California Environmental Protection Agency AIR RESOURCES BOARD	JIANGSU CHANGFA GROUP	EXECUTIVE ORDER U-R-057-0008-1 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)			
2009	9JCGL0.42D1N	0.418	Diesel	3000			
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION				
Direct Diesel Injection, Diesel Oxidation Catalyst		Dxidation Catalyst	Generator Set				

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):

POWER STANE	EMISSION		EXHAUST (g/kw-hr)			OPACITY (%)				
	STANDARD CATEGORY		нс	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
kW < 8	Tier 4	STD	N/A	N/A	7.5	8.0	0.40	N/A	N/A	N/A
		CERT			6.7	0.2	0.36			-

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-057-0008 dated April 27, 2009.

Executed at El Monte, California on this _____ day of July 2009.

-H

Annette Hebert, Chief Mobile Source Operations Division

Engine Model Summary Template

Attachment, Page 1 of 1

N-8-057-0008-1

8. Fuel Rate: 9. Emission Control (lbs/hr)@peak torqueDevice Per SAE J1930 DOC 3.66 4. Fuel Rate: 5. Fuel Rate: 5. Fuel Rate: mm/stroke@peak HP (Ibs/hr) @ peak HP 6. Torque @ RPM mm/stroke@peak mm/stroke@peak (for diesels only) (SEA Gross) torque 7.Fuel Rate: 18.23 11.35@3600 5.Fuel Rate: 3.66 (for diesel only) 18.23 3.BHP@RPM (SAE Gross) 7.8@3600 Engine Family 1. Engine Code 2. Engine Model CF186F 6-30-2009 9JCGL0.42D1N