California Environmental Protection Agency AIR RESOURCES BOARD	Lombardini A KOHLER Company	EXECUTIVE ORDER U-R-027-0125 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)
2011	BLBDL.442155	0.442	Diesel	3000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Mechanical Direct Injection, Exhaust Gas Recirculation	Pump, Compressor, 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):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
kW < 8	Tier 4 - Final	STD	N/A	N/A	7.5	8.0	0.60	N/A	N/A	N/A
		CERT	--	--	6.9	5.2	0.42	--	--	--

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 Endnote 2 of the same table.

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 22 day of December 2010.

Annette Hebert, Chief
Mobile Source Operations Division

Attachment 1 of 1

Engine Model Summary Template

VR-027-0125

12-15-2010

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	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
BLBDL.442155		15LD440/B1	8.9@3000	21.0	3.48	18.1@2200	24.0	2.93	EGR DD1
BLBDL.442155		15LD440	7.9@2750	20.5	3.13	17.7@2000	24.0	2.67	EGR
BLBDL.442155		15LD440	10.3@3600	20.5	4.10	18.1@2200	24.0	2.93	EGR
BLBDL.442155		KD440/B1	8.9@3000	21.0	3.48	18.1@2200	24.0	2.93	EGR
BLBDL.442155		KD440	7.9@2750	20.5	3.13	17.7@2000	24.0	2.67	EGR
BLBDL.442155		KD440	10.3@3600	20.5	4.10	18.1@2200	24.0	2.93	EGR
BLBDL.442155		15LD440GE	10.3@3600	20.5	4.10	FIXED SPEED	FIXED SPEED	FIXED SPEED	EGR
BLBDL.442155		KD440GE	10.3@3600	20.5	4.10	FIXED SPEED	FIXED SPEED	FIXED SPEED	EGR
BLBDL.442155		15LD440/D	9.4@3600	20.0	3.99	17.0@2200	22.5	2.73	EGR
BLBDL.442155		15LD440/DGE	9.4@3600	20.0	3.99	FIXED SPEED	FIXED SPEED	FIXED SPEED	EGR
BLBDL.442155		KD420	9.4@3600	20.0	3.99	17.0@2200	22.5	2.73	EGR
BLBDL.442155		KD420GE	9.4@3600	20.0	3.99	FIXED SPEED	FIXED SPEED	FIXED SPEED	EGR