



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.

Manufacturer	KTR Systems GmbH
Address	Carl-Zeiss-Straße 25, Rheine, 48432, Germany
Type	Shaft Couplings
Description	Flexible rubber coupling (92 ShA, 98 ShA, 64ShD) with hubs made of steel
Trade Name	ROTEX® Flexible claw coupling with PUR damper
Application	As shaft coupling for auxiliary drive systems powered by electric motors or hydraulic motors
Specified Standard	Lloyd's Register Rules and Regulations for the Classification of Ships, July 2023
Ratings	See Appendix

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.

The Design Appraisal Document HPC 2361026, Issue No. 0 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Olaf Schmidt

Engineering - Power Generation - Lead
Specialist to Lloyd's Register EMEA
A member of the Lloyd's Register group

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

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.



Appendix

RATINGS	Type	Size	Nominal Torque, Nm		
			92 Shore A	98 Shore A	64 Shore D
	Standard and Standard with Clamping Hub	19 - 180	10 - 18650	17 - 28000	21 - 35000
	AFN and BFN	24 - 180	35 - 18650	60 - 28000	75 - 35000
	AH	19 - 125	10 - 6650	17 - 10000	21 - 12500
	BTAN and SBAN	38 - 125	190 - 6650	325 - 10000	405 - 12500
	AFN-SB special	65 - 180	625 - 18650	940 - 28000	1175 - 35000
	SD	24 - 125	35 - 6650	60 - 10000	75 - 12500
	ZS-DKM-H	65 - 140	625 - 8550	940 - 12800	1175 - 16000



Page: 1 of 3
Certificate No: LR23405241TA
Issue Date: 13/12/2023
Expiry Date: 12/12/2028
Reference: HPC 2361026, Issue No. 0

LLOYD'S REGISTER TYPE APPROVAL – DESIGN APPRAISAL DOCUMENT

Issued by: Hamburg Technical Support Office (HPC 2361026)

Issued to: KTR Systems GmbH

For: Flexible Claw Coupling, Type ROTEX®

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.

COMMENTS

Final approval is subject to the vibration characteristics of the complete dynamic system as required by the Rules.



Olaf Schmidt
Engineering Lead Specialist
Power Generation
Global Technical Support Office, Operations
Lloyd's Register EMEA
T +49 (0)40 34970010-192
E olaf.schmidt@lr.org

APPROVAL DOCUMENTATION

-	Application Checklist	28.05.2023
-	ROTEX® Catalogue, pages 28 to 60	undated
40210 EN, Ed. 25	ROTEX® Operating/Assembly Instructions	04.08.2022
40224 EN, Ed. 11	ROTEX® Type ZS-DKM, ZS-DKM-H and ZS-DKM-SH Operating/Assembly Instructions	06.03.2023



Page: 2 of 3
Certificate No: LR23405241TA
Issue Date: 13/12/2023
Expiry Date: 12/12/2028
Reference: HPC 2361026, Issue No. 0

TEST REPORTS

PRJ1110428079	PQA Report	21.11.2023
90212034	ROTEX 125 92 ShA /98 ShA /64 ShD T-PUR Zahnkranz, 12 pages	27.06.2012
90215002K	ROTEX 160 98 ShA T-PUR Zahnkranz (2K), 2 pages	29.10.2015
90215003K	ROTEX 160 92 ShA T-PUR Zahnkranz (2K), 2 pages	29.10.2015
90215003K	ROTEX 160 64 ShD T-PUR Zahnkranz (2K), 2 pages	30.10.2015

Drawings

611641, rev. 1	ROTEX 160 Hub	30.08.2016
571882, rev. 5	ROTEX 125 Hub	30.08.2016
550097, rev. 1	ROTEX 125 Standard Spider	14.05.2012
550106, rev. 2	ROTEX 125 Standard Spider	05.01.2015
551511, rev. 1	ROTEX 160 Standard Spider	17.09.2012
550112, rev. 1	ROTEX 125 Standard Spider	14.05.2012
551534, rev. 2	ROTEX 160 Standard Spider	06.01.2015
551545, rev. 1	ROTEX 160 Standard Spider	17.09.2012
661470, rev. 0	ROTEX 160 Standard	06.04.2016
851150, rev. 4	ROTEX 100 ZS-DKM-H	25.09.2023
853260, rev. 2	ROTEX 100 DH-Clamping Hub	15.08.2023
853261, rev. 2	ROTEX 100 DKM-H Centre Piece	25.09.2023
416319, rev. 2	ROTEX 100 Spider Special	21.02.2018
838046, rev. 7	ROTEX 100 ZS-DKM-H	25.09.2023
862945, rev. 2	ROTEX 90 ZS-DKM-H	19.07.2022
859830, rev. 0	ROTEX 75 ZS-DKM-H	04.05.2022
896452, rev. 0	ROTEX 65 DKM-H Centre Piece	09.10.2023
896454, rev. 0	ROTEX 75 DKM-H Centre Piece	09.10.2023
896436, rev. 0	ROTEX 90 DKM-H Centre Piece	09.10.2023
896418, rev. 0	ROTEX 100 DKM-H Centre Piece	09.10.2023
896481, rev. 0	ROTEX 110 DKM-H Centre Piece	09.10.2023
896493, rev. 0	ROTEX 125 DKM-H Centre Piece	09.10.2023
896510, rev. 0	ROTEX 140 DKM-H Centre Piece	09.10.2023



Page: 3 of 3
Certificate No: LR23405241TA
Issue Date: 13/12/2023
Expiry Date: 12/12/2028
Reference: HPC 2361026, Issue No. 0

Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.

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.