Mercedes-Benz

Application for Certification – Part 1
2013 Model Year

Specific Sections

Test Group
DMBXT03.0U2A

Durability Group:		DMBXDPDNNPP2
Evaporative Family:		n/a
EPA Summary Sheet No.:		CSI-DMBXT03.0U2A
Durability Group Description:		Diesel Cycle - Four Stroke - water cooled – Piston-diesel – direct injection Pt Oxidation Catalyst (OC) Diesel Particulate Filter (DPF) Selective Catalytic Reduction (SCR) Catalyst
Test Group Description(s):		3.0 L V6
Applicable Standards:		Federal State: T2 BIN 5 - LTD4 California: LEV II (ULEV)
Vehicle(s) Covered:		ML 350 BLUETEC 4MATIC GL 350 BLUETEC 4MATIC
Vehicles Tested:	Exhaust:	X166DE30TC 4x4 – Z3029-1
	Evap:	N/A

EPA Response Requested By:

Brian FitzGerald, Phone: (734) 997-2002

Table of Contents & Revisions

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Revisions:

Issue Date / Revision Date	Affected Pages	Description of Changes
Aug-22-12	all	Initial Version
Sep-12-12	p. 3	exhaust emission control system
Sep-25-12	p. 3	Test Vehicle Description
Sep-26-12	p. 7	Test Results

S-01: Correspondence

(refer to S-01 in common section for a complete list of contacts)

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S-02: Durability Group Description

Please refer to the common application for certification.

S-03: Evaporative/Refueling Family Description

ORVR Testing Waiver per CFR § 86.1810-01 (k) + (m)
Due to the low vapor pressure of diesel fuel and the vehicle tank temperatures, hydrocarbon vapor concentrations are low and the vehicle meets the 0.20 grams/gallon refueling emission standard without a control system.

S-04: Durability Procedure Description

Please refer to the common application for certification.

S-05: Test Group Description

The summary sheet numbers are provided on the cover page of this application. The Test Group Description is provided in section 2 of the common application as part of the durability group description.

S-06: Test Vehicle Description

vehicle use	car number	vehicle type	engine displ. [cm^3]	engine code	transm.	ETW [lbs]	exhaust emission control system
EDV-Ex	X166-Z3029-1	X166DE30TC	2987	OM642-30	L-7	6000	DFI/TC/CAC/EGR/OC/PTOX/SCR-U/NOXS(2)/AFS/EGRC
DDV-Ex	L906-1056	L906-1056-L906DE30TC (4,53to)	2987	OM642-30C	L-7	8500	DDI/TC/CAC/EGR/OC/PTOX/SCR-U/NOS(2)/HAFS/EGRC

Test parameters can be taken from the Verify Summary sheets in section S-07.

Certified Models

Test Group	Model Name	curb weight [lbs]	GVW [lbs]	EPA car class
DMBXT03.0U2A	ML 350 BLUETEC 4MATIC	5076	6504	LDT4
DMBXT03.0U2A	GL 350 BLUETEC 4MATIC	5717	7165	LDT4

VI sheet Exhaust EDV

Verify Processing Report

Verify Processing Report

Total Datasets Submitted: 1
Accepted Datasets: 1
Rejected Datasets: 0

The original datasets are listed below. In addition, any information generated by the Verify system is also included. For any rejected datasets, the reason(s) the dataset was rejected is provided below in the Transaction Report for that particular dataset.

Test Vehicle Information Submission

Test Vehicle Information Details

Information Process Code : N
EPA Manufacturer Code : MBX
Vehicle Identification Text : X166DE30TC-Z3029-1
Vehicle Configuration Number : 0

Vehicle Configuration Details

Vehicle Description Details

Manufacturer Vehicle Configuration Number : 0
Test Group Name : DMBXT03.0U2C
Model Year : 2013
Actual Test Vehicle Make Text : Mercedes-Benz
Actual Test Vehicle Model Text : GL 350 BLUETEC 4MATIC

Drive Source Details

Drive Source Identifier : C
Fuel Identifier : D

Test Drive Code : R
Shift Indicator Light Usage Identifier : 1
Aged Component Usage Identifier : 4

Odometer Correction Details

Correction Initial Value : 184
Correction Factor Value : 0.9856
Correction Sign Identifier : -
Correction Units Code : M

Engine Code Text : OM642-30
Engine Rated Horsepower Value : 240
Engine Displacement Value : 2.987

Air Aspiration Details

Air Aspiration Method Identifier : TC
Air Aspiration Device Count : 1
Air Aspiration Configuration Identifier : N

Charge Air Cooler Identifier : A

Verify Processing Report

Vehicle Specifications Details

Curb Weight Value : 5717
Equivalent Test Weight Value : 6000
Gross Vehicle Weight Rating Value : 7165
NV Ratio Value : 28.8
Axle Ratio Value : 3.46

Transmission Specifications Details

Light Duty Transmission Type Identifier : A
Transmission Lockup Indicator : Y
Transmission Creeper Gear Indicator : N
Transmission Gear Count : 7

Target Set Coefficient Details

Test Procedure Dynamometer Coefficients Category : US06
Target CoefficientA Value : 67.959
Target CoefficientB Value : 0.75331
Target CoefficientC Value : 0.022853
Set CoefficientA Value : 39.836
Set CoefficientB Value : 0.06136
Set CoefficientC Value : 0.029631

Target Set Coefficient Details

Test Procedure Dynamometer Coefficients Category : Cold-CO
Target CoefficientA Value : 75.51
Target CoefficientB Value : 0.83701
Target CoefficientC Value : 0.025393
Set CoefficientA Value : 44.692
Set CoefficientB Value : -0.0879
Set CoefficientC Value : 0.033573

Target Set Coefficient Details

Test Procedure Dynamometer Coefficients Category : C-H-E
Target CoefficientA Value : 67.959
Target CoefficientB Value : 0.75331
Target CoefficientC Value : 0.022853
Set CoefficientA Value : 39.836
Set CoefficientB Value : 0.06136
Set CoefficientC Value : 0.029631

Manufacturer Comment Text : 295/40 R21 (PIR)

EPA Generated Test Vehicle Details

Original Receipt Date : 20120731
Hybrid Vehicle Indicator : N
Adjusted Loaded Vehicle Weight Value : 6441

Verify Processing Report

Loaded Vehicle Weight Value : 6017
Total Road Load Horsepower Value : 21.7

Transaction Status Details

Transaction Status Identifier : ACCEPTED

S-07: Test Results

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Certification Summary Information Report

Manufacturer	Mercedes Benz	**Manufacturer Code**	MBX
Test Group	DMBXT03.0U2A	**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**	09/26/2012
Model Year	2013		

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**	LDT4
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	DMBXDPDNNPP2	**Durability Group Equivalency Factor**	1.0
Reduced Fee Test Group	No	**Certification Region Code(s)**	FA, CA
Complies with HD GHG 2b/3 regulations?	No		
Introduction into Commerce Date	--	**CAP2000 Conditional Certificate?**	N/A
Independent Commercial Importer?	--	**Alternative Fuel Converter Certificate?**	--
SFTP Compliance Indicator	Yes	**SFTP Composite CO Option**	No
OBD Compliance Type	CARB	**OBD Demonstration Vehicle Test Group**	BMBXV03.0U2B
Mfr Test Group Comments	--		
Mfr Exhaust / Evap Standards Comments	--		

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Certification Summary Information Report

Test Group	DMBXT03.0U2A	**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
Mercedes Benz	1 - Mercedes-Benz	403 - ML 350 BLUETEC 4MATIC	Federal	4-Wheel Drive	Automatic	7	Yes
Mercedes Benz	1 - Mercedes-Benz	422 - GL 350 BLUETEC 4MATIC	Federal	4-Wheel Drive	Automatic	7	Yes
Mercedes Benz	1 - Mercedes-Benz	422 - GL 350 BLUETEC 4MATIC	California + CAA Section 177 states	4-Wheel Drive	Automatic	7	Yes
Mercedes Benz	1 - Mercedes-Benz	403 - ML 350 BLUETEC 4MATIC	California + CAA Section 177 states	4-Wheel Drive	Automatic	7	Yes

Engine Description

Hybrid Type	--	**Hybrid Description**	--
Engine Type	4-Stroke Compression Ignition	**Mfr Engine Description**	--
Engine Block Arrangement	V-shaped engine	**Mfr Engine Block Arrangement Description**	--
Camless Valvetrain Indicator	No	**Oil Viscosity/Classification**	0W-30
Number of Cylinders/Rotors	6		

After Treatment Device(s) (ATD)

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

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

Engine Configuration Number 1

Engine Displacement (liters)	3.0	**Engine Rated Horsepower**	240
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**	Air
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	Heated air fuel	**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	--		

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Certification Summary Information Report

Test Group	DMBXT03.0U2A	Evaporative/Refueling Family	N/A

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	DMBX10021924	DMBX10021926	DMBX10021937	DMBX10021938	DMBX10021925	17.2	16.8	22.3	21.9	N/A

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Certification Summary Information Report

Test Group	DMBXT03.0U2A	**Evaporative/Refueling Family**	N/A

Emission Data Vehicle Information

Vehicle ID / Configuration X166DE30TC-Z3029-1 / 0

Vehicle Model

Represented Test Vehicle Make	Mercedes-Benz	**Represented Test Vehicle Model**	GL 350 BLUETEC 4MATIC

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**	7
Engine Code	OM642-30	**Axle Ratio**	3.46
Displacement (liters)	2.987	**Rated Horsepower**	240
Equivalent Test Weight (pounds)	6000	**Air Aspiration Method**	Turbocharged
Drive Mode While Testing	2-Wheel Drive, Rear	**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	67.959	0.75331	0.022853	39.836	0.06136	0.029631	21.7
Cold CO	75.51	0.83701	0.025393	44.692	-0.0879	0.033573	N/A
US06	67.959	0.75331	0.022853	39.836	0.06136	0.029631	N/A

Manufacturer Test Vehicle Comments 295/40 R21 (PIR)

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Certification Summary Information Report

Test Group	DMBXT03.0U2A	**Evaporative/Refueling Family**	N/A
Test #	**DMBX10021924**	**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	07/25/2012	**Fuel**	Diesel
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**DF Type**	Mfr. Determined
Verify Test Lab ID	Ann Arbor Technology Center		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Bag 1 Carbon Dioxide	527.55	--
Bag 1 Fuel Economy	19.23	19.23
Bag 2 Carbon Dioxide	453.03	--
Bag 2 Fuel Economy	22.46	22.46
Bag 3 Carbon Dioxide	436.43	--
Bag 3 Fuel Economy	23.31	23.31
CH4 - Methane	0.02424	--
Carbon Monoxide	0.1768	--
Formaldehyde	0.0002532	--
Manufacturer Fuel Economy	21.92	21.92
Nitrogen Oxide	0.02584	--
Non-methane Hydrocarbon	0.01407	--
Non-methane organic gas (California)	0.01463	--
Particulate Matter	0.00209	--
SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides	0.03991	--
Total Hydrocarbon	0.03672	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	464.325	464

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	463.93	464

Manufacturer Test Comments 295/40 R21 (PIR)

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Certification Summary Information Report

Test Group DMBXT03.0U2A **Evaporative/Refueling Family** N/A

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	50,000 miles	Federal Tier 2 Bin 5	CO	0.18	--	--	0.0047 UP	0.02	--	0.2	3.4	Pass
Fed	50,000 miles	Federal Tier 2 Bin 5	HCHO	0.0003	--	--	0.00001 UP	0.0	--	0.000	0.015	Pass
Fed	50,000 miles	Federal Tier 2 Bin 5	NMOG	0.0146	--	1.00	0.0006 UP	0.001	--	0.016	0.075	Pass
Fed	50,000 miles	Federal Tier 2 Bin 5	NOX	0.026	--	--	0.003 UP	0.0	--	0.03	0.05	Pass
Fed	50,000 miles	Federal Tier 2 Bin 5	PM	0.002	--	--	0.0012 UP	0.0	--	0.00	0.01	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	CO	0.18	--	--	0.0047 UP	0.04	--	0.2	4.2	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	CREE	464	--	--	0.0053 UP	0.034	--	464	--	--
Fed	120,000 miles	Federal Tier 2 Bin 5	HC-NM+NOX-COMP	0.154	--	--	0.0036 UP	0.001	--	0.15	1.41	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	HC-NM+NOX-COMP	0.040	--	--	0.0036 UP	0.001	--	0.04	1.41	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	HCHO	0.0003	--	--	0.00001 UP	0.0	--	0.000	0.018	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	NMOG	0.0146	--	1.00	0.0006 UP	0.002	--	0.017	0.090	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	NOX	0.026	--	--	0.003 UP	0.0	--	0.03	0.07	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	PM	0.002	--	--	0.0012 UP	0.0	--	0.00	0.01	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	PM-COMP	0.004	--	--	0.0012 UP	0.0	--	0.00	0.08	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	PM-COMP	0.004	--	--	0.0012 UP	0.0	--	0.00	0.08	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	PM-COMP	0.004	--	--	0.0012 UP	0.0	--	0.00	0.08	Pass
CA	50,000 miles	California LEV-II ULEV	CO	0.18	--	--	0.0047 UP	0.02	--	0.2	1.7	Pass
CA	50,000 miles	California LEV-II ULEV	HCHO	0.0003	--	--	0.00001 UP	0.0	--	0.000	0.008	Pass
CA	50,000 miles	California LEV-II ULEV	NMOG	0.0146	--	1.00	0.0006 UP	0.001	--	0.016	0.040	Pass
CA	50,000 miles	California LEV-II ULEV	NOX	0.026	--	--	0.003 UP	0.0	--	0.03	0.05	Pass
CA	120,000 miles	California LEV-II ULEV	CO	0.18	--	--	0.0047 UP	0.04	--	0.2	2.1	Pass
CA	120,000 miles	California LEV-II ULEV	CREE	464	--	--	0.0053 UP	0.034	--	464	--	--

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Certification Summary Information Report

Test Group DMBXT03.0U2A **Evaporative/Refueling Family** N/A

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	HCHO	0.0003	--	--	0.00001 UP	0.0	--	0.000	0.011	Pass
CA	120,000 miles	California LEV-II ULEV	NMOG	0.0146	--	1.00	0.0006 UP	0.0024	--	0.018	0.055	Pass
CA	120,000 miles	California LEV-II ULEV	NOX	0.026	--	--	0.003 UP	0.0	--	0.03	0.07	Pass
CA	120,000 miles	California LEV-II ULEV	PM	0.002	--	--	0.0012 UP	0.0	--	0.00	0.01	Pass

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

Test #	**DMBX10021938**	**Test Procedure**	**11 - Cold CO**
Exhaust Test # for this Evap Test	N/A	**Test Fuel Type**	19 - Cert Diesel 7-15 ppm Sulfur
Test Date	07/30/2012	**Fuel**	N/A
Vehicle Class	N/A	**DF Type**	Mfr. Determined
Verify Test Lab ID	Ann Arbor Technology Center		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Bag 1 Carbon Dioxide	655	--
Bag 1 Fuel Economy	15.43	15.43
Bag 2 Carbon Dioxide	565.68	--
Bag 2 Fuel Economy	17.99	17.99
Bag 3 Carbon Dioxide	486.36	--
Bag 3 Fuel Economy	20.92	20.92
Carbon Monoxide	0.5798	--
Manufacturer Fuel Economy	18.06	18.06
Non-methane Hydrocarbon	0.02024	--
Total Hydrocarbon	0.03211	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	562.41	--

Manufacturer Test Comments 295/40 R21 (PIR)

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Certification Summary Information Report

Test Group	DMBXT03.0U2A	**Evaporative/Refueling Family**	N/A

Test #	**DMBX10021925**	**Test Procedure**	**3 - HWFE**
Exhaust Test # for this Evap Test	N/A	**Test Fuel Type**	19 - Cert Diesel 7-15 ppm Sulfur
Test Date	07/25/2012	**Fuel**	Diesel
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**DF Type**	Mfr. Determined
Verify Test Lab ID	Ann Arbor Technology Center		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
CH4 - Methane	0.00271	--
Carbon Monoxide	0.0362	--
Manufacturer Fuel Economy	32.1	32.1
Nitrogen Oxide	0.03955	--
Particulate Matter	0.00312	--
Total Hydrocarbon	0.00225	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	317.044	317

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	316.98	317

Manufacturer Test Comments 295/40 R21 (PIR)

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	50,000 miles	Federal Tier 2 Bin 5	NOX	0.040	--	--	0.003 UP	0.0	--	0.04	0.07	Pass
Fed	100,000 miles	Federal Tier 2 Bin 5	CREE	317	--	--	0.0053 UP	0.034	--	317	--	--
Fed	120,000 miles	Federal Tier 2 Bin 5	NOX	0.040	--	--	0.003 UP	0.0	--	0.04	0.09	Pass
CA	50,000 miles	California LEV-II ULEV	NOX	0.040	--	--	0.003 UP	0.0	--	0.04	0.07	Pass
CA	120,000 miles	California LEV-II ULEV	CREE	317	--	--	0.0053 UP	0.034	--	317	--	--
CA	120,000 miles	California LEV-II ULEV	NOX	0.040	--	--	0.003 UP	0.0	--	0.04	0.09	Pass

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

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Certification Summary Information Report

Test Group	DMBXT03.0U2A	**Evaporative/Refueling Family**	N/A

Test #	**DMBX10021926**	**Test Procedure**	**90 - US06**
Exhaust Test # for this Evap Test	N/A	**Test Fuel Type**	19 - Cert Diesel 7-15 ppm Sulfur
Test Date	07/25/2012	**Fuel**	Diesel
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**DF Type**	Mfr. Determined
Verify Test Lab ID	Ann Arbor Technology Center		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Bag 1 Carbon Dioxide	735.56	--
Bag 1 Fuel Economy	13.83	13.83
Bag 2 Carbon Dioxide	424.64	--
Bag 2 Fuel Economy	23.96	23.96
Carbon Monoxide	0.0344	--
Manufacturer Fuel Economy	20.6	20.6
Nitrogen Oxide	0.40797	--
Non-methane Hydrocarbon	0	--
Particulate Matter	0.00901	--
SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03	0.40797	--
Total Hydrocarbon	0.00225	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	493.93	--

Manufacturer Test Comments 295/40 R21 (PIR)

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	4,000 miles	Federal Tier 2 Bin 5	CO	0.03	--	--	0.0047 UP	--	--	0.0	11.8	Pass
Fed	4,000 miles	Federal Tier 2 Bin 5	HC-NM+NOX	0.41	--	--	0.0036 UP	--	--	0.4	0.6	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	CO	0.03	--	--	0.0047 UP	0.04	--	0.1	19.3	Pass
CA	4,000 miles	California LEV-II ULEV	CO	0.03	--	--	0.0047 UP	--	--	0.0	11.8	Pass
CA	4,000 miles	California LEV-II ULEV	HC-NM+NOX	0.408	--	--	0.0036 UP	--	--	0.41	0.60	Pass

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Certification Summary Information Report

Test Group	DMBXT03.0U2A	**Evaporative/Refueling Family**	N/A

Test #	**DMBX10021937**	**Test Procedure**	**95 - SC03**
Exhaust Test # for this Evap Test	N/A	**Test Fuel Type**	19 - Cert Diesel 7-15 ppm Sulfur
Test Date	07/27/2012	**Fuel**	Diesel
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**DF Type**	Mfr. Determined
Verify Test Lab ID	Ann Arbor Technology Center		

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE MPG Equivalent Value
Carbon Monoxide	0.0114	--
Manufacturer Fuel Economy	17.86	17.86
Nitrogen Oxide	0.06389	--
Non-methane Hydrocarbon	0	--
Particulate Matter	0.00274	--
SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03	0.06389	--
Total Hydrocarbon	0.01116	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	569.62	--

Manufacturer Test Comments 295/40 R21 (PIR)

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	4,000 miles	Federal Tier 2 Bin 5	CO	0.01	--	--	0.0047 UP	--	--	0.0	4.0	Pass
Fed	4,000 miles	Federal Tier 2 Bin 5	HC-NM+NOX	0.064	--	--	0.0036 UP	--	--	0.07	0.44	Pass
Fed	120,000 miles	Federal Tier 2 Bin 5	CO	0.01	--	--	0.0047 UP	0.04	--	0.1	6.4	Pass
CA	4,000 miles	California LEV-II ULEV	CO	0.01	--	--	0.0047 UP	--	--	0.0	4.0	Pass
CA	4,000 miles	California LEV-II ULEV	HC-NM+NOX	0.064	--	--	0.0036 UP	--	--	0.07	0.44	Pass

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Certification Summary Information Report

Test Group	DMBXT03.0U2A	**Evaporative/Refueling Family**	N/A

Consolidated List of Standards

Exhaust Standards

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**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
50,000 miles	NOX	--	--	--	0.003	0	--	0.0	0.07
120,000 miles	CREE	--	--	--	0.0053	0	--	0.034	999
120,000 miles	NOX	--	--	--	0.003	0	--	0.0	0.09

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**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
50,000 miles	CO	--	--	--	0.0047	0	--	0.02	1.7
50,000 miles	HCHO	--	--	--	0.00001	0	--	0.0	0.008
50,000 miles	NMOG	--	--	1.00	0.0006	0	--	0.001	0.040
50,000 miles	NOX	--	--	--	0.003	0	--	0.0	0.05
120,000 miles	CO	--	--	--	0.0047	0	--	0.04	2.1
120,000 miles	CREE	--	--	--	0.0053	0	--	0.034	999
120,000 miles	HCHO	--	--	--	0.00001	0	--	0.0	0.011
120,000 miles	NMOG	--	--	1.00	0.0006	0	--	0.0024	0.055
120,000 miles	NOX	--	--	--	0.003	0	--	0.0	0.07
120,000 miles	PM	--	--	--	0.0012	0	--	0.0	0.01

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Certification Summary Information Report

Test Group	DMBXT03.0U2A	**Evaporative/Refueling Family**	N/A
Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	Federal Tier 2 Bin 5
Fuel	Diesel	**Test Procedure**	SC03

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
4,000 miles	CO	--	--	--	0.0047	0	--	--	4.0
4,000 miles	HC-NM+NOX	--	--	--	0.0036	0	--	--	0.44
120,000 miles	CO	--	--	--	0.0047	0	--	0.04	6.4
120,000 miles	PM-COMP	--	--	--	0.0012	0	--	0.0	0.08

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	California LEV-II ULEV
Fuel	Diesel	**Test Procedure**	US06

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
4,000 miles	CO	--	--	--	0.0047	0	--	--	11.8
4,000 miles	HC-NM+NOX	--	--	--	0.0036	0	--	--	0.60

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Certification Summary Information Report

Test Group	DMBXT03.0U2A	**Evaporative/Refueling Family**	N/A
Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	Federal Tier 2 Bin 5
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
50,000 miles	CO	--	--	--	0.0047	0	--	0.02	3.4
50,000 miles	HCHO	--	--	--	0.00001	0	--	0.0	0.015
50,000 miles	NMOG	--	--	1.00	0.0006	0	--	0.001	0.075
50,000 miles	NOX	--	--	--	0.003	0	--	0.0	0.05
50,000 miles	PM	--	--	--	0.0012	0	--	0.0	0.01
120,000 miles	CO	--	--	--	0.0047	0	--	0.04	4.2
120,000 miles	CREE	--	--	--	0.0053	0	--	0.034	999
120,000 miles	HC-NM+NOX-COMP	--	--	--	0.0036	0	--	0.001	1.41
120,000 miles	HCHO	--	--	--	0.00001	0	--	0.0	0.018
120,000 miles	NMOG	--	--	1.00	0.0006	0	--	0.002	0.090
120,000 miles	NOX	--	--	--	0.003	0	--	0.0	0.07
120,000 miles	PM	--	--	--	0.0012	0	--	0.0	0.01
120,000 miles	PM-COMP	--	--	--	0.0012	0	--	0.0	0.08

Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	Federal Tier 2 Bin 5
Fuel	Diesel	**Test Procedure**	US06

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
4,000 miles	CO	--	--	--	0.0047	0	--	--	11.8
4,000 miles	HC-NM+NOX	--	--	--	0.0036	0	--	--	0.6
120,000 miles	CO	--	--	--	0.0047	0	--	0.04	19.3
120,000 miles	PM-COMP	--	--	--	0.0012	0	--	0.0	0.08

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Certification Summary Information Report

Test Group	DMBXT03.0U2A	**Evaporative/Refueling Family**	N/A
Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	California LEV-II ULEV
Fuel	Diesel	**Test Procedure**	SC03

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
4,000 miles	CO	--	--	--	0.0047	0	--	--	4.0
4,000 miles	HC-NM+NOX	--	--	--	0.0036	0	--	--	0.44

Cert Region	Federal	**Cert/In-Use Code**	Both
Vehicle Class	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	**Standard Level**	Federal Tier 2 Bin 5
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
50,000 miles	NOX	--	--	--	0.003	0	--	0.0	0.07
100,000 miles	CREE	--	--	--	0.0053	0	--	0.034	999
120,000 miles	NOX	--	--	--	0.003	0	--	0.0	0.09

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Certification Summary Information Report

Test Group	DMBXT03.0U2A	**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 2	Bag 2 Fuel Economy
CO	Carbon Monoxide	FE BAG 3	Bag 3 Fuel Economy
CO2	Carbon dioxide	FE BAG 4	Bag 4 Fuel Economy
CREE	Carbon-Related Exhaust Emissions	MFR FE	Manufacturer Fuel Economy
OPT-CREE	Optional Carbon-Related Exhaust Emissions	HC	Hydrocarbon for Running Loss and ORVR
NOX	Nitrogen Oxide	METHANE	CH4 - Methane
PM	Particulate Matter	METHANOL	CH3OH - Methanol
PM-COMP	SFTP Composite Particulate Matter	N2O	Nitrous Oxide
HC-NM	Non-methane Hydrocarbon	SPITBACK	Spitback Hydrocarbon in grams
OMHCE	Organic material Hydrocarbon Equivalent	AMP-HRS	Integrated Amp-hours
OMNMHCE	Organic material non-methane HC equivalent	START-SOC	System Start State of Charge Watt-hours
NMOG	Non-methane organic gas (California)	END-SOC	System End State of Charge Watt-hours
HCHO	Formaldehyde	ACT-DISTANCE	Actual Distance Driven (miles)
H3C2HO	Acetaldehyde	AS-VOLT	Average System Voltage
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03	CO2 BAG 1	Bag 1 Carbon Dioxide
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides	CO2 BAG 2	Bag 2 Carbon Dioxide
CO-COMP	SFTP Composite Carbon Monoxide	CO2 BAG 3	Bag 3 Carbon Dioxide
ETHANOL	C2H5OH - Ethanol	CO2 BAG 4	Bag 4 Carbon Dioxide
FE BAG 1	Bag 1 Fuel Economy		

Certification Region			
CA	California + CAA Section 177 states	FA	Federal

Exhaust Emission Standard Level			
B1	Federal Tier 2 Bin 1	HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)
B2	Federal Tier 2 Bin 2	HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)
B3	Federal Tier 2 Bin 3	L2	California LEV-II LEV
B4	Federal Tier 2 Bin 4	L2OP	California LEV-II LEV Optional
B5	Federal Tier 2 Bin 5	U2	California LEV-II ULEV
B6	Federal Tier 2 Bin 6	S2	California LEV-II SULEV
B7	Federal Tier 2 Bin 7	ZEV	California ZEV
B8	Federal Tier 2 Bin 8	OT	Other
B9	Federal Tier 2 Bin 9	T1	Federal Tier 1
B10	Federal Tier 2 Bin 10	PZEV	California PZEV
B11	Federal Tier 2 Bin 11		

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Certification Summary Information Report

Test Group	DMBXT03.0U2A	**Evaporative/Refueling Family**	N/A
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

S-08: Statements

Please refer to the common application for certification.

S-09: OBD-System Information

The OBD approval is listed in specific section 14.

S-10: Alternate Fuel (if applicable)

This test group does not cover flexible or dedicated alternate fuel vehicles.

S-11: List of AECD

Please refer to S-16 for a detailed description of AECDs including functional explanations.

S-12: Identification and Description of certified vehicles

The identification and description of all vehicles covered by the certificate is given
- in section 02 (common) for exhaust purposes
- in section 03 (common) for evaporative/refuelling families

All appropriate test parameters necessary to conduct an official certification exhaust or evaporative emission test are provided in sections 07 or 17.

S-13: Projected US vehicle sales

Please refer to the common application for certification.

S-14: Request for Certificate

S-14-01: Request for Certificate

Mercedes-Benz requests that EPA issues a certificate of conformity and that ARB issues an executive order for the test group listed on the cover page of this application.

The applicable test results are listed in section 07. The test group complies with all applicable regulations contained within 40 CFR Part 86. The application is current as of this date.

Markus Loesch

Note: Compliance statements are listed in the common section 08.

S-14-02: OBD approval

For OBD approval see confidential section (S-16)

S-14-03: Fee filing form

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

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
MOTOR VEHICLE AND ENGINE COMPLIANCE PROGRAM
ON-HIGHWAY FEE FILING FORM
FOR CERTIFICATION APPLICATIONS RECEIVED IN CALENDAR YEAR 2012

Manufacturer Name Mercedes-Benz USA, LLC.

Address One Mercedes Drive

City/State/Zip Code/Country Montvale, NJ 07645

On-Highway Certification Request Type (check one)

- ☒ **LDV/LDT/MDPV/HDV (Chassis cert) FEDERAL ($32,678)**
- ☐ **LDV/LDT/MDPV/HDV (Chassis cert) CAL-ONLY ($16,899)**
- ☐ **HDE (Engine Dyno cert) FEDERAL ($42,506)**
- ☐ **HDV EVAP-ONLY ($511)**
- ☐ **HDE CALIF-ONLY ($511)**
- ☐ **MOTORCYCLE ($1,210)**
- ☐ **LD/MDPV/HDV ICI ($53,639)**

EPA standard family or test group name: D M B X T 0 3 . 0 U 2 A

Amount paid (U.S. Funds Only): $ 32,678.00

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

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: R-Thomas Brunner Signature: R Thomas Brunner

Title: Manager, VCA Dept. Phone/Fax: 201.573.2622 / 201.476.2866 Date: 02 / 16 / 2012

E-mail Address: r-thomas.brunner@mbusa.com

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: 1/1/2013

S-14-04: Approval Letters low ash oil

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

OFFICE OF
AIR AND RADIATION

September 27, 2005

RECEIVED
OCT 07 2005
R. R. MODLIN

Mr. Reginald Modlin
Director, Environmental and Energy Planning
DaimlerChrysler Corporation
800 Chrysler Drive
Auburn Hills, MI 48326-2757
CIMS 482-00-71

Mr. Modlin,

Thank you for your August 30, 2005 letter regarding DaimlerChrysler's desire to use low ash content engine oil to certify your clean light-duty diesel vehicles. As you correctly noted in your letter, EPA Guidance Documents CCD-01-12 (Use of GF-3 Engine Oil in Test Vehicles) and CCD-04-07 (Use of GF-4 Engine Oil in Certification and Fuel Economy Test Vehicles) are the basis for how EPA determines how to deal with unique engine oils with respect to certification and fuel economy testing.

EPA agrees that the use of low ash content engine oil (0.8%) will be beneficial to allowing new advanced particulate filter systems to meet their full potential for performing over the full useful life of the vehicles. Our primary concern with manufacturer's request to certify with unique engine oils is that these oils be readily available to consumers. We realize that the number of light-duty diesel vehicles in the U.S. is low and that the demand for clean light-duty diesel engine oil is also low and that it will be initially difficult to establish widespread distribution of low ash oil.

The plan proposed by DaimlerChrysler for the use and certification of low ash content engine oil, which includes the availability of the low ash engine oil at the 4,300 DaimlerChrysler dealerships in the U.S., the investigation of the potential for making the engine oil available through automotive aftermarket retail chains (Auto Zone, NAPA, etc.) through DaimlerChrysler's MOPAR aftermarket organization, and the continued work with oil manufacturers to market the oil through their outlets and promote the use of the oil at "quick oil change" facilities, appears to be reasonable. Therefore, we are approving DaimlerChrylser's plan to use low ash content engine oil for the certification of light-duty diesel vehicles.

Printed on Recycled Paper

Please let me know if you any additional questions. You can contact me at 734-214-4286.

Sincerely,

Linc Wehrly
Compliance and Innovative Strategies Division
Office of Transportation and Air Quality

S-15: HEV-specific data (if applicable)

No Hybrid Electric Vehicles (HEV) are part of this test group.