EXECUTIVE ORDER U-R-030-0009 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) 5000	
2003	3DHXL.9532DT	0.953	Diesel		
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION		
Indirect Diesel Injection, Turbocharger			Riding Mower		

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for hydrocarbons (HC), oxides of nitrogen (NOx), or non-methane hydrocarbons 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		нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
19≤ kW < 37	Tier 1	STD	N/A	N/A	9.5	5.5	0.80	20	15	50
		FEL	N/A	N/A	7.5	N/A	N/A	N/A	N/A	N/A
		CERT			5.9	1.4	0.24	14	5	28

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

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 January 2003.

Allen Lyons, Chief

Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: DAIHATSU Motor Co., Ltd.

Engine category: Nonroad CI

EPA Engine Family 3DHXL.9532DT

Mfr Family Name: DM950DT

Process Code: New Submission

ATTACHMENT

EO U-R-030-0009

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9.Emission Control Device Per SAE J193	IQI	⊡	Ξ	ቯ	Ō
8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930	10.5@2400	9.8@2400	9.8@2400	10.8@2400	10.5@2400
7.Fuel Rate: mm/stroke@peak torque	26.1@2400	24.5@2400	24.5@2400	26.8@2400	26.1@2400
6.Torque @ RPM (SEA Gross)	54.2ft-lbs@2400	51.3ft-lbs@2400	51.3ft-lbs@2400	55.9ft-lbs@2400	54.2ft-lbs@2400
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	15.2@3500	13.9@3500	13.2@3250	15.8@3500	14.4@3250
, 4.Fuel Rate: mmstroke @ peak HP (for diesel only)	26.0@3500	23.7@3600	24.3@3250	27.0@3500	26.6@3250
lc ₩ 3. BH P@RPM (SAE Gross)	24.6kw@3500	22.4kw@3500	22.1kw@3250	25.4kw@3500	23.3kw@3250
1.Engine Code 2.Engine Model	DM950DT-A	DM950DT-B	DM950DT-C	DM950DT-D	DM950DT-E
1.Engine Code	DM950DT	DM950DT	DM950DT	DM950DT	DM950DT