EXECUTIVE ORDER U-R-013-0266-1 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)			
2008	8DZXL02.3048	2.290	Diesel	8000			
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION				
Direct Diesel Injection, Turbocharger, Smoke Puff Limiter, Exhaust Gas Recirculation			Crane, Loaders, Tractor, Dozer, Pump, Compressor, Other Industrial Equipment				

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED	EMISSION		EXHAUST (g/kw-hr)					OPACITY (%)		
POWER CLASS	STANDARD CATEGORY		нс	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
37 ≤ kW < 56	Tier 4 interim	STD N/A N/A		N/A	N/A 4.7	5.0 0.30	20	15	50	
		CERT			4.0	1.2	0.24	6	3	11

**BE IT FURTHER RESOLVED:** That certification to the standards in 13 CCR 2423(b)(1)(A) -Table 1b listed above has been permitted pursuant to 13 CCR 13 CCR 2423(b)(1)(A) -Table 1b – Endnote 3.

**BE IT FURTHER RESOLVED:** That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

This Executive Order hereby cancels and replaces Executive Order U-R-013-0266 dated March 13, 2008.

Executed at El Monte, California on this \_\_\_\_\_ 2745 day of November 2008.

Annette Hebert, Chief

Mobile Source Operations Division

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## Engine Model Summary Template

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9.Emission Control	Device Per SAE J1930		DDI, TC, EGR S⊅2		UUI, TC, EGR		UUI, IC, EGK	DDI TC FGR	
te: eak	torque	71	P. / L	7	6. / ·	44.0	D: /-	17.9	
7.Fuel Rate: mm/stroke@peak torque		0 77	0.4	8 77	o.	44.8	9	44.8	
6.Torque @ RPM	(86010 000)	180@1800	0001	180@1800		180@1800		180@1800	
4.Fuel Rate: 5.Fuel Rate: 7.Fuel Rate: 7.Fuel Rate: 7.Fuel Rate: 7.Fuel Rate: 7.Fuel Rate: 6.Torque @ RPM mm/stroke@peak (for diesel only) (for diesels only) (SEA Groot)	(III)	26.8	2	25.3		24.4		23.6	
4.Fuel Rate: mm/stroke @ peak H (for diesel only)		43.2		43.8		44.0	;	44.4	
3.BHP@RPM (SAE Gross)	لابدا	60.3@2800		59.8@2600		58.3@2500	WE7 4 @ 2400	37.4@2400	
2.Engine Model	7	1D2009L04 47,60.3@2800		1 DZ009L04	ים ומממנתד	I DZDUBLU4	J NO IRONGITA	1047@4.16 4ch	
Engine Family 1.Engine Code 2.Engine Model		C30I45	C311144 6	0,44,000	C311143 E	0,00	C3UI42.8		
Engine Family	8D7X102 3048	00000000000000000000000000000000000000	8DZXI 02 3048		8DZXL02.3048		8DZXL02.3048		

U-R-013-0266-1 Attachment P. 1 of