

Certification Summary Information Report

Manufacturer	Toyota Motor Corporation	Manufacturer Code	TYX
Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72
Certificate Number	HTYXV01.8P34-021	CARB Executive Order #	--
Certificate Issue Date	07/15/2016	Certificate Revision Date	--
Certificate Effective Date	07/15/2016	Conditional Certificate	No
CSI Revision #	--	CSI Submission/Revision Date	06/28/2016 08:23:47 PM
Model Year	2017		

Certification Summary Information Report

Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72
Test Group Information			
CSI Type	Update for Correction	Running Change Reference Number	--
GHG Exempt Status	Not Exempt		
Drive Sources and Fuel(s)			
Drive Source #1:	Combustion Engine		
	Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
	Gasoline	Multipoint/sequential fuel injection	No
Drive Source #2:	Electric Motor		
	Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
	Electricity	--	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	LDV
Federal Clean Fuel Vehicle	No	Federal Clean Fuel Vehicle Standard	--
Federal Clean Fuel Vehicle ILEV	No	California Partial Zero Emissions Vehicle Indicator	Yes
Durability Group Name	HTYXHHGNNF27	Durability Group Equivalency Factor	1.2
Reduced Fee Test Group	No	Certification Region Code(s)	FA, CA
Complies with HD GHG 2b/3 regulations?	No		
Introduction into Commerce Date	08/01/2016	CAP2000 Conditional Certificate?	No
Independent Commercial Importer?	No	Alternative Fuel Converter Certificate?	No
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	HTYXV01.8P35
Test Group OBD Compliance Level	Full - no deficiencies	Number of Test Group OBD Deficiencies	0
OBD Deficiencies Comments	--		
Mfr Test Group Comments	--		
Mfr Exhaust / Evap Standards Comments	--		

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Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72				
Evaporative/Refueling Family Information							
Evaporative Summary Information Type	New	Submission/Correction Date	06/26/2016 08:44:39 PM				
Integrated ORVR?	No	Fuel(s)	Electricity, Gasoline				
Multiple Fuel Storage	Fuels Stored Together						
Bladder Fuel Tank?	No						
Fuel Tank Material	Plastic	Fuel Tank Material Description	EVOH				
Fill Pipe Seal Type	Liquid seal						
Air Intake System Vapor Storage Device?	Yes	Air Intake System Vapor Storage Device Description	Carbon filter in the air cleaner box				
Fuel System Vapor Storage Canister?	Yes	Other Vapor Storage	--				
Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)	130	Number of Primary Canisters	1				
Number of Bleed Canisters	0	Bleed Canister Total Working Capacity (grams)	--				
Mfr Evaporative/Refueling Family Comments	--						
Leak Family Details							
Leak Family Indicator	No						
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	--						
Models Covered by this Certificate							
Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
Toyota Motor Corporation	1 - TOYOTA	60 - PRIUS	Federal	2-Wheel Drive, Front	Continuously Variable	1	No
Toyota Motor Corporation	1 - TOYOTA	61 - PRIUS Eco	Federal	2-Wheel Drive, Front	Continuously Variable	1	No
Toyota Motor Corporation	1 - TOYOTA	60 - PRIUS	California + CAA Section 177 states	2-Wheel Drive, Front	Continuously Variable	1	No
Toyota Motor Corporation	1 - TOYOTA	61 - PRIUS Eco	California + CAA Section 177 states	2-Wheel Drive, Front	Continuously Variable	1	No
Engine Description							
Hybrid Type	IC Engine/Electric Motor	Hybrid Description	--				
Engine Type	4-Stroke Spark Ignition	Mfr Engine Description	--				
Engine Block Arrangement	Inline	Mfr Engine Block Arrangement Description	--				
Camless Valvetrain Indicator	No	Oil Viscosity/Classification	0W-20				
Number of Cylinders/Rotors	4						

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Test Group	HTYXV01.8P34				Evaporative/Refueling Family	HTYXR0130J72					
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 + Rhodium			Ceramic		Monolith				
Mfr After Treatment Device (ATD) Comments											
--											
Direct Ozone Reduction (DOR) Device											
Not Equipped											
Mfr Emission Control Device Comments											
--											
Engine Configuration Number 1											
Engine Displacement (liters)											
1.8											
Engine Rated Horsepower											
96											
Number of Inlet Valves Per Cylinder											
2											
Number of Exhaust Valves Per Cylinder											
2											
Air Aspiration Method											
Naturally Aspirated											
Number of Air Aspiration Devices											
--											
Air Aspiration Device Configuration											
--											
Charge Air Cooler Type											
N/A											
Cylinder Deactivation											
No											
Cylinder Deactivation Description											
--											
Variable Valve Timing											
Yes											
Variable Valve Timing System Description											
Intake											
Variable Valve Lift?											
No											
Variable Valve Lift System Description											
--											
Number of Knock Sensors											
1											
Number of Air/Fuel Sensors											
2											
Air/Fuel Sensor # 1 Type											
Heated oxygen											
Air/Fuel Sensor # 1 Description											
--											
Air/Fuel Sensor # 2 Type											
Heated air fuel											
Air/Fuel Sensor # 2 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											
--											
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	GTYX10037850	GTYX10037850	GTYX10037848	GTYX10038697	HTYX10043397	GTYX10037849	857.7	228.2	999.9	286.1	--
Electricity	GTYX10037850	GTYX10037850	GTYX10037848	GTYX10038697	HTYX10043397	GTYX10037849	--	--	--	--	--

Certification Summary Information Report

Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72
SFTP LEV-III Official Test Numbers			
Test Group Fuel	FTP	US06	SC03
Gasoline	GTYX10037850	GTYX10037848	GTYX10038697
Electricity	GTYX10037850	GTYX10037848	GTYX10038697
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	207	Battery Energy Capacity	3.6
Battery Specific Energy	65.3	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	Front Wheels	Driver Controlled Regenerative Braking	No
Mfr Regenerative Braking Description	--		
Drive Motor(s)/Generator(s)	1		
Motor/Generator Type 1	AC Induction	Rated Motor/Generator Power	37
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	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72									
Emission Data Vehicle Information												
Vehicle ID / Configuration	16-ZV1H / 0	Manufacturer Vehicle Configuration Number	0									
Original Test Group Name	GTYXV01.8PC4	Original Evaporative/Refueling Family	GTYXR0130J72									
Original Test Vehicle Model Year	2016											
Vehicle Model												
Represented Test Vehicle Make	TOYOTA	Represented Test Vehicle Model	PRIUS									
Leak Family Details												
Leak Family Identifier	--	Leak Family Name	--									
Drive Sources and Fuel System Details												
<table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Combustion Engine</td> <td>Gasoline</td> </tr> <tr> <td>2</td> <td>Electric Motor</td> <td>Electricity</td> </tr> </tbody> </table>				Drive Source and Fuel#	Drive Source	Fuel	1	Combustion Engine	Gasoline	2	Electric Motor	Electricity
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	43	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	96									
Displacement (liters)	1.798											
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	2-Wheel Drive, Front									
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)									
Curb Weight (lbs)	3080	Equivalent Test Weight (pounds)	3375									
GVWR (lbs)	--	N/V Ratio	20.1									
Axle Ratio	2.83											
Transmission Type	Continuously Variable	# of Transmission Gears	1									
Transmission Lockup	No	Creeper Gear	No									

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Test Group		HTYXV01.8P34			Evaporative/Refueling Family			HTYXR0130J72
Dynamometer Coefficients:								
		Target Coefficients			Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)		
City/Highway/Evap	24.153	0.33502	0.014096	10.116	0.1598	0.015033	10.2	
US06	24.153	0.33502	0.014096	10.116	0.1598	0.015033	N/A	
Emission Control Device Comments	--							
Manufacturer Test Vehicle Comments	POWER SHIFT PATTERN							

Certification Summary Information Report

Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72
Test #	GTYX10037850	Test Procedure	35 - California fuel 3-day exhaust
Exhaust Test # for this Evap Test	--	Test Fuel Type	46 - CARB LEV3 E10 Regular Gasoline
Test Date	09/04/2015	Fuel	Gasoline
Fuel Batch ID	WC5B05	Fuel Calibration Number	1
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	Higashifuji Technical Center		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4487	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)	0	--
FE BAG 1 (Bag 1 Fuel Economy)	999	999
CO2 BAG 2 (Bag 2 Carbon Dioxide)	0	--
FE BAG 2 (Bag 2 Fuel Economy)	999	999
CO2 BAG 3 (Bag 3 Carbon Dioxide)	0	--
FE BAG 3 (Bag 3 Fuel Economy)	999	999
CO2 BAG 4 (Bag 4 Carbon Dioxide)	0	--
FE BAG 4 (Bag 4 Fuel Economy)	999	999
METHANE (CH4 - Methane)	0.002146	--
CO (Carbon Monoxide)	0.0745335	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.59	--
DT-EER (Drive Trace Energy Economy Rating)	-0.05	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.83	--
MFR FE (Manufacturer Fuel Economy)	999	999
NOX (Nitrogen Oxide)	0.0011416	--
N2O (Nitrous Oxide)	0.000327	--
HC-NM (Non-methane Hydrocarbon)	0.0102723	--
NMOG (Non-methane organic gas (California))	0.0112996	--
PM (Particulate Matter)	0.0002468	--
HC-TOTAL (Total Hydrocarbon)	0.0123289	--

Certification Summary Information Report

Test Group	HTYXV01.8P34		Evaporative/Refueling Family				HTYXR0130J72							
	<table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated CREE/OPT-CREE</th> </tr> </thead> <tbody> <tr> <td>Carbon-Related Exhaust Emissions</td> <td>0</td> <td>999</td> </tr> </tbody> </table>		Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE	Carbon-Related Exhaust Emissions	0	999						
Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE												
Carbon-Related Exhaust Emissions	0	999												
	<table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated CO2</th> </tr> </thead> <tbody> <tr> <td>Carbon dioxide</td> <td>0</td> <td>--</td> </tr> </tbody> </table>		Test Result Name	Unrounded Test Result	Verify Calculated CO2	Carbon dioxide	0	--						
Test Result Name	Unrounded Test Result	Verify Calculated CO2												
Carbon dioxide	0	--												
Manufacturer Test Comments	NMOG = HC-NM x 1.10													
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 30	CO	0.07	--	--	--	0.07	--	0.1	1.0	Pass		
Fed	150,000 miles	Federal Tier 3 Bin 30	CO-COMP	0.14	--	--	--	0.07	--	0.1	4.2	Pass		
Fed	150,000 miles	Federal Tier 3 Bin 30	CREE	999	--	--	--	0.075	--	999	--	--		
Fed	150,000 miles	Federal Tier 3 Bin 30	METHANE	0.0021	--	--	--	0.001	--	0.003	0.030	Pass		
Fed	150,000 miles	Federal Tier 3 Bin 30	N2O	0.0003	--	--	--	0.0002	--	0	0.010	Pass		
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG	0.0113	1	1.1	--	0.0047	--	0.016	999.999	Pass		
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG+NOX	0.0124	1	1.1	--	--	--	0.018	0.030	Pass		
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG+NOX-COMP	0.0147	1	1.03	--	0.0053	--	0.015	0.030	Pass		
Fed	150,000 miles	Federal Tier 3 Bin 30	NOX	0.0011	--	--	--	0.0006	--	0.002	999.999	Pass		
Fed	150,000 miles	Federal Tier 3 Bin 30	PM	0.0002	--	--	--	0.0002	--	0	0.003	Pass		
CA	150,000 miles	California LEV-III SULEV30	CO	0.07	--	--	--	0.07	--	0.1	1.0	Pass		
CA	150,000 miles	California LEV-III SULEV30	CO-COMP	0.14	--	--	--	0.07	--	0.1	4.2	Pass		
CA	150,000 miles	California LEV-III SULEV30	NMOG	0.0113	1	1.1	--	0.0047	--	0.016	999.999	Pass		
CA	150,000 miles	California LEV-III SULEV30	NMOG+NOX	0.0124	1	1.1	--	--	--	0.018	0.030	Pass		
CA	150,000 miles	California LEV-III SULEV30	NMOG+NOX-COMP	0.0147	1	1.03	--	0.0053	--	0.015	0.030	Pass		
CA	150,000 miles	California LEV-III SULEV30	NOX	0.0011	--	--	--	0.0006	--	0.002	999.999	Pass		
CA	150,000 miles	California LEV-III SULEV30	PM	0.0002	--	--	--	0.0002	--	0	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	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72
Test #	GTYX10037849	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	46 - CARB LEV3 E10 Regular Gasoline
Test Date	09/04/2015	Fuel	Gasoline
Fuel Batch ID	WC5B05	Fuel Calibration Number	1
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	Higashifuji Technical Center		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4502	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)
METHANE (CH4 - Methane)	0.001399	--
CO (Carbon Monoxide)	0.0314332	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.45	--
DT-EER (Drive Trace Energy Economy Rating)	0.05	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.76	--
MFR FE (Manufacturer Fuel Economy)	999	999
NOX (Nitrogen Oxide)	0.0000692	--
N2O (Nitrous Oxide)	0	--
HC-NM (Non-methane Hydrocarbon)	0.0029513	--
NMOG (Non-methane organic gas (California))	0.0030398	--
HC-TOTAL (Total Hydrocarbon)	0.004292	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	0	--

Manufacturer Test Comments

NMOG = HC-NM x 1.03

Certification Summary Information Report

Test Group		HTYXV01.8P34				Evaporative/Refueling Family				HTYXR0130J72		
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 30	CREE	999	--	--	--	0.075	--	999	--	--
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG	0.003	1	1.03	--	0.0047	--	0.008	999.999	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NMOG+NOX	0.0031	1	1.03	--	--	--	0.008	0.030	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	NOX	0.0001	--	--	--	0.0006	--	0.001	999.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG	0.003	1	1.03	--	0.0047	--	0.008	999.999	Pass
CA	150,000 miles	California LEV-III SULEV30	NMOG+NOX	0.0031	1	1.03	--	--	--	0.008	0.030	Pass
CA	150,000 miles	California LEV-III SULEV30	NOX	0.0001	--	--	--	0.0006	--	0.001	999.999	Pass

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

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Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72
Test #	GTYX10037860	Test Procedure	27 - California fuel 2-day evap
Exhaust Test # for this Evap Test	GTYX10037853	Test Fuel Type	46 - CARB LEV3 E10 Regular Gasoline
Test Date	09/08/2015	Fuel	Gasoline
Fuel Batch ID	WC5B05	Fuel Calibration Number	1
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	Higashifuji Technical Center		
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)		
Test Start Odometer Reading	4622	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)
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.1176	--

Manufacturer Test Comments

HSL=0.0089, 1ST DBL=0.1088, 2ND DBL=0.0964, 1ST DBL IS ADD KEY OFF MONITOR LOSS(0.0017GRAM)

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	0.1176	0	0.118	0.3	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.1176	0	0.118	0.3	Pass

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Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72
Test #	GTYX10037861	Test Procedure	38 - CA fuel 3-day evap.
Exhaust Test # for this Evap Test	GTYX10037852	Test Fuel Type	46 - CARB LEV3 E10 Regular Gasoline
Test Date	09/15/2015	Fuel	Gasoline
Fuel Batch ID	WC5B05	Fuel Calibration Number	1
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	Higashifuji Technical Center		
E10 Evaporative Test Measurement Method	Actual Total Hydrocarbon Equivalent Measurement (with speciation)		
Test Start Odometer Reading	4657	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)
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.1316	--

Manufacturer Test Comments

HSL=0.0226, 1ST DBL=0.1090, 2ND DBL=0.0885, 3RD DBL=0.0851, 1ST DBL IS ADDED KEY OFF MONITOR LOSS(0.0017GRAM)

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	0.1316	0	0.132	0.3	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.1316	0	0.132	0.3	Pass

Certification Summary Information Report

Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72
Test #	GTYX10037899	Test Procedure	37 - California Fuel Running Loss
Exhaust Test # for this Evap Test	GTYX10037852	Test Fuel Type	46 - CARB LEV3 E10 Regular Gasoline
Test Date	09/15/2015	Fuel	Gasoline
Fuel Batch ID	WC5B05	Fuel Calibration Number	1
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	Higashifuji Technical Center		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4657	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)
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0	--

Manufacturer Test Comments --

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0	0	0	0.05	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0	0	0	0.05	Pass

Certification Summary Information Report

Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72
Test #	GTYX10037848	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	46 - CARB LEV3 E10 Regular Gasoline
Test Date	09/11/2015	Fuel	Gasoline
Fuel Batch ID	WC5B05	Fuel Calibration Number	1
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	Higashifuji Technical Center		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4634	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)	0	--
FE BAG 1 (Bag 1 Fuel Economy)	999	999
CO2 BAG 2 (Bag 2 Carbon Dioxide)	0	--
FE BAG 2 (Bag 2 Fuel Economy)	999	999
CO (Carbon Monoxide)	0.1069287	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.91	--
DT-EER (Drive Trace Energy Economy Rating)	0.23	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	2.57	--
MFR FE (Manufacturer Fuel Economy)	999	999
NOX (Nitrogen Oxide)	0.0012565	--
HC-NM (Non-methane Hydrocarbon)	0.009338	--
NMOG (Non-methane organic gas (California))	0.0096181	--
PM (Particulate Matter)	0.0001976	--
HC-TOTAL (Total Hydrocarbon)	0.0109699	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	0	--

Manufacturer Test Comments

NMOG = HC-NM x 1.03

Certification Summary Information Report

Test Group		HTYXV01.8P34				Evaporative/Refueling Family				HTYXR0130J72		
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 30	PM	0.0002	--	--	--	0.0002	--	0	0.010	Pass
CA	150,000 miles	California LEV-III SULEV30	PM	0.0002	--	--	--	0.0002	--	0	0.010	Pass

Certification Summary Information Report

Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72									
Emission Data Vehicle Information												
Vehicle ID / Configuration	16-ZV1H / 3	Manufacturer Vehicle Configuration Number	3									
Original Test Group Name	HTYXV01.8P34	Original Evaporative/Refueling Family	HTYXR0130J72									
Original Test Vehicle Model Year	2017											
Vehicle Model												
Represented Test Vehicle Make	TOYOTA	Represented Test Vehicle Model	PRIUS									
Leak Family Details												
Leak Family Identifier	--	Leak Family Name	--									
Drive Sources and Fuel System Details												
<table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Combustion Engine</td> <td>Gasoline</td> </tr> <tr> <td>2</td> <td>Electric Motor</td> <td>Electricity</td> </tr> </tbody> </table>				Drive Source and Fuel#	Drive Source	Fuel	1	Combustion Engine	Gasoline	2	Electric Motor	Electricity
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	43	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	96									
Displacement (liters)	1.798											
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	2-Wheel Drive, Front									
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)									
Curb Weight (lbs)	3080	Equivalent Test Weight (pounds)	3375									
GVWR (lbs)	--	N/V Ratio	20.1									
Axle Ratio	2.83											
Transmission Type	Continuously Variable	# of Transmission Gears	1									
Transmission Lockup	No	Creeper Gear	No									

Certification Summary Information Report

Test Group		HTYXV01.8P34			Evaporative/Refueling Family			HTYXR0130J72
Dynamometer Coefficients:								
		Target Coefficients			Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)		
City/Highway/Evap	24.153	0.33502	0.014096	10.116	0.1598	0.015033	10.2	
Cold CO	26.568	0.36852	0.015505	9.43	0.0182	0.01781	N/A	
US06	24.153	0.33502	0.014096	10.116	0.1598	0.015033	N/A	
Emission Control Device Comments	--							
Manufacturer Test Vehicle Comments	POWER SHIFT PATTERN							

Certification Summary Information Report

Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72
Test #	HTYX10043397	Test Procedure	11 - Cold CO
Exhaust Test # for this Evap Test	--	Test Fuel Type	28 - Cold CO E10 Regular Gasoline (Tier 3)
Test Date	06/10/2016	Fuel	Gasoline
Fuel Batch ID	15T301	Fuel Calibration Number	1
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Determined
Verify Test Lab ID	TEMA Ann Arbor		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5069	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	No

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	266	--
FE BAG 1 (Bag 1 Fuel Economy)	999.9999999	999.9999999
CO2 BAG 2 (Bag 2 Carbon Dioxide)	131	--
FE BAG 2 (Bag 2 Fuel Economy)	999.9999999	999.9999999
CO2 BAG 3 (Bag 3 Carbon Dioxide)	208	--
FE BAG 3 (Bag 3 Fuel Economy)	99.9999999	99.9999999
CO2 BAG 4 (Bag 4 Carbon Dioxide)	113	--
FE BAG 4 (Bag 4 Fuel Economy)	99.9999999	99.9999999
METHANE (CH4 - Methane)	0.0076942	--
CO (Carbon Monoxide)	0.7044518	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.482	--
DT-EER (Drive Trace Energy Economy Rating)	-0.526	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.584	--
MFR FE (Manufacturer Fuel Economy)	48.6	48.6
NOX (Nitrogen Oxide)	0.0167669	--
HC-NM (Non-methane Hydrocarbon)	0.1321357	--
NMOG (Non-methane organic gas (California))	0.1453493	--
HC-TOTAL (Total Hydrocarbon)	0.1398522	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	174.9	--

Certification Summary Information Report

Test Group		HTYXV01.8P34		Evaporative/Refueling Family				HTYXR0130J72				
Manufacturer Test Comments		Power Shift Mode. Corrected to add NMOG/CH4.										
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 30	CO	0.7	--	--	--	0.02	--	0.7	10.0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 30	HC-NM	0.13	--	--	--	0	--	0.1	0.2	Pass
CA	50,000 miles	California LEV-III SULEV30	CO	0.7	--	--	--	0.02	--	0.7	10.0	Pass

Certification Summary Information Report

Test Group		HTYXV01.8P34			Evaporative/Refueling Family			HTYXR0130J72
Dynamometer Coefficients:								
		Target Coefficients			Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)		
City/Highway/Evap	24.153	0.33502	0.014096	10.116	0.1598	0.015033	10.2	
Cold CO	26.837	0.37224	0.015662	8.14	-0.00597	0.018305	N/A	
Emission Control Device Comments	--							
Manufacturer Test Vehicle Comments	POWER SHIFT PATTERN							

Certification Summary Information Report

Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72
Test #	GTYX10038697	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	46 - CARB LEV3 E10 Regular Gasoline
Test Date	09/02/2015	Fuel	N/A
Fuel Batch ID	WC5B05	Fuel Calibration Number	1
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	Higashifuji Technical Center		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4922	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)
CO (Carbon Monoxide)	0.041801	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.88	--
DT-EER (Drive Trace Energy Economy Rating)	0.12	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.27	--
MFR FE (Manufacturer Fuel Economy)	51.0498305	51.0498305
NOX (Nitrogen Oxide)	0.001992	--
HC-NM (Non-methane Hydrocarbon)	0.00319	--
HC-TOTAL (Total Hydrocarbon)	0.005169	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	169.405675	--

Manufacturer Test Comments --

Certification Summary Information Report

Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72									
Emission Data Vehicle Information												
Vehicle ID / Configuration	17-ZW3H / 0	Manufacturer Vehicle Configuration Number	0									
Original Test Group Name	HTYXV01.8P35	Original Evaporative/Refueling Family	HTYXR0130J72									
Original Test Vehicle Model Year	2017											
Vehicle Model												
Represented Test Vehicle Make	TOYOTA	Represented Test Vehicle Model	PRIUS PRIME									
Leak Family Details												
Leak Family Identifier	--	Leak Family Name	--									
Drive Sources and Fuel System Details												
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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	Yes											
Odometer Correction -- Initial	11	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	96									
Displacement (liters)	1.798											
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	2-Wheel Drive, Front									
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)									
Curb Weight (lbs)	3365	Equivalent Test Weight (pounds)	3625									
GVWR (lbs)	--	N/V Ratio	19.9									
Axle Ratio	3.22											
Transmission Type	Continuously Variable	# of Transmission Gears	1									
Transmission Lockup	No	Creeper Gear	No									

Certification Summary Information Report

Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72
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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	18.816	0.38689	0.012501	10.591	0.0846	0.014573	9.3
US06	18.816	0.38689	0.012501	10.591	0.0846	0.014573	N/A

Emission Control Device Comments --
Manufacturer Test Vehicle Comments POWER SHIFT PATTERN

Test #	HTYX10042567	Test Procedure	24 - Federal fuel refueling test (ORVR)
Exhaust Test # for this Evap Test	HTYX10042560	Test Fuel Type	46 - CARB LEV3 E10 Regular Gasoline
Test Date	04/08/2016	Fuel	Gasoline
Fuel Batch ID	WL5-22	Fuel Calibration Number	3
Vehicle Class	N/A	DF Type	Mfr. Determined
Verify Test Lab ID	Higashifuji Technical Center		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	3843	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	No

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC (Hydrocarbon for Running Loss and ORVR)	0.0012283	--

Manufacturer Test Comments --

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Evap	HC	0.001	0	0	0.2	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC	0.001	0	0	0.2	Pass

Certification Summary Information Report

Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72
Fuel Properties			
Fuel Batch ID	WC5B05	Fuel Calibration Number	1
Test Fuel Type	46 - CARB LEV3 E10 Regular Gasoline	Fuel Batch Calibration Date	03/29/2015
Fuel Batch Calibration Effective Date	06/01/2015	Fuel Batch Calibration Ineffective Date	06/30/2015
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.86	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.742
Fuel Net Heating Value (BTU / lb)	17867	Fuel Blend Carbon Weight Fraction	0.825
Weight Fraction CO2	--		
Fuel Batch ID	15T301	Fuel Calibration Number	1
Test Fuel Type	28 - Cold CO E10 Regular Gasoline (Tier 3)	Fuel Batch Calibration Date	09/08/2015
Fuel Batch Calibration Effective Date	11/17/2015	Fuel Batch Calibration Ineffective Date	11/17/2016
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	0.826	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.744
Fuel Net Heating Value (BTU / lb)	17915	Fuel Blend Carbon Weight Fraction	0.826
Weight Fraction CO2	--		
Fuel Batch ID	WL5-22	Fuel Calibration Number	3
Test Fuel Type	46 - CARB LEV3 E10 Regular Gasoline	Fuel Batch Calibration Date	11/12/2015
Fuel Batch Calibration Effective Date	04/01/2016	Fuel Batch Calibration Ineffective Date	04/30/2016
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0.744
Fuel Net Heating Value (BTU / lb)	17828	Fuel Blend Carbon Weight Fraction	0.825
Weight Fraction CO2	--		

Certification Summary Information Report

Test Group		HTYXV01.8P34			Evaporative/Refueling Family			HTYXR0130J72		
Consolidated List of Standards										
Exhaust Standards										
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert		
Vehicle Class		LDV/Passenger Car			Standard Level			California LEV-III SULEV30		
Fuel		Gasoline			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	--	--	--	--	--	--	0.07	1.0	
150,000 miles	CO-COMP	--	--	--	--	--	--	0.07	4.2	
150,000 miles	HCHO	--	--	--	--	--	--	--	0.004	
150,000 miles	NMOG	--	1	1.1	--	--	--	0.0047	999.999	
150,000 miles	NMOG+NOX	--	1	1.1	--	--	--	0.0053	0.030	
150,000 miles	NMOG+NOX-COMP	--	1	1.03	--	--	--	0.0053	0.030	
150,000 miles	NOX	--	--	--	--	--	--	0.0006	999.999	
150,000 miles	PM	--	--	--	--	--	--	0.0002	0.003	
Cert Region										
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert		
Vehicle Class		LDV/Passenger Car			Standard Level			California LEV-III SULEV30		
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	1.03	--	--	--	0.0047	999.999	
150,000 miles	NMOG+NOX	--	1	1.03	--	--	--	0.0053	0.030	
150,000 miles	NOX	--	--	--	--	--	--	0.0006	999.999	
Cert Region										
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert		
Vehicle Class		LDV/Passenger Car			Standard Level			California LEV-III SULEV30		
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	--	--	--	--	--	--	0.02	10.0	

Certification Summary Information Report

Test Group	HTYXV01.8P34				Evaporative/Refueling Family			HTYXR0130J72		
Cert Region	Federal				Cert/In-Use Code			Cert		
Vehicle Class	LDV/Passenger Car				Standard Level			Federal Tier 3 Bin 30		
Fuel	Gasoline				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	--	--	--	--	--	--	0.07	1.0	
150,000 miles	CO-COMP	--	--	--	--	--	--	0.07	4.2	
150,000 miles	CREE	--	--	--	--	--	--	0.075	999.9999	
150,000 miles	HCHO	--	--	--	--	--	--	--	0.004	
150,000 miles	METHANE	--	--	--	--	--	--	0.001	0.030	
150,000 miles	N2O	--	--	--	--	--	--	0.0002	0.010	
150,000 miles	NMOG	--	1	1.1	--	--	--	0.0047	999.999	
150,000 miles	NMOG+NOX	--	1	1.1	--	--	--	0.0053	0.030	
150,000 miles	NMOG+NOX-COMP	--	1	1.03	--	--	--	0.0053	0.030	
150,000 miles	NOX	--	--	--	--	--	--	0.0006	999.999	
150,000 miles	PM	--	--	--	--	--	--	0.0002	0.003	

Cert Region	Federal				Cert/In-Use Code			Cert		
Vehicle Class	LDV/Passenger Car				Standard Level			Federal Tier 3 Bin 30		
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	--	--	--	--	--	--	0.0002	0.010	

Cert Region	Federal				Cert/In-Use Code			Cert		
Vehicle Class	LDV/Passenger Car				Standard Level			Federal Tier 3 Bin 30		
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	--	--	--	--	--	--	0.02	10.0	
150,000 miles	HC-NM	--	--	--	--	--	--	0	0.2	

Certification Summary Information Report

Test Group	HTYXV01.8P34				Evaporative/Refueling Family			HTYXR0130J72		
Cert Region	Federal				Cert/In-Use Code			Cert		
Vehicle Class	LDV/Passenger Car				Standard Level			Federal Tier 3 Bin 30		
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	--	--	--	--	--	--	0.075	999.9999	
150,000 miles	NMOG	--	1	1.03	--	--	--	0.0047	999.999	
150,000 miles	NMOG+NOX	--	1	1.03	--	--	--	0.0053	0.030	
150,000 miles	NOX	--	--	--	--	--	--	0.0006	999.999	

Cert Region	California + CAA Section 177 states				Cert/In-Use Code			Cert		
Vehicle Class	LDV/Passenger Car				Standard Level			California LEV-III SULEV30		
Fuel	Gasoline				Test Procedure			CA fuel 50 Deg(F) exhaust test		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std	
4,000 miles	CO	--	--	--	--	--	--	--	1.0	
4,000 miles	HCHO	--	--	--	--	--	--	--	0.008	
4,000 miles	NMOG	--	1	1.1	--	--	--	--	999.999	
4,000 miles	NMOG+NOX	--	1	1.1	--	--	1	--	0.060	
4,000 miles	NOX	--	--	--	--	--	--	--	999.999	

Cert Region	California + CAA Section 177 states				Cert/In-Use Code			Cert		
Vehicle Class	LDV/Passenger Car				Standard Level			California LEV-III SULEV30		
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	--	--	--	--	--	--	0.0002	0.010	

Evaporative/Refueling Standards

Certification Summary Information Report

Test Group	HTYXV01.8P34		Evaporative/Refueling Family	HTYXR0130J72	
Evaporative/Refueling Family	HTYXR0130J72		Cert Region	California + CAA Section 177 states	
Cert/In-Use Code	Cert		Standard Level	California LEV-III Zero Evap (Option 2)	
Test Procedure	California Fuel Running Loss				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.05	0
Evaporative/Refueling Family	HTYXR0130J72		Cert Region	California + CAA Section 177 states	
Cert/In-Use Code	Cert		Standard Level	California LEV-III Zero Evap (Option 2)	
Test Procedure	CA fuel 3-day evap.				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.3	0
Evaporative/Refueling Family	HTYXR0130J72		Cert Region	Federal	
Cert/In-Use Code	Cert		Standard Level	Federal Tier 3 Evap	
Test Procedure	California Fuel Running Loss				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.05	0
Evaporative/Refueling Family	HTYXR0130J72		Cert Region	California + CAA Section 177 states	
Cert/In-Use Code	Cert		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	HC	--	0.2	0
Evaporative/Refueling Family	HTYXR0130J72		Cert Region	Federal	
Cert/In-Use Code	Cert		Standard Level	Federal Tier 3 Evap	
Test Procedure	California fuel 2-day evap				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.3	0

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Test Group	HTYXV01.8P34		Evaporative/Refueling Family	HTYXR0130J72	
Evaporative/Refueling Family	HTYXR0130J72		Cert Region	Federal	
Cert/In-Use Code	Cert		Standard Level	Federal Tier 3 Evap	
Test Procedure	Spitback				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	4,000 miles	SPITBACK	--	1	0
Evaporative/Refueling Family	HTYXR0130J72		Cert Region	Federal	
Cert/In-Use Code	Cert		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	--	0.2	0
Evaporative/Refueling Family	HTYXR0130J72		Cert Region	California + CAA Section 177 states California LEV-III Zero Evap (Option 2)	
Cert/In-Use Code	Cert		Standard Level		
Test Procedure	California fuel 2-day evap				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.3	0
Evaporative/Refueling Family	HTYXR0130J72		Cert Region	Federal	
Cert/In-Use Code	Cert		Standard Level	Federal Tier 3 Evap	
Test Procedure	CA fuel 3-day evap.				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.3	0

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Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72
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	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 gas (California)	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		
Certification Region			
CA	California + CAA Section 177 states	FA	Federal
Exhaust Emission Standard Level			
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

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Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72
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
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		

Certification Summary Information Report

Test Group	HTYXV01.8P34	Evaporative/Refueling Family	HTYXR0130J72
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