

DEUTZ AG

EXECUTIVE ORDER U-R-013-0574 New Off-Road

New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in California 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 ENGINE FAMILY		DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)			
2019	KDZXL02.9021	2.925	Diesel	5000			
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION				
Com Recirci	mon Rail Direct Injection Ulation, Electronic Contr Oxidation Catal	ol Module, Diesel	Crane, Loader, Tractor, Dozer, Pump, 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 POWER	EMISSION STANDARD		EXHAUST (g/kW-hr)					OPACITY (%)		
CLASS	CATEGORY		NMHC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
19 <u>≤</u> kW < 37	Tier 4 Final	STD	N/A	N/A	4.7	5.5	0.03	N/A	N/A	N/A
		CERT			4.1	4.6	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 _________ day of September 2018.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

F 0 # 0-R-013-05/74	Date:8/24/2018	8.Fuel Rate: (lbs/hr)@peak 9.Emission Confrol	Δ	12.9 DDI. EGR. ECM DOC	12.9 DDI. EGR. ECM. DOC	12.9 DDI, EGR. ECM. DOC	12.9 DDI, EGR, ECM, DOC
		7.Fuel Rate. im/stroke@pe	ak torque	36.5	36.5	36.5	36.5
Engine Model Summary Template Attachment page 1 of 1		7. Fuel Rate: (for diesels 6. Torque @ RPM mm/stroke@pe	(SEA Gross)	108.4@1600	108.4@1600	108.4@1600	108.4@1600
Summary 7 page 1 of 1	5.Fuel Rate: (lbs/hr) @ peak	HP (for diesels	(Mino	21.3	16.6	21.3	20.2
Engine Model Attachment	4.Fuel Rate:	mm/stroke @ peak HP	diesel only)	37.0	34.0	37.0	35.0
Engin Attach	4		(SAE Gross) (for	48.8@2600	40.2@2200	48.8@2600	46.9@2600
		C	Liging aminy i.Liging Code 2.Engine Model	D2.9L4	D2.9L4	D2.9L4	D2.9L4
رس (5	4 Engine	i.Engling Code	C4DI36,4	C4DI30	C4DI36K	C4DI35
Deutz AG	Nonroad CI	Hooiso Family		KDZXL02.9021	KDZXL02.9021	KDZXL02.9021	KDZXL02.9021