

Certification Summary Information Report

Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR				
Evaporative/Refueling Family Information							
Evaporative Summary Information Type	Update for Correction	Submission/Correction Date	02/09/2026 05:05:46 AM				
Integrated ORVR?	Yes	Fuel(s)	Gasoline				
Multiple Fuel Storage	--						
Bladder Fuel Tank?	No						
Fuel Tank Material	Plastic	Fuel Tank Material Description	HDPE				
Fill Pipe Seal Type	Liquid seal						
Air Intake System Vapor Storage Device?	No	Air Intake System Vapor Storage Device Description	--				
Fuel System Vapor Storage Canister?	Yes	Other Vapor Storage	--				
Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)	150	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
RUF Automobile GmbH	1 - RUF Automobile GmbH	213 - RUF T12/CTR3/CTR Anniversary/SCR/ROD EO	Federal	2-Wheel Drive, Rear	Manual	7	No
Engine Description							
Hybrid Type	--		Hybrid Description	--			
Engine Type	4-Stroke Spark Ignition		Mfr Engine Description	--			
Engine Block Arrangement	Horizontally Opposed		Mfr Engine Block Arrangement Description	--			
Camless Valvetrain Indicator	No		Oil Viscosity/Classification	10W40			
Number of Cylinders/Rotors	6		Mechanically Variable Compression Ratio Indicator	N			

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Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR	
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	Palladium + 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)	3.8	Engine Rated Horsepower	800	
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2	
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	2	
Air Aspiration Device Configuration	Parallel	Charge Air Cooler Type	Air	
Air Aspiration Drive Method(s)	Mechanical			
Cylinder Deactivation	No			
Cylinder Deactivation Description	--			
Variable Valve Timing	Yes			
Variable Valve Timing System Description	Porsche VVT System			
Variable Valve Lift?	Yes			
Variable Valve Lift System Description	Porsche VVT System			
Number of Knock Sensors	1	Number of Air/Fuel Sensors	4	
Air/Fuel Sensor # 1 Type	Heated oxygen	Air/Fuel Sensor # 1 Description	--	
Air/Fuel Sensor # 2 Type	Heated oxygen	Air/Fuel Sensor # 2 Description	--	
Air/Fuel Sensor # 3 Type	Heated oxygen	Air/Fuel Sensor # 3 Description	--	
Air/Fuel Sensor # 4 Type	Heated oxygen	Air/Fuel Sensor # 4 Description	--	
Mfr Air/Fuel Sensor Comments	--			
Exhaust Gas Recirculation	No	Cooled Exhaust Gas Recirculation	--	
EGR Type	--	Exhaust Gas Recirculation Description if 'Other'	--	
Closed Loop Air Injection System	No			
Air Injection Type	--	Air Injection Type if 'Other'	--	
Mfr Engine Configuration Comments	Engine Configuration 1 for CTR3 models			

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Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
Engine Configuration Number 2			
Engine Displacement (liters)	4.0	Engine Rated Horsepower	520
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	--
Air Aspiration Drive Method(s)	Mechanical		
Cylinder Deactivation	No		
Cylinder Deactivation Description	--		
Variable Valve Timing	Yes		
Variable Valve Timing System Description	Porsche VVT System		
Variable Valve Lift?	Yes		
Variable Valve Lift System Description	Porsche VVT System		
Number of Knock Sensors	1	Number of Air/Fuel Sensors	4
Air/Fuel Sensor # 1 Type	Heated oxygen	Air/Fuel Sensor # 1 Description	--
Air/Fuel Sensor # 2 Type	Heated oxygen	Air/Fuel Sensor # 2 Description	--
Air/Fuel Sensor # 3 Type	Heated oxygen	Air/Fuel Sensor # 3 Description	--
Air/Fuel Sensor # 4 Type	Heated oxygen	Air/Fuel Sensor # 4 Description	--
Mfr Air/Fuel Sensor Comments	--		
Exhaust Gas Recirculation	No	Cooled Exhaust Gas Recirculation	--
EGR Type	--	Exhaust Gas Recirculation Description if 'Other'	--
Closed Loop Air Injection System	No		
Air Injection Type	--	Air Injection Type if 'Other'	--
Mfr Engine Configuration Comments	Engine Configuration 2 for SCR model		

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Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
Engine Configuration Number 3			
Engine Displacement (liters)	3.6	Engine Rated Horsepower	710
Number of Inlet Valves Per Cylinder	2	Number of Exhaust Valves Per Cylinder	2
Air Aspiration Method	Turbocharged	Number of Air Aspiration Devices	2
Air Aspiration Device Configuration	Parallel	Charge Air Cooler Type	Air
Air Aspiration Drive Method(s)	Mechanical		
Cylinder Deactivation	No		
Cylinder Deactivation Description	--		
Variable Valve Timing	Yes		
Variable Valve Timing System Description	Porsche VVT System		
Variable Valve Lift?	Yes		
Variable Valve Lift System Description	Porsche VVT System		
Number of Knock Sensors	1	Number of Air/Fuel Sensors	4
Air/Fuel Sensor # 1 Type	Heated oxygen	Air/Fuel Sensor # 1 Description	--
Air/Fuel Sensor # 2 Type	Heated oxygen	Air/Fuel Sensor # 2 Description	--
Air/Fuel Sensor # 3 Type	Heated oxygen	Air/Fuel Sensor # 3 Description	--
Air/Fuel Sensor # 4 Type	Heated oxygen	Air/Fuel Sensor # 4 Description	--
Mfr Air/Fuel Sensor Comments	--		
Exhaust Gas Recirculation	No	Cooled Exhaust Gas Recirculation	--
EGR Type	--	Exhaust Gas Recirculation Description if 'Other'	--
Closed Loop Air Injection System	No		
Air Injection Type	--	Air Injection Type if 'Other'	--
Mfr Engine Configuration Comments	Engine Configuration 3 for CTR Anniversary / RODEO models		

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		NRAX10073377	NRAX10073404	NRAX10073405	NRAX10073070	NRAX10073069	19.6	228.2	29.6	286.1	1

SFTP LEV-III Official Test Numbers

Test Group Fuel	FTP	US06	SC03
Gasoline	NRAX10073377	NRAX10073404	NRAX10073405

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Test Group		TRAXV03.8T12			Evaporative/Refueling Family			TRAXR0150CTR
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	40.644	0.32562	0.0151	19.123	-0.11722	0.01883	12.6	
Cold CO	40.644	0.32562	0.0151	19.123	-0.11722	0.01883	N/A	
US06	40.644	0.32562	0.0151	19.123	-0.11722	0.01883	N/A	
Emission Control Device Comments	--							
Manufacturer Test Vehicle Comments	This vehicle configuration represents worst case emission level within the test group.							

Certification Summary Information Report

Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
Test #	NRAX10073070	Test Procedure	11 - Cold CO
Exhaust Test # for this Evap Test	--	Test Fuel Type	29 - Cold CO E10 Premium Gasoline (Tier 3)
Test Date	05/27/2021	Fuel	Gasoline
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	FAKT GmbH		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4231	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	602.046	--
FE BAG 1 (Bag 1 Fuel Economy)	14.4	14.4
CO2 BAG 2 (Bag 2 Carbon Dioxide)	542.172	--
FE BAG 2 (Bag 2 Fuel Economy)	16.18	16.18
CO2 BAG 3 (Bag 3 Carbon Dioxide)	429.256	--
FE BAG 3 (Bag 3 Fuel Economy)	20.42	20.42
CO (Carbon Monoxide)	0.526	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0	--
DT-EER (Drive Trace Energy Economy Rating)	0	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0	--
MFR FE (Manufacturer Fuel Economy)	16.7	16.7
NOX (Nitrogen Oxide)	0.00624	--
HC-NM (Non-methane Hydrocarbon)	0.1053	--
NMOG (Non-methane organic gases)	0.1133	--
HC-TOTAL (Total Hydrocarbon)	0.1209	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	525	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	524.355	--

Manufacturer Test Comments

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Certification Summary Information Report

Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
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Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 50	CO	0.53	--	--	--	0.16	--	0.7	10.0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	HC-NM	0.11	--	--	--	0.0025	--	0.1	0.3	Pass

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Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
Test #	NRAX10073377	Test Procedure	21 - Federal fuel 2-day exhaust (w/can load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	04/20/2021	Fuel	Gasoline
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	FAKT GmbH		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	3780	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	482.881	--
FE BAG 1 (Bag 1 Fuel Economy)	18.25	18.25
CO2 BAG 2 (Bag 2 Carbon Dioxide)	409.165	--
FE BAG 2 (Bag 2 Fuel Economy)	21.56	21.56
CO2 BAG 3 (Bag 3 Carbon Dioxide)	372.835	--
FE BAG 3 (Bag 3 Fuel Economy)	23.67	23.67
METHANE (CH4 - Methane)	0.0074	--
CO (Carbon Monoxide)	0.412	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0	--
DT-EER (Drive Trace Energy Economy Rating)	0	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0	--
HCHO (Formaldehyde)	0.00121	--
MFR FE (Manufacturer Fuel Economy)	21.21	21.21
NOX (Nitrogen Oxide)	0.0069	--
N2O (Nitrous Oxide)	0.00092	--
NMOG (Non-methane organic gases)	0.0124	--
PM (Particulate Matter)	0.000876	--
HC-TOTAL (Total Hydrocarbon)	0.014	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	417	999

Certification Summary Information Report

Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
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Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	416.5	--

Manufacturer Test Comments CERT Test

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	120,000 miles	Federal Tier 3 Bin 50	METHANE	0.0074	--	--	--	0.0026	--	0.01	0.030	Pass
Fed	120,000 miles	Federal Tier 3 Bin 50	N2O	0.0009	--	--	--	0.0011	--	0.002	0.010	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	CO	0.41	--	--	--	0.16	--	0.6	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	CO-COMP	0.38	--	--	--	0.151	--	0.4	4.2	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	HCHO	0.0012	--	--	--	0.0002	--	0.001	0.004	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.01	--	--	--	0.0062	--	0	999.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.02	--	--	--	--	--	0.031	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX-COMP	0.0238	--	--	--	0.005	--	0.024	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.01	--	--	--	0.0047	--	0	999.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	PM	0.0009	--	--	--	0	--	0.001	0.003	Pass

Certification Summary Information Report

Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
Test #	NRAX10073411	Test Procedure	21 - Federal fuel 2-day exhaust (w/can load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	05/14/2021	Fuel	Gasoline
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	FAKT GmbH		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4050	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.00884	--
CO (Carbon Monoxide)	0.4732	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0	--
DT-EER (Drive Trace Energy Economy Rating)	0	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0	--
MFR FE (Manufacturer Fuel Economy)	20.96	20.96
NOX (Nitrogen Oxide)	0.0054	--
N2O (Nitrous Oxide)	0.00088	--
HC-NM (Non-methane Hydrocarbon)	0.0148	--
NMOG (Non-methane organic gases)	0.0161	--
PM (Particulate Matter)	0.000714	--
HC-TOTAL (Total Hydrocarbon)	0.0176	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	423	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	421.683	--

Manufacturer Test Comments

Pre-Test FTP for 3Day Evap + R/L

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Test Group		TRAXV03.8T12				Evaporative/Refueling Family				TRAXR0150CTR		
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	120,000 miles	Federal Tier 3 Bin 50	METHANE	0.0088	--	--	--	0.0026	--	0.011	0.030	Pass
Fed	120,000 miles	Federal Tier 3 Bin 50	N2O	0.0009	--	--	--	0.0011	--	0.002	0.010	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	CO	0.47	--	--	--	0.16	--	0.6	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.02	--	--	--	0.0062	--	0	999.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.03	--	--	--	--	--	0.041	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.01	--	--	--	0.0047	--	0	999.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	PM	0.0007	--	--	--	0	--	0.001	0.003	Pass

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Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
Test #	NRAX10073412	Test Procedure	21 - Federal fuel 2-day exhaust (w/can load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	05/21/2021	Fuel	Gasoline
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	FAKT GmbH		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4127	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.00804	--
CO (Carbon Monoxide)	0.5008	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0	--
DT-EER (Drive Trace Energy Economy Rating)	0	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0	--
MFR FE (Manufacturer Fuel Economy)	22.05	22.05
NOX (Nitrogen Oxide)	0.0061	--
N2O (Nitrous Oxide)	0.00061	--
HC-NM (Non-methane Hydrocarbon)	0.0121	--
NMOG (Non-methane organic gases)	0.0134	--
PM (Particulate Matter)	0.000777	--
HC-TOTAL (Total Hydrocarbon)	0.0152	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	402	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	400.633	--

Manufacturer Test Comments

Pre-Test FTP for ORVR

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Test Group		TRAXV03.8T12				Evaporative/Refueling Family				TRAXR0150CTR		
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	120,000 miles	Federal Tier 3 Bin 50	METHANE	0.008	--	--	--	0.0026	--	0.011	0.030	Pass
Fed	120,000 miles	Federal Tier 3 Bin 50	N2O	0.0006	--	--	--	0.0011	--	0.002	0.010	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	CO	0.5	--	--	--	0.16	--	0.7	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.01	--	--	--	0.0062	--	0	999.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.02	--	--	--	--	--	0.031	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.01	--	--	--	0.0047	--	0	999.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	PM	0.0008	--	--	--	0	--	0.001	0.003	Pass

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Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
Test #	NRAX10073413	Test Procedure	21 - Federal fuel 2-day exhaust (w/can load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	05/25/2021	Fuel	Gasoline
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	FAKT GmbH		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4164	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.0108	--
CO (Carbon Monoxide)	0.3971	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0	--
DT-EER (Drive Trace Energy Economy Rating)	0	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0	--
MFR FE (Manufacturer Fuel Economy)	21.18	21.18
NOX (Nitrogen Oxide)	0.0055	--
N2O (Nitrous Oxide)	0.00091	--
HC-NM (Non-methane Hydrocarbon)	0.0116	--
NMOG (Non-methane organic gases)	0.012	--
PM (Particulate Matter)	0.000865	--
HC-TOTAL (Total Hydrocarbon)	0.0132	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	417	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	415.9	--

Manufacturer Test Comments Pre-Test FTP for 2 day EVAP

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Test Group		TRAXV03.8T12				Evaporative/Refueling Family				TRAXR0150CTR		
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	120,000 miles	Federal Tier 3 Bin 50	METHANE	0.0108	--	--	--	0.0026	--	0.013	0.030	Pass
Fed	120,000 miles	Federal Tier 3 Bin 50	N2O	0.0009	--	--	--	0.0011	--	0.002	0.010	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	CO	0.4	--	--	--	0.16	--	0.6	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.01	--	--	--	0.0062	--	0	999.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.02	--	--	--	--	--	0.031	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.01	--	--	--	0.0047	--	0	999.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	PM	0.0009	--	--	--	0	--	0.001	0.003	Pass

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Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
Test #	NRAX10073069	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	04/23/2021	Fuel	Gasoline
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	FAKT GmbH		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	3826	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.00032	--
CO (Carbon Monoxide)	0.034171	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0	--
DT-EER (Drive Trace Energy Economy Rating)	0	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0	--
MFR FE (Manufacturer Fuel Economy)	30.9935	30.9935
NOX (Nitrogen Oxide)	0.003214	--
HC-NM (Non-methane Hydrocarbon)	0.00064	--
NMOG (Non-methane organic gases)	0.00081	--
PM (Particulate Matter)	0.00096	--
HC-TOTAL (Total Hydrocarbon)	0.00096	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	285	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	284.7413	--

Manufacturer Test Comments --

Certification Summary Information Report

Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
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Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0	--	--	--	0.0062	--	0	999.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0	--	--	--	--	--	0.011	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0	--	--	--	0.0047	--	0	999.9	Pass

Test #	NRAX10073432	Test Procedure	34 - Federal fuel 3-day evap
Exhaust Test # for this Evap Test	NRAX10073411	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	05/15/2021	Fuel	Gasoline
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FAKT GmbH		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4080	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.1944	--

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	0.1944	0	0.194	0.3	Pass

Certification Summary Information Report

Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
Test #	NRAX10073438	Test Procedure	23 - 2-day evap
Exhaust Test # for this Evap Test	NRAX10073413	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	05/25/2021	Fuel	Gasoline
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FAKT GmbH		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4183	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.2106	--

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	0.2106	0	0.211	0.3	Pass

Certification Summary Information Report

Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
Test #	NRAX10073433	Test Procedure	32 - Federal Fuel Running Loss
Exhaust Test # for this Evap Test	NRAX10073411	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	05/14/2021	Fuel	Gasoline
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FAKT GmbH		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4070	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.00184	--

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	0.0018	0	0.002	0.05	Pass

Certification Summary Information Report

Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
Test #	NRAX10073439	Test Procedure	24 - Federal fuel refueling test (ORVR)
Exhaust Test # for this Evap Test	NRAX10073412	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	05/25/2021	Fuel	Gasoline
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FAKT GmbH		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4139	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.0048	--

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	0.005	0	0	0.2	Pass

Certification Summary Information Report

Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
Test #	NRAX10073404	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	05/07/2021	Fuel	Gasoline
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	FAKT GmbH		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	3983	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	564.762	--
FE BAG 1 (Bag 1 Fuel Economy)	15.612	15.612
CO2 BAG 2 (Bag 2 Carbon Dioxide)	359.385	--
FE BAG 2 (Bag 2 Fuel Economy)	24.52	24.52
METHANE (CH4 - Methane)	0.000418	--
CO (Carbon Monoxide)	0.0586	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0	--
DT-EER (Drive Trace Energy Economy Rating)	0	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0	--
HCHO (Formaldehyde)	0	--
MFR FE (Manufacturer Fuel Economy)	21.78	21.78
NOX (Nitrogen Oxide)	0.01717	--
HC-NM (Non-methane Hydrocarbon)	0.001056	--
NMOG (Non-methane organic gases)	0.001164	--
PM (Particulate Matter)	0.00415	--
HC-TOTAL (Total Hydrocarbon)	0.00232	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	405	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	403.085	--

Certification Summary Information Report

Test Group		TRAXV03.8T12		Evaporative/Refueling Family				TRAXR0150CTR				
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 50	CO	0.06	--	--	--	0.16	--	0.2	999.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0	--	--	--	0.0062	--	0	999.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.02	--	--	--	0.0047	--	0	999.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	PM	0.0042	--	--	--	0	--	0.004	0.006	Pass

Certification Summary Information Report

Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
Test #	NRAX10073405	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	04/22/2021	Fuel	Gasoline
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	FAKT GmbH		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	3805	Odometer Units	M
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0.1667	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0	--
DT-EER (Drive Trace Energy Economy Rating)	0	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0	--
MFR FE (Manufacturer Fuel Economy)	15.716	15.716
NOX (Nitrogen Oxide)	0.000968	--
HC-NM (Non-methane Hydrocarbon)	0.00169	--
NMOG (Non-methane organic gases)	0.00155	--
HC-TOTAL (Total Hydrocarbon)	0.00208	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	561.183	--

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 50	CO	0.17	--	--	--	0.16	--	0.3	999.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0	--	--	--	0.0062	--	0	999.9	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0	--	--	--	0.0047	--	0	999.9	Pass

Certification Summary Information Report

Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR																		
Test #	NRAX10073441	Test Procedure	65 - Evap Canister Bleed Test																		
Exhaust Test # for this Evap Test	--	Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)																		
Test Date	05/25/2021	Fuel	Gasoline																		
Fuel Batch ID	--	Fuel Calibration Number	--																		
Vehicle Class	N/A	DF Type	EPA Assigned																		
Verify Test Lab ID	FAKT GmbH																				
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)																				
Test Start Odometer Reading	4183	Odometer Units	M																		
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--																		
State of Charge Delta	--																				
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes																		
Test Results																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%;">Test Result Name</th> <th style="width: 30%;">Unrounded Test Result</th> <th style="width: 35%;">Verify Calculated FE Equivalent Value (miles per gallon)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)</td> <td style="text-align: center;">0.0087</td> <td style="text-align: center;">--</td> </tr> </tbody> </table>				Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)	HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.0087	--												
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HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.0087	--																			
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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	0.0087	0	0.009	0.02	Pass													
Fuel Properties																					

Certification Summary Information Report

Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
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Consolidated List of Standards

Exhaust Standards

Cert Region	Federal	Cert/In-Use Code	Both
Vehicle Class	LDV/Passenger Car	Standard Level	Federal Tier 3 Bin 50
Fuel	Gasoline	Test Procedure	US06

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0.16	999.9
150,000 miles	NMOG	--	--	--	--	--	--	0.0062	999.9
150,000 miles	NOX	--	--	--	--	--	--	0.0047	999.9
150,000 miles	PM	--	--	--	--	--	--	0	0.006

Cert Region	Federal	Cert/In-Use Code	Both
Vehicle Class	LDV/Passenger Car	Standard Level	Federal Tier 3 Bin 50
Fuel	Gasoline	Test Procedure	HWFE

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	NMOG	--	--	--	--	--	--	0.0062	999.9
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0.0109	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.0047	999.9

Certification Summary Information Report

Test Group		TRAXV03.8T12			Evaporative/Refueling Family			TRAXR0150CTR		
Cert Region		Federal			Cert/In-Use Code			Both		
Vehicle Class		LDV/Passenger Car			Standard Level			Federal Tier 3 Bin 50		
Fuel		Gasoline			Test Procedure			Federal fuel 2-day exhaust (w/can load)		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std	
120,000 miles	METHANE	--	--	--	--	--	--	0.0026	0.030	
120,000 miles	N2O	--	--	--	--	--	--	0.0011	0.010	
150,000 miles	CO	--	--	--	--	--	--	0.16	1.7	
150,000 miles	CO-COMP	--	--	--	--	--	--	0.151	4.2	
150,000 miles	HCHO	--	--	--	--	--	--	0.0002	0.004	
150,000 miles	NMOG	--	--	--	--	--	--	0.0062	999.9	
150,000 miles	NMOG+NOX	--	--	--	--	--	--	0.0109	0.050	
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	0.005	0.050	
150,000 miles	NOX	--	--	--	--	--	--	0.0047	999.9	
150,000 miles	PM	--	--	--	--	--	--	0	0.003	
Cert Region		Federal			Cert/In-Use Code			Both		
Vehicle Class		LDV/Passenger Car			Standard Level			Federal Tier 3 Bin 50		
Fuel		Gasoline			Test Procedure			SC03		
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	--	--	--	--	--	--	0.16	999.9	
150,000 miles	NMOG	--	--	--	--	--	--	0.0062	999.9	
150,000 miles	NOX	--	--	--	--	--	--	0.0047	999.9	
Cert Region		Federal			Cert/In-Use Code			Both		
Vehicle Class		LDV/Passenger Car			Standard Level			Federal Tier 3 Bin 50		
Fuel		Gasoline			Test Procedure			Cold CO		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std	
150,000 miles	CO	--	--	--	--	--	--	0.16	10.0	
150,000 miles	HC-NM	--	--	--	--	--	--	0.0025	0.3	
Evaporative/Refueling Standards										

Certification Summary Information Report

Test Group	TRAXV03.8T12		Evaporative/Refueling Family	TRAXR0150CTR	
Evaporative/Refueling Family	TRAXR0150CTR		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-TOTAL-EQUIV	--	0.20	0
Evaporative/Refueling Family	TRAXR0150CTR		Cert Region	Federal	
Cert/In-Use Code	Cert		Standard Level	Federal Tier 3 Evap	
Test Procedure	Evap Canister Bleed Test				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.020	0
Evaporative/Refueling Family	TRAXR0150CTR		Cert Region	Federal	
Cert/In-Use Code	Cert		Standard Level	Federal Tier 3 Evap	
Test Procedure	Federal fuel 3-day evap				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.300	0
Evaporative/Refueling Family	TRAXR0150CTR		Cert Region	Federal	
Cert/In-Use Code	Cert		Standard Level	Federal Tier 3 Evap	
Test Procedure	Federal Fuel Running Loss				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.050	0
Evaporative/Refueling Family	TRAXR0150CTR		Cert Region	Federal	
Cert/In-Use Code	Cert		Standard Level	Federal Tier 3 Evap	
Test Procedure	2-day evap				
Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.300	0

Certification Summary Information Report

Test Group	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
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

Certification Summary Information Report

Test Group		TRAXV03.8T12	Evaporative/Refueling Family		TRAXR0150CTR
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	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
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	TRAXV03.8T12	Evaporative/Refueling Family	TRAXR0150CTR
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