



CERTIFICATE

BAM/ZBF/009/12 (9th Revised version)

Hereby it is confirmed by the BAM Certification Body, that the

Safety devices and quick-action couplings

of the certificate holder Wilhelmsen Ships Service AS Strandvn 20, Lysaker NO_1324 LYSAKER NORWAY

meet the requirements of meet the requirements of the standards:

DIN EN ISO 5175-1:2018	"Gas welding equipment - Safety devices -
	Part 1: Devices incorporating a flame (flashback) arrestor"
DIN EN 561:2002	"Gas welding equipment - Quick-action couplings with shut-off valves
	for welding, cutting and allied processes"
additionally in compliance wi	th the BAM-standard operating procedures
BAM-StAA-SE-16	"Test for resistance to solvents for non-metallic materials"
	dated 14.11.2017
BAM-StAA-SE-18	"Test for resistance to ageing in oxygen for non-metallic materials"
	dated 12.04.2018
BAM-StAA-SE-19	"Test of pressure-sensitive cut-off valve for quick opening"
	dated 8.12.2020

The contract No. **BAM-ZBF-0006-2022-Wilhelmsen Ships** forms the basis for this certification. The terms and conditions for monitoring of the products are also stipulated in this contract.

The products certified by BAM may be labelled with the BAM certification mark "BAM Geprüft und überwacht" and/or "BAM Certified and under surveillance" together with the certificate number.

The certificate is valid until 31. December 2024.

Bundesanstalt für Materialforschung und -prüfung (BAM)

Unter den Eichen 87, 12205 Berlin, 2023-08-04

By order Dr. Stephan Aris BAM-Certification Officer and BAM-Assessor

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This certificate consists of 1 page and 1 Annex.

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Annex: Products of Company Wilhelmsen Ships Service AS within the scope of Certificate No. BAM/ZBF/009/12, 9th Revised version

1 Safety devices according to DIN EN ISO 5175-1:2018

The safety devices listed below comply with the requirements of DIN EN ISO 5175-1:2018, at the operating conditions specified in the following table. Furthermore, the safety devices listed below comply with the extensions of paragraph 4.2 "Materials" of DIN EN ISO 5175-1:2018, which are specified within the following BAM Standard Operating Procedures

- BAM-StAA-SE-16 "Test for resistance to solvents for non-metallic materials" dated 14.11.2017 and
- BAM-StAA-SE-18 "Test for resistance to ageing in oxygen for non-metallic materials" dated 12.04.2018.

Furthermore, the listed safety devices insofar applicable fulfill the BAM Standard Operating Procedure

- BAM-StAA-SE-19 "Test of pressure-sensitive cut-off valve for quick opening" dated 8.12.2020

Additionally, the non-metallic materials were positively tested for the application in gaseous oxygen, for the maximum working overpressures listed below (testing for reactivity with oxygen under the influence of oxygen pressure surges).

Type series "Super"

Type and/or design	max. connectable inner tube/hose diameter in mm	Product number	max. working overpressure in MPa (labelled)				
			acetylene	propane	methane	O ₂ / compressed air	H_2
Unitor S-55 AC	10	708537	0.15	0.5	0.5		0.3
Unitor S-55 OX	IU	708545				1.5	
Unitor W-66 S	10	708554	0.2*	0.5	0.5		0.5
Unitor W-66 S		708550				1.0	

* In DIN EN ISO 5175-1:2018 the max. test pressure for acetylene is 0,15 MPa, therefore the test with 0,2 MPa acetylene was carried out not according but "in the style" of DIN EN ISO 5175-1:2018.

Type series "85-10"

Type and/or design	max. connectable inner tube/hose diameter in mm	Product number	max. working overpressure in MPa (labelled)					
			acetylene	propane	methane	O ₂ / compressed air	H_2	
Unitor W-85-10 AC	10	585372	0.15	0.5	0.5		0.4	
Unitor W-85-10 OX		682427				2.5		

2 Quick-action couplings according to EN 561:2002

The quick-action couplings listed in the following meet the requirements of DIN EN 561:2002, at the operating conditions specified in the following table.

The compliance with the requirements of paragraph 6.5, is extended within BAM Standard Operating Procedures

- BAM-StAA-SE-16 "Test for resistance to solvents for non-metallic materials" dated 14.11.2017 and
- BAM-StAA-SE-18 "Test for resistance to ageing in oxygen for non-metallic materials" dated 12.04.2018.

Additionally, the non-metallic materials were positively tested for the application in gaseous oxygen, for the maximum working overpressures listed below (testing for reactivity with oxygen under the influence of oxygen pressure surges).

Type series "Unitor Quick Coupling"

Type and/or design	max. connectable inner tube/hose	Droduct number	max. working overpressure in MPa (labelled)				
	diameter in mm	FIOUUCEIIUIIIDEI	fuel gases	acetylene	oxygen		
Unitor Quick Coupling	10	734007		0.15			
		734016	2.0				
		734004					
		734013					
		734025					
Unitor Quick Coupling	10	734001					
		734010					
		734019			2.0		
		734022					
		734028					