Doosan Infracore Co., Ltd.

EXECUTIVE ORDER U-R-019-0101 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) 8000		
2008	8DWXL05.8UTA	5.89	Diesel			
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Direct Diesel Injection, Turbocharger, Charge Air Cooler			Loader, 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 hydrocarbon (HC), 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 STANDARD CATEGORY		EXHAUST (g/kw-hr)				OPACITY (%)			
POWER CLASS			нс	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
56 ≤ kW < 75	Tier 3	STD	N/A	N/A	4.7	5.0	0.40	20	15	50
75 ≤ kW < 130	Tier 3	STD	N/A	N/A	4.0	5.0	0.30	20	15	50
130 ≤ kW < 225	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
		CERT			3.8	0.8	0.13	14	3	26

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 April 2008

Annette Hebert, Chief

Mobile Source Operations Division

Engine Model Summary Form

Doosan Infracore Co., Ltd.

Engine category: Nonroad CI

EPA Engine Family: 8DWXL05.8UTA

Mfr Family Name: DL06

Process Code: New Submission

V-R-019-0101

Attachment

1.Engine Code	2.Engiпe 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: mrr/stroke@peak torque	8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930
	DL06 TST 166	222 @ 2200	116	84	622 @ 1400	134	62 DDITGCAC
	DL06 TLC	163 @ 2100	84	58	593 @ 1400	121	56
	DL06 TEF	173 @ 1900	96	60	564 @ 1400	114	53
	DL06 TEH	170 @ 2000	90	60	542 @ 1400	108	50
	DL06 TLD	143 @ 2100	73	51	506 @ 1400	106	49
	DL06 TLE	143 @ 2100	73	- 51	506 @ 1400	106	49
	DL06 TEI	163 @ 1900	93	58	521 @ 1400	102	47
	DL06 TEG	155 @ 1900	88	55	506 @ 1400	101	47
	DL06 TFC	158 @ 2100	B3	58	485 @ 1400	95	44
	DL06 TEM	149@2000	83	55	477@1400	94	44
	DL06 TFD	138 @ 2100	73	51	427 @ 1400	83	38
	DL06 TEK	134 @ 2000	70	46	398 @ 1400	74	34
	DL06 TEJ	122 @ 1950	67	43	340 @ 1400	70	32
	DL06 TEL 74	99 @ 1850	56	34	333 @ 1400	66	31 😾