

TEST REPORT

No. : SHIN190501145CCM

Date : May. 20, 2019

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CUSTOMER NAME: NANJING EK METALWORK CO., LTD
ADDRESS: NO.1 YONGNING ROAD, LUHE DISTRICT, NANJING CITY.CHINA

Sample Name : DROP FORGED SWIVEL COUPLER

Product specification : 48.3*48.3

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.

Test Required : Please see the next page(s)
Test Method : EN 74-1:2005
Date of Receipt : May. 05, 2019
Testing Start Date : May. 05, 2019
Testing End Date : May. 20, 2019
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.

Joyce Li
Authorized signatory



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.
Testing Center Commercial Construction Material Laboratory

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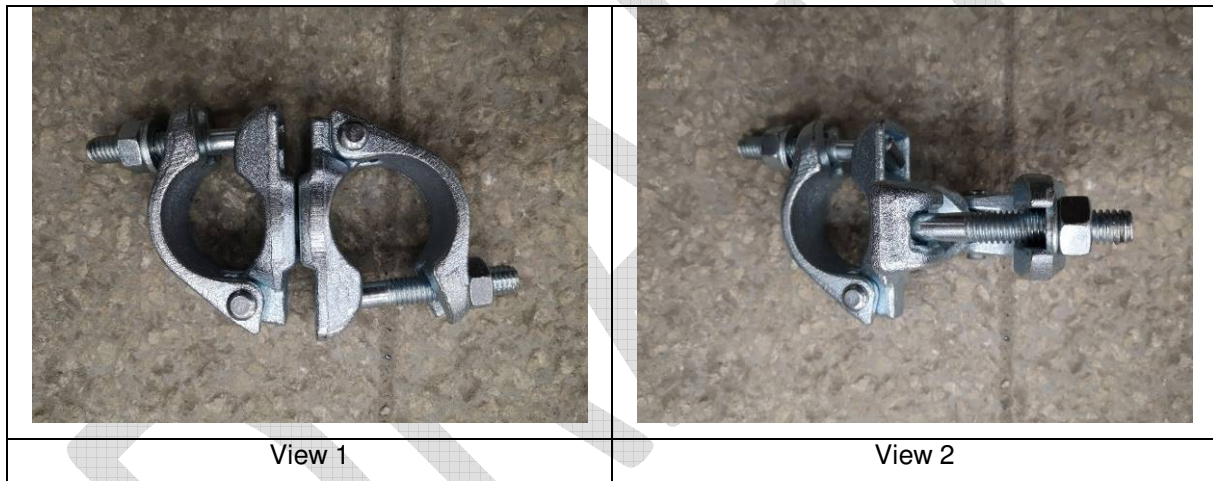
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Summary of Results:

No.	Test Item	Test Method	Result	Conclusion
1	Slipping force	EN 74-1:2005 Clause 7.2.1	See result	Pass
2	Failure force	EN 74-1:2005 Clause 7.2.2	See result	Pass

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

Original Sample Photos:



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Test Conducted:

EN 74-1:2005 Couplers, spigot pins and baseplates for use in falsework and scaffolds – Part 1:
Couplers for tubes – Requirements and test procedures

Test Results:

Test Clause	Test Item	Test Requirement (Swivel coupler, Class A)	Test Result	Conclusion
7.2.1	Slipping force	$\Delta_1 \leq 7\text{mm}$, $F_{s,5\%} \geq 7.0\text{kN}$	$\Delta_1 \leq 7\text{mm}$, $F_{s,5\%} = 8.5\text{kN}$	Pass
		$1\text{mm} \leq \Delta_2 \leq 2\text{mm}$, $F_{s,5\%} \geq 10.0\text{kN}$	$F_s = 20.0\text{kN}$, $\Delta_2 < 1\text{mm}$	
7.2.2	Failure force	$F_{t,5\%}/\gamma R2 \geq 14.0\text{kN}$	$F_{t,5\%}/\gamma R2 = 32.6\text{kN}$	Pass

Note:

- $F_{s,5\%}$, $F_{t,5\%}$ the 5% quantile for the 75% level of confidence.
- $\gamma R2 = 1.25$ according to EN 74-1.
- Specification of tube for slipping force: Steel tube of $\Phi 48.3\text{mm} \times 3.2\text{mm}$ (wall thickness)
Specification of steel bar for failure force: steel bar of $\Phi 48.3\text{mm}$
- Please see Annex A for details of test results.



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Annex A Details of test results

1. Slipping force

Sample No.	F _s (kN, $\Delta_1=7\text{mm}$)	F _s (kN, $1\text{mm}\leq\Delta_2\leq 2\text{mm}$)
1	10.91	*F _s =20.0kN, $\Delta_2<1\text{mm}$
2	10.18	*F _s =20.0kN, $\Delta_2<1\text{mm}$
3	9.98	*F _s =20.0kN, $\Delta_2<1\text{mm}$
4	9.30	*F _s =20.0kN, $\Delta_2<1\text{mm}$
5	9.46	*F _s =20.0kN, $\Delta_2<1\text{mm}$
6	10.58	*F _s =20.0kN, $\Delta_2<1\text{mm}$
7	8.94	*F _s =20.0kN, $\Delta_2<1\text{mm}$
8	8.93	*F _s =20.0kN, $\Delta_2<1\text{mm}$
9	9.62	*F _s =20.0kN, $\Delta_2<1\text{mm}$
10	9.87	*F _s =20.0kN, $\Delta_2<1\text{mm}$
F _{s,5%}	8.5	-

*Note: In accordance with EN 74-1:2005, the test can be ended when the test load reached twice the specified F_s given in Table 8 of EN 74-1:2005.

2. Failure force

Sample No.	F _f (kN)
11#	43.57
12#	53.03
13#	54.43
14#	52.24
15#	54.51
F _{f,5%/γR2}	32.6

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

