



Lloyd's
Register

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.

This certificate supersedes certificate number 17/20004 issued on 17.01.2017 which is hereby cancelled.

This certificate is issued to:

PRODUCER	HKS GmbH Schonenfahrerstraße 1 18057 Rostock Germany
DESCRIPTION	Stainless steel (1.4404/316L; 1.4541/321; 1.4571/316Ti) multiple layer expansion joints with or without inner sleeve
TYPE	Axial : AN/AF-RR, AN/AF-VV, AN/AF-FF, AN/AF-DD Universal : AM/AP-RR, AM/AP-VV, AM/AP-FF, AM/AP-DD Lateral : RM-RR, RM-VV, RM-FF, RM-DD Angular : WN-RR, WN-VV, WN-FF, WN-DD
APPLICATION	For use in metallic LNG/LPG cargo piping systems
STANDARD	Lloyd's Register Rules and Regulations for the Classification of Ships, 2016 and EJMA, 10 th Edition
RATINGS	Design Temperature : -196 °C to +125 °C Design Pressure : 16 bar Design Cycle : 7000 Nominal Diameter : DN25 to DN400 For allowable movements see the corresponding Design Appraisal Document
Certificate No.	17/20004 (E1)
Issue Date	19 June 2017
Expiry Date	16 January 2022
Sheet	1 of 2

Olaf Schmidt
Hamburg Technical Support Office
Lloyd's Register EMEA

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71 Fenchurch Street, London EC3M 4BS

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PLACE OF PRODUCTION HKS-CZ s.r.o.
Mledkojedaska 1994/7
41201 Litomerice
Czech Republic

The Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.

The Design Appraisal Document No. HTS/ENS 35559-17, issue No. 1 dated 19.06.2017 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Certificate No. 17/20004 (E1)
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