California Environmental Protection Agency AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0312 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 systems 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)
2009	9DZXL05.4087	4.314	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Exhaust Gas Recirculation	Loaders, Tractor, Other 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 CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ kW < 56	Tier 4 Interim	STD	N/A	N/A	4.7	5.0	0.30	20	15	50
		CERT	--	--	4.4	3.5	0.27	4	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 29 day of January 2009.

Annette Hebert, Chief
Mobile Source Operations Division

Engine Model Summary Template

Deutz AG
Nonroad CI

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Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
9DZXL05.4087	C3CI55	D914L04 55 kW	73.7@2150	61.5	29.3	268@1400	63	20.9	DDI, EGR
9DZXL05.4087	C3CI43	D914L03	57.6@2300	61	23.3	204@1400	62	15.4	DDI, EGR
9DZXL05.4087	C3CI40,5	D914L03	54.3@2150	61	21.8	198@1400	61.5	15.3	DDI, EGR
9DZXL05.4087	C3CI38,5	D914L03 38.5 kW	51.6@2000	60,5	20.1	198@1400	61.5	15.3	DDI, EGR
9DZXL05.4087	C3CI41	D914L03	54.9@2300	59.5	22.8	194@1400	61	15.2	DDI, EGR
9DZXL05.4087	C3CI38A	D914L03	51.6@2150	59	21.1	194@1400	61	15.2	DDI, EGR
9DZXL05.4087	C3CI51,5	D914L04	69@2000	61	27.1	268@1400	63	20.9	DDI, EGR
9DZXL05.4087	C3CI55A	D914L04	73.7@2300	60	30.6	263@1400	62.5	20.8	DDI, EGR
9DZXL05.4087	C3CI52	D914L04	69.7@2150	58	27.7	263@1400	62.5	20.8	DDI, EGR
9DZXL05.4087	C3CI49,5	D914L04	66.3@2000	58	25.7	258@1400	62	20.6	DDI, EGR
9DZXL05.4087	D3CC46,6	D914L04	62.4@1800	57	22.7	-	-	-	DDI, EGR