



TÜVRheinland®

ZERTIFIKAT
CERTIFICATE

No.: 968/EL 844.00/12

Product tested	Design of the Liwan 3-1 Offshore High Integrity Pressure Protection System (HIPPS)	Certificate holder	CNOOC China Nanhai E-coll Innovation Park, No. 6 Xinhua Road Shekou, Shenzhen China
Type designation	Liwan 3-1 Offshore HIPPS Cubicle ID: 110 (HIPPS LW-A / LW-B / PY)	Manufacturer	Yokogawa Europe Solutions B.V. Euroweg 2 3825 HD Amersfoort The Netherlands
Codes and standards forming the basis of testing	IEC 61508 Parts 1-7:2010 (in extracts) IEC 61511-1:2003 + Corrigendum 1:2004		
Intended application	The intended design of the Liwan 3-1 Offshore High Integrity Pressure Protection System (HIPPS), complies with the requirements of IEC 61508 (Phase 10 of the safety life cycle) and IEC 61511 (Phase 4 of the safety life cycle) for SIL 3.		
Specific requirements	The instructions of the associated Installation and Operating Manuals and the Safety Manuals of used subsystem elements shall be considered. Recommendation: The applied partial stroke test shall be automatic and suitable to perform the claimed diagnostic (e.g. detection of closing delay etc.). The requirements for system behaviour on detection of a fault stated in the IEC 61508-2:2010 (§7.4.8) shall be implemented. The recommendations of the actuator manufacturer regarding to the PVST frequency shall be followed.		

The test report-no.: 968/EL 844.00/12 dated 2012-08-15 is an integral part of this certificate.

This certificate is valid only for products which are identical with the product tested. It becomes invalid at any change of the codes and standards forming the basis of testing for the intended application.

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Köln, 2012-08-21

Certification Body for FS-Products

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