## ANDREAS STIHL

EXECUTIVE ORDER U-U-015-0745
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-14-012;

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.

2016         GA8XS.0314RD         31         4-stroke, < 50 cc	MODEL YEAR ENGI		NE FAMILY	DISPLACEMENT (cc)	ENGINE CLASS		FUEL TYPE (CNG/LNG=compressed/liquefied natural gas LPG=liquefied petroleum gas)	
HOURS  BMISSION CONTROL SYSTEMS  TYPICAL EQUIPMENT APPLICATION  Line Trimmer, Hedge Trimmer, Edger, Brushcutter  ENGINE CODES/MODELS (rated power in FC 100, FC 110, FS 100 RX, FS 110 R, KM 110 R, HL 100, HL 100 K [each 1.06 kW]	2016	GA8X	S.0314RD	31	4	-stroke, < 50 cc	Gasoline	
ENGINE CODES/MODELS (rated power in FC 100, FC 110, FS 100 RX, FS 110 R, KM 110 R, HL 100, HL 100 K [each 1.06 kW]					TYPICAL EQUIPMENT APPLICATION			
CODES/MODELS (rated power in FC 100, FC 110, FS 100 RX, FS 110 R, KM 110 R, HL 100, HL 100 K [each 1.06 kW]	300		EM			Line Trimmer, Hedge Trimmer, Edger, Brushcutter		
	CODES/MODELS (rated power in		FC 100, FC 110, FS 100 RX, FS 110, FS 110 R, KM 110 R, HL 100, HL 100 K [each 1.06 kW]					

ABBREVIATIONS: EM=engine modification TWC/OC=three-way/oxidizing catalyst WUTWC/WUOC=warm-up TWC/OC 02S=oxygen sensor H02S=heated 02S EGR=exhaust gas recirculation AIR=secondary air injection PAIR=pulsed RMF|=multi port fuel injection FSF|=sequential MF| TBI=throttle body fuel injection DF|=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 1054.115(a) of the "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines," adopted October 25, 2012.

*=not applicable	HC+NOx (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)
STANDARD	50	536	*
FAMILY EMISSION LEVEL	35	575	*
CERTIFICATION LEVEL	25	414	*

**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 September 2015.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division