

The specimen details

Diameter of bolt	d (mm)	20
Diameter of bolt hole	d <sub>0</sub> (mm)	22
End distance	e <sub>1</sub> (mm)	40
Edge distance	e <sub>2</sub> (mm)	30
Pitch distance	p <sub>1</sub> (mm)	60
	p <sub>2</sub> (mm)	N/A
Gauge distance	g (mm)	90
Thickness of end plate	t <sub>p</sub> (mm)	10
Horizontal distance of lever arm	B <sub>L</sub> (mm)	490
Vertical distance of lever arm	D <sub>L</sub> (mm)	51.7

Steel Grade		S275	S355
Dimension of Members		UB305x16 5x40	UC254x25 4x89
Depth of Section	D (mm)	303.4	260.3
Width of Section	B (mm)	165	256.3
Thickness of Web	t (mm)	6	10.3
Thickness of Flange	T (mm)	10.2	17.3
Root Radius	r (mm)	8.9	12.7
Depth between Fillets	d (mm)	265.2	200.3

Nominal Temperature

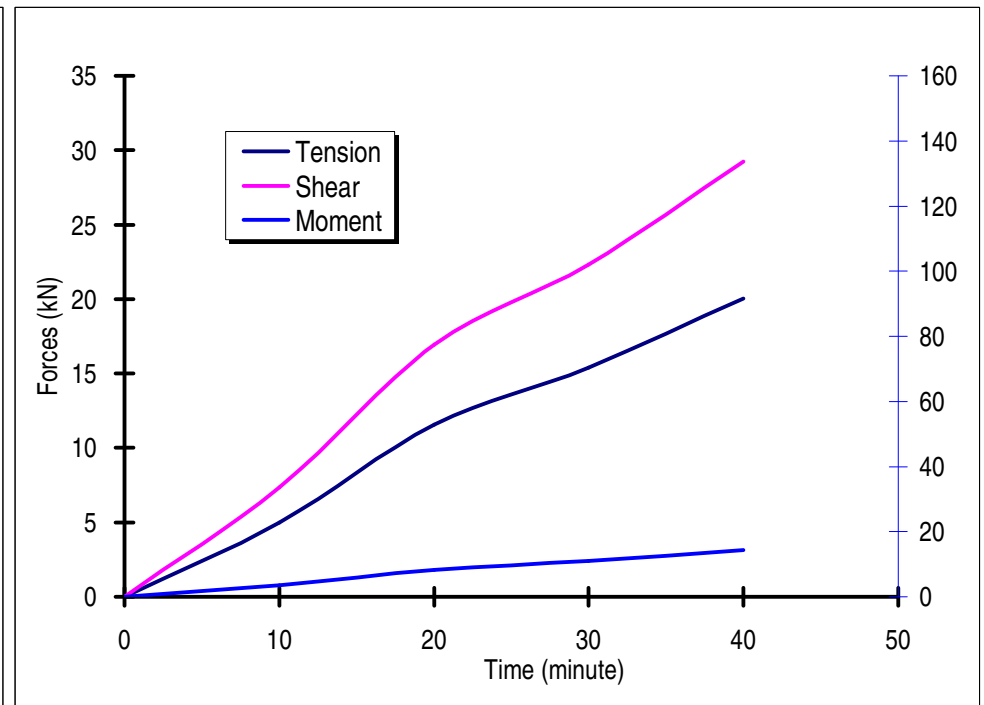
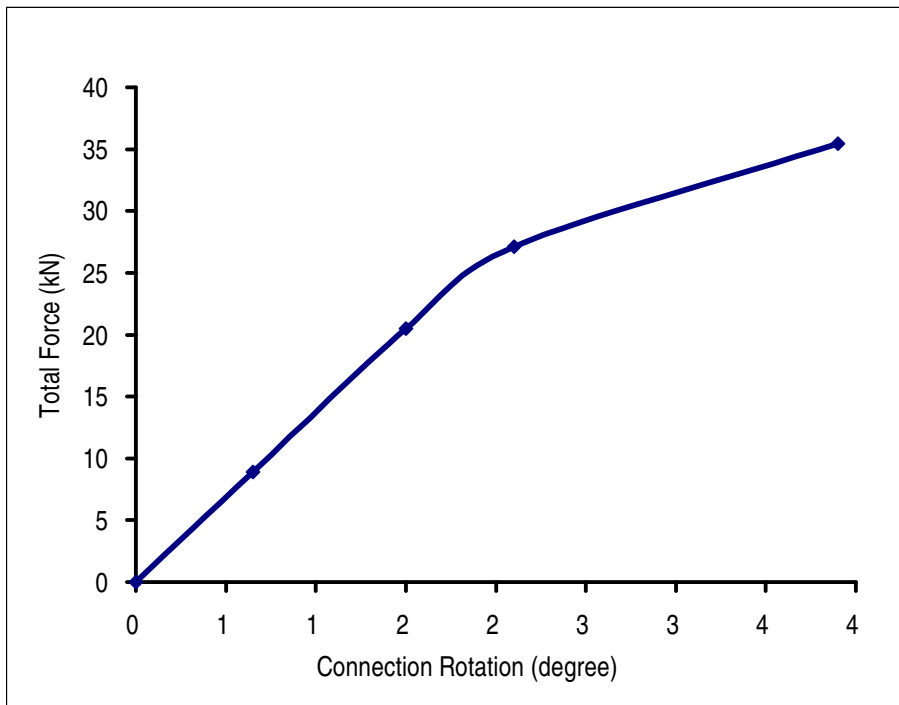
550°C

Time (minute)	Thermocouple Average(°C)	Jack Displacement (mm)	Load Angle α(°)	Beam Rotation (°)	Column Rotation (°)	Connection Rotation (°)	Force Rotation (°)	F3 from F1 (kN)	F3 from F2 (kN)	F3 Average (kN)	Tension (kN)	Shear (kN)	Moment (kN*m)
0	550.000	2.592	55	N/A	N/A	0	0	0	0	0	0	0	0
1	550.000	2.590	55.14	N/A	N/A		0.141	3.06	2.30	5.37	3.07	4.41	2.16
2	550.000	2.589	55.04	N/A	N/A		0.040	3.09	2.38	5.47	3.13	4.48	2.20
3	550.000	2.590	55.00	N/A	N/A		-0.002	3.01	2.37	5.38	3.09	4.41	2.16
4	550.000	2.591	54.94	N/A	N/A		-0.064	2.99	2.28	5.26	3.02	4.31	2.11
5	550.000	2.590	54.96	N/A	N/A		-0.039	3.04	2.33	5.37	3.08	4.39	2.15
6	550.000	3.887	55.05	N/A	N/A		0.054	4.28	2.95	7.23	4.14	5.93	2.90
7	550.000	5.459	55.02	N/A	N/A		0.018	4.69	3.15	7.84	4.49	6.42	3.15
8	550.000	7.294	54.75	N/A	N/A		-0.252	4.82	3.27	8.09	4.67	6.61	3.24
9	550.000	8.918	55.40	N/A	N/A		0.402	4.85	3.24	8.09	4.59	6.66	3.26
10	550.000	10.256	55.73	N/A	N/A	0.650	0.733	5.44	3.45	8.90	5.01	7.35	3.60
11	550.000	11.653	55.82	N/A	N/A		0.822	6.57	3.91	10.48	5.89	8.67	4.25
12	550.000	13.195	55.84	N/A	N/A		0.835	7.69	4.40	12.09	6.79	10.00	4.90
13	550.000	14.687	55.84	N/A	N/A		0.837	9.09	4.82	13.91	7.81	11.51	5.64
14	550.000	16.154	55.81	N/A	N/A		0.807	10.35	5.44	15.79	8.87	13.06	6.40
15	550.000	17.522	55.74	N/A	N/A		0.739	11.52	5.87	17.39	9.79	14.37	7.04
16	550.000	18.822	55.75	N/A	N/A		0.753	12.54	6.21	18.75	10.55	15.50	7.59
17	550.000	20.079	55.65	N/A	N/A		0.649	13.26	6.43	19.70	11.11	16.26	7.97
18	550.000	21.273	55.68	N/A	N/A		0.679	13.75	6.52	20.27	11.43	16.74	8.20
19	550.000	22.258	55.67	N/A	N/A		0.666	13.50	6.43	19.93	11.24	16.46	8.06
20	550.000	23.443	55.68	N/A	N/A	1.500	0.679	13.89	6.60	20.49	11.55	16.92	8.29
21	550.000	24.644	55.68	N/A	N/A		0.675	14.18	6.74	20.92	11.80	17.28	8.47
22	550.000	26.182	55.59	N/A	N/A		0.588	14.71	6.90	21.61	12.21	17.83	8.73

## 17 August 2007 Flexible Endplate Test Result

23	550.000	27.287	55.56	N/A	N/A		0.561	14.43	6.87	21.30	12.05	17.57	8.61
24	550.000	28.472	55.55	N/A	N/A		0.551	14.74	7.00	21.74	12.30	17.93	8.79
25	550.000	29.609	55.51	N/A	N/A		0.511	14.71	7.01	21.72	12.30	17.90	8.77
26	550.000	30.875	55.66	N/A	N/A		0.660	15.14	7.18	22.32	12.59	18.43	9.03
27	550.000	32.435	55.49	N/A	N/A		0.486	15.87	7.49	23.37	13.24	19.25	9.43
28	550.000	33.956	55.47	N/A	N/A		0.467	16.52	7.75	24.27	13.76	20.00	9.80
29	550.000	35.558	55.45	N/A	N/A		0.450	17.42	7.99	25.41	14.41	20.93	10.25
30	550.000	37.151	55.45	N/A	N/A	2.100	0.452	18.53	8.58	27.11	15.38	22.33	10.94
31	550.000	38.779	55.57	N/A	N/A		0.570	18.72	8.73	27.45	15.52	22.64	11.09
32	550.000	40.386	55.50	N/A	N/A		0.504	19.66	9.14	28.79	16.31	23.73	11.63
33	550.000	41.980	55.61	N/A	N/A		0.613	20.64	9.50	30.14	17.02	24.87	12.19
34	550.000	43.591	55.58	N/A	N/A		0.578	21.59	9.85	31.43	17.77	25.93	12.71
35	550.000	45.129	55.58	N/A	N/A		0.578	22.34	10.02	32.36	18.29	26.69	13.08
36	550.000	46.707	55.60	N/A	N/A		0.604	22.97	10.24	33.21	18.76	27.40	13.43
37	550.000	48.228	55.55	N/A	N/A		0.551	23.47	10.41	33.88	19.16	27.94	13.69
38	550.000	49.813	55.63	N/A	N/A		0.625	23.90	10.43	34.33	19.38	28.33	13.88
39	550.000	51.422	55.61	N/A	N/A		0.610	24.45	10.53	34.99	19.76	28.87	14.15
40	550.000	52.968	55.57	N/A	N/A	3.900	0.568	24.81	10.64	35.45	20.04	29.24	14.33
41	550.000	54.601	55.60	N/A	N/A		0.602	25.20	10.68	35.88	20.27	29.61	14.51
42	550.000	56.243	55.67	N/A	N/A		0.669	25.48	10.69	36.17	20.40	29.87	14.64
43	550.000	57.844	55.64	N/A	N/A		0.640	25.69	10.62	36.31	20.49	29.97	14.69
44	550.000	59.471	55.51	N/A	N/A		0.509	25.66	10.66	36.32	20.57	29.94	14.67
45	550.000	60.999	55.71	N/A	N/A		0.706	25.44	10.37	35.81	20.18	29.59	14.50
46	550.000	62.545	55.59	N/A	N/A		0.588	25.19	10.18	35.37	19.99	29.18	14.30
47	550.000	64.075	55.70	N/A	N/A		0.699	24.83	9.91	34.73	19.57	28.69	14.06
48	550.000	65.564	55.61	N/A	N/A		0.607	24.44	9.65	34.09	19.26	28.13	13.79
49	550.000	67.149	55.64	N/A	N/A		0.642	23.89	9.37	33.25	18.77	27.45	13.45
50	550.000	68.758	55.70	N/A	N/A		0.702	23.80	9.22	33.03	18.61	27.29	13.37
51	550.000	70.408	55.72	N/A	N/A		0.717	22.64	8.69	31.33	17.65	25.89	12.69
52	550.000	72.050	55.66	N/A	N/A		0.659	22.65	8.69	31.34	17.68	25.87	12.68





Photographs after Test

