

Type Approval Certificate Extension

This is to certify that Certificate No. 94/20033 (E8) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	Straub Werke AG Straubstrasse 13 CH-7323 Wangs Switzerland
DESCRIPTION	Wet fire tested pipe couplings for detachable sealing and anchoring plain ended metallic pipes and couplings with "dot" designation for installation without torque wrench on request.
TYPE	STRAUB-METAL-GRIP STRAUB-METAL-GRIP.dot STRAUB-METAL-GRIP-FIRE-FENCE
APPLICATION	For Marine, Offshore and Industrial piping systems, the couplings are to be selected and installed in accordance with the manufacturers recommendations. For marine piping systems, the coupling are acceptable in locations specified in the Rules for the Classification of Ships, Part5, Chapter12, Section 2.12, or the Rules for the Classification of Special service Craft Part15, Chapter 1, Section 5.8 for I.S.O. 19921/19922 wet fire tested, grip type, slip on joints. Specific restrictions for these couplings are stated below.

Certificate No.	94/20033 (E9)
Issue Date	23 September 2009
Expiry Date	21 March 2012
Sheet	1 of 3


Olaf Schmidt
Hamburg Design Support Centre
Lloyd's Register EMEA

Lloyd's Register EMEA
71 Fenchurch Street, London EC3M 4BS

APPLICATION, cont.

For other systems not mentioned in the Rules , not listed below or for Offshore or Industrial systems then these will be considered.

Restrictions.

The couplings are not acceptable in the following locations :-

1. Class1 piping, CO2, starting and control air systems.
2. Inside machinery spaces of category A or accommodation spaces for :-
 - a. Main lines of inert gas systems.
 - b. Pipe systems for flammable liquids including corresponding vent and sounding pipes.
 - c. Bilge lines
3. Steam pipe systems, except for pipes on weather decks of oil and chemical tankers.
4. Scuppers and discharge (overboard). Deck drains, except for pipes above the freeboard deck.
5. Pipelines in cargo holds, tanks and other spaces which are not easily accessible.
6. Fire main, water spray and sprinkler systems or similar which are not always filled with water.

STANDARD

Lloyd's Register's Rules for the Classification of Ships(2009)/Special Service Craft(2009), IACS Unified Requirement P2.Rev.2 (2006)(Type Approval of Mechanical Joints).

Certificate No.	94/20033 (E9)
Issue Date	23 September 2009
Expiry Date	21 March 2012
Sheet	2 of 3


Olaf Schmidt
Hamburg Design Support Centre
Lloyd's Register EMEA

Lloyd's Register EMEA
71 Fenchurch Street, London EC3M 4BS

RATINGS

Pipe OD (mm)	Nominal Pressure (bar)
33.7 – 219.1	16.0 for marine application
33.7 - 219.1	20.0 for offshore and industrial application
244.5	14.0
267.0-273.0	12.0
323.9	10.0
355.6-406.4	8.0

Temperature Range:	
	EPDM -20°C to +100°C
	NBR -20°C to +80°C
	HNBR -20°C to +125°C
	Viton -20°C to +180°C

OTHER CONDITIONS

Suitable provision for expansion is to be made where necessary in each range of pipes.

For material combinations for the corresponding media the producer's recommendations and instructions to be sought.

Marking of the products to show:

Producer's name or trade mark, type designation, material combination, size, gasket material, torque and max. working pressure or pressure Class.

"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. HMD 12693-04, Issue No. 4, dated 23 September 2009 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. 94/20033 (E8) to which this extension should be attached.

Certificate No.	94/20033 (E9)
Issue Date	23 September 2009
Expiry Date	21 March 2012
Sheet	3 of 3


Olaf Schmidt
Hamburg Design Support Centre
Lloyd's Register EMEA

Lloyd's Register EMEA
71 Fenchurch Street, London EC3M 4BS

"Lloyd's Register, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register Group'. The Lloyd's Register Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract."