



Lloyd's
Register

Type Approval Certificate Extension

This is to certify that Certificate No. 91/ 00049(E4) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	Duro Dakovic Kompenzatori d.o.o.
PLACE OF PRODUCTION	Dr. Mile Budaka 1 35000 Slavonski Brod Croatia
DESCRIPTION	Metal expansion bellows
TYPE	SB 8491 - Types A and B; SB 8494 - Types A and B; SB 8492 – Types A and B; SB 8496 – Types A and B; SB 8493; SB 8495; SB 8497; SB 8139; SB 8140; SB 8144; SB 8141; SB 8142; SB 8143
APPLICATION	Suitable for marine, offshore and industrial pipework systems, subject to the following restrictions for marine use: SB 8491, SB 8494, SB 8492 & SB 8496: Type A: Fresh water and lubricating oil Type B: Steam and crude oil For marine and offshore piping systems, the bellows qualify for Class III piping systems except as follows:-

Certificate No.	91/ 00049(E5)
Issue Date	8 November 2016
Expiry Date	13 February 2021
Sheet	1 of 2



M.H.M.Rila
Southampton Technical Support Office
Marine & Offshore Lloyd's Register

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Steam above 7 bar or 170°C
Crude oil above 7 bar or 60°C

Class II
Class II

SB 8493, SB 8495 & SB 8497: Sea water systems.
SB 8497, SB 8139, SB 8140, SB 8144, SB 8141, SB 8142 & SB8143:
Exhaust gas systems.

RATINGS

	Nominal diameter (mm)	Max. working pressure (bar)	Max. working temperature (°C)
SB 8491	40 to 300	6	200
SB 8494	40 to 300	6	200
SB 8492	40 to 300	10	200
SB 8496	40 to 300	10	200
SB 8493	50 to 300	6	200
SB 8495	50 to 300	10	100
SB 8497	50 to 300	16	100
SB 8139	65 to 250	1	500
SB 8140	300 to 1200	1	500
SB 8144	1300 to 2000	1	500
SB 8141	1300 to 2000	1	500
SB 8142	65 to 250	1	500
SB 8143	300 to 1200	1	500

Refer to Duro Dakovic drawings for exact details of diameters, wall thickness and axial movement.

"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. 91/ 00049(E5) and its supplementary Type Approval Terms and Conditions form part of this Certificate

All other details remain as the previous Certificate No. 91/ 00049(E4) to which this extension should be attached.

Certificate No. 91/ 00049(E5)
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Sheet 2 of 2



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