**DEUTZ AG** 

EXECUTIVE ORDER U-R-013-0469-1 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-14-012:

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)		
2014	EDZXL03.6015	3.621	Diesel			
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Coole	Rail Direct Injection, Turb r, Electronic Control Modi ation, Diesel Oxidation C Trap Oxidizer	ule, Exhaust Gas atalyst, Continuous	Crane, Loader, Pump, and Compressor			

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	EMISSION		EXHAUST (g/kW-hr)					OPACITY (%)		
POWER CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
56 ≤ kW < 130	Interim Tier 4/ ALT NO <sub>x</sub>	STD	0.19	3.4	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.01	3.1		0.02	0.004			

**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).

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for 2008 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-C" adopted October 20, 2005 and last amended October 25, 2012.

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.

This Executive Order hereby supersedes Executive Order U-R-013-0469 dated November 26, 2013.

Executed at El Monte, California on this \_\_\_\_\_

\_ day of February 2014.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

Deutz AG Nonroad CI

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E0#U-R-013-. Date: 1/16/2014

## **Engine Model Summary Template**

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	(lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@pe ak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
 EDZXL03.6015	C4EI90	TCD3.6L4	120.6@2500	95.0	52.7	480@1600	113.0	40.1	DDI, TC, CAC, EGR, ECM, DOC, CTOX
EDZXL03.6015	C4EI90B	TCD3.6L4	120.6@2300	92.0	47.0	480@1600	113.0	40.1	DDI, TC, CAC, EGR, ECM, DOC,
EDZXL03.6015	C4EI90C	TCD3.6L4	120.6@2200	99.0	48.3	480@1600	113.0	40.1	DDI, TC, CAC, EGR, ECM, DOC,
EDZXL03.6015	C4EI90E	TCD3.6L4	120.6@2000	104.0	46.2	480@1600	113.0	40.1	DDI, TC, CAC, EGR, ECM, DOC,
EDZXL03.6015	C4EI85B	TCD3.6L4	113.9@2300	86.0	43.9	460@1600	103.0	36.6	DDI, TC, CAC, EGR, ECM, DOC,
EDZXL03.6015	C4EI85C	TCD3.6L4	113.9@2200	89.0	43.5	460@1600	103.0	36.6	DDI, TC, CAC, EGR, ECM, DOC,
EDZXL03.6015	C4EI85E	TCD3.6L4	113.9@2000	93.0	41.3	460@1600	103.0	36.6	DDI, TC, CAC, EGR, ECM, DOC,
EDZXL03.6015	C4EI80B	TCD3.6L4	107.2@2300	82.0	41.9	430@1600	100.0	35.5	DDI, TC, CAC, EGR, ECM, DOC,
EDZXL03.6015	C4EI80C	TCD3.6L4	107.2@2200	87.0	42.5	430@1600	100.0	35.5	DDI, TC, CAC, EGR, ECM, DOC,
EDZXL03.6015	C4EI74B	TCD3.6L4	99.7@2300	76.0	38.8	410@1600	94.0	33.4	DDI, TC, CAC, EGR, ECM, DOC,
EDZXL03.6015	C4EI74C	TCD3.6L4	99.7@2200	81.0	39.5	410@1600	94.0	33.4	DDI, TC, CAC, EGR, ECM, DOC,
EDZXL03.6015	C4EI70C	TCD3.6L4	93.8@2300	73.0	35.6	390@1600	87.0	30.9	DDI, TC, CAC, EGR, ECM, DOC,
EDZXL03.6015	C4EI74E	TCD3.6L4	99.7@2000	83.0	36.8	410@1600	94.0	33.4	DDI, TC, CAC, EGR, ECM, DOC,