73	3.73	3.73	3.73	3.73
Min N/V Ratio	25.3	25.0	25.1	25.3	25.0
Max N/V Ratio	26.1	25.0	25.1	26.1	25.0
Emission Vehicle Class	LDT4	LDT4	LDT4	LDT4	LDT4
Drive Code	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive
Trans Type	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic
Calibration Application	50ST	50ST	50ST	50ST	50ST
Min Tire Size	265/70R17 - 26.1	275/60R20 - 25	275/50R22 - 25.1	265/70R17 - 26.1	275/60R20 - 25
Max Tire Size	LT265/70R18 - 25.3	275/60R20 - 25	275/50R22 - 25.1	LT265/70R18 - 25.3	275/60R20 - 25
Alt Tire 1	275/65R18 - 25.7			LT265/70R17 - 26.1	
Alt Tire 2	LT265/70R17 - 26.1			275/65R18 - 25.7	
Alt Tire 3					
Alt Tire 4					
Alt Tire 5					
Alt Tire 6					
Alt Tire 7					
DAW Full Tank	2522	2522	2522	2460	2460
DAW Empty Tank	2400	2400	2400	2348	2348

Vehicle Description Report

Test Group: TFMXT03.51F1

ID Number	5298643	5298650	5298656	5298657	5293290	5293338
Displacement	3.5	3.5	3.5	3.5	3.5	3.5
Cert Code	TTFDCNNR0003	TTFDCNNS0003	TTFDCNNT0003	TTFDCNNV0003	TTFDCNNK0002	TTFDCNNK0003
Fuel Tank(s)	F8	F8	F8	F8	F8	F8
Carline	F150 PICKUP 2WD HEV	F150 PICKUP 2WD HEV	F150 PICKUP 2WD HEV	F150 PICKUP 2WD HEV	F150 PICKUP 4WD HEV	F150 PICKUP 4WD HEV
Wheel Configuration	Standard	Standard	Standard	Standard	Standard	Standard
Body Style	Super Crew	Super Crew	Super Crew	Super Crew	Super Crew	Super Crew
Wheelbase	145.0	145.0	145.0	157.0	145.0	145.0
Transcode Combo	GCC	GCC	GCC	GCC	GCC	GCC
Curb Weight	5591	5591	5591	5559	5869	5869
ETW	6000	6000	6000	6000	6000	6000
Loaded Weight LVW	5891	5891	5891	5859	6169	6169
ALVW-ETW	6500	6500	6500	6500	6500	6500
Adj. Loaded Weight	6496	6496	6496	6480	6634	6634
GVWR	7400	7400	7400	7400	7400	7400
GCWR	17100	17100	17100	17100	18400	18400
Min Axle Ratio	3.55	3.55	3.55	3.55	3.73	3.73
Max Axle Ratio	3.55	3.55	3.55	3.55	3.73	3.73
Min N/V Ratio	24.0	23.8	23.9	24.8	25.0	25.0
Max N/V Ratio	25.7	23.8	23.9	25.7	25.0	25.0
Emission Vehicle Class	LDT4	LDT4	LDT4	LDT4	LDT4	LDT4
Drive Code	2-Wheel Drive, Rear	2-Wheel Drive, Rear	2-Wheel Drive, Rear	2-Wheel Drive, Rear	Part-time 4-Wheel Drive	Part-time 4-Wheel Drive
Trans Type	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic	Semi-Automatic
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	245/70R17 - 25.7	275/60R20 - 23.8	275/50R22 - 23.9	245/70R17 - 25.7	275/60R20 - 25	275/60R20 - 25
Max Tire Size	LT265/70R18 - 24	275/60R20 - 23.8	275/50R22 - 23.9	LT265/70R17 - 24.8	275/60R20 - 25	275/60R20 - 25
Alt Tire 1	LT265/70R17 - 24.8					
Alt Tire 2	265/60R18 - 25.7					
Alt Tire 3						
Alt Tire 4						
Alt Tire 5						
Alt Tire 6						
Alt Tire 7						
DAW Full Tank	2459	2459	2459	2381	2522	2522
DAW Empty Tank	2338	2338	2338	2269	2400	2400

SECTION 14

Request for Certification

Environmental & Safety Compliance

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

September 23rd, 2025

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

Dear Ms. Frame:

Ford Motor Company (Ford) herewith submits Part I Application for Certification for the 2026 model year full hybrid electric gasoline powered light-duty (LDT) contained in Ford's 50-State (Federal/CA) test group TFMXT03.51F1 and evaporative emission family TFMXR0295LDG. The test fuel used was Tier 3 E10.

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

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

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

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

This test group also meets the CH_4 standard of 0.030 g/mi and the N_2O standard of 0.010 g/mi for the FTP.

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

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

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

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

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

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

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

Sincerely,

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

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

Environmental & Safety Compliance

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

September 23rd, 2025

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

Dear Ms. Lang:

Ford Motor Company (Ford) herewith submits Part I Application for Certification for the 2026 model year full hybrid electric gasoline powered light-duty (LDT) contained in Ford's 50-State (Federal/CA) test group TFMXT03.51F1 and evaporative emission family TFMXR0295LDG. The test fuel used was Tier 3 E10. This application aligns with CARB's Manufacturers Advisory Correspondence (MAC) ECCD-2025-8 alternate pathway (1) described on page 2 as follows:

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

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

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

Certification & In-use FTP Standards (g/mi)	**Useful Life**	**NMOG + NO_x**	**CO**	**PM**	**US06 PM**	**HCHO**
LEVIII ULEV50	150K	0.050	1.7	0.003	0.006	0.004

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

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

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

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

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

This Part I application for certification has been prepared in accordance with the standardized format recommended by EPA via its mail out # CD-14-19 (LDV/LDT/ICI/LIMO), subject: "Certification Application Reporting Guidance", dated November 24, 2014. This Application has also been prepared in accordance with the California Air Resources Board, Final Regulation Order, Amendments to Sections 1960.1, 1960.5, 1961, and 1962 Title 13, California Code of Regulations (As Amended August 4, 2005).
Therefore, in accordance with the provisions of 40 CFR 86.1844-01(d)(14) including the provisions of 40 CFR Parts 85, 86 and 600, Ford requests that an Executive Order be issued for the LDT test group listed in this Application for Certification.

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

Sincerely,

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

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

cc: R. Uyehara, M. Desai

SECTION 15

Other Information

CCAPS Manual Payment Request
(North America)

REF NO: 306179

NAME AND ADDRESS OF PAYEE	Employee	Ex-Employee / Board of Director	Mail Attachments	Separate Check	Special Handling
Environmental Protection Agency-MVECP U.S. Bank - Government Lockbox 979032 1300 Pennylvania Ave NW - Washington, DC 20004-3002 The requestor is responsible to ensure the supplier code has correct company name, remit to and/or banking information whether the payment is going by check or electronically by ACH.				Y	
	Supplier Code	**CCAPS Plant Code**	**Due Date**	**Currency**	**Amount**
	GXHSA	10	ASAP	US	197,634.00

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 - (FORMS ATTACHED)

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

Pre-requisites for Payment :

1. Requestors or Approvers to ensure the following
   - Receipt of Service
   - Price Validation
   - Supported by invoice or other documentation
2. Check if payment item is on Uses of Manual Payment Requests
3. 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

	CDS ID	Sign	Date
Preparer/Requestor	TOLIVER		3/31/25

Operations Approval - Receipt of Service

	CDS ID	Sign	Date
Approver	LMERRIT2	DocuSigned by: Lawrence Merritt DF6ED4749EAC46B...	3/31/2025

Approvals per Corporate Approval Authorities - Method of Payment

Payment Item is on Uses of Manual Payment Requests

	CDS ID	Sign	Date
Finance LL5+ or Plant Controller (LL6) Unlimited	PBLANCAS	DocuSigned by: Patricia Blancas Ruiz 98D37B2D5DA0498...	3/31/25
Finance LL6 < $250,000			

Payment Item is not on Uses of Manual Payment Requests

	CDS ID	Sign	Date
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

3061179

PA_MV CP_v

S A Fee Form

Terry Cowher 313-805-6360
TG - TFMXT03.51F1

Help and EPA nstructions

Tracking Information
Pay.gov Tracking ID: 27MSSQ7D

* Required Field

Agency Tracking ID: 77004236187

General Information

Date: 03/31/2025

Process Code *

Submit New Fee Filing Form

Manufacturer Code *

FMX

Manufacturer Name *

Ford Motor Company

Contact Name *

Tin Oliver

Contact Email Address *

toliver@comcast.net

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 3 , 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 *

TFMXT03.51F1

Certificate Request Type (Industry Sector Code)

Certificate Request Type *

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

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

ICI VIN Number (Required for ICIs Only)

Do you qualify for a Reduced Fee? *

No

Payment Information

Amount Owed

$32,939.00

Payment Type *

Offline ACH

Comments

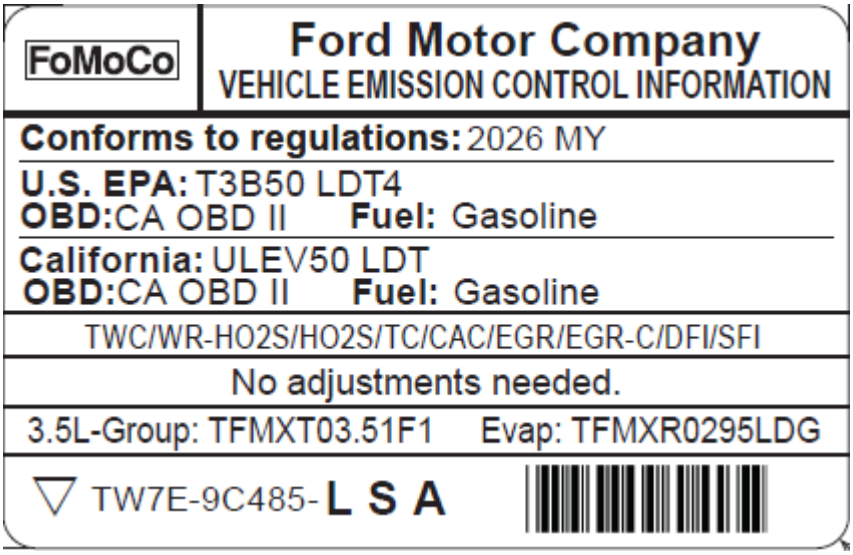
EPA Form Number 3520-29
OMB Control No. 2060-0545
Approval expires 7/31/2027
The public reporting and recordkeeping burden for this collection of information is estimated to average 12 minutes per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed forms to this address.

SECTION 16

Confidential Information

SECTION 17

California ARB Requirements


FoMoCo
Ford Motor Company
VEHICLE EMISSION CONTROL INFORMATION
Conforms to regulations: 2026 MY
U.S. EPA: T3B50 LDT4
OBD:CA OBD II Fuel: Gasoline
California: ULEV50 LDT
OBD:CA OBD II Fuel: Gasoline
TWC/WR-HO2S/HO2S/TC/CAC/EGR/EGR-C/DFI/SFI
No adjustments needed.
3.5L-Group: TFMXT03.51F1 Evap: TFMXR0295LDG
TW7E-9C485-L S A

SECTION 18

Revisions

APPLICATION REVISIONS

TFMXT03.51F1

NO.	DATE	PAGE(S)	DESCRIPTION
RC1	12/10/2025	12.00.02.00 12.00.03.00 12.00.06.00	With this running change Ford is introducing new certification codes to support production. PCM calibration updates to improve CKCPM IUMPR completion rates and drivability improvements. ABS S/W and Calibration to address OBD resets. WP# 03.14.01-15449, 15462, 15570
RC2	01/15/2026	12.00.02.00 12.00.03.00 12.00.06.00	With this running change Ford is updating PCM s/w to CKCP monitor to improve IUMPR completion rates, PFP thaw logic, transmission shift improvements, and Plant Mode EOL tank pressure venting software update. WP# 03.14.01-15574
RC3	1/23/2026	00.00.00.00 07.00.00.00 12.00.02.00 12.00.03.00 12.00.06.00	With this running change Ford is introducing new certification codes to support the addition of 4x2 models. WP# 03.14.01-15462

APPLICATION REVISIONS

TFMXT03.51F1

NO.	DATE	PAGE(S)	DESCRIPTION
RC1	12/10/2025	12.00.02.00 12.00.03.00 12.00.06.00	With this running change Ford is introducing new certification codes to support production. PCM calibration updates to improve CKCPM IUMPR completion rates and drivability improvements. ABS S/W and Calibration to address OBD resets. WP# 03.14.01-15449, 15462, 15570

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

OFFICE OF TRANSPORTATION AND AIR QUALITY
ANN ARBOR, MICHIGAN 48105

Certificate Issued To: **Ford Motor Company**
(U.S. Manufacturer or Importer)

Certificate Number: TFMXT03.51F1-057

Effective Date: 10/23/2025

Expiration Date: 12/31/2026

Byron J. Bunker, Division Director
Compliance Division

Issue Date: 10/23/2025

Revision Date: N/A

Test Group Name: TFMXT03.51F1
Evaporative/Refueling Family Name: TFMXR0295LDG
Executive Order Number:
Applicable Exhaust Emission Standards: Federal Tier 3 Bin 50
Applicable Evaporative/Refueling Standards: Federal Tier 3 Evap

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

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

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

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

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

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

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

Pursuant to the authority vested in California Air Resources Board by Health and Safety Code (HSC), Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 and 39516 and Executive Order G-19-095;

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

TEST GROUP INFORMATION

MODEL YEAR	TEST GROUP	VEHICLE CLASS(ES)	FUEL CATEGORY	FUEL TYPE
2026	TFMXT03.51F1	LDT4	HYBRID ELECTRIC VEHICLE	GASOLINE

USEFUL LIFE (miles)		VEHICLE EMISSION CATEGORY		INTERIM / INTERMEDIATE IN-USE STD	
EXH/ORVR	EVAP	FTP	SFTP	FTP	SFTP
150000	150000	LEV3 ULEV50	LEV3 COMPOSITE	*	*

SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS		OBD STATUS		ENGINE DISPLACEMENT (L)
1	2TWC, DFI, SFI, EGR, EGRC, 2WR-HO2S, 2HO2S, 2TC, CAC	FULL	*	3.5
*	*	PARTIAL	ALL MODELS	
*	*			

EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION

EVAP / ORVR FAMILY	EVAPORATIVE STD CATEGORY	EVAP EMISSION STD VEHICLE CLASS	SPECIAL FEATURES
TFMXR0295LDG	LEV 3 OPTION2 WITH FEL	LDT4	HCT

EMISSION CREDIT INFORMATION

NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY	NMOG CREDIT FOR NON-PZEV ZERO-EVAP	NMOG CREDIT FOR DOR	OPTIONAL EXH. STD FOR WORK TRUCKS
N	N	N	N

NMOG AND FLEET AVERAGE INFORMATION

NMOG RAF	CH4 RAF	FTP NMOG/NMHC RATIO	HCHO/NMHC RATIO	NMOG+NOX FLEET STD PC+LDT (0-3750 LVW) (g/mi)	NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)	NMOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (g/mi)
*	*	1.10	*	0.030	0.030	*

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

BE IT FURTHER RESOLVED: Manufacturer requested an Executive Order. This Executive Order certifies the test group meets the standards for which certification was requested.

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

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

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

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

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

Executed on this 17th day of December 2025.

Robin U. Lang

Robin U. Lang, Chief
Emissions Certification and Compliance Division

ATTACHMENT

EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

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

CH4: methane; NMOG: non-CH4 organic gas; HC: hydrocarbon; NMHC: non-CH4 HC; CO: carbon monoxide; NOx: oxides of nitrogen; HCHO: formaldehyde; PM: particulate matter; RAF: reactivity adjustment factor; 2DHS/3DHS [g HC/test]: 2/3 days diurnal+hot-soak; RL [g HC/mi]: running loss; ORVR [g HC/gallon dispensed]: on-board refueling vapor recovery; g: gram; mg: milligram; mi: mile; K: 1000 miles; F: degrees Fahrenheit; FTP: federal test procedure; SFTP: supplemental FTP

	FUEL TYPE	NMOG+NOx (g/mi)		CO (g/mi)		NOx (g/mi)		HCHO (mg/mi)		PM (g/mi)	
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
FTP@50K	*	*	*	*	*	*	*	*	*	*	*
FTP@UL	GASOLINE-TIER3 E10	0.018	0.050	0.1	1.7	*	*	0	4	0.001	0.003
50°F @4K	*	*	*	*	*	*	*	*	*		

	FUEL TYPE	NMOG+NOx (g/mi)		CO (g/mi)	
		CERT	STD	CERT	STD
HWFET @ 50K	*	*	*		
HWFET @ UL	GASOLINE-TIER3 E10	0.002	0.050		
20°F @ 50K	COLD CO E10 REGULAR GASOLINE(TIER3)			0.6	12.5

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

	FUEL TYPE		US06			SC03		COMPOSITE		
			NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	NMOG+NOx (g/mi)	CO (g/mi)	NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)
@ 4K	*	CERT	*	*		*	*			
		STD	*	*		*	*			
@ UL	GASOLINE-TIER3 E10	CERT	*	*	4	*	*	0.022	0.1	*
		STD	*	*	6	*	*	0.050	4.2	*
		BIN						0.050		

WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

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

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

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

EFFECTIVE LEAK DIAMETER STANDARD AND CERTIFICATION LEVEL (INCHES)			
EVAPORATIVE FAMILY	**LEAK FAMILY**	**CERT**	**STD**
TFMXR0295LDG	TFMXR0295LDG-001	*	0.02

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

2026 MODEL YEAR: VEHICLE MODELS INFORMATION

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

Application for Certification

Part 2

Environment & Safety Compliance

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

December 12th, 2025

Ms. Hannah Frame
Certification Division
Office of Mobile Source Air Pollution Control
Environmental Protection Agency
2000 Traverwood
Ann Arbor, Michigan 48105

Dear Ms. Frame:

Under the provisions of 40 CFR 86.1842-01, "Alternative Procedure for Notification of Additions and Changes", Ford Motor Company is hereby notifying the EPA of our intention to introduce into production 2026 Model Year Running Change 01 for the TFMXT03.51F1 test group.

This running change introduces the following calibration levels:

New Certification Codes
TTFDCNNR0003
TTFDCNNS0003
TTFDCNNT0003
TTFDCNNV0003
TTFDCNNW0000
TTFDCNNX0000
TTFDCNNY0000
TTFDCNN10000
TTFDCNN20000
TTFDCNN30000
TTFDCNN40000
TTFDCNN50000
TTFDCNN60000
TTFDCNNJ0004
TTFDCNNK0004
TTFDCNNL0004
TTFDCNNN0004
TTFDCNNP0004

With this running change Ford is introducing new certification codes to support production. PCM calibration updates to improve CKCPM IUMPR completion rates and drivability improvements. ABS S/W and Calibration to address OBD resets.

Engine Calibration Changes:

- Reduced 3rd gear in lash torque target from 48Nm to 35Nm at all transmission oil temperatures
- Reduced 3rd gear in lash ramp rate to from 200Nm*s to 150Nm*s for low pedal regions
- Update excessive engine start count limit from 117 to 255 to align with Green State calibration (FEL list update)
- K0 locking changes for improved engine start smoothness - Drivability improvement
- Turning on calibration switch to permit refueling to sustain PCM power in plant mode at End of Line to prevent fuel spit back at end of line

Engine OBD Changes:

- Moving from 128 to 0 to indicate that the mode08 EVAP test is unsupported (unsupported in HEVs)
- Changes for improved crank case pressure monitor (CKCPM) in use monitor performance ratio (IUMPR) completions
- Reducing the air induction side completion area from 2 kpa*s to 1.5 kpa*s to improve completion
- Reducing the cam cover side completion area from 1 kpa*s to 0.38 kpa*s to improve completion
- Reducing the number of air Induction side events from 4 to 3 to improve completion
- Reducing the number of cam cover side events from 4 to 2 to improve completion
- Reducing the cam cover side event threshold from 0.9 to 0.78 [unitless] to improve robustness from false passes
- Reducing the cam cover side area threshold from 0.95 to 0.9 [unitless] to improve robustness from false passes
- Reducing the air induction side event fail rate for fail call from 0.75 to 0.68 [unitless] corresponding with the reduced events
- Increasing the air induction side event pass rate for pass call from 0.25 to 0.32 [unitless] corresponding with the reduced events
- Reducing the cam cover side event fail rate for fail call from 0.75 to 0.51 [unitless] corresponding with the reduced events
- Increasing the cam cover side event pass rate for pass call from 0.25 to 0.49 [unitless] corresponding with the reduced events
- Increasing the size of the ram air bins for the ram air slope method for increased completion

Transmission / Driveline Calibration Changes:

Upshifts

- Changed slip targets for 5-6 upshift to improve shift feel
- Ensure upshift abort ramp threshold always triggers off of time-to-finish (TTF) controls rather than percent-shift-complete controls (PSC) for more end of shift quality consistency
- Torque modulation (TQMOD) changes to PON 1-3 upshifts for improved shift quality
- Shift quality improvements to the 3-4 upshift at all low engine speeds and all temperatures

Downshifts

- Pressure control changes to Power-On (PON) and Power-Off (POF) shifts for improved shift quality
- Torque modulation (TQMOD) changes to certain PON downshifts for improved shift quality

Engagements

- Adaptive pressure control changes to balance boost and stroke learning while considering high transmission fluid temperature (TFT) functional changes above 100degC
- Improve Neutral-to-Neutral sequences from Park to improve feel and reduce potential clunk
- Apply countermeasures for lower TFT ratio change start and shift percent complete triggers to improve closed loop control performance

Hybrid Powertrain Control Module Calibration Changes:

- U3012_00 (Control Module Improper Wake-up Performance) - Switching DTC from MIL (2) to Off (0) per ABS Index Update. ABS module will set U3012-68 instead.

ABS Part # Changes:

- ABS part # update to include 4x2 configuration.

Anti-lock braking system software changes:

- New S/W version – TL34-2D053-AE

Anti-lock braking system calibration changes:

- Eliminate concern that ABS DTC 0x5A954A is holding the pass status across key cycles - Prematurely Clearing MIL. No longer holding the pass state.

Anti-lock braking system OBD changes:

- Eliminate concern that ABS DTC 0x5A954A is holding the pass status across key cycles - Prematurely Clearing MIL. No longer holding the pass state.

This running change does not adversely affect fuel economy, tailpipe and evaporative emissions performance or OBD self-certification based on engineering analysis. Therefore, certification testing was not conducted.

As allowed under 86.1842-01 (b) (ii), Ford has determined that the above addition or change does not cause noncompliance, based on engineering evaluation.

Please contact myself or Terry Cowher (313-805-6360) if you have any questions concerning this submittal.

Sincerely,

Wade Witte
Certification Supervisor
Light Duty Certification & Homologation

Environment & Safety Compliance

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

December 12th, 2025

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

Dear Ms. Lang:

Under the provisions of 40 CFR 86.1842-01, "Alternative Procedure for Notification of Additions and Changes", Ford Motor Company is hereby notifying the CARB of our intention to introduce into production 2026 Model Year Running Change 01 for the TFMXT03.51F1 test group.

This running change introduces the following calibration levels:

New Certification Codes
TTFDCNNR0003
TTFDCNNS0003
TTFDCNNT0003
TTFDCNNV0003
TTFDCNNW0000
TTFDCNNX0000
TTFDCNNY0000
TTFDCNN10000
TTFDCNN20000
TTFDCNN30000
TTFDCNN40000
TTFDCNN50000
TTFDCNN60000
TTFDCNNJ0004
TTFDCNNK0004
TTFDCNNL0004
TTFDCNNN0004
TTFDCNNP0004

With this running change Ford is introducing new certification codes to support production. PCM calibration updates to improve CKCPM IUMPR completion rates and drivability improvements. ABS S/W and Calibration to address OBD resets.

Engine Calibration Changes:

- Reduced 3rd gear in lash torque target from 48Nm to 35Nm at all transmission oil temperatures
- Reduced 3rd gear in lash ramp rate to from 200Nm*s to 150Nm*s for low pedal regions
- Update excessive engine start count limit from 117 to 255 to align with Green State calibration (FEL list update)
- K0 locking changes for improved engine start smoothness - Drivability improvement
- Turning on calibration switch to permit refueling to sustain PCM power in plant mode at End of Line to prevent fuel spit back at end of line

Engine OBD Changes:

- Moving from 128 to 0 to indicate that the mode08 EVAP test is unsupported (unsupported in HEVs)

- Changes for improved crank case pressure monitor (CKCPM) in use monitor performance ratio (IUMPR) completions
- Reducing the air induction side completion area from 2 kpa*s to 1.5 kpa*s to improve completion
- Reducing the cam cover side completion area from 1 kpa*s to 0.38 kpa*s to improve completion
- Reducing the number of air Induction side events from 4 to 3 to improve completion
- Reducing the number of cam cover side events from 4 to 2 to improve completion
- Reducing the cam cover side event threshold from 0.9 to 0.78 [unitless] to improve robustness from false passes
- Reducing the cam cover side area threshold from 0.95 to 0.9 [unitless] to improve robustness from false passes
- Reducing the air induction side event fail rate for fail call from 0.75 to 0.68 [unitless] corresponding with the reduced events
- Increasing the air induction side event pass rate for pass call from 0.25 to 0.32 [unitless] corresponding with the reduced events
- Reducing the cam cover side event fail rate for fail call from 0.75 to 0.51 [unitless] corresponding with the reduced events
- Increasing the cam cover side event pass rate for pass call from 0.25 to 0.49 [unitless] corresponding with the reduced events
- Increasing the size of the ram air bins for the ram air slope method for increased completion

Transmission / Driveline Calibration Changes:

Upshifts

- Changed slip targets for 5-6 upshift to improve shift feel
- Ensure upshift abort ramp threshold always triggers off of time-to-finish (TTF) controls rather than percent-shift-complete controls (PSC) for more end of shift quality consistency
- Torque modulation (TQMOD) changes to PON 1-3 upshifts for improved shift quality
- Shift quality improvements to the 3-4 upshift at all low engine speeds and all temperatures

Downshifts

- Pressure control changes to Power-On (PON) and Power-Off (POF) shifts for improved shift quality
- Torque modulation (TQMOD) changes to certain PON downshifts for improved shift quality

Engagements

- Adaptive pressure control changes to balance boost and stroke learning while considering high transmission fluid temperature (TFT) functional changes above 100degC
- Improve Neutral-to-Neutral sequences from Park to improve feel and reduce potential clunk
- Apply countermeasures for lower TFT ratio change start and shift percent complete triggers to improve closed loop control performance

Hybrid Powertrain Control Module Calibration Changes:

- U3012_00 (Control Module Improper Wake-up Performance) - Switching DTC from MIL (2) to Off (0) per ABS Index Update. ABS module will set U3012-68 instead.

ABS Part # Changes:

- ABS part # update to include 4x2 configuration.

Anti-lock braking system software changes:

- New S/W version – TL34-2D053-AE

Anti-lock braking system calibration changes:

- Eliminate concern that ABS DTC 0x5A954A is holding the pass status across key cycles - Prematurely Clearing MIL. No longer holding the pass state.

Anti-lock braking system OBD changes:

- Eliminate concern that ABS DTC 0x5A954A is holding the pass status across key cycles - Prematurely Clearing MIL. No longer holding the pass state.

This running change does not adversely affect fuel economy, tailpipe and evaporative emissions performance or OBD self-certification based on engineering analysis. Therefore, certification testing was not conducted.

As allowed under 86.1842-01 (b) (ii), Ford has determined that the above addition or change does not cause noncompliance, based on engineering evaluation.

Please contact myself or Terry Cowher (313-805-6360) if you have any questions concerning this submittal.

Sincerely,

Wade Witte
Certification Supervisor
Light Duty Certification & Homologation

cc: R. Uyehara, M. Desai

Environment & Safety Compliance

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

January 15th, 2026

Ms. Hannah Frame
Certification Division
Office of Mobile Source Air Pollution Control
Environmental Protection Agency
2000 Traverwood
Ann Arbor, Michigan 48105

Dear Ms. Frame:

Under the provisions of 40 CFR 86.1842-01, "Alternative Procedure for Notification of Additions and Changes", Ford Motor Company is hereby notifying the EPA of our intention to introduce into production 2026 Model Year Running Change 02 for the TFMXT03.51F1 test group.

This running change introduces the following calibration levels:

New Certification Codes
TTFDCNNW0001
TTFDCNNX0001
TTFDCNNY0001
TTFDCNN10001
TTFDCNN20001
TTFDCNN30001
TTFDCNN40001
TTFDCNN50001
TTFDCNN60001
TTFDCNNJ0005
TTFDCNNK0005
TTFDCNNL0005
TTFDCNNN0005
TTFDCNNP0005

With this running change Ford is updating PCM s/w to CKCP monitor to improve IUMPR completion rates, PFP thaw logic, transmission shift improvements, and Plant Mode EOL tank pressure venting software update.

Engine Control Strategy Changes:

- New Strategy – HMGRA

Engine Calibration Changes:

- Increasing minimum engine load required to enable knock learning for global adaption from 0.4 load to 0.7 load. Makes this calibration common between Green State and Federal.

Engine OBD Changes:

- P0402 - Excess flow at no flow - Increasing the EGR mass flow value below which the flow is set to 0 from 0.01 g/s to 0.5 g/s. This improves robustness to ghost flow.
- P2C90 - Crankcase Ventilation System - Hose "A" Disconnected setting the initial cal to 0 to have similar behavior for ramair as other diagnostics within P2C90. New software turned off to maintain carry over performance.

- P0420/P0430 – “Catalyst System Efficiency Below Threshold Bank 1/Bank 2” – calibration catmn_ne_min_s changed from 0rpm to 400rpm to inhibit catalyst monitor from running at lower engine speeds. This is to address issue found in VOCF data.

Transmission / Driveline Calibration Changes:

Upshifts

- Pressure control changes to Power-On (PON) and Zero-Input (ZIP) 3-4 upshifts for improved shift quality

Downshifts

- Pressure control changes to Power-On (PON) and Power-Off (POF) shifts for improved shift quality

Ratio Manager

- Changes to the ETC FMEM (Electronic Transmission Controls - Failure Mode Effects Management) engine speed shift points to line up with common 10R philosophy. Helps provide better gear spacing to avoid gear toggling while in failure mode shift mapping.

Functional/Electrical/TEAM

- Disabled ISSB TEAM Fault 710. Does not provide value, other related TEAM events remain active.
- Disabled TCC TEAM Fault 284. Does not provide value, other related TEAM events remain active.
- Prevent the EPB from applying during remote start because the transfer case state will be unknown for the duration of the remote state.

This running change does not adversely affect fuel economy, tailpipe and evaporative emissions performance or OBD self-certification based on engineering analysis. Therefore, certification testing was not conducted.

As allowed under 86.1842-01 (b) (ii), Ford has determined that the above addition or change does not cause noncompliance, based on engineering evaluation.

Please contact myself or Terry Cowher (313-805-6360) if you have any questions concerning this submittal.

Sincerely,

DocuSigned by:
Wade Witte
223D2C0DF78F423...

Wade Witte
Certification Supervisor
Light Duty Certification & Homologation

Environment & Safety Compliance

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

January 15th, 2026

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

Dear Ms. Lang:

Under the provisions of 40 CFR 86.1842-01, "Alternative Procedure for Notification of Additions and Changes", Ford Motor Company is hereby notifying the CARB of our intention to introduce into production 2026 Model Year Running Change 02 for the TFMXT03.51F1 test group.

This running change introduces the following calibration levels:

New Certification Codes
TTFDCNNW0001
TTFDCNNX0001
TTFDCNNY0001
TTFDCNN10001
TTFDCNN20001
TTFDCNN30001
TTFDCNN40001
TTFDCNN50001
TTFDCNN60001
TTFDCNNJ0005
TTFDCNNK0005
TTFDCNNL0005
TTFDCNNN0005
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With this running change Ford is updating PCM s/w to CKCP monitor to improve IUMPR completion rates, PFP thaw logic, transmission shift improvements, and Plant Mode EOL tank pressure venting software update.

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Transmission / Driveline Calibration Changes:

Upshifts

- Pressure control changes to Power-On (PON) and Zero-Input (ZIP) 3-4 upshifts for improved shift quality

Downshifts

- Pressure control changes to Power-On (PON) and Power-Off (POF) shifts for improved shift quality

Ratio Manager

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- Disabled TCC TEAM Fault 284. Does not provide value, other related TEAM events remain active.
- Prevent the EPB from applying during remote start because the transfer case state will be unknown for the duration of the remote state.

This running change does not adversely affect fuel economy, tailpipe and evaporative emissions performance or OBD self-certification based on engineering analysis. Therefore, certification testing was not conducted.

As allowed under 86.1842-01 (b) (ii), Ford has determined that the above addition or change does not cause noncompliance, based on engineering evaluation.

Please contact myself or Terry Cowher (313-805-6360) if you have any questions concerning this submittal.

Sincerely,

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Wade Witte
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Wade Witte
Certification Supervisor
Light Duty Certification & Homologation

cc: R. Uyehara, M. Desai

Environment & Safety Compliance

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

January 23rd, 2026

Ms. Hannah Frame
Certification Division
Office of Mobile Source Air Pollution Control
Environmental Protection Agency
2000 Traverwood
Ann Arbor, Michigan 48105

Dear Ms. Frame:

Under the provisions of 40 CFR 86.1842-01, "Alternative Procedure for Notification of Additions and Changes", Ford Motor Company is hereby notifying the EPA of our intention to introduce into production 2026 Model Year Running Change 03 for the TFMXT03.51F1 test group.

This running change introduces the following calibration levels:

New Certification Codes
TTFDCNNR0003
TTFDCNNS0003
TTFDCNNT0003
TTFDCNNV0003

With this running change Ford is introducing new certification codes to support the addition of 4x2 models.

Changes:

- Adding 4 new certification codes to support the addition of 4x2 models at Job 2 that require unique ABS S/W part #'s. Powertrain calibrations remain the same as 4x4 models.

This running change does not adversely affect fuel economy, tailpipe and evaporative emissions performance or OBD self-certification based on engineering analysis. Therefore, certification testing was not conducted.

As allowed under 86.1842-01 (b) (ii), Ford has determined that the above addition or change does not cause noncompliance, based on engineering evaluation.

Please contact myself or Terry Cowher (313-805-6360) if you have any questions concerning this submittal.

Sincerely,

DocuSigned by:
Wade Witte
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Wade Witte
Certification Supervisor
Light Duty Certification & Homologation

Environment & Safety Compliance

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

January 23rd, 2026

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

Dear Ms. Lang:

Under the provisions of 40 CFR 86.1842-01, "Alternative Procedure for Notification of Additions and Changes", Ford Motor Company is hereby notifying the CARB of our intention to introduce into production 2026 Model Year Running Change 03 for the TFMXT03.51F1 test group.

This running change introduces the following calibration levels:

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TTFDCNNS0003
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