

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-45-9;

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)
2001	1DZXL00.9024	0.61, 0.92	Diesel	3000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Indirect Diesel Injection			Tractor, Compressor and Generator Set	
ENGINE MODELS (rated power in kilowatts, kw)	See Attachment (1 page)			

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):

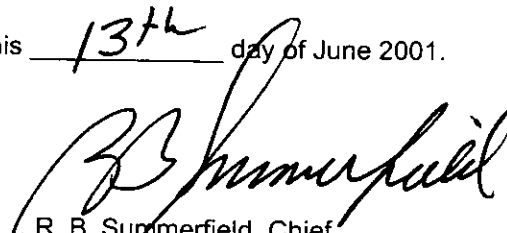
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
KW<8	Tier 1	STD	N/A	N/A	10.5	8.0	1.0	20	15	50
8≤KW<19	Tier 1	STD	N/A	N/A	9.5	6.6	0.80	20	15	50
		CERT	--	--	5.7	2.7	0.30	2	1	6

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 13th day of June 2001.


 R. B. Summerfield, Chief
 Mobile Source Operations Division

A Hachm

1DZ 9024

U-R- 13-40

List of emission tested components

Engine Type	Displacement	Engine code	Nominal Power ± 5%		Nominal speed ± 50 rpm	Injection rate at nom. speed, ±4mm³		Peak torque ± 5%	Speed at peak torque ± 200 rpm		Injection rate at peak torque ±4mm³	Fuel injection pump/nozzle
			HP	kW		mm³/ stroke	Nm		rpm	mm³/ stroke		
F3M1008	903	C16.0	21.4	16.0	3600	19.7	54.1	2000	21	107.6590.285		
F3M1008	903	D15.2	20.4	15.2	3600	18.7	--	--	--	107.6590.285		
F3M1008	903	C15.4	20.7	15.4	3200	19.4	54	2000	21	107.6590.285		
F3M1008	903	C14.5	19.4	14.5	3000	19.4	54.1	2000	21	107.6590.285		
F3M1008	903	C14.2	19	14.2	2800	19.4	54	2000	21	107.6590.285		
F3M1008	903	D9.0	12.1	9.0	1800	18.0	--	--	--	107.6590.285		
F2M1008	602	C10.6	14.2	10.6	3600	19.2	33	2200	21	107.6590.285		
F2M1008	602	C9.3	12.5	9.3	3000	19.4	33	2200	21	107.6590.285		
F2M1008	602	C7.7	10.3	7.7	2200	19.0	33	2000	21	107.6590.285		
F2M1008	602	D5.9	8	5.9	1800	18.0	--	--	--	107.6590.285		