



## LLOYD'S REGISTER TYPE APPROVAL – DESIGN APPRAISAL DOCUMENT

Issued by: HAMBURG TECHNICAL SUPPORT OFFICE (HPC 1961044)

Issued to: HKS GMBH

For: CORRUGATED STAINLESS STEEL HOSES

Type: SE, SZ

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register Type Approval System Procedure TA14 Version 04 (September 2020) and this Design Appraisal Document forms part of the Certificate.

### APPROVAL DOCUMENTATION

-	Application Checklist	19.08.2022
SE 6-80-DAGA-AGA-600-196	HKS hose	16.10.2019
SE 6-250-B-V-600-196	HKS hose	16.10.2019
SE 6-250-F-F-600-196	HKS hose	16.10.2019
SE 6-250-R-R-600-196	HKS hose	16.10.2019
SZ 6-80-DAGA-AGA-600-196	HKS hose	16.10.2019
SZ 6-250-B-V-600-196	HKS hose	16.10.2019
SZ 6-250-F-F-600-196	HKS hose	16.10.2019
SZ 6-250-R-R-600-196	HKS hose	16.10.2019
-	HKS Hoses – catalogue, pages 246 to 257	

### TEST REPORTS

HPC1961044	Production Quality Assessment	23.12.2019
1	Burst pressure test type SE, DN25, 180 bar at HKS with Rina	21.02.2017
-	Prototype types SE and SZ several sizes including pressure tests with 1.5 x design pressure, vacuum test, burst pressure test with DNVGL	11.09.2019
Ar76245913_02	Prototype tests acc. DIN EN ISO 10380 and vibration tests aligned to IACS including bending, leak tightness under water, U-bend-test with standard ( $10^4$ ) cycles, vibration ( $10^7$ cycles) with pulsation pressure test ( $5 \times 10^5$ ), pressure, burst pressure, elongation, vibration with constant pressure with TÜV Süd Garching, Germany	10.02.2012

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**Supplementary Type Approval Terms and Conditions**

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*Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.*

*Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations. Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the Lloyd's Register Type Approval System Procedure.*

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