CALIFORNIA AIR RESOURCES BOARD	HYUNDAI DOOSAN INFRACORE CO. LTD.	EXECUTIVE ORDER U-R-019-0210 New Off-Road Compression-Ignition Engines Page **1** of **1**

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)
2023	PDICL07.6LEA	7.64	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Selective Catalyst Reduction-Urea, Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, DEF Quality Sensor	Loader, Excavator, Forklift

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	Tier 4 Final	**STD**	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.02	0.38	--	0.04	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 on this 6th day of December 2022.

Robin U. Lang, Chief
Emissions Certification and Compliance Division

Attachment: Engine Models **EO #:** U-R-019-0210 **Family:** PDICL07.6LEA **Attachment Last Revised:** 11/14/2022

Model	Code	Trim	Config	Displacement	Displacement - Units	Peak Power	Peak Power - Units	Peak Power - Speed (rpm)	Peak Power - Fueling	Peak Power - Fuel Units	Peak Torque	Peak Torque - Units	Peak Torque - Speed (rpm)	Peak Torque - Fuel	Peak Torque - Fuel Units	OBD	GHG	Special	Notes
DL08-LEE01	DL08P	N/A	I6	7.64	Liters	213	kilowatt	1800	168	mm3/stroke	1275	N-m	1300	187	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL08-LEE00	DL08P	N/A	I6	7.64	Liters	202	kilowatt	1800	159	mm3/stroke	1275	N-m	1300	187	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL08-LEL00	DL08P	N/A	I6	7.64	Liters	202	kilowatt	1800	159	mm3/stroke	1275	N-m	1300	187	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL08-LEL01	DL08P	N/A	I6	7.64	Liters	202	kilowatt	1800	159	mm3/stroke	1275	N-m	1300	187	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL08-LEF00	DL08P	N/A	I6	7.64	Liters	213	kilowatt	2100	155	mm3/stroke	1235	N-m	1300	180	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL08-LEF01	DL08P	N/A	I6	7.64	Liters	184	kilowatt	2100	132	mm3/stroke	1157	N-m	1300	169	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL08-LEE03	DL08P	N/A	I6	7.64	Liters	213	kilowatt	1800	168	mm3/stroke	1275	N-m	1300	187	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL08-LEE02	DL08P	N/A	I6	7.64	Liters	202	kilowatt	1800	159	mm3/stroke	1275	N-m	1300	187	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL08-LEL02	DL08P	N/A	I6	7.64	Liters	202	kilowatt	1800	159	mm3/stroke	1275	N-m	1300	187	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL08-LEL03	DL08P	N/A	I6	7.64	Liters	202	kilowatt	1800	159	mm3/stroke	1275	N-m	1300	187	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS

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Model	Code	Trim	Config	Displacement	Displacement - Units	Peak Power	Peak Power - Units	Peak Power - Speed (rpm)	Peak Power - Fueling	Peak Power - Fuel Units	Peak Torque	Peak Torque - Units	Peak Torque - Speed (rpm)	Peak Torque - Fuel	Peak Torque - Fuel Units	OBD	GHG	Special	Notes
DL08-LEE04	DL08P	N/A	I6	7.64	Liters	202	kilowatt	1800	159	mm3/stroke	1275	N-m	1300	187	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS