

## Zhejiang Wanhao Machine Science and Technology Co., LTD

EXECUTIVE ORDER U-U-138-0005 New Off-Road Small Spark-Ignition Engines at or Below 19 Kilowatts

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

Fursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following engine and emission control systems produced by the manufacturer are certified for use in small off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

NODEL YEAR	ENGI	NE FAMILY	DISPLACEMENT (cc)	ENGINE CLASS  4-stroke, ≥225 cc		FUEL TYPE (CNG/LNG=compressed/liquefied natural gas LPG=liquefied petroleum gas)  Gasoline		
2007	7WAN	S.3892WG	338, 389					
DURABILITY HOURS		SPECIAL FEATURES & EMISSION CONTROL SYSTEMS		TYPICAL EQUIPMENT APPLICATION				
250			EM			Pump, Pressure Washer, Generator Set		
ENGINE CODES/MODELS (rated power in cliowatt, kW)		WG340 (7.4 kW), WG390 (7.8 kW)						
EGR=exhaus	st gas recirc	ulation AIR=seco	ondary air injection PAIR≃pul	lsed AIR MFI=mu	ti port fuel inj	=warm-up TWC/OC O2S=oxygen sensor HO2S=heated O2S ection SFI=sequential MFI TBI=throttle body fuel injection ffix)=in series ECM=engine control module		

The following are the hydrocarbon plus oxides of nitrogen (HC+NOx), carbon monoxide (CO), and particulate matter (FM) emission standards (Title 13, California Code of Regulations, (13 CCR) Section 2403(b)), and certification emission levels for this engine family in grams per kilowatt-hour (g/kW-hr). Engines within this engine family shall have closed crankcases in conformance with Section 90.109 of the "California Exhaust Emission Standards and Test Procedures for 2005 and Later Small Off-Road Engines," adopted July 26, 2004.

*=not applicable	HC+NOx (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)
STANDARD	12.1	549	*
FAMILY EMISSION LEVEL	*	*	
CERTIFICATION LEVEL	8.6	255	•

BE IT FURTHER RESOLVED: That the family emission level(s) (FELs), as applicable, is an emission limit declared by the manufacturer for use in the 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 ergine family under 13 CCR Sections 2403(e)(1) and 2407(a).

BE IT FURTHER RESOLVED: That for the listed engines, the manufacturer has submitted, and the Executive Officer hereby approves, the information and materials to demonstrate certification compliance with 13 CCR Section 2404 (emission control labels) and 13 CCR Sections 2405 and 2406 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Quarterly reports of engines produced in this engine family for sale in California shall be submitted to the Executive Officer no later than 45 days after the end of each calendar quarter.

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 September 2007.

Annette Hebert, Chief

Mobile Source Operations Division