Safety is our first priority™
www.yoke.net
-- An ISO 9001 Certified Company --

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Yellow Point ™

YOKE 8-211 Lifting 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:

8-211 Series Lifting Point

certificate
no. OA 1751066
dated 2017-08-22

DGUV Test
Prüf- und Zertifizierungsstelle
Oberflächentechnik und Anschlagmittel
Fachbereich Holz und Metall

Translation In any case, the German original shall prevail.

DGUV Test Certificate

Name and address of the holder of the certificate: (customer)	Yoke Industrial Corp. #39, 33rd Road, Taichung Industrial Park 407 Taichung, R.O.C. TAIWAN
Product designation:	**G-100 Lifting Point, metric thread**
Type:	8-211-003 to 8-211-200
Testing based on:	GS-OA-15-04-2015-12 Principles for the testing and certification of lifting points
Test report:	
Further details:	Intended use: Lifting accessory

The type tested meets the requirements specified in article 3 para. 1 of the German Product Safety Act.Thus, the type tested also complies with the provisions laid down in the directive 2006/42/EC (**Machinery**).The holder of the certificate is entitled to affix the DGUV Test mark shown overleaf to the products complying with the type tested.
The present certificate including the right to affix the DGUV Test mark is valid until **2022-08-21**

Further provisions concerning the validity, the extension of the validity and other conditions are laid down in the Rules of Procedure for Testing and Certification.

Dipl.-Ing. Christian Adler

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Q1 0467 QMS 0726

Please read user instruction before initial operation of the bolt-on YOKE lifting point 8-211 Series. Make sure that you have comprehend
all subjected matters.
Non observance can lead to serious personal injuries and material damage and eliminates warranty.

1. Safety Instructions

Warning Message

Wrong assembled or damaged lifting point as well as improper use can lead to injuries of persons and damage of objects when load drops. Please inspect all lifting point before each use.

- When installed, the 8-211 lifting 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 8-211 lifting point must only be used for the assembly of the load or at load accepting means
- Their usage is intended to be used as lifting means.
- The 8-211 lifting point can also be used as lashing points for the fixture of lashing means.
- The 8-211 lifting point must only be used in the here described usage purpose.

3. Instruction manual

3.1 General Information

- The lifting point cannot be used in the following chemicals influence environment such as acid and steam. 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 lifting 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 lifting point is supplied with 100% crack tested bolt. Use only YOKE parts as replacements.

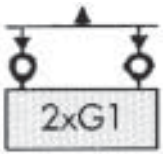
3.2 Assembly hints

- After determining the loads on each Lifting Point, select the proper size Lifting Point using the Working Load Limit ratings in Table 1.
- The material construction, to which the lifting 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 lifting 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

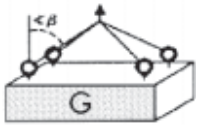
- A Plane bolting surface must be guaranteed. The holes must be drilled with a sufficient depth in order to guarantee compatibility with the supporting surface
- The lifting points must be positioned as suggestion below:

-The lifting point should be vertically above the center of the load for single leg.

-The lifting points must be equidistant to/or above the center of the load for two leg.



-The lifting points should be placed symmetrically around the center of the load for three and four leg.



- Load symmetry:

  Using the following formula as symmetrical loading calculation:

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

W_{LL} = working load limit
G = load weight (kg)
n = number of load bearing legs
ß = 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

- Attach lifting device ensuring free fit to Lifting Point bail (lifting ring) (Fig. 1).
- Apply partial load and check proper rotation and alignment. There should be no interference between load (work piece) and hoist ring bail (Fig. 2).

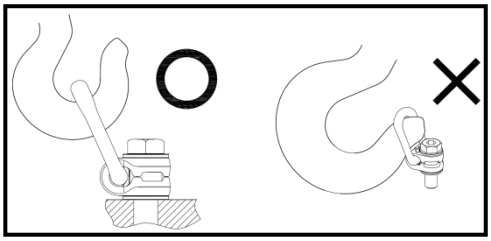


Fig. 1

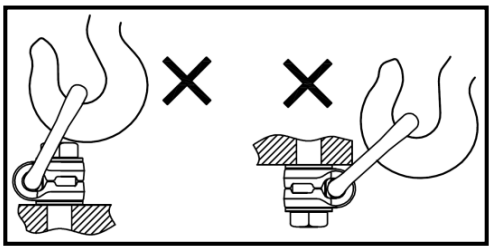
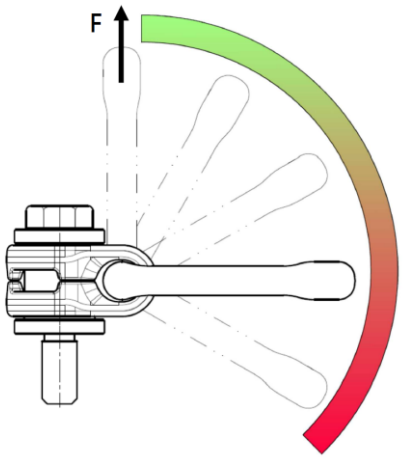


Fig. 2

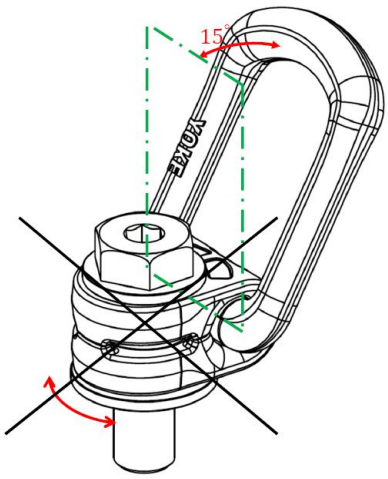
3.3 Instructions for Use

- The lifting 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 lifting.
- The following use is allowed.



Hoist ring rotation range

- The following use must be avoided.



3.4 Periodical Inspections:

- Lifting 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 times depend on the usage condition, which wear or corrosion increase by frequent use. In this case, user may need to inspect more than one time a year.

4. Inspections Criteria

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

- The lifting point should be complete.
- Evidence of cracks.
- The lifting 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 pressure area.
- Wear should not exceed 10% of the cross-sectional diameters.
- Evidence of corrosion.
- Damaged on the bolts, nuts and / or threads.

Table. 1 YOKE 8-211 lifting point normal load applications

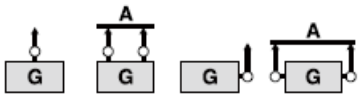
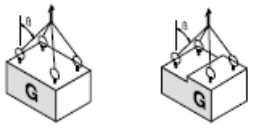
Kind of attachment										
Number of legs		1	2	1	2	2	2	2	3-4	3-4	3-4
Load direction		0°	0°	90°	90°	0-45°	45° - 60°	unsymm.	0 - 45°	45° - 60°	unsymm.
Item No.	Thread	WLL(t)									
8-211-003	M 8	0.3	0.6	0.3	0.6	0.42	0.3	0.3	0.63	0.45	0.3
8-211-006	M 10	0.63	1.26	0.63	1.26	0.88	0.63	0.63	1.32	0.95	0.63
8-211-010	M 12	1	2	1	2	1.4	1	1	2.1	1.5	1
8-211-012	M 14	1.2	2.4	1.2	2.4	1.7	1.2	1.2	2.5	1.8	1.2
8-211-015	M 16	1.5	3	1.5	3	2.1	1.5	1.5	3.1	2.2	1.5
8-211-020	M 18	2	4	2	4	2.8	2	2	4.2	3	2
8-211-025	M 20	2.5	5	2.5	5	3.5	2.5	2.5	5.2	3.7	2.5
8-211-040	M 24	4	8	4	8	5.6	4	4	8.4	6	4
8-211-042	M 27	4	8	4	8	5.6	4	4	8.4	6	4
8-211-050	M 30	5	10	5	10	7	5	5	10.5	7.5	5
8-211-070	M 36	7	14	7	14	9.8	7	7	14.7	10.5	7
8-211-080	M 36	8	16	8	16	11.2	8	8	16.8	12	8
8-211-100	M 42	10	20	10	20	14	10	10	21	15	10
8-211-150	M 42	15	30	15	30	21	15	15	31.5	22.5	15
8-211-200	M 48	20	40	20	40	28	20	20	42	30	20
8-211-220	M 56	22 NEW	44	22	44	30.8	22	22	46.2	33	22
8-211-225	M 64	22.5 NEW	45	22.5	45	31.5	22.5	22.5	47.25	33.75	22.5

Table. 2 YOKE 8-211 lifting point Specifications

Item No.	Working Load Limit	Thread version			Dimensions									Torque in	N.W.
		M	E	Pitch	A	B	C	D	F	G	H	S	SW		
	tonnes	mm	mm	DIN13				mm						Nm	kg
8-211-003	0.3	M 8	11	1.25	30	35	35	10	85	55	29	6	13	30	0.2
8-211-006	0.63	M 10	16	1.5	30	35	36	10	85	55	29	6	17	60	0.3
8-211-010	1	M 12	18	1.75	33	37	44	14	98	57	36	8	19	100	0.5
8-211-012	1.2	M 14	21	2	33	37	45	14	98	57	36	10	22	120	0.5
8-211-015	1.5	M 16	24	2	33	37	46	14	98	57	36	10	24	150	0.5
8-211-020	2	M 18	26	2	50	54	57	17	140	82	44	12	30	200	1.3
8-211-025	2.5	M 20	30	2.5	50	54	57	17	140	82	44	12	30	250	1.3
8-211-040	4	M 24	36	3	50	54	59	17	140	82	44	14	36	400	1.4
8-211-042	4	M 27	38	3	60	65	79	23	170	99	62	17	41	400	2.8
8-211-050	5	M 30	48	3.5	60	65	81	23	170	99	62	17	46	500	3.1
8-211-070	7	M 36	54	4	60	65	88	23	178	99	65	22	55	700	3.3
8-211-080	8	M 36	62	4	77	85	101	27	225	124	78	22	55	800	5.8
8-211-100	10	M 42	72	4.5	77	85	104	27	225	124	78	24	65	1000	6.3
8-211-150	15	M 42	63	4.5	95	104	112	36	256	158	86	24	65	1500	10.8
8-211-200	20	M 48	72	5	95	104	120	36	259	158	90	27	75	2000	11.6
8-211-220	22 NEW	M 56	84	5.5	95	104	128	36	259	158	90	27	89	2100	15.0
8-211-225	22.5 NEW	M 64	100	6	113	104	133	36	259	158	90	32	95	2200	16.3

* Design Factor 4:1
* Bolt in GEOMET® finished on request