DEUTZ AG

EXECUTIVE ORDER U-R-013-0148

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 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)				
2005	5DZXL07.1005	4.76	Diesel	8000				
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION					
Direct Diese	el Injection, Smoke Puff	Limiter, Turbocharger	Generator Set, Industrial Equipment					

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 POWER	EMISSION STANDARD				O	OPACITY (%)				
CLASS	CATEGORY		HC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
37 ≤ kW < 75	Tier 2	STD	N/A	N/A	7.5	5.0	.40	20	15	50
		CERT	-	-	7.1	3.1	.30	6	4	10

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 2014 day of September 2004.

Allen Lons, Chief

Mobile Source Operations Division

Engine Model Surmary Form

Manufacturer: DEUTZ AG

Engine category: Nonroad CI

EPA Engine Family: 5DZXL.07.1005

Mfr Family Name: BF4M 1013E, D5D

Process Code: New Submission

Attachment lof (U.R.O13-0148

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Control E J1930	SPL DOI +	+	Spil DOI									1		-	Ī
9.Emission Control Device Per SAE J1930	SPL	SPL	M	EM	EM	EM	EM	EM	E	EM	EM	EM	EM	EM	
8.Fuel Rate: (lbs/hr)@peak torque	33,5	27,9	33,5	33,5	33,5	33,5	33,5	33,5	27,9	27,9	27,9	27,9	27,9	27,9	
7.Fuel Rate: mm/stroke@peak torque	108	06	108	108	108	108	108	108	06	06	06	06	06	06	The second secon
6.Torque @ RPM (SEA Gross)	331,9@1400	276,5@1400	331,9@1400	331,9@1400	331,9@1400	331,9@1400	331,9@1400	331,9@1400	276,5@1400	276,5@1400	276,5@1400	276,5@1400	276,5@1400	276,5@1400	
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	41	39,1	38,7	39,9	39,2	41	41,5	42,4	36,3	37,1	37,7	38,7	39,5	39,8	
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	88	84	26	06	93	88	85	83	91	88	85	83	81	78	
3.BHP@RPM (SAE Gross)	مك''100 ,4 @2100	95,2@2100	100,4@1800	100,4@2000	100,4@1900	100,4@2100	100,4@2200	100,4@2300	93,8@1800	93,8@1900	93,8@2000	93,8@2100	93,8@2200	14 93,8@2300	
2.Engine Model	D5DCBE2	D5DCAE2	BF4M1013E	-											
1.Engine Code	CE74,9	CE71	√ CE74,9/2	CE74,9/1	CE74,9/3	CE74,9/4	CE74,9/5	CE74,9/6	CE70	CE70/1	CE70/2	CE70/3	CE70/4	CE70/5	