



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-19-095;

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)
2020	LJDXL04.5316	4.5	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Control Module, Exhaust Gas Recirculation, Selective Catalytic Reduction-Urea, Electronic Direct Injection, Turbocharger, Charge Air Cooler, Oxidation Catalyst, Ammonia Oxidation Catalyst			Crane, Loaders, Tractor, Dozer, Pump, Compressor, Generator Set, Other Industrial Equipment	

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
75 ≤ kW < 130	Tier 4 Final	STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.01	0.20	--	0.02	0.01	--	--	--

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 17th day of December 2019

Allen Lyons, Chief
Emissions Certification and Compliance Division

EO# : U-R-004-0589
 Attachment: Page 1 of 1
 8/30/2019

Engine Model Summary Form

Manufacturer: John Deere Power Systems
 Engine category: Nonroad CI
 EPA Engine Family: LJDXL04.5316
 Mfr Family Name: 350HCH
 Process Code: Running Change

1. Engine code	2. Engine Model	3. kW@RPM (SAE Gross)	4. Fuel Rate:		5. Fuel Rate:		6. Torque (Nm)		7. Fuel Rate:		9. Emission Control Device Per SAE J1930
			mm/stroke@peak kW (for diesel only)	mm/stroke@peak kW (for diesels only)	(kg/hr)@peak kW (for diesels only)	@RPM (SEA Gross)	mm/stroke@peak torque	mm/stroke@peak torque	(kW/hr)@peak torque		
4045HFC06A	4045	129@2400	119@2400	29@2400	667@1800	138@1600	21@1800	EGR OC SCRC NH3OC DFI TC CAC ECM			
4045HFC08B	4045	129@2200	126.17@2200	28@2200	667@1600	140@1600	21@1800	EGR OC SCRC NH3OC DFI TC CAC ECM			
4045HFC06C	4045	116@2400	106@2400	27@2400	616@1600	127@1600	19@1800	EGR OC SCRC NH3OC DFI TC CAC ECM			
4045HFC08D	4045	104@2400	100@2400	24@2400	552@1600	116@1600	18@1600	EGR OC SCRC NH3OC DFI TC CAC ECM			
4045HFC06E	4045	104@2200	104@2200	23@2200	700@1800	125@1600	19@1600	EGR OC SCRC NH3OC DFI TC CAC ECM			
4045HFC08F	4045	93@2400	84@2400	13@2400	494@1600	104@1600	16@1600	EGR OC SCRC NH3OC DFI TC CAC ECM			
4045HFC06G	4045	93@2200	94.121@2200	21@2200	531@1600	112@1600	17@1600	EGR OC SCRC NH3OC DFI TC CAC ECM			
4045HFC08H	4045	129@2400	121@2400	30@2400	667@1600	138@1600	21@1600	EGR OC SCRC NH3OC DFI TC CAC ECM			
4045HFC06I	4045	129@2200	126@2200	29@2200	667@1600	144@1600	23@1600	EGR OC SCRC NH3OC DFI TC CAC ECM			
4045HFC06J	4045	116@2400	113@2400	26@2400	616@1600	131@1600	20@1600	EGR OC SCRC NH3OC DFI TC CAC ECM			
4045HFC06K	4045	104@2400	99@2400	24@2400	552@1600	116@1600	18@1600	EGR OC SCRC NH3OC DFI TC CAC ECM			
4045HFC06L	4045	104@2200	106@2200	24@2200	600@1600	130@1600	21@1600	EGR OC SCRC NH3OC DFI TC CAC ECM			
4045HFC06M	4045	93@2400	90@2400	22@2400	494@1600	102@1600	16@1600	EGR OC SCRC NH3OC DFI TC CAC ECM			
4045HFC06N	4045	93@2200	97@2200	22@2200	531@1600	115@1600	19@1600	EGR OC SCRC NH3OC DFI TC CAC ECM			
4045HPRNT16	4045	129@2400	118@2400	29@2400	694@1600	149@1600	24@1600	EGR OC SCRC NH3OC DFI TC CAC ECM			