LESER CERTIFICATE FOR GLOBAL APPLICATION

Inspection certificate 3.1 according to DIN EN 10204
Declaration of conformity according to Pressure Equipment Directive 2014/68/EU

LESER GmbH & Co. KG · Postfach 26 16 51 · 20506 Hamburg · Germany

Firma
HESCH Industrietechnik GmbH
Postfach 17 55
D-90707 Fürth
Deutschland

Customers Order No.:	190847
LESER-Job-No.:	20415326 / 10
LESER-Customers-No.:	111733
LESER-Contact:	Florian Schmidt
Fon:	040 25165 146
Fax:	040 25165 500
eMail:	schmidt.f@leser.com

This LESER CGA confirms that the undermentioned LESER safety valves are manufactured and certified according to the rules world-wide. LESER makes the world-wide employment possible of the safety valves by the reference on these regulations.

1 Test object

High Performance Safety Relief Valve, Type 442 DIN,
open bonnet, lifting device H3,
for steam, gas and liquid service

Art.-No.	Cold differential test pressure		Option Code:	**K7UM33MB1K4XH03K3GP2AJA7X00H88H84H51H47H22L8JL64L49H01**
4422.4575	18,24 barg	264,58 psig	Further SV-Info:	

Tag-No.:	LESER-Job-No.	Pos.No.	Serial-No.:	Body material	Nominal size: Inlet | Outlet	Pressure rating: Inlet | Outlet
	20415326	10	11574733	1.0619/ WCB/ WCC	DN 100 | DN 150	PN 40 | PN 16

Kind of certification	VdTUEV-Type test approval				EC Type-examination				ASME certification		
Rules	AD 2000-Merkblatt A2:				DIN EN ISO 4126-1:				ASME-Code Sec.VIII, Div.1:		
Certification No./ valid until	D/G:	TÜV-SV 19-576	05.24		G/S:	072020111Z0008/0/08-3	06.20		G/S:	M37044	02.24
	F:	TÜV-SV 19-576	05.24		L:	072020111Z0008/0/08-3	06.20		L:	M37055	02.24
Flow diameter	d_0	92 [mm]			-	92 [mm]			-	3,622 [in.]	
Flow area	A	6647,6 [mm^2]			A	6647,6 [mm^2]			A	10,304 [sq.in.]	
Certified derated coefficient	a_w	D/G:	0,70		K_{dr}	G/S:	0,70		K	G/S:	0,699
of discharge		F:	0,45			L:	0,45			L:	0,521
Certified capacity											
Lift	H	22,4 [mm]			h	22,4 [mm]			I	0,88 [in.]	
Overpressure	c	D/G:	5 [%]		c	G/S:	5 [%]		-	G/S:	10[%]
		or 0,1bar for p<1bar				or 0,1bar for p<1bar				or 3,0psig for p<30,0 psig	
		F:	10 [%]			L:	10 [%]			L:	10[%]
		or 0,1bar for p<1bar				or 0,1bar for p<1bar				or 3,0psig for p<30,0 psig	
Cold differential test pressure	p	18,24 [bar g]			p_e	18,24 [bar g]			cdtp	264,58 [psig]	
Temperature	T	250,00 [°C]			T	250,00 [°C]			T	482 [°F]	
Backpressure	p_a	0,00 [bar g]			-	0,00 [bar g]			-	0,00 [psig]	
Set pressure	p	18,00 [bar g]			p	18,00 [bar g]			p	261,07 [psig]	

2 Conformity assessment procedure and LESER Management Systems

Conformity assessment procedure:	Category IV according to PED 2014/68/EU Modul B D/D1	
	Notified Body:	TÜV NORD Systems GmbH & Co. KG, Große Bahnstraße 31, D-22525 Hamburg
	Certification No.:	0045
LESER Management Systems:	Quality Management System	DIN EN ISO 9001
	Environmental Management System	DIN EN ISO 14001
	Production Quality Assurance	PED 2014/68/EU Modul D/D1
	ASME Certificate of Authorization	ASME Code Sec.VIII, Div.1

3 Regulations

3.1 LESER certifies with this CGA that design, marking, production an approval of this pressure equipment corresponds to the requirements of the following harmonized standards and other regulations.

Harmonized standards:	Other regulations:			
DIN EN ISO 4126-1	PED 2014/68/EU	VdTÜV SV 100	ASME-Code Sec. II	API RP 521
DIN EN ISO 4126-7	AD 2000-Merkblatt A2		ASME-Code Sec. VIII Div.1	API Std. 526
DIN EN 12266-1	AD 2000-Merkblatt A4		ASME PTC 25	API Std. 527
DIN EN 12266-2	AD2000-Merkblatt HP0		API RP 520	API RP 576

3.2 Tests	Directive	DIN EN ISO	DIN EN 12266		ASME CODE	API			AD2000 Merkblatt				LESER Standard
	2014/68/EU Annex 1	4126-1	Teil 1	Teil 2	Sec.VIII Div.1	526	527	576	A2	A4	HPO		LGS
Cdtp test	3.2.3	6.5			UG 136(d)(4)	4.2	2/3/4	6.2.14	11.1 11.4				LGS 0202-E
Seat tightness test		6.6	4.4 (P12)		UG 136(d)(5)	4.3	2/3/4	6.2.17					LGS 0201-E
Back seat tightness test				4. (P21)	UG 136(d)(3)								LGS 0201-E
Test of operability		7		4. (F20)					11.3				LGS 0217-E
Shell tightness test			4.4 (P11)										LGS 0201-E
Hydrostatic testing	3.2.2 7.4	6.3.1 6.3.2	4.4 (P10)		UG 136(d)(2)					6.1.(4)			LGS 0209-E
Nondestructive testing					UG 136(f)					6.1.(5)			LGS 0203-E - 0206-E
Material identification										6.1.(6)			LGS 0207-E
Marking					UG 77				8	7.1	4		LGS 0218-E
Check for dimensional accuracy										6.1.(3)			LGS 0216-E

4 Material suitability and marking

4.1. LESER certifies that the suitability of the used materials corresponds to the regulations quoted in chapter 3.1.

4.2. The marking of the materials as well as their transmission took place as follows:

Pos	Description	Material	Manufacturer	Manufacturer Batch	LESER-Batch
1	Body	1.0619/SA-216 WCB/WCC	Peekay Steel Castings Ltd. PKC	E6073	

5 Tests

The tests specified in the following one were realized on basis of the stated LESER standards without any objection:

5.1. Shell test

Shell tightness test
Hydrostatic testing
Nondestructive testing
Material identification check for alloyed materials
The realization of the test took place through: LESER GmbH & Co.KG

5.2. Valve setting and testing

Seat tightness
Back seat tightness
Operability
Cold differential test pressure

Setting at 18,24 [X] barg [_] psig
with [X] air [_] water [_] saturated steam
at [X] ambient temperature [_] saturated steam temperature [_] _____ [_] °C [_] °F

The safety valve is protected by a seal marked with:

Setting and testing were done by: LESER GmbH & Co. KG

6 CERTIFICATE OF SHOP COMPLIANCE

By the signature of the Certified Individual (CI) noted below, we certify that the statements made in this report are correct and that all details for design, material, construction, and workmanship of the pressure relief devices are conform with the requirements of Section VIII, Division 1 of the ASME Boiler and Pressure Vessel Code.
UV Certificate of Authorization No.: 27,806

Joachim Klaus
LESER GmbH & Co. KG

Date: 17.07.2019

Anatoli Vilenski
Inspection Representative Works Hohenwestedt
Certified Individual (CI)