EXECUTIVE ORDER U-R-028-0344

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	7YDXL2.00M4T	1.995	Diesel	8000		
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT	APPLICATION		
[Direct Diesel Injection, To	urbocharger	Crane, Loader, Trac Pump, Compressor			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbons (HC), oxides of nitrogen (NOx), or non-methane hydrocarbons 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-l	nr)		C	PACITY ((%)	
POWER CLASS	STANDARD CATEGORY		HC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK	
37 ≤ kW < 75	Tier 2	STD	N/A	N/A	7.5	5.0	0.40	20	15	50	
		CERT			5.2	1.5	0.33	4	3	9	

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 December 2006

Annette Hebert, Chief

Mobile Source Operations Division

Engine Model Summary Form

ES#V-R-0280344 ATTACHWENT, PIOF!

Manufacturer: Yanmar Co., Ltd.

Engine category: Nonroad Cl

EPA Engine Family: 7YDXL2.00M4T

Mfr Family Name: N/A

Process Code: New Submission

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9.Emission Control Device Per SAE J19:		EM	WE WE	N E	No	EM	7)	EM		EM				
8 Fuel Rate: 9 Emission Control (Ibs/hr)@peak torque Device Per SAE J1930	19)	4.6		13.4	164	19.7	480	19.7	661	13.0	15.0	13.0		
7.Fuel Rate: mm/stroke@peak torque	# 2 F	38.1	38.1	38.1	38.1	38.8	7.96	38.8		0.75	± 210 · · ·	37.0	976	
6.Torque @ RPM (SEA Gross)	133,54700	119,4/1600	-119,4/1600	119.4/1600	- 119.4H 600	123.2/2300	120,2/1500	123.2/2300	120,2/1900	120.2/1600	120,2/1600	120.2/1600	120,2/1800	医复生散物 电检路线线
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	7. 25.4	24.1	22.8	24.7	20.6	23.7	1.1.2.2.0	23.7	250	21.0	240	21,0	2 210	
4. Fuel Rate: mm/stroke @ peak HP (for diesel only)	786	36.4	387	35.2	87.	35.8	34.0	35.8	340	34.0	34.0	34.0	34.0	
3.BHP@RPM n (SAE Gross)		57.3/3000	55.4/2900	53.5/2800	- 4.2700 -	57,3/3000	- K4.5/2800 E	57,3/3000	53.5/280C	53.5/2800	- 53 52800	53.5/2800	53.5/2800	
2.Engine Model	NA TRIVB4 EVM2 1.58 1.5906	4TNV84T-D	ATN/6/TIE		ATKWRAT.	N/A S4D84E-5D	SADBAE SK	N/A D2.0ACAE2SW 57.33000	N/A 53 5/2800	4TNV84T-XWL	NVA 7T NV87T XTB - 53.52800	N/A 4TNV84T-XNS 53.5/2800	NJA 4TNV84T-XSU-53-5/2800	
1.Engine Code 2.Engine Model	NA	NA		AN		NA		N/A		N/A	MA	NA	3	

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