EXECUTIVE ORDER U-U-001-0460 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	···   FNGINF FAMILY		DISPLACEMENT (cc)	ENGINE CLASS		FUEL TYPE (CNG/LNG=compressed/liquefied natural gas LPG=liquefie petroleum gas)			
2010	AHNX	(S.1961AA	i.1961AA 196 4-stroke, >			Gasoline			
DURABILITY HOURS 500 ENGINE CODES/MODELS (rated power in kilowatt, kW)		_	SPECIAL FEATURES SION CONTROL SYS	-	TYPICAL EQUIPMENT APPLICATION				
			E.M		Walk-Behind Lawnmower, Compressor, Pump, Pressure Washer, Generator Set, Tiller, Other OEM Product				
					See Attachm	ent			

ABBREVIATIONS: EM=engine modification TWC/OC=three-way/oxidizing catalyst WUTWC/WUOC=warm-up TWC/OC O2S=oxygen sensor HO2S=heated O2S EGR=exhaust gas recirculation AIR=secondary air injection PAIR=pulsed AIR MFI=multi port fuel injection SFI=sequential MFI TBI=throttle body fuel injection DFI=direct fuel injection TC/SC=turbo/super charger CAC=charge air cooler 2(prefix)=parallel (2)(suffix)=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 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	10.0	549	•
FAMILY EMISSION LEVEL	9.4	*	*
CERTIFICATION LEVEL	8.0	339	*

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

day of December 2009.

twenter FOR AGH

Annette Hebert, Chief Mobile Source Operations Division Model Year: Manufacturer: 2010

Honda Motor Co., Ltd.

Attachment 1 of 3

Revised:

8/7/2009

Page: 9 - 1

E.O. Number: U-4-001-0460 Engine Family: AHNXS.1961AA

## Small Off-Road Engine Model Summary Form

Units for Table: kW

Worst Case?	Designation	48. Sales Code	49. Displ (cc)	50. Bore/ Stroke	51. Ignition Timing	52. Max Power	53. Rated Speed (RPM)	54. Rated Torque	55. Forque Speed (RPM)	56. Emiss Control Sys
X	A1GH01B3- C	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.n	n 2500	EM
	A1GI 10100-D	50-State	196.1	08.0/54.0	20° BTDC	4.1	3600	12.4 N.n	1 2500	EM
	A1GH0100R D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.n	n 2500	EM
	A1GH0200-D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.n	n 2500	EM
	A1GH03B3- C	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.п	n 2500	EM
	A1GH0400-D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.п	n 2500	EM
	A1GH05B3- C	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 <b>N</b> .n	n 2500	EM
	A1GH06B3- C	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.r	n 2500	EM
	A1GH0300D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.r	n 2500	EM

Attachment 2 \$3

8/14/2009

2010 Model Year: Manufacturer: Honda Motor Co., Ltd. E.O. Number: U-U-001-0460 Engine Family: AHNXS.1961AA

## Small Off-Road Engine Model Summary Form

Units for Table:

Page: 9 -3

Worst Case?	Designation	48. Sales Code	49. Displ (cc)	50. Bore/ Stroke	51. Ignition Timing	52. Max Power	53. Rated Speed (RPM)	54. Rated To Torque	55. rque Speed (RPM)	56. Emiss Control Sys
	A1GH0700-D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM
	A1GH0800-D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	ĖM
	A1GH0900-D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	. EM
	A1GH1000R D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	ЕМ
	A1GH11F2- C	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	ЕМ
	A1GH12F1- C	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	ЕМ
	A1GH13B3- C	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	ЕМ
	A1GH1400-D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM

Page: 9 - 5

Model Year:

Attachment 3 & 3

Issued:

8/14/2009

Manufacturer: Honda Motor Co., Ltd. Engine Family: AHNXS.1961AA

Revised:

E.O. Number: U-U-001-0460

## Small Off-Road Engine Model Summary Form

Units for Table:

Worst Case?	Designation	odel Sales		50. Bore/ Stroke	51. Ignition Timing	52. Max Power	53. Rated Speed (RPM)			56. Emiss Control Sys
	A1GH1100- G	50-State	State 196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 <b>N</b> .m	2500	EM
	A1GH1100-K	50-State	196.1	68.0/54.0	20° BTDC	. <b>4</b> . i	3600	12.4 N.m	2500	Eivi
	A1GH1200- G	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM
	A1GH1200-K	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM
				<u>-</u>						
					<u>.</u>			1		
			:	* 10 mm	:					
										•
									. :	
					•					
									:	
	:			·				:	:	
	:									····
				i	<u> </u>					
			:							
	<u></u>									