California Environmental Protection Agency AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0059 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-45-9;

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)
2002	2DZXL05.7019	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 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
75≤kW<130	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT	-	8.5	-	-	-	2	1	3

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 28TH day of February 2002.

Allen Lyons, Chief
New Vehicle/Engine Programs Branch

EDFU-R-013-0059
attachment 1 of 1

Manufacturer: DEUTZ AG
Engine category: Nonroad CI
EPA Engine Family: 2DZXL05.7019

Engine Model and Part Number Summary Form

Engine code	Engine Model	BHP	BkW	Rated Power Engine Speed	Injection rate at rated power ±6mm³	Peak torque ± 5%	Speed at peak torque ± 100 rpm	Injection rate at peak torque ±4mm³	Fuel injection pump	Fuel injector	Speed governor	Smoke limiter, part of speed governor, - 5mm³	Turbocharger
		HP	kW	rpm	mm³/ stroke/ rpm	Nm	rpm	mm³/ stroke	part numb.	part numb.	draw. numb.	mm³/ stroke - rpm	part numb.
109G	BF6M2013C	138	103.0	2100	71	632	1450	87	PFM 1 P 90 S 1007	DLLA148PV3187970	0211 1762	76-800	04252301
124G	BF6M2013C	158	118.0	2100	81.0	725	1450	100	PFM 1 P 90 S 1007	DLLA148PV3187970	0211 1762	79-800	04252301
C74	BF4M2013C	99	74.0	2100	79	458	1450	99	PFM 1 P 90 S 1007	DLLA148PV3187970	0211 1762	89-800	04252304
C81	BF4M2013C	109	81.0	2100	87.0	502	1450	109	PFM 1 P 90 S 1007	DLLA148PV3187970	0211 1762	89-800	04252304