California Environmental Protection Agency AIR RESOURCES BOARD	DAIHATSU MOTOR CO., LTD.	EXECUTIVE ORDER U-R-030-0010 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)
2004	4DHXL.9532D1	0.953, 0.850	Diesel	3000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Indirect Diesel Injection	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 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 POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
8 < KW < 19	Tier 1	STD	N/A	N/A	9.5	6.6	0.80	20	15	50
		FEL	N/A	N/A	7.5	N/A	N/A	N/A	N/A	N/A
		CERT	--	--	6.2	3.6	0.62	10	11	13

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 23RD day of December 2003.

Allen Lyons, Chief
Mobile Source Operations Division

Engine Model Summa Form

Manufacturer: DAIHATSU Motor Co., Ltd.

Engine category: Nonroad CI

EPA Engine Family: 4DHXL.9532D1

Mfr Family Name: DM950D, DM850D

Process Code: New Submission

EO#U-R-030-0010

ATTACHMENT

1.Engine Code	2.Engine 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: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
DM950D	DM950D-C	18.4kW @3600	18.4 @3600	11.4 @3600	41.3ft-lbs @2800	20.6 @2800	10.0 @2800	EM, IDI
DM950D	DM950D-D	13.4 @3100	15.7 @3100	8.4 @3100	31.8 @2800	15.5 @2800	7.4 @2800	EM, IDI
DM950D	DM950D-E	16.0 @3000	19.5 @3000	10.1 @3000	40.1 @2800	19.6 @2800	9.5 @2800	EM, IDI
DM950D	DM950D-F	15.2 @3350	16.6 @3350	9.6 @3350	33.9 @2800	17.3 @2800	8.3 @2800	EM, IDI
DM950D	DM950D-G	18.4 @3600	18.4 @3600	11.4 @3600	41.3 @2800	20.6 @2800	10.0 @2800	EM, IDI
DM950D	DM950D-H	17.2 @3250	18.7 @3250	10.4 @3250	38.5 @2800	19.6 @2800	9.5 @2800	EM, IDI
DM950D	DM950D-J	17.2 @3150	17.4 @3150	9.5 @3150	41.3 @2800	20.6 @2800	10.0 @2800	EM, IDI
* DM950D	DM950D-K	18.8 @3600	19.4 @3600	12.1 @3600	44.4 @2800	21.7 @2800	10.5 @2800	EM, IDI
DM950D	DM850D	16.3 @3600	17.5 @3600	10.9 @3600	36.2 @2800	18.2 @2800	8.8 @2800	EM, IDI
DM950D	DM850D-A	12.6 @2600	17.0 @2600	7.7 @2600	34.5 @2500	17.3 @2500	7.5 @2500	EM, IDI
DM950D	DM850D-B	13.5 @3100	16.2 @3100	8.6 @3100	32.1 @2600	16.2 @2600	7.3 @2600	EM, IDI
DM950D	DM850D-C	11.0 @2600	14.7 @2600	6.5 @2600	30.6 @2500	14.9 @2500	6.5 @2500	EM, IDI
DM950D	DM850D-C1	13.4 @2600	18.2 @2600	8.2 @2600	36.2 @2600	18.2 @2600	8.2 @2600	EM, IDI
DM950D	DM850D-D	12.0 @2500	15.9 @2500	6.8 @2500	33.3 @2500	15.9 @2500	6.8 @2500	EM, IDI
DM950D	DM850D-E	15.0 @2900	18.2 @2900	9.1 @2900	36.2 @2800	18.2 @2800	8.8 @2800	EM, IDI
DM950D	DM850D-F	15.6 @3150	17.9 @3150	9.8 @3150	36.2 @2800	18.2 @2800	8.8 @2800	EM, IDI
DM950D	DM850D-G	15.7 @3250	17.8 @3250	10.0 @3250	36.2 @2800	18.2 @2800	8.8 @2800	EM, IDI
DM950D	DM850D-H	16.0 @3350	17.8 @3350	10.3 @3350	36.2 @2800	18.2 @2800	8.8 @2800	EM, IDI