



Marine & Offshore

Certificate number: 26440/B0 BV

File number: ACM 135/2701/02

Product code: 2162H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to
BIJUK HPC d.o.o.
 Samobor - CROATIA

for the type of product
HOSE FITTINGS
 Stainless Steel Hose Fittings for Hydraulic Rubber Hoses

Requirements:

- BUREAU VERITAS Rules for the Classification of Steel Ships
- BUREAU VERITAS Rules for the Classification of Offshore Units

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 04 Mar 2024

For Bureau Veritas Marine & Offshore,

At BV RIJEKA, on 04 Mar 2019,

Slaven Celic



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

Hose Fittings (ferrules and nipples) for Rubber Hoses

Series B-AGF, B-AGJ, B-AGN, B-AGR, B-AGRk, B-BE, B-BEL, B-BEL-45°, B-BEL-90°, B-BES, B-BES-45°, B-BES-90°, B-CEL, B-CES, B-DKJ, B-DKJ-45°, B-DKJ-90°, B-DKL/DKLL, B-DKL/DKLL-45°, B-DKL/DKLL-90°, B-DKOL, B-DKOL-45°, B-DKOL-90°, B-DKOR, B-DKOR-45°, B-DKOR-90°, B-DKOS, B-DKOS-45°, B-DKOS-90°, B-DKR, B-DKR-45°, B-DKR-90°, B-DRF, B-DRF-90°, B-P1, B-P2, B-P3 and B-P9

1.1 Design

- Skive, non-skive Series
- Ferrules as per Bijuk catalogue: B-P1, B-P2, B-P3 and B-P9
- Nipples as per Bijuk catalogue: straight, 45° elbow, 90° elbow, tapered and pipe ends
- Dimension range for Hose (inside diameter) 6 to 80 mm

1.2 Identification and Technical data as per Bijuk

Ferrule Type	Nominal Diameter [mm]	* Max. Working Pressure [bar]	* Min. Temperature [°C]	* Max. Temperature [°C]
	05	250		
	06	400		
	08	350		
	10	330		
	12	275		
B-P1	16	250	-40	+125
	19	215		
	25	165		
	31	125		
	38	100		
	51	90		
	05	415		
	06	400		
	08	350		
	10	330		
	12	275		
B-P2	16	250		
	19	215	-40	+125
	25	165		
	31	45		
	38	40		
	51	33		
	60	25		
	80	18		
	06	485		
	08	350		
	10	450		
	12	420		
B-P3	16	380		
	19	380	-40	+125
	25	320		
	31	210		
	38	185		
	51	175		
	06	225		
	08	215		
B-P9	10	180	-40	+125
	12	160		

* Max. Working Pressure and Temperature range will depend on hose assemblies (hose type and fittings).

1.3 Materials of Ferrules and Nipples: Stainless steel 1.4571 acc. to DIN EN 10088-3

2. DOCUMENTS AND DRAWINGS

- BIJUK HPC Catalogue Hose Couplings Edition 2011

3. TEST REPORTS

3.1 - Tests carried out: Leakage test, ageing test, burst test, vibration resistance test, impulse pressure test and fire endurance test.

3.2 - Test reports N° YQ01-02-249 rev. 0 dated 09/02/2011 and N° YQ01-02-263 rev. 0 dated 07/09/2011 issued by lab. Brodarski Institut - Zagreb (Croatia).

4. APPLICATION / LIMITATION

4.1 - Hose fittings (ferrules and nipples) specified above are approved for type-tested hydraulic rubber hoses SEMPERIT Type 2 SNK DN 6, DN 8, DN 10, DN 12, Type SPC 2 DN 16 and Type 4 SP DN 19 (max. Working Pressure 320 bar) assembled by PALFINGER MARINE d.o.o., (Slovenia).

4.2 - Application and installation of the hose fittings are to be in accordance with the manufacturer's specifications and instructions, and the Society's rules requirements stated on the front page of this certificate.

4.3 - All hose assemblies delivered under this type approval are to be in compliance with an assembly procedure issued by the manufacturer.

4.4 - Hose fittings with tapered threads end connections are not to be used for liquid fuel or oil circuits in neither engine rooms nor any place containing an ignition source unless otherwise suitably screened at the Society's Surveyor satisfaction.

4.5 - The nature of the used materials is to be suitable for the intended service.

5. PRODUCTION SURVEY REQUIREMENTS

5.1 - The products are to be supplied by **BIJUK HPC d.o.o.** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **BIJUK HPC d.o.o.** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **BIJUK HPC d.o.o.** has declared to Bureau Veritas the following production site:

BIJUK HPC d.o.o.: Vrbovec Samoborski, Vrbovec 1A, HR-10430 Samobor, CROATIA

The hose fittings detailed in this certificate and type-approved hoses are assembled in the factories PALFINGER MARINE d.o.o., (Slovenia). The hose bulks are manufactured by SEMPERIT TECHNISCHE PRODUKTE GmbH, Wimpassing (Austria) and the hose fittings are manufactured by BIJUK HPC d.o.o., Samobor (Croatia).

6. MARKING OF PRODUCT

Each hose fitting is to be clearly marked according to the manufacturer's instructions:

- Manufacturer's name or logo
- Model
- Size

7. OTHERS

It is **BIJUK HPC d.o.o.**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

This certificate supersedes the Type Approval Certificate No. 26440/A0 BV issued by the Society.

*** END OF CERTIFICATE ***