## EXECUTIVE ORDER U-R-028-0320 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)		
2007	7YDXL0.57W2N	0.570	Diesel	3000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Indirect Diesel Injection			Crane, Loader, Tractor, Dozer, Pump, Compressor, Refrigerator			

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, 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 STANDARD CATEGORY		EXHAUST (g/kW-hr)			OPACITY (%)				
POWER CLASS			нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
kW < 8	Tier 2	STD	N/A	N/A	7.5	8.0	0.80	20	15	50
8 ≤ kW < 19	Tier 2	STD	N/A	N/A	7.5	6.6	0.80	20	15	50
		FEL			7.0	-	0.60			
	, , , , , , , , , , , , , , , , , , ,	CERT			5.0	1.6	0.18	7	9	10

**BE IT FURTHER RESOLVED:** That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

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 2006.

Annette Hebert, Chief

Mobile Source Operations Division

## **Engine Model Summary Template**

ATTACHMENT EOHU-R-028-0330

Control E J1930	EM ID		_	EM
9.Emission Control tueDevice Per SAE J193	Ē	EM	EM	E
8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torqueDevice Per SAE J1930	4.0	4.1	3.7	4.0
7.Fuel Rate: mm/stroke@peak torque	20.0	18.5	18.9	20.0
6.Torque @ RPM (SEA Gross)	25.1/1800	24.8/2000	24.8/1800	25.1/1800
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.0	6.0	4.5	6.0
4.Fuel Rate: 5.Fuel Rate: mm/stroke @ peak HP (lbs/hr) @ peak HP 6.Torque @ RPM (for diesel only) (for diesels only) (SEA Gross)	18.1	18.1	16.9	18.1
3.BHP@RPM (SAE Gross)	12.6/3000	12.6/3000	9.9/2400	12.6/3000
з.внр@крм Engine Family 1.Engine Code 2.Engine Model (SAE Gross)	N/A 2TNV70K-VM11 12.6/3000	TK270	TK270M	2TNV70K-VM12 12.6/3000
1.Engine Code	A/N	N/A	N/A	A/N
Engine Family	7YDXL0.57W2N	7YDXL0.57W2N	7YDXL0.57W2N	7YDXL0.57W2N