



## Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

<b>Manufacturer</b>	<b>HEROSE G.M.B.H. ARMATUREN UND METALLE</b>
<b>Address</b>	Elly-Heuss-Knapp-Str. 12, Bad Oldesloe, 23843, Germany
<b>Type</b>	Valves - General
<b>Description</b>	Strainer and check valves valves for cryogenic service made of materials stainless steel or bronze with soft seals, welded, flanged or threaded connection types available.  Types 08416, 08432, 08716, 08717, 08732 – Strainer, 05417, 05419, 05714, 05717, 05719 – Check valves,
<b>Trade Name</b>	Cryogenic-Strainer and Check Valves
<b>Application</b>	LNG, hydrogen, ammonia, methanol and cryogenic service on board of ships classed or intended for classification with Lloyd's Register.
<b>Specified Standard</b>	Lloyd's Register's Rules and Regulations for the Classification of Ships, 2025; Lloyd's Register's Rules and Regulations for the Classification of Ships using Gases or other Low-flashpoint Fuels, 2025; Lloyd's Register's Rules and Regulations for the Construction and Classification of for the Carriage of Liquefied Gases in Bulk, 2025; BS 6364

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<b>Ratings</b>	see Appendix
<b>Additional Tests</b>	For hydrogen applications the strainer are to be shell leakage tested with helium or a mixture of 95 per cent nitrogen and 5 per cent hydrogen.
<b>Other Conditions</b>	A check valve is not to be used as a substitute for an isolating valve. The manufacturer's operating and maintenance instructions are to be sought. Selection of materials including sealing are to be appropriated for the intended fluids and ratings. Bronze (copper alloy) is not to be used with ammonia.

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.

**Previous Version:** 15-20075-02

The Design Appraisal Document TSO/25-034098, (previous HTS/ENS 33076-15, Issue No. 1) and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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## Appendix

### RATINGS:

	Type:	Size:	Pressure:	Connection:
<b>Strainer</b>	08416	DN10-DN50	PN50	threaded
	08432	DN15-DN150	PN40 / Class300	flanged
	08716	DN10-DN50	PN50	threaded
	08717	DN10-DN200	PN40 / Class300	butt and socket welded
	08732	DN15-DN150	PN40 / Class300	flanged
<b>Check valves</b>	05417	DN10-DN50	PN50	threaded
	05419	DN15-DN150	PN40 / Class300	flanged
	05714	DN10-DN200	PN50; DN150 PN40	butt and socket welded
	05717	DN10-DN50	PN50	threaded
	05719	DN15-DN200	PN40 / Class300	flanged

Temperature range: -196°C to +120°C for valves/strainers of 1.4308  
 -255°C to +120°C for valves/strainers of 1.4409