



## Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

<b>Manufacturer</b>	<b>Eagle Industry Co., Ltd. Marine Division</b>
<b>Address</b>	2-13-23, Shinhama, Arai-cho, Marine Division, Takasago Manufacturing Section, Takasago-shi, 676-0008, Japan
<b>Type</b>	Stern tube Seals And Bearings
<b>Description</b>	KEMEL-COMPACT Seal - Double security construction fitted with four sealing rings in AFT seal and two sealing rings in FWD seal  TYPE KEMEL DX
<b>Trade Name</b>	KEMEL DX
<b>Application</b>	Stern tube sealing system for use in ships fitted with suitable oil lubricating systems
<b>Specified Standard</b>	Lloyd's Register (LR) Rules and Regulations for the Classification of Ships (July 2022), Part 5, Chapter 6
<b>Ratings</b>	Nominal seal size range : 140 to 1,180 mm Minimum shaft diameter : 111 mm Maximum shaft diameter : 1,130 mm Material of sealing ring : FEPM, FKM (Viton), NBR

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A member of the Lloyd's Register group

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### Other Conditions

Where the seals are intended to be installed on a ship classed or intended to be classed with LR, the following conditions of acceptance will be applicable:-

1. The seals are to be found to function to the attending LR Surveyor's satisfaction when fitted and tried under working conditions.
2. The diagrammatic plans showing sea water and compressed air piping systems are to be separately submitted for individual installations by shipbuilders for approval.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register Group Ltd of any modification or changes to the equipment in order to obtain a valid Certificate.

**Previous Version:** 93/10007(E8)

The Design Appraisal Document LR23238600TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.