



## 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>HKS GmbH</b>
<b>Address</b>	Schonenfahrerstr. 1, Rostock, 18057, Germany
<b>Place of Production</b>	HKS - CZ s.r.o. Mlekojedaska 1994/7, Litomerice, 412 01, Czech Republic
<b>Type</b>	Metal Expansion Joint
<b>Description</b>	Stainless steel (1.4404/316L; 1.4541/321; 1.4571/316Ti) multiple layer expansion joints with or without inner sleeve
<b>Trade Name</b>	Axial : AN/AF; Universal : AM/AP; Lateral : RM; Angular : WN
<b>Application</b>	For use in metallic LNG/LPG cargo piping systems and Reformat systems
<b>Specified Standard</b>	Lloyd's Register Rules and Regulations for the Classification of Ships, 2022 and EJMA, 10 <sup>th</sup> Edition

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

**Olaf Schmidt**

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

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



## Type Approval Certificate

<b>Ratings</b>	Medium :	LNG/LPG	Reformat
	Type :	AN/AF, AM/AP, RM, WN	AN/AF
	Design Temperature :	-196 °C to +125 °C	-55 °C to 550 °C
	Design Pressure :	16 bar	-0.5 bar to 16 bar
	Design Cycle :		7000
	Nominal Diameter :		DN25 to DN400

For allowable movements see the corresponding Design Appraisal Document

<b>Other Conditions</b>	For application in Reformat systems material grade 1.4404/316L or 1.4571/316Ti only. Not to be used where double walled installations are required by the Rules
-------------------------	--

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:** LR22150900TA

The Design Appraisal Document HTS/ENS 35559-17, Issue No. 3 and its supplementary Type Approval Terms and Conditions form part of this Certificate.