

pewag winner offshore

for extreme lifting applications



English EN

pewag winner offshore for extreme lifting applications

Lifting equipment for container transportation and offshore lifting operations often produce high dynamic forces and excessive impact loadings especially in rough seas. Low temperatures also affect the resilience of the materials causing unsuitable material to become brittle leading to equipment failures.

In addition products that are used offshore tend to corrode due to permanent high air humidity, particularly in warmer sea areas, this may lead to increases in stress corrosion cracking.

The pewag winner offshore programme has been specially developed for use in these harsh conditions, the products being manufactured with special heat treatments to give long service life even at temperatures down to -40°C.

pewag has consistently set industry leading high standards with innovative design, with the focus clearly on manufacturing products with safety, reliability and functionality as the prime motive.

DNV 2.7-1 approved

All individual parts of a chain sling or wire rope sling for lifting offshore containers must be checked and certified by DNV in accordance with the Standard for Certification 2.7-1. This is possible through extensive case-by-case tests and approvals (costly and time consuming often means a longer delivery time), or by subjecting the products to a type approval by DNV beforehand.

pewag has followed the route of type approval and is now in a position to supply products at short notice (individual components or complete chain slings), which correspond to the Standard for Certification 2.7-1. Due to the type approval, pewag is authorised by DNV to certify/confirm to compliance with regulation.





Full Member



pewag winner offshore

master links and sub-assemblies



pewag winner offshore AOS master link

Master link for offshore container lifting purposes in wire rope and chain slings.

For manufacture of I-leg and II-leg slings. Allocation to max. usable crane hooks according to DIN 15401 stated in table.

- Type approved in accordance with DNV 2.7-1
- Type approval certificate no. TAS00001UX
- Special heat treatment to prevent hydrogen embrittlement
- Grade 8 material
- · Safety factor 5:1
- CE marking
- Red powder coated



Code	WLL* Standard EN [tons]	Test force [kN]	Breaking force SF 1:5 [kN]	Usable up to single hook in accordance with DIN 15401	d [mm]	t [mm]	w [mm]	Weight [kg/ piece]
AOS 23 OFFSHORE	6.70	164	329	No. 16	23	270	140	2.51
AOS 25 OFFSHORE	8.90	218	437	No. 16	25	270	140	2.99
AOS 28 OFFSHORE	14.50	356	711	No. 16	28	270	140	3.80
AOS 33 OFFSHORE	17.80	437	873	No. 16	33	270	140	5.39
AOS 36 OFFSHORE	24.60	603	1,207	No. 16	36	270	140	6.50
AOS 40 OFFSHORE	32.00	785	1,570	No. 20	40	275	150	8.35
AOS 45 OFFSHORE	38.30	939	1,879	No. 25	45	340	180	12.90
AOS 50 OFFSHORE	45.40	1,113	2,227	No. 32	50	350	190	16.70
AOS 56 OFFSHORE	67.00	1,643	3,286	No. 32	56	400	200	23.28
AOS 70 OFFSHORE	85.00	2,085	4,169	No. 50	70	460	250	43.40





pewag winner offshore AOS-FZN. galvanised master link

Galvanised master link for offshore container lifting purposes in wire rope slings.

For manufacture of I-leg and II-leg slings. Allocation to max. usable crane hooks according to DIN 15401 stated in table.

- · Only DNV approved galvanised master link on the market
- Type approval certificate no. TAS00002JU
- Special galvanising process
- · Master links can be MPI tested without loss of test accuracy
- Saves money long term, if used correctly, more than triples the life of a master link
- Eliminates the risk of hydrogen embrittlement during life span
- · Clean, no contamination of container with red rust
- Safety factor 5:1
- Specially heat-treated Grade 8 material
- CE marking



Code	WLL* Standard EN [tons]	Test force [kN]	Breaking force SF 1:5 [kN]	Usable up to single hook in accordance with DIN 15401	d [mm]	t [mm]	w [mm]	Weight [kg/ piece]
AOS 23 OFFSHORE FZN	6.70	164	329	No. 16	23	270	140	2.51
AOS 25 OFFSHORE FZN	8.90	218	437	No. 16	25	270	140	2.99
AOS 28 OFFSHORE FZN	14.50	356	711	No. 16	28	270	140	3.80
AOS 33 OFFSHORE FZN	17.80	437	873	No. 16	33	270	140	5.39
AOS 36 OFFSHORE FZN	24.60	603	1,207	No. 16	36	270	140	6.50
AOS 40 OFFSHORE FZN	32.00	785	1,570	No. 20	40	275	150	8.35
AOS 45 OFFSHORE FZN	38.30	939	1,879	No. 25	45	340	180	12.90
AOS 50 OFFSHORE FZN	45.40	1,113	2,227	No. 32	50	350	190	16.70
AOS 56 OFFSHORE FZN	67.00	1,643	3,286	No. 32	56	400	200	23.28
AOS 70 OFFSHORE FZN	85.00	2,085	4,169	No. 50	70	460	250	43.40

pewag winner offshore VOS master link sub-assemblies

Master link sub-assemblies for offshore container lifting purposes in wire rope slings. AOS type master links are used as the main link. Particularly suited to wire rope slings, due to the inner width to give space for wire rope thimbles.

For the manufacture of IV-leg chain. Allocation to max. usable crane hooks according to DIN 15401 stated in table.

- Links type approved in accordance with DNV 2.7-1
- Type approval certificate no. TAS00001UX
- · Special heat treatment to prevent hydrogen embrittlement
- Grade 8 material
- Safety factor 5:1
- CE marking
- · Red powder coated



Code	Consisting of	WLL* Standard EN	Usable up to single hook in accordance	e	d	t	w	d1	t1	w1	Weight [kg/
		ltons	WITH DIN 15401	լՠՠյ	[mm]	լՠՠյ	[mm]	լՠՠյ	[mm]	լՠՠյ	piecej
VOS 23/17 OFFSHORE	AOS 23 + 2x BOS 17	6.70	No. 16	410	23	270	140	17	140	80	4.03
VOS 25/19 OFFSHORE	AOS 25 + 2x BOS 19	8.90	No. 16	405	25	270	140	19	135	75	4.84
VOS 28/23 OFFSHORE	AOS 28 + 2x BOS 23	14.50	No. 16	450	28	270	140	23	180	100	7.37
VOS 33/27 OFFSHORE	AOS 33 + 2x BOS 27	17.10	No. 16	450	33	270	140	27	180	100	10.41
VOS 36/30 OFFSHORE	AOS 36 + 2x BOS 30	24.10	No. 16	460	36	270	140	30	190	110	13.15
VOS 40/33 OFFSHORE	AOS 40 + 2x AOS 33	28.10	No. 20	545	40	275	150	33	270	140	19.14
VOS 45/36 OFFSHORE	AOS 45 + 2x AOS 36	38.30	No. 25	610	45	340	180	36	270	140	25.81
VOS 50/40 OFFSHORE	AOS 50 + 2x AOS 40	45.00	No. 32	625	50	350	190	40	275	150	33.26
VOS 56/50 OFFSHORE	AOS 56 + 2x AOS 50	67.00	No. 32	750	56	400	200	50	350	190	56.39
VOS 70/56 OFFSHORE	AOS 70 + 2x AOS 56	85.00	No. 50	860	70	460	250	56	400	200	89.62



pewag winner offshore VOS-FZN. galvanised master link sub-assemblies

Galvanised master link sub-assemblies for offshore container lifting purposes in wire rope slings. AOS type master links are used as the main link. Particularly suited to wire rope slings, due to the inner width to give space for wire rope thimbles.

Allocation to max. usable crane hooks according to DIN 15401 stated in table.

- Only DNV approved galvanised master link sub-assemblies on the market
- Type approval certificate no. TAS00002JU
- Special galvanising process
- · Master links can be MPI tested without loss of test accuracy
- Saves money long term, if used correctly, more than triples the life of a master link
- Eliminates the risk of hydrogen embrittlement during life span
- · Clean, no contamination of container with red rust
- Safety factor 5:1
- · Specially heat-treated Grade 8 material
- CE marking



Code	Consisting of	WLL* Standard	Usable up to single hook in	е	d	t	w	d1	t1	w1	Weight
		EN [tons]	accordance with DIN 15401	[mm]	[kg/ piece]						
VOS 23/17 OFFSHORE FZN	AOS 23 + 2x BOS 17	6.70	No. 16	410	23	270	140	17	140	80	4.03
VOS 25/19 OFFSHORE FZN	AOS 25 + 2x BOS 19	8.90	No. 16	405	25	270	140	19	135	75	4.84
VOS 28/23 OFFSHORE FZN	AOS 28 + 2x BOS 23	14.50	No. 16	450	28	270	140	23	180	100	7.37
VOS 33/27 OFFSHORE FZN	AOS 33 + 2x BOS 27	17.10	No. 16	450	33	270	140	27	180	100	10.41
VOS 36/30 OFFSHORE FZN	AOS 36 + 2x BOS 30	24.10	No. 16	460	36	270	140	30	190	110	13.15
VOS 40/33 OFFSHORE FZN	AOS 40 + 2x AOS 33	28.10	No. 20	545	40	275	150	33	270	140	19.14
VOS 45/36 OFFSHORE FZN	AOS 45 + 2x AOS 36	38.30	No. 25	610	45	340	180	36	270	140	25.81
VOS 50/40 OFFSHORE FZN	AOS 50 + 2x AOS 40	45.00	No. 32	625	50	350	190	40	275	150	33.26
VOS 56/50 OFFSHORE FZN	AOS 56 + 2x AOS 50	67.00	No. 32	750	56	400	200	50	350	190	56.39
VOS 70/56 OFFSHORE FZN	AOS 70 + 2x AOS 56	85.00	No. 50	860	70	460	250	56	400	200	89.62



pewag winner offshore

welded chain slings





pewag winner offshore welded chain slings

Welded chain slings for lifting offshore containers.

- Supplied with complete documentation in accordance with DNV 2.7-1
- Type approved in accordance with DNV 2.7-1
- Type approval certificate no. TAS00001UY
- CE marking

OFFSH 22 22

15,000



		I-leg and forerunner	II-leg ch	nains				IV-leg chain	s and 2 x II-le	g chains		
				B	Re			B		•	B	
Inclination a	angle	-	45 °	40 °	35°	30 °	25 °	45 °	40 °	35°	30 °	25 °
Code	d				Slir	ng workin	g load lin	nit based on	EN 818-4 (kg)			
OFFSH 10	10	3,150	4,500	4,800	5,200	5,500	5,700	6,700	7,240	7,700	8,200	8,600
OFFSH 13	13	5,300	7,500	8,100	8,700	9,200	9,600	11,200	12,200	13,000	13,800	14,400
OFFSH 16	16	8,000	11,300	12,300	13,100	13,900	14,500	17,000	18,400	19,700	20,800	21,800
OFFSH 19	19	11,200	15,800	17,200	18,300	19,400	20,300	23,800	25,700	27,500	29,100	30,500

OFFSH 26	26	21,200	30,000	32,500	34,700	36,700	38,400	45,000	48,700	52,100	55,100	57,600
OFFSH 32	32	31,500	44,500	48,300	51,600	54,600	57,100	66,800	72,400	77,400	81,800	85,000
Inclination a	angle	-	45°	40 °	35°	30 °	25°	45°	40 °	35°	30°	25°
Code	d	Sling	, working	load lim	it in acco	rdance w	ith EN 81	8-4 divided b	y enhanceme	nt factor in ac	cordance wit	h
					D	NV 2.7-1	table 8-1	= max. conta	iner weight			
OFFSH 10	10	-	-	-	-	-	-	-	2,500	2,900	3,300	3,700
OFFSH 13	13	-	2,700	3,200	3,800	4,300	4,800	6,400	7,200	7,900	8,700	9,300
OFFSH 16	16	3,100	6,500	7,300	8,000	8,800	9,400	12,000	13,800	15,500	16,900	18,200
OFFSH 19	19	6,400	10,700	12,200	13,600	15,200	16,200	20,800	22,900	24,800	26,300	27,600
OFFSH 22	22	9,900	17,400	20,000	21,700	23,200	24,500	28,800	31,200	33,400	35,300	36,900
OFFSH 26	26	17,400	27,100	29,400	31,400	33,200	34,700	40,700	44,100	47,100	49,900	52,100
OFFSH 32	32	28,500	40,300	43,700	46,700	49,400	51,700	60,500	65,500	70,100	74,100	77,000

34,500

36,900

39,000

40,800

21,200 23,000 24,600 26,000 27,200 31,800

pewag winner offshore welded chain slings

The types shown are common offshore container chain slings. Special solutions on request.



OFFSH IV A-B with forerunner



pewag winner offshore chains

For the assembly of chain slings for offshore container lifting procedures.

- · Special heat treatment to increase toughness
- Crack detection tested
- · Charpy V notch impact tested, result min 42J (27J in the weld)
- Safety factor 4:1
- Proof tested 2.5 times WLL
- Production according to DNV 2.7-1, EN 818-2 and EN 12079-2
- Type approved in accordance with DNV 2.7-1
- Type approval certificate no. TAS00001UW



Code	Working load limit [kg]	Breaking strength [kN]	Nominal diameter d	pitch t	Internal width b1 min.	External width b2 max.	Weight
			funul	funul	funul	fuuni	[kg/m]
OFFSH 10	3,150	126	10	30	14	36	2.30
OFFSH 13	5,300	212	13	39	18	47	4.20
OFFSH 16	8,000	322	16	48	22	58	5.90
OFFSH 19	11,200	454	19	57	27	69	8.40
OFFSH 22	15,000	608	22	66	30	79	11.20
OFFSH 26	21,200	849	26	78	35	94	15.50
OFFSH 32	31,500	1,290	32	96	43	115	24.10

DNV.GL Certificate No: TAS00001UW TYPE APPROVAL CERTIFICATE

This is to certify: That the Lifting set for Offshore containers and Portable Offshore Units

with type designation(s) Offshore Chain type Offsh Ni and WIN

PEWAG Austria GmbH

is found to comply with DMV Gl. standard DMVGL-ST-E271 - 2.7-1 Offshore containers, August 2017 DMV Gl. standard DMVGL-ST-E273 - 2.7-3 Portable offshore units, December 2016 Chain for chain singa- Grade Big purposes - 354407 - Part 2: Abdium tolerance chain for Chain for chain singa- Grade Big ISO 10855-2:2018 Offshore containers and associated liftings sets - Part 2: Design, manufacture and testing of Iffung sets

Application : Grade 8 Chain for Lifting Sets for Offshore Containers and Portable Offshore Units

Issued at Høvik on 2019-05-16 This Certificate is valid until 2024-05-15. DNV GL local station: Augsburg Approval Engineer: Nina Thorvaldsen Moberg

for DNV GL

Inger-Helene Hals Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or constru-The validity date relates to the Type Approval Certificate and not to the approval of equipment/system de: TA 251 © DNV GL 2014. DNV GL and th

pewag winner offshore master links and sub-assemblies

For the assembly of chain slings for offshore container lifting procedures.

- Grade 8 material
- · Special heat treatment to increase toughness
- Crack detection tested
- Charpy V notch impact tested, result min 42J (27J in the weld)
- Safety factor 4:1
- Proof tested 2.5 times WLL
- Production according to DNV 2.7-1, EN 818-2 and EN 12079-2
- · Stamped with offshore for clear identification

pewag winner offshore AW master link

Master link for offshore container lifting purposes in welded chain slings.

For manufacture of I-leg and II-leg slings. Allocation to max. usable crane hooks according to DIN 15401 stated in table.

- Type approved in accordance with DNV 2.7-1
- Type approval certificate no. TAS00001UX
- CE marking



Code	WLL* Standard EN [tons]	Test force [kN]	Breaking force SF 1:5 [kN]	Usable up to single hook in accordance with DIN 15401	d [mm]	t [mm]	w [mm]	Weight [kg/ piece]
AW 16 OFFSHORE	3.50	85.8	172	No. 2.5	16	110	60	0.58
AW 18 OFFSHORE	5.00	123	245	No. 5	19	135	75	0.92
AW 22 OFFSHORE	7.60	186	373	No. 6	23	160	90	1.59
AW 26 OFFSHORE	10.90	267	535	No. 8	27	180	100	2.46
AW 32 OFFSHORE	16.40	402	805	No. 10	33	200	110	4.04
AW 36 OFFSHORE	25.60	628	1,256	No. 16	36	260	140	6.22



pewa<mark>g</mark> winner offshore BW transition link

Transition link for offshore container lifting purposes in welded chain slings.

Connection link for individual chain legs and transition link in IV-leg master link assemblies VW offshore.

- · Stated working load limit applies for safety factor 4
- Type approved in accordance with DNV 2.7-1
- Type approval certificate no. TAS00001UX



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Code	WLL Standard EN	Test force	Breaking force SF 1:4	d	t	w	Weight [kg/
	[tons]	[KN]	[KN]	[mm]	[mm]	[mm]	piece]
BW 10 OFFSHORE	2.00	49.1	78.6	10	44	20	0.09
BW 13 OFFSHORE	3.15	77,3	124	13	54	25	0.17
BW 16 OFFSHORE	5.40	133	212	17	70	34	0.36
BW 20 OFFSHORE	8.50	208	334	20	85	40	0.68
BW 22 OFFSHORE	11.40	280	447	23	115	50	1.16
BW 26 OFFSHORE	16.00	392	628	27	140	65	1.92
BW 32 OFFSHORE	22.40	549	879	33	150	70	3.16
BW 36 OFFSHORE	30.00	736	1,177	36	170	75	4.12
BW 45 OFFSHORE	42.40	1,040	1,664	45	170	80	7.15
BW 50 OFFSHORE	63.00	1,545	2,472	50	200	100	10.8

pewag winner offshore VW master link sub-assemblies

Master link sub-assemblies for offshore container lifting purposes in welded chain slings.

For the manufacture of IV-leg chain slings. Allocation to max. usable crane hooks according to DIN 15401 stated in table.

- · Stated working load limit applies for safety factor 4
- · Links type approved in accordance with DNV 2.7-1
- Type approval certificate no. TAS00001UX
- CE marking



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peTAG solution Keyfacts



Intelligent software

User-specific adaptation of object data, testing processes and steps. Automates the creation, sending and archiving of test reports. Sophisticated authorisation concept.



Save time & money

Efficient documentation of work processes, thus simplified daily workflows. Data exchange without media breaks, fault-free data communication.



Mobile solution

Direct, location-independent data access (e.g. load capacity, safety information, latest test reports etc.) Smart servicing of objects via mobile app. Offline availability.



Linked-up partnerships

Straightforward exchange and efficient interaction between service providers, merchants and customers. Improved service and data quality. Increased satisfaction and loyalty.



Always up to date

Access to the latest product data and information, overview of all test data, documentation of test procedures. Traceability of object history.



notes





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