

TEST REPORT

No. : SHIN2107047169CM

Date : Aug 05, 2021

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scan to see the report



SHIN2107047169CM

CUSTOMER NAME: K.O.H. INTERNATIONAL CO., LTD
ADDRESS: 45 MOO 1 TUMBON BORNGERN AMPHUR LADLUMKAEW,
PRATHUMTHANEE 12140

Sample Name : SWIVEL COUPLER
Product Specification : 48.3*48.3mm
Buyer : K.O.H. International Co., Ltd
Material and Mark : Q235
Others : IPT64009/2

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)
Ref. Standard : Please see the next page(s)
Date of Receipt : Jul 08, 2021
Testing Start Date : Jul 08, 2021
Testing End Date : Jul 30, 2021
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
Service (Shanghai) Co., Ltd.

Ziven Wang

Ziven Wang
Authorized signatory



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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
3	Indentation	EN 74-1:2005 Clause 7.5	See Result	Pass

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

Original Sample Photo(s):



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Test Item: Slipping Force, Failure Force, Indentation

Test Method: EN 74-1:2005

Sample Description: See photos

Test Condition:

Specimen: Swivel coupler, Class A, 20pcs

Test Results:

Test Clause	Test Item	Test Requirement (Swivel coupler, Class A)	Test Result	Conclusion
7.2.1	Slipping Force	$\Delta_1 \leq 7\text{mm}$, $F_{s,5\%} \geq 7.0\text{kN}$	$\Delta_1 \leq 7\text{mm}$, $F_{s,5\%} = 10.0\text{kN}$	Pass
		$1\text{mm} \leq \Delta_2 \leq 2\text{mm}$, $F_{s,5\%} \geq 10.0\text{kN}$	$F_s = 20.0\text{kN}$, $\Delta_2 \leq 1\text{mm}$	
7.2.2	Failure Force	$F_{f,5\%}/\gamma R_2 \geq 14.0\text{kN}$	$F_{f,5\%}/\gamma R_2 = 31.2\text{kN}$	Pass
7.5	Indentation	$F = 4.7\text{kN}$, $\Delta_{10} \leq 1.5\text{mm}$	$F = 4.7\text{kN}$, $\Delta_{10} < 1.5\text{mm}$	Pass

Note:

- $F_{s,5\%}$, $F_{f,5\%}$: the 5% quantile for the 75% level of confidence.
- $\gamma R_2 = 1.25$ 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 $\Phi 48.3\text{mm}$.
Specification of tube for indentation: Steel tube of $\Phi 48.3\text{mm} \times 2.8\text{mm}$ (wall thickness)
- 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	11.83	* $F_s=20.0\text{kN}$, $\Delta_2 < 1\text{mm}$
2	12.01	* $F_s=20.0\text{kN}$, $\Delta_2 < 1\text{mm}$
3	11.34	* $F_s=20.0\text{kN}$, $\Delta_2 < 1\text{mm}$
4	12.01	* $F_s=20.0\text{kN}$, $\Delta_2 < 1\text{mm}$
5	10.38	* $F_s=20.0\text{kN}$, $\Delta_2 < 1\text{mm}$
6	11.53	* $F_s=20.0\text{kN}$, $\Delta_2 < 1\text{mm}$
7	12.15	* $F_s=20.0\text{kN}$, $\Delta_2 < 1\text{mm}$
8	12.43	* $F_s=20.0\text{kN}$, $\Delta_2 < 1\text{mm}$
9	13.67	* $F_s=20.0\text{kN}$, $\Delta_2 < 1\text{mm}$
10	10.76	* $F_s=20.0\text{kN}$, $\Delta_2 < 1\text{mm}$
$F_{s,5\%}$	10.0	-

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	42.82
12	41.77
13	39.83
14	42.32
15	42.34
$F_{f,5\%}/\gamma R_2$	31.2



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3. Indentation

Sample No.	Δ_{10} (mm, F=4.7kN)
16	0.22
17	0.66
18	0.57
19	0.31
20	1.25



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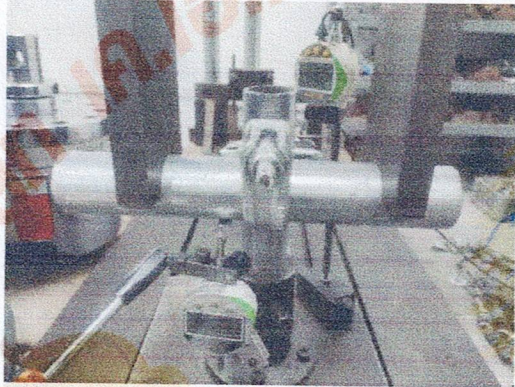
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Test photo(s):



Slipping Force



Failure Force



Indentation

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



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