



California Environmental Protection Agency

AIR RESOURCES BOARD**NACCO MATERIALS
HANDLING GROUP, INC.****EXECUTIVE ORDER U-L-3-1**
New Off-Road Large
Spark-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapters 1 and 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following new large spark-ignition engines and emission control systems (ECS) produced by the manufacturer are certified for use in off-road equipment as described below. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY NAME	ENGINE DISPLACEMENT (L)	FUEL TYPE	DURABILITY HOURS
2001	1NMHB02.2L01	2.0, 2.2	LPG	N/A

ECS and SPECIAL FEATURES	TYPICAL EQUIPMENT USAGE	ENGINE MODELS (rated power in horsepower, HP)
TWC, O2S	Forklift	FE ZH02 (36 HP), F2 ZH03 (39 HP)

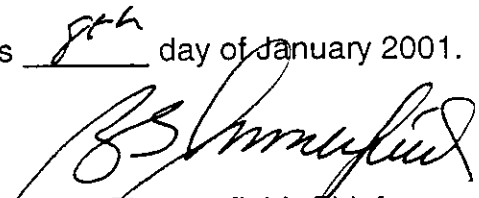
The following are the hydrocarbons-plus-nitrogen oxides (HC+NOx) and carbon monoxide (CO) certification emission standards (Title 13, California Code of Regulations, (13 CCR) Section 2433(b)(1)) and certification emission values for this engine family in grams per brake horsepower-hour. Engines within this engine family shall have closed crankcases (13 CCR Section 2433(b)(2)).

	HC+NOx	CO
Standards	3.0	37.0
Certification Values	0.8	19.9

BE IT FURTHER RESOLVED: That for the listed engines for the aforementioned model-year, the manufacturer has submitted, and the Executive Officer hereby approves, the information and materials to demonstrate certification compliance with 13 CCR Section 2433(c) (certification and test procedures), 13 CCR Section 2434 (emission control labeling), and 13 CCR Sections 2435 and 2436 (emission control system warranty).

Engines certified under this Executive Order shall conform to all applicable California emission regulations and requirements.

Executed at El Monte, California this 9th day of January 2001.


R. B. Summerfield, Chief
Mobile Source Operations Division