

Type Approval Certificate Extension

This is to certify that Certificate No. 09/ 60016 for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	Tides Marine		
PLACE OF PRODUCTION	3251A S.W. 13 th Driv Deerfield Beach, Florida 33442 USA	e,	
DESCRIPTION	Sure Seal Drive Shaft Seal and Rudder Bearings		
TYPES	Propeller Shaft Seals – FSK Rudder Bearings URB-STD/LP/TS, RPB – A to H, RPB-1		
APPLICATION	Shaft Seals for Propeller Shafts Rudder Bearings		
SPECIFIED STANDARDS	Lloyd's Register's Rules and Regulations for the Classification of Ships; Lloyd's Register's Rules and Regulations for the Classification of Special Service Craft		
RATINGS	Propeller Shaft Seals Model FSK – Sure Seal Size – ¾ to 8'' (20mm – 205mm) Maximum Speed 10,000 rpm Water temperature range 32° to 90° F Rudder Bearings Model URIB – STD/LP/TS Description - Upper Rudder Bearings Stock size range 1'' to 8'' (25mm – 205mm)		
Certificate No.	09/ 60016 (E2)		,
Issue Date	16 August 2017		R Lloyd's Register
Expiry Date	15 August 2022	Ben Hipwell Southampton Office Lloyd's Register EMEA	
Sheet	1 of 2	Southampton Technical S Marine & Offshore Llc	

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RATINGSCONT.		Model RPB A to H	
		Description - Rudder port bearing & seals,	
		Stock size range 1'' to 8'' (25mm – 205mm)	
		Model RPB-1	
		Description – Rubber seal with hose	
		Size – ¾'' to 3½'' (20mm – 90mm)	
OTHER CONDITIONS	1.	The product is to be installed in accordance with the	
		manufacturers recommendations.	
	2.	All work is to be carried out to the attending surveyors satisfaction,	
	3.	Rudder bearing materials are provisionally approved	
		for 5.5 N/mm ² . Approvals up to 10N/mm ² will be	
		considered on a case by case basis where satisfactory	
		service on a Lloyds Register classed vessel can be	
		demonstrated,	
	4	The propeller shaft seals are not to be used as the	

4. The propeller shaft seals are not to be used as the primary sea water seal.

"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 EMEA of any modification or changes to the equipment in order to obtain a valid certificate."

The attached Design Appraisal Document No. 09/60016 (E2) and its supplementary Type Approval Terms and Conditions form part of this Certificate

All other details remain as the previous Certificate No. 09/ 600161(E1) to which this extension should be attached.

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