California Environmental Protection Agency **Air Resources Board**	**DEUTZ AG**	**EXECUTIVE ORDER U-R-013-0454** 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)
2013	DDZXL06.1022	6.057	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Common Rail Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Selective Catalytic Reduction-Urea	Tractor

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), 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 (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130 ≤ kW < 560	Interim Tier 4 / ALT NO_x	STD	0.19	2.0	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.09	1.7	--	0.4	0.02	--	--	--

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 8th day of March 2013.

Annette Hebert, Chief
Mobile Source Operations Division

Deutz AG

Nonroad CI

Engine Model Summary Template

Attachment page 1 of 1

EO# U-R-013-0454

Date: 2/21/2013

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
DDZXL06.1022	C4ST203U	TCD6.1L6	272.2@2100	140	97.9	1171@1450	168	81.1	DDI, TC, CAC, ECM, SCR
DDZXL06.1022	C4ST188U	TCD6.1L6	252.1@2100	130.5	91.3	1135@1450	162.5	78.5	DDI, TC, CAC, ECM, SCR
DDZXL06.1022	C4ST174U	TCD6.1L6	233.3@2100	119.5	83.6	1055@1450	148.5	71.8	DDI, TC, CAC, ECM, SCR
DDZXL06.1022	C4ST159U	TCD6.1L6	213.2@2100	109	76.2	970@1450	136.5	66.0	DDI, TC, CAC, ECM, SCR
DDZXL06.1022	C4ST144U	TCD6.1L6	193.1@2100	99.5	69.6	878@1450	125	60.4	DDI, TC, CAC, ECM, SCR