



NIPPON KAIJI KYOKAI

Certificate

Certificate No.
TA22270E(R)

OF

APPROVAL

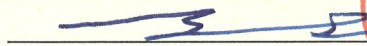
Item	: Shipboard Incinerator
Product name	: KFB-110S
Manufacturer	: KANGRIM HEAVY INDUSTRIES CO., LTD. 76, YEONDEOK-RO, SEONGSAN-GU, CHANGWON-SI, GYUNGSANGNAM-DO, KOREA
Max. capacity	: 1,100,000 kcal/h : 150 kg/h of specified waste : 128 kg/h per burner
O ₂ Average in combustion chamber/zone	: 9.9 %
CO Average in flue gas	: 15.0 mg/MJ
Soot number average	: 1 Ringelman scale
Combustion chamber flue gas outlet temperature average	: 1038 °C
Amount of unburned components in ashes	: 3.8 % by weight
Documentation	: See Annex.

THIS IS TO CERTIFY that the prototype of the above shipboard incinerator has been examined and tested in accordance with the requirement of the *Standard Specification for Shipboard Incinerators* set out at Annex to the Resolution MEPC.244 (66) and the prototype of the above shipboard incinerator has been approved by Nippon Kaiji Kyokai with approval No.12CD5S.

A copy of this certificate should be carried on board a vessel where this type of incinerator is fitted.

This certificate is valid from 28 March 2022 until 27 March 2027.
Issued at Tokyo on 8 April 2022.

NIPPON KAIJI KYOKAI


Y. Takao
General Manager
Material and Equipment Department



Annex to the certificate No. TA22270E(R)



Documentation :

Drawing No.	Drawing Name
KFB110SDG	Flow diagram
IB-110S1001	Dimension of KFB-110S W.O. incinerator
IB-1101002	Arrangement of charging door
KB-1101003	Maintenance door & ash door
KFB110S-EL-STANDARD	Electric drawings
IB-110S1300	Arrangement of burner (KJS-11)
TCS1600	Thermocouple S-type
TCK950	Thermocouple K-type
KB-110S2020	Flue gas damper
EXJNT	Expansion joint bellows type
KB-110S2010	Flue gas fan
AF420-15	Air filter
DU-STRAIN	Duplex strainer for W.O.
2008802	Square flange for duplex strainer
DLF-04	D.O. strainer
CIR. PUMP	W.O. circulation pump
LVLSW	Test device type float level switch
TMOST	Thermostat

END OF CERTIFICATE