CATERPILLAR, INC.

EXECUTIVE ORDER A-013-0183 New On-Road Heavy-Duty Engines

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	FUEL TYPE 1	STANDARDS & TEST	INTENDED	
		SIZES (L)		PROCEDURE	SERVICE CLASS ²	ECS & SPECIAL FEATURES 3
2006 NGINE (L	6CPXH0537HBK	8.8	Diesel	Diesel	MHDD	OC, ECM, SPL, DDI, TC, CAC
8.8	"		ENGINE M	ODELS / CODES (r	ated power, in hp)	, , , , , , , , , , , , ,
*			C9 / : 1 (4	00), 2 (350), 3 (335), 4 (400), 5 (370)	
				*		
*	 			*		
			Nov=Title 13 California Cod	*		

=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=titer; hp=horsepower; kw=kilowatt;

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;

ECS-emission control system; TWC/OC=three-way/oxidizing catalyst; WU (prefix) =warm-up catalyst; DPF=diesel particulate filler; HO2S/O2S=heated/oxygen sensor; HAFS/AFS=heated/air-tuel-ratio sensor (a.k.a., universal or linear oxygen sensor); TBI-throttle body fuel injection; SFI/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=exhaust gas recirculation; PAIR/AIR=pulsed/secondary air injection; SPL=smoke puff limiter; (2004may26)

Following are: 1) the FTP exhaust emission standards, or family emission limit(s) as applicable, under 13 CCR 1956.1 (urban bus) or 13 CCR 1956.8 (other than urban bus); 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, in g/bhp-hr, 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 1956.1 or 13 CCR 1956.8 are in parentheses.)

FTP EURO FTP		N	NMHC		NOx		NMHC+NOx		СО		PM		
STD 0.5 0.5 * 2.5 2.5 15.5 15.5 0.10 0.10 * CERT 0.1 0.04 * 2.3 2.1 1.8 0.8 0.08 0.04 * CERT 0.625 * 3.125 18.375 0.125		FTP	EURO	FTP	EURO	FTP	FURO					НСНО	
ZERT 0.1 0.04 * Z.3 Z.1 1.8 0.8 0.08 0.04 * Z.3 Z.1 1.8 0.85 0.08 0.04 * Z.3 Z.1 2.1 2.3 Z.1 Z.1 2.3 Z.1 Z.1 2.3 Z.1 Z.1 2.3 Z.1	STO	0.5					LUKU	LIP	EURO	FTP	EURO	FTP	EURO
EERT 0.1 0.04 2.3 2.1 1.8 0.8 0.08 0.04 THE 0.625 3.125 18.375 0.125		0.5	U.5			2.5	2.5	15.5	15.5	0.10	0.10		
NTE 0.625 3.125 18.375 0.08 0.04	FEL	_ *	*		• 1	*			•				
NTE 0.625 * 3.125 19.375 0.425	CERT	0.1	0.04	•	 		1		ļ		· ·	•	١ ٠
3.125 19.375 0.425		+				2.3	2.1	1.8	0.8	0.08	0.04	•	*
					*			19.375		0.125			
	/2/12/7	TINSSION HITHI,	CERT=certific	cation level;	NMHC/HC=n	on-methane/h	vdrocarbon: N	Ox=oxides of r	itronen CO-c	orbon month	-Exceed; STD= de; PM≖particul	Staticiand or earlis	sion test cap;

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: For the listed engine models the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR 1965 (emission control labels) 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 December 2005.

Mobile Source Operations Division