R CO., LTD. EXECUTIVE ORDER U-R-028-0143 New Off-Road Compression-lanition Engines
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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)						
2003	3YDXL1.01P3N	1.006	Diesel	3000						
	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION							
	Indirect Diesel Inje	ction	Crane, Loader, Dozer, Pump, Cor							

The engine models and codes are attached.

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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 POWER	EMISSION STANDARD			E	EXHAUST (g/kw-ł	nr)		C	PACITY (%)
CLASS	CATEGORY		НС	NOx	NMHC+NOx	со	РМ	ACCEL	LUG	PEAK
8 ≤ kW < 19	Tier 1	STD	N/A	N/A	9.5	6.6	0.80	20	15	50
	-	CERT			7.4	2.8	0.37	2	2	2

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 2002.

Raphael Sunait

Allen Lyons, Chief σ Mobile Source Operations Division

Engine Model S mary Form

Yanmar Co.,Ltd. EPA Engine Family' 3YDXL1.01P3N Nonroad CI Mfr Family Name: N/A Engine category: Manufacturer:

New Submission

Process Code:

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9.Emission Control Davice Por SAE 11030	ARMAGENEY	ites is the EM	N SAMENARY				UNATENTS IN			SELECTION DE LA CALENTIA				U.S.S.EMIN	EM P	%後後,EM1311後。	EM	NEW EN W	EM L	NEW PROPERTY IN						LA REMAN	SAT ENTERN	EN V
8.Fuel Rate: (lbs/hr)@peak torque		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	WHAT 19 1 20 1 20 1 20 1				1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	5.5	3.41.51.515.151.11.11.11.11			6 1			7.8	A. 5. 5. 8.9. 5. 5. 9.	6.8	No. 6.0. 1. 199	6.0	3.0. (P. 20)	and the second secon	V. W. S. S. C. W. S. M.				411.1.5.5 1.4.1.5.1	841.04 (6 (0 (1 (2 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1	1
7.Fuol Rale: mm/stroke@peak lorque	14/19/12/19/00 (1/10/10/10/10/10/10/10/10/10/10/10/10/10	1 21.4	W 121.8	19.9	ak 30/20/01/01/02	1. 21.5 21.5 20 A	N. 91.5524 11140	21.0	14(3) - 12 h h - 24	21.0	1				21.0 States	19.90	21.0	AV. 120.4 WY	20.4	M. (018, 20.40 - 1/	1.1.21.0	WAY AND THE WAY	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	NINE NOV DOT DE LE COL			NUE N 2018 N N 1	
6. Torque @ RPM (SEA Gross)	(1) 45 8(2600.) S	48,1/2250	4. 1.48:9/2250 W	42,9/2700	NX 47 1/1650 41	48.5/2100	47.4/1600	47.2/1600	114/1600	47.2/1600	\$5,5,43,7/2400 \$4	46.3/1800	1451205050		1. 11. 11. 11. 11. 11. 11. 11. 11. 11.		47.2/1975	45.9/1800	45,9/1800	A 45,9/1800	47.3/2250	21.247.4/1600%377	47.6/1700	WWA6612250WW			32149:0/1/20-30-4	47.4/1600
5.Fuel Rale: (lbs/hr) @ peak HP (for diesels only)		9.1	1. 1. 0.4 S	10.5	a (%) & (&) & (&) & &	8.6	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	8.2	1111112 B: 211-11	2.7	1	8.0.1	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1					0.9.0 (A)	8,0		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	ALL STATES SUIDE REAL			STATES STATES	
4.Fuel Rato: mm/stroko @ peak HP (for diesel only)	NS 18.7 V	18.4		17.7 States	APAMARA17.7.4	18.7 State	1	18.7	<u>5, 5, 17, 9, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5,</u>	17.7	47 11 16.2 A	1.1.18.7	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	11. 21. 21. 21. 22. 22. 22. 22. 22. 22.			ο.) Ι. (.) (.) (.) (.) (.) (.) (.) (.) (.) (.	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	_	16 - 11 18 7 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -		() 10,18.2 114.14	18.4 Star	No. 1677 Market		A PARTY AND A P	CLARENS IN THE REAL PROVIDE	
3.BHP@RPM (SAE Gross)	(19)25.5/3600-1	×16 (23,7/3000 × 21	1 1/24.5/3000	10, 25,3/3600	34/16.6/2200	22.5/2800	V// 21.2/2650	21.2/2650	× 20.3/2650 at	20,1/2650	10.122,2/3200 With	20.8/2600	XX122.9/3000	22.9/3000	1/125/3/3600 113	20 E/7200		NR ZU.8/2600	20,8/2600	1/20:8/2600 x	22,9/3000	62.46/15.6/2000 Liv		1122.2/300017	5 118.3/2400	V3:19:019500123		0007/017
2.Engine Model	V-44 N/A 44 44 3TNE74-EVHV 1(19) 25.5/3600	3TNE74C-EAF	(1) (N/A/A/A/A/A/BTNEZAC/EFILE/ (1) 24:5/30000 (1) (4) (-1) (4) 19.1	3TNE74C-EMP	ANSTNE74-ENSRAW	3TNE74-E1FC 22.5/2800	W3TNE74-E0K1	3TNE74-EJK1E	©3TNE74-EJK2, 21 20 3/2650	JTNE74-EJK2E	*3TNE74C-EJU	3D74E-N3AJ	S3TNE74C'ESA	3TNE74C-EYA	(3TNE74C ² EYAW 25 3/3600	TURTALEAAAA		12000000000000000000000000000000000000	31 NE/4-EN3A	-	3TNE74C-ETA	AND NA WAS DUETHENYB	3TNE74-ENYB 10.9/2400	X WANA 12 WAS DINEYS CEUM ANY 122 2/3000 PM	****//////////////////////////////////	NA 19 21 NETA- FUSE NEW 21 OF OF SOUTH	STNE7A E W	
1.Engine Code	W STATE N/A SALE AN	N/A NA	NALLY VALLE	N/A NA	AN ALL NORTH AND		A TANA A	NA	AN AN				NAN IN A		NIN NIN ST	N/A					N/A	A NA NA NA	NN NK	NAMES OF A DAMAGE OF A A DAMAGE OF A DAMAG	I SUNATION IN	NUMBER OF STREET	VIN	