



## FORD MOTOR COMPANY

### APPLICATION FOR CERTIFICATION – PART 1

#### 2022 Model Year

**Test Group:** NFMXT00.0BG1  
**Durability Group:** NFMXEEVNNG1G  
**Evap. Family:** N/A

**Test Group Description:** LDT4

**Durability Group Description:** Battery Electric

**Application Standards:** Federal: Tier 3 Bin 0  
California: ZEV

**Car Line Covered** F-150 LIGHTNING (Standard Range)

#### Vehicle Tested:

<b>Range Test Vehicle</b>	
<b>NFD1-0.0-J-554 Config. 0</b>	
Charge Depleting UDDS TN:	NFMX10071664
Charge Depleting Highway TN:	NFMX10071665

**Application Release Date: April 22, 2022**

**For Questions, Contact:**  
**Brennan Graham, bgraha45@ford.com (313-920-7622)**



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### 3. Facilities, Equipment and Test Procedures

The facilities and equipment comply with the related regulations, including 40 CFR Subpart B, §86.108-00(b)(2) [Oct. 22, 1996]

Equipment:	48 inch, single roll electric dynamometer
Regenerative Braking:	Enabled
Vehicle & Battery break in Period:	2600 mile accumulated on this vehicle / battery before test.
Range Test Procedure:	Tested according to “California Exhaust Emission Standards and Test Procedures for 2009 and Subsequent Model Zero-Emission Vehicles, and 2001 and Subsequent Model Hybrid Electric Vehicles, in the Passenger Car, Light Duty Truck and Medium-Duty Vehicle Classes”, which was adopted on December 17, 2008.
Test Procedure Used:	Tested using the Multi Cycle Test (MCT) sequence as stated in SAE International’s “ <i>Surface Vehicle Recommended Practice</i> ” J1634 Oct. 2012.

#### 3.1 Procedure to Determine Mass Emissions of Fuel Fired Heater

Not applicable since Fuel Fired Heater not offered for this vehicle by Ford.

#### 3.2 Battery and Vehicle Pre-Conditioning Procedures

The HV battery and vehicle does not require any pre-conditioning to enable the vehicle system. However, Ford decided to have the test vehicle accumulated 2600 miles on proving ground track prior to testing.

**4 Reserved**

**5      Reserved**

## **6 Maintenance**

### **6.1 Test Vehicle Scheduled Maintenance**

Not applicable (same as “Recommended Customer Maintenance Schedule” found in next section).

### **6.2 Recommended Customer Maintenance Schedule**

Ford’s recommended maintenance schedule can be found in the owners guide.

## **7 Labels**

### **7.1 Label Locations and Labels**

The Vehicle Emissions Control Information label (VECI) is located on the underside of the hood. See attachment for this vehicle's VECI label.

The Fuel Economy Label is installed on the passenger side front door. The Monroney Label now includes the EPA/DOT Fuel Economy and Environment Section (GHG, Smog Rating) based on the template published by EPA in May 2011. See attachment for label template to be used for this vehicle (The real FE label for this vehicle is not available at this time). The California Environmental Performance Label will be included on the vehicle. Please see section 17.2.3 for values.

### **7.2 Statement of Compliance**

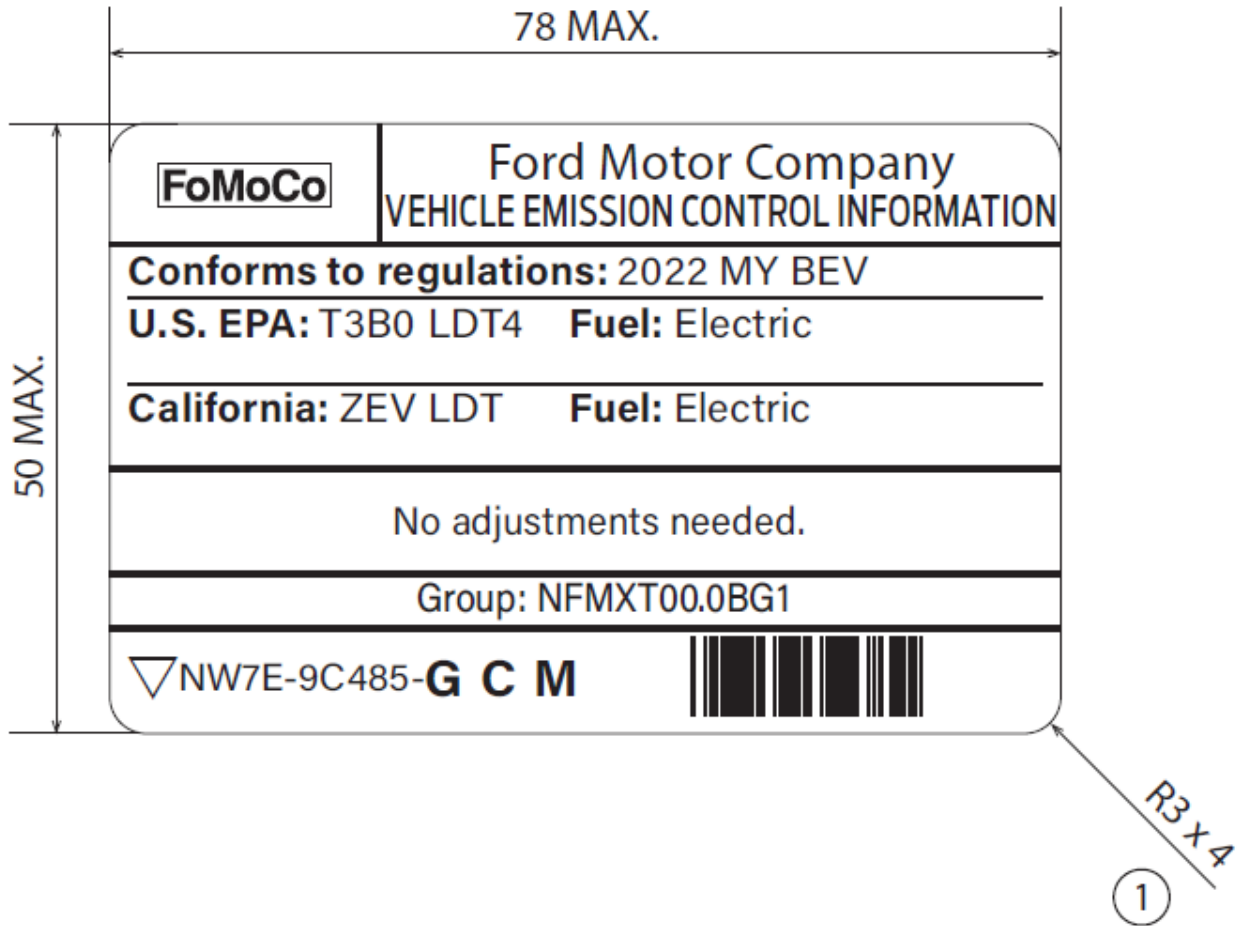
This vehicle conforms to US EPA Tier 3 Bin 0 vehicle regulations applicable to 2022 model year new motor vehicles and to California regulations applicable to 2022 model year new ZEV light-duty vehicles.



# NFMXT00.0BG1

## 50 State VECI LABEL

Ford Battery Electric Vehicle





10 Reserved

## **11 Starting and Shifting Schedules**

### **11.1 Starting Procedure**

Please refer to Owner's Guide for starting procedure.

### **11.2 Shifting Schedule**

This vehicle uses an automatic shifter as in a conventional automatic transmission vehicle (move lever to "D" for Drive or "R" for Reverse) and since the vehicle uses a single ratio gearbox, there is no shift schedule.

## 12 Description of Vehicles Covered by Certificate

### 12.1 Calibration Parts List

Cert. Level	Calibrations	PCM -12A650-	HPCM -7P120-	BECM -10B687-	BCCM -10B689-	ABS -2C219-	Date
Initial Application	NTFDAANA05	PNL3A-AVB	PNL38-AVB	NL38-BB	PNL38-FB	NL38-AC	8/26/2021
	NTFDAANC05	PNL3A-AUB	PNL38-AUB	NL38-BB	PNL38-FB	NL38-AC	8/26/2021
	NTFDAANE05	PNL3A-BAB	PNL38-AVB	NL38-BB	PNL38-FB	NL38-AC	8/26/2021
	NTFDAANF05	PNL3A-AZB	PNL38-AUB	NL38-BB	PNL38-FB	NL38-AC	8/26/2021
	NTFDAANA06	PNL3A-AVC	PNL38-AVC	NL38-BB	PNL38-FC	NL38-AD	9/22/2021
	NTFDAANC06	PNL3A-AUC	PNL38-AUC	NL38-BB	PNL38-FC	NL38-AD	9/22/2021
	NTFDAANE06	PNL3A-BAC	PNL38-AVC	NL38-BB	PNL38-FC	NL38-AD	9/22/2021
	NTFDAANF06	PNL3A-AZC	PNL38-AUC	NL38-BB	PNL38-FC	NL38-AD	9/22/2021
	NTFDAANA07	PNL3A-AVD	PNL38-AVD	NL38-BC	PNL38-FD	NL38-AE	12/1/2021
	NTFDAANC07	PNL3A-AUD	PNL38-AUD	NL38-BC	PNL38-FD	NL38-AE	12/1/2021
	NTFDAANE07	PNL3A-BAD	PNL38-AVD	NL38-BC	PNL38-FD	NL38-AE	12/1/2021
NTFDAANF07	PNL3A-AZD	PNL38-AUD	NL38-BC	PNL38-FD	NL38-AE	12/1/2021	

HV Battery Assembly: NL38-10B759-CE

PDU (Primary Drive Unit): NL38-7P500-AA

Secondary Drive Unit (SDU): NL38-7B000-AA

**Note:**

### 12.2 Vehicle Description Report

See page attached.

## Vehicle Description Report

Application: 50 ST

Test Group: NFMXT0.00BG1

ID Number	5788664	5788665	5788666	5788668
Displacement	0.1	0.1	0.1	0.1
Calibration	NTFDAANA05	NTFDAANC05	NTFDAANE05	NTFDAANF05
Fuel Tank(s)				
Carline	F150 LIGHTNING	F150 LIGHTNING	F150 LIGHTNING	F150 LIGHTNING
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Sngl RW
Body Style	SUPER CREW CAB	SUPER CREW CAB	SUPER CREW CAB	SUPER CREW CAB
Wheelbase	Short	Short	Short	Short
Trans Code Combo	AA	AA	AA	AA
Drive	AWD	AWD	AWD	AWD
Curb Weight	6264	6264	6264	6264
ETW	6500	6500	6500	6500
Loaded Weight - LVW	6564	6564	6564	6564
ALVW - ETW	7500	7500	7500	7500
Adj. Loaded Weight	7257	7257	7257	7257
GVWR	8250	8250	8250	8250
Min Axle Ratio	3.73	3.73	3.73	3.73
Max Axle Ratio	3.73	3.73	3.73	3.73
Min N/V Ratio	40.4	40.4	39.3	39.3
Max N/V Ratio	40.4	40.4	39.3	39.3
Emissions Vehicle Class	MDPV	MDPV	MDPV	MDPV
Drive Code	ALL WHEEL DRIVE	ALL WHEEL DRIVE	ALL WHEEL DRIVE	ALL WHEEL DRIVE
Trans Type	AUTOMATIC	AUTOMATIC	AUTOMATIC	AUTOMATIC
Calibration Application	50ST	50ST	50ST	50ST
Min Tire Size	275/65R18 - 40.4	275/65R18 - 40.4	275/60R20 - 39.3	275/60R20 - 39.3
Max Tire Size	275/65R18 - 40.4	275/65R18 - 40.4	275/60R20 - 39.3	275/60R20 - 39.3
Alt Tire 1				
Alt Tire 2				
Alt Tire 3				
Alt Tire 4				
Alt Tire 5				
Alt Tire 6				
Alt Tire 7				
DAW Full Tank	3063	3063	3063	3063
DAW Empty Tank	3063	3063	3063	3063

## Vehicle Description Report

Application: 50 ST

Test Group: NFMXT0.00BG1

ID Number	5793469	5793470	5793471	5793473
Displacement	0.1	0.1	0.1	0.1
Calibration	NTFDAANA06	NTFDAANC06	NTFDAANE06	NTFDAANF06
Fuel Tank(s)				
Carline	F150 LIGHTNING	F150 LIGHTNING	F150 LIGHTNING	F150 LIGHTNING
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Sngl RW
Body Style	SUPER CREW CAB	SUPER CREW CAB	SUPER CREW CAB	SUPER CREW CAB
Wheelbase	Short	Short	Short	Short
Trans Code Combo	AA	AA	AA	AA
Drive	AWD	AWD	AWD	AWD
Curb Weight	6264	6264	6264	6264
ETW	6500	6500	6500	6500
Loaded Weight - LVW	6564	6564	6564	6564
ALVW - ETW	7500	7500	7500	7500
Adj. Loaded Weight	7257	7257	7257	7257
GVWR	8250	8250	8250	8250
Min Axle Ratio	3.73	3.73	3.73	3.73
Max Axle Ratio	3.73	3.73	3.73	3.73
Min N/V Ratio	40.4	40.4	39.3	39.3
Max N/V Ratio	40.4	40.4	39.3	39.3
Emissions Vehicle Class	MDPV	MDPV	MDPV	MDPV
Drive Code	ALL WHEEL DRIVE	ALL WHEEL DRIVE	ALL WHEEL DRIVE	ALL WHEEL DRIVE
Trans Type	AUTOMATIC	AUTOMATIC	AUTOMATIC	AUTOMATIC
Calibration Application	50ST	50ST	50ST	50ST
Min Tire Size	275/65R18 - 40.4	275/65R18 - 40.4	275/60R20 - 39.3	275/60R20 - 39.3
Max Tire Size	275/65R18 - 40.4	275/65R18 - 40.4	275/60R20 - 39.3	275/60R20 - 39.3
Alt Tire 1				
Alt Tire 2				
Alt Tire 3				
Alt Tire 4				
Alt Tire 5				
Alt Tire 6				
Alt Tire 7				
DAW Full Tank	3063	3063	3063	3063
DAW Empty Tank	3063	3063	3063	3063

**Vehicle Description Report**

Application: 50 ST

Test Group: NFMXT0.00BG1

ID Number	5793482	5793483	5793484	5793486
Displacement	0.1	0.1	0.1	0.1
Calibration	NTFDAANA07	NTFDAANC07	NTFDAANE07	NTFDAANF07
Fuel Tank(s)				
Carline	F150 LIGHTNING	F150 LIGHTNING	F150 LIGHTNING	F150 LIGHTNING
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Sngl RW
Body Style	SUPER CREW CAB	SUPER CREW CAB	SUPER CREW CAB	SUPER CREW CAB
Wheelbase	Short	Short	Short	Short
Trans Code Combo	AA	AA	AA	AA
Drive	AWD	AWD	AWD	AWD
Curb Weight	6264	6264	6264	6264
ETW	6500	6500	6500	6500
Loaded Weight - LVW	6564	6564	6564	6564
ALVW - ETW	7500	7500	7500	7500
Adj. Loaded Weight	7257	7257	7257	7257
GVWR	8250	8250	8250	8250
Min Axle Ratio	3.73	3.73	3.73	3.73
Max Axle Ratio	3.73	3.73	3.73	3.73
Min N/V Ratio	40.4	40.4	39.3	39.3
Max N/V Ratio	40.4	40.4	39.3	39.3
Emissions Vehicle Class	MDPV	MDPV	MDPV	MDPV
Drive Code	ALL WHEEL DRIVE	ALL WHEEL DRIVE	ALL WHEEL DRIVE	ALL WHEEL DRIVE
Trans Type	AUTOMATIC	AUTOMATIC	AUTOMATIC	AUTOMATIC
Calibration Application	50ST	50ST	50ST	50ST
Min Tire Size	275/65R18 - 40.4	275/65R18 - 40.4	275/60R20 - 39.3	275/60R20 - 39.3
Max Tire Size	275/65R18 - 40.4	275/65R18 - 40.4	275/60R20 - 39.3	275/60R20 - 39.3
Alt Tire 1				
Alt Tire 2				
Alt Tire 3				
Alt Tire 4				
Alt Tire 5				
Alt Tire 6				
Alt Tire 7				
DAW Full Tank	3063	3063	3063	3063
DAW Empty Tank	3063	3063	3063	3063



13 Reserved

**14 Request for Certificate**



**Vehicle Environmental Engineering  
Ford Motor Company**

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

December 13, 2021

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

Dear Mr. Rojeck:

Ford Motor Company (Ford) herewith submits its Part I Application for Certification for 2022 model year battery electric-powered light-duty trucks (LDT4) contained in Ford's 50 states test group NFMXT00.0BG1.

This Test Group complies with EPA final Tier 3 Bin 0 certification and in-use exhaust emission standards. Evaporative emission is not applicable to BEV program.

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. Please note that Ford is currently investigating its process for characterizing road load force specifications, and it is possible that road load specification information may be revised as a result of the investigation. As of the date of this signature, I certify that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the prepared information. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained in this document used in the development of the road load force specifications is, to the best of my knowledge and belief, true, accurate, and complete.

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 Brennan Graham at 313-920-7622 or bgraha45@ford.com, if you have any questions regarding this submission.

Sincerely,

DocuSigned by:

*Glen Heiser*

624451DCB23E436  
Glen Heiser, Manager

Manager, Emissions Certification, Homologation & Compliance  
Vehicle Homologation & Compliance, SE&SE



**Vehicle Environmental Engineering  
Ford Motor Company**

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

December 13, 2021

Mr. Allen Lyons, Chief  
Emissions Compliance, Automotive Regulations and Science Division  
Air Resources Board  
9480 Telstar Avenue, Suite 4  
El Monte, California 91731

Dear Mr. Lyons:

Ford Motor Company (Ford) herewith submits an Application for Certification for 2022 model year battery electric-powered light duty trucks (LDT) contained in Ford's 50 states test group NFMXT00.0BG1.

This Test Group complies with CARB ZEV emissions standards. Evaporative emission is not applicable to BEV program.

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. Please note that Ford is currently investigating its process for characterizing road load force specifications, and it is possible that road load specification information may be revised as a result of the investigation. As of the date of this signature, I certify that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the prepared information. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained in this document used in the development of the road load force specifications is, to the best of my knowledge and belief, true, accurate, and complete.

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 PC test group listed in this Application for Certification.

Please contact Brennan Graham at 313-920-7622 or bgraha45@ford.com, if you have any questions regarding this submission.

Sincerely,

DocuSigned by:

A blue DocuSign signature box containing a handwritten signature in black ink that reads "Glen Heiser".

Glen Heiser, Manager

Manager, Emissions Certification, Homologation & Compliance  
Vehicle Homologation & Compliance, SE&SE

Cc S. Hada

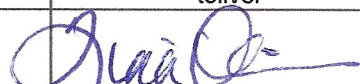
**15 Other Information**

**15.1 Fee Filing Form**



## CCAPS Payment Request

REF NO: 306139

NAME AND ADDRESS OF PAYEE Environmental Protection Agency-MVECP U.S. Bank - Government Lockbox 979032 1005 Convention Plaza SL-MO-C2-GL St. Louis, MO 63101				MONTH / YEAR LIABILITY INCURRED		SPECIAL HANDLING		MAIL ATTACHMENTS		
				DUE DATE		PAYMENT AMOUNT				
				ASAP		\$		254,710.00		
REASON FOR DISBURSEMENT Certification Fees - EPA Standard Engine Family, Exhaust Emission Control System										
COMMENTS (Shown on Remittance Advice/Not to include PII) 2022 CERT FEES - NFMXT00.0BG1, NFMXT02.72V6, NFMXV00.0B4A, NFMXT02.34K2, NFMXT02.33MC, NFMXT02.34K1, NFMXH06.7C45, NFMXT00.0BG2 (FORMS ATTACHED)										
SUPPLIER CODE			PLANT CODE	FOREIGN FUNDS	SEPARATE CHECK REQUIRED		INVOICE DATE		INVOICE NUMBER	
GXHSA			10		X					
LOC. CODE	GEN. LED.	SUB. ACCT.	SUB. DIV.	PROD. CODE	DEPT.	BALANCE REFERENCE	MISC. REFERENCE	INV# (If Multiple invoices)	AMOUNT (Bracket Credits)	1099 Tax Type
5100	25A	00217			5100S910	F102A	EPA		\$254,710.00	N
									TOTAL	\$ 254,710.00
REQUESTOR			OPERATIONS APPROVAL				FINANCE CONCURRENCE			
Dept Name			Certification Programs				PD Engineering Finance			
Tel. No.			32.38938				59.40738			
Date			8/17/2021				8/17/2021			
CDS ID			toliver				wsteven7			
Signature			 DocuSigned by: Glen Heiser 324454DCB23E436...				DocuSigned by: Bill Stevens Aug-20-2021 D617D8FC016D49F...			
PERMISSIBLE USE CATEGORY (See Instructions):					ENVIRONMENTAL FEES					

IT IS IMPORTANT TO PROTECT PERSONAL DATA WHEN RETAINING AND FORWARDING THE CCAPS PAYMENT REQUEST FORM AND ATTACHMENTS. EVERY EFFORT MUST BE MADE TO PREVENT EXPOSURE.

The space below may be used for additional local requirements



## US EPA Fee Form

306139

## General Information

Date: 08/12/2021  
 Process Code: Submit New Filing Fee Form  
 Manufacturer Code: FMX  
 Manufacturer Name: Ford Motor Company

## Manufacturer Contact

Name: Tina Oliver  
 Email Address: tolover@ford.com  
 Phone: 313-323-8938  
 Calendar Year complete application submitted to EPA: 2021  
 Engine Family / Evaporative Family / Test Group: NFMXT00.OBG1

## Certificate Request Type (Industry Sector Code)

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

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

ICI VIN Number (Required for ICIs Only):

Do you qualify for a Reduced Fee (RF)?

What is the total number of vehicles, engines, or units covered?:

What is the aggregate total retail value of the vehicles, engines or units covered?:

## Payment Information

Amount Owed: 27,399.00  
 Payment Type: Offline ACH

## Comments:

Brennan Graham  
 313-920-7622  
 Pay.gov Tracking ID: 26T0VF6M  
 Agency Tracking ID: 76136043677

EPA Form Number 3520-29

OMB Control No. 2060-0545

Approval expires 12/31/2022

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

**16 Test Results**

**16.1 EPA Certification Summary Information Report (CSI)**

## Certification Summary Information Report

<b>Manufacturer</b>	Ford Motor Company	<b>Manufacturer Code</b>	FMX
<b>Test Group</b>	NFMXT00.0BG1	<b>Evaporative/Refueling Family</b>	--
<b>Certificate Number</b>	--	<b>CARB Executive Order #</b>	--
<b>Certificate Issue Date</b>	--	<b>Certificate Revision Date</b>	--
<b>Certificate Effective Date</b>	--	<b>Conditional Certificate</b>	--
<b>CSI Revision #</b>	--	<b>CSI Submission/Revision Date</b>	12/13/2021 10:09:36 PM
<b>Model Year</b>	2022		

<b>Test Group Information</b>								
<b>CSI Type</b>	Update for Correction	<b>Running Change Reference Number</b>	--					
<b>GHG Exempt Status</b>	Not Exempt							
<b>Drive Sources and Fuel(s)</b>								
<b>Drive Source #1:</b>	Electric Motor							
	<table border="1"> <thead> <tr> <th>Fuel</th> <th>Basic Fuel Metering System</th> <th>Lean Burn Strategy Indicator</th> </tr> </thead> <tbody> <tr> <td>Electricity</td> <td>--</td> <td>No</td> </tr> </tbody> </table>	Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator	Electricity	--	No	
Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator						
Electricity	--	No						
<b>Hybrid Indicator</b>	No							
<b>Multiple Fuel Storage</b>	--	<b>Rechargeable Energy Storage System Indicator</b>	Yes					
<b>Multiple Fuel Combustion</b>	--	<b>Off-board Charge Capable Indicator</b>	Yes					
<b>Fuel Cell Indicator</b>	No	<b>EPA Vehicle Class</b>	LDT4					
<b>Federal Clean Fuel Vehicle</b>	No	<b>Federal Clean Fuel Vehicle Standard</b>	--					
<b>Federal Clean Fuel Vehicle ILEV</b>	--	<b>California Partial Zero Emissions Vehicle Indicator</b>	--					
<b>Durability Group Name</b>	NFMXEEVNNG1G	<b>Durability Group Equivalency Factor</b>	1.0					
<b>Reduced Fee Test Group</b>	No	<b>Certification Region Code(s)</b>	FA, CA					
<b>Complies with HD GHG 2b/3 regulations?</b>	No							
<b>Introduction into Commerce Date</b>	--	<b>CAP2000 Conditional Certificate?</b>	N/A					
<b>Independent Commercial Importer?</b>	--	<b>Alternative Fuel Converter Certificate?</b>	--					
<b>SFTP Federal Composite Compliance Identifier</b>	Not Applicable	<b>SFTP Tier 2 Composite CO Option</b>	--					
<b>SFTP LEV-III Composite Compliance Indicator</b>	No							
<b>OBD Compliance Type</b>	CARB	<b>OBD Demonstration Vehicle Test Group</b>	MFMT02.53CE					
<b>Test Group OBD Compliance Level</b>	Full - no deficiencies	<b>Number of Test Group OBD Deficiencies</b>	0					
<b>OBD Deficiencies Comments</b>	This BEV program does not have OBD compliance requirements. Items filled in for the purpose of passing system validation because they are required fields.							
<b>Mfr Test Group Comments</b>	F-150 Lightning BEV - Standard Range							
<b>Mfr Exhaust / Evap Standards Comments</b>	--							

### Certification Summary Information Report

<b>Test Group</b>		NFMXT00.0BG1			<b>Evaporative/Refueling Family</b>			--		
<b>Models Covered by this Certificate</b>										
<b>Carline Manufacturer</b>	<b>Division</b>	<b>Carline</b>	<b>Certification Region Code(s)</b>	<b>Drive System</b>	<b>Trans - Type</b>	<b>- # of Gears</b>	<b>Trans - Lockup</b>			
Ford Motor Company	1 - Ford	116 - F150 PICKUP LIGHTNING 4WD	California + CAA Section 177 states	All Wheel Drive	Automatic	1	No			
Ford Motor Company	1 - Ford	116 - F150 PICKUP LIGHTNING 4WD	Federal	All Wheel Drive	Automatic	1	No			
<b>Engine Description</b>										
<b>Hybrid Type</b>			--		<b>Hybrid Description</b>			--		
<b>Engine Type</b>			--		<b>Mfr Engine Description</b>			--		
<b>Engine Block Arrangement</b>			--		<b>Mfr Engine Block Arrangement Description</b>			--		
<b>Camless Valvetrain Indicator</b>			--		<b>Oil Viscosity/Classification</b>			--		
<b>Number of Cylinders/Rotors</b>			--		<b>Mechanically Variable Compression Ratio Indicator</b>			--		
<b>After Treatment Device(s) (ATD)</b>										
<b>Mfr After Treatment Device (ATD) Comments</b>			--							
<b>Direct Ozone Reduction (DOR) Device</b>			--							
<b>Mfr Emission Control Device Comments</b>			--							
<b>Official Test Numbers</b>										
<b>Test Group Fuel</b>	<b>FTP</b>	<b>US06</b>	<b>SC03</b>	<b>Cold CO</b>	<b>Highway</b>	<b>EPA City Litmus Value</b>	<b>EPA City Litmus Threshold</b>	<b>EPA Highway Litmus Value</b>	<b>EPA Highway Litmus Threshold</b>	<b>CREE Weighting Factor</b>
Electricity	--	--	--	--	--	--	--	--	--	--
<b>Official Charge Depleting Test Numbers</b>										
<b>Test Group Fuel</b>		<b>UDDS</b>			<b>Highway</b>					
Electricity		NFMX10071664			NFMX10071665					

## Certification Summary Information Report

Test Group	NFMXT00.0BG1	Evaporative/Refueling Family	--
<b>Hybrid Electric Vehicle And Fuel Cell Information</b>			
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if Other	--
Battery Type	Lithium Ion	Number of Battery Packs	1
Total Voltage of Battery Packs	378	Battery Energy Capacity	328
Battery Specific Energy	198	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)	2		
Motor/Generator Type 1	AC permanent magnet synchronou	Rated Motor/Generator Power	358
Motor/Generator Type 2	AC permanent magnet synchronou	Rated Motor/Generator Power	358
Mfr Fuel Cell Description	--		
Fuel Cell On-Board H2 Storage Capacity (kg)	--	Usable H2 Fill Capacity (kg)	--
Mfr Hybrid Electric/ Electric Vehicle Comments	This is a pure BEV vehicle. The Drive Motors are both AC permanent magnet synchronous machines.		

### Certification Summary Information Report

<b>Test Group</b>	NFMXT00.0BG1	<b>Evaporative/Refueling Family</b>	--
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**Emission Data Vehicle Information**

Vehicle ID / Configuration	NFD1-0.0-J-554 / 0	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	NFMXT00.0BG1	Original Evaporative/Refueling Family	--
Original Test Vehicle Model Year	2022		
<b>Vehicle Model</b>			
Represented Test Vehicle Make	Ford	Represented Test Vehicle Model	F-150 Lightning

**Leak Family Details**

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

**Drive Sources and Fuel System Details**

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

Hybrid Indicator	No	Multiple Fuel Combustion	--
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	Yes
Fuel Cell Indicator	No	Rechargeable Energy Storage System, if 'Other'	--
Rechargeable Energy Storage System	Battery(s)		
Off-board charge Capable Indicator	Yes	Odometer Correction Factor	1.03
Odometer Correction -- Initial	0	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles	
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles		
Odometer Correction Units	Miles	Rated Horsepower	480
Engine Code	NTFDAANA05	Air Aspiration Method, if 'Other'	N/A - BEV
Displacement (liters)	0.001	Air Aspiration Device Configuration	--
Air Aspiration Method	Naturally Aspirated	Drive Mode While Testing	All Wheel Drive
Number of Air Aspiration Devices	--	Aged Emission Components	4,000 (mi)
Charge Air Cooler Type	N/A	Equivalent Test Weight (pounds)	6500
Shift Indicator Light Usage	Not equipped	N/V Ratio	40.4
Curb Weight (lbs)	6264	# of Transmission Gears	1
GVWR (lbs)	8250	Creeper Gear	No
Axle Ratio	3.55		
Transmission Type	Electric Vehicle		
Transmission Lockup	No		

**Dynamometer Coefficients:**

Coefficient Category	Target Coefficients			Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	
City/Highway/Evap	44.34	0.3345	0.03537	-2.51	-0.0769	0.03598	19.9

Emission Control Device Comments --

## Certification Summary Information Report

<b>Test Group</b>	NFMXT00.0BG1		<b>Evaporative/Refueling Family</b>	--								
<b>Manufacturer Test Vehicle Comments</b>	--											
<b>Test #</b>	NFMX10071664		<b>Test Procedure</b>	<b>81 - Charge Depleting UDDS</b>								
<b>Exhaust Test # for this Evap Test</b>	--		<b>Test Fuel Type</b>	62 - Electricity								
<b>Test Date</b>	09/17/2021		<b>Fuel</b>	Electricity								
<b>Fuel Batch ID</b>	--		<b>Fuel Calibration Number</b>	--								
<b>Vehicle Class</b>	LDV/Passenger Car		<b>DF Type</b>	Mfr. Assigned								
<b>Verify Test Lab ID</b>	APTL											
<b>E10 Evaporative Test Measurement Method</b>	--											
<b>Test Start Odometer Reading</b>	2622		<b>Odometer Units</b>	M								
<b>4WD Test Dyno</b>	Yes		<b>Diesel Adjustment Factor Usage</b>	--								
<b>State of Charge Delta</b>	Yes		<b>Road Speed Fan Usage</b>	Yes								
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)											
<b>PHEV/EV Charge Depleting Test Information</b>												
<b>Recharge Event Voltage</b>	240		<b>Recharge Event Energy (kiloWatt-hours)</b>	114.5								
<b>Charge Depleting Range (Calculated miles)</b>	367.4		<b>Charge Depleting Range (Actual miles)</b>	367.4								
<b>All Electric Range Unadjusted (miles)</b>	--		<b>Derived 5-Cycle Coefficient Model Year</b>	--								
<b>Equivalent All Electric Range (miles)</b>	367.4											
<b>Number of Charge Depleting Bags/Phases Conducted</b>	1		<b>Transition Bag/Phase Number</b>	--								
<b>Charge Depleting Bag/Phase</b>												
	<b>Charge Depleting Bag/Phase #</b>	<b>Test Result/Emission Name</b>	<b>Unrounded Test Result</b>									
	1	Carbon-Related Exhaust Emissions	0									
	2	Drive Trace Absolute Speed Change Rating	2.83									
	3	Drive Trace Energy Economy Rating	1.31									
	4	Drive Trace Inertia Work Ratio Rating	4.84									
	5	Manufacturer Fuel Economy	108.1									
<b>Manufacturer Test Comments</b>	--											
<b>Certification Region</b>	<b>Useful Life</b>	<b>Standard Level</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG/NM HC Ratio</b>	<b>Diesel Adjustment Factor</b>	<b>Add DF</b>	<b>Mult DF</b>	<b>Certification Level</b>	<b>Standard</b>	<b>Pass/Fail</b>
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--

## Certification Summary Information Report

<b>Test Group</b>	NFMXT00.0BG1	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>NFMX10071665</b>	<b>Test Procedure</b>	<b>84 - Charge Depleting Highway</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	09/17/2021	<b>Fuel</b>	Electricity
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	Mfr. Assigned
<b>Verify Test Lab ID</b>	APTL		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2622	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	<b>Road Speed Fan Usage</b>	Yes

**PHEV/EV Charge Depleting Test Information**

<b>Recharge Event Voltage</b>	240	<b>Recharge Event Energy (kiloWatt-hours)</b>	114.5
<b>Charge Depleting Range (Calculated miles)</b>	289	<b>Charge Depleting Range (Actual miles)</b>	289
<b>All Electric Range Unadjusted (miles)</b>	--	<b>Derived 5-Cycle Coefficient Model Year</b>	--
<b>Equivalent All Electric Range (miles)</b>	289		
<b>Number of Charge Depleting Bags/Phases Conducted</b>	1	<b>Transition Bag/Phase Number</b>	--

**Charge Depleting Bag/Phase**

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
1	Carbon-Related Exhaust Emissions	0
2	Drive Trace Absolute Speed Change Rating	2.83
3	Drive Trace Energy Economy Rating	1.31
4	Drive Trace Inertia Work Ratio Rating	4.84
5	Manufacturer Fuel Economy	85

**Manufacturer Test Comments** --

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--

**Fuel Properties**



### Certification Summary Information Report

<b>Test Group</b>	NFMXT00.0BG1	<b>Evaporative/Refueling Family</b>	--
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#### Consolidated List of Standards

**Exhaust Standards**

<b>Cert Region</b>	California + CAA Section 177 states	<b>Cert/In-Use Code</b>	Both
<b>Vehicle Class</b>	LDV/Passenger Car	<b>Standard Level</b>	California ZEV
<b>Fuel</b>	Electricity	<b>Test Procedure</b>	Charge Depleting UDDS

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

<b>Cert Region</b>	California + CAA Section 177 states	<b>Cert/In-Use Code</b>	Both
<b>Vehicle Class</b>	LDV/Passenger Car	<b>Standard Level</b>	California ZEV
<b>Fuel</b>	Electricity	<b>Test Procedure</b>	Cold CO

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

<b>Cert Region</b>	Federal	<b>Cert/In-Use Code</b>	Both
<b>Vehicle Class</b>	LDV/Passenger Car	<b>Standard Level</b>	Federal Tier 3 Bin 0
<b>Fuel</b>	Electricity	<b>Test Procedure</b>	Charge Depleting Highway

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

<b>Cert Region</b>	Federal	<b>Cert/In-Use Code</b>	Both
<b>Vehicle Class</b>	LDV/Passenger Car	<b>Standard Level</b>	Federal Tier 3 Bin 0
<b>Fuel</b>	Electricity	<b>Test Procedure</b>	Charge Depleting UDDS

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

### Certification Summary Information Report

<b>Test Group</b>		NFMXT00.0BG1			<b>Evaporative/Refueling Family</b>			--		
<b>Cert Region</b>		California + CAA Section 177 states			<b>Cert/In-Use Code</b>			Both		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			California ZEV		
<b>Fuel</b>		Electricity			<b>Test Procedure</b>			Charge Depleting Highway		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CREE	--	--	--	--	--	--	0	0	
<b>Cert Region</b>		Federal			<b>Cert/In-Use Code</b>			Both		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			Federal Tier 3 Bin 0		
<b>Fuel</b>		Electricity			<b>Test Procedure</b>			Cold CO		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0	0	

## Certification Summary Information Report

Test Group	NFMXT00.0BG1	Evaporative/Refueling Family	--
<b>Glossary</b>			
<b>Useful Life</b>			
4	4,000 miles	120	120,000 miles
50	50,000 miles	150	150,000 miles
100	100,000 miles		
<b>Emission Name</b>			
HC-TOTAL	Total Hydrocarbon	METHANOL	CH3OH - Methanol
CO	Carbon Monoxide	N2O	Nitrous Oxide
CO2	Carbon dioxide	SPITBACK	Spitback Hydrocarbon in grams
CREE	Carbon-Related Exhaust Emissions	AMP-HRS	Integrated Amp-hours
OPT-CREE	Optional Carbon-Related Exhaust Emissions	START-SOC	System Start State of Charge Watt-hours
NOX	Nitrogen Oxide	END-SOC	System End State of Charge Watt-hours
PM	Particulate Matter	ACT-DISTANCE	Actual Distance Driven (miles)
PM-COMP	SFTP Composite Particulate Matter	AS-VOLT	Average System Voltage
HC-NM	Non-methane Hydrocarbon	CO2 BAG 1	Bag 1 Carbon Dioxide
OMHCE	Organic material Hydrocarbon Equivalent	CO2 BAG 2	Bag 2 Carbon Dioxide
OMNMHCE	Organic material non-methane HC equivalent	CO2 BAG 3	Bag 3 Carbon Dioxide
NMOG	Non-methane organic gases	CO2 BAG 4	Bag 4 Carbon Dioxide
HCHO	Formaldehyde	NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides
H3C2HO	Acetaldehyde	NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03	DT-IWRR	Drive Trace Inertia Work Ratio Rating
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides	DT-ASCR	Drive Trace Absolute Speed Change Rating
CO-COMP	SFTP Composite Carbon Monoxide	DT-EER	Drive Trace Energy Economy Rating
ETHANOL	C2H5OH - Ethanol	COMB-CREE	Combined Carbon-Related Exhaust Emissions
FE BAG 1	Bag 1 Fuel Economy	COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions
FE BAG 2	Bag 2 Fuel Economy	HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only
FE BAG 3	Bag 3 Fuel Economy	METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only
FE BAG 4	Bag 4 Fuel Economy	N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only
MFR FE	Manufacturer Fuel Economy	LEAK-DIA	Effective Leak Diameter (inches)
HC	Hydrocarbon for Running Loss and ORVR	LEAK-GAS CAP	Gas Cap Leakage (cc/min)
METHANE	CH4 - Methane	CO2-COMB	Combined Carbon Dioxide for HD 2b/3 Vehicles Only
<b>Certification Region</b>			
CA	California + CAA Section 177 states	FA	Federal
<b>Exhaust Emission Standard Level</b>			
B1	Federal Tier 2 Bin 1	L3ULEV340	California LEV-III ULEV340
B2	Federal Tier 2 Bin 2	L3ULEV250	California LEV-III ULEV250
B3	Federal Tier 2 Bin 3	L3ULEV200	California LEV-III ULEV200
B4	Federal Tier 2 Bin 4	L3SULEV170	California LEV-III SULEV170
B5	Federal Tier 2 Bin 5	L3SULEV150	California LEV-III SULEV150

## Certification Summary Information Report

Test Group	NFMXT00.0BG1	Evaporative/Refueling Family	--
B6	Federal Tier 2 Bin 6	L3LEV630	California LEV-III LEV630
B7	Federal Tier 2 Bin 7	L3ULEV570	California LEV-III ULEV570
B8	Federal Tier 2 Bin 8	L3ULEV400	California LEV-III ULEV400
B9	Federal Tier 2 Bin 9	L3ULEV270	California LEV-III ULEV270
B10	Federal Tier 2 Bin 10	L3SULEV230	California LEV-III SULEV230
B11	Federal Tier 2 Bin 11	L3SULEV200	California LEV-III SULEV200
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)	T3B160	Federal Tier 3 Bin 160
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	T3B125	Federal Tier 3 Bin 125
L2	California LEV-II LEV	T3B110	Federal Tier 3 Transitional Bin 110
L2OP	California LEV-II LEV Optional	T3B85	Federal Tier 3 Transitional Bin 85
U2	California LEV-II ULEV	T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover
S2	California LEV-II SULEV	T3B70	Federal Tier 3 Bin 70
ZEV	California ZEV	T3B50	Federal Tier 3 Bin 50
OT	Other	T3B30	Federal Tier 3 Bin 30
T1	Federal Tier 1	T3B20	Federal Tier 3 Bin 20
PZEV	California PZEV	T3B0	Federal Tier 3 Bin 0
L2LEV160	California LEV-II LEV160	HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395
L2ULEV125	California LEV-II ULEV125	HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340
L2SULEV30	California LEV-II SULEV30	HDV2B250	Federal Tier 3 HD Class 2b Bin 250
L2LEV395	California LEV-II LEV395	HDV2B200	Federal Tier 3 HD Class 2b Bin 200
L2ULEV340	California LEV-II ULEV340	HDV2B170	Federal Tier 3 HD Class 2b Bin 170
L2LEV630	California LEV-II LEV630	HDV2B150	Federal Tier 3 HD Class 2b Bin 150
L2ULEV570	California LEV-II ULEV570	HDV2B0	Federal Tier 3 HD Class 2b Bin 0
L3LEV160	California LEV-III LEV160	HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630
L3ULEV125	California LEV-III ULEV125	HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570
L3ULEV70	California LEV-III ULEV70	HDV3B400	Federal Tier 3 HD Class 3 Bin 400
L3ULEV50	California LEV-III ULEV50	HDV3B270	Federal Tier 3 HD Class 3 Bin 270
L3SULEV30	California LEV-III SULEV30	HDV3B230	Federal Tier 3 HD Class 3 Bin 230
L3SULEV20	California LEV-III SULEV20	HDV3B200	Federal Tier 3 HD Class 3 Bin 200
L3LEV395	California LEV-III LEV395	HDV3B0	Federal Tier 3 HD Class 3 Bin 0
<b>Transmission Type Code</b>			
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)
<b>Drive System Code</b>			
4	4-Wheel Drive	P	Part-time 4-Wheel Drive
F	2-Wheel Drive, Front	A	All Wheel Drive
R	2-Wheel Drive, Rear		

**Certification Summary Information Report**

<b>Test Group</b>	NFMXT00.0BG1	<b>Evaporative/Refueling Family</b>	--
<b>Additional Terms and Acronyms</b>			
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

## **17 California Requirements**

### **17.1 Statement of Compliance**

#### **17.1.1 General Statement**

Ford Motor Company states that in regard to the vehicle control systems and all related parameters the production vehicles will be identical to the test vehicles which are used for certification testing.

#### **17.1.2 Drivability Statement**

The 2022 model year Ford F-150 Lightning vehicles meet the typical drivability requirements that the United States market expects, including acceleration rates, braking performance and stability performance. Furthermore, this vehicle meets all applicable FMVSS standards.

### **17.2 Supplemental Data and Certification Review Sheet**

#### **17.2.1 Certification Review Sheet**

See Attachment.

E.O.#.

**2022 MY MODEL-YEAR AIR RESOURCES BOARD CERTIFICATION REVIEW SHEET ZEV-PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES**

Manufacturer: Ford Motor Company

Test Group: NFMXV00.0B3R

Range Test Results								
		(check one)	(check one)			System	System	Vehicle
Vehicle ID	Trans	TW _____	DPA _____	Unadjusted Range	AC (Wh/mi)	DC (Wh/mi)	DC (Wh/mi)	
		ETW / GVWR <u>X</u>	RLHP _____					
			dyno coeff. <u>X</u>					
NFD1-0.0-J-554	CVT	6500	F0 = 44.34	Ford UDDS Original Test	367.42	311.76	315.63	270.99
			F1 = 0.0769				275.13	
			F2 = 0.03598				263.57	
							271.06	
				Ford HWY Original Test	289.02	396.33	348.85	344.51
						340.17		

Battery Test Results: Specific Energy (Whr/kg) 198

Vehicle Models	Trans type	Calibration	ETW (lb)	Tires	TRLHP
F-150 Lightning	CVT (single speed)	NTFDAANA05	6500	275/65R18	19.9

Fuel Fired Heater Test Results (emission results in grams/mile): NA

NMHC

CO

NOx

Remarks:

-----**ARB USE ONLY**-----

Application Processed By: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_

Test Group: NFMXT00.0BG1

Issued: 12/13/2021

Revised:

### **17.3 Reserved**

### **17.4 Credits**

#### **17.4.1 Description of multi-manufacturer arrangements**

Not applicable to this program. Ford is the sole manufacturer of this product.

#### **17.4.2 Credit Calculation**

As per the California EPA ARB document: “California Exhaust Emissions Standards ... for 2018 and Subsequent Model Zero-Emission Vehicles...”, which was adopted in California on Mar 22, 2012, the 2022 model year F-150 Lightning BEV will receive 4.00 ZEV Credits for each vehicle sold, according to the following formula:

ZEV Credit =

$(0.01) * (\text{UDDS Range}) + 0.50 = (0.01) * (367) + 0.50 = 4.17$  (4.00 Credits allowed).

### **17.5 Vehicle Safety**

#### **17.5.1 All Information for Safe Operation of Vehicle**

Details on how to operate the vehicle can be found in the owners guide.

Note that the vehicle is started and driven in the same manner as a conventional I.C.E. vehicle.

#### **17.5.2 Information on Safe Handling of Battery System**

The battery is to be serviced only by technicians that are authorized to do so by Ford. The detail will be available prior to production

#### **17.5.3 Description of Emergency Procedures**

Emergency procedures are described in Owner’s guide. Please refer to owner’s guide for details.



**APPLICATION REVISIONS**

**NFMXT00.0BG1**

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Engine Test Group: NFMXT00.0BG1  
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