EXECUTIVE ORDER U-R-038-0102 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)		
2012	CICLL2.20C4H	2.197	Diesel	5,000		
SPECIAL	FEATURES & EMISSION (TYPICAL EQUIPMENT APPLICATION			
	Indirect Diesel Inje	ction	Tractor			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), 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 (%)		
١	POWER CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
	19 <u><</u> kW < 37	Interim Tier 4	STD	N/A	N/A	7.5	5.5	0.30	20	15	50
			CERT			6.2	1.5	0.28	3	5	5

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.

Executed at El Monte, California on this

____ day of December 2011.

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Annette Hebert, Chief

Mobile Source Operations Division

LO#: U-R-038-0102 Engine Model Summary Template

Att achieut: page (of) 12-22-11

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		9.Emission Centrol Device Per SAE J1930
CICLL2.20C4H	6285-885-246-	E4CG	44.9@2500	34.0@44.9	18.4@44.9	107.6@1500	37.2@107.6	12.5@107.6	IFI
CICLL2.20C4H	6285-885-247-	E4CG	44.3@2500	32.9@44.3	18.4@44.3	104.3@1500	37.0@104.3	12.5@104.3	IFI
CICLL2.20C4H	6285-885-248-	E4CG	40.5@2500	30.7@40.5	16.6@40.5	100.3@1500	34.3@100.3	11.1@100.3	IFI.
CICLL2.20C4H	6285-885-249-	E4CG	47.1@2600	34.2@47.1	19.9@47.1	104.3@1500	37.0@104.3	12.5@104.3	IFI
CICLL2.20C4H	6285-885-250-	E4CG	47.1@2600	34.6@47.1	19.4@47.1	102.9@1500	36.4@102.9	11.8@102.9	IFI
CICLL2.20C4H	6285-885-251-	E4CG	43.4@2500	32.8@43.4	18.4@43.4	95.9@1500	32.7@95.9	11.0@95.9	IFI.