



EC TYPE-EXAMINATION CERTIFICATE

as per Module B
of European Council Directive 2014/90/EU on Marine Equipment (MED)

THIS IS TO CERTIFY that KR Hellas Ltd., designated by the Hellenic Republic as Notified Body according to Council Directive 2014/90/EU on Marine Equipment, did undertake the EC Type Examination procedures for the equipment identified below which was found to be in compliance with the requirements of Marine Equipment Directive (MED) 2014/90/EU:

Manufacturer	Name : Kangrim Heavy Industries Co., Ltd.
	Address : 76, Yeondeok-ro, Seongsan-gu, Changwon-si, Gyeongnam, Rep. of Korea
Authorised Representative	Name : Ravebo B.V.
	Address : Woud 2, 3232 LN Brielle, Netherlands
Regulation Item (MED item designation)	: Shipboard Incinerators (Incinerator plants with capacities up to 4 000 kW)
USCG Approval Category (if not applicable, input N/A)	: N/A
Product Types	: KFB-32/-50/-73/-100/-129, KFB-73S/-110S
Specified Standards Commission Implementing Regulation (EU)2023/1667 - Row 1 of 1	: MARPOL 73/78 Annex VI. Reg.16, IMO Res. MEPC.244(66)
Date of issue	: 2024-03-08
Expiration Date	: 2029-03-07

Issued at Athens, under the authority of the Hellenic Republic by **KR Hellas Ltd.**



Notified Body No.2198



Nikolaos Katiforis
Quality Manager of KR Hellas Ltd.



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Attachment to EC Type Examination Certificate (1/2)

Type Examination documentation:

- Technical file including the drawings of shipboard incinerator(type : KFB-32 / 50 / 73 / 100 / 129 / 73S) was approved by Korean Register of Shipping dated 2015-10-21.
- Technical file including the drawings of shipboard incinerator(type : KFB-110S) was approved by Korean Register of Shipping dated 2014-03-28.

Test reports:

- Test according to IMO Res. MEPC.76(40) was carried out.
- The Shipboard incinerators(KFB- 32 / 50 / 73 / 100 / 129, KFB- 73S / 110S) are in compliance with regulation of IMO Res. MEPC.244(66).

Report No.	Title of Report	Inspection & Test Institute	Date
KRH-MED-0104-2024	Report of conformity assessment for Module B	KR Hellas Ltd.	2024.02.29
KRH-MED-0063-2019	Report of conformity assessment for Module B	KR Hellas Ltd.	2019.03.21
KRH-MED-0200-2015	Report of conformity assessment for Module B	Korean Register of Shipping	2015.11.09
KRH-MED-0057-2014	Report of conformity assessment for Module B	Korean Register of Shipping	2014.03.27

Product description:

- The equipment is intended for installation onboard ships and other marine installations for incineration of waste oil and solid wastes.
- Specification


Type	Maximum Capacity (kcal/h)	Solid Waste (kg/h)	Waste oil (kg/h per burner)
KFB-32	320,000 kcal/h	40 kg/h	38 kg/h per burner
KFB-50	520,000 kcal/h	100 kg/h	61 kg/h per burner
KFB-73	730,000 kcal/h	140 kg/h	85 kg/h per burner
KFB-100	1,030,000 kcal/h	150 kg/h	120 kg/h per burner
KFB-129	1,290,000 kcal/h	150 kg/h	150 kg/h per burner
KFB-73S	730,000 kcal/h	110 kg/h	85 kg/h per burner
KFB-110S	1,100,000 kcal/h	150 kg/h	128 kg/h per burner

Application/Limitations of use:

- This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the notified body named on this certificate.
- The installation, operating and maintenance manual shall be provided on board and be available in the ship's official language.
- It shall not be permitted to use of non-mental materials for fuel pipe.

Marking of product:

- Mark of Conformity

The manufacturer is allowed to affix the Mark of Conformity  according to Chapter 2, Article 9, 10 of the Council Directive 2014/90/EU (MED) on marine equipment and issue a Declaration of Conformity, only when one of the production modules D or E or F of Annex II has been completed and will appear on the production module certificate as allowed by this directive.

- USCG Approval No. (If applicable)

This equipment is covered by the scope of the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 27th, 2004 and amended by Decision No. 423 dated 26 May, 2023 according to U.S. Coast Guard approval category (USCG Approval Category). A U.S. Coast Guard approval number shall be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F) as allowed by this Directive (MED).



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Certificate No : MED-MB-1056-14
MED Item No. : MED/2.7

This consists of 3 pages.
Page 3 / 3

Attachments to EC Type Examination Certificate (2/2)

Conditions of the validity:

- The products are to be manufactured in accordance with the approved production quality assurance system (Module D) or approved product assurance system (Module E), or are to be subjected to product verification (Module F) of the Council Directive 2014/90/EU (MED) on Marine Equipment.
- If the Directive or the applied Standard(s) is amended, the product is to be re-approved in accordance with the amended requirements prior to it being supplied to vessels to which the amended Directive or Standard(s) apply. Any significant changes in design or construction of the product, or amendments to the Directive or Standards referenced above may render this certificate invalid.
- The Manufacturer must inform the "Notified Body" of all modifications which may affect compliance with the requirements.
- The wheel mark of conformity and the U.S. Coast Guard approval number (when applicable) shall be affixed to the product and a Declaration of Conformity shall be issued by the manufacturer only when the production/product assessment module has been completed and will appear on the production module certificate (module D, E or F) as allowed by the MED.

Remarks:

- Renewed on 2024.03.08 and repealing the Certificate with the same No. issued on 2019.03.22

End of Certificate

