



LLOYD'S REGISTER TYPE APPROVAL – DESIGN APPRAISAL DOCUMENT

Issued by: HAMBURG TECHNICAL SUPPORT OFFICE

Issued to: KONGSBERG MARITIME

For: TANK GAUGING SYSTEM; TYPES GL-300

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

Unnumbered	Type Approval Application Checklist	17.10.2023
393770	Request for Marine Services – Type Approval	25.10.2023
ETS 39599-20/MK/TW	Design Appraisal Document of previous certificate no. LR2002080TA	03.03.2020
LR2002080TA	Previous LR Type Approval Certificate for Tank Gauging System GL-300	03.03.2020
PRJ11100416436-2	Production quality assessment (PQA) report of Kongsberg Maritime AS	21.06.2023
C561587	Certificate ISO 9001:2015 of Kongsberg Maritime AS (Global)	31.05.2023
IECEX PRE 14.0053X	IECEX Certificate of Conformity Issue 2 for GLK-300	18.11.2020
IECEX SIR 14.0024X	IECEX Certificate of Conformity Issue 3 for GC-300	09.12.2021
IECEX NEM 12.0008X	IECEX Certificate of Conformity Issue 2 for GT-406	21.03.2017
IECEX SIR 14.0025X	IECEX Certificate of Conformity Issue 2 for GLA-300 & GLA-310	15.12.2021
342829/L	Manufacturer's Declaration of Conformity (ATEX, EMC)	28.04.2023
371645/C	Product Data sheet GC-306 Cargo Temperature Unit	undated
383758/F	Product Data sheet GLA310/5 Radar Tank Gauge for Liquefied Gas	undated
386773/B	Product Data sheet K-Gauge TOP	undated
394663/E	Product Data sheet GLA310/5-G Radar Tank Gauge for Liquefied Gas	undated
442205/F	Product Data sheet GLA310/5-D Radar Tank Gauge for Liquefied Gas	undated
411509/B	Product Data sheet GLA-310/5-NH3 Radar Tank Gauge for Liquefied Ammonia (NH3)	undated
435445/B	Product Data sheet GLA310/5-LH2 Radar Tank Gauge for Liquefied Hydrogen	undated
364982/B	Product data sheet Radar Electronic Unit GLH-310	14.02.2018
436580/B	Product data sheet GLH-320 Radar Electronic Unit	09.11.2020
437090/D	Product data sheet GLA-300/HS-DRAFT Radar Tank Gauge for Draft Applications	undated
P-GC300/CE Rev J	Product data sheet Cargo Temperature Unit GC-300	undated
P-GLA300H/CE Rev F	Product data sheet GLA-300/H Radar Tank Gauge for Chemical Asphalt & Bitumen Tankers	undated
P-GLA300HS/CE Rev F	Product data sheet GLA-300/HS Radar Tank Gauge for Guided Wave Applications	undated
P-GLA300/CE Rev F	Product data sheet GLA-300/P Radar Tank Gauge for Oil, Product and Chemical Tankers	undated
P-GLK300/CE Rev I	Product data sheet GLK-300 Signal Processing Unit	01.12.2020
P-GT406/CE Rev C	Product data sheet Pressure Transmitter	undated
386310/K	SW revision history for GL-300	16.08.2023
386311/P	SW revision history for K-Gauge	14.08.2023

TEST REPORTS

E21214.00	Test Report (EMC) acc. IACS UR E10 Rev. 8: 2021 (partial) for GLK-300	01.11.2021
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Certificate No: LR2002080TA-02
Issue Date: 11/12/2023
Expiry Date: 21/09/2024
Reference: HPC1462079-23/MK

TEST REPORTS (continued)

209536	Test Report acc. IACS UR E10 (2006, EMC up to 6 GHz) for GCB-303/306	21.08.2012
E17118.00	Test Report acc. IACS UR E10 Rev. 6 (2014, EMC up to 6 GHz) for and GLH-310/320	22.09.2017

DRAWINGS

394855 Rev. B	System overview diagram K-Gauge GL-300 based multifunction system with dual radar	24.04.2020
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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.

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