California Environmental Protection Agency	HINO MOTORS, LTD.	EXECUTIVE ORDER A-031-0063 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	ENGINE FAMILY		FUEL TYPE	STANDARDS		ECS & SPECIAL FEATURES	IDLING
		312E3 (L)		PROCEDURE	CLASS 2	ECM, EGR, OC, PTOX, DDI, TC.	CONTROL
2008	8HMXH07.7JTW	7.7	Diesel	Diesel	HHDD	CÁC	300
ENGINE (L)			ENGINE MODEL	S/CODES (rate	d power, in h	p)	
7.7				08E-TW (260)			
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ns, Section xyz; 40 CFR 85 abc=Title 40, Code of Federal Regulations, Section 86 abc; -liter: hp=horsepower: kw=kilowatt; hr=hour; 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=fiexible fuel;

2 L/WH HDD=light/medium/heavy heavy-duty diesel; UB=urban bus; HDO=heavy duty Otto;

Liver HDD=light/medium/heavy heavy-duty diesel; UB=urban bus; HDD=heavy duty Otto; 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; PTO25-periodic trap oxidizer; HO25/O2S=heated/oxygen sensor; HAFS/AFS=heated/air-fuel-ratio sensor (a.k.a., universal or linear oxygen sensor); TBI=throttle body fuel injection; SFVMFI=sequential/multi port fuel injection; DGPdirect gasoline injection; GCRB=gaseous carburetor; IDVDDi=indirect/direct disel 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=stroke pulf limiter; ECM/PCM=engine/powertrain control module; EM=engine modification; 2 (prefix)=paralite; (2) (suffix)=in series; 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); ALT=altemative method (per 13 CCR 1956.8(a)(6)(D); Exempt=exempted per (Rev.: 2007-12-20)

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 dlesel 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		со		PM		HCHO	
g/bhp-hr	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTD	EURO	ETD	
STD	0.14	0.14		*	•	*	15.5	16.5	0.01	EURO	<u> </u>	EURO
FEL	*	*	1.20	1.20	12	12	*	10.0	0.01	0.01		
CERT	0.01	0.02	1.16	1.11	1.16	1 13	0.15	0.01	0.009	0.000		
NTE	0.	21	1.	80	1	8	0.10	10.01	0.000	0.008		
							16	2.4	U.	02 I		

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 nitroger CO=carbon monoxide; PM=particulate matter; HCHO=formaldehyde; NOx=oxides of nitrogen:

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), engines 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" (HDDE Test Procedures) 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: The listed engine models have been certified to the split engine family standards under 13 CCR 1956.8(b) [diesel engines] or 13 CCR 1956.8(d) [Otto engines] and the incorporated 40 CFR 86.007-15(m)(9).

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 February 2008.

Annette Hebert, Chief Mobile Source Operations Division