Application for Certification

Part 1

FORD MOTOR COMPANY

APPLICATION FOR CERTIFICATION – PART I

2014 MODEL YEAR

Durability Group: EFMXDPDNNF1A

Evaporative Family: N/A

Test Group: EFMXD06.771C

Durability Group Description: Four Stroke, Diesel Cycle
Diesel Fueled, Direct Diesel Injection, Catalyst Code F

Test Group Description: 6.7L V8
Federal HDV2 / California MDV (10,001-14,000 lb GVWR)

Applicable Standards: Federal HDV2 / California ULEV II

Carlines Covered:
F350/F450 4x2/4x4 Complete and Box Delete

Vehicles Tested:

DFA1-6.7-J-314 Config. 0: (FTP TN: DFMX10022130, HWY TN: DFMX10022129)

Release Date: August 26, 2013

For Questions, Contact:
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Part 1 Application Index

§ 00.00.00.00 Cover Page

§ 02.00.00.00 Durability Group Description

§ 03.00.00.00 Evaporative/ Refueling Family Description

§ 04.00.00.00 Durability Procedure Description

§ 05.00.00.00 Test Group Description

§ 06.00.00.00 Test Vehicle Description

§ 07.00.00.00 Test Results
- 07.00.01.00 EPA Certification Summary Information (CSI) report(s)

§ 08.00.00.00 Emission Testing Waiver Statements

§ 09.00.00.00 OBDII System Description

§ 11.00.00.00 AECD Descriptions

§ 12.00.00.00 Description of Vehicles Covered by Certificate and Test Parameters
- 12.00.01.00 Common Family Parameters
- 12.00.02.00 Calibration Description
- 12.00.03.00 Calibration Parts List
- 12.00.04.00 Special Test Procedures
- 12.00.05.00 Test Vehicle Requirements
- 12.00.06.00 Vehicle Description Reports

§ 14.00.00.00 Request for Certification

§ 15.00.00.00 Other Information
- 15.00.01.00 Fee Filing Form

§ 16.00.00.00 Confidential Information
- 16.00.01.00 Family Catalyst Information
- 16.00.03.00 OBD II Deficiency Summary
- 16.00.04.00 DF Summary
- 16.05.01.CC AECD Description Templates

§ 17.00.00.00 California ARB Information
- 17.00.01.00 Certification Review Sheet
- 17.00.02.00 Supplemental Data Sheet
- 17.00.03.00 VECI Label

§ 18.00.00.00 Revisions

Part 2 Application Index
(Running change updates)

SECTION 2

Durability Group Description

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

SECTION 3

Evaporative/Refueling Family Description

Not applicable for diesel vehicles

03.00.00.00

SECTION 4

Durability Procedure Description

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

ED_002078G_00021604-00006

SECTION 5

Test Group Description

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

SECTION 6

Test Vehicle Description

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

SECTION 7

EPA Certification Summary Information Report

(Test Results)

07.00.00.00

Certification Summary Information Report

Manufacturer	Ford Motor Company	**Manufacturer Code**	FMX
Test Group	EFMXD06.771C	**Evaporative/Refueling Family**	N/A
Certificate Number	N/A	**CARB Executive Order #**	N/A
Certificate Issue Date	N/A	**Certificate Revision Date**	N/A
Certificate Effective Date	N/A	**Conditional Certificate**	--
CSI Revision #	N/A	**CSI Submission/Revision Date**	05/15/2013
Model Year	2014		

Test Group Information

CSI Type	Update for Correction	**Running Change Reference Number**	N/A
GHG Exempt Status	Not Exempt		

Drive Sources and Fuel(s)

Drive Source #1: Combustion Engine

Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
Diesel	Common Rail Direct Diesel Injection	--

Hybrid Indicator	No		
Multiple Fuel Storage	--	**Rechargeable Energy Storage System Indicator**	--
Multiple Fuel Combustion	--	**Off-board Charge Capable Indicator**	--
Fuel Cell Indicator	--	**EPA Vehicle Class**	HDV2
Federal Clean Fuel Vehicle	No	**Federal Clean Fuel Vehicle Standard**	--
Federal Clean Fuel Vehicle ILEV	No	**California Partial Zero Emissions Vehicle Indicator**	No
Durability Group Name	EFMXDPDNNF1A	**Durability Group Equivalency Factor**	1.0
Reduced Fee Test Group	No	**Certification Region Code(s)**	FA, CA
Complies with HD GHG 2b/3 regulations?	Yes		
Introduction into Commerce Date	--	**CAP2000 Conditional Certificate?**	N/A
Independent Commercial Importer?	--	**Alternative Fuel Converter Certificate?**	--
SFTP Compliance Indicator	No	**SFTP Composite CO Option**	No
OBD Compliance Type	CARB	**OBD Demonstration Vehicle Test Group**	EFMXD06.771C
Mfr Test Group Comments	F-Series Super-Duty 10,001-14. CO2 DAF=-213.9 g/mile is not a valid entry for VERIFY, 0 used as an accepted placeholder. CH4 Cert Level = 0.02 g/mile against 0.05 g/mile standard.		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	EFMXD06.771C	Evaporative/Refueling Family	N/A

Models Covered by this Certificate

Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
Ford Motor Company	1 - Ford	392 - F350 4WD DIESEL	Federal	Part-time 4-Wheel Drive	Semi-Automatic	6	Yes
Ford Motor Company	1 - Ford	390 - F350 2WD DIESEL	Federal	2-Wheel Drive, Rear	Semi-Automatic	6	Yes
Ford Motor Company	1 - Ford	327 - F350 4WD BED DELETE DIESEL	Federal	Part-time 4-Wheel Drive	Semi-Automatic	6	Yes
Ford Motor Company	1 - Ford	326 - F350 2WD BED DELETE DIESEL	California + CAA Section 177 states	2-Wheel Drive, Rear	Semi-Automatic	6	Yes
Ford Motor Company	1 - Ford	350 - F450 4X4 PICKUP DIESEL	Federal	Part-time 4-Wheel Drive	Semi-Automatic	6	Yes
Ford Motor Company	1 - Ford	327 - F350 4WD BED DELETE DIESEL	California + CAA Section 177 states	Part-time 4-Wheel Drive	Semi-Automatic	6	Yes
Ford Motor Company	1 - Ford	390 - F350 2WD DIESEL	California + CAA Section 177 states	2-Wheel Drive, Rear	Semi-Automatic	6	Yes
Ford Motor Company	1 - Ford	326 - F350 2WD BED DELETE DIESEL	Federal	2-Wheel Drive, Rear	Semi-Automatic	6	Yes
Ford Motor Company	1 - Ford	392 - F350 4WD DIESEL	California + CAA Section 177 states	Part-time 4-Wheel Drive	Semi-Automatic	6	Yes
Ford Motor Company	1 - Ford	350 - F450 4X4 PICKUP DIESEL	California + CAA Section 177 states	Part-time 4-Wheel Drive	Semi-Automatic	6	Yes

Engine Description

Hybrid Type	--	**Hybrid Description**	--
Engine Type	4-Stroke Compression Ignition	**Mfr Engine Description**	4-Stroke Compression Ignition
Engine Block Arrangement	V-shaped engine	**Mfr Engine Block Arrangement Description**	--
Camless Valvetrain Indicator	No	**Oil Viscosity/Classification**	10W-30/CJ-4
Number of Cylinders/Rotors	8		

After Treatment Device(s) (ATD)

ATD Number	ATD Type	ATD Precious Metal	Substrate Material	Substrate Construction
1	Diesel Particulate Filter	Platinum + Paladium	Ceramic	Monolith
2	Oxidation catalyst	Platinum + Paladium	Ceramic	Monolith
3	Selective Catalytic Reduction	SCR contains no precious metal.	Ceramic	Monolith

Mfr After Treatment Device (ATD) Comments	DOC, SCR, DPF
Direct Ozone Reduction (DOR) Device	Not Equipped
Mfr Emission Control Device Comments	--

Certification Summary Information Report

Test Group	EFMXD06.771C	**Evaporative/Refueling Family**	N/A

Engine Configuration Number 1

Engine Displacement (liters)	6.7	**Engine Rated Horsepower**	400
Number of Inlet Valves Per Cylinder	2	**Number of Exhaust Valves Per Cylinder**	2
Air Aspiration Method	Turbocharged	**Number of Air Aspiration Devices**	1
Air Aspiration Device Configuration	Single	**Charge Air Cooler Type**	Liquid
Cylinder Deactivation Description	N/A		
Variable Valve Timing System Description	N/A	**Variable Valve Lift System**	N/A
Number of Knock Sensors	0		
Air/Fuel Sensor # 1 Type	Nitrogen oxide	**Air/Fuel Sensor # 1 Description**	N/A
Air/Fuel Sensor # 2 Type	Nitrogen oxide	**Air/Fuel Sensor # 2 Description**	N/A
Mfr Air/Fuel Sensor Comments	--		
Exhaust Gas Recirculation	Yes	**EGR Type**	Electronic/Electric
Cooled Exhaust Gas Recirculation	Yes		
Closed Loop Air Injection System	No	**Air Injection Type**	--
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
Diesel	DFMX10022130	--	--	--	DFMX10022129	N/A	9.8	N/A	9.9	N/A

Certification Summary Information Report

Test Group	EFMXD06.771C	**Evaporative/Refueling Family**	N/A

Emission Data Vehicle Information

Vehicle ID / Configuration DFA1-6.7-J-314 / 0

Vehicle Model

Represented Test Vehicle Make	Ford	**Represented Test Vehicle Model**	F350 4x4

Drive Sources and Fuel System Details

Drive Source and Fuel#	Drive Source	Fuel
1	Combustion Engine	Diesel

Hybrid Indicator	N		
Multiple Fuel Storage	--	**Multiple Fuel Combustion**	--
Fuel Cell Indicator	--	**Rechargeable Energy Storage System Indicator**	--
Rechargeable Energy Storage System	--	**Rechargeable Energy Storage System, if 'Other'**	--
Off-board charge Capable Indicator	--		
Transmission Type	Automatic	**# of Transmission Gears**	6
Engine Code	DFA17C0500	**Axle Ratio**	3.73
Displacement (liters)	6.7	**Rated Horsepower**	400
Equivalent Test Weight (pounds)	11500	**Air Aspiration Method**	Turbocharged
Drive Mode While Testing	Part-time 4-Wheel Drive	**SIL Usage**	Not eqipped
Aged Emission Components	4,000 (mi)		

Dynamometer Coefficients:

Coefficient Category	Target Coefficients A (lbf)	Target Coefficients B (lbf/mph)	Target Coefficients C (lbf/mph**2)	Set Coefficients A (lbf)	Set Coefficients B (lbf/mph)	Set Coefficients C (lbf/mph**2)	EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
City/Highway/Evap	61.92	1.8915	0.10556	14.104	0.37951	0.11538	56.1

Manufacturer Test Vehicle Comments F350 4x4 Crew Cab Box Delete, GVWR = 13000 lb., Curb Weight = 10029 lb., Transmission: 6R140 Semi-Automatic

Certification Summary Information Report

Test Group	EFMXD06.771C	**Evaporative/Refueling Family**	N/A
Test #	**DFMX10022130**	**Test Procedure**	**2 - CVS 75 and later (w/o can. load)**
Exhaust Test # for this Evap Test	N/A	**Test Fuel Type**	19 - Cert Diesel 7-15 ppm Sulfur
Test Date	07/26/2012	**Fuel**	Diesel
Vehicle Class	HDV2 (Federal HD chassis Class 3 GVW 10001-14000), MDV7 (Cal. LEV 2/3 MDV GVW 10001-14000)	**DF Type**	Mfr. Determined
Verify Test Lab ID	APTL		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Bag 1 Carbon Dioxide	936.289	--
Bag 1 Fuel Economy	10.8023	10.8023
Bag 2 Carbon Dioxide	764.776	--
Bag 2 Fuel Economy	13.3038	13.3038
Bag 3 Carbon Dioxide	804.479	--
Bag 3 Fuel Economy	12.6476	12.6476
CH4 - Methane	0.0352501	--
Carbon Monoxide	0.625326	--
Formaldehyde	0.005866	--
Manufacturer Fuel Economy	12.5215	12.5215
Nitrogen Oxide	0.302191	--
Nitrous Oxide	0.01	--
Non-methane Hydrocarbon	0.0557372	--
Non-methane organic gas (California)	0.0557372	--
Particulate Matter	0.0076433	--
Total Hydrocarbon	0.0890758	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	812
Optional Carbon-Related Exhaust Emissions	0	816

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	811.497	812

Manufacturer Test Comments --

Certification Summary Information Report

Test Group EFMXD06.771C **Evaporative/Refueling Family** N/A

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	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	CO	0.63	--	--	0.010000 UP	0.23	--	0.9	8.1	Pass
Fed	120,000 miles	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	CO2	812	--	--	7.800000 UP	0	--	820	--	--
Fed	120,000 miles	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	HC-NM	0.0557	--	--	0.000000 UP	0.0334	--	0.089	0.230	Pass
Fed	120,000 miles	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	HCHO	0.0059	--	--	0.000000 UP	0.0004	--	0.006	0.040	Pass
Fed	120,000 miles	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	NOX	0.30	--	--	0.010000 UP	0.00	--	0.3	0.4	Pass
Fed	120,000 miles	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	PM	0.008	--	--	0.000000 UP	0.007	--	0.02	0.02	Pass
CA	120,000 miles	California LEV-II ULEV	CO	0.63	--	--	0.010000 UP	0.23	--	0.9	7.3	Pass
CA	120,000 miles	California LEV-II ULEV	HCHO	0.0059	--	--	0.000000 UP	0.0004	--	0.006	0.021	Pass
CA	120,000 miles	California LEV-II ULEV	NMOG	0.0557	--	1.00	0.000000 UP	0.0334	--	0.089	0.167	Pass
CA	120,000 miles	California LEV-II ULEV	NOX	0.30	--	--	0.010000 UP	0.00	--	0.3	0.4	Pass
CA	120,000 miles	California LEV-II ULEV	PM	0.008	--	--	0.000000 UP	0.007	--	0.02	0.06	Pass

NOTE: For Non-charge depleting tests, the Rounded Result for CO2 Emission name is a Verify-calculated value.

Certification Summary Information Report

Test Group	EFMXD06.771C	**Evaporative/Refueling Family**	N/A

Test #	**DFMX10022129**	**Test Procedure**	**3 - HWFE**
Exhaust Test # for this Evap Test	N/A	**Test Fuel Type**	19 - Cert Diesel 7-15 ppm Sulfur
Test Date	07/20/2012	**Fuel**	Diesel
Vehicle Class	MDV7 (Cal. LEV 2/3 MDV GVW 10001-14000)	**DF Type**	Mfr. Determined
Verify Test Lab ID	APTL		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
CH4 - Methane	0.0023453	--
Carbon Monoxide	0.0125041	--
Manufacturer Fuel Economy	14.2722	14.2722
Nitrogen Oxide	0.127845	--
Nitrous Oxide	0.01	--
Non-methane Hydrocarbon	0	--
Particulate Matter	0.0019375	--
Total Hydrocarbon	0.0006631	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	713
Optional Carbon-Related Exhaust Emissions	0	716

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	712.96	713

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
CA	120,000 miles	California LEV-II ULEV	NOX	0.13	--	--	0.010000 UP	0.00	--	0.1	0.8	Pass

Test Group	EFMXD06.771C	Evaporative/Refueling Family	N/A

Consolidated List of Standards

Exhaust Standards

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Cert
Vehicle Class	MDV7 (Cal. LEV 2/3 MDV GVW 10001-14000)	**Standard Level**	California LEV-II ULEV
Fuel	Diesel	**Test Procedure**	CVS 75 and later (w/o 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	CO	--	--	--	0.010000	-0.160000	--	0.23	7.3
120,000 miles	HCHO	--	--	--	0.000000	-0.000300	--	0.0004	0.021
120,000 miles	NMOG	--	--	1.00	0.000000	0.000100	--	0.0334	0.167
120,000 miles	NOX	--	--	--	0.010000	-0.380000	--	0.00	0.4
120,000 miles	PM	--	--	--	0.000000	-0.003000	--	0.007	0.06

Cert Region	Federal	**Cert/In-Use Code**	Cert
Vehicle Class	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	**Standard Level**	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)
Fuel	Diesel	**Test Procedure**	CVS 75 and later (w/o 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	CO	--	--	--	0.010000	-0.160000	--	0.23	8.1
120,000 miles	CO2	--	--	--	7.800000	0.000000	--	0	999
120,000 miles	HC-NM	--	--	--	0.000000	0.000100	--	0.0334	0.230
120,000 miles	HCHO	--	--	--	0.000000	-0.000300	--	0.0004	0.040
120,000 miles	NOX	--	--	--	0.010000	-0.380000	--	0.00	0.4
120,000 miles	PM	--	--	--	0.000000	-0.003000	--	0.007	0.02

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Cert
Vehicle Class	MDV7 (Cal. LEV 2/3 MDV GVW 10001-14000)	**Standard Level**	California LEV-II ULEV
Fuel	Diesel	**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
120,000 miles	NOX	--	--	--	0.010000	-0.380000	--	0.00	0.8

Certification Summary Information Report

Test Group	EFMXD06.771C	Evaporative/Refueling Family	N/A

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	FE BAG 3	Bag 3 Fuel Economy
CO	Carbon Monoxide	FE BAG 4	Bag 4 Fuel Economy
CO2	Carbon dioxide	MFR FE	Manufacturer Fuel Economy
CREE	Carbon-Related Exhaust Emissions	HC	Hydrocarbon for Running Loss and ORVR
OPT-CREE	Optional Carbon-Related Exhaust Emissions	METHANE	CH4 - Methane
NOX	Nitrogen Oxide	METHANOL	CH3OH - Methanol
PM	Particulate Matter	N2O	Nitrous Oxide
PM-COMP	SFTP Composite Particulate Matter	SPITBACK	Spitback Hydrocarbon in grams
HC-NM	Non-methane Hydrocarbon	AMP-HRS	Integrated Amp-hours
OMHCE	Organic material Hydrocarbon Equivalent	START-SOC	System Start State of Charge Watt-hours
OMNMHCE	Organic material non-methane HC equivalent	END-SOC	System End State of Charge Watt-hours
NMOG	Non-methane organic gas (California)	ACT-DISTANCE	Actual Distance Driven (miles)
HCHO	Formaldehyde	AS-VOLT	Average System Voltage
H3C2HO	Acetaldehyde	CO2 BAG 1	Bag 1 Carbon Dioxide
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03	CO2 BAG 2	Bag 2 Carbon Dioxide
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides	CO2 BAG 3	Bag 3 Carbon Dioxide
CO-COMP	SFTP Composite Carbon Monoxide	CO2 BAG 4	Bag 4 Carbon Dioxide
ETHANOL	C2H5OH - Ethanol	NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides
FE BAG 1	Bag 1 Fuel Economy	NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides
FE BAG 2	Bag 2 Fuel Economy		

Certification Region			
CA	California + CAA Section 177 states	FA	Federal

Exhaust Emission Standard Level			
B1	Federal Tier 2 Bin 1	L2SULEV30	California LEV-II SULEV30
B2	Federal Tier 2 Bin 2	L2LEV395	California LEV-II LEV395
B3	Federal Tier 2 Bin 3	L2ULEV340	California LEV-II ULEV340
B4	Federal Tier 2 Bin 4	L2LEV630	California LEV-II LEV630
B5	Federal Tier 2 Bin 5	L2ULEV570	California LEV-II ULEV570
B6	Federal Tier 2 Bin 6	L3LEV160	California LEV-III LEV160
B7	Federal Tier 2 Bin 7	L3ULEV125	California LEV-III ULEV125
B8	Federal Tier 2 Bin 8	L3ULEV70	California LEV-III ULEV70
B9	Federal Tier 2 Bin 9	L3ULEV50	California LEV-III ULEV50
B10	Federal Tier 2 Bin 10	L3SULEV30	California LEV-III SULEV30

Certification Summary Information Report

Test Group	EFMXD06.771C	Evaporative/Refueling Family	N/A
B11	Federal Tier 2 Bin 11	L3SULEV20	California LEV-III SULEV20
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)	L3LEV395	California LEV-III LEV395
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	L3ULEV340	California LEV-III ULEV340
L2	California LEV-II LEV	L3ULEV250	California LEV-III ULEV250
L2OP	California LEV-II LEV Optional	L3ULEV200	California LEV-III ULEV200
U2	California LEV-II ULEV	L3SULEV170	California LEV-III SULEV170
S2	California LEV-II SULEV	L3SULEV150	California LEV-III SULEV150
ZEV	California ZEV	L3LEV630	California LEV-III LEV630
OT	Other	L3ULEV570	California LEV-III ULEV570
T1	Federal Tier 1	L3ULEV400	California LEV-III ULEV400
PZEV	California PZEV	L3ULEV270	California LEV-III ULEV270
L2LEV160	California LEV-II LEV160	L3SULEV230	California LEV-III SULEV230
L2ULEV125	California LEV-II ULEV125	L3SULEV200	California LEV-III SULEV200
Transmission Type Code			
AMS	Automated Manual- Selectable (e.g. Automated Manual with paddles)	M	Manual
A	Automatic	OT	Other
AM	Automated Manual	SA	Semi-Automatic
CVT	Continuously Variable	SCV	Selectable Continuously Variable (e.g. CVT with paddles)
Drive System Code			
4	4-Wheel Drive	P	Part-time 4-Wheel Drive
F	2-Wheel Drive, Front	A	All Wheel Drive
R	2-Wheel Drive, Rear		
Additional Terms and Acronyms			
AFC	Alternative Fuel Converter	ICI	Independent Commercial Importer
CSI	Certificate Summary Information	ORVR	Onboard Refueling Vapor Recovery
DF	Deterioration Factor	SIL	Shift Indicator Light
Evap	Evaporation, Evaporative	Trans	Transmission

SECTION 8

Emission Testing Waiver Statements

For applicable test waiver statements, refer to Section 14.00.00.00 of the Common Section.

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SECTION 9

OBD-II System Description

For a description of the OBD System utilized for this Test Group, refer to Section 16.06.00.00 of the Common Section.

ED_002078G_00021604-00021

SECTION 11

AECD Description

AECD description submitted to EPA Verify separately for this test group.

SECTION 12

Description of Vehicles Covered by Certificate
and
Testing Parameters

12.00.00.00

Program: F-Series Super Duty Diesel

Test Group Information	
Vehicle/Engine Class	HDV2
Vehicle Fuel Category	*Single Fuel*
Operating Fuel 1	*Diesel*
Operating Fuel 2	*Diesel*

Engine Displacement (liters)	6.7L
Engine Cooling medium	OAT Coolant
SAE net HP @ RPM (prem fuel)	400 hp @ 2800 rpm
SAE net HP @ RPM (prem fuel)	
SAE net HP @ RPM (prem fuel)	
SAE net torque ft-lb @ RPM (prem fuel)	800 ft-lbs @ 1600 rpm
SAE net torque ft-lb @ RPM (prem fuel)	
Cylinder Deactivation	N
Variable Valve Timing (VVT)	N
Variable Valve Lift	N
Number of Inlet Valves Per Cylinder	2
Number of Exhaust Valves Per Cylinder	2
Air Aspiration Method*	*Turbocharged (TC)*
Number of Air Aspiration Devices	1
Air Aspiration Configuration	*N=Single*
Charge Air Cooler Type* (TG-51)	*Liquid*
Number of Charge Air Cooler	1
Charge Air Cooler Configuration	*Single*

Exhaust Emission Control System:	
Exhaust Gas Recirculation (EGR)*	Yes
Cooled EGR	Yes
EGR Type	*EEGR=Electronic/Electric*
Electronic Controls	PCM
Closed Loop Air Injection System	N
Air injection Type (AIR)*	NA=Not applicable
Location of injected air	None
Direct Ozone Reduction (DOR) Device	NE=Not equipped

Calibrations that Vary with Time or Dist.	See Common Section
Maintenance Schedule	*Normal*
Compression ratio (nominal)	16.2:1
Cylinder head design Ref. (08.05)	OHV

Camshaft Timing: (with VCT fully advanced) Cam Phase – Computer Controlled	no VCT
Int valve opens (° BTDC)	30.5
Int valve closes (° ABDC)	57.4
Int valve duration (°)	267.8
Int valve maximum lift (mm)	8.55
Exh valve opens (° BBDC)	75.2
Exh valve closes (° ATDC)	42.1
Exh valve duration (°)	297.3
Exh valve maximum lift (mm)	8.84
Valve lash (N/A for RFF)	Hydraulic Lash Adj

Fuel Metering System	Direct Diesel (DDI)

After-Treatment Device Information	
After-Treatment Type	DPF=Diesel Particulate Filter
After-Treatment Configuration	DOC, DPF, SCR
After-Treatment Type/size/code	Ref. 16.00.01
Feedback Sensor Type:	
Knock sensor	NO
Oxygen sensor (O_2S)*	NO
Heated oxygen sensor (HO_2S)*	NO
Air/Fuel Sensor (AFS)*	NO
Heated Air/Fuel Sensor (HAFS)*	NO
Feedback Sensor Configuration	NOx Sensor

Engine Test Group: EFMXD06.771C
Issued: March 7, 2013

* - VECI Label Content

12.00.02.00 Calibration Descriptions -EFMXD06.771C

Exhaust Calibration	Application	Transmission	Leak Check	Vehicle
EFA17C0500	50s	6R140	n/a	P473 F350 SRW/DRW
EFA17C0505	50s	6R140	n/a	P473 F350 SRW/DRW
EFA17C0506	50s	6R140	n/a	P473 F350 SRW/DRW
EFA17C0507	50s	6R140	n/a	P473 F350 SRW/DRW
EFA17C0510	50s	6R140	n/a	P473 F350 SRW/DRW
EFA17D0500	50s	6R140	n/a	P473 F450 Lite
EFA17D0505	50s	6R140	n/a	P473 F450 Lite
EFA17D0506	50s	6R140	n/a	P473 F450 Lite
EFA17D0507	50s	6R140	n/a	P473 F450 Lite
EFA17D0510	50s	6R140	n/a	P473 F450 Lite

Reference Specifications

Idle RPM	PCM Controlled
Target (BASE) in Drive ; (A/C-off / A/C-on)	600/600 RPM A/T
Target (BASE) in Neutral ((A/C-off / A/C-on)	600/600 RPM A/T

Special conditions which may require idle speeds higher than BASE are listed below:

Potential Idle Speed Modifier	Function Utilized (Y/ N)	Purpose
Low or high air charge temperature	N	Heater, A/C or engine cooling performance
Low catalyst temperature	N	Achieve/maintain light off
Low engine coolant temperature	Y	Combustion stability
Low or high ambient temperature	Y	Heater or A/C performance
High transmission oil temperature	Y	Ensure adequate fluid pressure
Low battery voltage	Y	Avoid stalling or no-start
High Alternator load	N	Preserve battery life and avoid low voltage
High-speed fan operation	N	For engine and A/C condenser cooling
Extended neutral idle time	N	Maintain catalyst temperature
Power steering pressure	N	Ensure adequate P/S assistance
High Altitude	N	Maintain air mass flow to avoid stalling
Alternate calibration	N	Use to prevent issues during plant drives/marshalling
Drive Speed Control or Shift Delay	N	Increase engine speed to improve cabin heating or cooling

Fuel Injector	105.9 mg/stroke @ max power	
Fuel Pressure Reg	0 - 2000 bar (30,000 psi)	
Crankcase CCV Valve	orifice (no electronics)	0-205 Liters/min
EGR valve	0 - 130 kg/hr	
High Temp Thermostat (2)	Start to Open: 88ºC (1) Start to Open: 90ºC (2)	
Low temp Thermostat (2)	Start to Open: 20ºC (1) Start to Open: 45ºC (2)	

Powertrain Control Module (PCM) -- PCM controlled calibrations for emission-related components are described in the AECD section 16.05.

2014 MY 6.7L P473
Chassis Dynamometer Exhaust Emissions Parts List
OVER 10K

Engine Family(ies)	Certification Level	Calibration(s)	w/PCM	Assembly Part #	TCM
EFMXD06.771C	Initial	EFA17C0500	(P473)	EC3A–12A650–EA	DC3A-12B565-EE
	Initial	EFA17C0505	(P473)	EC3A–12A650–EB	DC3A-12B565-EE
	Initial	EFA17C0506	(P473)	EC3A–12A650–EC	DC3A-12B565-EF
	RC01-003	EFA17C0507	(P473)	EC3A–12A650–ED	EC3A-12B565-DA
	RC02-004	EFA17C0510	(P473)	EC3A–12A650–EE	EC3A-12B565-DB
	Initial	EFA17D0500	(P473)	EC3A–12A650–FA	DC3A-12B565-FE
	Initial	EFA17D0505	(P473)	EC3A–12A650–FB	DC3A-12B565-FE
	Initial	EFA17D0506	(P473)	EC3A–12A650–FC	DC3A-12B565-FF
	RC01-003	EFA17D0507	(P473)	EC3A–12A650–FD	EC3A-12B565-EA
	RC02-004	EFA17D0510	(P473)	EC3A–12A650–FE	EC3A-12B565-EB

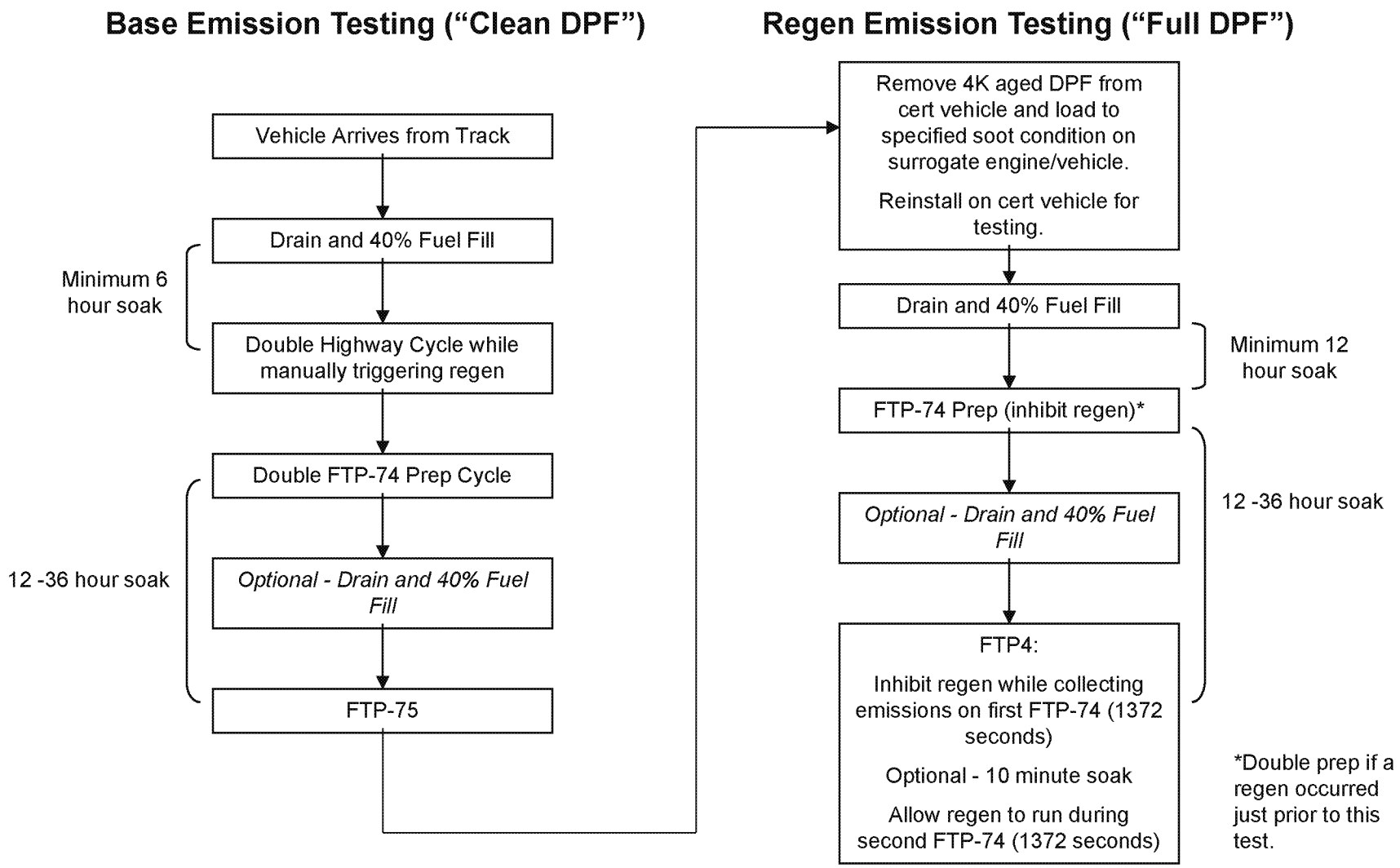
---------- All Other Exhaust Emission Parts ---------

Part Name (Quantity if more than 1)	Part Number
Catalyst (DPF Assembly)	CC34-5H240-CB
Fuel Pump Assembly	BC3Q–9B395-CC
Camshaft Position Sensor	BC3Q-12K073-AA
Crankshaft Position Sensor	BC3Q-6C315-CA
CCV Valve	BC3Q-6A785-EC
	BC3Q-6A785-EB (alt)
EGR Valve Assembly	BC3Q-9D475-BH
EGR Vacuum Reg	BC3Q-9F454-DA
EGR Cooler Bypass Valve	DC3Q-9U433-AB
	DC3Q-9U433-AA (alt)
EGR Coolant Temperature Sensor	BC3A-12B591-BB
Fuel Injector (8)	BC3Q-9K546-AD (alt)
	FC3Q-9K546-AA
Volume (fuel) Control Valve	BC3Q-9J307-AA
Fuel Temperature Sensor	BC3Q-9F951-AA
Fuel Rail Pressure Sensor	BC3Q-9F838-AA
Mass Air Flow/Intake Air Temperature Sensor	BC31-12B579-AA
	BR31-12B579-AA
Feedgas NO_x Sensor	DC3A-5J299-CC
Tailpipe NO_x Sensor	DC3A-5J299-DC
Feedgas NO_x Control Module	DC3A-5K202-AC
Tailpipe NO_x Control Module	DC3A-5L234-AA
Electric Throttle Body	BC3Q-9F991-DA
Fuel Rail Pressure Regulator Valve	BC3Q-9C968-AA
Mechanical Vacuum Pump	BC3Q-2A451-DC
Exhaust Manifold Pressure Sensor	BC3A-5H295-AF-WIDE
Urea Injector	AL3E-5J281-AC
	AL34-5J281-AB (alt)
Urea Heated Reservoir	BC34-5J225-BE
Urea Supply Module (1)	BC34-5J229-AF
Var. Geo. Turbo Charge Control (VGTC)	BC3Q-6F089-AA
Var. Geometry Turbocharger (VGT)	BC3Q-9G438-DL
Glow Plug	BC3Q-6M090-CA
Glow Plug Control Mod.	BC3A-12B533-BA
Intake Manifold Pressure Sensor (MAP)	BC3Q-9F479-AD
Engine Coolant Temperature Sensor (ECT)	3F1A-12A648-AB
	3F1A-12A648-AA (alt)

Test Group: EFMXD06.771C
Issued: March 7, 2013
Revised: 6/24/13, 10/29/13

Ambient Temperature Sensor	AU5T-12A647-AC
DPF Differential Pressure Sensor	DC3A-5H209-CB
Aftertreatment Temperature Sensor	BC3A-12B591-BB

Diesel Test Process Revision



12.00.04.00

Test Group: EFMXD06.771C
Issued: 5/31/12
Revised:

2014 TEST VEHICLE REQUIREMENTS

	Durability Data Vehicle	CAP2000 Emission Data Vehicle Exhaust
Evap. Emission Family	N/A	N/A
Displacement Liters	6.7L	6.7L
Engine Code	DDBC1_P19COD_DFV32_W888	DFA17C0500
Fuel Tank Code	TY	TS
Catalyst Code	*	*
Exhaust Control System	TC/DFI/CAC/EGR-C/OC/ PTOX/SCR-U/NOXS	TC/DFI/CAC/EGR-C/OC/ PTOX/SCR-U/NOXS
Model	F350 4x4 DRW	F-350 4x4 Crew Cab DRW (simulating F-350 4x4 Box Delete DRW)
Transmission	Auto-6	Auto-6
Shift Schedule	N/A	N/A
Equivalent Test Weight	11000 lbs	11500 lbs
THP/DPA	f_0=95.06, f_1=0.9925 f_2=0.04805	f_0=61.92, f_1=1.8915 f_2=0.10556
Axle Ratio	4.30	3.73
N/V Ratio - RPM/MPH		27.8
Tires	LT245/75R17	LT245/75R17

ACTUAL TEST VEHICLES

Model Year	2011	2013
Engine Family	BFMXD06.771C	DFMXD06.771C
Vehicle ID No	BFA1-6.7-888	DFA1-6.7-J-314
Configuration Number		0

* See Section 16

Test Group: EFMXD06.771C
Issued: 5/13/13
Revised:

ED_002078G_00021604-00029

Calibration and Hardware Revision Summary

DFA17(C/D)0500 to DFA17(C/D)0501
This running change introduces the following calibration updates:

Old Calibration	New Calibration
DFA17C0500	DFA17C0501
DFA17D0500	DFA17D0501

The DFA17(C/D)0501 ("R01") calibration change includes engine and OBD-II actions. Emissions are expected to be unaffected by these changes. The following engine calibration changes were made:

- Humcor, humidity correction updates.
- P3 sensor limit torque entry condition update.
- Activation of air mass adaption (AMA) learning activation at all starts.
- Reduced torque range of authority for T3 sensor control for turbo protection.
- Controlled engine shutdown changes after extended idle.
- Increased idle speed control upper clip for hot stabilized idles.
- Power take off (PTO) functional changes to not exit battery charge protect mode.
- One touch integrated start (OTIS) update to meet required value.
- Traction control updates.
- Low temperature adaption (LTA) entry condition changes to allow for more learning.

This calibration also contains the following OBD-II changes:

- P0401 robustness improvements.
- Change to prevent MIL P0630 from being blocked by newly non-MIL U0140.
- New water in fuel detection monitor, P2269.
- Change to avoid false MIL for idle fuel monitors, P054E & P054F.
- New DPF leakage monitor,P2002.
- New SCR preheat monitor, P code TBA.
- New DPF differential pressure monitor, P code TBA.
- Define P160A, U0422, U0140, as non-MIL (commonize with gasoline).
- New monitor for all injectors shifted high/low, P code TBA.
- New time to closed loop monitor for all injectors shifted high/low, P016A.
- New time to closed loop monitor for pilot injection learning, P262A.
- New exhaust gas temperature plausibility monitors, P014B, P2080, P2084, P242B, P246F.
- Carryover of 2012MY water in fuel P-codes, P1140.
- Implement similar conditions healing requirement for fuel pressure deviation, P0087 & P0088.
- Configure OBD freeze frame per 2013MY requirements.
- New feedgas NOX sensor monitors
- Failure mode (FMEM) changes to support new T3 sensor.
- Failure mode (FMEM) changes related to accelerator pedal track 2 sensor.
- Configure mode $09 reporting for 2013MY.
- Change to atmospheric pressure at which monitors are disabled (commonize with gasoline).

Reference W.P. 03.14.01-5129

DFA17(C/D)0501 to DFA17(C/D)0505
This running change introduces the following calibration updates:

Old Calibration	New Calibration
DFA17C0501	DFA17C0505
DFA17D0501	DFA17D0505

The DFA17(C/D)0505 ("R05") calibration change includes engine, transmission, and OBD-II actions. Emissions were verified to be transparent to earlier calibration releases through development testing. The following engine calibration changes were made:

- Cold extended idle EGR is disabled as an EGR cooler fouling prevention action.
- Traction control changes.
- Driver demand changes to avoid 1000 RPM high load turbo surge.
- Target N transition improvements for transmission shift control.
- Hydrocarbon desorption strategy implementation during operator commanded regeneration (OCR).
- Smoke torque gradient limiter to improve acceleration smoothness.
- Back-out and tip-in driver reference filter (DRF) changes to improve transmission shift quality.

This calibration also contains the following OBD-II changes:

- Add-on heater detection improvement for P012F.
- Threshold change for P1102.
- New 2013MY monitors: P00BC, P00BD, and P0101.
- New 2013MY calibrations for: P0401, P0402, P04D9, and P04DA.
- New monitor for P007E.
- Change to atmospheric pressure at which monitors are disabled (commonize with gasoline).
- Best practices OBD improvements (no effect on monitor operation).
- New diagnostics for feedgas NOX sensor: U029D, U059F, U05A1, and P2201.
- Robustness improvements to the thermostat model.
- New aftertreatment tampering monitors for 2013MY, P204F.
- New EGR system monitors for fast catalyst light-off, P042E.
- New EGR system monitors for fast catalyst lightoff (P042E).
- New logic for mode $06 reporting of fuel injector offset learning (P02CC, P02CD, P02CE, P02CF, P0200, P0201, P0202, P02D3,P02D4,P02DS,P02D6,P02D7,P02D8,P02D9,P02DA,P02DB).
- Set logic for P218F to conform to 2012 settings.
- Diagnostics to monitor new T3 sensor (P040C, P040D, P041B).
- New monitor for time to closed loop for fuel injector offset learning (P262A).
- New logic to enable similar conditions healing for fuel pressure faults (P0087, P0088).
- P-code changes to account for new T3 sensor in exhaust.
- Changes associated with new SCR heat control monitor (P22FF).
- New P-code for P3 sensor to model plausibility (now P0474, was P0471).
- Add torque reduction to TP NOx plausibility monitor (P229F).
- Mode $09 changes for 2013.
- Improvements to monitor for all fuel injectors skewed (P0170).
- Robustness improvements to TP 02 adaption (P164B).
- Robustness improvements to TP NOx positive offset monitor (P229F).
- Change to ensure EGR valve is fully closed when requested closed at high altitude.
- Scaling changes to mode $06 reporting for DOC exotherm, DPF temperature control monitors (P0420, P24AO).
- New DPF leakage monitor for 2013 (P2002).
- Change P20EE from 5-trip to 2-trip Mil to remove deficiency.
- Robustness improvements for water in fuel detection (P1140, P2269).
- New monitor for OPF pressure sensor (P246D).
- Define new tests to add to mode $06 reporting for 2013.
- FMEM change to induce 70% derate when an EGT14 signal range fault is detected (P2470, P2471) instead of shutting down vehicle.

ED_002078G_00021604-00031

- FMEM change to send CAN quality factor message as "faulted" when ECT sensor is faulted.
- FMEM change to disable FG NOx sensor dewpoint detection when EGT sensor used for dewpoint detection is faulted.
- FMEM change to disable SCR monitor (P20EE) when FG NOx sensor is faulted.
- Robustness improvements to POI81 in cold ambient conditions.
- Align battery voltage for EGR disablement with battery voltage for EGR monitor disablement.
- FMEM changes to fix issue where cruise control is unavailable following a loss of CAN communication.
- Revisions to new non-Mil monitor for T3 plausibility (P041E).
- Enable monitor for tailpipe 02 sensor adaption out of range (P2A01, corresponds to 2011/2 P164A).
- Make fuel injector pilot injection adaptive learning codes (P02CC-P020B) single-trip MIL.
- Disable feedgas Nox sensor plausibility monitor code reporting (P2201) to prevent false codes due to immature software (to be re-enabled for R06).
- Align aftertreatment system tampering strategy to newly issued P-codes and disable unneeded tampering.
- Correct erroneous P-code for tailpipe Nox sensor timeout (U029E).
- Addition of mode $06 reporting of new MAF plausibility tests (POOBC, POOBD).
- Establish FMEM for feedgas Nox sensor monitors.

This calibration includes the following transmission calibration changes:

- Reduce shift busyness complaints at low speeds via back out inhibit logic. Fully closed pedal back-out 4-5/5-6 upshifts inhibited up to 1450 input speed.
- Modify tip-in slip logic to use open loop control instead of closed loop control to improve tip-in quality. Common with 2012 R22/23.
- Downshift pressure control changes for improved shift quality.

Reference W.P. 03.14.01-5217.

<u>DFA17(C/D)0505 to DFA17(C/D)0506</u>
This running change introduces the following calibration updates:

Old Calibration	New Calibration
DFA17C0505	DFA17C0506
DFA17D0505	DFA17D0506

The DFA17(C/D)0506 ("R06") calibration change includes engine, transmission, and OBD-II actions. Emissions were verified to be transparent to earlier calibration releases through development testing.

The following engine calibration changes were made:

- Limited max current for EGR controller to protect for motor overheat/damage.
- Expanded learning limits (open limit for throttle, closed limit for EGR) for regulatory compliance
- Driver Demand low speed improvement for CC surge (reduced Tq request for moderate pedal)
- Updated length of interruption during a learn for robustness, lowered minimum vehicle speed to enable learning.
- Lowered minimum speed reported to assist "ama lrn" for feedgas NOX plausibility.
- Updated the T3 sensor transfer function to match other RTD transfer functions.
- Updates for new cold ambient EGR cooler fouling feature.
- Active surge damper improvements for transmission shifts.
- Driver reference filter improvements for transmission shifts.
- Improved positive LTA learning with low TP NOx levels.
- Delayed heater activation in cold ambient for sensor protection and improved accuracy.
- Updates (software and cal) to address potential torque dip when exiting.
- Using modeled T3 temperature for turbo protection (sensor delete).

This calibration also contains the following OBD-II changes:

- New logic for P068A to prevent code from setting in dead battery situations.
- New non-MIL monitor (P1177) to detect intermittent loss of cam/crank synchronization.

- Revisions to OBD regulatory freeze frame for 2013MY.
- Revisions to mode $09 reporting for 2013MY.
- P02CC-P02DB, P262A: change to 2~trip MIL, expand control limits, expand rail pressure stability entry condition, add new ambient pressure entry condition, minimum boost entry condition, improve fault detection robustness.
- Reduce thresholds for P00I6 to meet 2013 emissions regulations.
- Change to P2A01 to reduce chance of false MIL immediately following particulate filter regeneration.
- Reduce threshold for negative 02 sensor deviation for P2A0 1 to meet 20 13 emissions regulations.
- Tum off monitors for U059E, U059F, U0407 (monitors determined not needed).
- Readiness reporting changes for 2013MY.
- FMEM - enable speed/torque map dosing logic for EGR, FG NOx, and TP NOx sensor faults.
- Revisions to mode $06 reporting for 2013.
- FMEM updates for P0071, P0420, P050E, P2002, P20EE, P220 1, P244A, P2459, P249C, P249F, P24A2.
- Changes to new DPF leakage monitor for 2013 (P2002).
- New logic for SCR conversion monitor (P20EE) to improve on-cycle completion and monitor robustness.
- Robustness improvements to new FG NOx plausibility monitor (P2201) for 2013.
- New monitor to resolve issue with glow plug module communication (U0106; prevent false U0307).
- Disable fault healing in current drive cycle for P0489, P0490.
- Debounce time changes for exhaust temperature sensor plausibility (P2080, P2084, P242B, P246F).
- Debounce time change for new single point gauge DPF pressure sensor plausibility (P245E).
- Remove low ambient temperature disablement from glow plug resistance monitors (P06B9 - P06C0).
- Decrease maximum fueling entry condition for fuel balancing control (FBC) (P0263, P0266, P0269, P0272, P0275, P0278,P0281, P0284).
- Robustness improvements to P218F (Clogged DEF dosing line).
- Robustness improvements for P229F (TP NOx sensor plausibility).
- Robustness improvements for P246D (DPF single point gauge to delta-pressure sensor rationality).
- Change to thermostat model to account for energy loss from coolant al zero injection quantity (P0128).
- P2201 (FG NOx Function monitor) disabled.

This calibration includes the following transmission calibration changes:

- Calibrated new converter clutch control software 10 provide for adaptive boost time in conjunction with URD's 63311,66583,68584.
- Modified shifting pressure control & closed loop adaptive calibration for improved shift quality in conjunction with URD's 67391, 68903, 68908, 68915, 68916, 68917, 68918, 69118.
- Modified predictive shift scheduling hydraulic delay times and <30% pedal 1-2 calibrated shift speeds to account for stroke time changes in conjunction with URD 68917 to maintain carryover shift speed balance & time in gear.
- Enabled target_N on closed pedal4~5 & 5-6 back-out upshifts for improved shift quality in conjunction with URD 69019.
- Enabled torque modulation at light pedal for 1-2 upshifts to improve shift quality.(previous cal enabled t_modulation at 30% pedal and above.
- Reduced min pedal to activate torque modulation (from 30% to 20%) on 2-3 upshifts for improved shift quality.
- Modified torque surge calibration for tip-in/out during transmission shifts in conjunction with URD 68909, 69197.
- Changed min 3-4 upshift. speed from 869.5 driveshaft rpm to 681.5 rpm and eliminated 3rd gear lockup in normal mode below 50% pedal to reduce shift busyness.

This calibration includes the following transmission OBD-II calibration changes:

- Enable P2531 for ignition sense stuck low in conjunction with URD 67921 - Implement software changes necessary to support hardware timer thrift.

Reference W.P. 03.14.01-5301.

Crankcase Ventilation (CCV) valve supplier change
Design changes include using an orifice in lieu of a pressure relief valve and changes to the CCV contour to reduce damage due to body decking at the vehicle plant. Change in oil separator supplier will not have an impact to performance, evaporative emissions, tailpipe emissions or OBD. Tests performed for transparency confirmed performance and emissions transparency between the two CCV designs.

The CCV part number changes with the supplier change from BC3Q-6A785-AD to BC3Q-6A785-EB.

Reference W.P. 03.14.01-5304.

DFA17(C/D)0506 to DFA17(C/D)0507
This running change introduces the following calibration updates:

Old Calibration	New Calibration
DFA17C0506	DFA17C0507
DFA17D0506	DFA17D0507

The DFA17(C/D)0507 ("R07") calibration change includes only OBD-II actions and a checksum error correction. Emissions are unaffected by these changes.

This calibration includes the following transmission OBD-II calibration changes:
- Disablement of the P2201 feedgas NOx sensor monitor.

DFA17(C/D)0507 to DFA17(C/D)0508
This running change introduces the following calibration updates:

Old Calibration	New Calibration
DFA17C0507	DFA17C0508
DFA17D0507	DFA17D0508

The DFA17(C/D)0507 ("R07") calibration change includes only OBD-II actions. Emissions are unaffected by these changes.

This calibration includes the following transmission OBD-II calibration changes:
- Robustness improvements to FG NOx plausibility monitor (P2201).
- Robustness improvements to MAF plausibility (P00BC/P00BD).
- Robustness improvements to detection of loss of communication with glow plug module (U0106).
- New wrench-only monitors to detect NOx sensor in incorrect location (P229E, P2201)
- Revisions to mode $01 reporting.
- Revisions to mode $41 reporting.
- Revisions to mode $09 reporting.
- Improvements to SCR conversion efficiency monitor (P20EE) to ensure completion on cycle.
- Robustness improvements to TP NOx sensor plausibility (P229F).
- Robustness improvements to ZFC time to closed loop monitor (P262A).
- Software update to fix CVN NOx module reporting.

DFA17(C/D)0508 to DFA17(C/D)0509 & DFA17(C/D)0510
This running change introduces the following calibration updates:

Old Calibration	New Calibration
DFA17C0508	DFA17C0509
DFA17C0509	DFA17C0510
DFA17D0508	DFA17D0509
DFA17D0509	DFA17D0510

The DFA17(C/D)0509 ("R09") calibration change includes engine and OBD-II actions for OBD-II compliance and improved robustness. The major features addressed by this calibration include: improved air mass adaption (AMA) robustness (P2201), NOx sensor circuit check robustness, increased NOx sensor dewpoint temperature threshold for improved measurement accuracy sensor durability, diesel exhaust fluid quality (P207F) and leakage monitor (P2002) robustness, and a number of mode readiness and reporting changes. The R09 calibration also contains transmission calibration changes to improve shift quality and feel. The R09 running change contains no content that degrades emissions and development testing confirmed emissions transparency.

The DFA17(C/D)0510 ("R10") calibration change includes engine and OBD-II actions for OBD-II compliance and improved robustness. The major features addressed by this calibration include: improved air mass adaption (AMA) robustness (P2201), changed Target N exit conditions to avoid inadvertent continuous torque monitor activation, modified negative torque DRF filter constants (P062B), changed brake switch DFCs to 2-trip MILs, improved charge air cooler temperature plausibility check robustness (P007B), improved overrun torque monitor robustness (P062B), and modified oxidation catalyst de-greening function for feedgas NOx plausibility monitor (P2201). The R10 calibration running change contains no content that degrades emissions.

Ref WP 03.14.01.5405 & 03.14.01-5443

DFA17(C/D)0510 to DFA17(C/D)0512 & DFA17(C/D)0514

Old Calibration	New Calibration
DFA17C0510	DFA17C0512
DFA17C0512	DFA17C0514
DFA17D0510	DFA17D0512
DFA17D0512	DFA17D0514

The DFA17(C/D)0512 ("R12") calibration change includes engine, transmission and OBD-II changes. The major features addressed by this calibration include: refined turbo boost pressure control regulation (PCR) for better matching to torque modification (trans tq mod) for improved shift quality, changed driver reference filter (DRF) lash crossing with the tip in management (TIM) strategy for improved smoothness, increased idle engine speed control (ISC) set points in transmission gears 2-6 for TIM strategy improved smoothness, reduced active surge damper (ASD) gain at lower engine speeds for improved stability, and changed filtering for intake throttle tip-outs and speed control for improved drivability. OBD changes included in this calibration include: feedgas NO_X plausibility monitor threshold modifications (P2201) and turbocharger underboost monitor threshold modifications required due to throttle tip-out filtering changes described above (P0299). Transmission calibration changes included in this release help improve shift quality and drivability. The R12 running change contains no content that degrades emissions and development testing confirmed emissions transparency.

The DFA17(C/D)0514 ("R14") calibration contains the same content as the R12 calibration, however, it reverts to an air mass adaption (AMA) based crankcase ventilation (CCV) OBD monitor to prevent inadvertent diagnostic codes, specifically P04DB, P04E3, and P04E2. The AMA based CCV OBD monitor was previously used for the 6.7L engine in the 2011 and 2012 model years. The R14 calibration contains no content that would impact emissions.

This running change also includes a part number update for the Engine Coolant Temperature (ECT) sensor.

Ref WPs 03.14.01.5501, 03.14.01-5513, and 03.13.01-5451.

DFA17(C/D)0514 to DFA17(C/D)0515

Old Calibration	New Calibration
DFA17C0514	DFA17C0515
DFA17D0514	DFA17D0515

The DFA17(C/D)0515 ("R15") calibration change includes engine and transmission changes. R15 emissions were confirmed transparent to R14 emissions through development testing.

Engine calibration changes include:

- Driver Reference Filter (DRF) change for improved low speed drivability hes/surge.

Transmission calibration changes include:

- Modify the 1-2 upshift control during throttle back-outs to prevent harsh shifts.
- Increase change of mind clutch pressure ramp rates for 4-2-4, 4-3-4, 5-3-5 shift sequences in the 150-250 ft-lbf input torque range to prevent shift bump.

Ref WPs 03.14.01.5544.

DFA17(C/D)0514 to EFA17(C/D)0500

Old Calibration	New Calibration
DFA17C0514	EFA17C0500
DFA17D0514	EFA17D0500

The EFA17(C/D)0500 ("R00") calibration change includes engine and OBD-II changes. Emissions are unaffected by these changes.

Engine calibration changes include:

- Increase LTA (low temperature adaption) learning rates for regulatory requirements.
- Cluster messaging changes including:
  - Change message for 120% loaded DPF from "Drive to Clean Exhaust System" to "Exh Overloaded Drive to Clean"
  - Change message for 200% loaded OPF from "Reduced Engine Power" to "Exh Over Limit Service Now"
  - Add a new message for 150% overloaded DPF -- "Exh At Limit Drive to Clean"
- Component Protection: Make the exhaust shutdown duration for overtemp conditions from 3600 sec. a function of ambient temperature.
- Mode Switching: Add a new criteria for switching from level 1 to level 2 regeneration based on calculated HC accumulation in the exhaust components.
- Entry Conditions: Allow regeneration to enter level 1 at Engine Coolant Temp at 60 deg. C at ambient temperature of -25 deg. C and below.
- OCR (operator commanded regen) and Service Regen: Modify limits or far post injection quantity at level 2 regen based on DOC temp.
- Change Post DPF EGT fault reaction from shutdown to 70% de-rate + Tamping Logic.

Engine OBD-II calibration changes include:

- Enable CCV hardware codes: DFC_CrCsVDisclntMnf (P04DB),DFC_CrCsVSRCMax (P04E3), DFC_CrCsVSRCMin (P04E2).

- Shut off 2012MY crankcase vent monitor concept (AMA based). Use CCV monitor hardware.

Reference W.P. 03.14.01-5538

EFA17(C/D)0500 to EFA17(C/D)0505

Old Calibration	New Calibration
EFA17C0500	EFA17C0505
EFA17C0500	EFA17C0505

The EFA17(C/D)0505 ("R05") calibration change includes engine and OBD-II changes. The R05 emissions calibration is the same as 2013 R15. Emissions will be transparent to 2014 R00 and 2013 R15.

Engine calibration changes include:

- Added robustness against rpm/torque dips (common with 2013 R15 calibration).
- Decrease LTA gains for improved stability (common with 2013 R15 calibration).
- Modify the exhaust shutdown duration for overtemp conditions. Reduce required shutdown duration in colder ambient temperatures.
- Modify limits of far post injection quantity at level 2 regen based on DOC temperature.
- Allow regen to enter level 1 at engine coolant temperature of 60 deg. C at an ambient temperature of 0 deg. C and below.
- Modify HC desorption rate for improved accuracy (faster model desorption rate than R00).
- Enable high pressure fuel control below 100 rpm (>20rpm).
- Add robustness to turbo protect logic when "wait" time expires.
- Add robustness to turbo protect logic (don' t initiate for environmental temp only).

Engine OBD-II calibration changes include:

- FMEM change to derate engine for turbo protection upon detection of a faulted intake air temperature sensor (P0111).
- FMEM change to disable charge air cooler plausibility (P007E/P026A) monitoring upon detection of a faulted upstream coolant temperature sensor (P2182).
- Robustness improvements for P0071, P0111. Do not freeze or replace sensor value until fault is confirmed on subsequent drive cycles. Adds robustness for progression toward MIL status.
- Robustness improvements to clogged DEF line detection (P218F). Allow clogged line detection at lower DEF dosing rates.

Reference W.P. 03.14.01-5638

EFA17(C/D)0505 to EFA17(C/D)0506

Old Calibration	New Calibration
EFA17C0505	EFA17C0506
EFA17D0505	EFA17D0506

The EFA17(C/D)0506 ("R06") calibration change includes engine, transmission and OBD-II changes. R06 emissions are transparent to R05 emissions.

Engine calibration changes include:

- DRF (driver reference tilter) filter changes in 1st gear to prevent P062b code during 30% downgrade in 1st gear, tow haul or manual 1st gear.

- Modify limits of far post injection quantity during level 2 regen based on average DOC temperature (operator commanded regen - OCR mode only).
- Inhibit crank until initial fuel system priming requirements are satisfied (assembly plant mode only).

Engine OBD-II calibration changes include:

- Change to enable SCR system tampering faults after initial 100 miles of vehicle operation (prevent tampering faults at the plant).
- Expansion of deviation from target idle speed entry condition to idle fuel monitor (P054E/P054F) to remove deficiency with idle speed control- ISC.
- Removal of brake applied entry condition from idle fuel monitor (P054E/P054F) to enable brake monitor diagnostics (P0504/P0572/P0573) to return to wrench (currently MIL).
- Revisions to low DEF quality monitor (P207F) to increase sensitivity to di lute DEF solutions. (increased thresholds <10k changed from <=12% to <= 13.5% DEF solution, > 10k unchanged at <= 12% DEF solution).
- New monitor for "keep-alive power" line (P0603) to detect loss of power to engine off timer when ECU off.
- Revisions to freeze frame handling to give faults in fuel pressure control and misfire higher priority (so a freeze frame for a fuel pressure control or misfire fault will replace a freeze frame from any other fault).
- Increase number of learning events before a fault for AMA unable to learn (P2074) sets to reflect the greater range of AMA learning authority with the CCV monitor (P04DB) enabled.
- Increase delay after engine start for capture of temperatures for EGT sensor/NOx module temperature sensor plausibility monitors (P06EA, P06EB) to address potential concern where invalid temperature could be captured.
- Diagnostic changes to allow fuel injection at lower engine speeds to improve starting in cold ambient conditions.
- Change to turn off the DEF tank heater at tank temperatures >=5C.
- Implement diagnostic to indicate that priming requirements have not been met to enable cranking (supports crank inhibit logic for the plant).

Transmission calibration changes include:

- Improvements for 4-3 to 4-2 change of mind events during coastdowns to prevent harsh shift.
- Reduce verify time on PON downshifts to improve response delay.
- Reduce torque mod when tipping into a coasting 3-2 downshift to reduce hes feel.
- Modify torque ramp rates to improve hes feel during 4-3 to 4-2 and 3-2 to 3-1 Change of Mind maneuvers.
- Improve adaptive stroke learning on 3-2 coasting downshift when transitioning from power off to power on.
- Adaptive robustness improvements to 4-3 and 6-5 coasting downshifts to improve shift feel variability.
- Improvements for 1-3 back out upshifts.
- Pressure control modifications to improve cold shift feel below 20F.
- Improve adaptive pressure control robustness for offgoing element on 2-3 and 3-4 upshifts.
- Prevent risk for harsh converter lockup at trans fluid temps between 90-120F.

Reference W.P. 03.14.01-5702

Urea (DEF) Injector Design Change

The connecting flange of the DEF injector assembly is changed from a turned type design to a stamping. There is no impact on emissions with this change. Key life durability testing was performed and the new design completed testing satisfactorily.

Reference W.P. 03.04.02-5721

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5186277	5186271	5186270	5186251	5186252	5186322	5186288	5186287
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500
Fuel Tank(s)	TS	TS	TS	TY	TY	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Dual RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW
Body Style	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB BOX DELETE	CREW CAB BOX DELETE	CREW CAB BOX DELETE
Wheelbase	Long	Long	Long	Short	Short	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X2	4X2	4X2	4X2	4X2	4X2	4X2	4X2
Curb Weight	7877	7511	7511	7338	7338	9667	8766	8766
LVW - ETW	8000	8000	8000	7500	7500	10000	9000	9000
Loaded Weight	8177	7811	7811	7638	7638	9967	9066	9066
ALVW - ETW	11000	9500	9500	9000	9500	11500	10000	10000
Adj. Loaded Weight	10938	9306	9506	9069	9369	11334	9933	10133
GVWR	14000	11100	11500	10800	11400	13000	11100	11500
Min Axle Ratio	3.73	3.31	3.31	3.31	3.31	3.73	3.31	3.31
Max Axle Ratio	3.73	3.55	3.55	3.55	3.55	3.73	3.55	3.55
Min N/V Ratio	27.8	24.5	24.2	24.5	24.2	27.8	24.5	24.2
Max N/V Ratio	27.8	26.4	26	26.4	26	27.8	26.4	26
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17	LT275/65R18
Max Tire Size	LT245/75R17	LT265/70R17	LT275/65R18	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17	LT275/65R18
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5186269	5186246	5186245	5186315	5186278	5186280	5186276	5186256
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500
Fuel Tank(s)	TY	TY	TY	TY	TY	TY	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Dual RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Dual RW	Sngl RW
Body Style	REGULAR CAB	REGULAR CAB	REGULAR CAB	REGULAR CAB BOX DELE	REGULAR CAB BOX DELE	REGULAR CAB BOX DELE	SUPER CAB	SUPER CAB
Wheelbase	Long	Long	Long	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X2	4X2	4X2	4X2	4X2	4X2	4X2	4X2
Curb Weight	7117	6765	6765	8907	8020	8020	7648	7281
LVW - ETW	7500	7000	7000	9000	8500	8500	8000	7500
Loaded Weight	7417	7065	7065	9207	8320	8320	7948	7581
ALVW - ETW	10500	8500	9000	11000	9500	9500	11000	9000
Adj. Loaded Weight	10558	8632	8882	10954	9260	9510	10824	9040
GVWR	14000	10500	11000	13000	10500	11000	14000	10800
Min Axle Ratio	3.73	3.31	3.31	3.73	3.31	3.31	3.73	3.31
Max Axle Ratio	3.73	3.55	3.55	3.73	3.55	3.55	3.73	3.55
Min N/V Ratio	27.8	24.5	24.2	27.8	24.5	24.2	27.8	24.5
Max N/V Ratio	27.8	26.4	26	27.8	26.4	26	27.8	26.4
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17
Max Tire Size	LT245/75R17	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5186257	5186255	5186254	5186321	5186284	5186285	5186217	5186207
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500
Fuel Tank(s)	TS	TY	TY	TS	TS	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Dual RW	Sngl RW
Body Style	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB BOX DELETE	SUPER CAB BOX DELETE	SUPER CAB BOX DELETE	CREW CAB	CREW CAB
Wheelbase	Long	Short	Short	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X2	4X2	4X2	4X2	4X2	4X2	4X4	4X4
Curb Weight	7281	7149	7149	9438	8536	8536	8319	8020
LVW - ETW	7500	7500	7500	9500	9000	9000	8500	8500
Loaded Weight	7581	7449	7449	9738	8836	8836	8619	8320
ALVW - ETW	9500	9000	9000	11000	9500	10000	11000	9500
Adj. Loaded Weight	9390	8924	9074	11219	9668	10018	11160	9610
GVWR	11500	10700	11000	13000	10800	11500	14000	11200
Min Axle Ratio	3.31	3.31	3.31	3.73	3.31	3.31	3.73	3.31
Max Axle Ratio	3.55	3.55	3.55	3.73	3.55	3.55	3.73	3.55
Min N/V Ratio	24.2	24.5	24.2	27.8	24.5	24.2	27.8	24.5
Max N/V Ratio	26	26.4	26	27.8	26.4	26	27.8	26.4
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT275/65R18	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17
Max Tire Size	LT275/65R18	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5186210	5186213	5186208	5186181	5186180	5186179	5186202	5186244
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500
Fuel Tank(s)	TS	TS	TS	TY	TY	TY	TY	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Dual RW
Body Style	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB BOX DELETE
Wheelbase	Long	Long	Long	Short	Short	Short	Short	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	8020	8020	8020	7820	7820	7820	7820	10109
LVW - ETW	8500	8500	8500	8000	8000	8000	8000	10500
Loaded Weight	8320	8320	8320	8120	8120	8120	8120	10409
ALVW - ETW	9500	10000	10000	9500	9500	9500	9500	11500
Adj. Loaded Weight	9660	9760	9760	9510	9560	9660	9660	11554
GVWR	11300	11500	11500	11200	11300	11500	11500	13000
Min Axle Ratio	3.31	3.55	3.31	3.31	3.31	3.31	3.55	3.73
Max Axle Ratio	3.55	3.55	3.55	3.55	3.55	3.55	3.55	3.73
Min N/V Ratio	24.2	24.1	23.4	24.5	24.2	23.4	24.1	27.8
Max N/V Ratio	26	24.1	25.1	26.4	26	25.1	24.1	27.8
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT275/65R18	LT275/65R20	LT275/70R18	LT245/75R17	LT275/65R18	LT275/70R18	LT275/65R20	LT245/75R17
Max Tire Size	LT275/65R18	LT275/65R20	LT275/70R18	LT265/70R17	LT275/65R18	LT275/70R18	LT275/65R20	LT245/75R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5186230	5186233	5186231	5186206	5186170	5186171	5186172	5186242
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500
Fuel Tank(s)	TS	TS	TS	TY	TY	TY	TY	TY
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Sngl RW	Dual RW
Body Style	CREW CAB BOX DELETE	CREW CAB BOX DELETE	CREW CAB BOX DELETE	REGULAR CAB	REGULAR CAB	REGULAR CAB	REGULAR CAB	REGULAR CAB BOX DELE
Wheelbase	Long	Long	Long	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	9275	9275	9275	7573	7286	7286	7286	9363
LVW - ETW	9500	9500	9500	8000	7500	7500	7500	9500
Loaded Weight	9575	9575	9575	7873	7586	7586	7586	9663
ALVW - ETW	10000	10500	10500	11000	9000	9000	9500	11000
Adj. Loaded Weight	10238	10288	10388	10786	9043	9143	9393	11182
GVWR	11200	11300	11500	14000	10800	11000	11500	13000
Min Axle Ratio	3.31	3.31	3.31	3.73	3.31	3.31	3.31	3.73
Max Axle Ratio	3.55	3.55	3.55	3.73	3.55	3.55	3.55	3.73
Min N/V Ratio	24.5	24.2	23.4	27.8	24.5	24.2	23.4	27.8
Max N/V Ratio	26.4	26	25.1	27.8	26.4	26	25.1	27.8
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT275/65R18	LT275/70R18	LT245/75R17	LT245/75R17	LT275/65R18	LT275/70R18	LT245/75R17
Max Tire Size	LT265/70R17	LT275/65R18	LT275/70R18	LT245/75R17	LT265/70R17	LT275/65R18	LT275/65R20	LT245/75R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5186218	5186219	5186221	5186216	5186182	5186183	5186191	5186184
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500
Fuel Tank(s)	TY	TY	TY	TS	TS	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW
Body Style	REGULAR CAB BOX DELE	REGULAR CAB BOX DELE	REGULAR CAB BOX DELE	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB
Wheelbase	Long	Long	Long	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	8541	8541	8541	8092	7788	7788	7788	7788
LVW - ETW	9000	9000	9000	8500	8000	8000	8000	8000
Loaded Weight	8841	8841	8841	8392	8088	8088	8088	8088
ALVW - ETW	9500	10000	10000	11000	9500	9500	9500	9500
Adj. Loaded Weight	9670	9770	10020	11046	9494	9544	9644	9644
GVWR	10800	11000	11500	14000	11200	11300	11500	11500
Min Axle Ratio	3.31	3.31	3.31	3.73	3.31	3.31	3.55	3.31
Max Axle Ratio	3.55	3.55	3.55	3.73	3.55	3.55	3.55	3.55
Min N/V Ratio	24.5	24.2	23.4	27.8	24.5	24.2	24.1	23.4
Max N/V Ratio	26.4	26	25.1	27.8	26.4	26	24.1	25.1
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT275/65R18	LT275/70R18	LT245/75R17	LT245/75R17	LT275/65R18	LT275/65R20	LT275/70R18
Max Tire Size	LT265/70R17	LT275/65R18	LT275/70R18	LT245/75R17	LT265/70R17	LT275/65R18	LT275/65R20	LT275/70R18
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5186186	5186187	5186190	5186196	5186243	5186226	5186229	5186227
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500	EFA17C0500
Fuel Tank(s)	TY	TY	TY	TY	TS	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Sngl RW
Body Style	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB BOX DELETE	SUPER CAB BOX DELETE	SUPER CAB BOX DELETE	SUPER CAB BOX DELETE
Wheelbase	Short	Short	Short	Short	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	7602	7602	7602	7602	9882	9043	9043	9043
LVW - ETW	8000	8000	8000	8000	10000	9500	9500	9500
Loaded Weight	7902	7902	7902	7902	10182	9343	9343	9343
ALVW - ETW	9500	9500	9500	9500	11500	10000	10000	10500
Adj. Loaded Weight	9351	9401	9551	9551	11441	10122	10172	10272
GVWR	11100	11200	11500	11500	13000	11200	11300	11500
Min Axle Ratio	3.31	3.31	3.31	3.55	3.73	3.31	3.31	3.31
Max Axle Ratio	3.55	3.55	3.55	3.55	3.73	3.55	3.55	3.55
Min N/V Ratio	24.5	24.2	23.4	24.1	27.8	24.5	24.2	23.4
Max N/V Ratio	26.4	26	25.1	24.1	27.8	26.4	26	25.1
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT275/65R18	LT275/70R18	LT275/65R20	LT245/75R17	LT245/75R17	LT275/65R18	LT275/70R18
Max Tire Size	LT265/70R17	LT275/65R18	LT275/70R18	LT275/65R20	LT245/75R17	LT265/70R17	LT275/65R18	LT275/70R18
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5186323
Displacement	6.7
Calibration	EFA17D0500
Fuel Tank(s)	TS
Vehicle Line	F450
Wheel Configuration	Dual RW
Body Style	CREW CAB
Wheelbase	Long
Trans Code Combo	A CV
Drive	4X4
Curb Weight	8370
LVW - ETW	8500
Loaded Weight	8670
ALVW - ETW	11000
Adj. Loaded Weight	10835
GVWR	13300
Min Axle Ratio	4.3
Max Axle Ratio	4.3
Min N/V Ratio	32
Max N/V Ratio	32
A/C	Y
Altitude Exempt	N
Altitude Intend use	All
Calibration Application	50ST
Min Tire Size	LT245/75R17
Max Tire Size	LT245/75R17
Alt Tire 1	
Alt Tire 2	
Alt Tire 3	
Alt Tire 4	
Alt Tire 5	
Alt Tire 6	
Alt Tire 7	

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5237489	5237476	5237478	5237433	5237438	5237546	5237524	5237523
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505
Fuel Tank(s)	TS	TS	TS	TY	TY	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Dual RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW
Body Style	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB BOX DELETE	CREW CAB BOX DELETE	CREW CAB BOX DELETE
Wheelbase	Long	Long	Long	Short	Short	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X2	4X2	4X2	4X2	4X2	4X2	4X2	4X2
Curb Weight	7877	7511	7511	7338	7338	9667	8766	8766
LVW - ETW	8000	8000	8000	7500	7500	10000	9000	9000
Loaded Weight	8177	7811	7811	7638	7638	9967	9066	9066
ALVW - ETW	11000	9500	9500	9000	9500	11500	10000	10000
Adj. Loaded Weight	10938	9306	9506	9069	9369	11334	9933	10133
GVWR	14000	11100	11500	10800	11400	13000	11100	11500
Min Axle Ratio	3.73	3.31	3.31	3.31	3.31	3.73	3.31	3.31
Max Axle Ratio	3.73	3.55	3.55	3.55	3.55	3.73	3.55	3.55
Min N/V Ratio	27.8	24.5	24.2	24.5	24.2	27.8	24.5	24.2
Max N/V Ratio	27.8	26.4	26	26.4	26	27.8	26.4	26
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17	LT275/65R18
Max Tire Size	LT245/75R17	LT265/70R17	LT275/65R18	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17	LT275/65R18
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5237469	5237403	5237404	5237544	5237496	5237498	5237488	5237439
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505
Fuel Tank(s)	TY	TY	TY	TY	TY	TY	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Dual RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Dual RW	Sngl RW
Body Style	REGULAR CAB	REGULAR CAB	REGULAR CAB	REGULAR CAB BOX DELE	REGULAR CAB BOX DELE	REGULAR CAB BOX DELE	SUPER CAB	SUPER CAB
Wheelbase	Long	Long	Long	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X2	4X2	4X2	4X2	4X2	4X2	4X2	4X2
Curb Weight	7117	6765	6765	8907	8020	8020	7648	7281
LVW - ETW	7500	7000	7000	9000	8500	8500	8000	7500
Loaded Weight	7417	7065	7065	9207	8320	8320	7948	7581
ALVW - ETW	10500	8500	9000	11000	9500	9500	11000	9000
Adj. Loaded Weight	10558	8632	8882	10954	9260	9510	10824	9040
GVWR	14000	10500	11000	13000	10500	11000	14000	10800
Min Axle Ratio	3.73	3.31	3.31	3.73	3.31	3.31	3.73	3.31
Max Axle Ratio	3.73	3.55	3.55	3.73	3.55	3.55	3.73	3.55
Min N/V Ratio	27.8	24.5	24.2	27.8	24.5	24.2	27.8	24.5
Max N/V Ratio	27.8	26.4	26	27.8	26.4	26	27.8	26.4
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17
Max Tire Size	LT245/75R17	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5237437	5237436	5237435	5237545	5237520	5237522	5237321	5237301
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505
Fuel Tank(s)	TS	TY	TY	TS	TS	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Dual RW	Sngl RW
Body Style	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB BOX DELETE	SUPER CAB BOX DELETE	SUPER CAB BOX DELETE	CREW CAB	CREW CAB
Wheelbase	Long	Short	Short	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X2	4X2	4X2	4X2	4X2	4X2	4X4	4X4
Curb Weight	7281	7149	7149	9438	8536	8536	8319	8020
LVW - ETW	7500	7500	7500	9500	9000	9000	8500	8500
Loaded Weight	7581	7449	7449	9738	8836	8836	8619	8320
ALVW - ETW	9500	9000	9000	11000	9500	10000	11000	9500
Adj. Loaded Weight	9390	8924	9074	11219	9668	10018	11160	9610
GVWR	11500	10700	11000	13000	10800	11500	14000	11200
Min Axle Ratio	3.31	3.31	3.31	3.73	3.31	3.31	3.73	3.31
Max Axle Ratio	3.55	3.55	3.55	3.73	3.55	3.55	3.73	3.55
Min N/V Ratio	24.2	24.5	24.2	27.8	24.5	24.2	27.8	24.5
Max N/V Ratio	26	26.4	26	27.8	26.4	26	27.8	26.4
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT275/65R18	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17
Max Tire Size	LT275/65R18	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5237303	5237304	5237318	5237245	5237244	5237282	5237243	5237396
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505
Fuel Tank(s)	TS	TS	TS	TY	TY	TY	TY	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Dual RW
Body Style	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB BOX DELETE
Wheelbase	Long	Long	Long	Short	Short	Short	Short	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	8020	8020	8020	7820	7820	7820	7820	10109
LVW - ETW	8500	8500	8500	8000	8000	8000	8000	10500
Loaded Weight	8320	8320	8320	8120	8120	8120	8120	10409
ALVW - ETW	9500	10000	10000	9500	9500	9500	9500	11500
Adj. Loaded Weight	9660	9760	9760	9510	9560	9660	9660	11554
GVWR	11300	11500	11500	11200	11300	11500	11500	13000
Min Axle Ratio	3.31	3.31	3.55	3.31	3.31	3.55	3.31	3.73
Max Axle Ratio	3.55	3.55	3.55	3.55	3.55	3.55	3.55	3.73
Min N/V Ratio	24.2	23.4	24.1	24.5	24.2	24.1	23.4	27.8
Max N/V Ratio	26	25.1	24.1	26.4	26	24.1	25.1	27.8
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT275/65R18	LT275/70R18	LT275/65R20	LT245/75R17	LT275/65R18	LT275/65R20	LT275/70R18	LT245/75R17
Max Tire Size	LT275/65R18	LT275/70R18	LT275/65R20	LT265/70R17	LT275/65R18	LT275/65R20	LT275/70R18	LT245/75R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5237368	5237367	5237366	5237292	5237194	5237193	5237192	5237394
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505
Fuel Tank(s)	TS	TS	TS	TY	TY	TY	TY	TY
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Sngl RW	Dual RW
Body Style	CREW CAB BOX DELETE	CREW CAB BOX DELETE	CREW CAB BOX DELETE	REGULAR CAB	REGULAR CAB	REGULAR CAB	REGULAR CAB	REGULAR CAB BOX DELE
Wheelbase	Long	Long	Long	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	9275	9275	9275	7573	7286	7286	7286	9363
LVW - ETW	9500	9500	9500	8000	7500	7500	7500	9500
Loaded Weight	9575	9575	9575	7873	7586	7586	7586	9663
ALVW - ETW	10000	10500	10500	11000	9000	9000	9500	11000
Adj. Loaded Weight	10238	10288	10388	10786	9043	9143	9393	11182
GVWR	11200	11300	11500	14000	10800	11000	11500	13000
Min Axle Ratio	3.31	3.31	3.31	3.73	3.31	3.31	3.31	3.73
Max Axle Ratio	3.55	3.55	3.55	3.73	3.55	3.55	3.55	3.73
Min N/V Ratio	24.5	24.2	23.4	27.8	24.5	24.2	23.4	27.8
Max N/V Ratio	26.4	26	25.1	27.8	26.4	26	25.1	27.8
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT275/65R18	LT275/70R18	LT245/75R17	LT245/75R17	LT275/65R18	LT275/70R18	LT245/75R17
Max Tire Size	LT265/70R17	LT275/65R18	LT275/70R18	LT245/75R17	LT265/70R17	LT275/65R18	LT275/65R20	LT245/75R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5237330	5237332	5237333	5237320	5237241	5237240	5237287	5237239
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505
Fuel Tank(s)	TY	TY	TY	TS	TS	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW
Body Style	REGULAR CAB BOX DELE	REGULAR CAB BOX DELE	REGULAR CAB BOX DELE	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB
Wheelbase	Long	Long	Long	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	8541	8541	8541	8092	7788	7788	7788	7788
LVW - ETW	9000	9000	9000	8500	8000	8000	8000	8000
Loaded Weight	8841	8841	8841	8392	8088	8088	8088	8088
ALVW - ETW	9500	10000	10000	11000	9500	9500	9500	9500
Adj. Loaded Weight	9670	9770	10020	11046	9494	9544	9644	9644
GVWR	10800	11000	11500	14000	11200	11300	11500	11500
Min Axle Ratio	3.31	3.31	3.31	3.73	3.31	3.31	3.55	3.31
Max Axle Ratio	3.55	3.55	3.55	3.73	3.55	3.55	3.55	3.55
Min N/V Ratio	24.5	24.2	23.4	27.8	24.5	24.2	24.1	23.4
Max N/V Ratio	26.4	26	25.1	27.8	26.4	26	24.1	25.1
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT275/65R18	LT275/70R18	LT245/75R17	LT245/75R17	LT275/65R18	LT275/65R20	LT275/70R18
Max Tire Size	LT265/70R17	LT275/65R18	LT275/70R18	LT245/75R17	LT265/70R17	LT275/65R18	LT275/65R20	LT275/70R18
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5237237	5237236	5237277	5237235	5237395	5237362	5237364	5237365
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505	EFA17C0505
Fuel Tank(s)	TY	TY	TY	TY	TS	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Sngl RW
Body Style	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB BOX DELETE	SUPER CAB BOX DELETE	SUPER CAB BOX DELETE	SUPER CAB BOX DELETE
Wheelbase	Short	Short	Short	Short	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	7602	7602	7602	7602	9882	9043	9043	9043
LVW - ETW	8000	8000	8000	8000	10000	9500	9500	9500
Loaded Weight	7902	7902	7902	7902	10182	9343	9343	9343
ALVW - ETW	9500	9500	9500	9500	11500	10000	10000	10500
Adj. Loaded Weight	9351	9401	9551	9551	11441	10122	10172	10272
GVWR	11100	11200	11500	11500	13000	11200	11300	11500
Min Axle Ratio	3.31	3.31	3.55	3.31	3.73	3.31	3.31	3.31
Max Axle Ratio	3.55	3.55	3.55	3.55	3.73	3.55	3.55	3.55
Min N/V Ratio	24.5	24.2	24.1	23.4	27.8	24.5	24.2	23.4
Max N/V Ratio	26.4	26	24.1	25.1	27.8	26.4	26	25.1
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT275/65R18	LT275/65R20	LT275/70R18	LT245/75R17	LT245/75R17	LT275/65R18	LT275/70R18
Max Tire Size	LT265/70R17	LT275/65R18	LT275/65R20	LT275/70R18	LT245/75R17	LT265/70R17	LT275/65R18	LT275/70R18
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5237547
Displacement	6.7
Calibration	EFA17D0505
Fuel Tank(s)	TS
Vehicle Line	F450
Wheel Configuration	Dual RW
Body Style	CREW CAB
Wheelbase	Long
Trans Code Combo	A CV
Drive	4X4
Curb Weight	8370
LVW - ETW	8500
Loaded Weight	8670
ALVW - ETW	11000
Adj. Loaded Weight	10835
GVWR	13300
Min Axle Ratio	4.3
Max Axle Ratio	4.3
Min N/V Ratio	32
Max N/V Ratio	32
A/C	Y
Altitude Exempt	N
Altitude Intend use	All
Calibration Application	50ST
Min Tire Size	LT245/75R17
Max Tire Size	LT245/75R17
Alt Tire 1	
Alt Tire 2	
Alt Tire 3	
Alt Tire 4	
Alt Tire 5	
Alt Tire 6	
Alt Tire 7	

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5239454	5239442	5239441	5239400	5239399	5239511	5239488	5239489
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506
Fuel Tank(s)	TS	TS	TS	TY	TY	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Dual RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW
Body Style	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB BOX DELETE	CREW CAB BOX DELETE	CREW CAB BOX DELETE
Wheelbase	Long	Long	Long	Short	Short	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X2	4X2	4X2	4X2	4X2	4X2	4X2	4X2
Curb Weight	7877	7511	7511	7338	7338	9667	8766	8766
LVW - ETW	8000	8000	8000	7500	7500	10000	9000	9000
Loaded Weight	8177	7811	7811	7638	7638	9967	9066	9066
ALVW - ETW	11000	9500	9500	9000	9500	11500	10000	10000
Adj. Loaded Weight	10938	9306	9506	9069	9369	11334	9933	10133
GVWR	14000	11100	11500	10800	11400	13000	11100	11500
Min Axle Ratio	3.73	3.31	3.31	3.31	3.31	3.73	3.31	3.31
Max Axle Ratio	3.73	3.55	3.55	3.55	3.55	3.73	3.55	3.55
Min N/V Ratio	27.8	24.5	24.2	24.5	24.2	27.8	24.5	24.2
Max N/V Ratio	27.8	26.4	26	26.4	26	27.8	26.4	26
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17	LT275/65R18
Max Tire Size	LT245/75R17	LT265/70R17	LT275/65R18	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17	LT275/65R18
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5239434	5239369	5239368	5239509	5239462	5239461	5239453	5239398
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506
Fuel Tank(s)	TY	TY	TY	TY	TY	TY	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Dual RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Dual RW	Sngl RW
Body Style	REGULAR CAB	REGULAR CAB	REGULAR CAB	REGULAR CAB BOX DELE	REGULAR CAB BOX DELE	REGULAR CAB BOX DELE	SUPER CAB	SUPER CAB
Wheelbase	Long	Long	Long	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X2	4X2	4X2	4X2	4X2	4X2	4X2	4X2
Curb Weight	7117	6765	6765	8907	8020	8020	7648	7281
LVW - ETW	7500	7000	7000	9000	8500	8500	8000	7500
Loaded Weight	7417	7065	7065	9207	8320	8320	7948	7581
ALVW - ETW	10500	8500	9000	11000	9500	9500	11000	9000
Adj. Loaded Weight	10558	8632	8882	10954	9260	9510	10824	9040
GVWR	14000	10500	11000	13000	10500	11000	14000	10800
Min Axle Ratio	3.73	3.31	3.31	3.73	3.31	3.31	3.73	3.31
Max Axle Ratio	3.73	3.55	3.55	3.73	3.55	3.55	3.73	3.55
Min N/V Ratio	27.8	24.5	24.2	27.8	24.5	24.2	27.8	24.5
Max N/V Ratio	27.8	26.4	26	27.8	26.4	26	27.8	26.4
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17
Max Tire Size	LT245/75R17	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5239402	5239401	5239403	5239510	5239486	5239485	5239286	5239268
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506
Fuel Tank(s)	TS	TY	TY	TS	TS	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Dual RW	Sngl RW
Body Style	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB BOX DELETE	SUPER CAB BOX DELETE	SUPER CAB BOX DELETE	CREW CAB	CREW CAB
Wheelbase	Long	Short	Short	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X2	4X2	4X2	4X2	4X2	4X2	4X4	4X4
Curb Weight	7281	7149	7149	9438	8536	8536	8319	8020
LVW - ETW	7500	7500	7500	9500	9000	9000	8500	8500
Loaded Weight	7581	7449	7449	9738	8836	8836	8619	8320
ALVW - ETW	9500	9000	9000	11000	9500	10000	11000	9500
Adj. Loaded Weight	9390	8924	9074	11219	9668	10018	11160	9610
GVWR	11500	10700	11000	13000	10800	11500	14000	11200
Min Axle Ratio	3.31	3.31	3.31	3.73	3.31	3.31	3.73	3.31
Max Axle Ratio	3.55	3.55	3.55	3.73	3.55	3.55	3.73	3.55
Min N/V Ratio	24.2	24.5	24.2	27.8	24.5	24.2	27.8	24.5
Max N/V Ratio	26	26.4	26	27.8	26.4	26	27.8	26.4
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT275/65R18	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17
Max Tire Size	LT275/65R18	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5239267	5239282	5239266	5239204	5239200	5239205	5239248	5239361
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506
Fuel Tank(s)	TS	TS	TS	TY	TY	TY	TY	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Dual RW
Body Style	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB BOX DELETE
Wheelbase	Long	Long	Long	Short	Short	Short	Short	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	8020	8020	8020	7820	7820	7820	7820	10109
LVW - ETW	8500	8500	8500	8000	8000	8000	8000	10500
Loaded Weight	8320	8320	8320	8120	8120	8120	8120	10409
ALVW - ETW	9500	10000	10000	9500	9500	9500	9500	11500
Adj. Loaded Weight	9660	9760	9760	9510	9560	9660	9660	11554
GVWR	11300	11500	11500	11200	11300	11500	11500	13000
Min Axle Ratio	3.31	3.55	3.31	3.31	3.31	3.31	3.55	3.73
Max Axle Ratio	3.55	3.55	3.55	3.55	3.55	3.55	3.55	3.73
Min N/V Ratio	24.2	24.1	23.4	24.5	24.2	23.4	24.1	27.8
Max N/V Ratio	26	24.1	25.1	26.4	26	25.1	24.1	27.8
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT275/65R18	LT275/65R20	LT275/70R18	LT245/75R17	LT275/65R18	LT275/70R18	LT275/65R20	LT245/75R17
Max Tire Size	LT275/65R18	LT275/65R20	LT275/70R18	LT265/70R17	LT275/65R18	LT275/70R18	LT275/65R20	LT245/75R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5239332	5239333	5239331	5239257	5239157	5239159	5239160	5239359
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506
Fuel Tank(s)	TS	TS	TS	TY	TY	TY	TY	TY
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Sngl RW	Dual RW
Body Style	CREW CAB BOX DELETE	CREW CAB BOX DELETE	CREW CAB BOX DELETE	REGULAR CAB	REGULAR CAB	REGULAR CAB	REGULAR CAB	REGULAR CAB BOX DELE
Wheelbase	Long	Long	Long	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	9275	9275	9275	7573	7286	7286	7286	9363
LVW - ETW	9500	9500	9500	8000	7500	7500	7500	9500
Loaded Weight	9575	9575	9575	7873	7586	7586	7586	9663
ALVW - ETW	10000	10500	10500	11000	9000	9000	9500	11000
Adj. Loaded Weight	10238	10288	10388	10786	9043	9143	9393	11182
GVWR	11200	11300	11500	14000	10800	11000	11500	13000
Min Axle Ratio	3.31	3.31	3.31	3.73	3.31	3.31	3.31	3.73
Max Axle Ratio	3.55	3.55	3.55	3.73	3.55	3.55	3.55	3.73
Min N/V Ratio	24.5	24.2	23.4	27.8	24.5	24.2	23.4	27.8
Max N/V Ratio	26.4	26	25.1	27.8	26.4	26	25.1	27.8
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT275/65R18	LT275/70R18	LT245/75R17	LT245/75R17	LT275/65R18	LT275/70R18	LT245/75R17
Max Tire Size	LT265/70R17	LT275/65R18	LT275/70R18	LT245/75R17	LT265/70R17	LT275/65R18	LT275/65R20	LT245/75R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5239297	5239295	5239296	5239285	5239201	5239202	5239244	5239203
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506
Fuel Tank(s)	TY	TY	TY	TS	TS	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW
Body Style	REGULAR CAB BOX DELE	REGULAR CAB BOX DELE	REGULAR CAB BOX DELE	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB
Wheelbase	Long	Long	Long	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	8541	8541	8541	8092	7788	7788	7788	7788
LVW - ETW	9000	9000	9000	8500	8000	8000	8000	8000
Loaded Weight	8841	8841	8841	8392	8088	8088	8088	8088
ALVW - ETW	9500	10000	10000	11000	9500	9500	9500	9500
Adj. Loaded Weight	9670	9770	10020	11046	9494	9544	9644	9644
GVWR	10800	11000	11500	14000	11200	11300	11500	11500
Min Axle Ratio	3.31	3.31	3.31	3.73	3.31	3.31	3.55	3.31
Max Axle Ratio	3.55	3.55	3.55	3.73	3.55	3.55	3.55	3.55
Min N/V Ratio	24.5	24.2	23.4	27.8	24.5	24.2	24.1	23.4
Max N/V Ratio	26.4	26	25.1	27.8	26.4	26	24.1	25.1
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT275/65R18	LT275/70R18	LT245/75R17	LT245/75R17	LT275/65R18	LT275/65R20	LT275/70R18
Max Tire Size	LT265/70R17	LT275/65R18	LT275/70R18	LT245/75R17	LT265/70R17	LT275/65R18	LT275/65R20	LT275/70R18
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5239206	5239209	5239252	5239210	5239360	5239328	5239330	5239327
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506	EFA17C0506
Fuel Tank(s)	TY	TY	TY	TY	TS	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Sngl RW
Body Style	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB BOX DELETE	SUPER CAB BOX DELETE	SUPER CAB BOX DELETE	SUPER CAB BOX DELETE
Wheelbase	Short	Short	Short	Short	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	7602	7602	7602	7602	9882	9043	9043	9043
LVW - ETW	8000	8000	8000	8000	10000	9500	9500	9500
Loaded Weight	7902	7902	7902	7902	10182	9343	9343	9343
ALVW - ETW	9500	9500	9500	9500	11500	10000	10000	10500
Adj. Loaded Weight	9351	9401	9551	9551	11441	10122	10172	10272
GVWR	11100	11200	11500	11500	13000	11200	11300	11500
Min Axle Ratio	3.31	3.31	3.55	3.31	3.73	3.31	3.31	3.31
Max Axle Ratio	3.55	3.55	3.55	3.55	3.73	3.55	3.55	3.55
Min N/V Ratio	24.5	24.2	24.1	23.4	27.8	24.5	24.2	23.4
Max N/V Ratio	26.4	26	24.1	25.1	27.8	26.4	26	25.1
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT275/65R18	LT275/65R20	LT275/70R18	LT245/75R17	LT245/75R17	LT275/65R18	LT275/70R18
Max Tire Size	LT265/70R17	LT275/65R18	LT275/65R20	LT275/70R18	LT245/75R17	LT265/70R17	LT275/65R18	LT275/70R18
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST
Test Group: EFMXD06.771C

ID Number	5239512
Displacement	6.7
Calibration	EFA17D0506
Fuel Tank(s)	TS
Vehicle Line	F450
Wheel Configuration	Dual RW
Body Style	CREW CAB
Wheelbase	Long
Trans Code Combo	A CV
Drive	4X4
Curb Weight	8370
LVW - ETW	8500
Loaded Weight	8670
ALVW - ETW	11000
Adj. Loaded Weight	10835
GVWR	13300
Min Axle Ratio	4.3
Max Axle Ratio	4.3
Min N/V Ratio	32
Max N/V Ratio	32
A/C	Y
Altitude Exempt	N
Altitude Intend use	All
Calibration Application	50ST
Min Tire Size	LT245/75R17
Max Tire Size	LT245/75R17
Alt Tire 1	
Alt Tire 2	
Alt Tire 3	
Alt Tire 4	
Alt Tire 5	
Alt Tire 6	
Alt Tire 7	

Vehicle Description Report

Application: 50 ST

Test Group: EFMXD06.771C

ID Number	5245646	5245633	5245635	5245591	5245597	5245703	5245680	5245682
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507
Fuel Tank(s)	TS	TS	TS	TY	TY	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Dual RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW
Body Style	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB BOX	CREW CAB BOX	CREW CAB BOX
Wheelbase	Long	Long	Long	Short	Short	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X2	4X2	4X2	4X2	4X2	4X2	4X2	4X2
Curb Weight	7877	7511	7511	7338	7338	9667	8766	8766
LVW - ETW	8000	8000	8000	7500	7500	10000	9000	9000
Loaded Weight	8177	7811	7811	7638	7638	9967	9066	9066
ALVW - ETW	11000	9500	9500	9000	9500	11500	10000	10000
Adj. Loaded Weight	10938	9306	9506	9069	9369	11334	9933	10133
GVWR	14000	11100	11500	10800	11400	13000	11100	11500
Min Axle Ratio	3.73	3.31	3.31	3.31	3.31	3.73	3.31	3.31
Max Axle Ratio	3.73	3.55	3.55	3.55	3.55	3.73	3.55	3.55
Min N/V Ratio	27.8	24.5	24.2	24.5	24.2	27.8	24.5	24.2
Max N/V Ratio	27.8	26.4	26	26.4	26	27.8	26.4	26
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17	LT275/65R18
Max Tire Size	LT245/75R17	LT265/70R17	LT275/65R18	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17	LT275/65R18
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST

Test Group: EFMXD06.771C

ID Number	5245626	5245561	5245560	5245701	5245654	5245653	5245645	5245590
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507
Fuel Tank(s)	TY	TY	TY	TY	TY	TY	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Dual RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Dual RW	Sngl RW
Body Style	REGULAR CAB	REGULAR CAB	REGULAR CAB	REGULAR CAB BOX	REGULAR CAB BOX	REGULAR CAB BOX	SUPER CAB	SUPER CAB
Wheelbase	Long	Long	Long	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X2	4X2	4X2	4X2	4X2	4X2	4X2	4X2
Curb Weight	7117	6765	6765	8907	8020	8020	7648	7281
LVW - ETW	7500	7000	7000	9000	8500	8500	8000	7500
Loaded Weight	7417	7065	7065	9207	8320	8320	7948	7581
ALVW - ETW	10500	8500	9000	11000	9500	9500	11000	9000
Adj. Loaded Weight	10558	8632	8882	10954	9260	9510	10824	9040
GVWR	14000	10500	11000	13000	10500	11000	14000	10800
Min Axle Ratio	3.73	3.31	3.31	3.73	3.31	3.31	3.73	3.31
Max Axle Ratio	3.73	3.55	3.55	3.73	3.55	3.55	3.73	3.55
Min N/V Ratio	27.8	24.5	24.2	27.8	24.5	24.2	27.8	24.5
Max N/V Ratio	27.8	26.4	26	27.8	26.4	26	27.8	26.4
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17
Max Tire Size	LT245/75R17	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST

Test Group: EFMXD06.771C

ID Number	5245595	5245594	5245593	5245702	5245678	5245677	5245478	5245459
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507
Fuel Tank(s)	TS	TY	TY	TS	TS	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Dual RW	Sngl RW
Body Style	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB BOX	SUPER CAB BOX	SUPER CAB BOX	CREW CAB	CREW CAB
Wheelbase	Long	Short	Short	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X2	4X2	4X2	4X2	4X2	4X2	4X4	4X4
Curb Weight	7281	7149	7149	9438	8536	8536	8319	8020
LVW - ETW	7500	7500	7500	9500	9000	9000	8500	8500
Loaded Weight	7581	7449	7449	9738	8836	8836	8619	8320
ALVW - ETW	9500	9000	9000	11000	9500	10000	11000	9500
Adj. Loaded Weight	9390	8924	9074	11219	9668	10018	11160	9610
GVWR	11500	10700	11000	13000	10800	11500	14000	11200
Min Axle Ratio	3.31	3.31	3.31	3.73	3.31	3.31	3.73	3.31
Max Axle Ratio	3.55	3.55	3.55	3.73	3.55	3.55	3.73	3.55
Min N/V Ratio	24.2	24.5	24.2	27.8	24.5	24.2	27.8	24.5
Max N/V Ratio	26	26.4	26	27.8	26.4	26	27.8	26.4
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT275/65R18	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17
Max Tire Size	LT275/65R18	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST

Test Group: EFMXD06.771C

ID Number	5245460	5245458	5245473	5245393	5245402	5245444	5245397	5245553
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507
Fuel Tank(s)	TS	TS	TS	TY	TY	TY	TY	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Dual RW
Body Style	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB BOX
Wheelbase	Long	Long	Long	Short	Short	Short	Short	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	8020	8020	8020	7820	7820	7820	7820	10109
LVW - ETW	8500	8500	8500	8000	8000	8000	8000	10500
Loaded Weight	8320	8320	8320	8120	8120	8120	8120	10409
ALVW - ETW	9500	10000	10000	9500	9500	9500	9500	11500
Adj. Loaded Weight	9660	9760	9760	9510	9560	9660	9660	11554
GVWR	11300	11500	11500	11200	11300	11500	11500	13000
Min Axle Ratio	3.31	3.31	3.55	3.31	3.31	3.55	3.31	3.73
Max Axle Ratio	3.55	3.55	3.55	3.55	3.55	3.55	3.55	3.73
Min N/V Ratio	24.2	23.4	24.1	24.5	24.2	24.1	23.4	27.8
Max N/V Ratio	26	25.1	24.1	26.4	26	24.1	25.1	27.8
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT275/65R18	LT275/70R18	LT275/65R20	LT245/75R17	LT275/65R18	LT275/65R20	LT275/70R18	LT245/75R17
Max Tire Size	LT275/65R18	LT275/70R18	LT275/65R20	LT265/70R17	LT275/65R18	LT275/65R20	LT275/70R18	LT245/75R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST

Test Group: EFMXD06.771C

ID Number	5245523	5245525	5245524	5245449	5245351	5245350	5245349	5245551
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507
Fuel Tank(s)	TS	TS	TS	TY	TY	TY	TY	TY
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Sngl RW	Dual RW
Body Style	CREW CAB BOX	CREW CAB BOX	CREW CAB BOX	REGULAR CAB	REGULAR CAB	REGULAR CAB	REGULAR CAB	REGULAR CAB BOX
Wheelbase	Long	Long	Long	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	9275	9275	9275	7573	7286	7286	7286	9363
LVW - ETW	9500	9500	9500	8000	7500	7500	7500	9500
Loaded Weight	9575	9575	9575	7873	7586	7586	7586	9663
ALVW - ETW	10000	10500	10500	11000	9000	9000	9500	11000
Adj. Loaded Weight	10238	10288	10388	10786	9043	9143	9393	11182
GVWR	11200	11300	11500	14000	10800	11000	11500	13000
Min Axle Ratio	3.31	3.31	3.31	3.73	3.31	3.31	3.31	3.73
Max Axle Ratio	3.55	3.55	3.55	3.73	3.55	3.55	3.55	3.73
Min N/V Ratio	24.5	24.2	23.4	27.8	24.5	24.2	23.4	27.8
Max N/V Ratio	26.4	26	25.1	27.8	26.4	26	25.1	27.8
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT275/65R18	LT275/70R18	LT245/75R17	LT245/75R17	LT275/65R18	LT275/70R18	LT245/75R17
Max Tire Size	LT265/70R17	LT275/65R18	LT275/70R18	LT245/75R17	LT265/70R17	LT275/65R18	LT275/65R20	LT245/75R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST

Test Group: EFMXD06.771C

ID Number	5245488	5245489	5245487	5245477	5245392	5245396	5245398	5245441
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507
Fuel Tank(s)	TY	TY	TY	TS	TS	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW
Body Style	REGULAR CAB BOX	REGULAR CAB BOX	REGULAR CAB BOX	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB
Wheelbase	Long	Long	Long	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	8541	8541	8541	8092	7788	7788	7788	7788
LVW - ETW	9000	9000	9000	8500	8000	8000	8000	8000
Loaded Weight	8841	8841	8841	8392	8088	8088	8088	8088
ALVW - ETW	9500	10000	10000	11000	9500	9500	9500	9500
Adj. Loaded Weight	9670	9770	10020	11046	9494	9544	9644	9644
GVWR	10800	11000	11500	14000	11200	11300	11500	11500
Min Axle Ratio	3.31	3.31	3.31	3.73	3.31	3.31	3.31	3.55
Max Axle Ratio	3.55	3.55	3.55	3.73	3.55	3.55	3.55	3.55
Min N/V Ratio	24.5	24.2	23.4	27.8	24.5	24.2	23.4	24.1
Max N/V Ratio	26.4	26	25.1	27.8	26.4	26	25.1	24.1
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT275/65R18	LT275/70R18	LT245/75R17	LT245/75R17	LT275/65R18	LT275/70R18	LT275/65R20
Max Tire Size	LT265/70R17	LT275/65R18	LT275/70R18	LT245/75R17	LT265/70R17	LT275/65R18	LT275/70R18	LT275/65R20
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST

Test Group: EFMXD06.771C

ID Number	5245400	5245403	5245399	5245435	5245552	5245519	5245521	5245520
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507	EFA17C0507
Fuel Tank(s)	TY	TY	TY	TY	TS	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Sngl RW
Body Style	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB BOX	SUPER CAB BOX	SUPER CAB BOX	SUPER CAB BOX
Wheelbase	Short	Short	Short	Short	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	7602	7602	7602	7602	9882	9043	9043	9043
LVW - ETW	8000	8000	8000	8000	10000	9500	9500	9500
Loaded Weight	7902	7902	7902	7902	10182	9343	9343	9343
ALVW - ETW	9500	9500	9500	9500	11500	10000	10000	10500
Adj. Loaded Weight	9351	9401	9551	9551	11441	10122	10172	10272
GVWR	11100	11200	11500	11500	13000	11200	11300	11500
Min Axle Ratio	3.31	3.31	3.31	3.55	3.73	3.31	3.31	3.31
Max Axle Ratio	3.55	3.55	3.55	3.55	3.73	3.55	3.55	3.55
Min N/V Ratio	24.5	24.2	23.4	24.1	27.8	24.5	24.2	23.4
Max N/V Ratio	26.4	26	25.1	24.1	27.8	26.4	26	25.1
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT275/65R18	LT275/70R18	LT275/65R20	LT245/75R17	LT245/75R17	LT275/65R18	LT275/70R18
Max Tire Size	LT265/70R17	LT275/65R18	LT275/70R18	LT275/65R20	LT245/75R17	LT265/70R17	LT275/65R18	LT275/70R18
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST

Test Group: EFMXD06.771C

ID Number	5245704
Displacement	6.7
Calibration	EFA17D0507
Fuel Tank(s)	TS
Vehicle Line	F450
Wheel Configuration	Dual RW
Body Style	CREW CAB
Wheelbase	Long
Trans Code Combo	A CV
Drive	4X4
Curb Weight	8370
LVW - ETW	8500
Loaded Weight	8670
ALVW - ETW	11000
Adj. Loaded Weight	11185
GVWR	14000
Min Axle Ratio	4.3
Max Axle Ratio	4.3
Min N/V Ratio	32
Max N/V Ratio	32
A/C	Y
Altitude Exempt	N
Altitude Intend use	All
Calibration Application	50ST
Min Tire Size	LT245/75R17
Max Tire Size	LT245/75R17
Alt Tire 1	
Alt Tire 2	
Alt Tire 3	
Alt Tire 4	
Alt Tire 5	
Alt Tire 6	
Alt Tire 7	

Vehicle Description Report

Application: 50 ST

Test Group: EFMXD06.771C

ID Number	5264666	5264651	5264652	5264608	5264615	5264727	5264701	5264703
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510
Fuel Tank(s)	TS	TS	TS	TY	TY	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Dual RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW
Body Style	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB BOX	CREW CAB BOX	CREW CAB BOX
Wheelbase	Long	Long	Long	Short	Short	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X2	4X2	4X2	4X2	4X2	4X2	4X2	4X2
Curb Weight	7877	7511	7511	7338	7338	9667	8766	8766
LVW - ETW	8000	8000	8000	7500	7500	10000	9000	9000
Loaded Weight	8177	7811	7811	7638	7638	9967	9066	9066
ALVW - ETW	11000	9500	9500	9000	9500	11500	10000	10000
Adj. Loaded Weight	10938	9306	9506	9069	9369	11334	9933	10133
GVWR	14000	11100	11500	10800	11400	13000	11100	11500
Min Axle Ratio	3.73	3.31	3.31	3.31	3.31	3.73	3.31	3.31
Max Axle Ratio	3.73	3.55	3.55	3.55	3.55	3.73	3.55	3.55
Min N/V Ratio	27.8	24.5	24.2	24.5	24.2	27.8	24.5	24.2
Max N/V Ratio	27.8	26.4	26	26.4	26	27.8	26.4	26
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17	LT275/65R18
Max Tire Size	LT245/75R17	LT265/70R17	LT275/65R18	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17	LT275/65R18
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST

Test Group: EFMXD06.771C

ID Number	5264644	5264577	5264576	5264725	5264673	5264674	5264665	5264609
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510
Fuel Tank(s)	TY	TY	TY	TY	TY	TY	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Dual RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Dual RW	Sngl RW
Body Style	REGULAR CAB	REGULAR CAB	REGULAR CAB	REGULAR CAB BOX	REGULAR CAB BOX	REGULAR CAB BOX	SUPER CAB	SUPER CAB
Wheelbase	Long	Long	Long	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X2	4X2	4X2	4X2	4X2	4X2	4X2	4X2
Curb Weight	7117	6765	6765	8907	8020	8020	7648	7281
LVW - ETW	7500	7000	7000	9000	8500	8500	8000	7500
Loaded Weight	7417	7065	7065	9207	8320	8320	7948	7581
ALVW - ETW	10500	8500	9000	11000	9500	9500	11000	9000
Adj. Loaded Weight	10558	8632	8882	10954	9260	9510	10824	9040
GVWR	14000	10500	11000	13000	10500	11000	14000	10800
Min Axle Ratio	3.73	3.31	3.31	3.73	3.31	3.31	3.73	3.31
Max Axle Ratio	3.73	3.55	3.55	3.73	3.55	3.55	3.73	3.55
Min N/V Ratio	27.8	24.5	24.2	27.8	24.5	24.2	27.8	24.5
Max N/V Ratio	27.8	26.4	26	27.8	26.4	26	27.8	26.4
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17
Max Tire Size	LT245/75R17	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST

Test Group: EFMXD06.771C

ID Number	5264611	5264607	5264610	5264726	5264698	5264699	5264488	5264466
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510
Fuel Tank(s)	TS	TY	TY	TS	TS	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Dual RW	Sngl RW
Body Style	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB BOX	SUPER CAB BOX	SUPER CAB BOX	CREW CAB	CREW CAB
Wheelbase	Long	Short	Short	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X2	4X2	4X2	4X2	4X2	4X2	4X4	4X4
Curb Weight	7281	7149	7149	9438	8536	8536	8319	8020
LVW - ETW	7500	7500	7500	9500	9000	9000	8500	8500
Loaded Weight	7581	7449	7449	9738	8836	8836	8619	8320
ALVW - ETW	9500	9000	9000	11000	9500	10000	11000	9500
Adj. Loaded Weight	9390	8924	9074	11219	9668	10018	11160	9610
GVWR	11500	10700	11000	13000	10800	11500	14000	11200
Min Axle Ratio	3.31	3.31	3.31	3.73	3.31	3.31	3.73	3.31
Max Axle Ratio	3.55	3.55	3.55	3.73	3.55	3.55	3.73	3.55
Min N/V Ratio	24.2	24.5	24.2	27.8	24.5	24.2	27.8	24.5
Max N/V Ratio	26	26.4	26	27.8	26.4	26	27.8	26.4
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT275/65R18	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17	LT275/65R18	LT245/75R17	LT245/75R17
Max Tire Size	LT275/65R18	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17	LT275/65R18	LT245/75R17	LT265/70R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST

Test Group: EFMXD06.771C

ID Number	5264469	5264483	5264468	5264398	5264400	5264451	5264401	5264569
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510
Fuel Tank(s)	TS	TS	TS	TY	TY	TY	TY	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Dual RW
Body Style	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB BOX
Wheelbase	Long	Long	Long	Short	Short	Short	Short	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	8020	8020	8020	7820	7820	7820	7820	10109
LVW - ETW	8500	8500	8500	8000	8000	8000	8000	10500
Loaded Weight	8320	8320	8320	8120	8120	8120	8120	10409
ALVW - ETW	9500	10000	10000	9500	9500	9500	9500	11500
Adj. Loaded Weight	9660	9760	9760	9510	9560	9660	9660	11554
GVWR	11300	11500	11500	11200	11300	11500	11500	13000
Min Axle Ratio	3.31	3.55	3.31	3.31	3.31	3.55	3.31	3.73
Max Axle Ratio	3.55	3.55	3.55	3.55	3.55	3.55	3.55	3.73
Min N/V Ratio	24.2	24.1	23.4	24.5	24.2	24.1	23.4	27.8
Max N/V Ratio	26	24.1	25.1	26.4	26	24.1	25.1	27.8
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT275/65R18	LT275/65R20	LT275/70R18	LT245/75R17	LT275/65R18	LT275/65R20	LT275/70R18	LT245/75R17
Max Tire Size	LT275/65R18	LT275/65R20	LT275/70R18	LT265/70R17	LT275/65R18	LT275/65R20	LT275/70R18	LT245/75R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST

Test Group: EFMXD06.771C

ID Number	5264537	5264536	5264538	5264456	5264345	5264348	5264344	5264567
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510
Fuel Tank(s)	TS	TS	TS	TY	TY	TY	TY	TY
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Sngl RW	Dual RW
Body Style	CREW CAB BOX	CREW CAB BOX	CREW CAB BOX	REGULAR CAB	REGULAR CAB	REGULAR CAB	REGULAR CAB	REGULAR CAB BOX
Wheelbase	Long	Long	Long	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	9275	9275	9275	7573	7286	7286	7286	9363
LVW - ETW	9500	9500	9500	8000	7500	7500	7500	9500
Loaded Weight	9575	9575	9575	7873	7586	7586	7586	9663
ALVW - ETW	10000	10500	10500	11000	9000	9000	9500	11000
Adj. Loaded Weight	10238	10288	10388	10786	9043	9143	9393	11182
GVWR	11200	11300	11500	14000	10800	11000	11500	13000
Min Axle Ratio	3.31	3.31	3.31	3.73	3.31	3.31	3.31	3.73
Max Axle Ratio	3.55	3.55	3.55	3.73	3.55	3.55	3.55	3.73
Min N/V Ratio	24.5	24.2	23.4	27.8	24.5	24.2	23.4	27.8
Max N/V Ratio	26.4	26	25.1	27.8	26.4	26	25.1	27.8
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT275/65R18	LT275/70R18	LT245/75R17	LT245/75R17	LT275/65R18	LT275/70R18	LT245/75R17
Max Tire Size	LT265/70R17	LT275/65R18	LT275/70R18	LT245/75R17	LT265/70R17	LT275/65R18	LT275/65R20	LT245/75R17
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST

Test Group: EFMXD06.771C

ID Number	5264498	5264499	5264497	5264487	5264395	5264390	5264453	5264394
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510
Fuel Tank(s)	TY	TY	TY	TS	TS	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Sngl RW	Sngl RW
Body Style	REGULAR CAB BOX	REGULAR CAB BOX	REGULAR CAB BOX	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB
Wheelbase	Long	Long	Long	Long	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	8541	8541	8541	8092	7788	7788	7788	7788
LVW - ETW	9000	9000	9000	8500	8000	8000	8000	8000
Loaded Weight	8841	8841	8841	8392	8088	8088	8088	8088
ALVW - ETW	9500	10000	10000	11000	9500	9500	9500	9500
Adj. Loaded Weight	9670	9770	10020	11046	9494	9544	9644	9644
GVWR	10800	11000	11500	14000	11200	11300	11500	11500
Min Axle Ratio	3.31	3.31	3.31	3.73	3.31	3.31	3.55	3.31
Max Axle Ratio	3.55	3.55	3.55	3.73	3.55	3.55	3.55	3.55
Min N/V Ratio	24.5	24.2	23.4	27.8	24.5	24.2	24.1	23.4
Max N/V Ratio	26.4	26	25.1	27.8	26.4	26	24.1	25.1
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT275/65R18	LT275/70R18	LT245/75R17	LT245/75R17	LT275/65R18	LT275/65R20	LT275/70R18
Max Tire Size	LT265/70R17	LT275/65R18	LT275/70R18	LT245/75R17	LT265/70R17	LT275/65R18	LT275/65R20	LT275/70R18
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST

Test Group: EFMXD06.771C

ID Number	5264396	5264391	5264402	5264452	5264568	5264532	5264534	5264533
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510	EFA17C0510
Fuel Tank(s)	TY	TY	TY	TY	TS	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Sngl RW	Sngl RW	Dual RW	Sngl RW	Sngl RW	Sngl RW
Body Style	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB BOX	SUPER CAB BOX	SUPER CAB BOX	SUPER CAB BOX
Wheelbase	Short	Short	Short	Short	Long	Long	Long	Long
Trans Code Combo	A CV	A CV	A CV	A CV	A CV	A CV	A CV	A CV
Drive	4X4	4X4	4X4	4X4	4X4	4X4	4X4	4X4
Curb Weight	7602	7602	7602	7602	9882	9043	9043	9043
LVW - ETW	8000	8000	8000	8000	10000	9500	9500	9500
Loaded Weight	7902	7902	7902	7902	10182	9343	9343	9343
ALVW - ETW	9500	9500	9500	9500	11500	10000	10000	10500
Adj. Loaded Weight	9351	9401	9551	9551	11441	10122	10172	10272
GVWR	11100	11200	11500	11500	13000	11200	11300	11500
Min Axle Ratio	3.31	3.31	3.31	3.55	3.73	3.31	3.31	3.31
Max Axle Ratio	3.55	3.55	3.55	3.55	3.73	3.55	3.55	3.55
Min N/V Ratio	24.5	24.2	23.4	24.1	27.8	24.5	24.2	23.4
Max N/V Ratio	26.4	26	25.1	24.1	27.8	26.4	26	25.1
A/C	Y	Y	Y	Y	Y	Y	Y	Y
Altitude Exempt	N	N	N	N	N	N	N	N
Altitude Intend use	All	All	All	All	All	All	All	All
Calibration Application	50ST	50ST	50ST	50ST	50ST	50ST	50ST	50ST
Min Tire Size	LT245/75R17	LT275/65R18	LT275/70R18	LT275/65R20	LT245/75R17	LT245/75R17	LT275/65R18	LT275/70R18
Max Tire Size	LT265/70R17	LT275/65R18	LT275/70R18	LT275/65R20	LT245/75R17	LT265/70R17	LT275/65R18	LT275/70R18
Alt Tire 1								
Alt Tire 2								
Alt Tire 3								
Alt Tire 4								
Alt Tire 5								
Alt Tire 6								
Alt Tire 7								

Vehicle Description Report

Application: 50 ST

Test Group: EFMXD06.771C

ID Number	5264728
Displacement	6.7
Calibration	EFA17D0510
Fuel Tank(s)	TS
Vehicle Line	F450
Wheel Configuration	Dual RW
Body Style	CREW CAB
Wheelbase	Long
Trans Code Combo	A CV
Drive	4X4
Curb Weight	8370
LVW - ETW	8500
Loaded Weight	8670
ALVW - ETW	11000
Adj. Loaded Weight	11185
GVWR	14000
Min Axle Ratio	4.3
Max Axle Ratio	4.3
Min N/V Ratio	32
Max N/V Ratio	32
A/C	Y
Altitude Exempt	N
Altitude Intend use	All
Calibration Application	50ST
Min Tire Size	LT245/75R17
Max Tire Size	LT245/75R17
Alt Tire 1	
Alt Tire 2	
Alt Tire 3	
Alt Tire 4	
Alt Tire 5	
Alt Tire 6	
Alt Tire 7	

SECTION 14

Request for Certification

14.00.00.00

Vehicle Homologation & Compliance
Safety, Environment, & Sustainability Engineering
Ford Motor Company

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

May 15, 2013

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

Dear Mr. Nevers:

Ford Motor Company (Ford) herewith submits its Part I Application for Certification for 2014 model year diesel-powered heavy-duty vehicles (HDVs) contained in Ford's 50 state test group EFMXD06.771C. We have elected to optionally certify these vehicles on the chassis dynamometer, as allowed under 40 CFR 86.1863-07. The test fuel used is Federal ultra low sulfur diesel.

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

Certification FTP Standards (g/mi)	Useful Life	NMHC	CO	NOx	PM	HCHO
HDV (10,001-14,000 lb GVWR)	120K	0.230	8.1	0.4	0.02	0.040

Based on Ford Motor Company's good engineering judgment, all the vehicles described in this Application are designed to comply with the applicable full useful life standards, as described above, and CH_4/N_2O standards in 40 CFR 1037.104(c).

This Part I application for certification has been prepared in accordance with the standardized format recommended by EPA via its mail out # VPCD-99-06 (LDV, LDT, SVM), subject: "CAP 2000 Implementation: Guidance Documents and Workshop", dated April 22, 1999. Therefore, in accordance with the provisions of 40 CFR 86.1844-01(d)(14), Ford requests that a Certificate of Conformity be issued for the HDV test group listed in this Application for Certification.

Please contact Travis Henney at 313-399-7256, if you have any questions regarding this submission.

Sincerely

Todd M. Fagerman, Manager
Car and Truck Certification
Certification Programs

Vehicle Homologation & Compliance
Safety, Environment, & Sustainability Engineering
Ford Motor Company

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

May 15, 2013

Mr. Erik White, Chief
Mobile Source Operations Division
Haagen-Smit Laboratory
P. O. Box 8001
9528 Telstar Avenue
El Monte, California 91734-8001

Dear Mr. White:

Ford Motor Company (Ford) herewith submits its Part I Application for Certification for 2014 model year diesel-powered medium duty vehicles (MDVs) contained in Ford's 50 state test group EFMXD06.771C. The test fuel used is Federal ultra low sulfur diesel.

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

Certification FTP Standards (g/mi)	Useful Life	NMOG	CO	NOx	PM	HCHO
LEV II ULEV (10,001-14,000 lb GVWR)	120K	0.167	7.3	0.4	0.06	0.021

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

This Part I application for certification has been prepared in accordance with the standardized format recommended by EPA via its mail out # VPCD-99-06 (LDV, LDT, SVM), subject: "CAP 2000 Implementation: Guidance Documents and Workshop"' dated April 22, 1999. This Application has also been prepared in accordance with the California Air Resources Board, Final Regulation Order, Amendments to Sections 1960.1, 1960.5, 1961, and 1962 Title 13, California Code of Regulations (As Amended August 4, 2005). Therefore, in accordance with the provisions of 40 CFR 86.1844-01(d)(14), Ford requests that an Executive Order be issued for the MDV test group listed in this Application for Certification.

Please contact Travis Henney at 313-399-7256, if you have any questions regarding this submission.

Sincerely

Todd M. Fagerman, Manager
Car and Truck Certification
Certification Programs

cc: Depinder Paul

SECTION 15

Other Information

15.00.00.00

 306027

EPA

U.S. Environmental Protection Agency
Motor Vehicle and Engine Compliance Program
On-Highway Fee Filing Form
For Certification Applications Received In Calendar Year 2013

Manufacturer Name Ford Motor Company

Address 1500 Enterprise Drive - Suite 3W200 APTL

City/State/Zip Code/Country Allen Park, MI 48101 USA

On-Highway Certification Request Type (check one)

- [x] LDV/LDT/MDPV/HDV (Chassis cert) FEDERAL ($29,848)
- [ ] LDV/LDT/MDPV/HDV (Chassis cert) CAL-ONLY ($15,704)
- [ ] HDE (Engine Dyno cert) FEDERAL ($44,215)
- [ ] HDV EVAP-ONLY ($563)
- [ ] HDE CALIF-ONLY ($563)
- [ ] MOTORCYCLE ($1,427)
- [ ] LD/MDPV/HDV ICI ($68,737)

EPA standard family or test group: E F M X D 0 6 . 7 7 1 C

Amount paid (U.S. Funds Only): $ 29,848.00

Enter the check number, or the statement "WIRE" or "ACH":

Reduced Fee Section (40 CFR §1027.120)

Reduced fee calculation (minimum initial payment $750): Total number of vehicles/units covered: ____

Aggregate retail sales price of the vehicles/units: $ _____ **x 1% = $** _____

Check box if an Independent Commercial Importer: [ ] **List the VIN of imported vehicles/engines below:**

Company Representative: Todd Fagerman Signature: Todd Fagerman

Title: Manager Phone/Fax: 313-594-0680 / Date: 3/2/13

E-mail Address: tfagerma@ford.com TH

Submission of payments and forms:

(1) Online: **Forms** may be found and submitted with or without **payments** online at www.Pay.gov.

(2) By mail: For check payments only, send **checks** and this **form** to:

Environmental Protection Agency
Motor Vehicle and Engine Compliance Program
P.O. Box 979032
St. Louis, MO 63197-9000

(3) Transmit offline Wire **payments** to the New York Federal Reserve Bank. (See Instructions, p.2)

(4) Transmit offline ACH **payments** to the Federal Reserve Bank of Cleveland. (Instructions, p.2)

(5) **Forms** not submitted under (1) and (2) above can be sent as email attachments to Fees@epa.gov. Forms and payments sent in ways other than the above may be delayed or ineffective. See the Instructions for sending checks and forms by private mail service (e.g., Federal Express).

The public reporting and recordkeeping burden for this collection of information is estimated to average 18 minutes per response. Send comments on EPA's need for this information, the accuracy of the provided burden estimate, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques, to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed Form 3520-29 to this address.

This form expires: 1/1/2014

SECTION 17

California ARB Requirements

17.00.00.00

E.O.# A-010-1780

2014 AIR RESOURCES BOARD CERTIFICATION REVIEW SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer Ford Motor Company Exh. Test Group: EFMXD06.771C Evap. Fam.: n/a

Engine Code Types: CA____ 49S____ 50S X ORVR: Yes___ No X

Exhaust Std: LEV2___ ULEV2 X SULEV2 ___ SULEV2+PZEV ___ U.S. EPA: _____

Vehicle Class(es) Select all that apply: PC_____ T1L2 (< 6,000 GVW; 0-3750 LVW) _____
T2L2 (<6,000 GVW; 3751-5750 LVW)_____ T3L2 (6,001-8,500 GVW; 3751-5750 ALVW) _____
T4L2 (6,001-8,500 GVW; 5751-8,500 ALVW) _____ M4L2 (8,500 – 10,000 GVW) _____
M5L2 (10,001 – 14,000 GVW) X

Single Cert Std for Multi-Class Eng Fam: ___ specify: (N/A, PC, T1L2, T2L2, T3L2, T4L2, M4L2, M5L2)

Exhaust Useful life: 100K ___ 120K X 150K ___ Evap Useful life: 100K ___ 120K ___ 150K ___

Exhaust In-Use Standard: Full X Alternative ____ Evap In-Use Standard: Full ____ Alternative___

Fuel Type(s): Dedicated X Flex-Fuel___ Dual-Fuel___ Bi-Fuel____ Gasoline___ Diesel X
CNG____ LNG____ LPG_____ M85_____ E85 _____ Other (specify):_____

Exh Emiss Test Fuel(s): Tier 2 Unleaded _____ Indo____ CBG___ CNG___ LPG___ M85___

Diesel: 13 CCR 2282__ 40 CFR 86.113-90__ 40 CFR 86.113-94__ E85__ Other(specify): X (40 CFR 86.113-07)

Evaporative Emission Test Procedure: California_____ Federal

Evaporative Emission Standard: LEV_____ LEV2____ Federal_____

Service Accumulation: Std AMA_____ Mod AMA___ Mfr Bench_____ Other Standard Road Cycle (SRC)

NMOG Test Procedure: N/A___ Std X Equiv___ R/L Test Procedure: SHED ____ Pt.Source____

Engine Configuration V-8 Displacement: 6.7 Liters 409 Cubic inches

Exhaust Control System and Special Features: TC / DFI / CAC / EGR-C / OC / PTOX / SCR-U / NOXS
(Use abbreviations per SAE J1930 SEP91)

EPA Certificate: EFMXD06.771C-039

NOTE: >10,000 lb GVWR diesel vehicles are exempt for evaporative and refueling emissions requirements

Test Vehicle Information	Durability Vehicle	Emission Data Vehicle
C/O MY or C/A MY & ID	2011 BFA1-6.7-888	2013 DFA1-6.7-J-314
Vehicle Log Page(s)	n/a	n/a
Zero Mile Books	n/a	n/a
Maint. Logs & Engr. Eval.	n/a	n/a

2014 AIR RESOURCES BOARD CERTIFICATION REVIEW SHEET

PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES E.O.# A-010-1780

Manufacturer: Ford Motor Company Test Group: EFMXD06.771C Evaporative Family: n/a

Emission Data Vehicle ID	Engine Code & Disp.	Test Location	Trans	ETW	DPA		PROJECTED EMISSIONS (grams/mile, except, grams/test for evaporative tests)[1] MPG City/Hwy	NMOG*	CO	NOx	HCHO**	PM	Hwy NOx	City / Hwy CO_2	3-DAY D+HS	EVAPORATIVE R/L	2-DAY D+HS	ORVR
DFA1-6.7-J-314	DFA17C0500	FORD	A	11500	---	(120K)	n/a / n/a	0.089	0.9	0.3	0.006	0.02	0.1	812 / 713	n/a	n/a	n/a	n/a
(1) The EDV' above complies with standards at 120K:								0.167	7.3	0.4	0.021	0.06	0.8	n/a	n/a	n/a	n/a	n/a
NMOG values include RAF(s) of:							Not Applicable X		NMOG		Methane (CNG or LNG only)							
Emissions include additive DFs (with applicable RAF) for 120K of:								0.0334	0.23	0.00	0.0004	0.007	0.00	n/a	n/a	n/a	n/a	n/a
Emissions include regenerative upward adjustment factors (UAFs)** of:								0.0000	0.01	0.01	0.0000	0.000	0.01	n/a	n/a	n/a	n/a	n/a

* NMOG = NMHC for diesel vehicles.
**DPF regeneration upward adjustment factors based on 4K base and regeneration emissions testing at Ford.

Remarks:

Application
Processed by _____ Date _____ Reviewed by _____ Date _____

Test Group: EFMXD06.771C
Issued: 7/31/12
Revised: 8/21/12, 12/16/13

E.O.# A-010-1780

2014 MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer Ford Motor Company Exh. Test Group: EFMXD06.771C Evap. Fam.: n/a

Engine Code Types: CA____ 49S____ 50S X ORVR: Yes___ No X

Exhaust Std: LEV2___ ULEV2 X SULEV2 ___ SULEV2+PZEV ___ U.S. EPA: _____

Vehicle Class(es) Select all that apply: PC_____ T1L2 (< 6,000 GVW;0-3750 LVW) _____
T2L2 (<6,000 GVW, 3751-5750 LVW)_____ T3L2 (6,001-8,500 GVW; 3751-5750 ALVW) _____
T4L2 (6,001-8,500 GVW; 5751-8,500 ALVW) _____ M4L2 (8,500 – 10,000 GVW) ___
M5L2 (10,001 – 14,000 GVW) X

Single Cert Std for Multi-Class Eng Fam: ___ specify: N/A, PC, T1L2, T2L2, T3L2, T4L2, M4L2, M5L2)

Exhaust Useful life: 100K ___ 120K X 150K ___ Evap Useful life: 100K ___ 120K ___ 150K ___

Exhaust In-Use Standard: Full X Alternative ____ Evap In-Use Standard: Full ____ Alternative___

Fuel Type(s): Dedicated X Dual-Fuel___ Flex-Fuel____ Bi-Fuel____ Gasoline___ Diesel X
CNG____ LNG____ LPG_____ M85_____ E85 _____ Other (specify): _____

Exh Emiss Test Fuel(s): Tier 2 Unleaded X Indo___ CBG___ CNG___ LPG___ M85_____

Diesel: 13 CCR 2282_ 40 CFR 86.113-90_ 40 CFR 86.113-94 E85_Other(specify):X (40 CFR 86.113-07)

Evaporative Emission Test Procedure: California_____ Federal

Evaporative Emission Standard: LEV2_____ Federal_____

Service Accumulation: Std AMA_____ Mod AMA___ Mfr Bench_____ Other Standard Road Cycle (SRC)

NMOG Test Procedure: N/A___ Std X Equiv___ R/L Test Procedure: SHED___ Pt.Source___

Engine Configuration V-8 Displacement: 6.7 Liters 409 Cubic inches

Valves/Cyl: 4 Rated HP: 400 @2800 RPM

Engine: Front X Mid_____ Rear_____ Drive: Fwd_____ RWD X 4WD-FT___ 4WD-PT X

Exhaust Control System and Special Features: TC / DFI / CAC / EGR-C / OC / PTOX / SCR-U / NOXS
(Use abbreviations per SAE J1930 SEP91)

Engine Code	Vehicle Models	Trans. A-Auto M-Man	ETW	DPA
EFA17C0500	F350 Pickup/Box Delete 4x2/4x4 SRW/DRW	A	*	*
EFA17C0505	F350 Pickup/Box Delete 4x2/4x4 SRW/DRW	A	*	*
EFA17C0506	F350 Pickup/Box Delete 4x2/4x4 SRW/DRW	A	*	*
EFA17C0507	F350 Pickup/Box Delete 4x2/4x4 SRW/DRW	A	*	*
EFA17C0510	F350 Pickup/Box Delete 4x2/4x4 SRW/DRW	A	*	*
EFA17D0500	F450 Pickup 4x4 DRW	A	*	
EFA17D0505	F450 Pickup 4x4 DRW	A	*	*
EFA17D0506	F450 Pickup 4x4 DRW	A	*	*
EFA17D0507	F450 Pickup 4x4 DRW	A	*	*
EFA17D0510	F450 Pickup 4x4 DRW	A	*	*

* Refer to section 12.00.06.00 for ETW and 12.01.02.00 of the Common Section for associated DPA

Test Group: EFMXD06.771C
Issued: 5/15/13
Revised: 6/24/13, 10/29/13

FoMoCo

Ford Motor Company
VEHICLE EMISSION CONTROL INFORMATION

Conforms to regulations: 2014 MY

U.S. EPA: HDV **OBD:** CA II **FUEL:** Diesel

California: ULEV II MDV **OBD:** CA II **FUEL:** Diesel

TC/DFI/CAC/EGR-C/OC/PTOX/SCR-U/NOXS | No adjustments needed.

6.7L-Group: EFMXD06.771C

▽EW7E-9C485-**Y N H** ▲

FoMoCo

Ford Motor Company
VEHICLE EMISSION CONTROL INFORMATION

Conforms to regulations: 2014 MY Incomplete

Weight limits refer to Emission Certification only.
DO NOT EXCEED VEHICLE GVWR (See Incomplete Vehicle Manual)

U.S. EPA: HDV **OBD:** CA II **FUEL:** Diesel

California: ULEV II MDV **OBD:** CA II **FUEL:** Diesel

Completed Vehicle Maximums: GVWR: 13,000# max.
CurbW: 10,500# max. Frontal Area: 51.0 ft2 max.

TC/DFI/CAC/EGR-C/OC/PTOX/SCR-U/NOXS
No adjustments needed.

6.7L-Group: EFMXD06.771C

▽EW7E-9C485-**Y M C** ▲

Test Group: EFMXD06.771C
Issued: 5/13/13
Revised:

SECTION 18

Revisions

18.00.00.00

APPLICATION REVISIONS

EFMXD06.771C

NO.	DATE	PAGE(S)	DESCRIPTION
Initial Cert Application	5/15/13	All	Initial Cert Application
Application Update & RC01-003	7/9/13	07.00.01-CSI 12.00.02.00 12.00.03.00 12.00.06.00 16.00.03.00 17.00.02.00	Updating OBD Deficiency Summary – 16.00.03.00 and deficiency count on CSI. This running change introduces the following production calibration updates: Old Calibration / New Calibration EFA17C0506 / EFA17C0507 EFA17D0506 / EFA17D0507 The EFA17(C/D)0507 ("R07") calibration change includes engine, transmission, and OBD-II changes. This calibration includes the following engine calibration related changes: • A change to the EGR rate temperature modifiers for EOM3 (Engine Operating Mode 3 – SCR Fast Light-Off strategy)-Base 1 and Base 2 to align with the EOM0 modifiers. • Increased SCR heat function targeting temperature of 5 degrees C to recover NOx emissions robustness due to the new EOM3-Base 1 calibration. • A change to the EOM3-Base 1 EGR rate reductions in 4 speed & load operating points and an EOM3-Base 1 air mass setpoint increase as a robustness actions to prevent engine misfires at specific engine operating speeds. • A second pilot injection added to the 1600 RPM & 0-500 Nm and 1200-1400 RPM & 400 Nm areas in EOM3-Base 1 operation for combustion stability robustness improvements. • An improved EOM3-Base 1 torque match to align with EOM0-Base 1 drivability. • An EOM3 entry and exit temperature increase to recover NOx emissions robustness due to new EOM3-Base 1 operation. • Removal of extended fuel injector charge mode operation at fuel rail pressures below 600 bar to improve low speed & light load drivability. • A new fuel injector energization time map required in conjunction with a removal of the extended fuel injector charge mode (see point above). • Fuel injector adaptation modification (ZFC-Zero Fuel Correction calibration) and continuous torque monitoring to match the new injector energization map (see point above). • A change to the passive regeneration model to prevent the DPF leakage monitor (P2002) from running in conditions where significant passive regeneration may be present. This calibration includes engine OBD-II changes including: • New logic to allow for faster healing of SCR system tampering faults. • New logic to heat the DEF injector and melt urea crystals when a stuck DEF injector (P208E) is detected by holding injector charged (open) for 3 minutes before the urea system is pressurized. • A change to monitor for inability to build pressure in the high pressure fuel rail during engine cranking (P2291) to a 2-trip MIL per December, 2012 ARB direction (faults that prevent the vehicle from starting must be monitored). • Changes to continuous torque monitors (P061A) required by base changes to the fuel injector energizing time map.

APPLICATION REVISIONS

EFMXD06.771C

			Transmission calibration changes were made to address shift quality and inadvertent shifts or shift busyness caused by operator "change of mind" inputs. There were no transmission OBD-II changes made in this calibration. Development testing confirmed that emissions are unchanged with this calibration change. Ref W.P. 03.14.01-5753
RC02-004	10/29/13	12.00.02.00 12.00.03.00 12.00.06.00 17.00.02.00 18.00.00.00	This running change introduces the following production calibration updates: Old Calibration / New Calibration EFA17C0507 / EFA17C0510 EFA17D0507 / EFA17D0510 The EFA17(C/D)0510 ("R10") calibration change includes engine, transmission, engine OBD-II, and transmission OBD-II changes. This calibration includes the following engine calibration related changes: • Engine Operating Mode 3 (EOM3) post fuel injection modifications to improve torque matching. • Cold start warm-up torque matching improvements. • Engine timing and EGR scheduling changes to improve engine-out particulate matter production at high altitude conditions. • Ramping out of humidity correction (HUMCOR) and SCR heat (SCRHt) strategies at high altitude conditions. This calibration includes engine OBD-II changes including: • Disablement of SCR heat maintenance monitor (P22FF) during PTO operation below 150 Nm to prevent false MILs. • Correction of limit speed to 5 mph in final stage of low DEF inducement chain. • Torque monitor (P061A) changes as a result of the engine calibration actions above. Transmission calibration changes were made to address shift quality issues. There were no changes made to transmission shift scheduling or torque converter lock scheduling. Engine coolant temperature minimum value and ECU thermostat monitor temperatures were commonized for Transmission OBD-II. Development testing confirmed that emissions are unchanged with this calibration change. Additionally, for the high altitude changes described, there were offsetting calibration changes made for improved NOx performance. Reference W.P.: 03.14.01-5982
2013EOY Part 1 & Part 2 Update	12/16/13	12.00.02.00 12.00.03.00 12.00.06.00 16.00.03.00 17.00.02.00 18.00.00.00	2013CY EOY Part 1 & Part 2 Update
2014CY-2014MY Final Update	12/18/14	18.00.00.00	No changes since 12/16/13 update.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
2014 MODEL YEAR
CERTIFICATE OF CONFORMITY
WITH THE CLEAN AIR ACT OF 1990

OFFICE OF TRANSPORTATION AND AIR QUALITY
ANN ARBOR, MICHIGAN 48105

Certificate Issued To: **Ford Motor Company** (U.S. Manufacturer or Importer) **Certificate Number:** **EFMXD06.771C-039**	**Effective Date:** 07/02/2013 **Expiration Date:** 12/31/2014	**Byron J. Bunker, Division Director** **Compliance Division**	**Issue Date:** 07/02/2013 **Revision Date:** N/A

Test Group Name: EFMXD06.771C	**Engine Displacement:** 6.7 Liters
Evaporative/Refueling Family Name:	**Exhaust Emission Test Fuel Type:** Federal Cert Diesel 7-15 PPM Sulfur
Applicable Exhaust Emission Standards: HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	**Full Useful Life Miles: Exhaust Emissions:** 120,000 miles
Applicable Evaporative/Refueling Standards:	**Full Useful Life Miles: Evaporative/Refueling Emissions:** N/A

Models Covered: Ford: F350 2WD BED DELETE DIESEL, F350 2WD DIESEL, F350 4WD BED DELETE DIESEL, F350 4WD DIESEL, F450 4X4 PICKUP DIESEL

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

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

This certificate covers only those new motor vehicles or vehicle engines which conform, in all material respects, to the design specifications that apply to those vehicles or engines described in the documentation required by 40 CFR Parts 85, 86, 88, 1037, and 600 as applicable and which are produced during the 2014 model year production period stated on this certificate of the said manufacturer, as defined in 40 CFR Parts 85, 86, 88, 1037, and 600 as applicable. The manufacturer shall obtain the approval of the California Air Resources Board (in the form of an executive order issued by the California Air Resources Board) prior to introducing any vehicle covered by this certificate into commerce 1) in the State of California, or 2) in a State that, under the authority of Section 177 of the Clean Air Act, has adopted and placed into effect the California standards to which this test group has been certified.

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

In the case of completely assembled vehicles, this certificate of conformity covers only vehicles which are completely manufactured prior to January 1, 2015. Normally incompletely assembled vehicles (such as cab chassis) may be completed after this date, provided that the basic manufacturing (including installation of the emission control system) was completed prior to January 1, 2015. This certificate does not cover vehicles sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code (HSC), Div. 26, Part 5, Chap. 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 & 39516 and Executive Order G-02-003;

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

MODEL YEAR	TEST GROUP	VEHICLE TYPE	EXHAUST EMISSION STANDARD CATEGORY	USEFUL LIFE (miles)		FUEL TYPE
				EXH / ORVR	EVAP	
2014	EFMXD06.771C	MDV: 10001-14000# GVW	"LEV II" Ultra Low Emission Vehicle (LEV II ULEV)	120K	*	Diesel

No.	ECS & SPECIAL FEATURES	EVAPORATIVE FAMILY (EVAF)	DISPLACEMENT (L)
1	OC, SCR-U, PTOX, NOXS, DFI, EGR, EGRC, TC, CAC, OBD(P)	*	6.7
*	*	*	

See the Attachment for Vehicle Models, Evaporative Family, Engine Displacement, Emission Control Systems, Phase-In Standards, OBD Compliance, Emission Standards and Certification Levels, and Abbreviations.

BE IT FURTHER RESOLVED:
That the exhaust and the evaporative emission standards and the certification emission levels for the listed vehicles are as listed on the Attachment. Compliance with the 50^0 Fahrenheit testing requirement may have been met based on the manufacturer's submitted compliance plan in lieu of testing. Any debit in the manufacturer's "NMOG or NMOG+NOx, as applicable, Fleet Average" (PC or LDT or MDPV) or "Vehicle Equivalent Credit" (MDV) compliance plan shall be equalized as required.

BE IT FURTHER RESOLVED:
That for the listed vehicle models, the manufacturer has attested to compliance with Title 13, California Code of Regulations, (13 CCR) Sections 1965 [emission control labels], 1968.2 [on-board diagnostic, full or partial compliance], 2035 et seq. [emission control warranty], 2235 [fuel tank fill pipes and openings] (gasoline and alcohol fueled vehicles only), and "High-Altitude Requirements" and "Inspection and Maintenance Emission Standards" (California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model PC, LDT and MDV).

BE IT FURTHER RESOLVED:
The test group listed in this Executive Order is certified conditionally on the manufacturer providing data to demonstrate compliance with California's greenhouse gas fleet average emission standard (CA GHG Standard) specified in Title 13, California Code of Regulations, (13 CCR) Section 1961.1 and the incorporated California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, amended March 29, 2010 (CA Test Procedures). The manufacturer has elected, under 13 CCR Section 1961.1(a)(1)(A)(ii) and under Section E.2.5.1(ii) of the CA Test Procedures, to demonstrate compliance with the CA GHG Standard by demonstrating compliance with the National greenhouse gas program (National GHG Program). Therefore, the test group listed in this Executive Order is certified conditionally further on the manufacturer complying with the requirements specified in said provisions in 13 CCR, and Sections E.2.5.1(ii) and H.4.5(b) and H.4.5(c) of the CA Test Procedures (among other things, concerning data and information submission, timing, and format as specified by the Executive Officer). Failure to comply with the certification requirements to demonstrate compliance with CA GHG Standard by demonstrating compliance with the National GHG Program under said provisions in 13 CCR and CA Test Procedures may be cause for the Executive Officer to revoke the Executive Order. Vehicles in the revoked Executive Order shall be deemed uncertified and subject to penalties authorized under California law. Notwithstanding the requirement herein, a manufacturer that becomes, after MY2009, a large-volume manufacturer, as defined in 13 CCR Section 1900, is not required to comply with the CA GHG Standard until the beginning of the fourth model-year from becoming a large-volume manufacturer. Additionally, notwithstanding the requirement herein, a small-volume manufacturer, independent low-volume manufacturer, or intermediate volume-manufacturer, as defined in 13 CCR Section 1900, is not required to comply with CA GHG Standard during model-years (MY) 2012 through 2015.

BE IT FURTHER RESOLVED:
That the vehicle models are conditionally certified in accordance with 13 CCR Section 1968.2(k) (deficiency and fines provisions for certification of malfunction and diagnostic system) because the on-board diagnostic II system of the listed vehicle models has been determined to have three deficiencies. The listed vehicle models are approved subject to the manufacturer paying a fine of twenty-five dollars ($25) per vehicle for the third deficiency in the listed test group that is produced and delivered for sale in California.

On a quarterly basis, the manufacturer shall submit to the Air Resources Board reports of the number of vehicles produced and delivered for sale in California and pay the full fine owed for that quarter pursuant to this conditional certification. Payment shall be made payable to the State Treasurer for deposit in the Air Pollution Control Fund no later than thirty (30) days after the end of each calendar quarter during the 2014 model-year production period. Failure to pay the quarterly fine, in full, in the time provided, may be cause for the Executive Officer to rescind this conditional certification, effective from the start of the quarter in question, in which case all vehicles covered under this conditional certification for that

quarter and all future quarters would be deemed uncertified and subject to a civil penalty of up to $5000 per vehicle pursuant to HSC Section 43154.

Vehicles certified under this Executive Order shall conform to all applicable California emission regulations.
The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this 3rd day of July 2013.

For Erik White, Chief
Mobile Source Operations Division

ATTACHMENT

EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

(For bi-, dual- or flexible-fueled vehicles, the STD and CERT in parentheses are those applicable to testing on gasoline test fuel.)

NMOG FLEET AVERAGE [g/mi]		NMOG @ RAF=* CH4 RAF = *		NMOG or NMHC STD [g/mi]	CH4=methane, NMOG=non-CH4 organic gas, NMHC=non-CH4 hydrocarbon, CO=carbon monoxide, NOx=oxides of nitrogen, HCHO=formaldehyde, PM=particulate matter, RAF=reactivity adjustment factor, 2/3 D [g/test]=2/3 day diurnal+hot-soak; RL [g/mi]=running loss; ORVR [g/gallon dispensed]=on-board refueling vapor recovery, g=gram, mg=milligram mi=mile, K=1000 miles; F=degrees Fahrenheit; SFTP=supplemental federal test procedure											
CERT	STD	NMOG CERT [g/mi]	NMHC CERT [g/mi]		CO [g/mi]		NOx [g/mi]		HCHO [mg/mi]		PM [g/mi]		Hwy NOx [g/mi]	
*	*				CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
	@ 50K	*	*	*	*	*	*	*	*	*	*	*	*	*
	@ UL	*	0.089	0.167	0.9	7.3	0.3	0.4	6.3	21.	0.02	0.06	0.1	0.8
	@ 50°F & 4K	*	*	*	*	*	*	*	*	*	*	*	*	*

CO [g/mi] @ 20°F & 50K			NMHC+NOx [g/mi] (composite)		CO [g/mi] (composite)		NMHC+NOx [g/mi] [US06]		CO [g/mi] [US06]		NMHC+NOx [g/mi] [SC03]		CO [g/mi] [SC03]	
			CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
CERT	*	SFTP @ * miles	*	*	*	*	*	*	*	*	*	*	*	*
STD	*	SFTP @ * miles	*	*	*	*	*	*	*	*	*	*	*	*

Evaporative Family	3-Days Diurnal + Hot Soak (grams/test) @ UL		2-Days Diurnal + Hot Soak (grams/test) @ UL		Running Loss (grams/mile) @ UL		On-Board Refueling Vapor Recovery (grams/gallon) @ UL	
	CERT	STD	CERT	STD	CERT	STD	CERT	STD
*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*

* =not applicable; **UL**=useful life; **PC**=passenger car; **LDT**=light-duty truck; **LDT1**=LDT≤6000#GVWR,0-3750#LVW; **LDT2**=LDT≤6000#GVWR,3751-5750#LVW; **LDT3**=LDT 6001-8500#GVWR,3751-5750#ALVW; **LDT4**=LDT 6001-8500#GVWR,5751-8500#ALVW; **MDV**=medium-duty vehicle; **MDV4**=MDV 8501-10000#GVWR; **MDV5**=MDV 10001-14000#GVWR; **ECS**= emission control system; **STD**= standard; **CERT**= certification; **LVW**=loaded vehicle weight; **ALVW**=adjusted LVW; **LEV**=low emission vehicle; **ULEV**=ultra LEV; **SULEV**=super ULEV; **TWC/OC**=3-way/oxidizing catalyst; **ADSTWC**=adsorbing TWC; **WU**=warm-up catalyst; **NAC**=NOx adsorption catalyst; **SCR-U or SCRC/SCR-N or SCRC-NH3**= selective catalytic reduction-urea/ammonia; **NH3OC**=ammonia oxidation catalyst; **CTOX/PTOX**= continuous/periodic trap oxidizer; **DPF** = Diesel Particulate Filter (active); **HO2S/O2S**=heated/oxygen sensor; **WR-HO2S or AFS**=Wide range/linear/heated air-fuel ratio sensor; **NOXS**= NOx sensor; **RDQS**=reductant quality sensor; **NH3S** = Ammonia sensor; **EGR**=exhaust gas recirculation; **EGRC**=EGR cooler; **AIR/AIRE**=secondary air injection (belt driven)/(electric driven); **PAIR**=pulsed AIR; **SFI/MFI**= sequential/ multiport fuel injection; **DFI**=direct fuel injection; **TC/SC**= turbo/super charger; **CAC**=charge air cooler; **OBD (F)/(P)(B)**=full/partial/both on-board diagnostic; **DOR**=direct ozone reducing; **HCT**=Hydrocarbon Trap; **BCAN**=bleed carbon canister; prefix **2**=parallel; **(2)** suffix=series; **CNG/LNG**= compressed/liquefied natural gas; **LPG**=liquefied petroleum gas; **E85**="85%" Ethanol ("15%"gasoline) Fuel;

2014 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	EVAPORATIVE FAMILY	ECS NO.	ENGINE SIZE (L)	VEHICLE TYPE	SPECIAL FEATURES	OBD II
FORD	F350 2WD BED DELETE DIESEL	*	1	6.7	MDV5	*	Partial
FORD	F350 2WD BED DELETE DIESEL DRW	*	1	6.7	MDV5	*	Partial
FORD	F350 4WD BED DELETE DIESEL	*	1	6.7	MDV5	*	Partial
FORD	F350 4WD BED DELETE DIESEL DRW	*	1	6.7	MDV5	*	Partial
FORD	F350 PICKUP 2WD DIESEL	*	1	6.7	MDV5	*	Partial
FORD	F350 PICKUP 2WD DIESEL DRW	*	1	6.7	MDV5	*	Partial
FORD	F350 PICKUP 4WD DIESEL	*	1	6.7	MDV5	*	Partial
FORD	F350 PICKUP 4WD DIESEL DRW	*	1	6.7	MDV5	*	Partial
FORD	F450 PICKUP 4WD DIESEL DRW	*	1	6.7	MDV5	*	Partial

Application for Certification

Part 2

Vehicle Homologation & Compliance
Safety, Environment, & Sustainability Engineering
Ford Motor Company

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

June 28, 2013

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

Dear Mr. Nevers:

Under the provisions of 40 CFR 86.1842-01, "Addition of a vehicle after certification; and changes to a vehicle covered by certification", Ford Motor Company is hereby notifying the EPA of our intention to introduce into production 2014 Model Year Running Change 01 for the EFMXD06.771C test group.

This running change introduces the following production calibration updates:

Old Calibration	New Calibration
EFA17C0506	EFA17C0507
EFA17D0506	EFA17D0507

The EFA17(C/D)0507 ("R07") calibration change includes engine, transmission, and OBD-II changes.

This calibration includes the following engine calibration related changes:

- A change to the EGR rate temperature modifiers for EOM3 (Engine Operating Mode 3 – SCR Fast Light-Off strategy)-Base 1 and Base 2 to align with the EOM0 modifiers.
- Increased SCR heat function targeting temperature of 5 degrees C to recover NOx emissions robustness due to the new EOM3-Base 1 calibration.
- A change to the EOM3-Base 1 EGR rate reductions in 4 speed & load operating points and an EOM3-Base 1 air mass setpoint increase as a robustness actions to prevent engine misfires at specific engine operating speeds.
- A second pilot injection added to the 1600 RPM & 0-500 Nm and 1200-1400 RPM & 400 Nm areas in EOM3-Base 1 operation for combustion stability robustness improvements.
- An improved EOM3-Base 1 torque match to align with EOM0-Base 1 drivability.
- An EOM3 entry and exit temperature increase to recover NOx emissions robustness due to new EOM3-Base 1 operation.
- Removal of extended fuel injector charge mode operation at fuel rail pressures below 600 bar to improve low speed & light load drivability.
- A new fuel injector energization time map required in conjunction with a removal of the extended fuel injector charge mode (see point above).
- Fuel injector adaptation modification (ZFC-Zero Fuel Correction calibration) and continuous torque monitoring to match the new injector energization map (see point above).
- A change to the passive regeneration model to prevent the DPF leakage monitor (P2002) from running in conditions where significant passive regeneration may be present.

This calibration includes engine OBD-II changes including:

- New logic to allow for faster healing of SCR system tampering faults.
- New logic to heat the DEF injector and melt urea crystals when a stuck DEF injector (P208E) is detected by holding injector charged (open) for 3 minutes before the urea system is pressurized.
- A change to monitor for inability to build pressure in the high pressure fuel rail during engine cranking (P2291) to a 2-trip MIL per December, 2012 ARB direction (faults that prevent the vehicle from starting must be monitored).
- Changes to continuous torque monitors (P061A) required by base changes to the fuel injector energizing time map.

Transmission calibration changes were made to address shift quality and inadvertent shifts or shift busyness caused by operator "change of mind" inputs. There were no transmission OBD-II changes made in this calibration.

Development testing confirmed that emissions are unchanged with this calibration change.

Please contact Mr. Travis Henney (313-399-7256, thenney@ford.com) of my staff if you have any questions concerning this matter.

Sincerely,

Neil Whitbeck, Specialty Manager
Certification Operations and Applications
Car and Truck Certification

Attachment

Vehicle Homologation & Compliance
Safety, Environment, & Sustainability Engineering
Ford Motor Company

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

June 28, 2013

Mr. Erik White, Chief
Mobile Source Operations Division
Haagen-Smit Laboratory
P. O. Box 8001
9528 Telstar Avenue
El Monte, California 91734-8001

Dear Mr. White:

Under the provisions of 40 CFR 86.1842-01, "Addition of a vehicle after certification; and changes to a vehicle covered by certification", Ford Motor Company is hereby notifying the ARB of our intention to introduce into production 2014 Model Year Running Change 01 for the EFMXD06.771C test group.

This running change introduces the following production calibration updates:

Old Calibration	New Calibration
EFA17C0506	EFA17C0507
EFA17D0506	EFA17D0507

The EFA17(C/D)0507 ("R07") calibration change includes engine, transmission, and OBD-II changes.

This calibration includes the following engine calibration related changes:

- A change to the EGR rate temperature modifiers for EOM3 (Engine Operating Mode 3 – SCR Fast Light-Off strategy)-Base 1 and Base 2 to align with the EOM0 modifiers.
- Increased SCR heat function targeting temperature of 5 degrees C to recover NOx emissions robustness due to the new EOM3-Base 1 calibration.
- A change to the EOM3-Base 1 EGR rate reductions in 4 speed & load operating points and an EOM3-Base 1 air mass setpoint increase as a robustness actions to prevent engine misfires at specific engine operating speeds.
- A second pilot injection added to the 1600 RPM & 0-500 Nm and 1200-1400 RPM & 400 Nm areas in EOM3-Base 1 operation for combustion stability robustness improvements.
- An improved EOM3-Base 1 torque match to align with EOM0-Base 1 drivability.
- An EOM3 entry and exit temperature increase to recover NOx emissions robustness due to new EOM3-Base 1 operation.
- Removal of extended fuel injector charge mode operation at fuel rail pressures below 600 bar to improve low speed & light load drivability.
- A new fuel injector energization time map required in conjunction with a removal of the extended fuel injector charge mode (see point above).
- Fuel injector adaptation modification (ZFC-Zero Fuel Correction calibration) and continuous torque monitoring to match the new injector energization map (see point above).
- A change to the passive regeneration model to prevent the DPF leakage monitor (P2002) from running in conditions where significant passive regeneration may be present.

This calibration includes engine OBD-II changes including:

- New logic to allow for faster healing of SCR system tampering faults.
- New logic to heat the DEF injector and melt urea crystals when a stuck DEF injector (P208E) is detected by holding injector charged (open) for 3 minutes before the urea system is pressurized.
- A change to monitor for inability to build pressure in the high pressure fuel rail during engine cranking (P2291) to a 2-trip MIL per December, 2012 ARB direction (faults that prevent the vehicle from starting must be monitored).
- Changes to continuous torque monitors (P061A) required by base changes to the fuel injector energizing time map.

Transmission calibration changes were made to address shift quality and inadvertent shifts or shift busyness caused by operator "change of mind" inputs. There were no transmission OBD-II changes made in this calibration.

Development testing confirmed that emissions are unchanged with this calibration change.

Please contact Mr. Travis Henney (313-399-7256, thenney@ford.com) of my staff if you have any questions concerning this matter.

Sincerely

Todd M. Fagerman, Manager
Car and Truck Certification
Certification Programs

cc: Depinder Paul

Vehicle Homologation & Compliance
Safety, Environment, & Sustainability Engineering
Ford Motor Company

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

October 29, 2013

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

Dear Mr. Ball:

Under the provisions of 40 CFR 86.1842-01, "Addition of a vehicle after certification; and changes to a vehicle covered by certification", Ford Motor Company is hereby notifying the EPA of our intention to introduce into production 2014 Model Year Running Change 02 for the EFMXD06.771C test group.

This running change introduces the following production calibration updates:

Old Calibration	New Calibration
EFA17C0507	EFA17C0510
EFA17D0507	EFA17D0510

The EFA17(C/D)0510 ("R10") calibration change includes engine, transmission, engine OBD-II, and transmission OBD-II changes.

This calibration includes the following engine calibration related changes:

- Engine Operating Mode 3 (EOM3) post fuel injection modifications to improve torque matching.
- Cold start warm-up torque matching improvements.
- Engine timing and EGR scheduling changes to improve engine-out particulate matter production at high altitude conditions.
- Ramping out of humidity correction (HUMCOR) and SCR heat (SCRHt) strategies at high altitude conditions.

This calibration includes engine OBD-II changes including:

- Disablement of SCR heat maintenance monitor (P22FF) during PTO operation below 150 Nm to prevent false MILs.
- Correction of limit speed to 5 mph in final stage of low DEF inducement chain.
- Torque monitor (P061A) changes as a result of the engine calibration actions above.

Transmission calibration changes were made to address shift quality issues. There were no changes made to transmission shift scheduling or torque converter lock scheduling. Engine coolant temperature minimum value and ECU thermostat monitor temperatures were commonized for Transmission OBD-II.

Development testing confirmed that emissions are unchanged with this calibration change. Additionally, for the high altitude changes described, there were offsetting calibration changes made for improved NOx performance.

Please contact Mr. Travis Henney (313-399-7256, thenney@ford.com) of my staff if you have any questions concerning this matter.

Sincerely,

Neil Whitbeck, Specialty Manager
Certification Operations and Applications
Car and Truck Certification

Attachment

Vehicle Homologation & Compliance
Safety, Environment, & Sustainability Engineering
Ford Motor Company

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

October 29, 2013

Mr. Erik White, Chief
Mobile Source Operations Division
Haagen-Smit Laboratory
P. O. Box 8001
9528 Telstar Avenue
El Monte, California 91734-8001

Dear Mr. White:

Under the provisions of 40 CFR 86.1842-01, "Addition of a vehicle after certification; and changes to a vehicle covered by certification", Ford Motor Company is hereby notifying the ARB of our intention to introduce into production 2014 Model Year Running Change 02 for the EFMXD06.771C test group.

This running change introduces the following production calibration updates:

Old Calibration	New Calibration
EFA17C0507	EFA17C0510
EFA17D0507	EFA17D0510

The EFA17(C/D)0510 ("R10") calibration change includes engine, transmission, engine OBD-II, and transmission OBD-II changes.

This calibration includes the following engine calibration related changes:

- Engine Operating Mode 3 (EOM3) post fuel injection modifications to improve torque matching.
- Cold start warm-up torque matching improvements.
- Engine timing and EGR scheduling changes to improve engine-out particulate matter production at high altitude conditions.
- Ramping out of humidity correction (HUMCOR) and SCR heat (SCRHt) strategies at high altitude conditions.

This calibration includes engine OBD-II changes including:

- Disablement of SCR heat maintenance monitor (P22FF) during PTO operation below 150 Nm to prevent false MILs.
- Correction of limit speed to 5 mph in final stage of low DEF inducement chain.
- Torque monitor (P061A) changes as a result of the engine calibration actions above.

Transmission calibration changes were made to address shift quality issues. There were no changes made to transmission shift scheduling or torque converter lock scheduling. Engine coolant temperature minimum value and ECU thermostat monitor temperatures were commonized for Transmission OBD-II.

Development testing confirmed that emissions are unchanged with this calibration change. Additionally, for the high altitude changes described, there were offsetting calibration changes made for improved NOx performance.

Please contact Mr. Travis Henney (313-399-7256, thenney@ford.com) of my staff if you have any questions concerning this matter.

Sincerely

Todd M. Fagerman, Manager
Car and Truck Certification
Certification Programs

cc: Depinder Paul