California Environmental Protection Agency

O Air Resources Board

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code Sections 43013, 43018, 43101, 43102 and 43104; 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 new spark-ignition marine engine and emission control systems (ECS) produced by the manufacturer are certified as described below. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR ENGINE FAMILY		FUEL TYPE DISPLACEMENT () LEVEL OF CLEANLINESS		
2016	GYMXM4.172GA	Gasoline	4169	Ultra Low Emission ("Three Stars")		
EQUIPMENT APPLICATION			CIAL FEATURES	ENGINE TYPE		
Outboard			Fuel Injection	4-Stroke		
ENGINE MODELS (rated power in kilowatts, kW)			See Attachment			

BE IT ORDERED AND RESOLVED: That the listed engines are certified to a hydrocarbon plus oxides of nitrogen (HC+NOx) family emission limit (FEL) and a carbon monoxide (CO) direct standard in accordance with a plan submitted by the manufacturer to, and approved by, the Executive Officer for compliance with the exhaust emission standards on a corporate average basis pursuant to Title 13, California Code of Regulations, (13 CCR) Section 2442(a). The HC+NOx FEL and the CO standard shall be the applicable emission standards for this engine family for determining compliance of any engine within this engine family pursuant to 13 CCR Sections 2444.1 (in-use compliance) and 2446 (audit testing). The standards and certification emission levels in grams per kilowatt-hour (g/kW-hr) for this engine family are as follows. Engines in this engine family shall have closed crankcases in conformance with Part I, Section 18(h) of the "California Exhaust Emission Standards and Test Procedures for 2001 Model-Year and Later Spark-Ignition Marine Engines."

*=not applicable	HC+NOx (g/kW-hr)	CO (g/kW-hr)		
STANDARD	*	300.0		
FAMILY EMISSION LEVEL	16.10	*		
CERTIFICATION LEVEL	10.40	219.8		

Compliance with the emission standards on a corporate average basis shall be determined pursuant to 13 CCR Section 2442(a) based on the sales-weighted average power of all engines produced for sale in California that are included in the approved corporate average compliance plan for the model-year.

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 Sections 2443.1, 2443.2 and 2443.3 (emission control, consumer, and environmental labels), and Sections 2445.1 and 2445.2 (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 pursuant to 13 CCR Sections 2442(a)(2)(B) and 2446.

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. $\gtrsim RO$

Executed at El Monte, California on this _____ day of February 2016.

D LAnnette Hebert, Chief Emissions Compliance, Automotive Regulations, and Science Division

Model Year: <u>2016</u> Manufacturer Name: <u>Yamaha Motor Co., Ltd.</u> Engine Family: <u>GYMXM4.172GA</u> SI MARINE ENGINE SUPPLEMENTAL INFORMATION

Issued: (09/15/20	15	
Revised:			
E 0 #	1 1 11	007	

E.O.#: [)-W-003-0329

S11. MODEL SUMMARY (Use an asterisk (*) to identify worst-case engine model used for certification testing.)

S12	S13	S14		S15	S16	S17	S18	S19	
Engine Model	Engine Code	Sales Codes (Check All appropriate)		Eng. Displ.	Rated	Rated Speed	Peak	Peak Torque	
		Calif. Only	49- State	50- State	(cc)	(kW)	(RPM)	Torque (N-m)	Speed (RPM)
* VF200LA	6CD			*	4169	161	6000	370	3500
VF225LA	6CC			*	4169	181	5700	380	3500
VF250LA	6CB			*	4169	199	6000	395	3500
F225XCA/ F225FETX	6CL			*	4169	178	5000	358	4500
LF225XCA/ FL225FETX	6CM			*	4169	178	. 5000	358	4500
F250XCA/ F250DETX	6CG			*	4169	198	5750	380	4500
LF250XCA/ FL250DETX	6CH			*	4169	198	5750	380	4500
F250UCA/ F250DETU	6CG			*	4169	198	5750	380	4500
LF250UCA/ FL250DETU	6CH			*	4169	198	5750	380	4500
F300XCA/ F300BETX	6CE			ż	4169	221	5500	400	5000
LF300XCA/ FL300BETX	6CF			*	4169	221	5500	400	5000
F300UCA/ F300BETU	6CE			*	4169	221	5500	400	5000
LF300UCA/ FL300BETU	6CF			*	4169	221	5500	400	5000
F225NCA	6CL			*	4169	178	5000	358	4500
F250NCA	6CG			*	4169	198	5750	380	4500
F300NCA	6CE			*	4169	221	5500	400	5000
VF250XA	6FR			*	4169	199	6000	395	3500
F225FETU	6CL		*		4169	178	5000	358	4500

page 3