BAF TECHNOLOGIES

EXECUTIVE ORDER A-364-0052 New On-Road Heavy-Duty Engines

⊘ Air Resources Board

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-14-012;

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 Otto	SERVICE	ECS & SPECIAL FEATURES 3	DIAGNOSTIC 6				
2015	FBAFE06.89	FBAFE06.89NN		CNG		CLASS *	TWC, HO2S, SFI, 2AFS	EMD+				
PRIMARY	'ENGINE'S IDLE NS CONTROL		ADDITIONAL IDLE EMISSIONS CONTROL 5									
	N/A		N/A									
ENGINE (L) .	ENGINE MODELS / CODES (rated power, in hp)										
6.8		V-10 / BAFB68C (242)										
*		*										
*		*										
L=liter; hp 1 CNG/L1 2 L/M/H H 3 ECS=er up catalyst; TBI=throttle super charge control mode 5 ESS=er (per 13 CC)	=horsepower; kw=ki MD=light/medium/he mission control syste DPF=diesel particus body fuel injection; ger; CAC=charge air fulle; EM=engine mon ngine shutdown syste R 1956.8(a)(6)(D); E	lowatt; hi efied natu eavy heav m; TWC/ late filter; SFI/MFI= cooler; E dification; em (per 13 exempt=e	rehour; rral gas; LPG=liquef y-duty diesel; UB=u OC=three-wayloxidi; PTOX=periodic trag; sequential/multi port EGR / EGR-C=exha; 2 (prefix)=parallel; 3 CCR 1956.8(a)(6)(a); xempted per 13 CCR	ied petroleum gas; E85=85% eth rban bus, HDO=heavy duty Otto; ting catalyst; NAC=NOx adsorption oxidizer; HO2S/O2S=heated/ox; fuel injection; DGI=direct gasolir ist gas recirculation / cooled EGR (2) (suffix)=in series; A)(1); 30g=30 g/hr NOx (per 13 C	anol fuel; MF=mult on catalyst; SCR-L /gen sensor; HAF- le injection; GCAR PAIR/AIR=pulser CR 1956.8(a)(6)(C fuel systems; N/A	i fuel a.k.a. BF I / SCR-N=select S/AFS=heated/i: B=gaseous car d/secondary air); APS =interni: =not applicable	R 86.abc=Title 40, Code of Federal Regulation =bi fuel; DF=dual fuel; FF=flexible fuel; ctive catalytic reduction – urea / – ammonia; V air-fuel-ratio sensor (a.k.a., universal or linear of buretor; IDI/IDII=indirect/direct diesel injection injection; SPL=smoke puff limiter; ECM/PCM al combustion auxiliary power system; ALT=a (e.g., Otto engines and vehicles);	VU (prefix) =warm- oxygen sensor); n; TC/SC=turbo/ =engine/powertrain				

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	NMHC		NOx		NMHC+NOx		co		PM		нсно	
g/bhp-hr	FTP	SET	FTP	SET	FTP	SET	FTP	SET	FTP	SET	FTP	SET
STD	0.14	*	0.20	*	*	*	14.4	*	0.01	*	0.01	*
CERT	0.07	*	0.05	*	*	*	6.9	*	0.01	*	0.000	*
NTE	*		*		*		*		*		*	

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: 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) 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.

Executed at El Monte, California on this

day of August 2014

Annatte Hebert Chief

Emissions Compliance, Automotive Regulations and Science Division