

TOYOTA

Application For Certification - Part 1 **2027 Model Year**

Durability Group : VTYXEEVNNMZZ
Evap/refueling Families : N/A
Test Group : VTYXV00.0D15
Test Group Description : Battery electric vehicle (BEV), LDV
Applicable Standards : Federal states : Tier4 - Bin0 - LDV
California : See Federal
Carlines Covered : ES 500e AWD (19 inch Wheels)
ES 500e AWD (21 inch Wheels)
Engine Series : N/A
Vehicles Tested :

Vehicle I.D.	Config.	Test	Test Number
26-XZ3E	00	MCT	TTYX10092244
26-XZ3E	01	MCT	TTYX10092243

EPA Response Requested By : **August 14, 2026**

For Questions, Contact : Lisa Florida 734-695-2697

Note :

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1. **Correspondence and Communications**

Please refer to the FOI common file.

2. Confidential Information

2.1 Special Test Procedure

 Please refer to the section 16 of CBI Common file

2.2 Projected sales in California

 Please refer to the E-Cert

3. Facilities, Equipment and Test Procedures

The facilities and equipment comply with the related regulations, including 40CFR §1066.210

<Equipment> 48 inch, single roll electric dynamometer

<Regenerative Braking> Enabled

<Range Test Procedure>

Tested according to “California Exhaust Emission Standards and Test Procedures for 2026 and Subsequent Model Zero-Emission Vehicles, adopted March 22, 2012

<Test Procedure Used>

Tested using the Multi Cycle Test (MCT)sequence

3.1 Reserved

3.2 Battery and Vehicle Pre-Conditioning Procedures

The traction battery and vehicle does not require any pre-conditioning to enable the vehicle system.

3.3 Battery and Vehicle Break-in Period and Range

Break in Period of Vehicle	Break in mile of Vehicle
N/A	2,000 mile

4.Reserved

5.Reserved

6 Maintenance

6.1 Test Vehicle Scheduled Maintenance

N/A(same as “Recommended Customer Maintenance Schedule” found in next section).

6.2 Recommended Customer Maintenance Schedule

Please refer to recommended maintenance schedule in the owner’s manual.

6.3 Lubricants and heater fuels, if any

Please refer to recommended Fluid in the owner’s manual.

7 Labels

7.1 VECI Label locations : underside of the hood

7.2 Information of the Labels

Sample of VECI label



Sample of Battery label



7.3 Reserved

7.4 Statement of Compliance

This vehicle conforms to US EPA Tier 4 Bin 0 vehicle regulations applicable to 2027 model year new motor vehicles.

8. General Technical Description

Please refer to the section of CBI Test Group file

9. Reserved

10. Reserved

11 Starting and Shifting Schedules

11.1 Starting Procedure

Please refer to Section 12 of the FOI common file

12 Description of Test Group

12. Test Group Description

12.1 Test group name : VTYXV00.0D15

12.2 Engine displacements covered : N/A

12.3 Arrangement and number of cylinders : N/A

12.4 Vehicle class (es) covered : LDV

12.5 Federal emission standards class : Tier4 - Bin0- LDV

12.6 California Emission standards class : See Federal

12.7 Applicable emission standards

Please refer to Certification Summary Information Report in Section 16 CBI common file.

13. Reserved

14.Request for Certificate

Test group : VTYXV00.0D15
Evap/refueling family : N/A

TOYOTA MOTOR CORPORATION requests that EPA/CARB issue a 2027 Model Year certificate of conformity and Executive Order for the above specified test group/evaporative family combination more fully described in this application. This combination complies with the following emission standards:

Federal: Tier4-Bin 0

California: See Federal



Kevin Webber
General Manager
Regulatory Affairs & Environmental Sustainability
Toyota Motor North America, Inc.

15 Other Information

Fee filing form

Invoice No.:EPA2027MY007

US EPA Fee Form

[Help and EPA Instructions](#)

* Required Field

Tracking Information

Pay.gov Tracking ID: 281Q9RUE

Agency Tracking ID: 77370576628

General Information

Date: 04/28/2026

Process Code *

Submit New Fee Filing Form

Manufacturer Code *

TYX

Manufacturer Name *

Toyota Motor Corporation

Contact Name *

Keisha Anderson

Contact Email Address *

keisha.anderson@toyota.com

Contact Phone *

734-995-3552

Calendar Year complete application submitted to EPA *

2026

PLEASE NOTE: These fees apply to complete certification applications received by EPA from January 1, 2026, through December 31, 2026. The applicable fee is determined by the

Payment Information

Amount Owed

\$32,317.00

Payment Type *

Offline ACH

Comments

EPA Form Number 3520-29

OMB Control No. 2060-0545

Approval expires 7/31/2027

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

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

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

Engine Family / Evaporative Family / Test Group *

VTYXV00.0D15

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

16. Test Result**16.1 Test Vehicle Description**

Vehicle Type	Vehicle ID	Config.	Tests Performed
Certification FEDV	26-XZ3E	00	Multi-cycle
		01	Multi-cycle

For the range values and energy consumption rate, please refer to the supplemental sheet and E-Cert.

Certification Summary Information Report

Manufacturer	Toyota Motor Corporation	Manufacturer Code	TYX
Test Group	VTYXV00.0D15	Evaporative/Refueling Family	--
Certificate Number	--	CARB Executive Order #	--
Certificate Issue Date	--	Certificate Revision Date	--
Certificate Effective Date	--	Conditional Certificate	--
CSI Revision #	--	CSI Submission/Revision Date	06/10/2026 08:54:32 PM
Model Year	2027		

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	--	--

Hybrid Indicator	No		
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	Yes
Multiple Fuel Combustion	--	Off-board Charge Capable Indicator	Yes
Fuel Cell Indicator	No	EPA Vehicle Class	LDV
Federal Clean Fuel Vehicle	No	Federal Clean Fuel Vehicle Standard	--
Federal Clean Fuel Vehicle ILEV	--	California Partial Zero Emissions Vehicle Indicator	--
Durability Group Name	VTYXEEVNNMZZ	Durability Group Equivalency Factor	1.0
Reduced Fee Test Group	No	Certification Region Code(s)	FA, CA
Complies with HD GHG 2b/3 regulations?	No		
Introduction into Commerce Date	--	CAP2000 Conditional Certificate?	N/A
Independent Commercial Importer?	--	Alternative Fuel Converter Certificate?	--
SFTP Federal Composite Compliance Identifier	Not Applicable	SFTP Tier 2 Composite CO Option	--
SFTP LEV-III Composite Compliance Indicator	No		
OBD Compliance Type	CARB	OBD Demonstration Vehicle Test Group	VTYXT03.4B5A
Test Group OBD Compliance Level	Full - no deficiencies	Number of Test Group OBD Deficiencies	0
OBD Deficiencies Comments	This vehicle is exempted from OBD requirement because this vehicle is BEV.		
Mfr Test Group Comments	Durability Group Equivalency Factor is not available because this vehicle is BEV.(1.0 is a dummy)		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	VTYXV00.0D15	Evaporative/Refueling Family	--
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Models Covered by this Certificate

Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
Toyota Motor Corporation	2 - LEXUS	39 - ES 500e AWD(21inch Wheels)	Federal	All Wheel Drive	Automatic	1	No
Toyota Motor Corporation	2 - LEXUS	39 - ES 500e AWD(21inch Wheels)	California + CAA Section 177 states	All Wheel Drive	Automatic	1	No
Toyota Motor Corporation	2 - LEXUS	34 - ES 500e AWD(19inch Wheels)	Federal	All Wheel Drive	Automatic	1	No
Toyota Motor Corporation	2 - LEXUS	34 - ES 500e AWD(19inch Wheels)	California + CAA Section 177 states	All Wheel Drive	Automatic	1	No

Engine Description

Hybrid Type	--	Hybrid Description	--
Engine Type	--	Mfr Engine Description	--
Engine Block Arrangement	--	Mfr Engine Block Arrangement Description	--
Camless Valvetrain Indicator	--	Oil Viscosity/Classification	
Number of Cylinders/Rotors	--	Mechanically Variable Compression Ratio Indicator	--

After Treatment Device(s) (ATD)

Mfr After Treatment Device (ATD) Comments	--
Direct Ozone Reduction (DOR) Device	--
Mfr Emission Control Device Comments	--

Official Test Numbers

Test Group	Fuel	FTP	US06	SC03	Cold CO	Highway	EPA City Litmus Value	EPA City Litmus Threshold	EPA Highway Litmus Value	EPA Highway Litmus Threshold	CREE Weighting Factor
Electricity		--	--	--	--	--	--	--	--	--	--

Certification Summary Information Report

Test Group	VTYXV00.0D15	Evaporative/Refueling Family	--
Hybrid Electric Vehicle And Fuel Cell Information			
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	391	Battery Energy Capacity	191
Battery Specific Energy	164	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	Yes
Mfr Regenerative Braking Description	--		
Drive Motor(s)/Generator(s)	2		
Motor/Generator Type 1	AC Synchronous	Rated Motor/Generator Power	88
Motor/Generator Type 2	AC Synchronous	Rated Motor/Generator Power	167
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	VTYXV00.0D15		Evaporative/Refueling Family	--						
Emission Data Vehicle Information										
Vehicle ID / Configuration	26-XZ3E / 0		Manufacturer Vehicle Configuration Number	0						
Original Test Group Name	TTYXV00.0D15		Original Evaporative/Refueling Family	--						
Original Test Vehicle Model Year	2026									
Vehicle Model										
Represented Test Vehicle Make	LEXUS		Represented Test Vehicle Model	ES 500e AWD (19inch Wheels)						
Leak Family Details										
Leak Family Identifier	--		Leak Family Name	--						
Drive Sources and Fuel System Details										
<table border="1"> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> <tr> <td>1</td> <td>Electric Motor</td> <td>Electricity</td> </tr> </table>					Drive Source and Fuel#	Drive Source	Fuel	1	Electric Motor	Electricity
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 -- Initial	0		Odometer Correction Factor	1						
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor									
Odometer Correction Units	Miles									
Engine Code	01		Rated Horsepower	182						
Displacement (liters)	0.001									
Air Aspiration Method	Naturally Aspirated		Air Aspiration Method, if 'Other'							
Number of Air Aspiration Devices	--		Air Aspiration Device Configuration	--						
Charge Air Cooler Type	N/A		Drive Mode While Testing	4-Wheel Drive						
Shift Indicator Light Usage	Not equipped		Aged Emission Components	4,000 (mi)						
Curb Weight (lbs)	4850		Equivalent Test Weight (pounds)	5250						
GVWR (lbs)	--		N/V Ratio	0						
Axle Ratio	0									
Transmission Type	Automatic		# of Transmission Gears	1						
Transmission Lockup	No		Creep Gear	No						
Dynamometer Coefficients:										
Target Coefficients			Set Coefficients							
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients						
City/Highway/Evap	32.05	0.21334	0.015789	11						
Emission Control Device Comments										
--										

Certification Summary Information Report

Test Group	VTYXV00.0D15	Evaporative/Refueling Family	--
Manufacturer Test Vehicle Comments	Front Motor Power - 64 kW; Rear Motor Power - 71.9 kW.		

Certification Summary Information Report

Test Group	VTYXV00.0D15	Evaporative/Refueling Family	--
Test #	TTYX10092244	Test Procedure	77 - Multi-Cycle Test (MCT)
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	09/02/2025	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	Toyota Motor Corporation		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	2042	Odometer Units	M
4WD Test Dyno	Yes	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
PHEV/EV Charge Depleting Test Information			
Recharge Event Voltage	240	Recharge Event Energy (kiloWatt-hours)	81.2673
Charge Depleting Range (Calculated miles)	420.308	Charge Depleting Range (Actual miles)	420.308
Charge Depleting Range Highway (Calculated miles)	380.159	Derived 5-Cycle Coefficient Model Year	--
All Electric Range Unadjusted (miles)	--	Equivalent All Electric Range (miles)	420.308
Number of Charge Depleting Bags/Phases Conducted	8	Transition Bag/Phase Number	--
Charge Depleting Bag/Phase #1			
Test Result/Emission Name		Unrounded Test Result	
Actual Distance Driven (miles)		7.4530341	
Carbon-Related Exhaust Emissions		0	
Drive Trace Absolute Speed Change Rating		0.61	
Drive Trace Energy Economy Rating		0.35	
Drive Trace Inertia Work Ratio Rating		0.98	
Integrated DC KW-HRS		1.4682833	
Manufacturer Fuel Economy		19.7004779	
Charge Depleting Bag/Phase #2			

Charge Depleting Bag/Phase #3

Charge Depleting Bag/Phase #4

Charge Depleting Bag/Phase #5

Charge Depleting Bag/Phase #6

Certification Summary Information Report

Test Group	VTYXV00.0D15	Evaporative/Refueling Family	--																
<table><tr><th>Test Result/Emission Name</th><th>Unrounded Test Result</th></tr><tr><td>Actual Distance Driven (miles)</td><td>10.2598542</td></tr><tr><td>Carbon-Related Exhaust Emissions</td><td>0</td></tr><tr><td>Drive Trace Absolute Speed Change Rating</td><td>0.77</td></tr><tr><td>Drive Trace Energy Economy Rating</td><td>0.02</td></tr><tr><td>Drive Trace Inertia Work Ratio Rating</td><td>1.1</td></tr><tr><td>Integrated DC KW-HRS</td><td>1.9485961</td></tr><tr><td>Manufacturer Fuel Economy</td><td>18.9924347</td></tr></table>				Test Result/Emission Name	Unrounded Test Result	Actual Distance Driven (miles)	10.2598542	Carbon-Related Exhaust Emissions	0	Drive Trace Absolute Speed Change Rating	0.77	Drive Trace Energy Economy Rating	0.02	Drive Trace Inertia Work Ratio Rating	1.1	Integrated DC KW-HRS	1.9485961	Manufacturer Fuel Economy	18.9924347
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Drive Trace Inertia Work Ratio Rating	1.1																		
Integrated DC KW-HRS	1.9485961																		
Manufacturer Fuel Economy	18.9924347																		
Charge Depleting Bag/Phase #7																			
<table><tr><th>Test Result/Emission Name</th><th>Unrounded Test Result</th></tr><tr><td>Actual Distance Driven (miles)</td><td>7.4528029</td></tr><tr><td>Carbon-Related Exhaust Emissions</td><td>0</td></tr><tr><td>Drive Trace Absolute Speed Change Rating</td><td>0.54</td></tr><tr><td>Drive Trace Energy Economy Rating</td><td>0.01</td></tr><tr><td>Drive Trace Inertia Work Ratio Rating</td><td>1.15</td></tr><tr><td>Integrated DC KW-HRS</td><td>1.2958958</td></tr><tr><td>Manufacturer Fuel Economy</td><td>17.3880323</td></tr></table>				Test Result/Emission Name	Unrounded Test Result	Actual Distance Driven (miles)	7.4528029	Carbon-Related Exhaust Emissions	0	Drive Trace Absolute Speed Change Rating	0.54	Drive Trace Energy Economy Rating	0.01	Drive Trace Inertia Work Ratio Rating	1.15	Integrated DC KW-HRS	1.2958958	Manufacturer Fuel Economy	17.3880323
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Drive Trace Energy Economy Rating	0.01																		
Drive Trace Inertia Work Ratio Rating	1.15																		
Integrated DC KW-HRS	1.2958958																		
Manufacturer Fuel Economy	17.3880323																		
Charge Depleting Bag/Phase #8																			
<table><tr><th>Test Result/Emission Name</th><th>Unrounded Test Result</th></tr><tr><td>Actual Distance Driven (miles)</td><td>30.7006288</td></tr><tr><td>Carbon-Related Exhaust Emissions</td><td>0</td></tr><tr><td>Drive Trace Absolute Speed Change Rating</td><td>0</td></tr><tr><td>Drive Trace Energy Economy Rating</td><td>0</td></tr><tr><td>Drive Trace Inertia Work Ratio Rating</td><td>0</td></tr><tr><td>Integrated DC KW-HRS</td><td>7.5720596</td></tr><tr><td>Manufacturer Fuel Economy</td><td>24.664184</td></tr></table>				Test Result/Emission Name	Unrounded Test Result	Actual Distance Driven (miles)	30.7006288	Carbon-Related Exhaust Emissions	0	Drive Trace Absolute Speed Change Rating	0	Drive Trace Energy Economy Rating	0	Drive Trace Inertia Work Ratio Rating	0	Integrated DC KW-HRS	7.5720596	Manufacturer Fuel Economy	24.664184
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Carbon-Related Exhaust Emissions	0																		
Drive Trace Absolute Speed Change Rating	0																		
Drive Trace Energy Economy Rating	0																		
Drive Trace Inertia Work Ratio Rating	0																		
Integrated DC KW-HRS	7.5720596																		
Manufacturer Fuel Economy	24.664184																		
Manufacturer Test Comments																			
--																			

Certification Summary Information Report

Test Group		VTYXV00.0D15			Evaporative/Refueling Family					--		
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 4 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 4 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 4 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 4 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 4 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 4 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 4 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 4 Bin 0	CREE	0	--	--	--	0	--	0	--	--

Certification Summary Information Report

Test Group	VTYXV00.0D15	Evaporative/Refueling Family	--						
Emission Data Vehicle Information									
Vehicle ID / Configuration	26-XZ3E / 1	Manufacturer Vehicle Configuration Number	1						
Original Test Group Name	TTYXV00.0D15	Original Evaporative/Refueling Family	--						
Original Test Vehicle Model Year	2026								
Vehicle Model									
Represented Test Vehicle Make	LEXUS	Represented Test Vehicle Model	ES 500e AWD (21inch Wheels)						
Leak Family Details									
Leak Family Identifier	--	Leak Family Name	--						
Drive Sources and Fuel System Details									
	<table border="1"> <tr> <th>Drive Source and Fuel#</th><th>Drive Source</th><th>Fuel</th></tr> <tr> <td>1</td><td>Electric Motor</td><td>Electricity</td></tr> </table>	Drive Source and Fuel#	Drive Source	Fuel	1	Electric Motor	Electricity		
Drive Source and Fuel#	Drive Source	Fuel							
1	Electric Motor	Electricity							
Hybrid Indicator	No								
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	Yes								
Odometer Correction -- Initial	0	Odometer Correction Factor	1						
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor								
Odometer Correction Units	Miles								
Engine Code	01	Rated Horsepower	182						
Displacement (liters)	0.001								
Air Aspiration Method	Naturally Aspirated	Air Aspiration Method, if 'Other'							
Number of Air Aspiration Devices	--	Air Aspiration Device Configuration	--						
Charge Air Cooler Type	N/A	Drive Mode While Testing	4-Wheel Drive						
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)						
Curb Weight (lbs)	4895	Equivalent Test Weight (pounds)	5250						
GVWR (lbs)	--	N/V Ratio	0						
Axle Ratio	0								
Transmission Type	Automatic	# of Transmission Gears	1						
Transmission Lockup	No	Creep Gear	No						
Dynamometer Coefficients:									
	Target Coefficients								
	Set Coefficients								
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)						
City/Highway/Evap	33.622	0.21388	0.015819						
		A (lbf)	B (lbf/mph)						
			C (lbf/mph**2)						
			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients						
			11.2						
Emission Control Device Comments	--								

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Certification Summary Information Report

Test Group	VTYXV00.0D15	Evaporative/Refueling Family	--
Test #	TTYX10092243	Test Procedure	77 - Multi-Cycle Test (MCT)
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	09/12/2025	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	Toyota Motor Corporation		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	2578	Odometer Units	M
4WD Test Dyno	Yes	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
PHEV/EV Charge Depleting Test Information			
Recharge Event Voltage	240	Recharge Event Energy (kiloWatt-hours)	80.8927
Charge Depleting Range (Calculated miles)	419.118	Charge Depleting Range (Actual miles)	419.118
Charge Depleting Range Highway (Calculated miles)	372.707	Derived 5-Cycle Coefficient Model Year	--
All Electric Range Unadjusted (miles)	--	Equivalent All Electric Range (miles)	419.118
Number of Charge Depleting Bags/Phases Conducted	8	Transition Bag/Phase Number	--
Charge Depleting Bag/Phase #1			
Test Result/Emission Name		Unrounded Test Result	
Actual Distance Driven (miles)		7.4533447	
Carbon-Related Exhaust Emissions		0	
Drive Trace Absolute Speed Change Rating		0.53	
Drive Trace Energy Economy Rating		0.15	
Drive Trace Inertia Work Ratio Rating		0.81	
Integrated DC KW-HRS		1.4700068	
Manufacturer Fuel Economy		19.7227811	
Charge Depleting Bag/Phase #2			

Charge Depleting Bag/Phase #3

Charge Depleting Bag/Phase #4

Charge Depleting Bag/Phase #5

Charge Depleting Bag/Phase #6

Certification Summary Information Report

Test Group	VTYXV00.0D15	Evaporative/Refueling Family	--																
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Manufacturer Test Comments																			
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Certification Summary Information Report

Test Group		VTYXV00.0D15			Evaporative/Refueling Family					--		
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 4 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 4 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 4 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 4 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 4 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 4 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 4 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 4 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fuel Properties												

Certification Summary Information Report

Test Group		VTYXV00.0D15			Evaporative/Refueling Family			--	
Consolidated List of Standards									
Exhaust Standards									
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			Federal Tier 4 Bin 0	
Fuel		Electricity			Test Procedure			Multi-Cycle Test (MCT)	
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	0.0
150,000 miles	CREE	--	--	--	--	--	--	0	999.9999
150,000 miles	MFR FE	--	--	--	--	--	--	--	999.9999
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			California ZEV	
Fuel		Electricity			Test Procedure			Multi-Cycle Test (MCT)	
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
150,000 miles	MFR FE	--	--	--	--	--	--	--	999.9999
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			Federal Tier 4 Bin 0	
Fuel		Electricity			Test Procedure			Federal fuel 3-day exhaust	
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	0.0
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			California ZEV	
Fuel		Electricity			Test Procedure			California fuel 3-day exhaust	
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

Certification Summary Information Report

Test Group		VTYXV00.0D15	Evaporative/Refueling Family		--
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		COMB-CREE	Combined Carbon-Related Exhaust Emissions	
CO	Carbon Monoxide		COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions	
CO2	Carbon dioxide		HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only	
CREE	Carbon-Related Exhaust Emissions		METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only	
OPT-CREE	Optional Carbon-Related Exhaust Emissions		N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only	
NOX	Nitrogen Oxide		LEAK-DIA	Effective Leak Diameter (inches)	
PM	Particulate Matter		LEAK-GAS CAP	Gas Cap Leakage (cc/min)	
PM-COMP	SFTP Composite Particulate Matter		CO2-COMB	Combined Carbon Dioxide for HD 2b/3 Vehicles Only	
HC-NM	Non-methane Hydrocarbon		KW-HRS	Integrated DC KW-HRS	
OMHCE	Organic material Hydrocarbon Equivalent		CH4 BAG 1	Bag 1 Methane	
OMNMHCE	Organic material non-methane HC equivalent		CH4 BAG 2	Bag 2 Methane	
NMOG	Non-methane organic gases		CH4 BAG 3	Bag 3 Methane	
HCHO	Formaldehyde		CH4 BAG 4	Bag 4 Methane	
H3C2HO	Acetaldehyde		CO BAG 1	Bag 1 Carbon Monoxide	
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03		CO BAG 2	Bag 2 Carbon Monoxide	
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides		CO BAG 3	Bag 3 Carbon Monoxide	
CO-COMP	SFTP Composite Carbon Monoxide		CO BAG 4	Bag 4 Carbon Monoxide	
ETHANOL	C2H5OH - Ethanol		NMOG BAG 1	Bag 1 Non-methane organic gases	
FE BAG 1	Bag 1 Fuel Economy		NMOG BAG 2	Bag 2 Non-methane organic gases	
FE BAG 2	Bag 2 Fuel Economy		NMOG BAG 3	Bag 3 Non-methane organic gases	
FE BAG 3	Bag 3 Fuel Economy		NMOG BAG 4	Bag 4 Non-methane organic gases	
FE BAG 4	Bag 4 Fuel Economy		ACT-DISTANCE BAG 1	Bag 1 Actual Distance	
MFR FE	Manufacturer Fuel Economy		ACT-DISTANCE BAG 2	Bag 2 Actual Distance	
HC	Hydrocarbon for Running Loss and ORVR		ACT-DISTANCE BAG 3	Bag 3 Actual Distance	
METHANE	CH4 - Methane		ACT-DISTANCE BAG 4	Bag 4 Actual Distance	
METHANOL	CH3OH - Methanol		HC-TOTAL BAG 1	Bag 1 Total Hydrocarbon	
N2O	Nitrous Oxide		HC-TOTAL BAG 2	Bag 2 Total Hydrocarbon	
SPITBACK	Spitback Hydrocarbon in grams		HC-TOTAL BAG 3	Bag 3 Total Hydrocarbon	
AMP-HRS	Integrated Amp-hours		HC-TOTAL BAG 4	Bag 4 Total Hydrocarbon	
START-SOC	System Start State of Charge Watt-hours		WATT-HRS BAG 1	Bag 1 Watt Hours	
END-SOC	System End State of Charge Watt-hours		WATT-HRS BAG 2	Bag 2 Watt Hours	

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Test Group		VTYXV00.0D15	Evaporative/Refueling Family		--
ACT-DISTANCE	Actual Distance Driven (miles)		WATT-HRS BAG 3	Bag 3 Watt Hours	
AS-VOLT	Average System Voltage		WATT-HRS BAG 4	Bag 4 Watt Hours	
CO2 BAG 1	Bag 1 Carbon Dioxide		WATT-HRS	Watt Hours	
CO2 BAG 2	Bag 2 Carbon Dioxide		HC-NM BAG 1	Bag 1 Non-methane Hydrocarbon	
CO2 BAG 3	Bag 3 Carbon Dioxide		HC-NM BAG 2	Bag 2 Non-methane Hydrocarbon	
CO2 BAG 4	Bag 4 Carbon Dioxide		HC-NM BAG 3	Bag 3 Non-methane Hydrocarbon	
NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides		HC-NM BAG 4	Bag 4 Non-methane Hydrocarbon	
NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides		N2O BAG 1	Bag 1 Nitrous Oxide	
DT-IWRR	Drive Trace Inertia Work Ratio Rating		N2O BAG 2	Bag 2 Nitrous Oxide	
DT-ASCR	Drive Trace Absolute Speed Change Rating		N2O BAG 3	Bag 3 Nitrous Oxide	
DT-EER	Drive Trace Energy Economy Rating		N2O BAG 4	Bag 4 Nitrous Oxide	
Certification Region					
CA	California + CAA Section 177 states		FA	Federal	
Exhaust Emission Standard Level					
B1	Federal Tier 2 Bin 1		HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340	
B2	Federal Tier 2 Bin 2		HDV2B250	Federal Tier 3 HD Class 2b Bin 250	
B3	Federal Tier 2 Bin 3		HDV2B200	Federal Tier 3 HD Class 2b Bin 200	
B4	Federal Tier 2 Bin 4		HDV2B170	Federal Tier 3 HD Class 2b Bin 170	
B5	Federal Tier 2 Bin 5		HDV2B150	Federal Tier 3 HD Class 2b Bin 150	
B6	Federal Tier 2 Bin 6		HDV2B0	Federal Tier 3 HD Class 2b Bin 0	
B7	Federal Tier 2 Bin 7		HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630	
B8	Federal Tier 2 Bin 8		HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570	
B9	Federal Tier 2 Bin 9		HDV3B400	Federal Tier 3 HD Class 3 Bin 400	
B10	Federal Tier 2 Bin 10		HDV3B270	Federal Tier 3 HD Class 3 Bin 270	
B11	Federal Tier 2 Bin 11		HDV3B230	Federal Tier 3 HD Class 3 Bin 230	
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)		HDV3B200	Federal Tier 3 HD Class 3 Bin 200	
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)		HDV3B0	Federal Tier 3 HD Class 3 Bin 0	
L2	California LEV-II LEV		L4SULEV100	California LEV-IV SULEV100	
L2OP	California LEV-II LEV Optional		L4SULEV125	California LEV-IV SULEV125	
U2	California LEV-II ULEV		L4SULEV15	California LEV-IV SULEV15	
S2	California LEV-II SULEV		L4SULEV150	California LEV-IV SULEV150	
ZEV	California ZEV		L4SULEV170	California LEV-IV SULEV170	
OT	Other		L4SULEV175	California LEV-IV SULEV175	
T1	Federal Tier 1		L4SULEV20	California LEV-IV SULEV20	
PZEV	California PZEV		L4SULEV200	California LEV-IV SULEV200	
L2LEV160	California LEV-II LEV160		L4SULEV230	California LEV-IV SULEV230	
L2ULEV125	California LEV-II ULEV125		L4SULEV25	California LEV-IV SULEV25	
L2SULEV30	California LEV-II SULEV30		L4SULEV30	California LEV-IV SULEV30	
L2LEV395	California LEV-II LEV395		L4SULEV75	California LEV-IV SULEV75	

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Test Group		VTYXV00.0D15	Evaporative/Refueling Family		--
L2ULEV340	California LEV-II ULEV340		L4SULEV85	California LEV-IV SULEV85	
L2LEV630	California LEV-II LEV630		L4ULEV125	California LEV-IV ULEV125	
L2ULEV570	California LEV-II ULEV570		L4ULEV200	California LEV-IV ULEV200	
L3LEV160	California LEV-III LEV160		L4ULEV250	California LEV-IV ULEV250	
L3ULEV125	California LEV-III ULEV125		L4ULEV270	California LEV-IV ULEV270	
L3ULEV70	California LEV-III ULEV70		L4ULEV40	California LEV-IV ULEV40	
L3ULEV50	California LEV-III ULEV50		L4ULEV400	California LEV-IV ULEV400	
L3SULEV30	California LEV-III SULEV30		L4ULEV50	California LEV-IV ULEV50	
L3SULEV20	California LEV-III SULEV20		L4ULEV60	California LEV-IV ULEV60	
L3LEV395	California LEV-III LEV395		L4ULEV70	California LEV-IV ULEV70	
L3ULEV340	California LEV-III ULEV340		T4B170	Federal Tier 4 MDV Bin 170	
L3ULEV250	California LEV-III ULEV250		T4B150	Federal Tier 4 MDV Bin 150	
L3ULEV200	California LEV-III ULEV200		T4B125	Federal Tier 4 MDV Bin 125	
L3SULEV170	California LEV-III SULEV170		T4B100	Federal Tier 4 MDV Bin 100	
L3SULEV150	California LEV-III SULEV150		T4B85	Federal Tier 4 MDV Bin 85	
L3LEV630	California LEV-III LEV630		T4B75	Federal Tier 4 MDV Bin 75	
L3ULEV570	California LEV-III ULEV570		T4B70	Federal Tier 4 Bin 70	
L3ULEV400	California LEV-III ULEV400		T4B65	Federal Tier 4 Bin 65	
L3ULEV270	California LEV-III ULEV270		T4B60	Federal Tier 4 Bin 60	
L3SULEV230	California LEV-III SULEV230		T4B55	Federal Tier 4 Bin 55	
L3SULEV200	California LEV-III SULEV200		T4B50	Federal Tier 4 Bin 50	
T3B160	Federal Tier 3 Bin 160		T4B45	Federal Tier 4 Bin 45	
T3B125	Federal Tier 3 Bin 125		T4B40	Federal Tier 4 Bin 40	
T3B110	Federal Tier 3 Transitional Bin 110		T4B35	Federal Tier 4 Bin 35	
T3B85	Federal Tier 3 Transitional Bin 85		T4B30	Federal Tier 4 Bin 30	
T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover		T4B25	Federal Tier 4 Bin 25	
T3B70	Federal Tier 3 Bin 70		T4B20	Federal Tier 4 Bin 20	
T3B50	Federal Tier 3 Bin 50		T4B15	Federal Tier 4 Bin 15	
T3B30	Federal Tier 3 Bin 30		T4B10	Federal Tier 4 Bin 10	
T3B20	Federal Tier 3 Bin 20		T4B5	Federal Tier 4 Bin 5	
T3B0	Federal Tier 3 Bin 0		T4B0	Federal Tier 4 Bin 0	
HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395				
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		

Certification Summary Information Report

Test Group		VTYXV00.0D15	Evaporative/Refueling Family		--
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	