



Safety is our first priority™

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Yellow Point

YOKE DA-271 DA Swivel Point Safety Instruction

This safety instruction/declaration of the manufacturer has to be kept on file for whole lifetime of the product

TYPE APPROVAL BY:



DA-271 DA Swivel Point



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Q1 0467



QMS 0726





Please read user instruction before initial operation of the bolt-on YOKE DA Swivel Point DA-271. Make sure that you understand all subject matter.

Non observance of the user instruction can lead to serious personal injuries and material damage and eliminates warranty.

1. Safety Instruction

Warning Message	
	<p><i>Wrong assembled or damaged DA Swivel Point as well as improper use can lead to injuries of persons and damage of objects when load drops. Please inspect all DA Swivel Point before each use.</i></p>

- When installed, the DA-271 DA Swivel Point must be rotated 360°
- Refer to German standard, under rule 500 (DGUV BGR 100-500) or other country specific regulations. All the inspection should be operated by the competent persons

2. Intended use

- The DA-271 DA Swivel Point must only be fitted on the assembly for the use of lifting.
- The DA-271 DA Swivel Point can also be used as lashing points for the fixture of lashing.

3. Instruction manual

3.1 General Information

- The DA-271 DA Swivel Point cannot be used in the following chemicals influence environment such as acid and high temperature. If you still cannot avoid, please contact the manufacturer to indicate how to use correctly.
- Temperature effects :
As the DIN/EN bolts are used in the DA Swivel Points, the working load limit must be reduced:

-40°C to 100°C no reduction (-40°F to 212° F)
 100°C to 200°C minus 15 % (212°F to 392°F)
 200°C to 250°C minus 20 % (392°F to 482°F)
 250°C to 350°C minus 25% (482°F to 662°F)
Temperature above 350°C (662°F) is not allowed.

Please note the nuts' maximum temperature (optionally):

-Clamping nut according to DIN EN ISO 7042 (DIN 980) can only be used up to +150°C (302°F) .

-Collar nut according to DIN 6331 can only be used up to 300°C (572°F) .

- YOKE DA-271 DA Swivel Point is supplied with 100% crack tested bolt.

3.2 Assembly hints

- After determining the loads on each DA Swivel Point, select the proper size DA Swivel Point using the Working Load Limit ratings in Table 1.
- The material construction, to which the DA Swivel Point will be attached, should be of adequate strength to withstand forces during lifting without deformation. YOKE recommends the following minimum for bolt lengths:
(M = diameter of YOKE DA Swivel Point bolt, e.g. M 20)
 - 1.5 x M in Steel
 - 1.5 x M in cast iron
 - 2 x M in aluminum alloys
 - 2.5 x M in aluminum-magnesium alloys
- A Plane bolting surface must be guaranteed. The holes must be drilled with a sufficient depth in order to guarantee compatibility with the supporting surface
- Load symmetry:
Using the following formula as symmetrical loading calculation:

$$W_{LL} = \frac{G}{n \times \cos \beta}$$

W_{LL} = working load limit
 G = load weight (kg)
 n = number of load bearing legs
 β = angle of inclination of the chain to the vertical

The calculation of load bearing is as follows:

	Symmetric	Asymmetric
2 Legs	2	1
3/4 Legs	3	1

3.3 Instructions for Use

- The DA Swivel Point ring must not touch the edge and should be free to move.
- When lifting, users should avoid sharp edges environment that will cause the damage of the whole lifting system.
- DA-271 has to be mounted only with the included screw. The body is rotatable 360° and must be aligned in the permitted direction of tension before use. (See Figure 1)

Attention: DA SWIVELPOINT is suited for turning under load in vertical direction!



Figure 1

- To prevent unintended dismounting through shock loading, rotation or vibration thread locking fluid such as Loctite 2701 (depending on the application, need to pay attention to the manufacturer's instruction) could be used to secure the bolt, or use form-closed devices.

Attention: Ring Body has to be free to rotate.

3.4 Periodical Inspections:








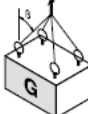


- DA Swivel Point should be inspected periodically, determine by the usage, but at least once a year. It should be operated by a competent person
- The inspection frequency depends on the usage condition, wear and corrosion. In this case, the user may need to inspect more than the suggestion of one time per year.

4. Inspections Criteria

Before each operation, observe and control the following points during regular period :

- The DA Swivel Point should be complete.
- Evidence of cracks.
- The DA Swivel Point must be free to rotate.
- The deformation of the component parts
- Confirm the compatibility of the bolt threads and tapped hole torque control
- The working load limit and manufacturer stamp should be visible clearly
- Mechanical damage, ex: notches, especially in the high stress area.
- Wear should not exceed 10% of the cross-sectional diameters.
- Evidence of corrosion.
- Damaged on the bolts, nuts and / or threads.
- The maximum gap size between upper and body parts must not exceed the following values, defined differently by the thread size of the products:
 - M8-M10: max. 1.2 mm
 - M12-M20: max. 1.5 mm
 - M24-M30: max. 3.0 mm
 - M36-M90: max. 4.0 mm
- Periodical gap size inspection is recommended as a general guideline.

Table. 1 YOKE DA-271 DA Swivel Point normal load applications

Kind of attachment											
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-271-003	M 8	0.6	1.2	0.4	0.8	0.56	0.4	0.4	0.84	0.6	0.4
DA-271-004	M10	0.9	1.8	0.6	1.2	0.84	0.6	0.6	1.26	0.9	0.6
DA-271-006	M12	1.2	2.4	0.7	1.4	0.98	0.7	0.7	1.47	1.05	0.7
DA-271-013	M16	2.6	5.2	1.5	3	2.1	1.5	1.5	3.15	2.25	1.5
DA-271-020	M20	4	8	2.5	5	3.5	2.5	2.5	5.25	3.75	2.5
DA-271-035	M24	7	14	4	8	5.6	4	4	8.4	6	4
DA-271-060	M30	10	20	6	12	8.4	6	6	12.6	9	6
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