## DAEDONG INDUSTRIAL CO., LTD.

EXECUTIVE ORDER U-R-044-0044

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 engine and emission control system 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)		
2007	7DCLL01.4D80	1.4	Diesel	5000		
	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION			
	Indirect Diesel Inje	ection	Tractor			
13.75 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	74-5 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	TEMPER 1 2 2-8-00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	The second of th			

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 CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
19 ≤ KW < 37	Tier 2	STD	N/A	N/A	7.5	5.5	0.60	20	15	50
		CERT			6.5	1.3	0.38	6	5	7

**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 April 2007.

nnette Hebert, Chief

Mobile Source Operations Division

## ATTACHMENT 1 OF !

## **Engine Model Summary Form**

Manufacturer: Daedong Industrial Co. Ltd.

Engine category: Nonroad CI

EPA Engine Family. 7DCLL01.4D80

Mfr Family Name: NA

Process Code: New Submission

u-R-044-0044

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8.Fuel Rate: 9.Emission Control ibs/hr)@peak torque Device Per SAE J1930	TOT WA	¥	Ā	A	M	A	Ą	ڊ ڊ	
8.Fuel Rate: (lbs/hr)@peak torque [	8.28	9.1	8.45	8.28	16	9.1	8.45	8.28	
7.Fuel Rate: mm/stroke@peak torque	29.4	32.3	30.0	29.4	32.3	32.3	30.0	29.4	
6.Torque @ RPM (SEA Gross)	62.2@1700	68.6@1700	63.8@1700	62.2@1700	68.6@1700	68.6@1700	63.8@1700	62.2@1700	
5. Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	11.68	11.54	11.03	11.68	11,54	11.54	11.03	11.68	
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	26.1	26.8	25.6	26.1	26.8	26.8	25.6	26.1	
3.BHP@RPM (SAE Gross)	28.2@2700	28.1@2600	27.3@2600	28.2@2700	28.1@2600	28.1@2600	27.3@2600	28.2@2700	
2.Engine Model	3A139								
1.Engine Code	3A139A-DY	3A139B	3A139LG	3A139LXDY	3A139LXE	3A139LXD	3A139LXLG	3A139LXA	