EXECUTIVE ORDER U-R-028-0183 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)	
2004	4YDXL1.01R3N	1.006	· Diesel	3000	
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION		
Indirect Diesel Injection			Generator Set		

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	EXHAUST (g/kw-hr)				OPACITY (%)				
POWER CLASS	STANDARD CATEGORY	!	нс	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
8≤ kW < 19	Tier 1	STD	N/A	N/A	9.5	6.6	0.80	N/A	N/A	N/A
		CERT			6.2	1.7	0.42	<b></b>		

**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

BTH

day of December 2003.

Allen yons, Chief

Mobile Source Operations Division

60#U-R-28-183

ATTACHMENT

Manufacturer: Yanmar Co., Ltd.

Engine category: Nonroad Cl

EPA Engine Family: 4YDXL1.01R3N

Mfr Family Name: N/A

Process Code: New Submission

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9.Emission Control evice Per SAE J1930	EM S	EM	EM	EM	EM	EM	J. EM	
8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
7.fiuel Ratg; mm/stroke@peak torque	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
6.Torque @ RPM (SEA Gross)	A/N	N/A	N/A	N/A	N/A	N/A	N/A	
5.Fuel Rate; (fbs/hr) @ peak NP (for diesets only)	6.1	6.1	5.9	5.9	5.9	6.1	6.1	
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	20.5	20.5	19.8	19.8	19.8	20.5	20.5	
3.BHP@RPM (SAE Gross)	14.7/1800	14.7/1800	13.1/1800	13.1/1800	13.1/1800	14.7/1800	14.7/1800	
- 1	3TNE74-ECL1	3TNE74C-EKM	3TNE74C-EG1	3TNE74C-EG1	3TNE74C-EYA	3TNE74C-EMG	3TNE74C-EKM	
1.Engine Code	N/A	N/A	N/A	N/A	N/A	AN	N/A	: :

## Engine Model ... mmary Form

Yanmar Co., Ltd. Manufacturer:

Nonroad Cl Engine category:

4YDXL1.01R3N EPA Engine Family.

ATTACHMENT 2 06 2 R/C#04-01

EO#U-R-028-183

Mfr Family Name:

Running Change Process Code:

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	8.Fuel Rate:	(lbs/hr)@peak torque_Dev
7.Fuel Rate:	mm/stroke@peak	torque
	6.Torque @ RPM	(SEA Gross)
5.Fuel Rate:	(lbs/hr) @ peak HP	(for dieseis only)
4.Fuel Rate:	mm/stroke @ peak HP (lbs/hr) @ peak HF	(for diesel only)
	3.BHP@RPM	(SAE Gross)
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2	-	N/A	105
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8.Fuel Rate: 9.Emission Control lbs/hr)@peak torque Device Per SAE J1930			
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5.Fuel Kate: s/hr) @ peak or diesets onl			
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5.Fuel Kate: bs/hr) @ peak HF (for diesets only)	MATE		
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4.Fuel Kate: n/stroke @ peak (for diesel only)			
4.Fuel Kate: /stroke @ pea (for diesel on)	19.8	9.8	
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4.Fuel Kate: 5.Fuel Kate: mm/stroke @ peak HP (lbs/hr) @ peak HP (for diesel only) (for diesels only)	13.1/1800		
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3.BHP@RPM (SAE Gross)	13.1/1800	***	. Initial
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1.Engine Code 2.Engine Model	1140	19.	
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