Application for Certification

Part 1

FORD MOTOR COMPANY

APPLICATION FOR CERTIFICATION – PART I

2012 MODEL YEAR

Durability Group: CFMXDPDNNF1A

Evaporative Family: N/A

Test Group: CFMXD06.771C

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:

BFA1-6.7-J-005 Config. 1: (FTP TN: BFMX10011537, HWY TN: BFMX10011538)

Release Date: September 1, 2011

For Questions, Contact:
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(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

SECTION 4

Durability Procedure Description

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

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)

Certification Summary Information Report

Manufacturer	Ford Motor Company	**Manufacturer Code**	FMX
Test Group	CFMXD06.771C	**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**	04/21/2011
Model Year	2012		

Test Group Information

CSI Type	New	**Running Change Reference Number**	N/A
Drive Source	Combustion Engine	**EPA Vehicle Class**	M7, 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	CFMXDPDNNF1A	**Durability Group Equivalency Factor**	1.0
Fuel Category	Single Fuel	**Fuel 1 / Fuel 2**	Diesel
Reduced Fee Test Group	No	**Certification Region Code(s)**	FA, CA
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
SFTP SC03 Test Number	--	**SFTP US06 Test Number**	--
SFTP FTP Test Number	--		
OBD Compliance Type	CARB	**OBD Demo Vehicle Test Group**	CFMXD06.761A
Mfr Test Group Comments	F-Series Super-Duty 10,001-14K		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	CFMXD06.771C	**Evaporative/Refueling Family**	N/A

Models Covered by this Certificate

Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	Trans - # of Gears	Trans - Lockup	Trans - Creeper Gear
Ford Motor Company	1 - Ford Division	350 - F450 4X4 PICKUP DIESEL	CA	P	SA	6	Yes	No
Ford Motor Company	1 - Ford Division	392 - F350 4WD DIESEL	FA	P	SA	6	Yes	No
Ford Motor Company	1 - Ford Division	326 - F350 2WD BED DELETE DIESEL	FA	R	SA	6	Yes	No
Ford Motor Company	1 - Ford Division	392 - F350 4WD DIESEL	CA	P	SA	6	Yes	No
Ford Motor Company	1 - Ford Division	327 - F350 4WD BED DELETE DIESEL	CA	P	SA	6	Yes	No
Ford Motor Company	1 - Ford Division	350 - F450 4X4 PICKUP DIESEL	FA	P	SA	6	Yes	No
Ford Motor Company	1 - Ford Division	390 - F350 2WD DIESEL	FA	R	SA	6	Yes	No
Ford Motor Company	1 - Ford Division	326 - F350 2WD BED DELETE DIESEL	CA	R	SA	6	Yes	No
Ford Motor Company	1 - Ford Division	327 - F350 4WD BED DELETE DIESEL	FA	P	SA	6	Yes	No
Ford Motor Company	1 - Ford Division	390 - F350 2WD DIESEL	CA	R	SA	6	Yes	No

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**	--
Basic Fuel Metering Systems(s)	Direct Diesel Injection,	**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	Copper-Zeolite	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	CFMXD06.771C	**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
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	--		

Certification Summary Information Report

Test Group	CFMXD06.771C	**Evaporative/Refueling Family**	N/A

Emission Data Vehicle Information

Vehicle ID / Configuration	BFA1-6.7-J-005 / 1		
Transmission Type	Semi-Automatic	**# of Transmission Gears**	6
Engine Code	BFA17C0531	**Axle Ratio**	3.73
Fuel 1 / Fuel 2	Diesel / Not Applicable	**Vehicle Fuel Category**	Single Fuel
Displacement (liters)	6.7	**Rated Horsepower**	400
Equivalent Test Weight (pounds)	11500	**Air Aspiration Method**	Turbocharged
Test Drive Code	Part-time 4-Wheel Drive	**SIL Usage**	Not eqipped
Aged Emission Components	120,000 (mi)		

Dynamometer Coefficients:

	Target Coefficients			Set Coefficients		
	A (lbf)	**B (lbf/mph)**	**C (lbf/mph**2)**	**A (lbf)**	**B (lbf/mph)**	**C (lbf/mph**2)**
City/Highway/Evap	75.75	1.6865	0.05354	41.87	-0.19444	0.06752

Mfr Test Vehicle Comments

F-350 Crew Cab 4x4

Certification Summary Information Report

Test Group	CFMXD06.771C	**Evaporative/Refueling Family**	N/A
Test #	**BFMX10011537**	**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	09/10/2010	**Fuel**	Diesel
Vehicle Class	HDV2 (Federal HD chassis GVW 10001-14000), MDV7 (Cal. LEV2 MDV GVW 10001-14000)	**DF Type**	Mfr. Determined
Manufacturer Test Comments	Manufacturer's Confirmatory Test		

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NMHC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Federal HDV (10,001-14,000 GVWR)	CO	0.33	--	--	0.010000 UP	0.23	--	0.6	8.1	Pass
Fed	120,000 miles	Federal HDV (10,001-14,000 GVWR)	HC-NM	0.0226	--	--	0.000100 UP	0.0334	--	0.056	0.230	Pass
Fed	120,000 miles	Federal HDV (10,001-14,000 GVWR)	HCHO	0.0035	--	--	-0.000200 UP	0.0004	--	0.004	0.040	Pass
Fed	120,000 miles	Federal HDV (10,001-14,000 GVWR)	NOX	0.23	--	--	0.020000 UP	0.00	--	0.2	0.4	Pass
Fed	120,000 miles	Federal HDV (10,001-14,000 GVWR)	PM	0.003	--	--	0.000000 UP	0.007	--	0.01	0.02	Pass
CA	120,000 miles	California LEV-II ULEV	CO	0.33	--	--	0.010000 UP	0.23	--	0.6	7.3	Pass
CA	120,000 miles	California LEV-II ULEV	HCHO	0.0035	--	--	-0.000200 UP	0.0004	--	0.004	0.021	Pass
CA	120,000 miles	California LEV-II ULEV	NMOG	0.0226	--	1.00	0.000100 UP	0.0334	--	0.056	0.167	Pass
CA	120,000 miles	California LEV-II ULEV	NOX	0.23	--	--	0.020000 UP	0.00	--	0.2	0.4	Pass
CA	120,000 miles	California LEV-II ULEV	PM	0.003	--	--	0.000000 UP	0.007	--	0.01	0.06	Pass

Certification Summary Information Report

Test Group	CFMXD06.771C	**Evaporative/Refueling Family**	N/A

Test #	**BFMX10011538**	**Test Procedure**	**3 - HWFE**
Exhaust Test # for this Evap Test	N/A	**Test Fuel Type**	19 - Cert Diesel 7-15 ppm Sulfur
Test Date	09/10/2010	**Fuel**	Diesel
Vehicle Class	MDV7 (Cal. LEV2 MDV GVW 10001-14000)	**DF Type**	Mfr. Determined
Manufacturer Test Comments	Manufacturer's Confirmatory Test		

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NMHC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
CA	120,000 miles	California LEV-II ULEV	NOX	0.01	--	--	0.020000 UP	0.00	--	0.0	0.8	Pass

Certification Summary Information Report

Test Group	CFMXD06.771C	**Evaporative/Refueling Family**	N/A

Consolidated List of Standards

Exhaust Standards

Cert Region	Federal	**Cert/In-Use Code**	Cert
Vehicle Class	HDV2 (Federal HD chassis GVW 10001-14000)	**Standard Level**	Federal HDV (10,001-14,000 GVWR)
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	-0.080000	--	0.23	8.1
120,000 miles	HC-NM	--	--	--	0.000100	-0.001800	--	0.0334	0.230
120,000 miles	HCHO	--	--	--	-0.000200	0.002800	--	0.0004	0.040
120,000 miles	NOX	--	--	--	0.020000	-0.310000	--	0.00	0.4
120,000 miles	PM	--	--	--	0.000000	-0.006000	--	0.007	0.02

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Cert
Vehicle Class	MDV7 (Cal. LEV2 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	-0.080000	--	0.23	7.3
120,000 miles	HCHO	--	--	--	-0.000200	0.002800	--	0.0004	0.021
120,000 miles	NMOG	--	--	1.00	0.000100	-0.001800	--	0.0334	0.167
120,000 miles	NOX	--	--	--	0.020000	-0.310000	--	0.00	0.4
120,000 miles	PM	--	--	--	0.000000	-0.006000	--	0.007	0.06

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Cert
Vehicle Class	MDV7 (Cal. LEV2 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	--	--	--	0.020000	-0.310000	--	0.00	0.8

Certification Summary Information Report

Test Group	CFMXD06.771C	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	HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides
CO	Carbon Monoxide	CO-COMP	SFTP Composite Carbon Monoxide
CO2	Carbon dioxide	ETHANOL	Ethanol
NOX	Nitrogen Oxide	FE BAG 1	Bag 1 Fuel Economy
PM	Particulate Matter	FE BAG 2	Bag 2 Fuel Economy
PM-COMP	SFTP Composite Particulate Matter	FE BAG 3	Bag 3 Fuel Economy
HC-NM	Non-methane Hydrocarbon	FE BAG 4	Bag 4 Fuel Economy
OMHCE	Organic material Hydrocarbon Equivalent	MFR FE	Manufacturer Fuel Economy
OMNMHCE	Organic material non-methane HC equivalent	SPITBACK	Spitback
NMOG	Non-methane organic gas (California)	HC	HC
HCHO	Formaldehyde	METHANE	Methane
H3C2HO	Acetaldehyde	METHANOL	Methanol
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03		

Certification Region

CA	California + CAA Section 177 states	FA	Federal

Exhaust Emission Standard Level

B1	Federal Tier 2 Bin 1	B11	Federal Tier 2 Bin 11
B2	Federal Tier 2 Bin 2	HDV1	Federal HDV (8500-10,000 GVWR)
B3	Federal Tier 2 Bin 3	HDV2	Federal HDV (10,001-14,000 GVWR)
B4	Federal Tier 2 Bin 4	L2	California LEV-II LEV
B5	Federal Tier 2 Bin 5	L2OP	California LEV-II LEV Optional
B6	Federal Tier 2 Bin 6	U2	California LEV-II ULEV
B7	Federal Tier 2 Bin 7	S2	California LEV-II SULEV
B8	Federal Tier 2 Bin 8	ZEV	California ZEV
B9	Federal Tier 2 Bin 9	OT	Other
B10	Federal Tier 2 Bin 10		

Transmission Type Code

A	Automatic	M	Manual
AM	Automated Manual	OT	Other
CVT	Continuously Variable	SA	Semi-Automatic

Drive System Code

Certification Summary Information Report

Test Group	CFMXD06.771C	**Evaporative/Refueling Family**	N/A
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.

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.

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

Vehicle Program (Example: Program)

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)	no VCT
Cam Phase – Computer Controlled	
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

HEV/ZEV General Information	Not Apllicable
HEV Class	
Energy Storage Device Category	
Battery Type:	
Number of Batteries:	
Total Weight of Batteries (kg):	
Total Battery Pack(s) Voltage:	
Battery Pack(s) Energy Capacity using C3 procedure (Ah)	
Complete Battery Pack(s) Specific Energy (Whr/kg):	
Battery Charger Type	
Number of Capacitors	
Capacitor Rating (Farads)	
HEV Electric Drive System Peak Power	
HEV Traction Drive System Voltage (V):	
HEV Traction Drive Boost:	
HEV Idle Start/Stop:	
Regenerative Braking Type	
Regenerative Braking Source	
Driver Controlled Regenerative Braking	
Number of Drive Motor/Generators	
Motor/Generator Type	
Rated Motor/Generator Power	
Fuel Cell Description	
Fuel Cell On-Board H2 Storage	
Usable H2 Fill Capacity	

* - VECI Label Content

Test Group: CFMXD06.771C
Issued: 4/14/2011
Revised:

Exhaust Calibration	Application	Transmission	Leak Check	Vehicle
CFA17C0505	50s	6R140	na	P473 F350 SRW
CFA17D0505	50s	6R140	n/a	P473 F450 Lite
CFA17E0505	50s	6R140	na	P473 F350 DRW

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: 85ºC (1) Start to Open: 95ºC (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.

2012 MY 6.7L P473
Chassis Dynamometer Exhaust Emissions Parts List
OVER 10K

Engine Family(ies)	Certification Level	Calibration(s)	w/PCM	Assembly Part #	TCM
CFMXD06.771C	Initial Cert.	CFA17C0505	(P473)	CC3A–12A650–DB	CC3A-12B565-AA
	Initial Cert.	CFA17D0505	(P473)	CC3A–12A650–EB	CC3A-12B565-CA
	Initial Cert.	CFA17E0505	(P473)	CC3A–12A650–AFB	CC34-12B565-BA

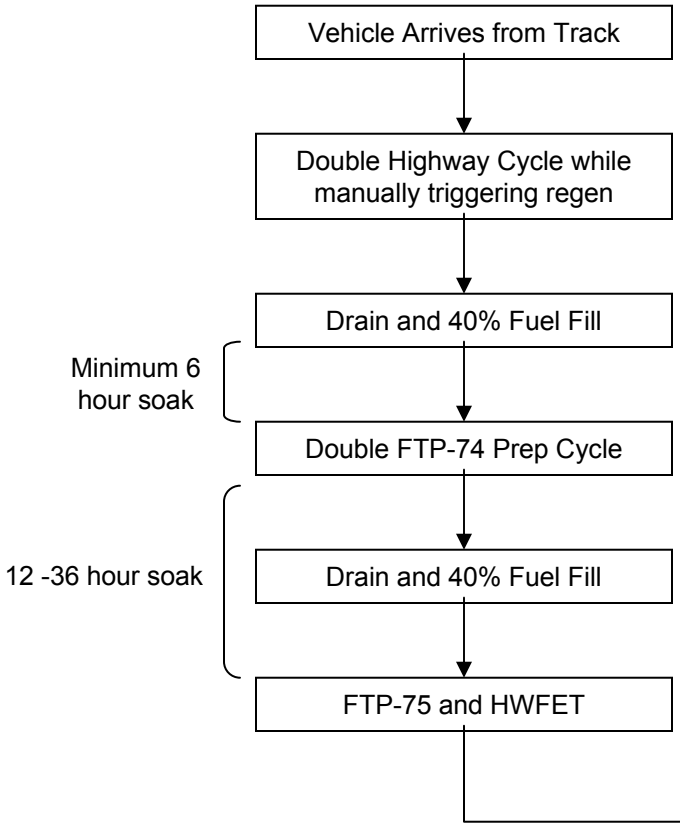
---------- All Other Exhaust Emission Parts ---------

Part Name (Quantity if more than 1)	Part Number
Catalyst (DPF Assembly)	BC34 – 5H240 –CB
Catalyst (DPF Assembly)	BC34 – 5H240 –CA (alt)
Catalyst (DPF Assembly)	BC34 – 5H240 –AE (alt)
Catalyst (DPF Assembly)	BC34 – 5H240 –AD (alt)
Fuel Pump Assembly	BC3Q – 9B395 – CB
Camshaft Position Sensor	BC3Q - 12K073 - AA
Crankshaft Position Sensor	BC3Q - 6C315 - CA
CCV Valve	BC3Q – 6A785 – AD
EGR Valve Assy	BC3Q – 9D475 – CF
EGR Vacuum Reg	BC3Q – 9F454 – CA
EGR Pressure Sensor (DPFE)	8C34 – 9J460 – AA
EGR Cooler Bypass Valve	BC3Q - 9U433 – AG
EGR Coolant Temp. Sensor	BC3A – 12B591 - BB
Fuel Injector (8)	BC3Q - 9K546 – AD
Volume (fuel) Control Valve	BC3Q – 9J307 – AA
Fuel Temperature Sensor	BC3Q – 9F951 – AA
Fuel Rail Pressure Sensor	BC3Q – 9F838 – AA
Pedal Position Sensor Assembly (ETC) (Fixed)	BC3A – 9F836 – DB
Mass Air Flow/Intake Air Temperature Sensor	BR31 - 12B579 - AA
Nox Sensor	BC3A – 5J299 – FB
Nox Sensor	BC3A – 5J299 – EC (alt)
Nox Sensor	BC3A – 5J299 – EB (alt)
Nox Sensor	BC3A – 5J299 – EA (alt)
Nox Control Module	BC3A – 5K202 – BD
Nox Control Module	BC3A – 5K202 – BC (alt)
Nox Control Module	BC3A – 5K202 – BB (alt)
Electric Throttle Body	BC3Q – 9F991 – DA
Fuel Rail Pressure Regulator Valve	BC3Q – 9C968 – AA
Mech Vacuum Pump	BC3Q – 2A451 – DC
Exhaust Manifold Pressure Sensor	BC3A – 5H295 – AF
Urea Injector	AL3E – 5J281 – AB
Urea Heated Resv.	BC34 – 5J225 – BD
Urea Supply Module (1)	BC34 – 5J229 – EA
Var. Geo. Turbo Charge Control (VGTC)	BC3Q – 6F089 – AA
Var. Geometry Turbocharger (VGT)	BC3Q – 9G438 – AG
Glow Plug	BC3Q – 6M090 – BB
Glow Plug Control Mod.	BC3A – 12B533 – AD
Glow Plug Control Mod.	BC3A – 12B533 – AC (alt)
Intake Manifold Pressure Sensor (MAP)	BC3Q – 9F479 – AC
Engine Coolant Temp. Sensor (ECT)	3F1A – 12A648 – AA
Ambient Temp. Sensor	AU5T – 12A647 – AC
Ambient Temp. Sensor	AE53 – 12A647 – AA (alt)

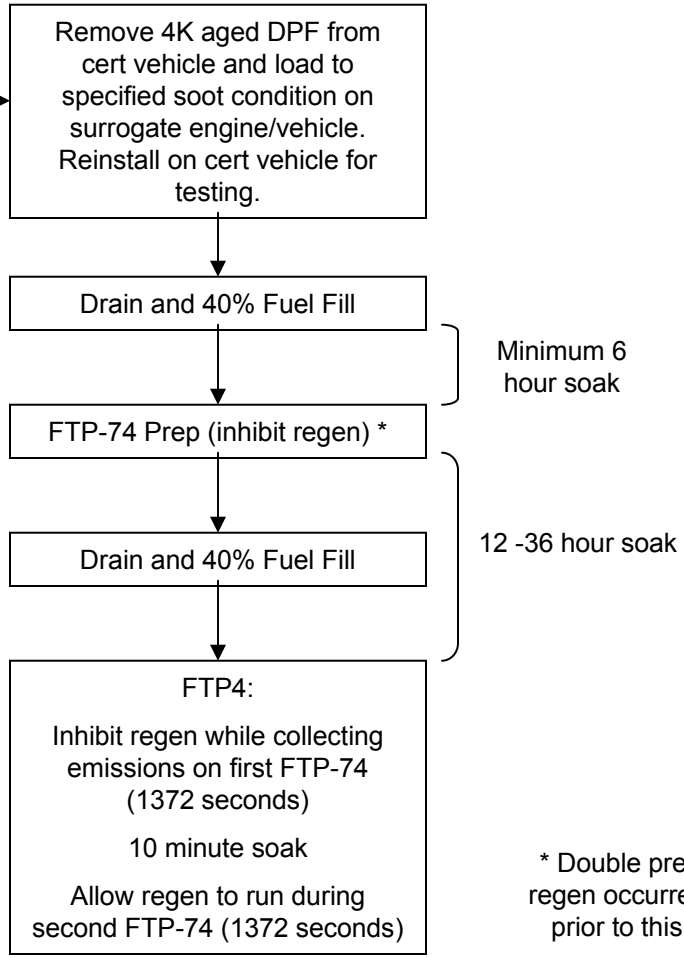
Special Test Procedures

4K Diesel Testing Overview

Base Emission Testing ("Clean DPF")



Regen Emission Testing ("Full DPF")



* Double prep if a regen occurred just prior to this test

Test Group: CFMXD06.761A

Issued: 4/26/2011

Revised:

2012 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	BFA17C0503
Fuel Tank Code	TY	TS
Catalyst Code	*	*
Exhaust Control System	TC/DDI/CAC/EGR-C/OC PTOX/SCR-U	TC/DDI/CAC/EGR-C/OC PTOX/SCR-U
Model	F350 4x4 DRW	F-350 4x4 Crew Cab DRW (simulating F-350 4x4 Box Delete DRW)
Transmission	Auto-6	Auto-6
Shift Schedule	NA	NA
Equivalent Test Weight	11000 lbs	11500 lbs
THP/DPA	f_0=95.06, f_1=0.9925 f_2=0.04805	f_0=75.75, f_1=1.6865 f_2=0.05354
Axle Ratio	4.30	3.73
N/V Ratio - RPM/MPH		27.8
Tires	LT245/75R17	LT245/75R17

ACTUAL TEST VEHICLES

Model Year	2011	2011
Engine Family	BFMXD06.771C	BFMXD06.771C
Vehicle ID No	BFA1-6.7-888	BFA1-6.7-J-005
Configuration Number		1

* See Section 16

Vehicle Description Report

Application: 50 ST

Test Group: CFMXD06.771C

ID Number	5138502	5138501	5138483	5138482	5138518	5138520	5138476	5138478
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505
Fuel Tank(s)	TS	TS	TY	TY	TS	TS	TY	TY
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	Sngl RW
Body Style	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB BOX DELETE	CREW CAB BOX DELETE	REGULAR CAB	REGULAR CAB
Wheelbase	Long	Long	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	4X2	4X2	4X2	4X2	4X2	4X2	4X2	4X2
Curb Weight	7463	7463	7273	7273	8716	8716	6743	6743
LVW - ETW	8000	8000	7500	7500	9000	9000	7000	7000
Loaded Weight	7763	7763	7573	7573	9016	9016	7043	7043
ALVW - ETW	9500	9500	9000	9500	10000	10000	8500	9000
Adj. Loaded Weight	9282	9482	9036	9336	9908	10108	8622	8872
GVWR	11100	11500	10800	11400	11100	11500	10500	11000
Min Axle Ratio	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31
Max Axle Ratio	3.55	3.55	3.55	3.55	3.55	3.55	3.55	3.55
Min N/V Ratio	24.5	24.2	24.5	24.2	24.5	24.2	24.5	24.2
Max N/V Ratio	26.4	25.9	26.4	25.9	26.4	25.9	26.4	25.9
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	LT245/75R17	LT275/65R18	LT245/75R17	LT275/65R18	LT245/75R17	LT275/65R18
Max Tire Size	LT265/70R17	LT275/65R18	LT265/70R17	LT275/65R18	LT265/70R17	LT275/65R18	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: CFMXD06.771C

ID Number	5138509	5138510	5138487	5138489	5138484	5138485	5138515	5138516
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505
Fuel Tank(s)	TY	TY	TS	TS	TY	TY	TS	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	Sngl RW
Body Style	REGULAR CAB BOX DELE	REGULAR CAB BOX DELE	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB BOX DELETE	SUPER CAB BOX DELETE
Wheelbase	Long	Long	Long	Long	Short	Short	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	7996	7996	7236	7236	7102	7102	8489	8489
LVW - ETW	8500	8500	7500	7500	7500	7500	9000	9000
Loaded Weight	8296	8296	7536	7536	7402	7402	8789	8789
ALVW - ETW	9000	9500	9000	9500	9000	9000	9500	10000
Adj. Loaded Weight	9248	9498	9018	9368	8901	9051	9644	9994
GVWR	10500	11000	10800	11500	10700	11000	10800	11500
Min Axle Ratio	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31
Max Axle Ratio	3.55	3.55	3.55	3.55	3.55	3.55	3.55	3.55
Min N/V Ratio	24.5	24.2	24.5	24.2	24.5	24.2	24.5	24.2
Max N/V Ratio	26.4	25.9	26.4	25.9	26.4	25.9	26.4	25.9
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	LT245/75R17	LT275/65R18	LT245/75R17	LT275/65R18	LT245/75R17	LT275/65R18
Max Tire Size	LT265/70R17	LT275/65R18	LT265/70R17	LT275/65R18	LT265/70R17	LT275/65R18	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: CFMXD06.771C

ID Number	5138508	5138529	5138500	5138527	5138507	5138528	5138438	5138439
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	CFA17E0505	CFA17E0505	CFA17E0505	CFA17E0505	CFA17E0505	CFA17E0505	CFA17C0505	CFA17C0505
Fuel Tank(s)	TS	TS	TY	TY	TS	TS	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Dual RW	Dual RW	Dual RW	Dual RW	Dual RW	Dual RW	Sngl RW	Sngl RW
Body Style	CREW CAB	CREW CAB BOX DELETE	REGULAR CAB	REGULAR CAB BOX DELE	SUPER CAB	SUPER CAB BOX DELETE	CREW CAB	CREW 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	4X4	4X4
Curb Weight	7924	9719	7152	8947	7705	9500	8006	8006
LVW - ETW	8000	10000	7500	9000	8000	10000	8500	8500
Loaded Weight	8224	10019	7452	9247	8005	9800	8306	8306
ALVW - ETW	10500	11500	10000	11000	10500	11500	9500	9500
Adj. Loaded Weight	10612	11510	10226	11124	10502	11400	9603	9653
GVWR	13300	13300	13300	13300	13300	13300	11200	11300
Min Axle Ratio	3.73	3.73	3.73	3.73	3.73	3.73	3.31	3.31
Max Axle Ratio	3.73	3.73	3.73	3.73	3.73	3.73	3.55	3.55
Min N/V Ratio	27.8	27.8	27.8	27.8	27.8	27.8	24.5	24.2
Max N/V Ratio	27.8	27.8	27.8	27.8	27.8	27.8	26.4	25.9
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	LT245/75R17	LT245/75R17	LT245/75R17	LT245/75R17	LT245/75R17	LT275/65R18
Max Tire Size	LT245/75R17	LT245/75R17	LT245/75R17	LT245/75R17	LT245/75R17	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: CFMXD06.771C

ID Number	5138440	5138445	5138419	5138421	5138418	5138422	5138461	5138464
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505
Fuel Tank(s)	TS	TS	TY	TY	TY	TY	TS	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	Sngl RW
Body Style	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB	CREW CAB BOX DELETE	CREW CAB BOX DELETE
Wheelbase	Long	Long	Short	Short	Short	Short	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	8006	8006	7787	7787	7787	7787	9259	9259
LVW - ETW	8500	8500	8000	8000	8000	8000	9500	9500
Loaded Weight	8306	8306	8087	8087	8087	8087	9559	9559
ALVW - ETW	10000	10000	9500	9500	9500	9500	10000	10500
Adj. Loaded Weight	9753	9753	9494	9544	9644	9644	10230	10280
GVWR	11500	11500	11200	11300	11500	11500	11200	11300
Min Axle Ratio	3.31	3.55	3.31	3.31	3.31	3.55	3.31	3.31
Max Axle Ratio	3.55	3.55	3.55	3.55	3.55	3.55	3.55	3.55
Min N/V Ratio	23.4	24.4	24.5	24.2	23.4	24.4	24.5	24.2
Max N/V Ratio	25.1	24.4	26.4	25.9	25.1	24.4	26.4	25.9
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	LT275/70R18	LT275/65R20	LT245/75R17	LT275/65R18	LT275/70R18	LT275/65R20	LT245/75R17	LT275/65R18
Max Tire Size	LT275/70R18	LT275/65R20	LT265/70R17	LT275/65R18	LT275/70R18	LT275/65R20	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: CFMXD06.771C

ID Number	5138462	5138402	5138404	5138401	5138449	5138451	5138450	5138415
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505
Fuel Tank(s)	TS	TY	TY	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	Sngl RW
Body Style	CREW CAB BOX DELETE	REGULAR CAB	REGULAR CAB	REGULAR CAB	REGULAR CAB BOX DELE	REGULAR CAB BOX DELE	REGULAR CAB BOX DELE	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	9259	7284	7284	7284	8537	8537	8537	7725
LVW - ETW	9500	7500	7500	7500	9000	9000	9000	8000
Loaded Weight	9559	7584	7584	7584	8837	8837	8837	8025
ALVW - ETW	10500	9000	9000	9500	9500	10000	10000	9500
Adj. Loaded Weight	10380	9042	9142	9392	9668	9768	10018	9462
GVWR	11500	10800	11000	11500	10800	11000	11500	11200
Min Axle Ratio	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31
Max Axle Ratio	3.55	3.55	3.55	3.55	3.55	3.55	3.55	3.55
Min N/V Ratio	23.4	24.5	24.2	23.4	24.5	24.2	23.4	24.5
Max N/V Ratio	25.1	26.4	25.9	25.1	26.4	25.9	25.1	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	LT275/70R18	LT245/75R17	LT275/65R18	LT275/70R18	LT245/75R17	LT275/65R18	LT275/70R18	LT245/75R17
Max Tire Size	LT275/70R18	LT265/70R17	LT275/65R18	LT275/65R20	LT265/70R17	LT275/65R18	LT275/70R18	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: CFMXD06.771C

ID Number	5138414	5138416	5138430	5138410	5138413	5138432	5138412	5138459
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505	CFA17C0505
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	Sngl RW
Body Style	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB	SUPER CAB	SUPER 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	7725	7725	7725	7596	7596	7596	7596	8978
LVW - ETW	8000	8000	8000	8000	8000	8000	8000	9500
Loaded Weight	8025	8025	8025	7896	7896	7896	7896	9278
ALVW - ETW	9500	9500	9500	9500	9500	9500	9500	10000
Adj. Loaded Weight	9512	9612	9612	9348	9398	9548	9548	10089
GVWR	11300	11500	11500	11100	11200	11500	11500	11200
Min Axle Ratio	3.31	3.31	3.55	3.31	3.31	3.55	3.31	3.31
Max Axle Ratio	3.55	3.55	3.55	3.55	3.55	3.55	3.55	3.55
Min N/V Ratio	24.2	23.4	24.4	24.5	24.2	24.4	23.4	24.5
Max N/V Ratio	25.9	25.1	24.4	26.4	25.9	24.4	25.1	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	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	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: CFMXD06.771C

ID Number	5138457	5138458	5138448	5138475	5138437	5138473	5138447	5138474
Displacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Calibration	CFA17C0505	CFA17C0505	CFA17E0505	CFA17E0505	CFA17E0505	CFA17E0505	CFA17E0505	CFA17E0505
Fuel Tank(s)	TS	TS	TS	TS	TY	TY	TS	TS
Vehicle Line	F350	F350	F350	F350	F350	F350	F350	F350
Wheel Configuration	Sngl RW	Sngl RW	Dual RW	Dual RW	Dual RW	Dual RW	Dual RW	Dual RW
Body Style	SUPER CAB BOX DELETE	SUPER CAB BOX DELETE	CREW CAB	CREW CAB BOX DELETE	REGULAR CAB	REGULAR CAB BOX DELE	SUPER CAB	SUPER CAB BOX DELETE
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	8978	8978	8430	10434	7649	9444	8142	9937
LVW - ETW	9500	9500	8500	10500	8000	9500	8500	10000
Loaded Weight	9278	9278	8730	10734	7949	9744	8442	10237
ALVW - ETW	10000	10000	11000	11500	10500	11500	10500	11500
Adj. Loaded Weight	10139	10239	10865	11717	10474	11372	10721	11618
GVWR	11300	11500	13300	13000	13300	13300	13300	13300
Min Axle Ratio	3.31	3.31	3.73	3.73	3.73	3.73	3.73	3.73
Max Axle Ratio	3.55	3.55	3.73	3.73	3.73	3.73	3.73	3.73
Min N/V Ratio	24.2	23.4	27.8	27.8	27.8	27.8	27.8	27.8
Max N/V Ratio	25.9	25.1	27.8	27.8	27.8	27.8	27.8	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	LT245/75R17	LT245/75R17	LT245/75R17	LT245/75R17	LT245/75R17	LT245/75R17
Max Tire Size	LT275/65R18	LT275/70R18	LT245/75R17	LT245/75R17	LT245/75R17	LT245/75R17	LT245/75R17	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: CFMXD06.771C

ID Number	5138530
Displacement	6.7
Calibration	CFA17D0505
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	8415
LVW - ETW	8500
Loaded Weight	8715
ALVW - ETW	11000
Adj. Loaded Weight	10858
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	

SECTION 14

Request for Certification

Vehicle Environmental Engineering
Environmental & Safety Engineering

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

April 21, 2011

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

Dear Mr. Reineman:

Ford Motor Company (Ford) herewith submits its Part I Application for Certification for 2012 model year diesel-powered heavy-duty vehicles (HDVs) contained in Ford's 50 state test group CFMXD06.771C. 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.

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 Environmental Engineering
Environmental & Safety Engineering

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

April 21, 2011

Ms. Annette Hebert, Chief
Mobile Source Operations Division
Haagen-Smit Laboratory
P. O. Box 8001
9528 Telstar Avenue
El Monte, California 91734-8001

Dear Ms. Hebert:

Ford Motor Company (Ford) herewith submits its Part I Application for Certification for 2012 model year diesel-powered medium duty vehicles (MDVs) contained in Ford's 50 state test group CFMXD06.771C. 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: Antonio Martino

SECTION 15

Other Information

EPA Form 3520-29 OMB Control No. 2060-0545 305995

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
MOTOR VEHICLE AND ENGINE COMPLIANCE PROGRAM
ON-HIGHWAY FEE FILING FORM
FOR CERTIFICATION APPLICATIONS RECEIVED IN CALENDAR YEAR 2011

Manufacturer Name Ford Motor Company

Address 1500 Enterprise Drive - Suite 3W200 APTL

City/State/Zip Code/Country Allen Park, MI 48101 U.S.A.

On-Highway Certification Request Type (check one)

- [x] LDV/LDT/MDPV/HDV (Chassis cert) FEDERAL ($33,974)
- [ ] LDV/LDT/MDPV/HDV (Chassis cert) CAL-ONLY ($17,255)
- [ ] HDE (Engine Dyno cert) FEDERAL ($34,452)
- [ ] HDV EVAP-ONLY ($511)
- [ ] HDE CALIF-ONLY ($511)
- [ ] MOTORCYCLE ($1,210)
- [ ] LD/MDPV/HDV ICI ($55,252)

EPA standard engine family or test group or HDV Evaporative family name: CFMXD06.771C

Amount paid (U.S. Funds Only): $ 33,974.00

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

Reduced Fee Section (40 CFR §1027.120)

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

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

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

Company Representative: Todd M. Fagerman Signature: Todd M. Fagerman

Title: Manager Phone/Fax: 313-594-0680 / Date: 1 / 28 / 2011 TH

E-mail Address: TFAGERMA@FORD.COM

Submission of payments and forms:

(1) Online: **Forms** may be found and submitted with or without **payments** online at www.Pay.gov.
(2) 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 EFT/Wire **payments** to the New York Federal Reserve Bank. (See Instructions, p.2)
(4) Transmit offline EFT/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: 1/1/2012

SECTION 17

California ARB Requirements

E.O.#_____'

2012 AIR RESOURCES BOARD CERTIFICATION REVIEW SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer Ford Motor Company Exh. Test Group: CFMXD06.771C 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 / DDI / CAC / EGR-C / OC / PTOX / SCR-U
(Use abbreviations per SAE J1930 SEP91)

EPA Certificate _____'

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	2011 BFA1-6.7-J-005
Vehicle Log Page(s)	n/a	n/a
Zero Mile Books	n/a	n/a
Maint. Logs & Engr. Eval.	n/a	n/a

2012 AIR RESOURCES BOARD CERTIFICATION REVIEW SHEET

PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES E.O.#_____'

Manufacturer: Ford Motor Company Test Group: CFMXD06.771C Evaporative Family: n/a

Emission Data Vehicle ID	Engine Code & Disp.	Test Location	Trans	ETW	DPA		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
							PROJECTED EMISSIONS (grams/mile, except, grams/test for evaporative tests)[1]											
BFA1-6.7-J-005	BFA17C0503	EPA	A	11500	---	(120K)	n/a / n/a	0.050	0.6	0.4	0.008	0.01	0.1	779 / 535	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:								0.0001	0.01	0.02	-0.0002	0.000	0.02	n/a	n/a	n/a	n/a	n/a

* NMOG = NMHC for diesel vehicles.
**HCHO tested at Ford emissions laboratory (see test number BFMX10006774).
***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: CFMXD06.771C
Issued: 4/14/2011
Revised:

E.O.# _____'

2012 MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer Ford Motor Company Exh. Test Group: _CFMXD06.771C_ 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: __2___ 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 / DDI / CAC / EGR-C / OC / PTOX / SCR-U
(Use abbreviations per SAE J1930 SEP91)

Engine Code	Vehicle Models	Trans. A-Auto M-Man	ETW	DPA
CFA17C0505	F350 Pickup/Box Delete 4x2/4x4 SRW	A	*	*
CFA17D0505	F450 Pickup 4x4 DRW	A	*	*
CFA17E0505	F350 Pickup/Box Delete 4x2/4x4 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: CFMXD06.771C
Issued: 4/14/2011
Revised:

180 MAX.

45 MAX.

Ford Motor Company
VEHICLE EMISSION CONTROL INFORMATION

Conforms to regulations: 2012 MY

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

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

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

6.7L-Group: CFMXD06.771C

▽CW7E-9C485-**V E A** △

180 MAX.

45 MAX.

Ford Motor Company
VEHICLE EMISSION CONTROL INFORMATION

Conforms to regulations: 2012 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: 13,300# max.
CurbW: 10,200# max. Frontal Area: 51.0 ft2 max.

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

6.7L-Group: CFMXD06.771C

▽CW7E-9C485-**V G P** △

180 MAX.

45 MAX.

Ford Motor Company
VEHICLE EMISSION CONTROL INFORMATION

Conforms to regulations: 2012 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/DDI/CAC/EGR-C/OC/PTOX/SCR-U
No adjustments needed.

6.7L-Group: CFMXD06.771C

▽CW7E-9C485-**V F F** △

Test Group: CFMXD06.771C
Issued: 4/14/2011
Revised:

SECTION 18

Revisions

APPLICATION REVISIONS

CFMXD06.771C

NO.	DATE	PAGE(S)	DESCRIPTION
Initial Cert Application	4/21/2011		Initial Cert Application

Application for Certification

Part 2