ONYX ENVIRONMENTAL SOLUTIONS

EXECUTIVE ORDER U-U-113-0002 New Off-Road Small Spark-Ignition Engines at or Below 19 Kilowatts

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-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.

MODEL YEAR	ENGIN	IE FAMILY	DISPLACEMENT (cc)	ENGINE CLASS		FUEL TYPE (CNG/LNG=compressed/liquefied natural gas LPG=liquefie petroleum gas)			
2006	6NYX	S.7472K1	747	4-stroke, ≥ 22	25 cc	LPG			
DURABILITY HOURS		SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION				
500			TWC			Riding Mower and Industrial Equipment			
ENGINE CODES/MODELS (rated power in kilowatt, kW)		CH750 (14.4 kW)							
EGR=exhaus	t gas recircu	ılation AIR≂seco	ondary air injection PAIR≖pu	łsed AIR MFI=multi p	ort fuel inje	ewarm-up TWC/OC O2S=oxygen sensor HO2S=heated O2S action SFI-sequential MFI TBI=throttle body fuel injection fix)=in series ECM=engine control module			

The following are the hydrocarbon plus oxides of nitrogen (HC+NOx), carbon monoxide (CO), and particulate matter (PM) 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 1995 and Later Small Off-Road Engines," adopted September 25, 2003.

*=not applicable	HC+NOx (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)		
STANDARD	12.1	549	•		
FAMILY EMISSION LEVEL			•		
CERTIFICATION LEVEL	7.3	45	•		

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 engine 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 31 day of July 2006.

Annette Hebert, Chief

Mobile Source Operations Division

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ATTACHMENT 1 OF 1

Model Year:

Manufacturer:

Onyx Environmental Solutions, LLC

Engine Family: 6NYXS.7472K1

Issued: Revised:

6/19**(/)20**6

E.O. Number:

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Small Off-Road Engine Model Summary Form

Units for Table: kw

	47.	48.	49.	50 .	51 .	52.	53.	54.	55.	56.
Worst Case?	Model Designation	Sales Code	Displ (cc)	Bore/ Stroke	Ignition Timing	Max Power	Rated Speed (RPM)	Rated Torque	Torque Speed (RPM)	Emiss Control Sys
х	CH750	50-State	747	83/69 mm		14.44	3600	50 Nm	2500	TWC