

## TEST REPORT

No. : SC091021185

Date : Nov. 27, 2009

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TANCHOR CHANNELS CO., LTD  
3F, BUILDING 3, NO.1221 YAN AN XI RD SHANGHAI

The following sample(s) was/ were submitted and identified on behalf of the client as:

Sample Name : Tanchor  
Sample No. : SC091021185  
Test Required : Please see next pages  
Test Method : Please see next pages  
Product specification : HBC50/30 300MM  
Product or Lot No. : Hot rolled  
Manufacturer : TANCHOR CHANNELS CO., LTD  
Date of Receipt : Oct. 09, 2009  
Test Period : Oct. 09, 2009 to Nov. 27, 2009  
Test Result(s) : Please see next pages

\*\*\*\*\* To be continued\*\*\*\*\*

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

Sally Xie  
Sally Xie  
Authorized signatory

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### Tensile Loading Test of TANCHOR Hot Rolled Channel

#### 1. Brief Introduction

TANCHOR CHANNELS CO., LTD (3F, Building 3, No.1221, Yan an xi Rd, Shanghai, P.R.C) consigns SGS-CSTC Standard Technical Services (Shanghai) Co., Ltd. to test the tensile loading test of TANCHOR Hot Rolled Channel. The type of the sample is HBC50/30 300MM, provided by consigner. The embedment of the sample and the mold of the concrete are done by SGS. The molding concrete is commercial concrete transported by pump which strength grade is C35. The curing age is 28 days.

#### 2. Test Method

With reference to BS 5080-1:1993 Structural fixings in concrete and masonry ---Part 1: Method of test for tensile loading

#### 3. Test Equipments

No.	Equipment	Type
1	ENERPAC Bolt pull test apparatus	P80
2	Dial indicator	0~10mm
3	Digital Gauge for Force	Z50

\*\*\*\*\* To be continued \*\*\*\*\*

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### 4. Test Results

#### 4.1 Description of Concrete

Design Strength	Molding Date	Test Date	Provider of Concrete	Concrete Strength Grade
C35	2009-10-19	2009-11-17	Shanghai Shuangqiu commercial concrete Co., Ltd.	C35

#### 4.2 Test Results of TANCHOR Hot Rolled Channel

No.	Design Load (kN)	Accept able Load of Failure (kN)	Safety factor	Test Result			
				Maximum Load (kN)	Average of Maximum Effective Deflection (mm)	Breaking Form of Samples	Conclusion
1	24	72	3.0	81.5	4.51	The junction part between channel and the embedded rod was broken	Meet the design requirements
2				116.6	3.84	The embedded rod was broken	Meet the design requirements
3				110.9	3.90	The embedded rod was broken	Meet the design requirements

Note: The design load and safety factor was declared by client.

Annex 1: Test results of each sample

Annex 2: Sample Drawing

Annex 3: Test Photos

\*\*\*\*\* To be continued\*\*\*\*\*

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### Annex 1: Test results of each sample

Table 1 Test results of Sample 1

No.	Load (kN)	Deflection (mm)		Average Deflection (mm)
		1	2	
1	10	0.00	0.08	0.04
2	20	0.05	0.06	0.06
3	30	0.06	0.04	0.10
4	40	0.60	0.03	0.32
5	50	1.54	0.09	0.82
6	60	3.09	0.92	2.01
7	70	5.52	3.49	4.51
8	80	8.04	6.90	7.47

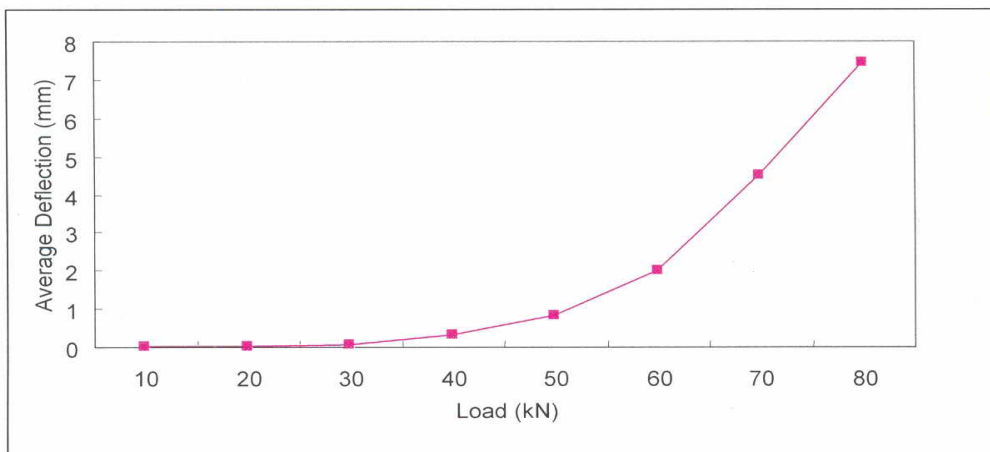


Fig.1 Average Deflection-Load graph of Sample1

\*\*\*\*\* To be continued\*\*\*\*\*

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Table 2 Test results of Sample 2

No.	Load (kN)	Deflection (mm)		Average Deflection (mm)
		1	2	
1	10	0.02	0.01	0.02
2	20	0.05	0.02	0.04
3	30	0.17	0.04	0.11
4	40	0.58	0.20	0.39
5	50	1.19	0.33	0.76
6	60	1.75	0.67	1.21
7	70	2.36	1.40	1.88
8	80	3.30	2.51	2.91
9	90	4.27	3.42	3.84
10	100	5.98	6.27	6.12

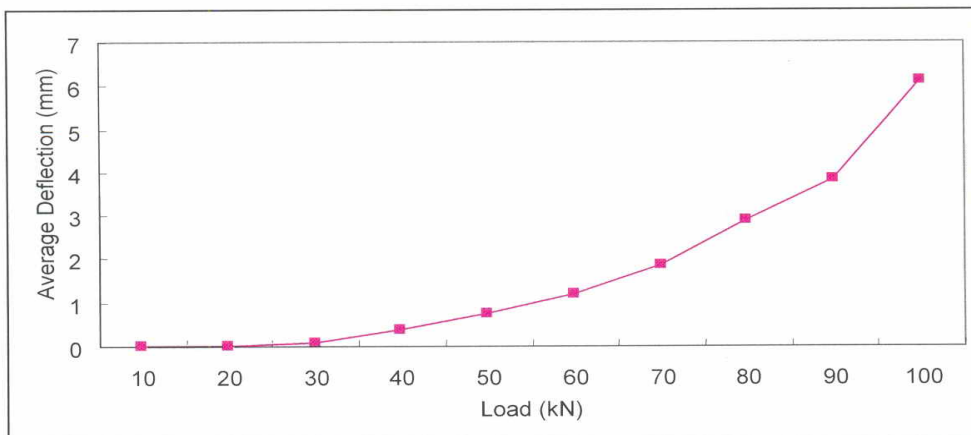


Fig.2 Average Deflection-Load graph of Sample2

\*\*\*\*\* To be continued \*\*\*\*\*

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Table 3 Test results of Sample 3

No.	Load (kN)	Deflection (mm)		Average Deflection (mm)
		1	2	
1	10	0.00	0.02	0.01
2	20	0.09	0.02	0.06
3	30	0.54	0.03	0.29
4	40	0.90	0.02	0.46
5	50	1.39	0.34	0.86
6	60	1.86	0.88	1.37
7	70	2.40	1.50	1.95
8	80	3.11	2.24	2.68
9	90	4.30	3.49	3.90
10	100	6.81	5.98	6.40

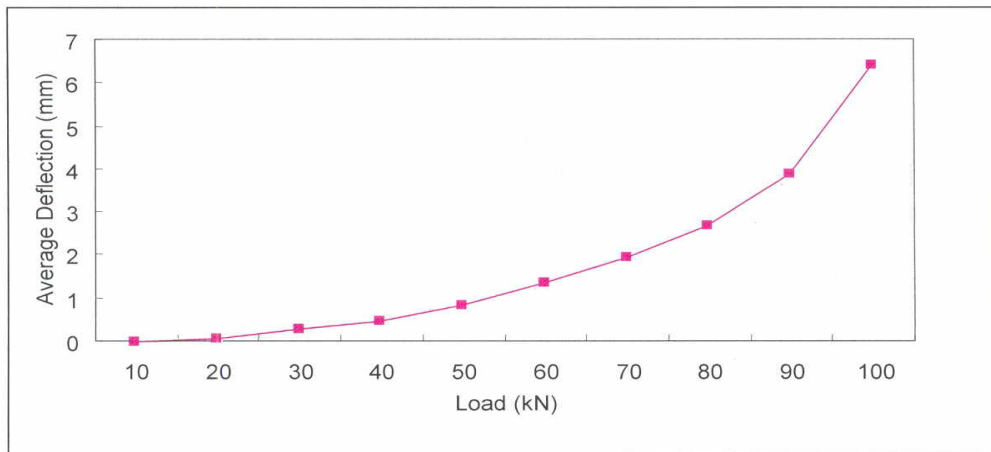


Fig.3 Average Deflection-Load graph of Sample3

\*\*\*\*\* To be continued\*\*\*\*\*

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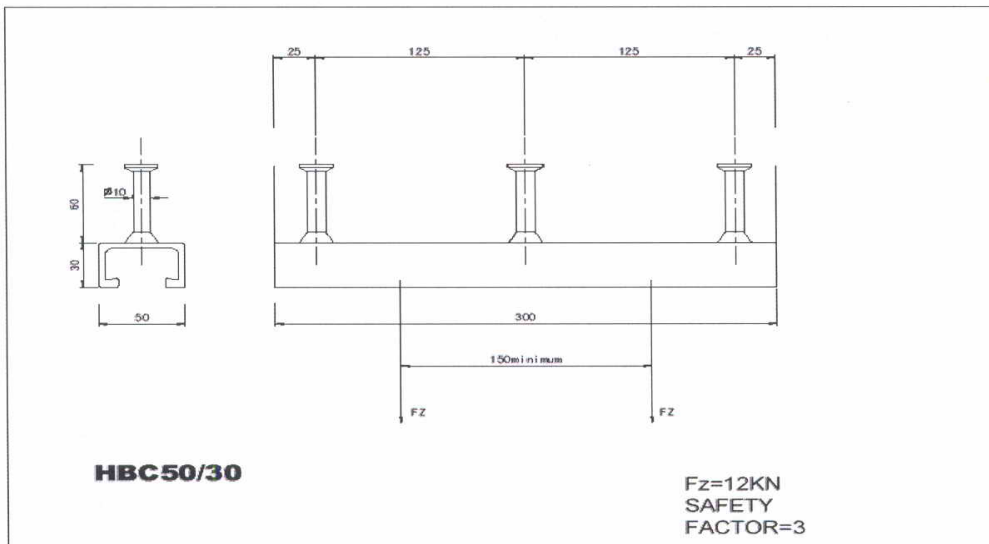
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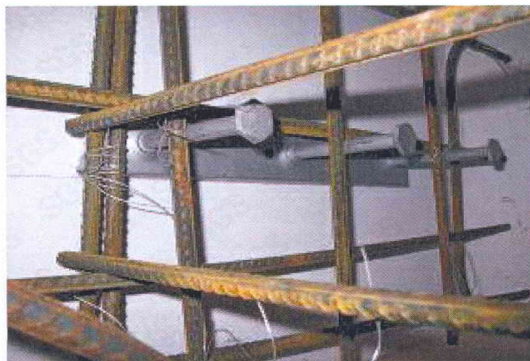
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### Annex 2: Sample Drawing



### Annex 3: Test Photos



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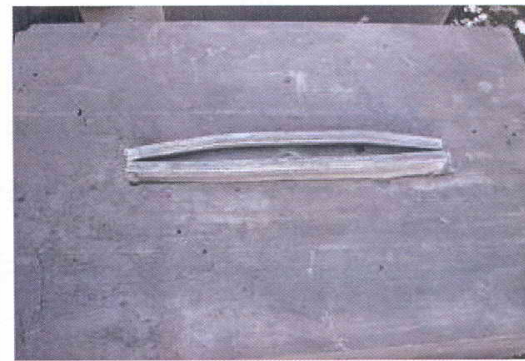
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\*\*\*\*\* End of report \*\*\*\*\*

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