

TEST REPORT

No. : SHCCM130300523

Date : Apr. 02, 2013

Page: 1 of 12

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 CAST-IN CHANNEL
Sample Number : SHCCM130300523
Test Required : Please see the next page(s)
Test Method : Please see the next page(s)
Product Specification : HBC52/34 350mm(TRS-127)
Product or Lot No. : Hot rolled
Manufacturer : Tanchor Channels Co., Ltd
Material and Mark : Hot rolled
Date of Receipt : Mar. 25, 2013
Test Period : Mar. 25, 2013 to Apr. 02, 2013
Test result(s) : For further details, please refer to the following page(s)
***** To be continued*****

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

Sally Xie
Sally Xie
Authorized signatory

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TEST REPORT

No. : SHCCM130300523

Date : Apr. 02, 2013

Page: 2 of 12

1. Brief Introduction.

Tanchor Channels Co., Ltd consigns SGS-CSTC Standard Technical Services (Shanghai) Co., Ltd. to test the tensile loading and shear loading of Tanchor Cast-in Channel. The embedment of the sample and the mold of the concrete (strength grade C30) are done by consigner.

2. Test Method:

- 1) With reference to BS 5080-1:1993(R2008) Structural fixings in concrete and masonry-Part 1: Method of test for tensile loading
- 2) With reference to BS 5080-2:1986(R2008) Method of test for Structural fixings in concrete and masonry-Part 2: Method for determination of resistance to loading in shear

3. Test Equipments:

No.	Equipment	Type
1	Bolt pull test apparatus	ZY-30
2	Dial indicator	0~10mm
3	Universal testing machine	CY-6540

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



TEST REPORT

No. : SHCCM130300523

Date : Apr. 02, 2013

Page: 3 of 12

4. Test result

1). Tension test

Sample No.	Design Load (kN)	Acceptable Load of Failure (kN)	Safety Factor	Test result		
				Maximum Test Load (kN)	Failure Mode	Conclusion
1	34	102	3	141.4	Concrete is broken	Meet the design requirements.
2				148.3	Concrete is broken	Meet the design requirements.
3				144.5	Concrete is broken	Meet the design requirements.

2). Shear test

Sample No.	Design Load (kN)	Acceptable Load of Failure (kN)	Safety Factor	Test result	
				When test load is 150kN, check sample's status	Conclusion
4	50	150	3	No abnormal	Meet the design requirements.
5				No abnormal	Meet the design requirements.
6				No abnormal	Meet the design requirements.

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

Annex A: Detailed test results of tensile loading test

Annex B: Sample drawing and photo

Annex C: Test Photos

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

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TEST REPORT

No. : SHCCM130300523

Date : Apr. 02, 2013

Page: 4 of 12

Annex A: Detailed test results of tensile loading test

Table 1. Test results of Sample 1

No.	Load (kN)	Deflection (mm)		Average Deflection (mm)
		1	2	
1	0	0.00	0.00	0.00
2	5	0.00	0.00	0.00
3	10	0.12	0.04	0.08
4	15	0.34	0.25	0.30
5	20	0.89	0.55	0.72
6	25	1.27	0.76	1.02
7	30	1.64	0.93	1.28
8	35	2.01	1.08	1.54
9	40	2.36	1.20	1.78
10	45	2.65	1.38	2.02
11	50	2.84	1.50	2.17
12	55	2.94	1.60	2.27
13	60	3.03	1.70	2.36
14	65	3.13	1.79	2.46
15	70	3.25	1.89	2.57
16	75	3.35	1.98	2.66
17	80	3.50	2.13	2.82
18	85	3.61	2.24	2.92
19	90	3.72	2.37	3.04
20	95	3.81	2.50	3.16
21	100	3.87	2.67	3.27

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

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TEST REPORT

No. : SHCCM130300523

Date : Apr. 02, 2013

Page: 5 of 12

No.	Load (kN)	Deflection (mm)		Average Deflection (mm)
		1	2	
22	105	3.91	2.71	3.31
23	110	3.90	2.75	3.32
24	115	3.84	2.84	3.34
25	120	3.69	2.97	3.33
26	125	3.82	3.33	3.58
27	130	4.06	3.53	3.80
28	135	4.33	3.72	4.02
29	140	4.62	4.08	4.35

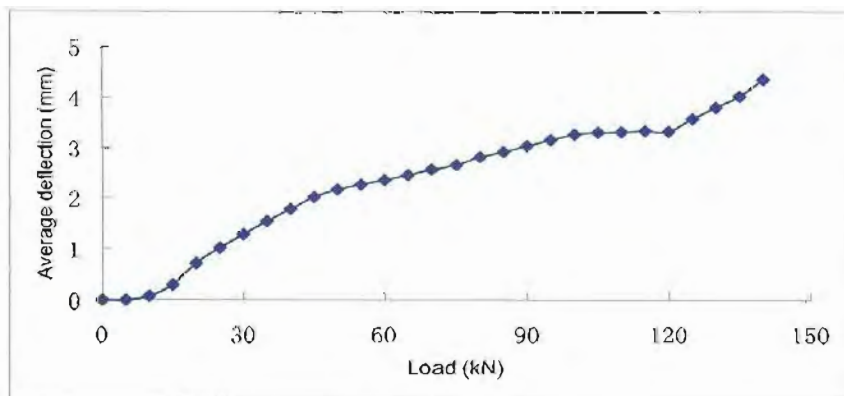


Fig.1: Average Deflection-Load Graph of Sample 1

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TEST REPORT

No. : SHCCM130300523

Date : Apr. 02, 2013

Page: 6 of 12

Table 2: Test results of Sample 2

No.	Load (kN)	Deflection (mm)		Average Deflection (mm)
		1	2	
1	0	0.00	0.00	0.00
2	5	0.00	0.00	0.00
3	10	0.00	0.00	0.00
4	15	0.00	0.00	0.00
5	20	0.14	0.04	0.09
6	25	0.34	0.07	0.20
7	30	0.46	0.11	0.28
8	35	0.64	0.23	0.44
9	40	0.80	0.38	0.59
10	45	1.07	0.57	0.82
11	50	1.28	0.69	0.98
12	55	1.59	0.87	1.23
13	60	1.85	1.09	1.47
14	65	2.06	1.29	1.68
15	70	2.21	1.44	1.82
16	75	2.35	1.59	1.97
17	80	2.50	1.74	2.12
18	85	2.70	1.99	2.34
19	90	2.84	2.15	2.50
20	95	3.00	2.33	2.66
21	100	3.14	2.44	2.79
22	105	3.29	2.62	2.96
23	110	3.43	2.77	3.10
24	115	3.58	2.94	3.26

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

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SHML 445924

TEST REPORT

No. : SHCCM130300523

Date : Apr. 02, 2013

Page: 7 of 12

No	Load (kN)	Deflection (mm)		Average Deflection (mm)
		1	2	
25	120	3.76	3.14	3.45
26	125	3.90	3.31	3.60
27	130	4.10	3.55	3.82
28	135	4.28	3.77	4.02
29	140	4.46	3.99	4.22
30	145	4.75	4.36	4.56

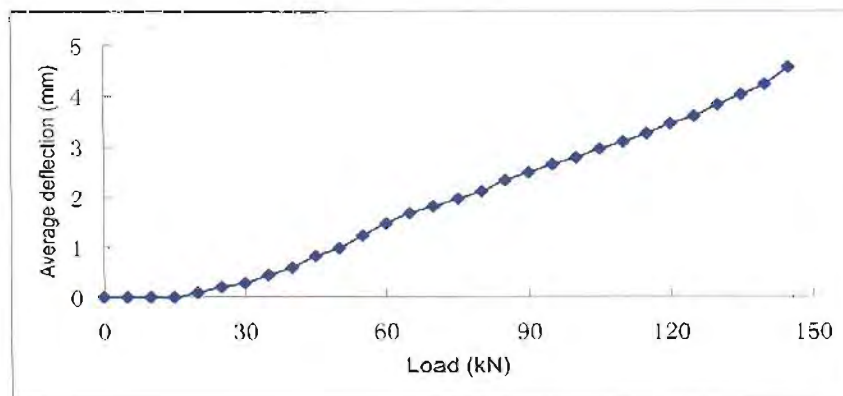


Fig.2: Average Deflection-Load Graph of Sample 2

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TEST REPORT

No. : SHCCM130300523

Date : Apr. 02, 2013

Page: 8 of 12

Table 3: Test results of Sample 3

No.	Load (kN)	Deflection (mm)		Average Deflection (mm)
		1	2	
1	0	0.00	0.00	0.00
2	5	0.00	0.00	0.00
3	10	0.00	0.01	0.00
4	15	0.00	0.02	0.01
5	20	0.00	0.01	0.00
6	25	0.05	0.29	0.17
7	30	0.18	0.45	0.32
8	35	0.56	0.79	0.68
9	40	0.90	0.96	0.93
10	45	1.24	1.21	1.22
11	50	1.50	1.49	1.50
12	55	1.67	1.66	1.66
13	60	1.82	1.78	1.80
14	65	1.92	1.88	1.90
15	70	2.01	1.99	2.00
16	75	2.16	2.12	2.14
17	80	2.28	2.25	2.26
18	85	2.43	2.37	2.40
19	90	2.56	2.53	2.54
20	95	2.76	2.74	2.75
21	100	2.89	2.88	2.88
22	105	3.06	3.05	3.06
23	110	3.34	3.34	3.34
24	115	3.55	3.64	3.60
25	120	3.66	3.95	3.80

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TEST REPORT

No. : SHCCM130300523

Date : Apr. 02, 2013

Page: 9 of 12

No.	Load (kN)	Deflection (mm)		Average Deflection (mm)
		1	2	
26	125	3.74	4.29	4.02
27	130	3.77	4.64	4.20
28	135	4.12	5.09	4.60
29	140	4.24	5.47	4.86

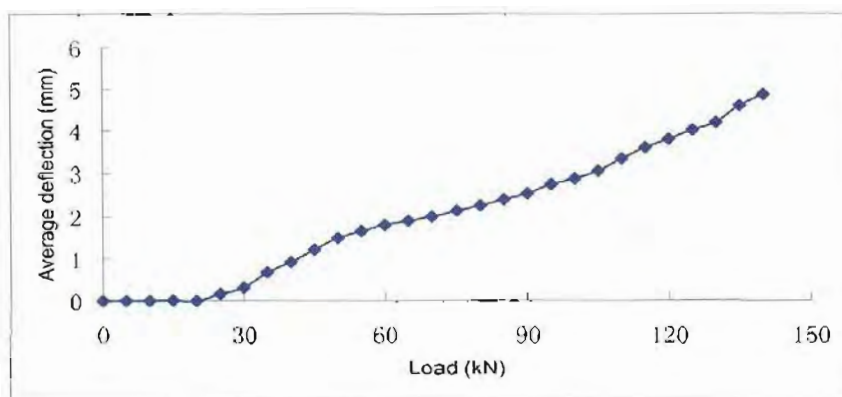


Fig.3: Average Deflection-Load Graph of Sample 3

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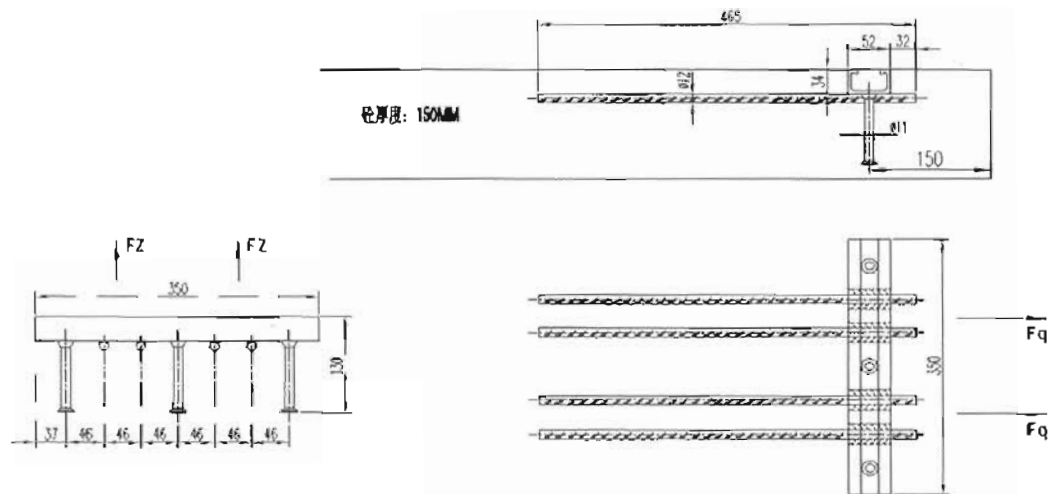
TEST REPORT

No. : SHCCM130300523

Date : Apr. 02, 2013

Page: 10 of 12

Annex B: Sample drawing and photo



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TEST REPORT

No. : SHCCM130300523

Date : Apr. 02, 2013

Page: 11 of 12

Annex C: Test Photos



Before test(1)



Before test(2)



The sample No.1 After test



The sample No 2 After test

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TEST REPORT

No. : SHCCM130300523

Date : Apr. 02, 2013

Page: 12 of 12



The sample No.3 After test



The sample No.4 After test



The sample No 5 After test



The sample No.6 After test

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