



Pursuant to the authority vested in the Air Resources Board by Health and Safety Code Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: The engine and emission control systems produced by the manufacturer are certified as described below for use in on-road motor vehicles with a manufacturer's GVWR over 14,000 pounds. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	ENGINE SIZES (L)	FUEL TYPE ¹	STANDARDS & TEST PROCEDURE	INTENDED SERVICE CLASS ²	ECS & SPECIAL FEATURES ³	DIAGNOSTIC ⁶
2011	BNVXH03900GA	6.4	Diesel	Diesel	LHDD	ECM, TC(2), CAC, DDI, EGR, OC, PTOX	EMD

PRIMARY ENGINE'S IDLE EMISSIONS CONTROL ⁵	ADDITIONAL IDLE EMISSIONS CONTROL ⁵
ESS or 30g	N/A.

ENGINE (L)	ENGINE MODELS / CODES (rated power, in hp)
6.4	See attachment for engine models and ratings.

* =not applicable; GVWR=gross vehicle weight rating; 13 CCR xyz=Title 13, California Code of Regulations, Section xyz; 40 CFR 86.abc=Title 40, Code of Federal Regulations, Section 86.abc; L=liter; hp=horsepower; kw=kilowatt; hr=hour;
¹ CNG/LNG=compressed/liquefied natural gas; LPG=liquefied petroleum gas; E85=85% ethanol fuel; MF=multi fuel a.k.a. BF=bi fuel; DF=dual fuel; FF=flexible fuel;
² L/M/H HDD=light/medium/heavy heavy-duty diesel; UB=urban bus; HDO=heavy duty Otto;
³ ECS=emission control system; TWC/OC=three-way/oxidizing catalyst; NAC=NOx adsorption catalyst; SCR-U / SCR-N=selective catalytic reduction - urea / - ammonia; WU (prefix)=warm-up catalyst; DPF=diesel particulate filter; PTOX=periodic trap oxidizer; HO2S/O2S=heated/oxygen sensor; HAFS/AFS=heated/air-fuel-ratio sensor (a.k.a., universal or linear oxygen sensor); TBI=throttle body fuel injection; SF/MFI=sequential/multi port fuel injection; DGI=direct gasoline injection; GCARB=gaseous carburetor; IDI/DDI=indirect/direct diesel injection; TC/SC=turbo/super charger; CAC=charge air cooler; EGR / EGR-C=exhaust gas recirculation / cooled EGR; PAIR/AIR=pulsed/secondary air injection; SPL=smoke puff limiter; ECM/PCM=engine/powertrain control module; EM=engine modification; 2 (prefix)=parallel; (2) (suffix)=in series;
⁵ ESS=engine shutdown system (per 13 CCR 1956.8(a)(6)(A)(1); 30g=30 g/hr NOx (per 13 CCR 1956.8(a)(6)(C); APS =internal combustion auxiliary power system; ALT=alternative method (per 13 CCR 1956.8(a)(6)(D); Exempt=exempted per 13 CCR 1956.8(a)(6)(B) or for CNG/LNG fuel systems; N/A=not applicable (e.g., Otto engines and vehicles);
⁶ EMD=engine manufacturer diagnostic system (13 CCR 1971); OBD=on-board diagnostic system (13 CCR 1971.1);

Following are: 1) the FTP exhaust emission standards, or family emission limit(s) as applicable, under 13 CCR 1956.8; 2) the EURO and NTE limits under the applicable California exhaust emission standards and test procedures for heavy-duty diesel engines and vehicles (Test Procedures); and 3) the corresponding certification levels, for this engine family. "Diesel" CO, EURO and NTE certification compliance may have been demonstrated by the manufacturer as provided under the applicable Test Procedures in lieu of testing. (For flexible- and dual-fueled engines, the CERT values in brackets [] are those when tested on conventional test fuel. For multi-fueled engines, the STD and CERT values for default operation permitted in 13 CCR 1956.8 are in parentheses.).

in g/bhp-hr	NMHC		NOx		NMHC+NOx		CO		PM		HCHO	
	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO
STD	0.14	0.14	0.20	0.20	*	*	15.5	15.5	0.01	0.01	*	*
FEL	*	*	0.50	0.50	*	*	*	*	*	*	*	*
CERT	0.12	0.03	0.50	0.36	*	*	3.4	0.4	0.002	0.001	*	*
NTE	0.21		0.75		*		19.4		0.02			

⁴ g/bhp-hr=grams per brake horsepower-hour; FTP=Federal Test Procedure; EURO=Euro III European Steady-State Cycle, including RMCSET=ram mode cycle supplemental emissions testing; NTE=Not-to-Exceed; STD=standard or emission test cap; FEL=family emission limit; CERT=certification level; NMHC/HC=non-methane/hydrocarbon; NOx=oxides of nitrogen; CO=carbon monoxide; PM=particulate matter; HCHO=formaldehyde. (Rev.: 2007-02-26)

BE IT FURTHER RESOLVED: Certification to the FEL(s) listed above, as applicable, is subject to the following terms, limitations and conditions. The FEL(s) is the emission level declared by the manufacturer and serves in lieu of an emission standard for certification purposes in any averaging, banking, or trading (ABT) programs. It will be used for determining compliance of any engine in this family and compliance with such ABT programs.

BE IT FURTHER RESOLVED: Except in vehicle applications exempted per 13 CCR 1956.8(a)(6)(B), 30g engine models in this engine family certified under 13 CCR 1956.8(a)(6)(C) [30 g/hr NOx] and section 35.B.4 of the incorporated "California Exhaust Emissions Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles" adopted Dec. 12, 2002, as last amended Sep. 1, 2006, shall be provided with an approved "Certified Clean Idle" label that shall be affixed to the vehicle into which the engine is installed.

BE IT FURTHER RESOLVED: For the listed engine models the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR 1965 (emission control labels), 13 CCR 1971 (engine manufacturer diagnostic system) and 13 CCR 2035 et seq. (emission control warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations. The Bureau of Automotive Repair will be notified by copy of this Executive Order. This Executive Order hereby supersedes Executive Order A-004-0367-1 dated June 20, 2011.

Executed at El Monte, California on this 3 day of November 2011.

Annette Hebert, Chief
Mobile Source Operations Division

Attachment 1 of 1

Engine Model Summary Template

A-004-0367-2

10-25-2011

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
BNVXH03900GA	N104	A300, 12WZB	300 @ 2600	110	128	660 @ 1600	102	73	TCM ECM, 70 , CAC, DFI, EGR, DOC, PTOX
BNVXH03900GA	N116	A300, 12WZB	300 @ 2600	110	128	660 @ 1600	102	73	ECM, 70 , CAC, DFI, EGR, DOC, PTOX
BNVXH03900GA	N104	A300, 12WZJ	300 @ 2600	110	128	660 @ 1600	102	73	ECM, 70 , CAC, DFI, EGR, DOC, PTOX
BNVXH03900GA	N116	A300, 12WZJ	300 @ 2600	110	128	660 @ 1600	102	73	ECM, 70 , CAC, DFI, EGR, DOC, PTOX
BNVXH03900G	N103	A260, 12WZB	260 @ 2600	98	115	660 @ 1600	102	73	ECM, 70 , CAC, DFI, EGR, DOC, PTOX
BNVXH03900G	N115	A260, 12WZB	260 @ 2600	98	115	660 @ 1600	102	73	ECM, 70 , CAC, DFI, EGR, DOC, PTOX
BNVXH03900GA	N103	A260, 12WZJ	260 @ 2600	98	115	660 @ 1600	102	73	ECM, 70 , CAC, DFI, EGR, DOC, PTOX
BNVXH03900GA	N115	A260, 12WZJ	260 @ 2600	98	115	660 @ 1600	102	73	ECM, 70 , CAC, DFI, EGR, DOC, PTOX
BNVXH03900GA	N102	A240, 12WZB	240 @ 2600	93	108	620 @ 1400	101	64	ECM, 70 , CAC, DFI, EGR, DOC, PTOX
BNVXH03900GA	N102	A240, 12WZJ	240 @ 2600	93	108	620 @ 1400	101	64	ECM, 70 , CAC, DFI, EGR, DOC, PTOX
BNVXH03900GA-	N101	A220, 12WZB	220 @ 2600	87	101	560 @ 1400	93	58	ECM, 70 , CAC, DFI, EGR, DOC, PTOX
BNVXH03900GA	N101	A220, 12WZJ	220 @ 2600	87	101	560 @ 1400	93	58	ECM, 70 , CAC, DFI, EGR, DOC, PTOX
BNVXH03900GA	N106	A200, 12WZB	200 @ 2600	81	94	540 @ 1400	91	57	ECM, 70 , CAC, DFI, EGR, DOC, PTOX
BNVXH03900GA	N106	A200, 12WZJ	200 @ 2600	81	94	540 @ 1400	91	57	ECM, 70 , CAC, DFI, EGR, DOC, PTOX

TCM

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ESS: engine models: A300, A260, A240, A220, A200
 30g: engine models: 12WZB, 12WZJ