



Lloyd's
Register

Type Approval Certificate

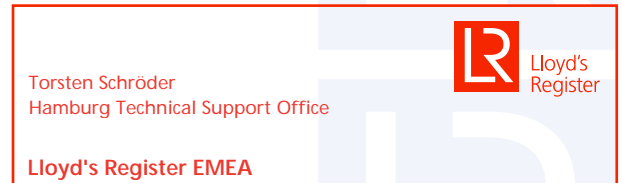
This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

This certificate supersedes certificate number 01/20037 (E2) issued on 15.11.2010 which is hereby cancelled.

This certificate is issued to:

PRODUCER	LESER GmbH & Co. KG Wendenstrasse 133-135 20537 Hamburg Germany
DESCRIPTION	Angled type, direct spring loaded, full lift safety valve for steam and gases; standard safety valve for liquids; Disc: metal seat (459, 459HDD) soft seal (462, 462HDD) Connections: Flanged or threaded Lifting device: Packed lever H4 Plain lever H3 Cap (gas tight) H2
TYPES	459/459HDD and 462 / 462HDD (Heavy Duty Design)
APPLICATION	As safety features for steam, liquids and gases including LNG and LPG systems in marine and offshore installations.
RESTRICTIONS	The valves are not to be used on boilers and steam generators.
STANDARDS	Lloyd's Register Rules and Regulations for the Classification of Ships and for the Carriage of Liquefied Gases in Bulk, 2016; AD2000-Merkblatt; VdTÜV SV100; DIN EN ISO 4126-1; ISO 21013-1: 2008, Part 1;

Certificate No.	01 / 20037 (E3)
Issue Date	12 May 2016
Expiry Date	14 November 2020
Sheet	1 of 2



Torsten Schröder
Hamburg Technical Support Office
Lloyd's Register EMEA

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RATINGS

DN 15 – DN40
 Internal diameter do: 6; 9; 13 and 17,5 mm
 Pressure ratings: PN40 – PN400 (CL150 - CL2500)
 Set pressure: 0,10 to 850 bar
 Types 459/ 459HDD up to 850 bar
 Types 462/ 462HDD up to 420 bar

Material and temperature range:

Types:	Body material:		Temperature range:
	Inlet	Outlet	
4593 / 4623	1.4104/430	1.0619/WCB	-60°C to +450°C
	1.4404/316L		
4592 / 4622	1.4404/316L	1.0619/WCB	-85°C to +450°C
4594 / 4624 4594HDD / 4624HDD	1.4404/316L	1.4408/CF8M	-196°C to +400°C

For temperatures above 50°C the maximum working pressure has to be reduced in accordance to the yield strength.

**PLACE OF
PRODUCTION**

LESER GmbH & Co. KG
 Itzehoer Strasse 63-65
 24594 Hohenwestedt
 Germany

The Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.

The Design Appraisal Document No. HMD 6732-01, Issue No. 3 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Certificate No. 01 / 20037 (E3)
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Sheet 2 of 2

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LR031.1.2013.12

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