NISAN DIESEL MOTOR CO., LTD.

EXECUTIVE ORDER U-R-031-0009 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)			
2003	3NDXL02.7TNA	2.663	Diesel	8000			
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION				
	Indirect Diesel Inje	ction	Loader, Tractor, Pump, Compressor and Industrial Equipmen				

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):

RATED	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)				OPACITY (%)			
POWER CLASS			нс	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
37 <u><</u> KW<75	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT		6.4				4	3	6

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 October 2002.

Allen Lyons, Chief

Mobile Source Operations Division

ATTACHMENT 1 OF1

Engine Model Summary Form

WR-031-0009

Nissan Diesel Motor Co., Ltd. Manufacturer:

Engine category: Nonroad Cl EPA Engine Family. 3NDXL02.7TNA

Mfr Family Name: N/A

New Submission Process Code:

8.Fuel Rate: 9.Emission Control lbs/hr)@peak torque Device Per SAE J1930	EM,IDI	EM,IDI	EM,IDI	EM,IDI	EM,IDI
8.Fuel Rate: (lbs/hr)@peak torque	22.8	22.8	N/A	22.3	22.3
7.Fuel Rate: mm/stroke@peak torque	45	45	N/A	40.5	40.5
6.Torque @ RPM (SEA Gross)	125@2300	125@2300	A/N	117@2500	117@2500
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	22.8	26.2	16.8	23.0	23.0
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	45	44	42.5	40.2	40.2
3.BHP@RPM (SAE Gross)	55@2300	60@2700	40.5@1800	57@2600	57@2600
.Engine Code 2.Engine Model	TD27	TD27	TD27	TD27	TD27
I.Engine Code	TD27AA	TD27AB	2B-TD27	2A-TD27	2C-TD27