ISHIKAWAJIMA-SHIBAURA MACHINERY CO., LTD.

EXECUTIVE ORDER U-R-026-0058 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

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

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

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)						
2003	3H3XL.761LCS	0.761	Diesel	3000						
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION							
	Indirect Diesel Inje	ection	Generato	г						

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED	EMISSION			Ī	EXHAUST (g/kw-h	OPACITY (%)					
POWER CLASS	STANDARD		НС	NOx	NMHC+NOx	СО	РМ	ACCEL	LUG	PEAK	
KW<8	Tier 1	STD	N/A	N/A	10.5	8.0	1.0	N/A	N/A	N/A	
		CERT			7.8	2.9	0.4				

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

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

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 January 2003.

Aller Lyons, Chief

Mobile Source Operations Division

Engine Model Summary Form

ATTAGMMENT 1 OF 1

Manufacturer: Ishikawajima-Shibaura Machinery Co., Ltd.

Engine category: Nonroad CI

EPA Engine Family: 3H3XL.761LCS

Mfr Family Name: N/A

Process Code: New Submission

W-R-026-0058

[4				e zer A						i Augilia							4			- 42.	A.,		•
930	Ī							6																
8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930					-									advance of open		1				1				
ssion er S	프				1									-			-							
Emi: vice I										44		di cancerno della		-										
e De		ļ										- I member of the control of		d distribution of the state of		İ						the state of the s		
e: torqu			İ													ŀ								
Rat	A X					-	:								-	ļ					٠. ا		į	
3. Fue	-		!			İ										ļ						THE PERSON NAMED IN COLUMN 1		
l/sql)													İ			į	!							
äĶ							Ì																	
mm/stroke@peak torque	N/A				-										-									
stroke@ torque	Z		-	-					ŀ													-		
																	1					-		
					.							-						i				***************************************		
b. lorque (ซี หษาพ (SEA Gross)					.																			
a Gro	N/A																							
SEA	_												1								١			
j			1				1															THE PERSON NAMED IN		
<u> </u>																						-		
ls on	-0.3			annu linuar																		1	-	
(for diesels only)	4.7+/-0.3	ļ	į																					
<u>(</u>	4			1	: . [,			
:			1							1		. }												
- (Sign	6.(-		1																		
Selo Selo	16.0+/-0.9		-			1		1																
stroke or die	16.									-														
mm/stroke (@ peak HP (for diesel only)																								
(RPN	9.9@1800		ļ		-																			
3.BHP@RPM (SAE Gross)	9@1																	į į						
3.E	9.					-				-														
					-		Ì												-					
2.Engine Model	ပ္									٠,									Latinate and the same and the s					
ne	10/1800C				1																			
Engi	10/			-							-							į						
2																						1		1
de				1			-								gran yrapanan kanda									1
ပိ	31												-										-	
1.Engine Code	E673L																		- Harana marin					
Щ									- [-					