DNV·GL

Certificate No:
TAS000012U

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Chain, shackles, swivels, sockets

with type designation(s)
Lifting means Grade 100 - VIP

Issued to
RUD Ketten Rieger & Dietz GmbH & Co.KG
Aalen, Germany

is found to comply with
DNV GL standard DNVGL-ST-0377 – Standard for shipboard lifting appliances
DNV GL standard DNVGL-ST-0378 – Standard for offshore and platform lifting appliances
PAS 1061 Round steel link chain slings, Grade 10

Application :

Product(s) approved by this certificate is/are accepted for DNVGL product certification and installation on all vessels classed by DNV GL.

Issued at **Hamburg** on **2017-06-23**
This Certificate is valid until **2022-06-22**.
DNV GL local station: **Augsburg**

Approval Engineer: **Stefan Heuer**

for **DNV GL**

Jörg Kallies
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Product description

Lifting means Grade 100 – VIP; chain sizes 6, 8, 10, 13, 16, 20 and 22mm:

- 1 leg VIP-G1… / VIP-G1-V1…
- 2 leg VIP-G2…/ VIP-G2-V2…
- 3- or 4 leg VIP-G3…/ VIP-G4…/ VIP-G3-V3…/ VIP-G4-V4…

consisting of:

- VIP Masterlink(s) VAK / VBK (including VIP Identification tag)
- VIP Connector(s) VRG
- VIP round steel link chain(s) VMK

with combination possibilities:

- VIP Cobra hook(s) VCGH
- VIP Multi-shortening claw(s) VMVK (Ø6mm to Ø16mm)
- VIP Multi-shortening claw(s) VV (Ø20mm and Ø22mm)
- VIP Foolproof high dynamic shackle(s) VVGSCH
- VIP Masterlink(s) VA1 / VB1 (equal VAK / VBK but without ID Tag)

Detailed type descriptions at end of this certificate (Table 2).

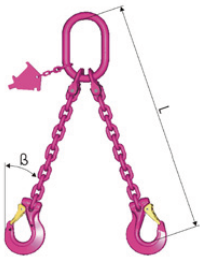
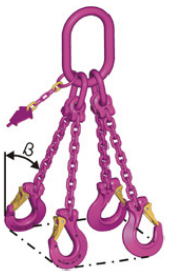
Application/Limitation

1. Design temperature: -20°C
2. SWL (WLL): acc. to Table 1 (see reverse)
3. All materials are to be delivered with 3.1 material certificates acc. to ISO 10474 / EN 10204:
   - KV min. 42J at -20°C (chain); min. 27J at -20°C
4. The equipment is to be protected permanently against corrosion. Spare parts shall be checked in regular intervals and renewed if become necessary according to manufacturers instructions.
5. It is the responsibility of the Holder of the Certificate to ensure that both design and production are in compliance with Rules, Standards and/or Regulations listed on page 1 of the Type Approval Certificate.

Considering above application/limitations, the lifting means are approved for use at industrial-, harbour-, sheltered water- and offshore lifting operations.

To obtain a DNV GL Product Certificate (e.g. CG3 or CMC 231), each lifting mean shall be load tested in presence of DNV GL according to Table 7-4 (ST-0377) / Table 14-2 (ST-0378).

Table 1 - SWL (WLL) for symmetrical load case in [t]

VIP100	1-leg	2-leg		3- and 4-leg	
					
Inclination angle β	0	0-45°	45-60°	0-45°	45-60°
Load factor	1	1.4	1.0	2.1	1.5
Nom. chain size					
6*	1.5	2.1	1.5	3.15	2.25
8	2.5	3.5	2.5	5.25	3.75
10	4.0	5.6	4.0	8.4	6.0
13	6.7	9.5	6.7	14.0	10.0
16	10.0	14.0	10.0	21.0	15.0
20*	16.0	22.4	16.0	33.6	24.0
22*	20.0	28.0	20.0	42.0	30.0
SWL (WLL) for single fall becomes valid when unsymmetrical load occurs at a multiple strand sling. When usign choke hitch, the SWL (WLL) has to be additionally reduced by 20%. *)PAS 1061 increased SWL (WLL), hard stamped with grade 8S (equal grade 100).					

Type Approval documentation

Is based on the following technical data sheets and DGUV* Type Approvals:

Doc. No.	*Rev. No.*	*Title*	*Short sign*	*DGUV TA Ref. No.*
-	-	VIP Master links, 1-leg	VAK 1	OA 1451028
-	-	VIP Master links, 2-leg	VAK 2	OA 1451028
-	-	VIP Master links, 4-leg	VAK 4	
-	-	VIP-Master link, 1-leg	VBK 1	OA 1451028
-	-	VIP Cobra hook	VCGH	OA 1451024
-	-	VIP-Multi shortening claw	VMVK / VV	OA 1451030
-	-	VIP Foolproof high dynamic shackle	VVGSCH	OA 1651050
-	-	VIP Connector	VRG	OA 1451028
-	-	VIP round steel link chain (grade 100)	VMK	OA 1651048

*Deutsche Gesetzliche Unfallversicherung – Prüf- und Zertifizierungsstelle Oberflächentechnik und Anschlagmittel

Tests carried out

Prototype test report witnessed by DGUV dated 2014-02-20
Prototype test report witnessed by DGUV dated 2016-02-11
Prototype test report witnessed by DNV GL dated 2017-05-30

Marking of product

Each lifting mean shall be marked in analogues with DIN EN 818 with at least:

- manufacturer´s name or trademark
- number of legs and chain size
- serial number
- year of construction
- nominal load(s) "SWL" in t

and

- reference to this type approval

Periodical assessment

For retention of the Type Approval, a DNV GL Surveyor shall perform a periodical assessment after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

see reverse

Table 2 – VIP 100 Type desciptions

Number of legs	Example	type	Ending Elements	Description	
				with Master Link VAK	with Master Link VBK1
Single Leg Sling		Fixed	VCGH	VIP-G1-VCGH	VIP-G1-VBK1-VCGH
			VVGSCH	VIP-G1-VVGSCH	VIP-G1-VBK1-VVGSCH
			VA1	VIP-G1-VA1	VIP-G1-VBK1-VA1
			VB1	VIP-G1-VB1	VIP-G1-VBK1-VB1
			2 VCGH	VIP-G1-VCGH2	
		Adjustable	VCGH	VIP-G1-V1-VCGH	VIP-G1-VBK1-V1-VCGH
			VVGSCH	VIP-G1-V1-VVGSCH	VIP-G1-VBK1-V1-VVGSCH
			VA1	VIP-G1-V1-VA1	VIP-G1-VBK1-V1-VA1
			VB1	VIP-G1-V1-VB1	VIP-G1-VBK1-V1-VB1
			2 VCGH*	VIP-G1-V1-VCGH2	
Double Leg Sling		Fixed	VCGH	VIP-G2-VCGH	
			VVGSCH	VIP-G2-VVGSCH	
			VA1	VIP-G2-VA1	
			VB1	VIP-G2-VB1	
		Adjustable	VCGH	VIP-G2-V2-VCGH	
			VVGSCH	VIP-G2-V2-VVGSCH	
			VA1	VIP-G2-V2-VA1	
			VB1	VIP-G2-V2-VB1	
3-Leg Sling		Fixed	VCGH	VIP-G3-VCGH	
			VVGSCH	VIP-G3-VVGSCH	
			VA1	VIP-G3-VA1	
			VB1	VIP-G3-VB1	
		Adjustable	VCGH	VIP-G3-V3-VCGH	
			VVGSCH	VIP-G3-V3-VVGSCH	
			VA1	VIP-G3-V3-VA1	
			VB1	VIP-G3-V3-VB1	
4-Leg Sling		Fixed	VCGH	VIP-G4-VCGH	
			VVGSCH	VIP-G4-VVGSCH	
			VA1	VIP-G4-VA1	
			VB1	VIP-G4-VB1	
		Adjustable	VCGH	VIP-G4-V4-VCGH	
			VVGSCH	VIP-G4-V4-VVGSCH	
			VA1	VIP-G4-V4-VA1	
			VB1	VIP-G4-V4-VB1	
*)Type without Master Link					

END OF CERTIFICATE