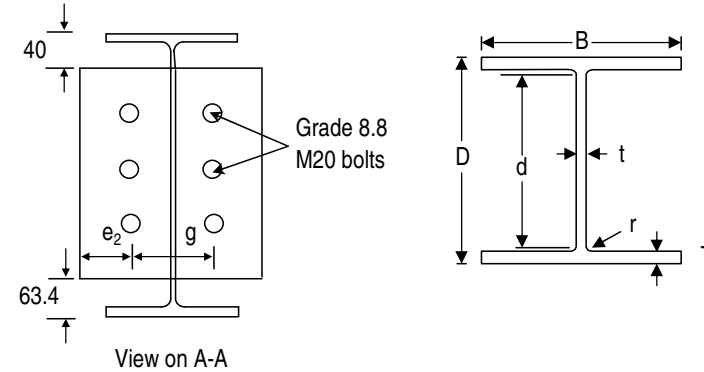


The specimen details



Diameter of bolt	d (mm)	20
Diameter of bolt hole	d_0 (mm)	22
End distance	e_1 (mm)	40
Edge distance	e_2 (mm)	30
Pitch distance	p_1 (mm)	60
	p_2 (mm)	N/A
Gauge distance	g (mm)	90
Thickness of end plate	t_p (mm)	10
Horizontal distance of lever arm	B_L (mm)	490
Vertical distance of lever arm	D_L (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

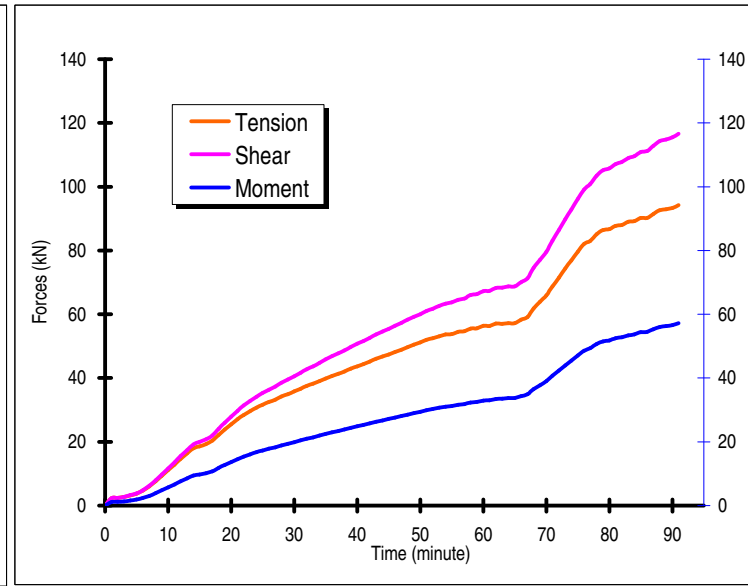
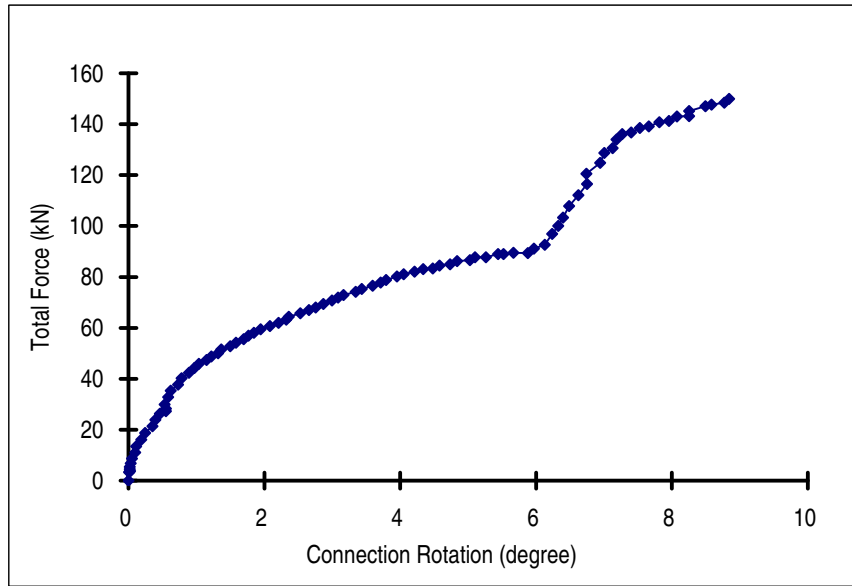
Nominal Temperature

20°C

Time (minute)	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	0.006	44.99	N/A	N/A	0	-0.005	N/A	N/A	0	0	0	0
1	0.006	45.00	N/A	N/A	0.009	-0.003	N/A	N/A	3.32	2.35	2.35	1.15
2	0.009	45.00	N/A	N/A	0.014	-0.005	N/A	N/A	3.46	2.45	2.44	1.20
3	0.933	45.30	N/A	N/A	0.021	0.296	N/A	N/A	3.79	2.67	2.70	1.32
4	2.414	45.48	N/A	N/A	0.018	0.484	N/A	N/A	4.57	3.21	3.26	1.60
5	3.616	45.62	N/A	N/A	0.018	0.617	N/A	N/A	5.35	3.74	3.83	1.87
6	5.086	45.80	N/A	N/A	0.032	0.798	N/A	N/A	6.76	4.71	4.85	2.38
7	6.555	45.97	N/A	N/A	0.053	0.966	N/A	N/A	8.65	6.02	6.22	3.05
8	8.009	46.13	N/A	N/A	0.099	1.126	N/A	N/A	11.00	7.62	7.93	3.89
9	9.504	46.28	N/A	N/A	0.111	1.277	N/A	N/A	13.48	9.32	9.74	4.77
10	11.016	46.41	N/A	N/A	0.186	1.415	N/A	N/A	16.10	11.10	11.66	5.71
11	12.478	46.56	N/A	N/A	0.245	1.556	N/A	N/A	18.70	12.86	13.58	6.65
12	13.866	46.69	N/A	N/A	0.352	1.686	N/A	N/A	21.33	14.63	15.52	7.60
13	15.162	46.82	N/A	N/A	0.398	1.823	N/A	N/A	23.87	16.33	17.40	8.53
14	16.476	46.94	N/A	N/A	0.461	1.944	N/A	N/A	26.25	17.92	19.18	9.40
15	17.501	47.06	N/A	N/A	0.550	2.057	N/A	N/A	27.27	18.58	19.96	9.78
16	18.470	47.14	N/A	N/A	0.550	2.141	N/A	N/A	28.34	19.27	20.77	10.18
17	19.567	47.23	N/A	N/A	0.532	2.228	N/A	N/A	29.97	20.35	22.00	10.78
18	21.025	47.33	N/A	N/A	0.586	2.329	N/A	N/A	32.76	22.20	24.08	11.80
19	22.489	47.44	N/A	N/A	0.622	2.442	N/A	N/A	35.27	23.86	25.98	12.73
20	23.979	47.57	N/A	N/A	0.728	2.570	N/A	N/A	37.76	25.48	27.87	13.66
21	25.524	47.69	N/A	N/A	0.783	2.694	N/A	N/A	40.22	27.07	29.75	14.58
22	27.093	47.81	N/A	N/A	0.890	2.815	N/A	N/A	42.36	28.45	31.39	15.38
23	28.614	47.92	N/A	N/A	0.971	2.921	N/A	N/A	44.21	29.63	32.81	16.08
24	30.143	48.03	N/A	N/A	1.034	3.035	N/A	N/A	45.89	30.69	34.12	16.72
25	31.656	48.14	N/A	N/A	1.150	3.139	N/A	N/A	47.37	31.61	35.28	17.29
26	33.202	48.24	N/A	N/A	1.220	3.240	N/A	N/A	48.76	32.48	36.37	17.82
27	34.747	48.33	N/A	N/A	1.319	3.332	N/A	N/A	50.02	33.25	37.36	18.31
28	36.268	48.42	N/A	N/A	1.364	3.417	N/A	N/A	51.52	34.19	38.53	18.88
29	37.853	48.50	N/A	N/A	1.500	3.501	N/A	N/A	52.77	34.97	39.53	19.37

30	39.430	48.58	N/A	N/A	1.580	3.585	N/A	N/A	54.11	35.80	40.58	19.88
31	41.001	48.66	N/A	N/A	1.695	3.660	N/A	N/A	55.53	36.68	41.69	20.43
32	42.545	48.74	N/A	N/A	1.767	3.744	N/A	N/A	56.89	37.52	42.77	20.96
33	44.107	48.83	N/A	N/A	1.848	3.832	N/A	N/A	58.05	38.21	43.70	21.41
34	45.580	48.92	N/A	N/A	1.947	3.919	N/A	N/A	59.44	39.06	44.80	21.95
35	47.156	48.99	N/A	N/A	2.081	3.988	N/A	N/A	60.72	39.85	45.82	22.45
36	48.662	49.06	N/A	N/A	2.207	4.062	N/A	N/A	62.01	40.63	46.84	22.95
37	50.159	49.12	N/A	N/A	2.323	4.124	N/A	N/A	63.21	41.37	47.80	23.42
38	51.704	49.17	N/A	N/A	2.359	4.174	N/A	N/A	64.36	42.08	48.70	23.86
39	53.273	49.22	N/A	N/A	2.530	4.223	N/A	N/A	65.73	42.93	49.77	24.39
40	54.826	49.27	N/A	N/A	2.655	4.273	N/A	N/A	66.99	43.70	50.76	24.87
41	56.372	49.31	N/A	N/A	2.754	4.314	N/A	N/A	68.06	44.37	51.61	25.29
42	57.862	49.35	N/A	N/A	2.869	4.347	N/A	N/A	69.34	45.17	52.61	25.78
43	59.391	49.39	N/A	N/A	2.994	4.386	N/A	N/A	70.71	46.03	53.67	26.30
44	60.879	49.42	N/A	N/A	3.085	4.416	N/A	N/A	71.86	46.75	54.57	26.74
45	62.362	49.45	N/A	N/A	3.165	4.455	N/A	N/A	72.93	47.41	55.42	27.15
46	63.889	49.48	N/A	N/A	3.344	4.480	N/A	N/A	74.13	48.16	56.35	27.61
47	65.419	49.51	N/A	N/A	3.433	4.507	N/A	N/A	75.34	48.92	57.29	28.07
48	66.940	49.53	N/A	N/A	3.595	4.527	N/A	N/A	76.59	49.72	58.27	28.55
49	68.501	49.56	N/A	N/A	3.712	4.561	N/A	N/A	77.80	50.46	59.21	29.01
50	70.046	49.58	N/A	N/A	3.792	4.581	N/A	N/A	78.87	51.14	60.04	29.42
51	71.544	49.61	N/A	N/A	3.953	4.608	N/A	N/A	80.15	51.94	61.05	29.91
52	73.113	49.65	N/A	N/A	4.051	4.654	N/A	N/A	81.04	52.46	61.76	30.26
53	74.731	49.68	N/A	N/A	4.213	4.678	N/A	N/A	82.08	53.11	62.58	30.66
54	76.275	49.72	N/A	N/A	4.338	4.722	N/A	N/A	83.07	53.70	63.38	31.05
55	77.838	49.83	N/A	N/A	4.481	4.835	N/A	N/A	83.34	53.75	63.69	31.21
56	79.366	49.84	N/A	N/A	4.580	4.845	N/A	N/A	84.49	54.48	64.57	31.64
57	80.855	49.93	N/A	N/A	4.732	4.926	N/A	N/A	84.92	54.67	64.98	31.84
58	82.360	49.94	N/A	N/A	4.839	4.944	N/A	N/A	86.28	55.53	66.04	32.36
59	83.817	50.01	N/A	N/A	5.028	5.008	N/A	N/A	86.58	55.64	66.33	32.50

60	85.243	50.01	N/A	N/A	5.099	5.008	N/A	N/A	87.73	56.38	67.21	32.93
61	86.756	50.10	N/A	N/A	5.261	5.097	N/A	N/A	87.76	56.29	67.32	32.99
62	88.245	50.09	N/A	N/A	5.440	5.094	N/A	N/A	89.01	57.11	68.28	33.46
63	89.751	50.14	N/A	N/A	5.521	5.144	N/A	N/A	89.01	57.05	68.33	33.48
64	91.222	50.22	N/A	N/A	5.665	5.221	N/A	N/A	89.44	57.23	68.74	33.68
65	92.672	50.24	N/A	N/A	5.879	5.243	N/A	N/A	89.41	57.18	68.74	33.68
66	94.234	50.24	N/A	N/A	5.968	5.245	N/A	N/A	91.10	58.26	70.04	34.32
67	95.667	50.33	N/A	N/A	6.130	5.329	N/A	N/A	92.57	59.10	71.26	34.92
68	97.028	50.34	N/A	N/A	6.237	5.335	N/A	N/A	96.91	61.86	74.60	36.55
69	97.244	50.32	N/A	N/A	6.326	5.315	N/A	N/A	100.10	63.92	77.03	37.74
70	98.524	50.38	N/A	N/A	6.398	5.379	N/A	N/A	103.36	65.91	79.62	39.01
71	99.973	50.39	N/A	N/A	6.488	5.393	N/A	N/A	107.80	68.73	83.05	40.70
72	101.231	50.38	N/A	N/A	6.622	5.384	N/A	N/A	112.11	71.48	86.36	42.32
73	102.489	50.38	N/A	N/A	6.748	5.383	N/A	N/A	116.55	74.32	89.78	43.99
74	103.561	50.38	N/A	N/A	6.739	5.383	N/A	N/A	120.57	76.88	92.87	45.51
75	104.650	50.40	N/A	N/A	6.943	5.396	N/A	N/A	124.79	79.55	96.15	47.11
76	105.756	50.40	N/A	N/A	7.005	5.400	N/A	N/A	128.73	82.06	99.19	48.60
77	106.954	50.55	N/A	N/A	7.125	5.547	N/A	N/A	130.60	82.99	100.84	49.41
78	108.309	50.56	N/A	N/A	7.185	5.564	N/A	N/A	133.95	85.09	103.45	50.69
79	109.781	50.59	N/A	N/A	7.268	5.591	N/A	N/A	136.06	86.38	105.13	51.51
80	111.232	50.65	N/A	N/A	7.399	5.655	N/A	N/A	136.76	86.70	105.76	51.82
81	112.696	50.68	N/A	N/A	7.525	5.682	N/A	N/A	138.44	87.72	107.11	52.48
82	114.137	50.77	N/A	N/A	7.659	5.771	N/A	N/A	139.14	88.00	107.78	52.81
83	115.586	50.78	N/A	N/A	7.812	5.782	N/A	N/A	140.72	88.97	109.02	53.42
84	117.052	50.85	N/A	N/A	7.955	5.850	N/A	N/A	141.26	89.18	109.54	53.68
85	118.532	50.86	N/A	N/A	8.071	5.865	N/A	N/A	143.02	90.27	110.94	54.36
86	120.126	50.96	N/A	N/A	8.251	5.962	N/A	N/A	143.21	90.20	111.23	54.51
87	121.704	50.96	N/A	N/A	8.250	5.964	N/A	N/A	145.22	91.46	112.80	55.27
88	123.209	50.98	N/A	N/A	8.492	5.979	N/A	N/A	147.09	92.61	114.28	56.00
89	124.739	51.01	N/A	N/A	8.581	6.014	N/A	N/A	147.73	92.94	114.83	56.27
90	126.236	51.08	N/A	N/A	8.770	6.077	N/A	N/A	148.48	93.29	115.52	56.60
91	127.797	51.08	N/A	N/A	8.842	6.078	N/A	N/A	149.96	94.21	116.67	57.17



Photographs after Test

