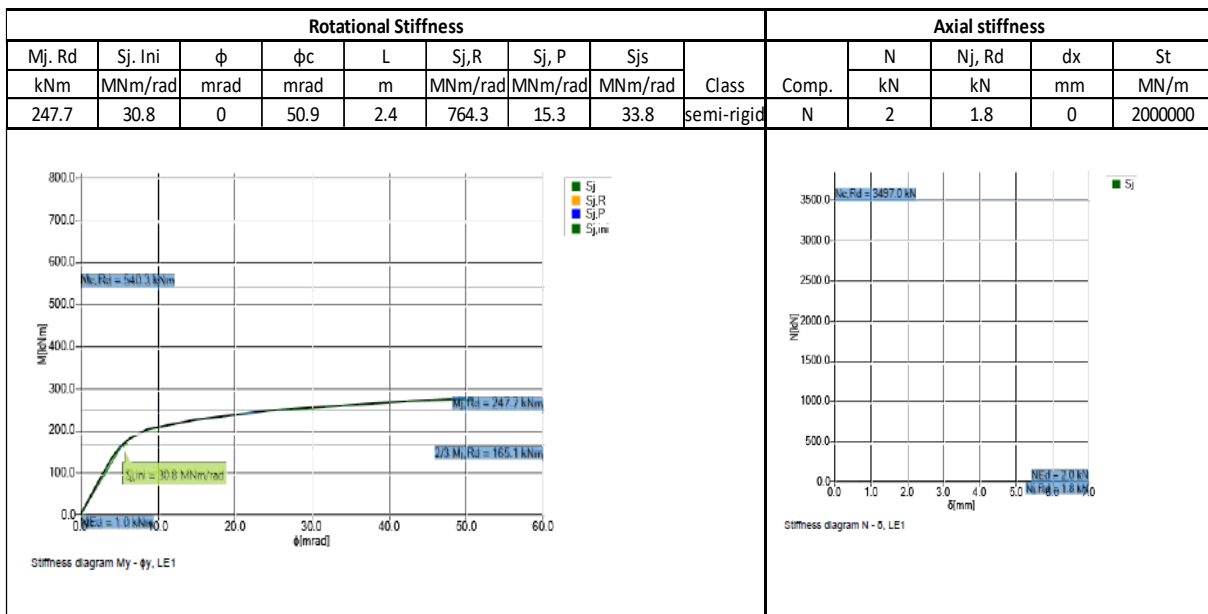
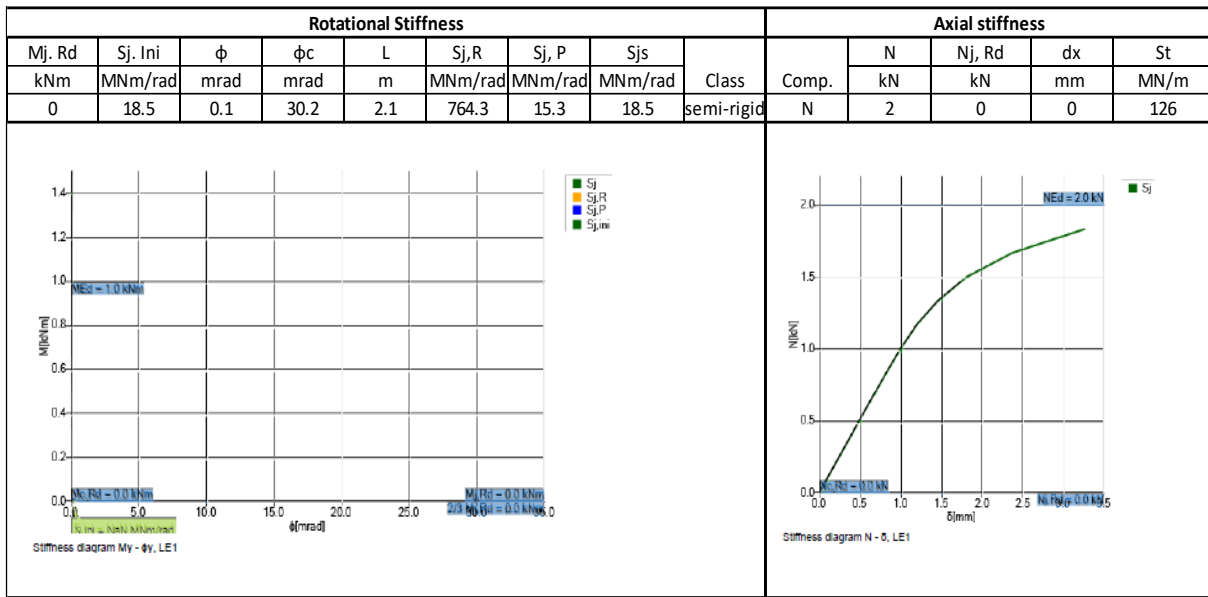


ANNEXES

Annex 1: Results provided for the program IDEA StatiCa of the connection: TU502. Here is described the load effects which are input on the program, the moment of inertia of the element analyzed, the initial rotational stiffness with its boundaries to rigid and pinned connection, the initial rotation, the class of the connection: Pinned, Rigid, semi-rigid and the axial stiffness

Name:	TU 502	Load effects						Moment of inertia			
Type:	My	N	Vy	Vz	Mx	My	Mz	mm ⁴			
Analysis:	Stiffness	kN	kN	kN	kNm	kNm	kNm	ly	349380000	0	349380000
comment:	Short connection	2	0	0	0	1	0	lz	16131000	0	16131000

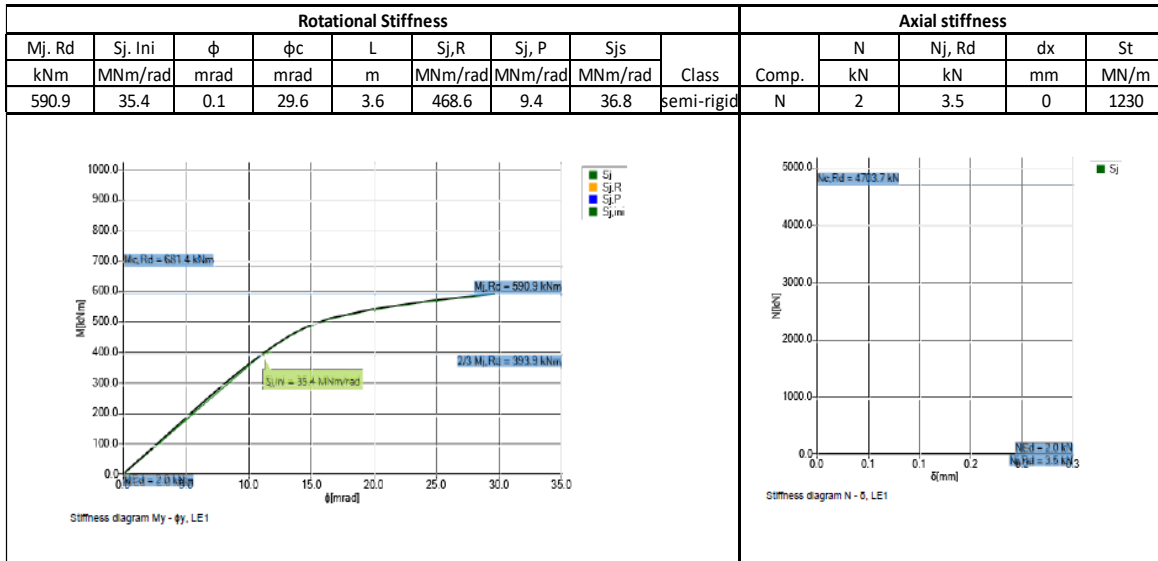
Cross beam - stringer



Annex 2: Results provided for the program IDEA StatiCa of the connection: TU581. Here is described the load effects which are input on the program, the moment of inertia of the element analyzed, the initial rotational stiffness with its boundaries to rigid and pinned connection, the initial rotation, the class of the connection: Pinned, Rigid, semi-rigid and the axial stiffness.

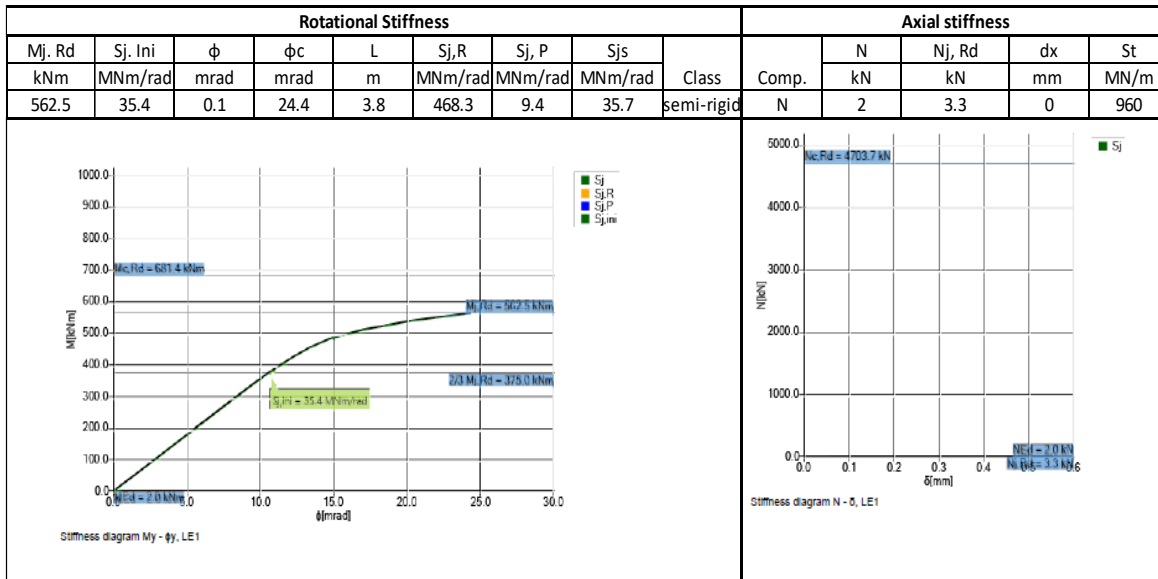
Name:	TU 581	Load effects						Moment of inertia		
Type:	My	N	Vy	Vz	Mx	My	Mz	mm ⁴		
Analysis:	Stiffness	kN	kN	kN	kNm	kNm	kNm	ly	338980000	0 3.39E+08
comment:	Long connection	2	0	0	0	2	0	lz	20269000	0 20269000

Main Girder- Cross beam no fixed



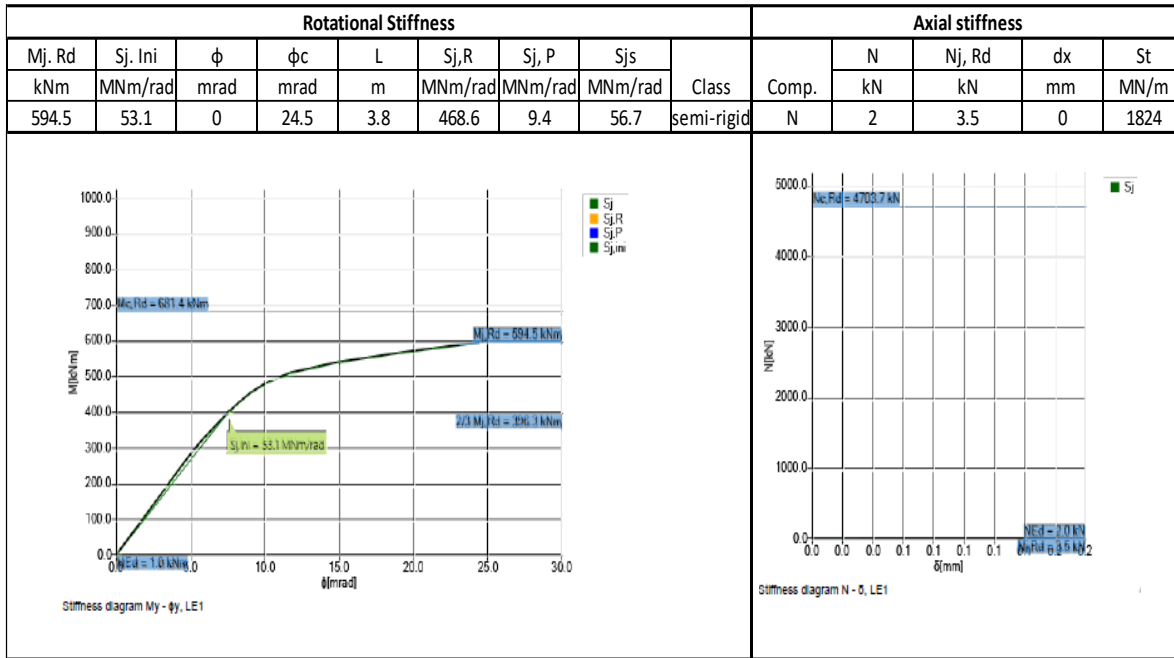
Name:	TU 581	Load effects						Moment of inertia		
Type:	My	N	Vy	Vz	Mx	My	Mz	mm ⁴		
Analysis:	Stiffness	kN	kN	kN	kNm	kNm	kNm			
comment:	Long connection	2	0	0	0	-2	0			

Main Girder- Cross beam fixed

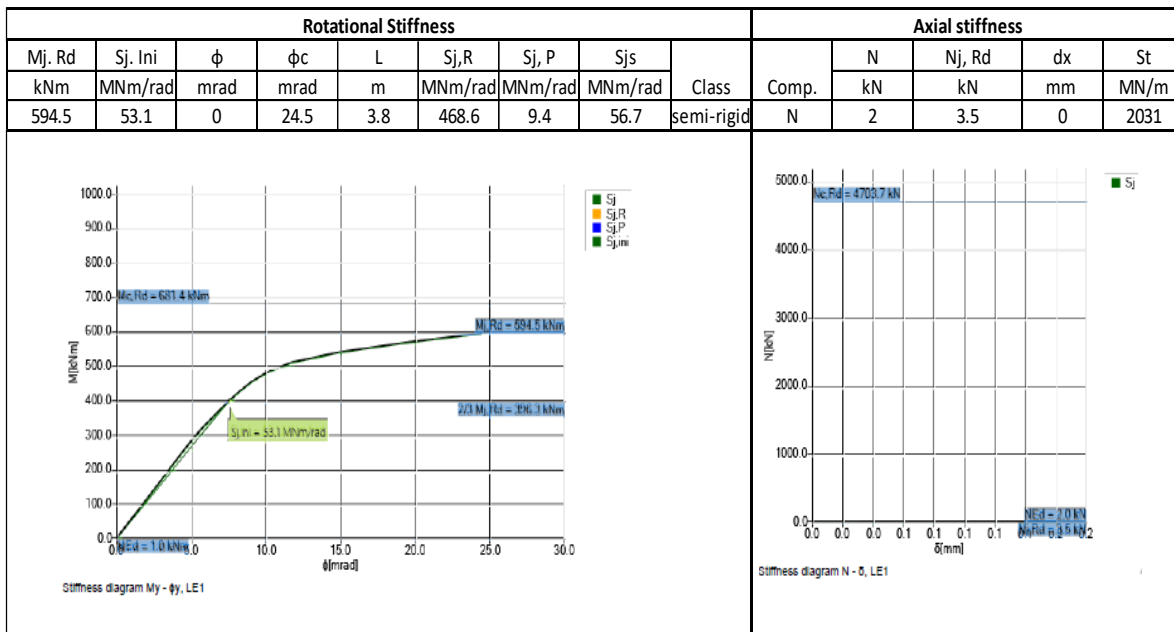


Name:	TU 581	Load effects						Moment of inertia
Type:	My	N	Vy	Vz	Mx	My	Mz	mm ⁴
Analysis:	Stiffness	kN	kN	kN	kNm	kNm	kNm	
comment:	Short connection	2	0	0	0	2	0	

Main Girder- Cross beam no fixed



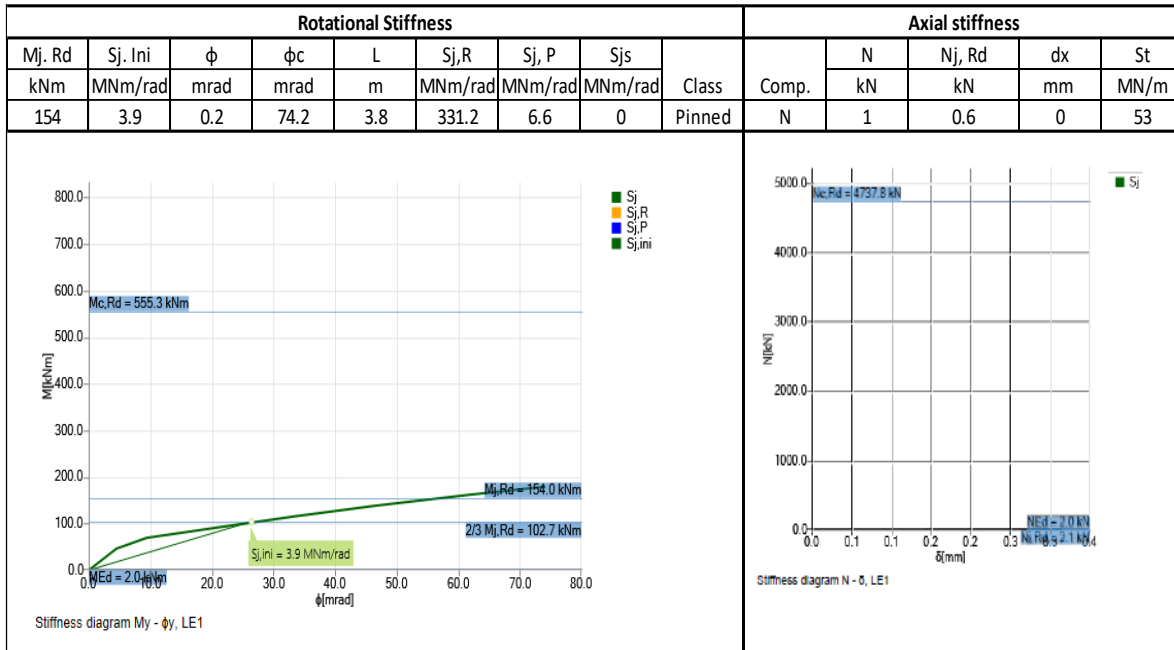
Main girder- cross beam. Fixed connection.



Annex 3: Results provided for the program IDEA StatiCa of the connection: TU581. Here is described the load effects which are input on the program, the moment of inertia of the element analyzed, the initial rotational stiffness with its boundaries to rigid and pinned connection, the initial rotation, the class of the connection: Pinned, Rigid, semi-rigid and the axial stiffness.

Name:	TU 581	Load effects						Moment of inertia			
Type:	My	N	Vy	Vz	Mx	My	Mz	mm ⁴			
Analysis:	Stiffness	kN	kN	kN	kNm	kNm	kNm	Iy	239700000	0	2.4E+08
comment:	short connection	1	0	0	0	2	0	Iz	22049000	0	22049000

Cross beam - Stringer fixed

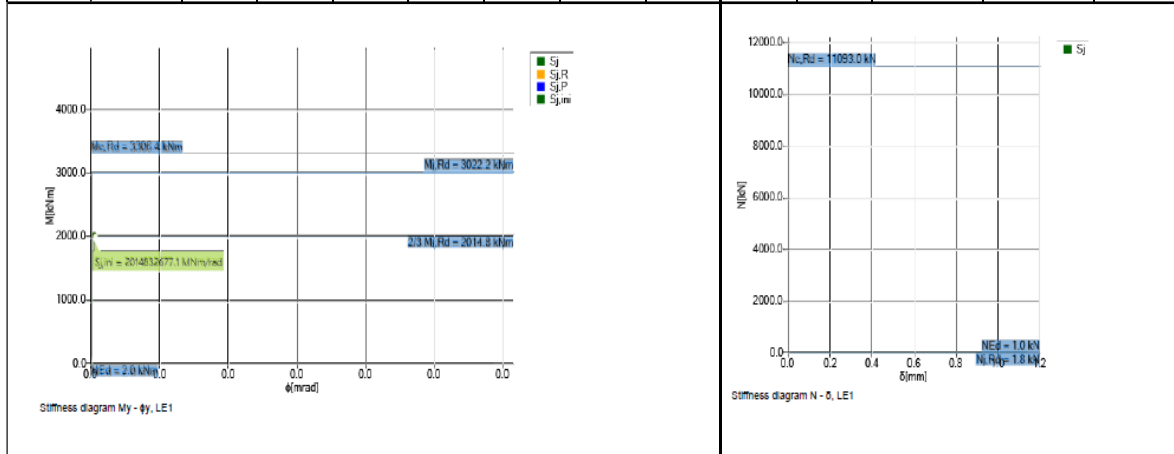


Annex 4: Results provided for the program IDEA StatiCa of the connection: TU2101. Here is described the load effects which are input on the program, the moment of inertia of the element analyzed, the initial rotational stiffness with its boundaries to rigid and pinned connection, the initial rotation, the class of the connection: Pinned, Rigid, semi-rigid and the axial stiffness.

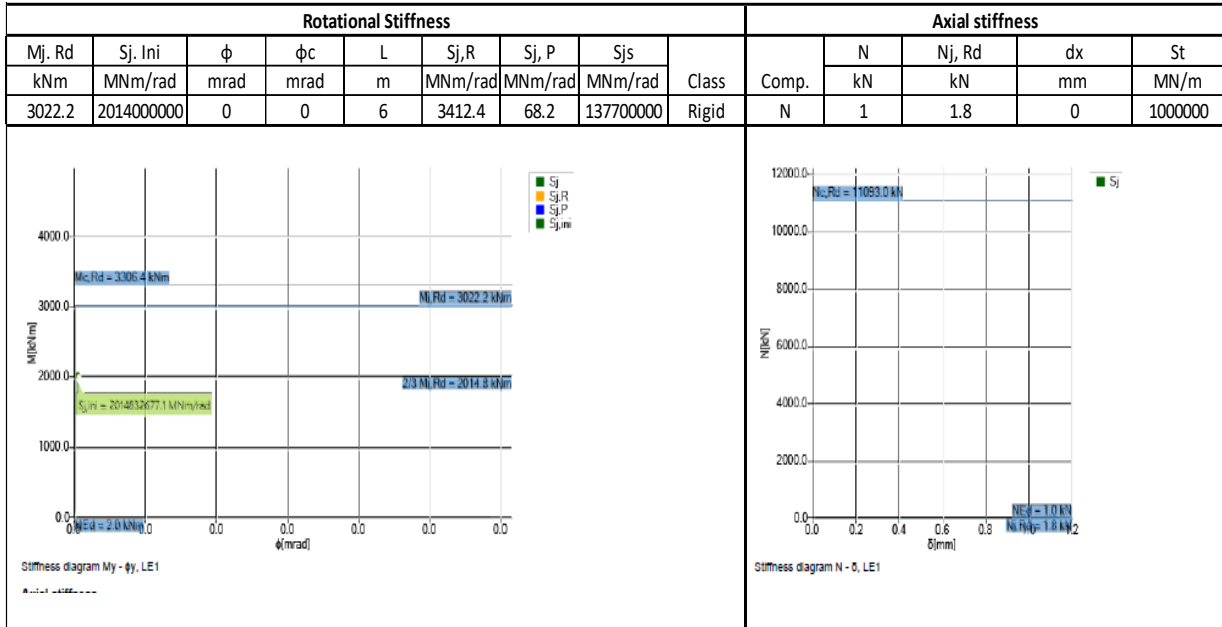
Name:	TU2101	Load effects						Moment of inertia					
Type:	My	N	Vy	Vz	Mx	My	Mz	mm ⁴					
Analysis:	Stiffness	kN	kN	kN	kNm	kNm	kNm	Iy	3899900000	Iz	114920000	30720000	145640000
comment:	Long connection	1	0	0	0	2	0	Iz	114920000	Iy	3899900000	30720000	145640000

Main Girder- Cross beam no fixed

Rotational Stiffness									Axial stiffness				
Mj, Rd	Sj, Ini	ϕ	ϕ_c	L	Sj, R	Sj, P	Sjs	Class	Comp.	N	Nj, Rd	dx	St
kNm	MNm/rad	mrad	mrad	m	MNm/rad	MNm/rad	MNm/rad			kN	kN	mm	MN/m
3022.2	2014830000	0	0	6	3412.4	68.2	137766000	Rigid	N	1	1.8	0	1000000

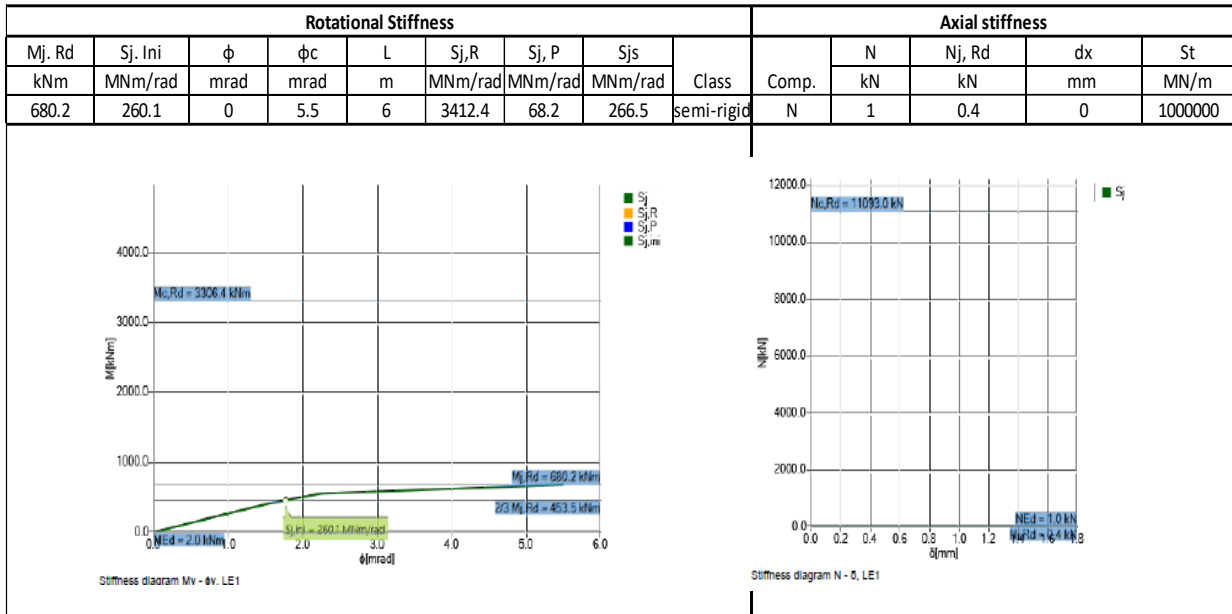


Main Girder- Cross beam fixed



Short connection.

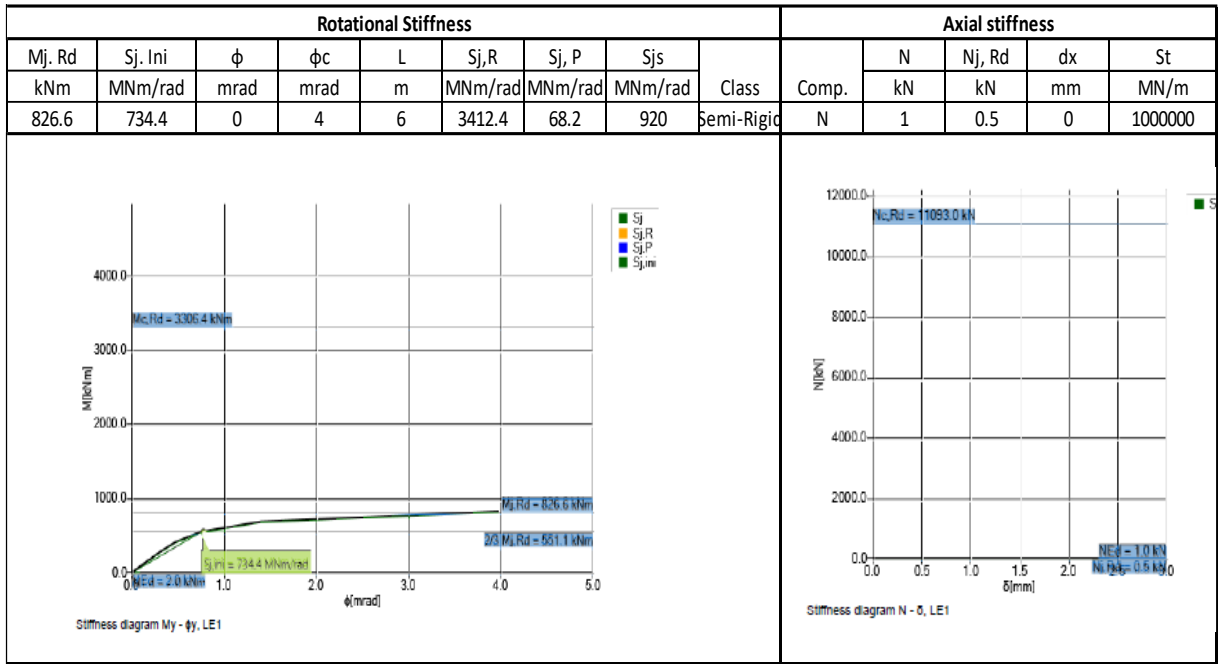
Main Girder- Cross beam fixed



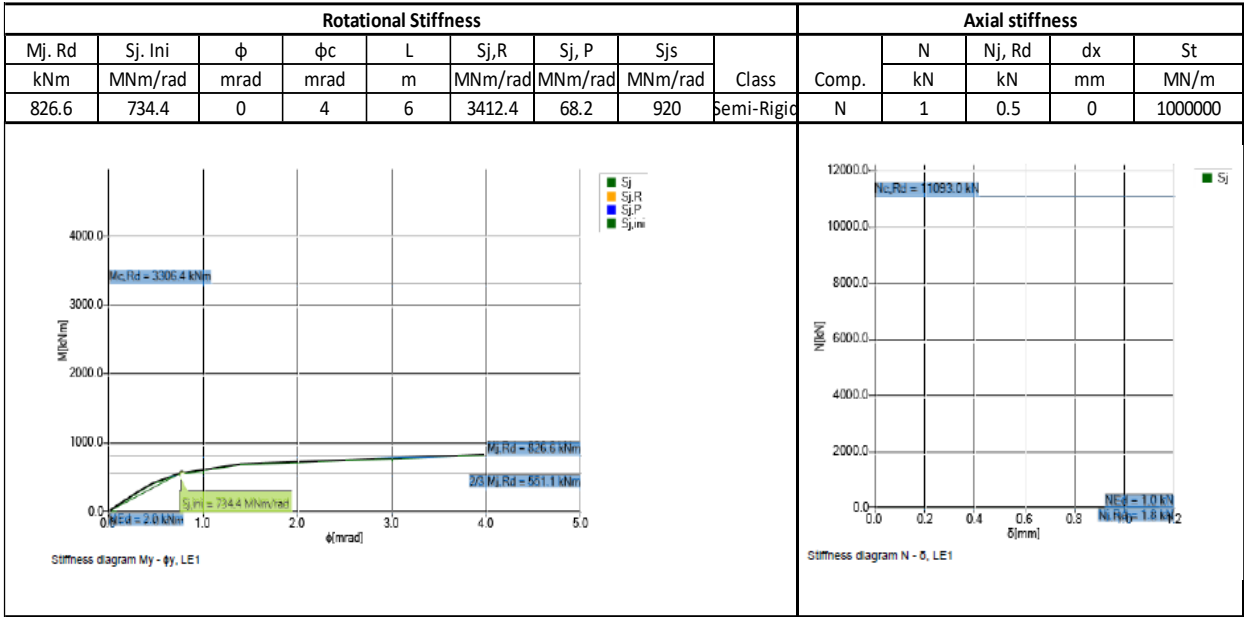
Annex 5: Results provided for the program IDEA StatiCa of the connection: TU2101. Here is described the load effects which are input on the program, the moment of inertia of the element analyzed, the initial rotational stiffness with its boundaries to rigid and pinned connection, the initial rotation, the class of the connection: Pinned, Rigid, semi-rigid and the axial stiffness.

Name:	TU2101	Load effects						Moment of inertia			
Type:	My	N	Vy	Vz	Mx	My	Mz	mm4			
Analysis:	Stiffness	kN	kN	kN	kNm	kNm	kNm	Iy	3.9E+09	1.66E+09	5556650000
comment:	Long connection	1	0	0	0	2	0	Iz	1.15E+08	30720000	145640000

Main Girder- Cross beam no fixed

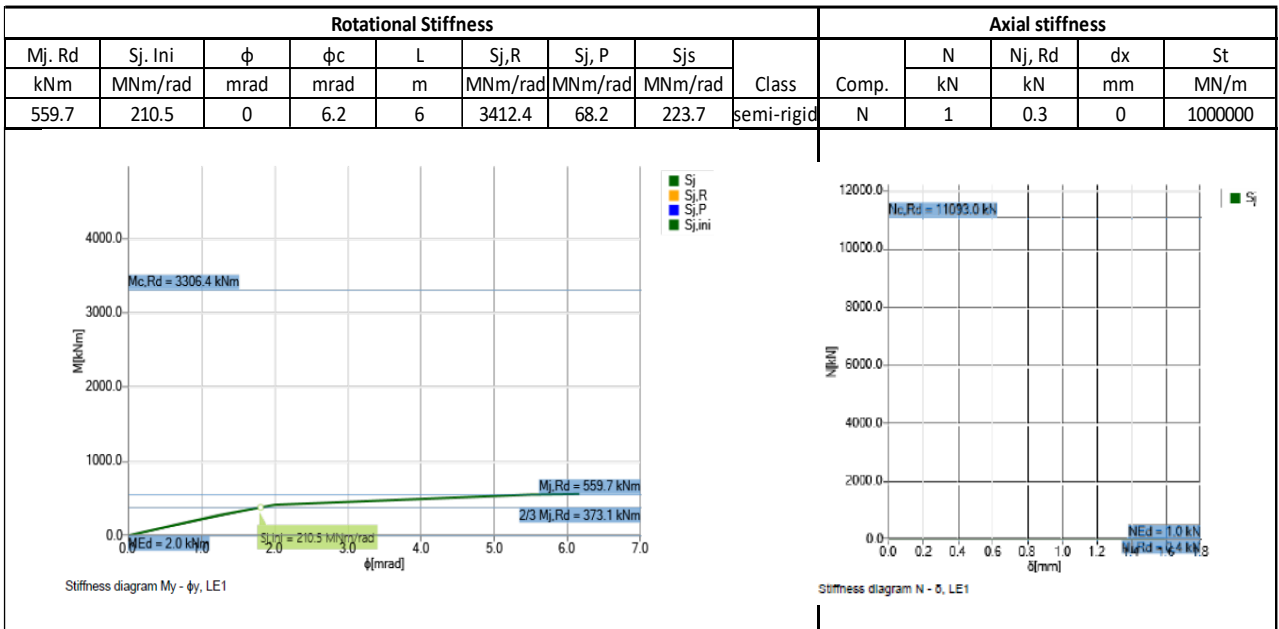


Main Girder- Cross beam fixed



Short Connection

Main Girder- Cross beam fixed

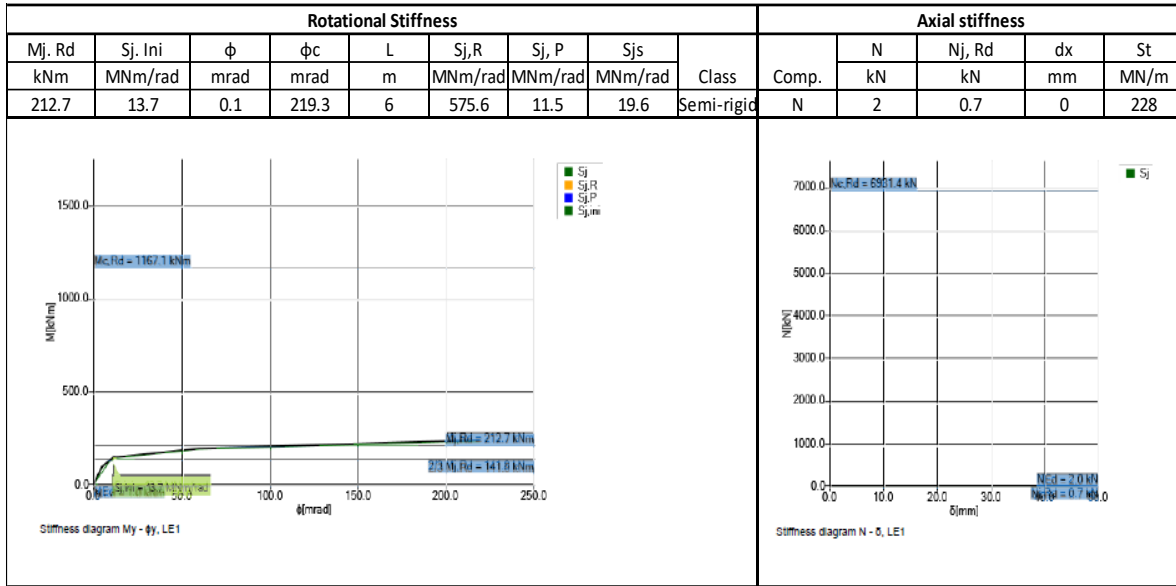


Annex 6: Results provided for the program IDEA StatiCa of the connection: TU2101. Here is described the load effects which are input on the program, the moment of inertia of the element

analyzed, the initial rotational stiffness with its boundaries to rigid and pinned connection, the initial rotation, the class of the connection: Pinned, Rigid, semi-rigid and the axial stiffness.

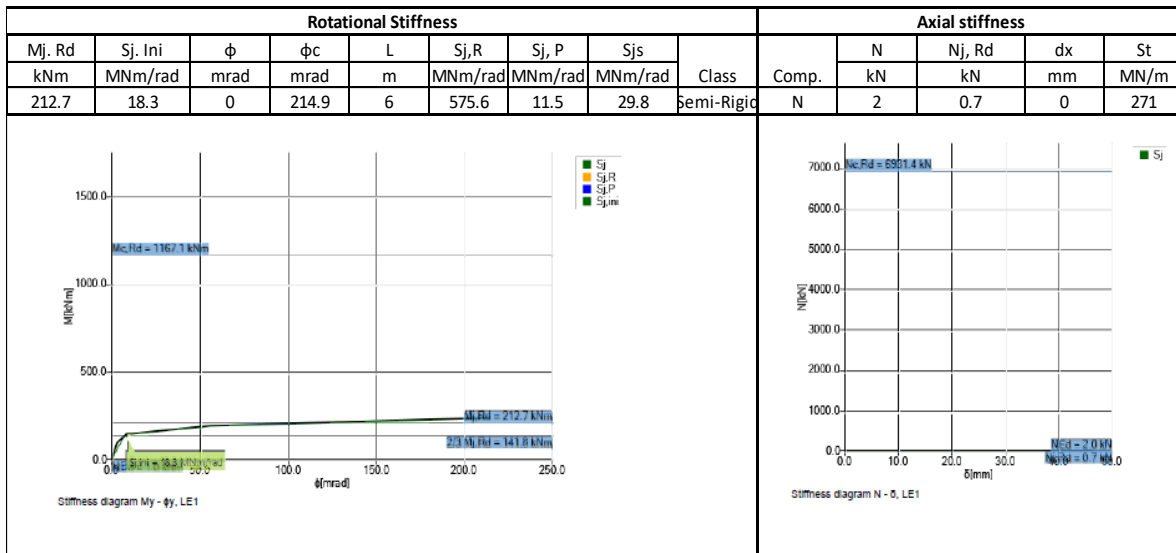
Name:	TU2101	Load effects						Moment of inertia			
Type:	My	N	Vy	Vz	Mx	My	Mz	mm ⁴			
Analysis:	Stiffness	kN	kN	kN	kNm	kNm	kNm	Iy	657860000	Iz	0 6.58E+08
comment:	Long connection	2	0	0	0	1	0	Iz	43328000	0	43328000

Cross beam - Stringer



Name:	TU2101	Load effects						Moment of inertia	
Type:	My	N	Vy	Vz	Mx	My	Mz	mm ⁴	
Analysis:	Stiffness	kN	kN	kN	kNm	kNm	kNm		
comment:	short connection	2	0	0	0	1	0		

Cross beam - Stringer

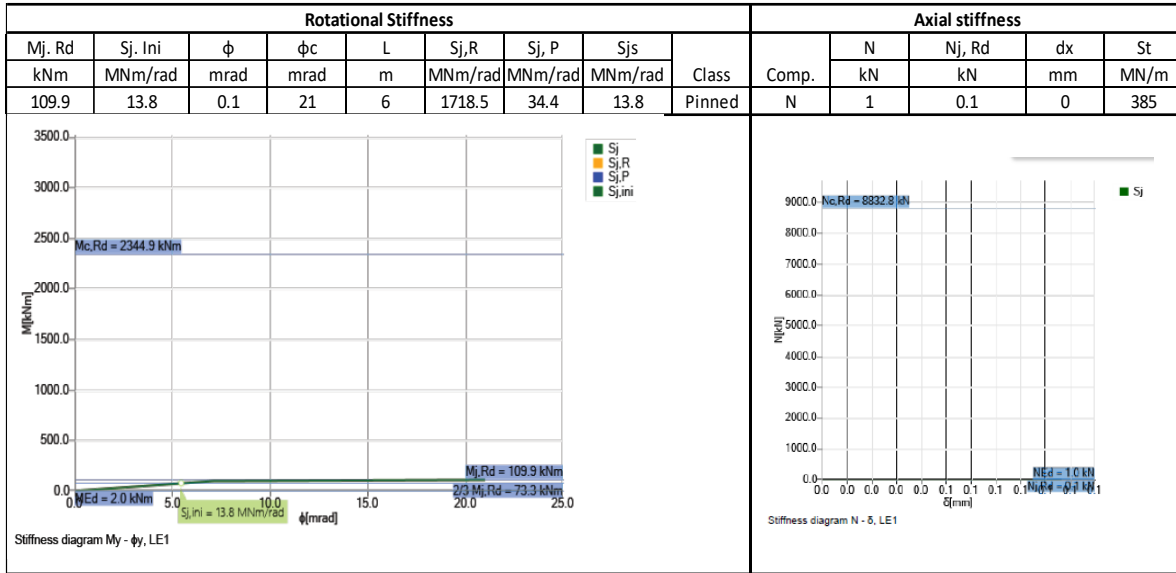


Annex 7: Results provided for the program IDEA StatiCa of the connection: TU2101. Here is described the load effects which are input on the program, the moment of inertia of the element

analyzed, the initial rotational stiffness with its boundaries to rigid and pinned connection, the initial rotation, the class of the connection: Pinned, Rigid, semi-rigid and the axial stiffness.

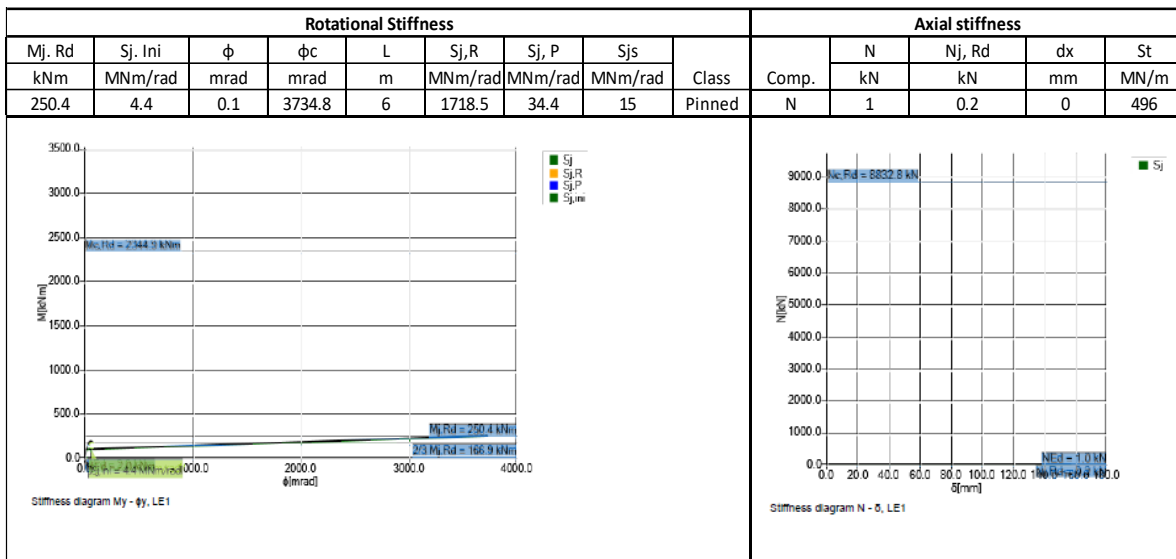
Name:	TU2101	Load effects						Moment of inertia			
Type:	My	N	Vy	Vz	Mx	My	Mz	mm ⁴			
Analysis:	Stiffness	kN	kN	kN	kNm	kNm	kNm	ly	1329000000	0	1.33E+09
comment:	Long connection	1	0	0	0	2	0	lz	260650000	0	2.61E+08

Cross beam- Stringer



Name:	TU2101	Load effects						Moment of inertia		
Type:	My	N	Vy	Vz	Mx	My	Mz	mm ⁴		
Analysis:	Stiffness	kN	kN	kN	kNm	kNm	kNm			
comment:	short connection	1	0	0	0	2	0			

Cross beam - Stringer

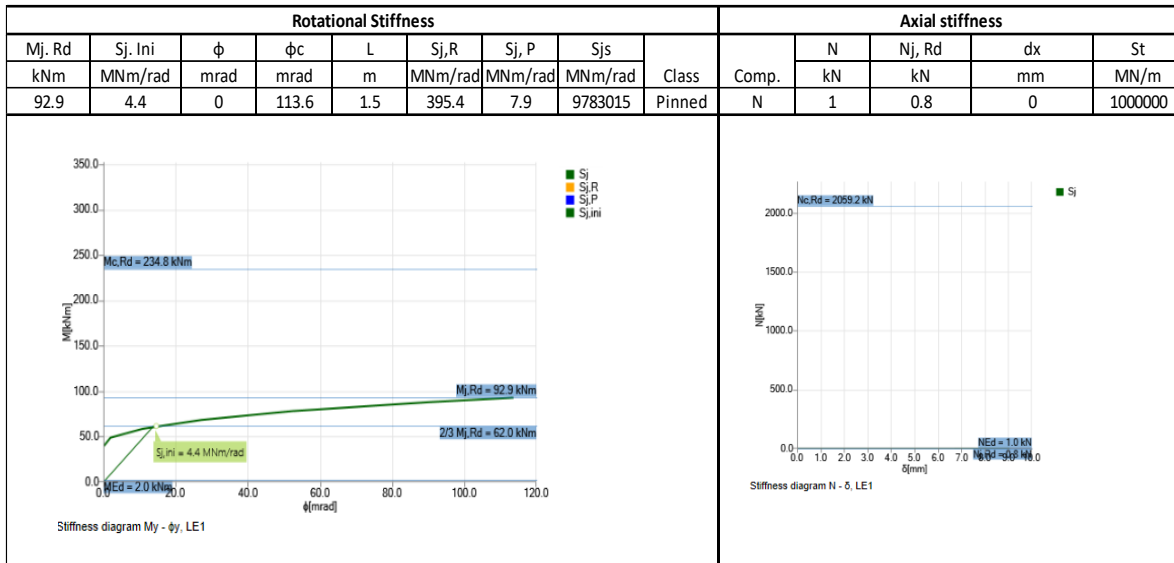


Annex 8: Results provided for the program IDEA StatiCa of the connection: TU2101. Here is described the load effects which are input on the program, the moment of inertia of the element

analyzed, the initial rotational stiffness with its boundaries to rigid and pinned connection, the initial rotation, the class of the connection: Pinned, Rigid, semi-rigid and the axial stiffness.

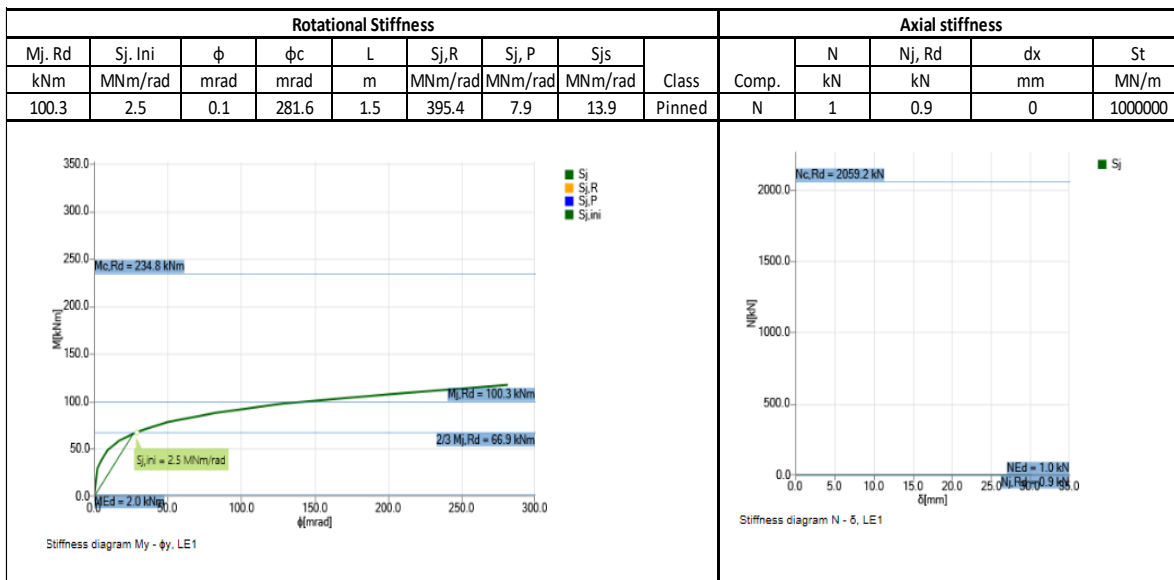
Name:	TU2101	Load effects						Moment of inertia			
Type:	My	N	Vy	Vz	Mx	My	Mz	mm ⁴			
Analysis:	Stiffness	kN	kN	kN	kNm	kNm	kNm	Iy	164020000	0	164020000
comment:	Long connection	1	0	0	0	2	0	Iz	14727000	0	14727000

Cross beam- Stringer



Name:	TU2101	Load effects						Moment of inertia		
Type:	My	N	Vy	Vz	Mx	My	Mz	mm ⁴		
Analysis:	Stiffness	kN	kN	kN	kNm	kNm	kNm			
comment:	short connection	1	0	0	0	2	0			

Cross beam - Stringer

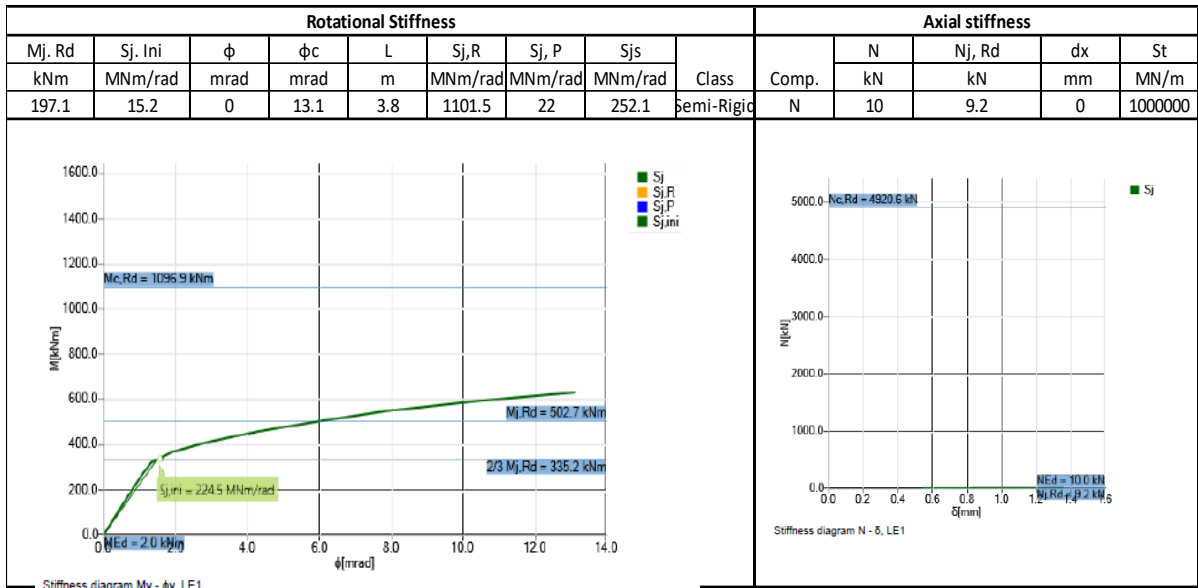


Annex 9: Results provided for the program IDEA StatiCa of the connection: TU2101. Here is described the load effects which are input on the program, the moment of inertia of the element

analyzed, the initial rotational stiffness with its boundaries to rigid and pinned connection, the initial rotation, the class of the connection: Pinned, Rigid, semi-rigid and the axial stiffness.

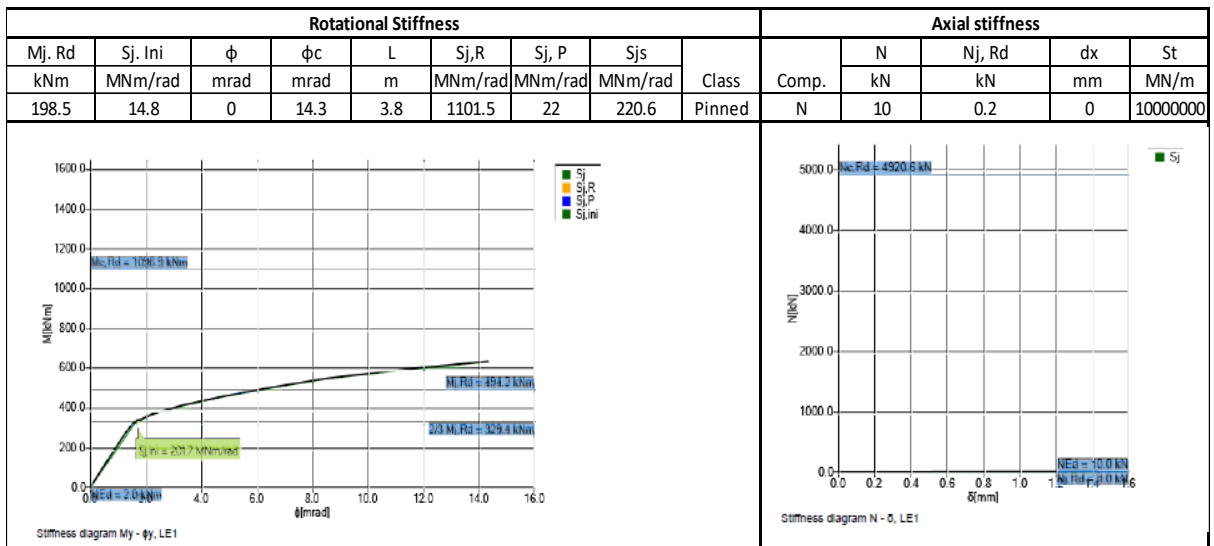
Name:	TU2101	Load effects						Moment of inertia			
Type:	My	N	Vy	Vz	Mx	My	Mz	mm4			
Analysis:	Stiffness	kN	kN	kN	kNm	kNm	kNm	ly	1001300000	0	1E+09
comment:	Long connection	10	0	0	0	2	0	lz	43702000	0	43702000

Main Girder- Cross beam



Name:	TU2101	Load effects						Moment of inertia		
Type:	My	N	Vy	Vz	Mx	My	Mz	mm4		
Analysis:	Stiffness	kN	kN	kN	kNm	kNm	kNm			
comment:	short connection	10	0	0	0	2	0			

Main Girder- Cross beam

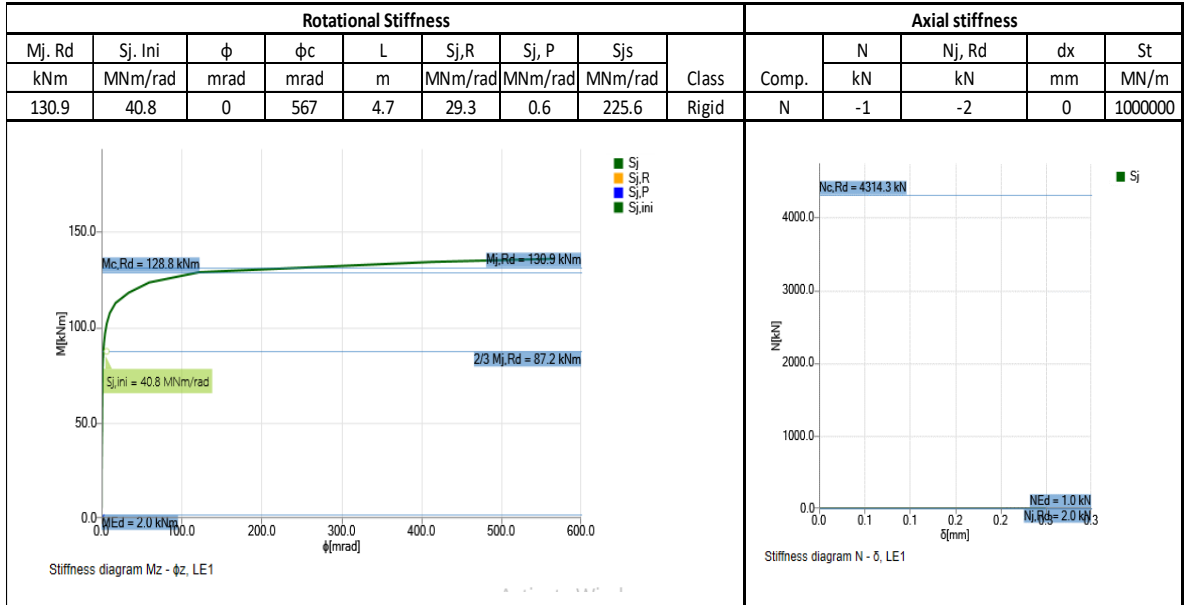


Annex 10: Results provided for the program IDEA StatiCa of the connection: TU2362. Here is described the load effects which are input on the program, the moment of inertia of the element

analyzed, the initial rotational stiffness with its boundaries to rigid and pinned connection, the initial rotation, the class of the connection: Pinned, Rigid, semi-rigid and the axial stiffness.

Name:	TU2362	Load effects						Moment of inertia		
Type:	Mz	N	Vy	Vz	Mx	My	Mz	mm ⁴		
Analysis:	Stiffness	kN	kN	kN	kNm	kNm	kNm	Iy	59388000	0 59388000
comment:	short connection	-1	0	0	0	0	2	Iz	26240000	0 26240000

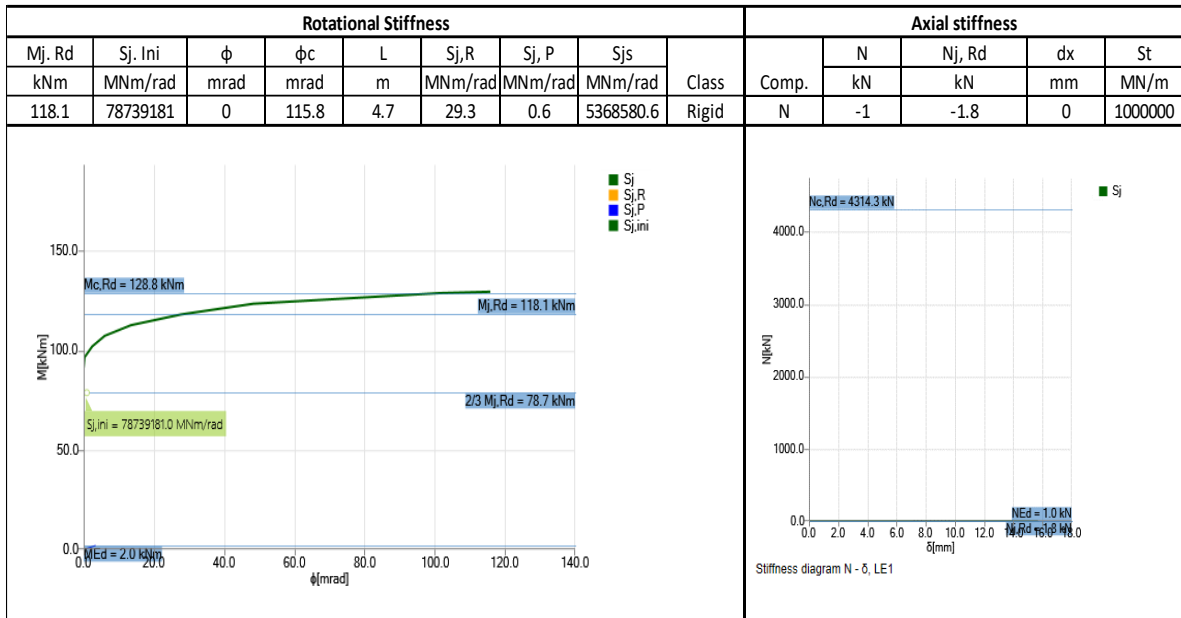
Upper corner connection



Annex 11. Here is described the load effects which are input on the program, the moment of inertia of the element analyzed, the initial rotational stiffness with its boundaries to rigid and pinned connection, the initial rotation, the class of the connection: Pinned, Rigid, semi-rigid and the axial stiffness.

Name:	TU2362	Load effects						Moment of inertia		
Type:	Mz	N	Vy	Vz	Mx	My	Mz	mm ⁴		
Analysis:	Stiffness	kN	kN	kN	kNm	kNm	kNm	Iy	59388000	0 59388000
comment:	short connection	-1	0	0	0	0	0	Iz	26240000	0 26240000

Lower corner connection



Annex 12: Comparison the average percentage error between formulas obtained on the different studies for all the profiles. General formula

All data		I	Sj	Sj tabor-Pisek		Sj Oscar		Sj Marcos	
		mm4	MNm/rad	Mnm/rad	%	Mnm/rad	%	Mnm/rad	%
CBFEM models	1	349380000	18.5	70.30	280%	136.00	635%	22.70	23%
	2	338980000	53.1	68.22	28%	131.84	148%	22.28	58%
	3	239700000	3.9	48.36	1140%	92.13	2262%	18.31	369%
	4	5556650000	260.1	1 111.75	327%	2 218.91	753%	230.99	11%
	5	5556650000	210.5	1 111.75	428%	2 218.91	954%	230.99	10%
	6	657860000	18.3	131.99	621%	259.39	1317%	35.04	91%
	7	1329000000	4.4	266.22	5950%	527.85	11897%	61.88	1306%
	8	164020000	2.5	33.22	1229%	61.85	2374%	15.28	511%
	9	100130000	14.8	20.45	38%	36.30	145%	12.73	14%
	10	59388000	76.7	12.30	84%	20.00	74%	11.10	86%
	11	59388000	2.3	12.30	435%	20.00	770%	11.10	382%
Vyšehradem Bridge	1	232355208	75.256	46.89	38%	89.19	19%	18.02	76%
	2	313293874.7	111.8	63.08	44%	121.56	9%	21.25	81%
	3	232355208	81.028	46.89	42%	89.19	10%	18.02	78%
	4	171843208	71.464	34.79	51%	64.98	9%	15.59	78%
	5	171843208	27.471	34.79	27%	64.98	137%	15.59	43%
	6	122189141.3	47.112	24.86	47%	45.12	4%	13.61	71%
	7	51341866.67	9.724	10.69	10%	16.78	73%	10.77	11%
	8	6481237.333	1.192	1.72	44%	(1.16)	197%	8.98	653%
	9	6481237.333	1.486	1.72	15%	(1.16)	178%	8.98	504%
or- Pisek B	1	1.40E+08	68.6	28.38	59%	52.16	24%	14.31	79%
	2	2.13E+08	26.2	42.95	64%	81.30	210%	17.23	34%
	4	1.82E+08	10.7	36.84	244%	69.08	546%	16.00	50%
	5	3.70E+07	1.8	7.82	335%	11.05	514%	10.20	467%
	7	8.66E+07	12	17.74	48%	30.89	157%	12.18	2%
	8	1.33E+08	19.1	27.08	42%	49.56	159%	14.05	26%
	9	6.15E+06	3.5	1.65	53%	(1.29)	137%	8.97	156%
	10	1.82E+08	10.7	36.84	244%	69.08	546%	16.00	50%
	11	3.70E+07	1.8	7.82	335%	11.05	514%	10.20	467%
	13	5.49E+07	13.2	11.40	14%	18.21	38%	10.92	17%
	14	9.17E+07	17.9	18.76	5%	32.92	84%	12.39	31%
	15	6.15E+06	3.5	1.65	53%	(1.29)	137%	8.97	156%
	17	4.28E+07	10.5	8.98	14%	13.37	27%	10.43	1%
	18	3.70E+07	9.7	7.82	19%	11.05	14%	10.20	5%
	19	6.15E+06	3.45	1.65	52%	(1.29)	137%	8.97	160%
	21	3.00E+07	6.3	6.42	2%	8.24	31%	9.92	57%
	22	3.00E+07	7.6	6.42	16%	8.24	8%	9.92	31%
	23	6.15E+06	3.45	1.65	52%	(1.29)	137%	8.97	160%
	25	3.27E+07	7.5	6.95	7%	9.31	24%	10.03	34%
	26	4.28E+07	12.1	8.98	26%	13.37	11%	10.43	14%
	27	6.15E+06	3	1.65	45%	(1.29)	143%	8.97	199%
	29	9.17E+07	14.8	18.76	27%	32.92	122%	12.39	16%
	30	4.57E+07	13.7	9.56	30%	14.53	6%	10.55	23%
	31	6.15E+06	3	1.65	45%	(1.29)	143%	8.97	199%
	33	1.28E+08	14.9	26.01	75%	47.43	218%	13.84	7%
	34	7.40E+07	16.4	15.22	7%	25.86	58%	11.68	29%
	35	6.15E+06	3	1.65	45%	(1.29)	143%	8.97	199%
	37	1.73E+08	14.7	35.01	138%	65.43	345%	15.64	6%
	38	1.04E+08	18.3	21.17	16%	37.76	106%	12.87	30%
	39	6.15E+06	3	1.65	45%	(1.29)	143%	8.97	199%
	41	2.16E+08	39.7	43.62	10%	82.65	108%	17.36	56%
	42	1.77E+08	27	35.79	33%	66.98	148%	15.79	42%
	43	6.15E+06	3.1	1.65	47%	(1.29)	142%	8.97	189%
45	4.04E+08	89	81.31	9%	158.03	78%	24.90	72%	
46	4.04E+08	96.8	81.31	16%	158.03	63%	24.90	74%	
50	1.21E+08	20	24.66	23%	44.72	124%	13.57	32%	
51	1.81E+08	21.3	36.70	72%	68.82	223%	15.98	25%	
52	6.15E+06	3.1	1.65	47%	(1.29)	142%	8.97	189%	
54	7.40E+07	11.8	15.22	29%	25.86	119%	11.68	1%	
55	1.23E+08	16.2	25.09	55%	45.59	181%	13.66	16%	
56	6.15E+06	3.1	1.65	47%	(1.29)	142%	8.97	189%	
58	5.49E+07	7.8	11.40	46%	18.21	133%	10.92	40%	
61	7.35E+07	7.6	15.13	99%	25.66	238%	11.66	53%	
62	1.14E+07	3.7	2.70	27%	0.81	78%	9.18	148%	
64	3.94E+07	16.3	8.31	49%	12.02	26%	10.30	37%	
65	5.81E+07	7.9	12.03	52%	19.47	146%	11.04	40%	
66	6.15E+06	3	1.65	45%	(1.29)	143%	8.97	199%	
68	4.74E+07	3.6	9.90	175%	15.21	323%	10.62	195%	
69	4.74E+07	3.6	9.90	175%	15.21	323%	10.62	195%	

70	6.15E+06	4	1.65	59%	(1.29)	132%	8.97	124%
74	1.11E+08	25.4	22.67	11%	40.76	60%	13.17	48%
78	2.13E+08	26.2	42.95	64%	81.30	210%	17.23	34%
79	5.49E+07	13.2	11.40	14%	18.21	38%	10.92	17%
80	6.15E+06	3.5	1.65	53%	(1.29)	137%	8.97	156%
84	1.33E+08	19.1	27.08	42%	49.56	159%	14.05	26%
85	4.28E+07	10.5	8.98	14%	13.37	27%	10.43	1%
86	6.15E+06	3.5	1.65	53%	(1.29)	137%	8.97	156%
88	9.17E+07	17.9	18.76	5%	32.92	84%	12.39	31%
89	3.00E+07	6.3	6.42	2%	8.24	31%	9.92	57%
90	6.15E+06	3.45	1.65	52%	(1.29)	137%	8.97	160%
92	3.70E+07	9.7	7.82	19%	11.05	14%	10.20	5%
93	3.27E+07	7.5	6.95	7%	9.31	24%	10.03	34%
94	6.15E+06	3.45	1.65	52%	(1.29)	137%	8.97	160%
96	3.00E+07	7.6	6.42	16%	8.24	8%	9.92	31%
97	9.17E+07	14.8	18.76	27%	32.92	122%	12.39	16%
98	6.15E+06	3	1.65	45%	(1.29)	143%	8.97	199%
100	4.28E+07	12.1	8.98	26%	13.37	11%	10.43	14%
101	1.28E+08	14.9	26.01	75%	47.43	218%	13.84	7%
102	6.15E+06	3	1.65	45%	(1.29)	143%	8.97	199%
104	4.57E+07	13.7	9.56	30%	14.53	6%	10.55	23%
105	1.73E+08	14.7	35.01	138%	65.43	345%	15.64	6%
106	6.15E+06	3	1.65	45%	(1.29)	143%	8.97	199%
108	7.40E+07	16.4	15.22	7%	25.86	58%	11.68	29%
109	2.16E+08	39.7	43.62	10%	82.65	108%	17.36	56%
110	6.15E+06	3	1.65	45%	(1.29)	143%	8.97	199%
112	1.04E+08	18.3	21.17	16%	37.76	106%	12.87	30%
113	4.04E+08	89	81.31	9%	158.03	78%	24.90	72%
114	6.15E+06	3.1	1.65	47%	(1.29)	142%	8.97	189%
116	1.77E+08	27	35.79	33%	66.98	148%	15.79	42%
117	1.21E+08	20	24.66	23%	44.72	124%	13.57	32%
118	0.00E+00	64.9	0.42	99%	(3.75)	106%	8.72	87%
122	4.04E+08	96.8	81.31	16%	158.03	63%	24.90	74%
123	7.40E+07	11.8	15.22	29%	25.86	119%	11.68	1%
124	6.15E+06	3.1	1.65	47%	(1.29)	142%	8.97	189%
126	1.81E+08	21.3	36.70	72%	68.82	223%	15.98	25%
127	5.49E+07	7.8	11.40	46%	18.21	133%	10.92	40%
128	6.15E+06	3.1	1.65	47%	(1.29)	142%	8.97	189%
130	1.23E+08	16.2	25.09	55%	45.59	181%	13.66	16%
133	3.94E+07	16.3	8.31	49%	12.02	26%	10.30	37%
134	1.14E+07	3.7	2.70	27%	0.81	78%	9.18	148%
136	7.35E+07	7.6	15.13	99%	25.66	238%	11.66	53%
137	4.74E+07	3.6	9.90	175%	15.21	323%	10.62	195%
138	6.15E+06	3	1.65	45%	(1.29)	143%	8.97	199%
140	5.81E+07	7.9	12.03	52%	19.47	146%	11.04	40%
141	5.81E+07	7.9	12.03	52%	19.47	146%	11.04	40%
142	6.15E+06	4	1.65	59%	(1.29)	132%	8.97	124%

139%

306%

112%

Annex 13: Comparison the average percentage error between formulas obtained on the different studies for all the profiles. Formula one.

Comparison of the First formula with the non-Truss bridges	#	I	Sj	Formula Sj tabor-Pisek	Error %	Formula Sj Minor's Thesis	Error %	Formula Sj	Error %
		mm4	MNm/rad	Mnm/rad		Mnm/rad		Mnm/rad	
Different Bridges	9	100130000	14.8	20.45	38%	36.30	145%	22.77	54%
	10	59388000	76.7	12.30	84%	20.00	74%	14.62	81%
	11	59388000	2.3	12.30	435%	20.00	770%	14.62	536%
	6	122189141	47.112	24.86	47%	45.12	4%	27.18	42%
	7	51341867	9.724	10.69	10%	16.78	73%	13.01	34%
	8	6481237.3	1.192	1.72	44%	-1.16	197%	4.04	239%
	9	6481237.3	1.486	1.72	15%	-1.16	178%	4.04	172%
	4	3.70E+07	1.8	7.82	335%	11.05	514%	10.15	464%
	6	8.66E+07	12	17.74	48%	30.89	157%	20.06	67%
	7	1.33E+08	19.1	27.08	42%	49.56	159%	29.40	54%
	8	6.15E+06	3.5	1.65	53%	-1.29	137%	3.97	14%
	10	3.70E+07	1.8	7.82	335%	11.05	514%	10.15	464%
	12	5.49E+07	13.2	11.40	14%	18.21	38%	13.73	4%
	13	9.17E+07	17.9	18.76	5%	32.92	84%	21.08	18%
	14	6.15E+06	3.5	1.65	53%	-1.29	137%	3.97	14%
	16	4.28E+07	10.5	8.98	14%	13.37	27%	11.31	8%
	17	3.70E+07	9.7	7.82	19%	11.05	14%	10.15	5%
	18	6.15E+06	3.45	1.65	52%	-1.29	137%	3.97	15%
	20	3.00E+07	6.3	6.42	2%	8.24	31%	8.74	39%
	21	3.00E+07	7.6	6.42	16%	8.24	8%	8.74	15%
	22	6.15E+06	3.45	1.65	52%	-1.29	137%	3.97	15%
	24	3.27E+07	7.5	6.95	7%	9.31	24%	9.28	24%
	25	4.28E+07	12.1	8.98	26%	13.37	11%	11.31	7%
	26	6.15E+06	3	1.65	45%	-1.29	143%	3.97	32%
	28	9.17E+07	14.8	18.76	27%	32.92	122%	21.08	42%
	29	4.57E+07	13.7	9.56	30%	14.53	6%	11.89	13%
	30	6.15E+06	3	1.65	45%	-1.29	143%	3.97	32%
	32	1.28E+08	14.9	26.01	75%	47.43	218%	28.34	90%
	33	7.40E+07	16.4	15.22	7%	25.86	58%	17.55	7%
	34	6.15E+06	3	1.65	45%	-1.29	143%	3.97	32%
	37	1.04E+08	18.3	21.17	16%	37.76	106%	23.50	28%
	38	6.15E+06	3	1.65	45%	-1.29	143%	3.97	32%
	41	6.15E+06	3.1	1.65	47%	-1.29	142%	3.97	28%
	46	1.21E+08	20	24.66	23%	44.72	124%	26.98	35%
	48	6.15E+06	3.1	1.65	47%	-1.29	142%	3.97	28%
	50	7.40E+07	11.8	15.22	29%	25.86	119%	17.55	49%
	51	1.23E+08	16.2	25.09	55%	45.59	181%	27.42	69%
	52	6.15E+06	3.1	1.65	47%	-1.29	142%	3.97	28%
	54	5.49E+07	7.8	11.40	46%	18.21	133%	13.73	76%
57	7.35E+07	7.6	15.13	99%	25.66	238%	17.45	130%	
58	1.14E+07	3.7	2.70	27%	0.81	78%	5.02	36%	
60	3.94E+07	16.3	8.31	49%	12.02	26%	10.63	35%	
61	5.81E+07	7.9	12.03	52%	19.47	146%	14.36	82%	
62	6.15E+06	3	1.65	45%	-1.29	143%	3.97	32%	
64	4.74E+07	3.6	9.90	175%	15.21	323%	12.23	240%	
65	4.74E+07	3.6	9.90	175%	15.21	323%	12.23	240%	
66	6.15E+06	4	1.65	59%	-1.29	132%	3.97	1%	
70	1.11E+08	25.4	22.67	11%	40.76	60%	25.00	2%	

75	5.49E+07	13.2	11.40	14%	18.21	38%	13.73	4%
76	6.15E+06	3.5	1.65	53%	-1.29	137%	3.97	14%
80	1.33E+08	19.1	27.08	42%	49.56	159%	29.40	54%
81	4.28E+07	10.5	8.98	14%	13.37	27%	11.31	8%
82	6.15E+06	3.5	1.65	53%	-1.29	137%	3.97	14%
84	9.17E+07	17.9	18.76	5%	32.92	84%	21.08	18%
85	3.00E+07	6.3	6.42	2%	8.24	31%	8.74	39%
86	6.15E+06	3.45	1.65	52%	-1.29	137%	3.97	15%
88	3.70E+07	9.7	7.82	19%	11.05	14%	10.15	5%
89	3.27E+07	7.5	6.95	7%	9.31	24%	9.28	24%
90	6.15E+06	3.45	1.65	52%	-1.29	137%	3.97	15%
92	3.00E+07	7.6	6.42	16%	8.24	8%	8.74	15%
93	9.17E+07	14.8	18.76	27%	32.92	122%	21.08	42%
94	6.15E+06	3	1.65	45%	-1.29	143%	3.97	32%
96	4.28E+07	12.1	8.98	26%	13.37	11%	11.31	7%
97	1.28E+08	14.9	26.01	75%	47.43	218%	28.34	90%
98	6.15E+06	3	1.65	45%	-1.29	143%	3.97	32%
100	4.57E+07	13.7	9.56	30%	14.53	6%	11.89	13%
102	6.15E+06	3	1.65	45%	-1.29	143%	3.97	32%
104	7.40E+07	16.4	15.22	7%	25.86	58%	17.55	7%
106	6.15E+06	3	1.65	45%	-1.29	143%	3.97	32%
108	1.04E+08	18.3	21.17	16%	37.76	106%	23.50	28%
110	6.15E+06	3.1	1.65	47%	-1.29	142%	3.97	28%
113	1.21E+08	20	24.66	23%	44.72	124%	26.98	35%
117	7.40E+07	11.8	15.22	29%	25.86	119%	17.55	49%
118	6.15E+06	3.1	1.65	47%	-1.29	142%	3.97	28%
121	5.49E+07	7.8	11.40	46%	18.21	133%	13.73	76%
122	6.15E+06	3.1	1.65	47%	-1.29	142%	3.97	28%
124	1.23E+08	16.2	25.09	55%	45.59	181%	27.42	69%
127	3.94E+07	16.3	8.31	49%	12.02	26%	10.63	35%
128	1.14E+07	3.7	2.70	27%	0.81	78%	5.02	36%
130	7.35E+07	7.6	15.13	99%	25.66	238%	17.45	130%
131	4.74E+07	3.6	9.90	175%	15.21	323%	12.23	240%
132	6.15E+06	3	1.65	45%	-1.29	143%	3.97	32%
134	5.81E+07	7.9	12.03	52%	19.47	146%	14.36	82%
135	5.81E+07	7.9	12.03	52%	19.47	146%	14.36	82%
136	6.15E+06	4	1.65	59%	-1.29	132%	3.97	1%

54%

134%

62%

Annex 14: Comparison average percentage error between formulas obtained on the different studies for big profiles. Formula 2.

Comparison of the second formula with the non- Truss bridges	#	I	Sj	Formula Sj tabor-Pisek	Error %	Formula Sj Minor's Thesis	Error %	Formula Sj	Error %
		mm4	MNm/rad	Mnm/rad		Mnm/rad		Mnm/rad	
Different Bridges	1	3.49E+08	18.5	70.30	280%	136.00	635%	44.99	143%
	2	3.39E+08	53.1	68.22	28%	131.84	148%	44.57	16%
	3	2.4E+08	3.9	48.36	1140%	92.13	2262%	40.60	941%
	4	5.56E+09	260.1	1111.75	327%	2218.91	753%	253.28	3%
	5	5.56E+09	210.5	1111.75	428%	2218.91	954%	253.28	20%
	6	6.58E+08	18.3	131.99	621%	259.39	1317%	57.33	213%
	7	1.33E+09	4.4	266.22	5950%	527.85	11897%	84.17	1813%
	8	1.64E+08	2.5	33.22	1229%	61.85	2374%	37.57	1403%
Steel Railway Bridge	1	2.32E+08	75.256	46.89	38%	89.19	19%	40.31	46%
	2	3.13E+08	111.8	63.08	44%	121.56	9%	43.54	61%
	3	2.32E+08	81.028	46.89	42%	89.19	10%	40.31	50%
	4	1.72E+08	71.464	34.79	51%	64.98	9%	37.89	47%
	5	1.72E+08	27.471	34.79	27%	64.98	137%	37.89	38%
	2	2.13E+08	26.2	42.95	64%	81.30	210%	39.52	51%
	3	1.82E+08	10.7	36.84	244%	69.08	546%	38.30	258%
	6	1.82E+08	10.7	36.84	244%	69.08	546%	38.30	258%
	12	1.73E+08	14.7	35.01	138%	65.43	345%	37.93	158%
	14	2.16E+08	39.7	43.62	10%	82.65	108%	39.65	0%
	15	1.77E+08	27	35.79	33%	66.98	148%	38.09	41%
	17	4.04E+08	89	81.31	9%	158.03	78%	47.19	47%
	18	4.04E+08	96.8	81.31	16%	158.03	63%	47.19	51%
	20	1.81E+08	21.3	36.70	72%	68.82	223%	38.27	80%
	27	2.13E+08	26.2	42.95	64%	81.30	210%	39.52	51%
	34	1.73E+08	14.7	35.01	138%	65.43	345%	37.93	158%
	36	2.16E+08	39.7	43.62	10%	82.65	108%	39.65	0%
	38	4.04E+08	89	81.31	9%	158.03	78%	47.19	47%
	39	1.77E+08	27	35.79	33%	66.98	148%	38.09	41%
	41	4.04E+08	96.8	81.31	16%	158.03	63%	47.19	51%
43	1.81E+08	21.3	36.70	72%	68.82	223%	38.27	80%	

392%

826%

213%