



Quality Assurance Engineering Scheme Certificate

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| Manufacturer | Herose GmbH Armaturen und Metalle |
| Address | Elly-Heuss-Knapp-Str. 12, Bad Oldesloe, 23843, Germany |
| Scheme Type | Quality Assurance Scheme for Machinery (QAM) |
| Approval Number | QAM183 |
| Product Type | Cryogenic Strainers |
| Product Name | Strainers for LNG and cryogenic service |
| Product Type | Cryogenic Valves |
| Product Name | Cryogenic Globe-, Globe/Check-, Check- and Divertor Valves |
| Product Type | Safety Valves |
| Product Name | Angle-type Safety Valves Cryogenic Safety Valves |

This is to certify that the above named manufacturer has been approved in accordance with the requirements set out in the Quality Assurance Scheme for Machinery (QAM) within the Lloyd's Register Rules and Regulations for the Classification of Ships.

The quality system and procedures at these works covering production methods, inspection and testing, quality control and general standards of workmanship have been examined and are approved for the manufacture of the undernoted product(s) at the stated place(s) of production.

Such items will be eligible for fitting in ships or other installations classed or intended for classification subject to satisfactory installation under the usual conditions of survey and testing.

This approval is conditional upon the product(s) manufactured and certified under this Scheme being in accordance with the relevant requirements of the Rules and Regulations for the Classification of Ships and the organisation and procedures being audited by the Surveyors at agreed intervals.

Burkhard Schiwkowski

Lead Specialist to Lloyd's Register EMEA
A member of the Lloyd's Register group

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For details of the scope of approval see subsequent pages of this certificate.

This certificate is issued to the named manufacturer and is valid until the expiry date specified. Lloyd's Register is to be notified of any change that may affect the validity of this certificate and reserves the right to cancel or withdraw this certificate.

The Quality Assurance Scheme for Machinery is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations for the Classification of Ships are complied with.

Scope of products covered by the scheme:

1. Strainers for LNG and cryogenic service

Types: 08416, 08432, 08716, 08717, 08732

LR Type Approval Certificate 15-20075-02 applies.

2. Cryogenic Globe-, Globe/Check-, Check- and Divertor Valves

Types (Globe): 01345 / 01355 / 01645 / 01655 / 01741 / 01743 / 01745 / 01751 / 01753 / 01755
01841 / 01843 / 01845 / 01851 / 01853 / 01855 / 03341 / 03343 / 03351
03641 / 03643 / 03651 / 03741 / 03743 / 03751 / 03841 / 03843 / 03851
01272 / 01282 / 03252 / 03272

Types (Check): 05417 / 05419 / 05714 / 05717 / 05719

Types (Divertor): 06520 / 06521 / 06530 / 06531

LR Type Approval Certificates LR2002016TA and 15-20075-02 apply.

3. Angle-type Safety Valves

Type: 50051.0004

LR Type Approval Certificate LR2340586TA-02 applies.



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4. Cryogenic Safety Valves

Types: 06800 / 06801 / 06805 / 06806 / 06011 / 06012 / 06016 / 06381
06383 / 06413 / 06440 / 06441 / 06445 / 06446

LR Type Approval Certificate 15-20076-02 applies.

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