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	BKMCL2.28A42	2.286	Diesel	5,000						
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION							
	Indirect Diesel Inje	oction	Crane, Loader, Tractor, Dozer, Pump, Compressor, Generator Set, 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			E	XHAUST (g/kW-ł	OPACITY (%)					
POWER CLASS	STANDARD CATEGORY		HC	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK	
19 ≤ kW < 37	Tier 4 - Interim	STD	N/A	N/A	7.5	5.5	0.30	20	15	50	
		CERT			4.9	1.5	0.22	8	8	11	

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 February 2011.

Annette Hebert, Chief Mobile Source Operations Division U-R-046-0058 217/11

Engine Model Summary Form ATTACHMENT

Manufacturer: Kukje Machinery Co., EPA Mnfr:1700 Engine category: Nonroad Cl

EPA Engine Family: BKMCL2.28A42

Mfr Family Name: A2300N2

Process Code: New Submission

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					 	 					 _	 				
8.Fuel Rate: 9.Emission Control (bs/hr)@peak torque Device Per SAE J1930	IDI,EM	IDI,EM	IDI,EM	IDI,EM												
8.Fuel Rate: (lbs/hr)@peak torque	12.2	12.0	N/A	N/A												
7.Fuel Rate: mm/stroke@peak torque	34.0	33.7	N/A	N/A								-				
6.Torque @ RPM (SEA Gross)	110.6@1600	109.2@1600	N/A	N/A												
5.Fuel Rate: (Ibs/hr) @ peak HP (for diesels only)	18.1	15.7	13.9	12.5												
 4. Fuel Rate: mm/stroke @ peak HP (for diesel only) 	31.0	29.0	35.2	38												
3.BHP@RPM (SAE Gross)	47@2600	44@2400	33.1@1800	29.2@1500												
2.Engine Model	A2300N2	A2300N3	A2300-Gen	A2300-Gen						-						
1.Engine Code	N/A	N/A	N/A	N/A												