#### YOKE INDUSTRIAL CORP.



www.yoke.net

-- An ISO 9001 Certified Company --

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# YOKE New DNV GL-ST-0378 Swivel Point for Offshore and Platform Lifting appliances

YOKE's new addition to its DA series, now completes the family of products for offshore and platform lifting devices; from the DA hook, down through the crane pennant's DA master link and DA assemblies, DA shackles and now to the DA-271 and DA-272 Swivel Point. This assures the operator that they can use these DNV GL approved devices throughout the critical lifting operations at temperatures down to -40°C, where high friction and impact forces can be produced during lifting, especially between the bolt head and the load. The revolutionary DA Swivel Points turn and rotate towards the load, whilst keeping the bolt firmly secure. The DA range can also be used in subsea applications as hardness levels, strength and impact properties are strictly controlled.

- DNV GL-ST-0378 Certificate TAS00000T4
- Manufactured and tested in accordance with EN1677-1 and requirements of ASME B30.26
- Designed to operate down to -40°C
- Charpy impact tested -20<sup>°</sup>C
- Pivots to 230°, rotates through 360° due to its unique ball bearing
- M8 (0.6t) though to M64 (28t) (UNC ½" through 2 ½")
- 100% Magnaflux crack detected on all load bearing parts
- Proof tested at 2.5 times the WLL
- Fatigue Rated at 1.5 times the WLL
- Capable to rotate under load

The hexagon design is forged from alloy steel, then quenched and tempered above  $400^{\circ}$ C to ensure it meets the critical demands of the offshore industry. This unique design also allows the YOKE DA Swivel Point to be assembled and disassembled by the operator from the load without complex tools.







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The load ring of the DA Swivel Point pivots 230° degrees, allowing more versatile designs of the lifting application. The WLL, size and material traceability code are clearly marked on the product, to inform operators and to ensure full traceability from raw material to finish product. The essence of the safety features that DA Swivel Points deliver is contributed by the product being manufactured from proprietary formulated steel that is exclusively made for YOKE, and scientifically controlled heat treatment processes that are 100% managed in-house.

Once again, YOKE has engineered a product to solve the critical lifting, rotating, tilting and turning of loads in an offshore environment at 100% of WLL in all directions, and offering the user the knowledge that all his safety demands are taken care of, both by YOKE, the manufacturer, supported by a global organisation being DNV GL.

Safety is our first priority!







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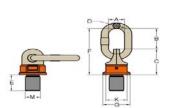
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- Pivots more than 230°, rotates through 360° due to its unique ball bearing design. Design factor 4:1 in all directions.
- Manufactured from forged alloy steel, quenched and tempered.
- Manufactured and tested in accordance with EN1677-1 and DNV GL-ST-0378.
- Load rated parts are 100% magnaflux crack detected.
- Individual forged parts and cap screw are traceable to Test Certification.
- Proof tested to 2.5 times the WLL.
- Fatigue rated to 1.5 times the WLL.
- All YOKE Lifting points meet or exceed all the requirements of ASME B30.26.
- Easy to attach or dismantle due to the forged hexagon shaped body of the DA Swivel Point.
- Maximum WLL in axial direction when load ring is aligned.
- Capable of rotating under load. Do not turn continuously in 90 degree direction at full load.

## DA Swivel Point Metric Thread (DA-271)

DNV GL-ST-0378 (Offshore crane- Lifting Appliance)



Item No.		orking id Limit	Thr	Thread version Dimensions (mm)							Torque	N.W.		
	(y)	[z]	M	E	Pitch	G	C	K	F	D	В	A	in	
	tonnes		mm	mm	DIN13				mm		_		Nm	kg
DA-271-003	0.4	0.6	M 8	12	1.25	35	40	30	72	8	32	29	10 - 40	0.2
DA-271-004	0.6	0.9	M 10	15	1.5	35	40	30	72	8	32	29	10 - 40	0.2
DA-271-006	0.7	1.2	M 12	18	1.75	40	45	36	95	10	50	35	15 - 40	0.3
DA-271-013	1.5	2.6	M 16	24	2	46	54	41	104	13	50	38	45 - 130	0.5
DA-271-020	2.5	4	M 20	30	2.5	62	68	55	122	13	54	38	100 - 170	1.0
DA-271-035	4	7	M 24	36	3	78	88	70	154	19	66	40	190 - 280	2.2
DA-271-060	6	10	M 30	46	3.5	90	120	80	206	22	86	50	270 - 600	4.5
DA-271-080	10	15	M 36	55	4	90	120	80	206	22	86	50	270 - 600	4.6
DA-271-120	13	17	M 42	64	4.5	98	122	84	235	25	110	65	350 - 800	5.5
DA-271-130	16	18	M 48	73	5	98	122	84	235	25	110	65	350 - 800	6.1
DA-271-140	20	25	M 52	79	5	120	150	94	270	32	120	70	350 - 900	10.5
DA-271-160	22	28	M 56	85	5.5	120	150	94	270	32	120	70	350 - 900	10.7
DA-271-161	22	28	M 64	95	6	120	150	94	270	32	120	70	500 - 1000	11.6

<sup>\*</sup>Design factor 4:1 proof tested and certified



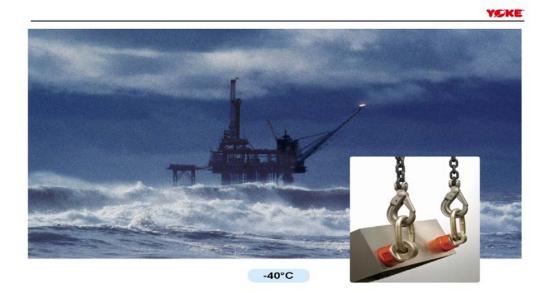


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Kind of attachment		ţ	A J J G	G	, a	3	3		0		
Number of legs		1	2	1	2	2	2	2	3-4	3-4	3-4
Load direction		O°	O°	90°	90°	0-45°	45°- 60°	unsymm.	0 - 45°	45°- 60°	unsymm.
Item No.	Thread				-	WLL(t)					977
DA-271-003	M 8	0.6	1.2	0.4	0.8	0.4	0.3	0.3	0.6	0.4	0.3
DA-271-004	M10	0.9	1.8	0.6	1.2	0.6	0.4	0.4	0.9	0.6	0.4
DA-271-006	M12	1.2	2.4	0.7	1.5	0.8	0.6	0.6	1.2	0.9	0.6
DA-271-013	M16	2.6	5.2	1.5	3	1.8	1.3	1.3	2.7	1.9	1.3
DA-271-020	M20	4	8	2.5	5	2.8	2	2	4.2	3	2
DA-271-035	M24	7	14	4	8	4.9	3.5	3.5	7.3	5.2	3.5
DA-271-060	M30	10	20	6	12	7	5	5	10.5	7.5	5
DA-271-080	M36	15	30	10	20	14	10	10	21	15	10
DA-271-120	M42	17	34	13	26	18.2	13	13	27.3	19.5	13
DA-271-130	M48	18	36	14	28	19.6	14	14	29.4	21	14
DA-271-140	M52	25	50	20	40	28	20	20	42	30	20
DA-271-160	M56	28	56	20	40	28	20	20	42	30	20
DA-271-161	M64	28	56	20	40	28	20	20	42	30	20







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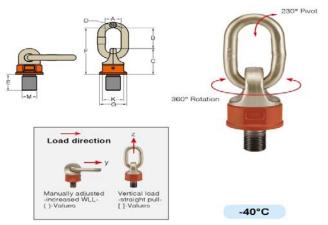
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- Manufactured and tested in accordance with EN1677-1 and DNV GL-ST-0378.
- Load rated parts are 100% magnaflux crack detected.
- Individual forged parts and cap screw are traceable to Test Certification.
- Proof tested to 2.5 times the WLL.
- Fatigue rated to 1.5 times the WLL.
- All YOKE Lifting points meet or exceed all the requirements of ASME B30.26.
- Easy to attach or dismantle due to the forged hexagon shaped body of the DA Swivel Point.
- Maximum WLL in axial direction when load ring is aligned.
- Capable of rotating under load. Do not turn continuously in 90 degree direction at full load.

### **DA Swivel Point**

UNC Thread (DA-272)

Item No.		rking d Limit	Th	Thread version Dimensions (inch)									Torque	N.W.
	(y)	[ z ]	M	E	TPI	G	С	K	F	D	В	Α	in	
	to	nnes	inch	inch					inch				Nm	lbs
DA-272-006	0.7	1.2	1/2	0.75	13UNC	1.57	1.77	1.42	3.74	0.39	1.97	1.38	15 - 40	0.7
DA-272-013	1.5	2.6	5/8	0.94	11 UNC	1.81	2.13	1.61	4.09	0.51	1.97	1.50	45 - 130	1.2
DA-272-018	2.0	3.6	3/4	1.13	10UNC	1.81	2.68	1.61	4.09	0.51	1.97	1.50	45 - 130	1.2
DA-272-020	2.5	4	7/8	1.31	9UNC	2.44	2.68	2.17	4.80	0.51	2.13	1.50	100 - 170	2.2
DA-272-035	4	7	1	1.50	8UNC	3.07	3.46	2.76	6.06	0.75	2.60	1.57	190 - 280	4.8
DA-272-060	6	10	1 1/4	1.88	7UNC	3.54	4.72	3.15	8.11	0.87	3.39	1.97	270 - 600	9.9
DA-272-080	10	15	1 1/2	2.25	6UNC	3.54	4.72	3.15	8.11	0.87	3.39	1.97	270 - 600	10
DA-272-120	13	17	1 3/4	2.63	5UNC	3.86	4.80	3.31	9.25	0.98	4.33	2.56	350 - 800	12.1
DA-272-130	16	18	2	3.00	4.5UNC	3.86	4.80	3.31	9.25	0.98	4.33	2.56	350 - 800	13.5
DA-272-140	20	25	2 1/4	3.38	4.5UNC	4.72	5.91	3.70	10.63	1.26	4.72	2.76	350 - 900	23.1
DA-272-160	22	28	2 1/2	3.75	4UNC	4.72	5.91	3.70	10.63	1.26	4.72	2.76	350 - 900	23.5

<sup>\*</sup>Design factor 4:1 proof tested and certified.







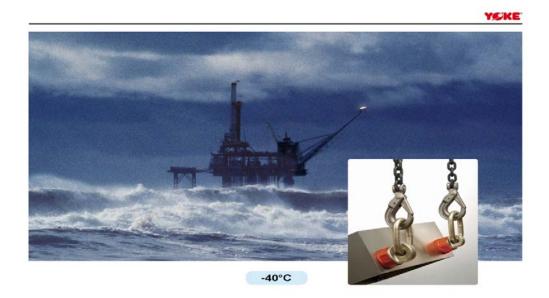
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Number of legs		1	2	1	2	2	2	2	3-4	3-4	3-4
Load direction		0°	0°	90°	90°	0-45°	45°- 60°	unsymm.	0 - 45°	45°- 60°	unsymm.
Item No.	Thread					WLL(t)					
DA-272-006	1/2	1.2	2.4	0.7	1.5	0.8	0.6	0.6	1.2	0.9	0.6
DA-272-013	5/8	2.6	5.2	1.5	3	1.8	1.3	1.3	2.7	1.9	1.3
DA-272-018	3/4	3.6	7.2	2	4	2.5	1.8	1.8	3.7	2.7	1.8
DA-272-020	7/8	4	8	2.5	5	2.8	2	2	4.2	3	2
DA-272-035	1	7	14	4	8	4.9	3.5	3.5	7.3	5.2	3.5
DA-272-060	1 1/4	10	20	6	12	7	5	5	10.5	7.5	5
DA-272-080	1 1/2	15	30	10	20	14	10.	10	21	15	10
DA-272-120	1 3/4	17	34	13	26	18.2	13	13	27.3	19.5	13
DA-272-130	2	18	36	14	28	19.6	14	14	29.4	21	14
DA-272-140	2 1/4	25	50	20	40	28	20	20	42	30	20
DA-272-160	2 1/2	28	56	20	40	28	20	20	42	30	20





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### TYPE APPROVAL CERTIFICATE

This is to certify:

That the Chain, shackles, swivels, sockets

with type designation(s)
Lifting points DA-271 for offshore cranes

Issued to

Yoke Industrial Corp. Taichung, Taiwan

is found to comply with DNV GL standard DNVGL-ST-0378 – Standard for offshore and platform lifting appliances

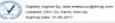
Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until 2022-05-29. Issued at Hovik on 2017-05-30

DNV GL local station: Kaohsiung

Approval Engineer: Antonio Sendin Alvarez

for DNV GL



Aldo Matteucci **Head of Section** 

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