DEUTZ AG

EXECUTIVE ORDER U-R-013-0116

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) 8000						
2004	4DZXL06.5037	6.472	Diesel							
	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION							
Dire	ct Diesel Injection, Smo Turbocharger, Charge	ke Puff Limiter, Air Cooler	Pump							

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				EXHAUST (g/kw-l		OPACITY (%)				
CLASS	CATEGORY		HC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK	
75 ≤ kW < 130	Tier 2	STD	N/A	N/A	6.6	5.0	0.30	20	15	50	
		CERT	-	-	6.2	1.2	0.21	3	4	7	

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 July 2003.

Allen Lyons, Chief

Mobile Source Operations Division

ENGINE MODEL SUMMARY FORM Manufacturer: DEUTZ AG Engine Category: Nonroad Cl EPA Family Name: 4DZXL06.5037 Mfr. Family Name: BF6L914C Process Code: New Submission

evice DOT	ž	•	<u>-</u>									 -						7
9. Emission Control Device (SAE J1930) $ ho_{0oldsymbol{\mathcal{I}}}$	EM, SPL,TTC, CAC	EM, SPL	EM, SPL	EM, SPL	EM, SPL	EM, SPL	EM, SPL	EM, SPL	EM, SPL	EM, SPL	EM, SPL	EM, SPL	EM, SPL	EM, SPL	EM, SPL	EM, SPL	EM, SPL	EM, SPL
8. Fuel Rate (lbs./hr) @ Peak Torque	45.3	45.2	53.1	49.6	45.3	45.2	49.8	49.6	45.3	45.2	45.3	45.2	47.6	47.4	45.3	45.2	45.3	45.2
Peak Torque (Nm) 7. Peak Torque @ RPM (mm³/stroke)	89.0	89.0	100.0	100.0	89.0	89.0	99.0	99.0	89.0	89.0	89.0	89.0	95.0	95.0	89.0	89.0	89.0	89.0
rque (Nm) PM	1500	1500	ر /اسر 600	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
6. Peak Torqu @ RPM	615	613	914 GVS	673	615	613	675	673	615	613	615	613	645	643	615	613	615	613
5. Fuel Rate (lbs./hr) Rated Power	55.4	55.4	55.4	55.4	52.6	52.6	56.8	56.8	53.5	53.5	50.7	50.7	52.1	52.1	49.3	49.3	46.5	46.5
4. Fuel Rate @ Rated Power (mm3/stroke)	80.0	79.0	83.0	82.0	79.0	78.0	89.0	88.0	85.0	. 84.0	80.0	79.0	89.0	88.0	86.0	85.0	82.0	. 81.0
RPM	2300	2300	2150	2150	2150	2150	2000	2000	2000	2000	2000	2000	1800	1800	1800	1800	1800	1800
2. Engine Model 3. BHP@	158	158	158	158	150	150	120.9162	162	153	153	145	145	149	149	141	141	133	99.5133
2. Engine Mo	BF6L914C	BF6L914C	BF6L914C	BF6L914C	BF6L914C	BF6L914C	BF6L914C	BF6L914C	BF6L914C	BF6L914C	BF6L914C	BF6L914C	BF6L914C	BF6L914C	BF6L914C	BF6L914C	BF6L914C	BF6L914C
1. Engine code	CE118/5	CE118/6	XCE118/7	CE118/8	CE112/2	CE112/3	CE121/2	CE121/3	CE114/2	CE114/3	CE108/2	CE108/3	CE111/2	CE111/3	CE105/2	CE105/3	CE99/2	CE99/3