

TEST REPORT

No. : SHIN2411002845CM02_EN

Date : 2024-12-04

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CUSTOMER NAME: SUZHOU ANTA SCAFFOLDING ENGINEERING CO., LTD
ADDRESS: 2TH FLOOR, RUIKANG PARK, 86 SULI RD, WUZHONG DISTRICT,
SUZHOU, JIANGSU, CHINA (MAINLAND)

Sample Name : SWIVEL COUPLER CLASS B
Product Specification : 48.3mmx48.3mm
Material : Drop Forged; Q235

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

Date of Receipt : 2024-11-22
Testing Period : 2024-11-22 ~ 2024-12-03
Test result(s) : For further details, please refer to the following page(s)
(Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

Signed for
SGS-CSTC Standards Technical
Services (Shanghai) Co., Ltd..

Xander Yang
Authorized signatory



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Summary of Results:

No.	Test Item	Test Method	Result	Conclusion
1	Slipping Force	EN 74-1:2022 Clause 7.2.1	See Result	Pass
2	Failure Force	EN 74-1:2022 Clause 7.2.2	See Result	Pass
3	Indentation	EN 74-1:2022 Clause 7.5	See Result	Pass

Note: Pass : Meet the requirements;
Fail : Does not meet the requirements;
N/A : Not Apply to the judgment.

Original Sample Photo(s):



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1. Test Item: Slipping Force

Test Method: EN 74-1:2022 Clause 7.2.1

Test Condition:

Specimen: Swivel coupler, Class B, 10pcs

Test Results:

Test Item	Test Result	Requirement in EN 74-1:2022 Table 8	Conclusion
Slipping Force	$\Delta_1 \leq 7\text{mm}$, $F_{s,5\%} = 10.3\text{kN}$	$\Delta_1 \leq 7\text{mm}$, $F_{s,5\%} \geq 10.0\text{kN}$	Pass
	$F_s = 30.0\text{kN}$, $\Delta_2 < 1\text{mm}$	$1\text{mm} \leq \Delta_2 \leq 2\text{mm}$, $F_{s,5\%} \geq 15.0\text{kN}$	

Note:

- 1) $F_{f,5\%}$: the 5% quantile for the 75% level of confidence.
- 2) Specification of tube for slipping force: Steel tube of $\Phi 48.3\text{mm} \times 3.2\text{mm}$ (wall thickness)
- 3) Please see Annex A for details of test results.



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Annex A Details of Test Results

Specimen No.	F_s (kN, $\Delta_1=7\text{mm}$)	F_s (kN, $1\text{mm}\leq\Delta_2\leq 2\text{mm}$)
1	11.57	$F_s=30.0\text{kN}$, $\Delta_2<1\text{mm}$
2	11.48	$F_s=30.0\text{kN}$, $\Delta_2<1\text{mm}$
3	10.42	$F_s=30.0\text{kN}$, $\Delta_2<1\text{mm}$
4	10.86	$F_s=30.0\text{kN}$, $\Delta_2<1\text{mm}$
5	10.85	$F_s=30.0\text{kN}$, $\Delta_2<1\text{mm}$
6	10.99	$F_s=30.0\text{kN}$, $\Delta_2<1\text{mm}$
7	10.94	$F_s=30.0\text{kN}$, $\Delta_2<1\text{mm}$
8	10.91	$F_s=30.0\text{kN}$, $\Delta_2<1\text{mm}$
9	11.32	$F_s=30.0\text{kN}$, $\Delta_2<1\text{mm}$
10	11.67	$F_s=30.0\text{kN}$, $\Delta_2<1\text{mm}$
$F_{s,5\%}$	10.3	-

Note: In accordance with EN 74-1:2022, the test can be ended when the test load reached twice the specified F_s given in Table 8 of EN 74-1:2022



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2. Test Item: Failure Force

Test Method: EN 74-1:2022 Clause 7.2.2

Test Condition:

Specimen: Swivel coupler, Class B, 5pcs

Test Results:

Test Item	Test Result	Requirement in EN 74-1:2022 Table 8	Conclusion
Failure Force	$F_{f,5\%}/\gamma R2=33.5\text{kN}$	$F_{f,5\%}/\gamma R2 \geq 20.0\text{kN}$	Pass

Note:

- 1) $F_{f,5\%}$: the 5% quantile for the 75% level of confidence.
- 2) $\gamma R2=1.25$ according to EN 74-1.
- 3) Specification of steel bar for failure force: Steel bar of $\Phi 48.3\text{mm}$.
- 4) Please see Annex B for details of test results.

Annex B Details of Test Results

Specimen No.	F_f (kN)
11	45.28
12	44.46
13	43.43
14	43.13
15	43.65
$F_{f,5\%}/\gamma R2$	33.5



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3. Test Item: Indentation

Test Method: EN 74-1:2022 Clause 7.5

Test Condition:

Specimen: Swivel coupler, Class B, 5pcs

Test Results:

Test Item	Test Result	Requirement in EN 74-1:2022 Table 8	Conclusion
Indentation	F=6.67kN, $\Delta_{10} < 1.5\text{mm}$	F=6.67kN, $\Delta_{10} \leq 1.5\text{mm}$	Pass

Note:

- 1) Specification of tube for indentation: Steel tube of $\Phi 48.3\text{mm} \times 2.7\text{mm}$ (wall thickness).
- 2) Please see Annex C for details of test results.

Annex C Details of Test Results

Specimen No.	Δ_{10} (mm, F=6.67kN)
16	0.32
17	0.37
18	0.26
19	0.28
20	0.33

The test report shall only be used for clients' scientific research, teaching, internal quality control, product research and development, etc... and just for internal reference.

Unless otherwise stated, this report provides a declaration of conformity according to whether the test results are within the specified limits or specifications without considering the measurement uncertainty.

*****End of report*****



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