California Environmental Protection Agency AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0128 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)
2004	4DZXL05.7019	3.8, 5.7	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Smoke Puff Limiter, Turbocharger, Charge Air Cooler	Tractor

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 CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kW-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ kW < 75	Tier 2	STD	N/A	N/A	7.5	5.0	0.40	20	15	50
75 ≤ kW < 130	Tier 2	STD	N/A	N/A	6.6	5.0	0.30	20	15	50
130 ≤ kW < 225	Tier 2	STD	N/A	N/A	6.6	3.5	0.20	20	15	50
		CERT	-	-	5.9	0.8	0.15	7	1	18

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 6TH day of January 2004.

Allen Lyons, Chief
Mobile Source Operations Division

Manufacturer: DEUTZ AG
Engine Category: Nonroad CI
EPA Family Name: 4DZXL05.7019
Mfr. Family Name: BF4M2013C
Process Code: New Submission

ENGINE MODEL SUMMARY FORM

Attachment 1 of 1
U-R013-0128

1. Engine Code	2. Engine Model	3. BHP@	RPM	4. Fuel Rate @ Rated Power (mm3/stroke)	5. Fuel Rate (lbs./hr) Rated Power	6. Peak Torque @ RPM(NM)		7. Peak Torque (mm³/stroke)	8. Fuel Rate (lbs./hr) @ Peak Torque	9. Emission Control Device (SAE J1930)
CE63T	BF4M2013C	67 kW 90	2100	69	32	395	1450	84.9	28.1	EM DDI, SPL, TC CAC
CE74T	BF4M2013C	105	2100	80	37	458	1450	98.6	32.6	EM
CE81T	BF4M2013C	113	2100	86	39	502	1450	108.0	35.8	EM
CE88T	BF4M2013C	121	2100	92	42	526	1400	113.2	36.2	EM
CE103T	BF6M2013C	145	2100	81.0	51	663	1450	101.0	47.3	EM
CE118T	BF6M2013C	165	2100	92.0	58	758	1450	115.0	54.0	EM
CE119T	BF6M2013C	159	2100	86.0	56	730	1450	108.0	52.0	EM
CE127T	BF6M2013C	170	2100	92.0	60	780	1450	115.0	55.6	EM
CE138T	BF6M2013C	138 kW 185	2100	100.0	65	847	1450	125.0	60.4	EM
CE85T	BF6M2013C	119	2100	67.0	42	546	1450	83.0	38.9	EM
CE92T	BF6M2013C	130	2100	73.0	45	595	1450	90.0	42.4	EM